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**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

## **ANALYTICAL REPORT**

Tronox LLC, Henderson

SDG: 8304607

Lot #: D9F180266, D9F180314, D9F190216, D9F200196, and D9F200199

Frank Hagar

Northgate Environmental Management, Inc.  
1100 Quail Street  
Suite 102  
Newport Beach, CA 92660

**TestAmerica Laboratories, Inc.**



**Michael P. Phillips**  
Project Manager

July 15, 2009

## Case Narrative

### SDG 8304607

The samples presented in this report were submitted to TestAmerica by Northgate Environmental Management, Inc. from the Tronox/Henderson site. The samples were received according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated.

The results apply only to the samples included in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have been found to be compliant with laboratory protocols, with the exception of any items noted below.

### **Sample Receiving**

Two samples were received under chain of custody at a temperature of 2.7°C on June 18, 2009, and were logged under lot D9F180266. Two samples were received under chain of custody at a temperature of 2.7°C on June 17, 2009, and were logged under lot D9F180314. Three samples were received under chain of custody at temperatures of 3.6°C and 2.2°C on June 19, 2009, and were logged under lot D9F190216. One of the 1L amber bottles for sample M-123009B (D9F190216-003) arrived broken; however, sufficient sample volume remained to complete the requested analysis. Three samples were received under chain of custody at a temperature of 1.5°C on June 20, 2009, and were logged under lot D9F200196. Two samples were received under chain of custody at a temperature of 4.2°C on June 20, 2009, and were logged under lot D9F200199. These lots are reported here under SDG 8304607.

### **GC Semivolatiles / Organophosphorus Pesticides – SW846 Method 8141A**

The method required MS/MSD could not be performed for QC batch 9173103 due to insufficient sample volume submitted by the client. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data.

The Continuing Calibration Verification (CCV) standard(s) associated with the samples in QC batch 9173103 exhibited %Difference (%D) values out of range for several compounds. The overall mean %D was within control limits; therefore, method criteria were met and corrective action was deemed unnecessary. In addition, none of the compounds were detected in the associated samples.

### **Total and Dissolved Arsenic and Selenium – SW846 Method 6020/Collision Cell**

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the methods. All of the samples analyzed for Total Arsenic or Dissolved Arsenic were diluted by a factor of 5X or 10X due to the sample matrix. The reporting limits have been adjusted relative to the dilutions required.

The method required MS/MSD was performed for Total Metals QC batch 9174190 using sample D9F180266-001 (M-29B) and all results were in control.

The method required MS/MSD was performed for Dissolved Metals QC batch 9174183 using sample D9F180314-002 (M-130BDISS) and exhibited a MSD recovery for Arsenic above the upper control limit. Method precision and accuracy have been verified by the acceptable LCS analysis data; therefore, corrective action was deemed unnecessary.

## Quality Control Definitions of Terms

<b>Term</b>	<b>Definition</b>
Batch	A set of up to 20 field samples plus associated laboratory QC samples that are similar in composition (matrix) and that are processed within the same time period with the same reagent and standard lots.
Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD)	A volume of reagent water for aqueous samples or a contaminant-free solid matrix (Ottawa sand) for soil and sediment samples which is spiked with known amounts of representative target analytes and required surrogates. A LCS is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. An LCSD is a second Laboratory Control Sample.
Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A field sample fortified with known quantities of target analytes that are also added to the LCS. Matrix spike duplicate is a second matrix spike sample. MS/MSDs are carried throughout the entire analytical process and are used to determine sample matrix effect on accuracy of the measurement system. The accuracy and precision estimated using MS/MSD is only representative of the precision of the sample that was spiked.
Method Blank	A sample composed of all the reagents (in the same quantities) in reagent water carried through the entire analytical process. The method blank is used to monitor the level of contamination introduced during sample preparation steps.
Surrogate	Organic constituents not expected to be detected in environmental media and are added to every sample and QC at a known concentration. Surrogates are used to determine the efficiency of the sample preparation and the analytical process.
Sample Duplicate	A second aliquot of an environmental sample, taken from the same sample container when possible, that is processed independently with the first sample aliquot. The results are used to assess the effect of the sample matrix on the precision of the analytical process. The precision estimated using this sample is not necessarily representative of the precision for other samples in the batch.
Method Detection Limit "MDL"	The method detection limit is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from replicate analyses of low level standards in a typical representative matrix.
Reporting Limit "RL"	The TestAmerica reporting limit is normally the lowest level at which measurements become quantitatively meaningful, i.e., the quantitation limit, which is approximately three times the MDL. Some projects require RLs that are less than the quantitation limit to achieve particular maximum contaminant levels (MCLs) or relevant and appropriate requirements (ARARs), but RLs cannot be less than the statistically determined MDL.

## Quality Control Definitions of Qualifiers

Qualifier	Definition
*	Surrogate or Relative Percent Difference (RPD) is outside control limits.
a	Spiked analyte recovery is outside control limits.
B	Organics: Method blank contamination. The associated method blank contains the target analyte at a reportable level. Inorganics: Estimated result. Result is less than the RL
COL	More than 40% difference between the primary and confirmation detector results. The lower of the two results is reported.
DIL	The concentration is estimated or not reported due to dilution.
E	Estimated result. Result concentration exceeds the calibration range.
G	Inorganics: Elevated reporting limit. The reporting limit is elevated due to matrix interference.
J	Organics: Estimated result. Result is less than RL Inorganics: Method blank contamination. The associated method blank contains the target analyte at a reportable level.
L	Serial dilution of a digestate in the analytical batch indicates that physical and chemical interferences are present
N	Spiked analyte recovery is outside stated control limits.
NC	The recovery and/or RPD were not calculated.
ND	The analyte was not detected at the MDL concentration and with a measurable degree of confidence can be said not to be present at or above the RL concentration.
p	Relative percent difference (RPD) is outside stated control limits.
Q	Elevated reporting limit. The reporting limit is elevated due to high analyte levels.
V	General Chemistry: Elevated reporting limit due to limited sample volume.
Wa	Post digestion spike recovery fell between 40-85% due to matrix interference.
Wb	Post digestion spike recovery fell between 115-150% due to matrix interference.
I	Percent recovery is estimated since the results exceeded the calibration range.
T1	A tentatively identified compound that did not generate a spectral match of 80% or greater. Typically called "unknown"
T2	A tentatively identified compound with a spectral match of 80% or better
T3	A tentatively identified compound that was calibrated for by the lab, but not on the client target analyte list.
IC	Diluted due to high inorganic chloride.

# EXECUTIVE SUMMARY - Detection Highlights

8304607 : D9F180266

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
M-29B 06/16/09 09:00 001				
Arsenic	64	25	ug/L	SW846 6020
Selenium	12	5.0	ug/L	SW846 6020

(Continued on next page)

## EXECUTIVE SUMMARY - Detection Highlights

8304607 : D9F180314

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
<b>M-130B 06/15/09 10:45 001</b>				
Arsenic	110	50	ug/L	SW846 6020
Selenium	6.6	5.0	ug/L	SW846 6020
<b>M-130BDISS 06/15/09 10:45 002</b>				
Arsenic - DISSOLVED	110	50	ug/L	SW846 6020
Selenium - DISSOLVED	7.1	5.0	ug/L	SW846 6020

(Continued on next page)

# EXECUTIVE SUMMARY - Detection Highlights

8304607 : D9F190216

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
<b>M-78B 06/17/09 08:58 001</b>				
Arsenic	92	25	ug/L	SW846 6020
Selenium	4.7 B	5.0	ug/L	SW846 6020

(Continued on next page)



## EXECUTIVE SUMMARY - Detection Highlights

8304607 : D9F200196

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
<b>M-128B 06/18/09 08:40 001</b>				
Arsenic	89	25	ug/L	SW846 6020
Selenium	3.6 B	5.0	ug/L	SW846 6020
<b>M-128BDISS 06/18/09 08:40 002</b>				
Arsenic - DISSOLVED	87	50	ug/L	SW846 6020
Selenium - DISSOLVED	3.2 B	5.0	ug/L	SW846 6020
<b>H-38B 06/18/09 12:40 003</b>				
Arsenic	140	25	ug/L	SW846 6020

(Continued on next page)

# EXECUTIVE SUMMARY - Detection Highlights

8304607 : D9F200199

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
<b>M-19B 06/19/09 09:10 001</b>				
Arsenic	150	25	ug/L	SW846 6020
Selenium	3.1 B	5.0	ug/L	SW846 6020
<b>M-34B 06/19/09 11:40 002</b>				
Arsenic	91	25	ug/L	SW846 6020
Selenium	6.7	5.0	ug/L	SW846 6020

## METHODS SUMMARY

8304607

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
ICP-MS (6020)	SW846 6020	SW846 3005A
ICP-MS (6020)	SW846 6020	SW846 3020A
Organophosphorous Compounds by GC	SW846 8141A	SW846 3510

### References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# METHOD / ANALYST SUMMARY

8304607

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 6020	Thomas Lill	006929
SW846 8141A	Teresa L. Williams	002510

## References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

8304607 : D9F180266

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT</u>	<u>SAMPLE ID</u>	<u>SAMPLED</u> <u>DATE</u>	<u>SAMP</u> <u>TIME</u>
LE7CT	001	M-29B		06/16/09	09:00
LE7EE	002	M-39B		06/16/09	12:00

**NOTE (S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

(Continued on next page)

# SAMPLE SUMMARY

8304607 : D9F180314

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LE709	001	M-130B	06/15/09	10:45
LE71E	002	M-130BDISS	06/15/09	10:45

**NOTE(S) :**

- The analytical results of the samples listed above are presented on the following pages.
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- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
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(Continued on next page)

# SAMPLE SUMMARY

8304607 : D9F190216

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LE9PT	001	M-78B	06/17/09	08:58
LE9Q6	002	M-123B	06/17/09	11:40
LE9RA	003	M-123009B	06/17/09	11:40

## NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

(Continued on next page)

# SAMPLE SUMMARY

8304607 : D9F200196

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LFC4A	001	M-128B	06/18/09	08:40
LFC4C	002	M-128BDISS	06/18/09	08:40
LFC4D	003	H-38B	06/18/09	12:40

**NOTE (S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

(Continued on next page)



# SAMPLE SUMMARY

8304607 : D9F200199

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LFC4P	001	M-19B	06/19/09	09:10
LFC4Q	002	M-34B	06/19/09	11:40

**NOTE (S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

# QC DATA ASSOCIATION SUMMARY

D9F180266

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	SW846 6020		9174190	9174127
002	WATER	SW846 8141A		9173103	

# QC DATA ASSOCIATION SUMMARY

D9F180314

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	SW846 6020		9174190	9174127
002	WATER	SW846 6020		9174183	9174126

# QC DATA ASSOCIATION SUMMARY

D9F190216

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	SW846 6020		9174190	9174127
002	WATER	SW846 8141A		9173103	
003	WATER	SW846 8141A		9173103	

# QC DATA ASSOCIATION SUMMARY

D9F200196

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	SW846 6020		9174190	9174127
002	WATER	SW846 6020		9174183	9174126
003	WATER	SW846 6020		9174190	9174127

# QC DATA ASSOCIATION SUMMARY

D9F200199

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	SW846 6020		9174190	9174127
002	WATER	SW846 6020		9174190	9174127
	WATER	SW846 8141A		9173103	

TestAmerica  
**Semivolatile GC**  
CLP-Like Forms

Lot ID: D9F180266

Client: Northgate/Tronox

Method: SW846 8141A

Associated Samples: 002

Batch: 9173103

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1064 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-39B  
**Lab Sample ID:** D9F180266-002  
**Lab WorkOrder:** LE7EE1AA  
**Date/Time Collected:** 06/16/09 12:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 06:20  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
86-50-0	Azinphos-methyl	0.17	0.17	2.5	U
35400-43-2	Bolstar	0.31	0.31	1.0	U
2921-88-2	Chlorpyrifos	0.36	0.36	1.0	U
56-72-4	Coumaphos	0.14	0.14	1.0	U
298-03-3	Demeton-O	0.14	0.14	1.0	U
126-75-0	Demeton-S	0.069	0.069	1.0	U
333-41-5	Diazinon	0.15	0.15	1.0	U
62-73-7	Dichlorvos	0.16	0.16	1.0	U
60-51-5	Dimethoate	0.45	0.45	1.5	U
298-04-4	Disulfoton	0.32	0.32	1.0	U
2104-64-5	EPN	0.15	0.15	1.2	U
13194-48-4	Ethoprop	0.18	0.18	0.50	U
56-38-2	Ethyl parathion	0.14	0.14	1.0	U
52-85-7	Famphur	0.18	0.18	1.0	U
115-90-2	Fensulfothion	0.54	0.54	2.5	U
55-38-9	Fenthion	0.15	0.15	2.5	U
121-75-5	Malathion	0.13	0.13	1.2	U
150-50-5	Merphos	0.17	0.17	5.0	U
298-00-0	Methyl parathion	0.14	0.14	4.0	U
7786-34-7	Mevinphos	0.46	0.46	6.2	U
300-76-5	Naled	0.25	0.25	1.0	U
298-02-2	Phorate	0.15	0.15	1.2	U
299-84-3	Ronnel	0.12	0.12	10	U
3689-24-5	Sulfotepp	0.17	0.17	1.5	U
961-11-5	Tetrachlorvinphos (Stirophos)	0.12	0.12	3.5	U



Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1064 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-39B  
**Lab Sample ID:** D9F180266-002  
**Lab WorkOrder:** LE7EE1AA  
**Date/Time Collected:** 06/16/09 12:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 06:20  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
297-97-2	Thionazin	0.31	0.31	1.0	U
34643-46-4	Tokuthion	0.12	0.12	1.6	U
327-98-0	Trichloronate	0.24	0.24	1.0	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	79	60	154	
24934-91-6	Chlormefos	55	49	171	

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F220000-103B  
**Lab WorkOrder:** LFD4W1AA  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 04:58  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
62-73-7	Dichlorvos	0.16	0.16	1.0	U
297-97-2	Thionazin	0.31	0.31	1.0	U
60-51-5	Dimethoate	0.45	0.45	1.5	U
298-04-4	Disulfoton	0.32	0.32	1.0	U
2104-64-5	EPN	0.15	0.15	1.2	U
13194-48-4	Ethoprop	0.18	0.18	0.50	U
52-85-7	Famphur	0.18	0.18	1.0	U
115-90-2	Fensulfothion	0.54	0.54	2.5	U
55-38-9	Fenthion	0.15	0.15	2.5	U
121-75-5	Malathion	0.13	0.13	1.2	U
150-50-5	Merphos	0.17	0.17	5.0	U
298-00-0	Methyl parathion	0.14	0.14	4.0	U
86-50-0	Azinphos-methyl	0.17	0.17	2.5	U
7786-34-7	Mevinphos	0.46	0.46	6.2	U
300-76-5	Naled	0.25	0.25	1.0	U
56-38-2	Ethyl parathion	0.14	0.14	1.0	U
298-02-2	Phorate	0.15	0.15	1.2	U
299-84-3	Ronnel	0.12	0.12	10	U
3689-24-5	Sulfotepp	0.17	0.17	1.5	U
34643-46-4	Tokuthion	0.12	0.12	1.6	U
327-98-0	Trichloronate	0.24	0.24	1.0	U
35400-43-2	Bolstar	0.31	0.31	1.0	U
961-11-5	Tetrachlorvinphos (Stiropfos)	0.12	0.12	3.5	U
2921-88-2	Chlorpyrifos	0.36	0.36	1.0	U
56-72-4	Coumaphos	0.14	0.14	1.0	U
298-03-3	Demeton-O	0.14	0.14	1.0	U
126-75-0	Demeton-S	0.069	0.069	1.0	U
333-41-5	Diazinon	0.15	0.15	1.0	U

## Northgate Environmental Management, Inc.

### Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F220000-103B  
**Lab WorkOrder:** LFD4W1AA  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 04:58  
**Instrument ID:** D2

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	78	60	154	
24934-91-6	Chlormefos	53	49	171	

Northgate Environmental Management, Inc.

Surrogate Recovery Summary

Lab Name: TESTAMERICA DENVER

Extraction I09P29H

Lot/SDG Number: 8304607

QC Batch ID: 9173103

Client ID	Work Order	SRG1	SRG2	SRG3	SRG4	SRG5	SRG6	SRG7	SRG8	TOT OUT
M-39B	LE7EE1AA	55	79							0
M-123B	LE9Q61AA	50	78							0
M-123009B	LE9RA1AA	57	88							0
M-34B	LFC4Q1AD	53	73							0
INTRA-LAB BLANK	LFD4W1AA	53	78							0
CHECK SAMPLE	LFD4W1AC	73	77							0
DUPLICATE CHECK	LFD4W1AD	74	85							0

Surrogate Number	Surrogate Name	Lower Control Limit	Upper Control Limit
SRG 1	Chlormefos	49	171
SRG 2	Triphenyl phosphate	60	154

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F220000-103C  
**Lab WorkOrder:** LFD4W1AC  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 05:26  
**Instrument ID:** D2

Analyte	True	Found	%Rec	Q	Limits
Dichlorvos	4.00	3.12	78		40 - 193
Thionazin	4.00	3.31	83		39 - 180
Dimethoate	4.00	3.17	79		33 - 139
Disulfoton	4.00	2.30	58		44 - 139
Ethoprop	4.00	3.45	86		43 - 165
Famphur	8.00	6.43	80		51 - 131
Fensulfothion	4.00	3.03	76		46 - 115
Fenthion	4.00	3.16	79		63 - 128
Malathion	4.00	2.71	68		53 - 137
Methyl parathion	4.00	3.29	82		55 - 131
Azinphos-methyl	4.00	3.15	79		42 - 125
Mevinphos	4.00	2.65	66		39 - 175
Ethyl parathion	4.00	3.49	87		47 - 142
Phorate	4.00	3.11	78		46 - 142
Ronnel	4.00	2.97	74		43 - 115
Sulfotepp	4.00	2.92	73		29 - 166
Trichloronate	4.00	2.64	66		60 - 115
Chlorpyrifos	4.00	3.18	79		60 - 120
Coumaphos	4.00	3.34	84		61 - 115
Diazinon	4.00	3.51	88		47 - 149

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	77	60	154	
24934-91-6	Chlormefos	73	49	171	

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F220000-103L  
**Lab WorkOrder:** LFD4W1AD  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 05:53  
**Instrument ID:** D2

Analyte	True	Found	C	% Rec	Q	RPD	Q	QC Limits	
								% Rec	RPD
Dichlorvos	4.00	3.36		84		7.5		40 - 193	49
Thionazin	4.00	3.60		90		8.4		39 - 180	40
Dimethoate	4.00	3.14		79		0.82		33 - 139	50
Disulfoton	4.00	2.44		61		5.7		44 - 139	40
Ethoprop	4.00	3.74		94		8.2		43 - 165	36
Famphur	8.00	6.89		86		7.0		51 - 131	88
Fensulfothion	4.00	3.01		75		0.89		46 - 115	62
Fenthion	4.00	3.43		86		8.1		63 - 128	41
Malathion	4.00	2.99		75		9.7		53 - 137	28
Methyl parathion	4.00	3.67		92		11		55 - 131	30
Azinphos-methyl	4.00	3.03		76		3.7		42 - 125	36
Mevinphos	4.00	2.75		69		3.9		39 - 175	40
Ethyl parathion	4.00	3.77		94		7.7		47 - 142	40
Phorate	4.00	3.29		82		5.6		46 - 142	40
Ronnel	4.00	3.40		85		14		43 - 115	39
Sulfotepp	4.00	3.13		78		7.1		29 - 166	40
Trichloronate	4.00	2.81		70		6.0		60 - 115	38
Chlorpyrifos	4.00	3.50		88		9.7		60 - 120	34
Coumaphos	4.00	3.44		86		2.7		61 - 115	43
Diazinon	4.00	4.14		104		16		47 - 149	40

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	85	60	154	
24934-91-6	Chlormefos	74	49	171	

**Method Blank Summary**

<b>Lab Name:</b>	<u>TESTAMERICA DENVER</u>	<b>Lab File ID:</b>	<u>027F2701.</u>
<b>Lot/SDG Number:</b>	<u>8304607</u>	<b>Lab Sample ID:</b>	<u>D9F220000-103B</u>
<b>Matrix:</b>	<u>WATER</u>	<b>Lab Work Order:</b>	<u>LFD4W1AA</u>
<b>Analysis Method:</b>	<u>8141A</u>	<b>Date/Time Extracted:</b>	<u>06/22/09 12:00</u>
<b>Extraction Method:</b>	<u>I09P29H</u>	<b>Date/Time Analyzed:</b>	<u>06/30/09 04:58</u>
<b>QC Batch ID:</b>	<u>9173103</u>	<b>Instrument ID:</b>	<u>D2</u>

Client ID	Sample Work Order #	Lab File ID	Date Analyzed	Time Analyzed
M-39B	LE7EE1AA	027F2701.	06/30/09	06:20
M-123B	LE9Q61AA	028F2801.	06/30/09	06:47
M-123009B	LE9RA1AA	029F2901.	06/30/09	07:15
M-34B	LFC4Q1AD	030F3001.	06/30/09	07:43
CHECK SAMPLE	LFD4W1AC C	025F2501.	06/30/09	05:26
DUPLICATE CHECK	LFD4W1AD L	026F2601.	06/30/09	05:53

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.1

Calibration File Names:  
 Level 1: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\009F0901.D  
 Level 2: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\008F0801.D  
 Level 3: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\007F0701.D  
 Level 4: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\006F0601.D  
 Level 5: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\005F0501.D  
 Level 6: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\004F0401.D  
 Level 7: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.200000	0.500000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD	OR R <sup>2</sup>
1 O,O'-TEPT	3.11591	2.63737	2.67945	2.89676	2.71623	2.90430	AVRG		2.81778			5.91149	
2 Dichlorvos	2.01706	1.62225	1.58545	1.76366	1.71981	1.74982	AVRG		1.74977			7.99554	
3 Mevinphos	1.01774	0.91295	0.90158	1.01760	0.95159	0.98250	AVRG		0.96118			4.85992	
5 Thiomazin	2.12707	1.94606	1.94866	2.08214	1.96051	2.00095	AVRG		1.99966			3.79706	





TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	Level							Curve	b	Coefficients		RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
14 Simazine	4819 190219	16248	29382	64611	115426	147784	WLNIR	0.03988	0.73140		0.99336	1/2
15 Atrazine	0.70185 0.89508	0.76532	0.75073	0.84628	0.85434	0.90844	AVRG		0.81743		9.61085	
16 propazine	0.73887 0.79462	0.70136	0.69239	0.78178	0.75651	0.81417	AVRG		0.75424		6.13423	
17 Disulfoton	15404 290419	33208	61920	127893	193050	247845	WLNIR	-0.01928	1.20917		0.99576	1/1
18 Diazinon	2.20234 1.92388	1.83553	1.83772	2.01856	1.98676	1.84115	AVRG		1.94942		6.88114	
19 Methyl Parathion	1.22644 1.26213	1.10389	1.13741	1.32395	1.30344	1.29686	AVRG		1.23630		6.92144	
20 Ronnel	1.42863 1.18584	1.23369	1.21320	1.29342	1.24446	1.34650	AVRG		1.27796		6.65504	

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\densvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	Coefficients							OR R <sup>2</sup>		
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve			
21 Malathion	0.200000 Level 1 5.0000 Level 7	0.500000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	WLNLR	b	1.14436	0.99783
	15443 283462	30581	57103	119836	186013	228260		-0.02066		
22 Penchion	1.46442 1.18151	1.18458	1.16481	1.29096	1.25584	1.25506	AVRG		1.25674	8.19381
23 Parathion	1.42438 1.31279	1.25387	1.23322	1.38998	1.36308	1.38514	AVRG		1.33749	5.43501
24 Chlorpyrifos	1.85614 1.56216	1.56747	1.47379	1.62915	1.61527	1.62330	AVRG		1.61818	7.28314
25 Trichloronate	1.44751 1.43428	1.42551	1.34762	1.48171	1.46256	1.52450	AVRG		1.44624	3.78186
26 Anilazine	1493 ++++	2095	5311	12790	19893	29375	QUND	0.02107	9.16488	-8.66056
27 Merphos-A (Merphos)	1.24844 1.18648	1.15527	1.15966	1.23989	1.21263	1.24409	AVRG		1.20664	3.30523

X

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\Densv03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.200000 Level 1	0.500000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients		%RSD or R^2
									m1	m2	
28 Tetrachlorvinphos (Stirophos)	0.76814 0.82648	0.74606	0.73464	0.83451	0.85233	0.85150	AVRG		0.80195		6.32809
29 Tokuthion	1.50295 1.37817	1.28283	1.29501	1.44234	1.39452	1.40891	AVRG		1.38639		5.62055
30 Merphos-B (Merphos Oxone)	3884 798091	7933	11676	34113	50056	65974	WLINR	0.01044	0.32634		0.98820
31 Carbophenothion-methyl	14924 266724	30542	55023	105577	167145	206137	WLINR	-0.03349	1.03813		0.99979
32 Rensulfochion	8319 295978	23000	51304	104440	185778	229856	WLINR	0.04728	1.18751		0.99821
33 Bolstar / Famphur	1.54988 1.23307	1.27794	1.32328	1.33835	1.27633	1.28540	AVRG		1.32632		7.86825
34 Carbophenothion	1.57916 1.25966	1.19992	1.27687	1.32336	1.26122	1.41398	AVRG		1.33059		9.63398

NTC  
 See Merphos

1/x

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients		%RSD or R^2
									m1	m2	
36 Phosmet	1.22087 1.13672	1.01385	1.11032	1.20586	1.12340	1.16129	AVRG		1.13890		6.04111
37 EPN	9525 294020	23196	48705	111165	171283	220388	WLNLR	0.02456	1.11450		0.99317
38 Azinphos-methyl	1.19565 1.21185	1.13516	1.16767	1.28235	1.23551	1.26700	AVRG		1.21360		4.33999
40 Azinphos-ethyl	23154 318459	43578	74071	134607	209971	253982	WLNLR	-0.07409	1.26388		0.99928
41 Coumaphos	1.00140 0.99015	0.89806	0.92250	1.01947	1.01017	1.01013	AVRG		0.97884		4.92558
42 Merphos	1.61523 1.49925	1.45962	1.38820	1.59026	1.52873	1.58626	AVRG		1.52393		5.34513
43 Total Demeton	1.94415 1.68503	1.66775	1.60440	1.71838	1.66174	1.66727	AVRG		1.70696		6.44185

1/2  
1/2  
1/2

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
	5.0000										
	Level 7										
\$ 4 Chloroform	2.28223	2.03679	2.00000	2.26084	2.35620	2.24671	AVRG		2.19114		6.04132
	2.15521										
\$ 35 Triphenyl phosphate	1.09980	0.99217	0.96977	1.05450	0.99627	1.00900	AVRG		1.01117		4.94580
	0.95665										

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\Densvrr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
Start Cal Date: 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Last Cal Level: 1  
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\003F0301.D

Continuing Calibration



Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40		8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\010F1001.D			
26-JUN-2009 19:50		8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D			
26-JUN-2009 19:23		8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D			

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Calibration File Names:  
 Level 1: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Level 2: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Level 3: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\007F0701.D  
 Level 4: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Level 5: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0501.D  
 Level 6: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D  
 Level 7: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD or R <sup>2</sup>
1 o,o'-TEBP	2.92648 2.53900	2.44243	2.35582	2.65851	2.57132	2.61478	AVRG		2.58691			7.02274
2 Dichlorvos	1.96421 2.16332	1.82228	1.84036	2.17503	2.12732	2.04712	AVRG		2.01995			7.32345
4 Mevinphos	1.44354 1.43954	1.24995	1.21811	1.44363	1.32123	1.40873	AVRG		1.36067			7.12634
5 Demeton-O	1.19821 1.28370	1.29971	1.18493	1.34261	1.38930	1.37760	AVRG		1.29658			6.26552

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Level							Curve	b	Coefficients			%RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2			
6 Thionazin	2.15838 2.03673	1.84195	1.93751	1.98059	2.08762	2.20076	AVRG		2.03479			6.19054	
7 Ethoprop	1.70034 1.46268	1.41105	1.44674	1.51565	1.56615	1.54046	AVRG		1.52044			6.33190	
8 Phorate	1.89356 1.74661	1.60276	1.58391	1.69691	1.82591	1.99241	AVRG		1.76315			8.53946	
9 Naled	94.00000 78857	1666	10859	28010	46004	58330	WLNIR	0.13436	0.49080			0.99248	
10 Sulfotepp	2.79835 2.57687	2.53605	2.59328	2.75080	2.67397	2.68532	AVRG		2.65923			3.59851	
12 Simazine	0.36415 0.41001	0.34683	0.35351	0.38559	0.39087	0.41510	AVRG		0.38086			7.05346	
13 Diazinon	12067 228810	15923	49407	98649	155648	181790	WLNIR	0.01456	1.44446			0.99190	

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Level							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
14 Atrazine	5427 128612	1231	21316	49088	85997	98759	LINR	0.11621	0.83396		0.99221	
15 Propazine	4880 110050	8102	20907	43235	72628	85745	WLINR	0.02910	0.68050		0.99492	
16 Disulfoton	1.39584 1.37843	1.32983	1.36835	1.41433	1.46581	1.46415	AVRG		1.40239		3.56764	
17 Demeton-S	667 175573	15766	33785	70921	121463	157195	WLINR	0.05954	1.76807		0.99272	
18 Dimethoate	1.93513 1.92489	1.88284	1.72920	1.81890	1.98388	1.88204	AVRG		1.87955		4.46888	
19 Ronnel	1.49381 1.27410	1.09752	1.14631	1.23377	1.29336	1.31702	AVRG		1.26513		10.15653	
20 Merphos-A (Merphos)	0.73714 0.62474	0.72841	0.76463	0.71117	0.75339	0.75359	AVRG		0.72472		6.56840	

X X

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\Densvrr03\Public\chem\GCS\GC\_D2.1\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.1

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%SD	OR R <sup>2</sup>
21 Chlorpyrifos	1.28253 1.37311	1.15885	1.24944	1.20702	1.32365	1.38773	AVRG		1.28319			6.60140	
22 Fenthion	1.20874 1.18668	1.15890	1.17283	1.16181	1.25398	1.18816	AVRG		1.19016			2.76871	
23 Trichloronate	6944 296442	26053	49357	106326	170976	208762	WLINR	0.05263	1.73863			0.99738	
24 Anilazine	1634 19108	2256	3581	6899	11039	13112	LINR	-0.00058	0.10979			0.99085	
25 Methyl Parathion	1.21391 1.41908	1.12059	1.22102	1.33829	1.35198	1.32937	AVRG		1.28489			8.00353	
26 Malathion	1.23986 1.27856	1.19694	1.15056	1.17724	1.17540	1.20726	AVRG		1.20369			3.60449	
27 Tokuthion	1.50291 1.40826	1.31056	1.35261	1.35076	1.45106	1.48916	AVRG		1.40933			5.28420	

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcom  
 Method file : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
28 Parathion	1.27111 1.28450	1.15628	1.24872	1.23420	1.30817	1.35972	AVRG		1.26610		5.02432
29 Merphos-B (Merphos Oxone)	3793 65080	6271	15065	23458	40683	62127	WLNIR	-0.05169	0.21659		0.96366
30 Tetrachlorvinphos (stirophos)	0.86036 0.86651	0.73114	0.73243	0.80291	0.86664	0.87311	AVRG		0.81902		7.82425
31 Carbophenothion methyl	1.16513 1.26700	1.02032	1.04699	1.17159	1.27808	1.26831	AVRG		1.17392		9.08251
32 Bolstar	1.33280 1.20152	1.22387	1.19075	1.20601	1.27262	1.22830	AVRG		1.23655		4.05030
33 Carbophenothion	1.18442 1.28180	1.13595	1.15332	1.18001	1.34689	1.22912	AVRG		1.21593		6.21486
35 Fensulfotion	0.88346 0.92148	0.80409	0.88036	0.97346	0.94597	1.00424	AVRG		0.91615		7.30438

NTC,  
 See Merphos

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\Densvtr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.200000	0.500000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	%RSD	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
37 Phosmet / EPN	19707 330448	35826	68186	146012	207459	263604	WLNLR	-0.04262	1.00518		0.99785
38 Pamphur	1.45536 1.32805	1.20800	1.18770	1.39816	1.20947	1.39569	AVRG		1.31178		8.35158
39 Azinphos-methyl	1.25589 1.19199	1.08970	1.07858	1.30240	1.20427	1.27709	AVRG		1.19999		7.33978
40 Azinphos-ethyl	1.14013 1.12699	1.11628	1.12015	1.18786	1.16269	1.14594	AVRG		1.14286		2.23350
41 Coumaphos	0.78930 0.93653	0.81655	0.85887	0.90448	0.89897	0.94628	AVRG		0.87871		6.77030
42 Merphos	1.56460 1.70275	1.43887	1.64263	1.66880	1.73437	1.91569	AVRG		1.66682		8.85773
M 43 Total Demeton	3533 244812	23328	47171	100663	168375	213468	WLNLR	0.06780	1.63923		0.99469

✓

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcom  
 Method file : \\Densvr03\Public\chem\GCS\GC\_D2.1\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.1

Compound	0.200000 Level 1	0.500000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients m1	m2	\$RSD or R <sup>2</sup>
3 Chlormefos	2.19506	1.83698	1.78322	2.03418	2.29040	2.05386	AVRG		2.03341		8.83890
	2.04016										
34 Triphenyl phosphate	1.10969	0.86972	0.91132	1.07710	1.01080	0.99885	AVRG		0.97779		8.47904
	1.00703										



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Quant Method : ISTD  
Target Version : 4.14  
Integrator : FALCON  
Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Start Cal Date: 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Last Cal Level: 1  
 Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\003F0301.D

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\010F1001.D		
26-JUN-2009 19:50	8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D		
26-JUN-2009 19:23	8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D		

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0577	2.9	15.0
2 Dichlorvos	2.0000	1.9061	4.7	15.0
3 Mevinphos	2.0000	1.6977	15.1	15.0
4 Chlormefos	2.0000	1.7808	11.0	15.0
5 Thionazin	2.0000	1.9740	1.3	15.0
6 Demeton-O	0.6500	1.8707	187.8	15.0
7 Ethoprop	2.0000	2.0536	2.7	15.0
8 Naled	2.0000	1.1983	40.1	15.0
9 Sulfotepp	2.0000	1.7932	10.3	15.0
10 Phorate	2.0000	2.0180	0.9	15.0
11 Dimethoate	2.0000	2.0859	4.3	15.0
12 Demeton-S	1.3600	0.2313	83.0	15.0
13 Simazine	2.0000	2.6218	31.1	15.0
14 Atrazine	2.0000	1.9566	2.2	15.0
15 propazine	2.0000	1.9127	4.4	15.0
17 Disulfoton	2.0000	1.5890	20.6	15.0
16 Diazinon	2.0000	2.1583	7.9	15.0
18 Methyl Parathion	2.0000	2.0404	2.0	15.0
19 Ronnel	2.0000	2.1513	7.6	15.0
20 Malathion	2.0000	1.6248	18.8	15.0
21 Fenthion	2.0000	1.8840	5.8	15.0
22 Parathion	2.0000	1.9436	2.8	15.0
23 Chlorpyrifos	2.0000	1.9720	1.4	15.0
24 Trichloronate	2.0000	1.8619	6.9	15.0
25 Anilazine	2.0000	1.0151	49.2	15.0
148 Merphos-A (Merphos)	2.0000	0.4078	79.6	999.0
26 Tetrachlorvinphos (Stirophos)	2.0000	2.0880	4.4	15.0
28 Tokuthion	2.0000	2.0254	1.3	15.0
149 Merphos-B (Merphos Oxone)	2.0000	6.6232	231.2	999.0
29 Carbophenothion-methyl	2.0000	1.3536	32.3	15.0
29 Fensulfothion	2.0000	1.9235	3.8	15.0
30 Bolstar / Famphur	4.0000	4.0636	1.6	15.0
32 Carbophenothion	2.0000	1.8639	6.8	15.0
31 Triphenyl phosphate	2.0000	1.7170	14.2	15.0
34 Phosmet	2.0000	1.6471	17.6	15.0
32 EPN	2.0000	1.7931	10.3	15.0
33 Azinphos-methyl	2.0000	1.9226	3.9	15.0
35 Azinphos-ethyl	2.0000	1.8331	8.3	15.0
36 Coumaphos	2.0000	2.0063	0.3	15.0

*ok*  
*ok, see total demeton*  
*ok, see total demeton*

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	2.0000	1.7215	13.9	15.0
40 Total Demeton	2.0000	2.1021	5.1	15.0

Average %D = 23.4

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0069	0.3	15.0
2 Dichlorvos	2.0000	1.7707	11.5	15.0
3 Chlormefos	2.0000	1.6957	15.2	15.0
4 Mevinphos	2.0000	1.8364	8.2	15.0
5 Demeton-O	0.6500	2.0472	215.0	15.0
6 Thionazin	2.0000	1.8758	6.2	15.0
7 Ethoprop	2.0000	1.8962	5.2	15.0
8 Phorate	2.0000	1.9509	2.5	15.0
10 Naled	2.0000	1.0486	47.6	15.0
146 Sulfotepp	2.0000	1.7143	14.3	15.0
10 Simazine	2.0000	3.6013	80.1	15.0
12 Diazinon	2.0000	2.0803	4.0	15.0
150 Atrazine	2.0000	1.9693	1.5	15.0
13 Propazine	2.0000	1.8742	6.3	15.0
14 Disulfoton	2.0000	1.6970	15.1	15.0
15 Demeton-S	1.3600	0.2011	85.2	15.0
16 Dimethoate	2.0000	1.8701	6.5	15.0
17 Ronnel	2.0000	2.0112	0.6	15.0
148 Merphos-A (Merphos)	2.0000	0.5348	73.3	999.0
18 Chlorpyrifos	2.0000	2.1084	5.4	15.0
19 Fenthion	2.0000	2.0634	3.2	15.0
20 Trichloronate	2.0000	1.8617	6.9	15.0
21 Anilazine	2.0000	1.2425	37.9	15.0
23 Methyl Parathion	2.0000	2.0228	1.1	15.0
24 Malathion	2.0000	1.5362	23.2	15.0
25 Tokuthion	2.0000	1.8925	5.4	15.0
26 Parathion	2.0000	2.1337	6.7	15.0
149 Merphos-B (Merphos Oxone)	2.0000	5.0080	150.4	999.0
27 Tetrachlorvinphos (stirophos)	2.0000	2.0814	4.1	15.0
28 Carbophenothion methyl	2.0000	1.2466	37.7	15.0
28 Bolstar	2.0000	2.0778	3.9	15.0
30 Carbophenothion	2.0000	1.7496	12.5	15.0
29 Triphenyl phosphate	2.0000	1.7275	13.6	15.0
30 Fensulfothion	2.0000	2.0824	4.1	15.0
35 Phosmet / EPN	4.0000	3.4695	13.3	15.0
33 Famphur	2.0000	1.7579	12.1	15.0
34 Azinphos-methyl	2.0000	1.8108	9.5	15.0
35 Azinphos-ethyl	2.0000	1.7982	10.1	15.0
36 Coumaphos	2.0000	1.9588	2.1	15.0

*ok*  
*ok, see total demeton*  
*ok*  
*ok, see total demeton*

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\010F1001.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	2.0000	1.6146	19.3	15.0
40 Total Demeton	2.0000	2.2483	12.4	15.0

Average %D = 24.2

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 019FT901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6816	10.6	15.0
2 Dichlorvos	3.0000	2.8457	5.1	15.0
3 Mevinphos	3.0000	2.6789	10.7	15.0
4 Chlormefos	3.0000	3.1969	6.6	15.0
5 Thionazin	3.0000	2.8724	4.3	15.0
6 Demeton-O	0.9750	0.9537	2.2	15.0
7 Ethoprop	3.0000	2.9060	3.1	15.0
8 Naled	3.0000	2.3519	21.6	15.0
9 Sulfotepp	3.0000	3.1051	3.5	15.0
10 Phorate	3.0000	3.0333	1.1	15.0
11 Dimethoate	3.0000	3.0797	2.7	15.0
12 Demeton-S	2.0400	2.1332	4.6	15.0
13 Simazine	3.0000	3.3112	10.4	15.0
14 Atrazine	3.0000	3.1680	5.6	15.0
15 propazine	3.0000	3.1813	6.0	15.0
17 Disulfoton	3.0000	2.9623	1.3	15.0
16 Diazinon	3.0000	3.1341	4.5	15.0
18 Methyl Parathion	3.0000	3.0020	0.1	15.0
19 Ronnel	3.0000	2.9298	2.3	15.0
20 Malathion	3.0000	2.9153	2.8	15.0
21 Fenthion	3.0000	2.9311	2.3	15.0
22 Parathion	3.0000	2.9803	0.7	15.0
23 Chlorpyrifos	3.0000	3.1137	3.8	15.0
24 Trichloronate	3.0000	3.1459	4.9	15.0
25 Anilazine	3.0000	1.5882	47.1	15.0
148 Merphos-A (Merphos)	3.0000	2.1991	26.7	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.6173	12.8	15.0
28 Tokuthion	3.0000	3.1710	5.7	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.9483	131.6	999.0
29 Carbophenothion-methyl	3.0000	3.0127	0.4	15.0
29 Fensulfothion	3.0000	2.8001	6.7	15.0
30 Bolstar / Famphur	6.0000	5.9498	0.8	15.0
32 Carbophenothion	3.0000	3.0373	1.2	15.0
31 Triphenyl phosphate	3.0000	2.9775	0.8	15.0
34 Phosmet	3.0000	2.8475	5.1	15.0
32 EPN	3.0000	3.0078	0.3	15.0
33 Azinphos-methyl	3.0000	2.8768	4.1	15.0
35 Azinphos-ethyl	3.0000	2.9631	1.2	15.0
36 Coumaphos	3.0000	3.0385	1.3	15.0



Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.2247	7.5	15.0
40 Total Demeton	3.0000	3.0869	2.9	15.0

Average %D = 9.19

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6732	10.9	15.0
2 Dichlorvos	3.0000	2.7445	8.5	15.0
3 Chlormefos	3.0000	3.1434	4.8	15.0
4 Mevinphos	3.0000	2.7962	6.8	15.0
5 Demeton-O	0.9750	0.9905	1.6	15.0
6 Thionazin	3.0000	2.9759	0.8	15.0
7 Ethoprop	3.0000	2.8559	4.8	15.0
8 Phorate	3.0000	3.2113	7.0	15.0
10 Naled	3.0000	2.5980	13.4	15.0
146 Sulfotepp	3.0000	3.0720	2.4	15.0
10 Simazine	3.0000	2.9810	0.6	15.0
12 Diazinon	3.0000	3.0817	2.7	15.0
150 Atrazine	3.0000	3.4669	15.6	15.0 <-
13 Propazine	3.0000	3.2538	8.5	15.0
14 Disulfoton	3.0000	3.1235	4.1	15.0
15 Demeton-S	2.0400	1.8994	6.9	15.0
16 Dimethoate	3.0000	3.0065	0.2	15.0
17 Ronnel	3.0000	2.8752	4.2	15.0
148 Merphos-A (Merphos)	3.0000	2.2490	25.0	999.0
18 Chlorpyrifos	3.0000	3.1462	4.9	15.0
19 Fenthion	3.0000	3.0376	1.3	15.0
20 Trichloronate	3.0000	3.1893	6.3	15.0
21 Anilazine	3.0000	1.1314	62.3	15.0 <-
23 Methyl Parathion	3.0000	3.2271	7.6	15.0
24 Malathion	3.0000	3.2435	8.1	15.0
25 Tokuthion	3.0000	3.1034	3.4	15.0
26 Parathion	3.0000	2.8711	4.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.4788	116.0	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.9194	2.7	15.0
28 Carbophenothion methyl	3.0000	3.1683	5.6	15.0
28 Bolstar	3.0000	3.2160	7.2	15.0
30 Carbophenothion	3.0000	3.1768	5.9	15.0
29 Triphenyl phosphate	3.0000	3.2806	9.4	15.0
30 Fensulfothion	3.0000	3.0927	3.1	15.0
35 Phosmet / EPN	6.0000	5.8461	2.6	15.0
33 Famphur	3.0000	2.7291	9.0	15.0
34 Azinphos-methyl	3.0000	2.8371	5.4	15.0
35 Azinphos-ethyl	3.0000	3.0920	3.1	15.0
36 Coumaphos	3.0000	3.1035	3.4	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\019F1901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	3.2640	8.8	15.0
40 Total Demeton	3.0000	2.8899	3.7	15.0

Average %D = 10.1

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.8218	5.9	15.0
2 Dichlorvos	3.0000	2.8304	5.7	15.0
3 Mevinphos	3.0000	2.6552	11.5	15.0
4 Chlormefos	3.0000	3.0356	1.2	15.0
5 Thionazin	3.0000	2.8846	3.8	15.0
6 Demeton-O	0.9750	1.1089	13.7	15.0
7 Ethoprop	3.0000	3.2239	7.5	15.0
8 Naled	3.0000	1.8139	39.5	15.0<-
9 Sulfotepp	3.0000	3.0130	0.4	15.0
10 Phorate	3.0000	3.0193	0.6	15.0
11 Dimethoate	3.0000	2.9893	0.4	15.0
12 Demeton-S	2.0400	2.1060	3.2	15.0
13 Simazine	3.0000	3.4001	13.3	15.0
14 Atrazine	3.0000	3.2309	7.7	15.0
15 propazine	3.0000	3.0091	0.3	15.0
17 Disulfoton	3.0000	2.7422	8.6	15.0
16 Diazinon	3.0000	3.1584	5.3	15.0
18 Methyl Parathion	3.0000	3.0137	0.5	15.0
19 Ronnel	3.0000	2.9565	1.4	15.0
20 Malathion	3.0000	2.8366	5.4	15.0
21 Fenthion	3.0000	2.8471	5.1	15.0
22 Parathion	3.0000	2.9564	1.5	15.0
23 Chlorpyrifos	3.0000	3.0022	0.1	15.0
24 Trichloronate	3.0000	3.1508	5.0	15.0
25 Anilazine	3.0000	2.1130	29.6	15.0<-
148 Merphos-A (Merphos)	3.0000	2.6447	11.8	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.4443	18.5	15.0<-
28 Tokuthion	3.0000	3.1390	4.6	15.0
149 Merphos-B (Merphos Oxone)	3.0000	4.6954	56.5	999.0
29 Carbophenothion-methyl	3.0000	2.9046	3.2	15.0
29 Fensulfothion	3.0000	2.8499	5.0	15.0
30 Bolstar / Famphur	6.0000	5.6912	5.1	15.0
32 Carbophenothion	3.0000	2.8072	6.4	15.0
31 Triphenyl phosphate	3.0000	3.0801	2.7	15.0
34 Phosmet	3.0000	2.6152	12.8	15.0
32 EPN	3.0000	2.8279	5.7	15.0
33 Azinphos-methyl	3.0000	2.6249	12.5	15.0
35 Azinphos-ethyl	3.0000	2.8450	5.2	15.0
36 Coumaphos	3.0000	2.8862	3.8	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\039F3901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.0951	3.2	15.0
40 Total Demeton	3.0000	3.2150	7.2	15.0

Average %D = 8.33

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.8166	6.1	15.0
2 Dichlorvos	3.0000	2.8245	5.8	15.0
3 Chlormefos	3.0000	3.2183	7.3	15.0
4 Mevinphos	3.0000	2.9838	0.5	15.0
5 Demeton-O	0.9750	0.9758	0.1	15.0
6 Thionazin	3.0000	2.8054	6.5	15.0
7 Ethoprop	3.0000	2.8590	4.7	15.0
8 Phorate	3.0000	3.1654	5.5	15.0
10 Naled	3.0000	2.2828	23.9	15.0
146 Sulfotepp	3.0000	2.8627	4.6	15.0
10 Simazine	3.0000	2.9076	3.1	15.0
12 Diazinon	3.0000	2.8253	5.8	15.0
150 Atrazine	3.0000	2.9267	2.4	15.0
13 Propazine	3.0000	2.8284	5.7	15.0
14 Disulfoton	3.0000	2.9455	1.8	15.0
15 Demeton-S	2.0400	1.8853	7.6	15.0
16 Dimethoate	3.0000	2.8716	4.3	15.0
17 Ronnel	3.0000	2.7428	8.6	15.0
148 Merphos-A (Merphos)	3.0000	2.4110	19.6	999.0
18 Chlorpyrifos	3.0000	3.1163	3.9	15.0
19 Fenthion	3.0000	2.9120	2.9	15.0
20 Trichloronate	3.0000	3.3902	13.0	15.0
21 Anilazine	3.0000	1.7240	42.5	15.0
23 Methyl Parathion	3.0000	2.8664	4.5	15.0
24 Malathion	3.0000	2.7318	8.9	15.0
25 Tokuthion	3.0000	2.9114	3.0	15.0
26 Parathion	3.0000	2.9008	3.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	3.5874	19.6	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.6695	11.0	15.0
28 Carbophenothion methyl	3.0000	3.0681	2.3	15.0
28 Bolstar	3.0000	3.0614	2.0	15.0
30 Carbophenothion	3.0000	3.3384	11.3	15.0
29 Triphenyl phosphate	3.0000	2.8735	4.2	15.0
30 Fensulfothion	3.0000	2.9476	1.7	15.0
35 Phosmet / EPN	6.0000	5.6693	5.5	15.0
33 Famphur	3.0000	3.0504	1.7	15.0
34 Azinphos-methyl	3.0000	2.9582	1.4	15.0
35 Azinphos-ethyl	3.0000	2.9123	2.9	15.0
36 Coumaphos	3.0000	2.9494	1.7	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\039F3901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	2.8269	5.8	15.0
40 Total Demeton	3.0000	2.8612	4.6	15.0

Average %D = 6.87

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L7 GSV0634				
4	Vial 4	OPP L6 GSV0637				
5	Vial 5	OPP L5 GSV0635				
6	Vial 6	OPP L4 GSV0638				
7	Vial 7	OPP L3 GSV0639				
8	Vial 8	OPP L2 GSV0640				
9	Vial 9	OPP L1 GSV0641				
10	Vial 10	OPP SS GSV0633				
11	Vial 11	GSV075309 SPK				
12	Vial 12	LE2931AA, MB				
13	Vial 13	LE2931AC, LCS				
14	Vial 14	LE2931AD, LCSD				
15	Vial 15	LEQA91AC, 222-15			10	
16	Vial 16	LEQA91AC, 222-15			3	
17	Vial 17	LEQCQ1AC, 222-18			2	
18	Vial 18	LERD61AD, 377-1				
19	Vial 19	LERD81AH, 377-3				
20	Vial 20	LERN71AF, 115-1				
21	Vial 21	LERPQ1AF, 115-2				
22	Vial 22	LERPX1AF, 115-3				
23	Vial 23	LE1F91AJ, 138-1				
24	Vial 24	OPP L5 GSV0635				
25	Vial 25	LE29M1AA, MB				
26	Vial 26	LE29M1AC, LCS				
27	Vial 27	LE29M1AD, LCSD				
28	Vial 28	LEQA91AA, 222-15			10	
29	Vial 29	LEQA91AA, 222-15			3	
30	Vial 30	LEQCQ1AA, 222-18			2	
31	Vial 31	LFARC1AA, MB				
32	Vial 32	LFARC1AC, LCS				
33	Vial 33	LFARC1AD, LCSD				
34	Vial 34	LEKL02AA, 185-1				
35	Vial 35	LE29L1AA, MB				
36	Vial 36	LE29L1AC, LCS				
37	Vial 37	LE29L1AD, LCSD				
38	Vial 38	LERCV1AA, 370-1				
39	Vial 39	LEWJG1AA, 143-1				
40	Vial 40	OPP L5 GSV0635				
41	Vial 41	LE5PX1AA, MB				
42	Vial 42	LE5PX1AC, LCS				
43	Vial 43	LE5PX1AD, LCSD				
44	Vial 44	LE39F1AA, 179-1				
45	Vial 45	LE3PF1AA, 179-2				
46	Vial 46	LE39L1AA, 179-3				
47	Vial 47	LFARL1AA, MB				
48	Vial 48	LFARL1AC, LCS				
49	Vial 49	LFARL1AD, LCSD				
50	Vial 50	LEKLE2AE, 180-2				
51	Vial 51	LEKLF2AE, 180-3				
52	Vial 52	LEKLL2AE, 180-4				
53	Vial 53	LEKLO2AE, 180-5				
54	Vial 54	LENR72AD, 322-1				
55	Vial 55	LEPG32AJ, 161-1				
56	Vial 56	OPP L5 GSV0635				
57	Vial 57	LFD4N1AA, MB				
58	Vial 58	LFD4N1AC, LCS				

65744

66847

67043

68145

68353

68430

683102

RR



Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
59	Vial 59	LFD4N1AD, LCSD				
60	Vial 60	LE3041AJ, 158-1				
61	Vial 61	LFD4W1AA, MB				
62	Vial 62	LFD4W1AC, LCS				
63	Vial 63	LFD4W1AD, LCSD				
64	Vial 64	LE7EE1AA, 266-2				
65	Vial 65	LE9Q61AA, 216-2				
66	Vial 66	LE9RA1AA, 216-3				
67	Vial 67	LFC4Q1AD, 199-2				
68	Vial 68	OPP L5 GSV0635				
69	Vial 69	LFAN01AA, MB				
70	Vial 70	LFAN01AC, LCS				
71	Vial 71	LFAN01AD, LCSD				
72	Vial 72	LE4291AA, 273-1				
73	Vial 73	LE4291AD, 273-1S				
74	Vial 74	LE4291AE, 273-1D				
75	Vial 75	LE9PJ1AA, 215-1				
76	Vial 76	OPP L5 GSV0635				
77	Vial 77	OPP L1 GSV0641				
78	Vial 100	HEXANE/ACETONE				

Sequence Table (Back Injector):

No entries - empty table!

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L5 GSV0635				
4	Vial 4	LE5PX1AA,MB				
5	Vial 5	LE5PX1AC,LCS				
6	Vial 6	LE5PX1AD,LCS				
7	Vial 7	LE39F1AA,179-1				
8	Vial 8	LE3PF1AA,179-2				
9	Vial 9	LE39L1AA,179-3				
10	Vial 10	LFARL1AA,MB				
11	Vial 11	LFARL1AC,LCS				
12	Vial 12	LFARL1AD,LCS				
13	Vial 13	LEKLE2AE,180-2				
14	Vial 14	LEKLF2AE,180-3				
15	Vial 15	LEKLL2AE,180-4				
16	Vial 16	LEKLLQ2AE,180-5				
17	Vial 17	LENR72AD,322-1				
18	Vial 18	LEPG32AJ,161-1				
19	Vial 19	OPP L5 GSV0635				
20	Vial 20	LFD4N1AA,MB				
21	Vial 21	LFD4N1AC,LCS				
22	Vial 22	LFD4N1AD,LCS				
23	Vial 23	LE3041AJ,158-1				
24	Vial 24	LFD4W1AA,MB				
25	Vial 25	LFD4W1AC,LCS				
26	Vial 26	LFD4W1AD,LCS				
27	Vial 27	LE7EE1AA,266-2				
28	Vial 28	LE9Q61AA,216-2				
29	Vial 29	LE9RA1AA,216-3				
30	Vial 30	LFC4Q1AD,199-2				
31	Vial 31	OPP L5 GSV0635				
32	Vial 32	LFAN01AA,MB				
33	Vial 33	LFAN01AC,LCS				
34	Vial 34	LFAN01AD,LCS				
35	Vial 35	LE4291AA,273-1				
36	Vial 36	LE4291AD,273-1S				
37	Vial 37	LE4291AE,273-1D				
38	Vial 38	LE9PJ1AA,215-1				
39	Vial 39	OPP L5 GSV0635				
40	Vial 40	OPP L1 GSV0641				
41	Vial 100	HEXANE/ACETONE				

*- bad injection; ccv not needed, only 9 samples*

Sequence Table (Back Injector):

No entries - empty table!

TestAmerica  
**Semivolatle GC**  
CLP-Like Forms

Lot ID: D9F190216

Client: Northgate/Tronox

Method: SW846 8141A

Associated Samples: 002 and 003

Batch: 9173103

## Northgate Environmental Management, Inc.

### Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1066 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-123B  
**Lab Sample ID:** D9F190216-002  
**Lab WorkOrder:** LE9Q61AA  
**Date/Time Collected:** 06/17/09 11:40  
**Date/Time Received:** 06/19/09 09:00  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 06:47  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
86-50-0	Azinphos-methyl	0.17	0.17	2.5	U
35400-43-2	Bolstar	0.31	0.31	1.0	U
2921-88-2	Chlorpyrifos	0.36	0.36	1.0	U
56-72-4	Coumaphos	0.14	0.14	1.0	U
298-03-3	Demeton-O	0.14	0.14	1.0	U
126-75-0	Demeton-S	0.069	0.069	1.0	U
333-41-5	Diazinon	0.15	0.15	1.0	U
62-73-7	Dichlorvos	0.16	0.16	1.0	U
60-51-5	Dimethoate	0.45	0.45	1.5	U
298-04-4	Disulfoton	0.32	0.32	1.0	U
2104-64-5	EPN	0.15	0.15	1.2	U
13194-48-4	Ethoprop	0.18	0.18	0.50	U
56-38-2	Ethyl parathion	0.14	0.14	1.0	U
52-85-7	Famphur	0.18	0.18	1.0	U
115-90-2	Fensulfothion	0.54	0.54	2.5	U
55-38-9	Fenthion	0.15	0.15	2.5	U
121-75-5	Malathion	0.13	0.13	1.2	U
150-50-5	Merphos	0.17	0.17	5.0	U
298-00-0	Methyl parathion	0.14	0.14	4.0	U
7786-34-7	Mevinphos	0.46	0.46	6.2	U
300-76-5	Naled	0.25	0.25	1.0	U
298-02-2	Phorate	0.15	0.15	1.2	U
299-84-3	Ronnel	0.12	0.12	10	U
3689-24-5	Sulfotepp	0.17	0.17	1.5	U
961-11-5	Tetrachlorvinphos (Stirophos)	0.12	0.12	3.5	U

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1066 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-123B  
**Lab Sample ID:** D9F190216-002  
**Lab WorkOrder:** LE9Q61AA  
**Date/Time Collected:** 06/17/09 11:40  
**Date/Time Received:** 06/19/09 09:00  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 06:47  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
297-97-2	Thionazin	0.31	0.31	1.0	U
34643-46-4	Tokuthion	0.12	0.12	1.6	U
327-98-0	Trichloronate	0.24	0.24	1.0	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	78	60	154	
24934-91-6	Chlormefos	50	49	171	

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1066 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-123009B  
**Lab Sample ID:** D9F190216-003  
**Lab WorkOrder:** LE9RA1AA  
**Date/Time Collected:** 06/17/09 11:40  
**Date/Time Received:** 06/19/09 09:00  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 07:15  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
86-50-0	Azinphos-methyl	0.17	0.17	2.5	U
35400-43-2	Bolstar	0.31	0.31	1.0	U
2921-88-2	Chlorpyrifos	0.36	0.36	1.0	U
56-72-4	Coumaphos	0.14	0.14	1.0	U
298-03-3	Demeton-O	0.14	0.14	1.0	U
126-75-0	Demeton-S	0.069	0.069	1.0	U
333-41-5	Diazinon	0.15	0.15	1.0	U
62-73-7	Dichlorvos	0.16	0.16	1.0	U
60-51-5	Dimethoate	0.45	0.45	1.5	U
298-04-4	Disulfoton	0.32	0.32	1.0	U
2104-64-5	EPN	0.15	0.15	1.2	U
13194-48-4	Ethoprop	0.18	0.18	0.50	U
56-38-2	Ethyl parathion	0.14	0.14	1.0	U
52-85-7	Famphur	0.18	0.18	1.0	U
115-90-2	Fensulfothion	0.54	0.54	2.5	U
55-38-9	Fenthion	0.15	0.15	2.5	U
121-75-5	Malathion	0.13	0.13	1.2	U
150-50-5	Merphos	0.17	0.17	5.0	U
298-00-0	Methyl parathion	0.14	0.14	4.0	U
7786-34-7	Mevinphos	0.46	0.46	6.2	U
300-76-5	Naled	0.25	0.25	1.0	U
298-02-2	Phorate	0.15	0.15	1.2	U
299-84-3	Ronnel	0.12	0.12	10	U
3689-24-5	Sulfotepp	0.17	0.17	1.5	U
961-11-5	Tetrachlorvinphos (Stirophos)	0.12	0.12	3.5	U

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1066 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-123009B  
**Lab Sample ID:** D9F190216-003  
**Lab WorkOrder:** LE9RA1AA  
**Date/Time Collected:** 06/17/09 11:40  
**Date/Time Received:** 06/19/09 09:00  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 07:15  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
297-97-2	Thionazin	0.31	0.31	1.0	U
34643-46-4	Tokuthion	0.12	0.12	1.6	U
327-98-0	Trichloronate	0.24	0.24	1.0	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	88	60	154	
24934-91-6	Chlormefos	57	49	171	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

## Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F220000-103B  
**Lab WorkOrder:** LFD4W1AA  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 04:58  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
62-73-7	Dichlorvos	0.16	0.16	1.0	U
297-97-2	Thionazin	0.31	0.31	1.0	U
60-51-5	Dimethoate	0.45	0.45	1.5	U
298-04-4	Disulfoton	0.32	0.32	1.0	U
2104-64-5	EPN	0.15	0.15	1.2	U
13194-48-4	Ethoprop	0.18	0.18	0.50	U
52-85-7	Famphur	0.18	0.18	1.0	U
115-90-2	Fensulfotion	0.54	0.54	2.5	U
55-38-9	Fenthion	0.15	0.15	2.5	U
121-75-5	Malathion	0.13	0.13	1.2	U
150-50-5	Merphos	0.17	0.17	5.0	U
298-00-0	Methyl parathion	0.14	0.14	4.0	U
86-50-0	Azinphos-methyl	0.17	0.17	2.5	U
7786-34-7	Mevinphos	0.46	0.46	6.2	U
300-76-5	Naled	0.25	0.25	1.0	U
56-38-2	Ethyl parathion	0.14	0.14	1.0	U
298-02-2	Phorate	0.15	0.15	1.2	U
299-84-3	Ronnel	0.12	0.12	10	U
3689-24-5	Sulfotepp	0.17	0.17	1.5	U
34643-46-4	Tokuthion	0.12	0.12	1.6	U
327-98-0	Trichloronate	0.24	0.24	1.0	U
35400-43-2	Bolstar	0.31	0.31	1.0	U
961-11-5	Tetrachlorvinphos (Stirophos)	0.12	0.12	3.5	U
2921-88-2	Chlorpyrifos	0.36	0.36	1.0	U
56-72-4	Coumaphos	0.14	0.14	1.0	U
298-03-3	Demeton-O	0.14	0.14	1.0	U
126-75-0	Demeton-S	0.069	0.069	1.0	U
333-41-5	Diazinon	0.15	0.15	1.0	U



## Northgate Environmental Management, Inc.

### Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: 8304607  
Matrix: WATER  
% Moisture:  
Basis: Wet  
Analysis Method: 8141A  
Unit: ug/L  
QC Batch ID: 9173103  
Sample Aliquot: 1000 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9F220000-103B  
Lab WorkOrder: LFD4W1AA  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 06/22/09 12:00  
Date/Time Analyzed: 06/30/09 04:58  
Instrument ID: D2

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	78	60	154	
24934-91-6	Chlormefos	53	49	171	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

## Surrogate Recovery Summary

Lab Name: TESTAMERICA DENVER

Extraction I09P29H

Lot/SDG Number: 8304607

QC Batch ID: 9173103

Client ID	Work Order	SRG1	SRG2	SRG3	SRG4	SRG5	SRG6	SRG7	SRG8	TOT OUT
M-39B	LE7EE1AA	55	79							0
M-123B	LE9Q61AA	50	78							0
M-123009B	LE9RA1AA	57	88							0
M-34B	LFC4Q1AD	53	73							0
INTRA-LAB BLANK	LFD4W1AA	53	78							0
CHECK SAMPLE	LFD4W1AC	73	77							0
DUPLICATE CHECK	LFD4W1AD	74	85							0

Surrogate Number	Surrogate Name	Lower Control Limit	Upper Control Limit
SRG 1	Chlormefos	49	171
SRG 2	Triphenyl phosphate	60	154

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F220000-103C  
**Lab WorkOrder:** LFD4W1AC  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 05:26  
**Instrument ID:** D2

Analyte	True	Found	%Rec	Q	Limits
Dichlorvos	4.00	3.12	78		40 - 193
Thionazin	4.00	3.31	83		39 - 180
Dimethoate	4.00	3.17	79		33 - 139
Disulfoton	4.00	2.30	58		44 - 139
Ethoprop	4.00	3.45	86		43 - 165
Famphur	8.00	6.43	80		51 - 131
Fensulfothion	4.00	3.03	76		46 - 115
Fenthion	4.00	3.16	79		63 - 128
Malathion	4.00	2.71	68		53 - 137
Methyl parathion	4.00	3.29	82		55 - 131
Azinphos-methyl	4.00	3.15	79		42 - 125
Mevinphos	4.00	2.65	66		39 - 175
Ethyl parathion	4.00	3.49	87		47 - 142
Phorate	4.00	3.11	78		46 - 142
Ronnel	4.00	2.97	74		43 - 115
Sulfotepp	4.00	2.92	73		29 - 166
Trichloronate	4.00	2.64	66		60 - 115
Chlorpyrifos	4.00	3.18	79		60 - 120
Coumaphos	4.00	3.34	84		61 - 115
Diazinon	4.00	3.51	88		47 - 149

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	77	60	154	
24934-91-6	Chlormefos	73	49	171	

## Northgate Environmental Management, Inc.

### Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F220000-103L  
**Lab WorkOrder:** LFD4W1AD  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 05:53  
**Instrument ID:** D2

Analyte	True	Found	C	% Rec	Q	RPD	Q	QC Limits	
								% Rec	RPD
Dichlorvos	4.00	3.36		84		7.5		40 - 193	49
Thionazin	4.00	3.60		90		8.4		39 - 180	40
Dimethoate	4.00	3.14		79		0.82		33 - 139	50
Disulfoton	4.00	2.44		61		5.7		44 - 139	40
Ethoprop	4.00	3.74		94		8.2		43 - 165	36
Famphur	8.00	6.89		86		7.0		51 - 131	88
Fensulfothion	4.00	3.01		75		0.89		46 - 115	62
Fenthion	4.00	3.43		86		8.1		63 - 128	41
Malathion	4.00	2.99		75		9.7		53 - 137	28
Methyl parathion	4.00	3.67		92		11		55 - 131	30
Azinphos-methyl	4.00	3.03		76		3.7		42 - 125	36
Mevinphos	4.00	2.75		69		3.9		39 - 175	40
Ethyl parathion	4.00	3.77		94		7.7		47 - 142	40
Phorate	4.00	3.29		82		5.6		46 - 142	40
Ronnel	4.00	3.40		85		14		43 - 115	39
Sulfotepp	4.00	3.13		78		7.1		29 - 166	40
Trichloronate	4.00	2.81		70		6.0		60 - 115	38
Chlorpyrifos	4.00	3.50		88		9.7		60 - 120	34
Coumaphos	4.00	3.44		86		2.7		61 - 115	43
Diazinon	4.00	4.14		104		16		47 - 149	40

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	85	60	154	
24934-91-6	Chlormefos	74	49	171	

Method Blank Summary

Lab Name: TESTAMERICA DENVER  
 Lot/SDG Number: 8304607  
 Matrix: WATER  
 Analysis Method: 8141A  
 Extraction Method: 109P29H  
 QC Batch ID: 9173103

Lab File ID: 027F2701.  
 Lab Sample ID: D9F220000-103B  
 Lab Work Order: LFD4W1AA  
 Date/Time Extracted: 06/22/09 12:00  
 Date/Time Analyzed: 06/30/09 04:58  
 Instrument ID: D2

Client ID	Sample Work Order #	Lab File ID	Date Analyzed	Time Analyzed
M-39B	LE7EE1AA	027F2701.	06/30/09	06:20
M-123B	LE9Q61AA	028F2801.	06/30/09	06:47
M-123009B	LE9RA1AA	029F2901.	06/30/09	07:15
M-34B	LFC4Q1AD	030F3001.	06/30/09	07:43
CHECK SAMPLE	LFD4W1AC C	025F2501.	06/30/09	05:26
DUPLICATE CHECK	LFD4W1AD L	026F2601.	06/30/09	05:53

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Calibration File Names:

Level 1: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\009F0901.D  
 Level 2: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\008F0801.D  
 Level 3: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\007F0701.D  
 Level 4: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\006F0601.D  
 Level 5: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\005F0501.D  
 Level 6: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\004F0401.D  
 Level 7: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	RPD or R <sup>2</sup>
1 o,o'-TEPT	3.11591	2.63737	2.67945	2.89676	2.71623	2.90430	AVRG		2.81778			5.91149
2 Dichlorvos	2.01706	1.62225	1.58545	1.76366	1.71981	1.74982	AVRG		1.74977			7.99554
3 Mevinphos	1.01774	0.91295	0.90158	1.01760	0.95159	0.98250	AVRG		0.96118			4.85992
5 Thionazin	2.12707	1.94606	1.94866	2.08214	1.96051	2.00095	AVRG		1.99966			3.79706



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
14 Simazine	4819 190219	16248	29382	64611	115426	147784	WLINE	0.03988	0.73140		0.99336 1/2
15 Atrazine	0.70185 0.89508	0.76532	0.75073	0.84628	0.85434	0.90844	AVRG		0.81743		9.61085
16 propazine	0.73887 0.79462	0.70136	0.69239	0.78178	0.75651	0.81417	AVRG		0.75424		6.13423
17 Disulfoton	15404 290419	33208	61920	127893	193050	247845	WLINE	-0.01928	1.20917		0.99576 1/1
18 Diazinon	2.20234 1.92388	1.83553	1.83772	2.01856	1.98676	1.84115	AVRG		1.94942		6.88114
19 Methyl Parathion	1.22644 1.26213	1.10389	1.13741	1.32395	1.30344	1.29686	AVRG		1.23630		6.92144
20 Romel	1.42863 1.18584	1.23369	1.21320	1.29342	1.24446	1.34650	AVRG		1.27796		6.65504



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients		%RSD or R <sup>2</sup>
21 Malathion	15443 283462	30581	57103	119836	186013	228260	WLNR	-0.02066	1.14436		0.99783
22 Fenthion	1.46442 1.18151	1.18458	1.16481	1.29096	1.25584	1.25506	AVRG		1.25674		8.19381
23 Parathion	1.42438 1.31279	1.25387	1.23322	1.38998	1.36308	1.38514	AVRG		1.33749		5.43501
24 Chlorpyrifos	1.85614 1.56216	1.56747	1.47379	1.62915	1.61527	1.62330	AVRG		1.61818		7.28314
25 Trichloronate	1.44751 1.43428	1.42551	1.34762	1.48171	1.46256	1.52450	AVRG		1.44624		3.78186
26 Anilazine	1493 ++++	2095	5311	12790	19893	29375	QUAD	0.02107	9.16488	-8.66056	0.99476
27 Merphos-A (Merphos)	1.24844 1.18648	1.15527	1.15966	1.23989	1.21263	1.24409	AVRG		1.20664		3.30523

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\Densvrr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients ml	m2	%RSD or R <sup>2</sup>
28 TetrachloroVinphos (Stirophos)	0.76814 0.82648	0.74606	0.73464	0.83451	0.85233	0.85150	AVRG		0.80195		6.32809
29 Tokuthion	1.50295 1.37817	1.28283	1.29501	1.44234	1.39452	1.40891	AVRG		1.38639		5.62055
30 Merphos-B (Merphos Oxone)	3884 79809	7933	11676	34113	50056	65974	WLINR	0.01044	0.32634		0.98820
31 Carbophenothion-methyl	14924 266724	30542	55023	105577	167145	206137	WLINR	-0.03349	1.03813		0.99979
32 Fensulfethion	8319 295978	23000	51304	104440	185778	229856	WLINR	0.04728	1.18751		0.99821
33 Bolstar / Fampbur	1.54988 1.23307	1.27794	1.32328	1.33835	1.27633	1.28540	AVRG		1.32632		7.86825
34 Carbophenothion	1.57916 1.25966	1.19992	1.27687	1.32336	1.26122	1.41398	AVRG		1.33059		9.63398

NTC  
 <- See Merphos

1/4

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients		\$RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
	5.0000										
	Level 7										
36 Phosmet	1.22087 1.13672	1.01385	1.11032	1.20586	1.12340	1.16129	AVRG		1.13890		6.04111
37 EBN	9525 294020	23196	48705	111165	171283	220388	WLNMR	0.02456	1.11450		0.99317
38 Azinphos-methyl	1.19565 1.21185	1.13516	1.16767	1.28235	1.23551	1.26700	AVRG		1.21360		4.33999
40 Azinphos-ethyl	23154 318459	43578	74071	134607	209971	253982	WLNMR	-0.07409	1.26388		0.99928
41 Coumaphos	1.00140 0.99015	0.89806	0.92250	1.01947	1.01017	1.01013	AVRG		0.97884		4.92558
42 Merphos	1.61523 1.49925	1.45962	1.38820	1.59026	1.52873	1.58626	AVRG		1.52393		5.34513
M 43 Total Demeton	1.94415 1.68503	1.66775	1.60440	1.71838	1.66174	1.66727	AVRG		1.70696		6.44185

1/2  
1/2

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\Densv03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
4 Chloroefos	2.28223	2.03679	2.00000	2.26084	2.35620	2.24671	AVRG		2.19114		6.04132
	2.15521										
35 Triphenyl phosphate	1.09980	0.99217	0.96977	1.05450	0.99627	1.00900	AVRG		1.01117		4.94580
	0.95665										

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Quant Method : ISTD  
Target Version : 4.14  
Integrator : FALCON  
Method File : \\DensVrr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Start Cal Date: 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Last Cal Level: 1  
 Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\003F0301.D

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A		
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\010F1001.D			
26-JUN-2009 19:50	8141A		
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D			
26-JUN-2009 19:23	8141A		
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D			

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Calibration File Names:

Level 1: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Level 2: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Level 3: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\007F0701.D  
 Level 4: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Level 5: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0501.D  
 Level 6: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D  
 Level 7: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD or R^2
1 o,o'-TEPT	2.92648	2.44243	2.35582	2.65851	2.57132	2.61478	AVRG		2.58691			7.02274
	2.53900											
2 Dichlorvos	1.96421	1.82228	1.84036	2.17503	2.12732	2.04712	AVRG		2.01995			7.32345
	2.16332											
4 Mevinphos	1.44354	1.24995	1.21811	1.44363	1.32123	1.40873	AVRG		1.36067			7.12634
	1.43954											
5 Demeton-O	1.19821	1.29971	1.18493	1.34261	1.38930	1.37760	AVRG		1.29658			6.26552
	1.28370											



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.1\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.1

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients m1	m2	\$RSD or R <sup>2</sup>
6 Thionazin	2.15838 2.03673	1.84195	1.93751	1.98059	2.08762	2.20076	AVRG		2.03479		6.19054
7 Ethoprop	1.70034 1.46268	1.41105	1.44674	1.51565	1.56615	1.54046	AVRG		1.52044		6.33190
8 Phorate	1.89356 1.74661	1.60276	1.58391	1.69691	1.82591	1.99241	AVRG		1.76315		8.53946
9 Naled	94.00000 78857	1666	10859	28010	46004	58330	WLINR	0.13436	0.49080		0.99248
10 Sulfotepp	2.79835 2.57687	2.53605	2.59328	2.75080	2.67397	2.68532	AVRG		2.65923		3.59851
12 Simazine	0.36415 0.41001	0.34683	0.35351	0.38559	0.39087	0.41510	AVRG		0.38086		7.05346
13 Diazinon	12067 228810	15923	49407	98649	155648	181790	WLINR	0.01456	1.44446		0.99190

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\DensVr03\Public\chem\GCS\GC\_D2.1\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.1

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
14 Atrazine	5427 128612	1231	21316	49088	85997	98759	LINEAR	0.11621	0.83396		0.99221
15 Propazine	4880 110050	8102	20907	43235	72628	85745	LINEAR	0.02910	0.68050		0.99492
16 Disulfoton	1.39584 1.37843	1.32983	1.36835	1.41433	1.46581	1.46415	AVRG		1.40239		3.56764
17 Demeton-S	667 175573	15766	33785	70921	121463	157195	LINEAR	0.05954	1.76807		0.99272
18 Dimethoate	1.93513 1.92489	1.88284	1.72920	1.81890	1.98388	1.88204	AVRG		1.87955		4.46888
19 Ronnel	1.49381 1.27410	1.09752	1.14631	1.23377	1.29336	1.31702	AVRG		1.26513		10.15653
20 Merphos-A (Merphos)	0.73714 0.62474	0.72841	0.76463	0.71117	0.75339	0.75359	AVRG		0.72472		6.56840

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD or R <sup>2</sup>
21 Chlorpyrifos	1.28253 1.37311	1.15885	1.24944	1.20702	1.32365	1.38773	AVRG		1.28319			6.60140
22 Fenitron	1.20874 1.18668	1.15890	1.17283	1.16181	1.25398	1.18816	AVRG		1.19016			2.76871
23 Trichloronate	6944 296442	26053	49357	106326	170976	208762	WLINR	0.05263	1.73863			0.99738
24 Anilazine	1634 19108	2256	3581	6899	11039	13112	LINR	-0.00058	0.10979			0.99085
25 Methyl Parathion	1.21391 1.41908	1.12059	1.22102	1.33829	1.35198	1.32937	AVRG		1.28489			8.00353
26 Malathion	1.23986 1.27856	1.19694	1.15056	1.17724	1.17540	1.20726	AVRG		1.20369			3.60449
27 Tokuthion	1.50291 1.40826	1.31056	1.35261	1.35076	1.45106	1.48916	AVRG		1.40933			5.28420

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcom  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.1\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.1

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
28 Parathion	1.27111 1.28450	1.15628	1.24872	1.23420	1.30817	1.35972	AVRG		1.26610			5.02432
29 Merphos-B (Merphos Oxone)	3793 65080	6271	15065	23458	40683	62127	WLNRR	-0.05169	0.21659			0.96366
30 Tetrachlorvinphos (stirophos)	0.86036 0.86651	0.73114	0.73243	0.80291	0.86664	0.87311	AVRG		0.81902			7.82425
31 Carbophenothion methyl	1.16513 1.26700	1.02032	1.04699	1.17159	1.27808	1.26831	AVRG		1.17392			9.08251
32 Bolstar	1.33280 1.20152	1.22387	1.19075	1.20601	1.27262	1.22830	AVRG		1.23655			4.05030
33 Carbophenothion	1.18442 1.28180	1.13595	1.15332	1.18001	1.34689	1.22912	AVRG		1.21593			6.21486
35 Fenulfothion	0.88346 0.92148	0.80409	0.88036	0.97346	0.94597	1.00424	AVRG		0.91615			7.30438

See Merphos  
 NTC,

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcom  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients	m1	m2	RSR2
37 Phosmet / EPN	19707 330448	35826	68186	146012	207459	263604	WLNLR	-0.04262	1.00518			0.99785
38 Ramphur	1.45536 1.32805	1.20800	1.18770	1.39816	1.20947	1.39569	AVRG		1.31178			8.35158
39 Azinphos-methyl	1.25589 1.19199	1.08970	1.07858	1.30240	1.20427	1.27709	AVRG		1.19999			7.33978
40 Azinphos-ethyl	1.14013 1.12699	1.11628	1.12015	1.18786	1.16269	1.14594	AVRG		1.14286			2.23350
41 Coumaphos	0.78930 0.93653	0.81655	0.85887	0.90448	0.89897	0.94628	AVRG		0.87871			6.77030
S 42 Meryphos	1.56460 1.70275	1.43887	1.64263	1.66880	1.73437	1.91569	AVRG		1.66682			8.85773
M 43 Total Demeton	3533 244812	23328	47171	100663	168375	213468	WLNLR	0.06780	1.63923			0.99469

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVrr03\Public\chem\GCS\GC\_D2.1\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.1

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients		%RSD or R <sup>2</sup>
	5.0000 Level 7								m1	m2	
\$ 3 Chlornefos	2.19506	1.83698	1.78322	2.03418	2.29040	2.05386	AVRG		2.03341		8.83890
\$ 34 Triphenyl phosphate	1.10969	0.86972	0.91132	1.07710	1.01080	0.99885	AVRG		0.99779		8.47904
	1.00703										

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Quant Method : ISTD  
Target Version : 4.14  
Integrator : FALCON  
Method file : \\Densvrr03\Public\chem\GCS\GC\_D2.1\0626092.B\8141A-2.m  
Last Edit : 30-Jun-2009 12:58 GC\_D2.1

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
Start Cal Date: 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Last Cal Level: 1  
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\003F0301.D

Continuing Calibration



Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\010F1001.D
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0577	2.9	15.0
2 Dichlorvos	2.0000	1.9061	4.7	15.0
3 Mevinphos	2.0000	1.6977	15.1	15.0
4 Chlormefos	2.0000	1.7808	11.0	15.0
5 Thionazin	2.0000	1.9740	1.3	15.0
6 Demeton-O	0.6500	1.8707	187.8	15.0
7 Ethoprop	2.0000	2.0536	2.7	15.0
8 Naled	2.0000	1.1983	40.1	15.0
9 Sulfotepp	2.0000	1.7932	10.3	15.0
10 Phorate	2.0000	2.0180	0.9	15.0
11 Dimethoate	2.0000	2.0859	4.3	15.0
12 Demeton-S	1.3600	0.2313	83.0	15.0
13 Simazine	2.0000	2.6218	31.1	15.0
14 Atrazine	2.0000	1.9566	2.2	15.0
15 propazine	2.0000	1.9127	4.4	15.0
17 Disulfoton	2.0000	1.5890	20.6	15.0
16 Diazinon	2.0000	2.1583	7.9	15.0
18 Methyl Parathion	2.0000	2.0404	2.0	15.0
19 Ronnel	2.0000	2.1513	7.6	15.0
20 Malathion	2.0000	1.6248	18.8	15.0
21 Fenthion	2.0000	1.8840	5.8	15.0
22 Parathion	2.0000	1.9436	2.8	15.0
23 Chlorpyrifos	2.0000	1.9720	1.4	15.0
24 Trichloronate	2.0000	1.8619	6.9	15.0
25 Anilazine	2.0000	1.0151	49.2	15.0
148 Merphos-A (Merphos)	2.0000	0.4078	79.6	999.0
26 Tetrachlorvinphos (Stirophos)	2.0000	2.0880	4.4	15.0
28 Tokuthion	2.0000	2.0254	1.3	15.0
149 Merphos-B (Merphos Oxone)	2.0000	6.6232	231.2	999.0
29 Carbophenothion-methyl	2.0000	1.3536	32.3	15.0
29 Fensulfothion	2.0000	1.9235	3.8	15.0
30 Bolstar / Famphur	4.0000	4.0636	1.6	15.0
32 Carbophenothion	2.0000	1.8639	6.8	15.0
31 Triphenyl phosphate	2.0000	1.7170	14.2	15.0
34 Phosmet	2.0000	1.6471	17.6	15.0
32 EPN	2.0000	1.7931	10.3	15.0
33 Azinphos-methyl	2.0000	1.9226	3.9	15.0
35 Azinphos-ethyl	2.0000	1.8331	8.3	15.0
36 Coumaphos	2.0000	2.0063	0.3	15.0

*ok*

*ok, see total demeton*

*ok, see total demeton*

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\010F1001.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	2.0000	1.7215	13.9	15.0
40 Total Demeton	2.0000	2.1021	5.1	15.0

Average %D = 23.4

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0069	0.3	15.0
2 Dichlorvos	2.0000	1.7707	11.5	15.0
3 Chlormefos	2.0000	1.6957	15.2	15.0
4 Mevinphos	2.0000	1.8364	8.2	15.0
5 Demeton-O	0.6500	2.0472	215.0	15.0
6 Thionazin	2.0000	1.8758	6.2	15.0
7 Ethoprop	2.0000	1.8962	5.2	15.0
8 Phorate	2.0000	1.9509	2.5	15.0
10 Naled	2.0000	1.0486	47.6	15.0
146 Sulfotepp	2.0000	1.7143	14.3	15.0
10 Simazine	2.0000	3.6013	80.1	15.0
12 Diazinon	2.0000	2.0803	4.0	15.0
150 Atrazine	2.0000	1.9693	1.5	15.0
13 Propazine	2.0000	1.8742	6.3	15.0
14 Disulfoton	2.0000	1.6970	15.1	15.0
15 Demeton-S	1.3600	0.2011	85.2	15.0
16 Dimethoate	2.0000	1.8701	6.5	15.0
17 Ronnel	2.0000	2.0112	0.6	15.0
148 Merphos-A (Merphos)	2.0000	0.5348	73.3	999.0
18 Chlorpyrifos	2.0000	2.1084	5.4	15.0
19 Fenthion	2.0000	2.0634	3.2	15.0
20 Trichloronate	2.0000	1.8617	6.9	15.0
21 Anilazine	2.0000	1.2425	37.9	15.0
23 Methyl Parathion	2.0000	2.0228	1.1	15.0
24 Malathion	2.0000	1.5362	23.2	15.0
25 Tokuthion	2.0000	1.8925	5.4	15.0
26 Parathion	2.0000	2.1337	6.7	15.0
149 Merphos-B (Merphos Oxone)	2.0000	5.0080	150.4	999.0
27 Tetrachlorvinphos (stirophos)	2.0000	2.0814	4.1	15.0
28 Carbophenothion methyl	2.0000	1.2466	37.7	15.0
28 Bolstar	2.0000	2.0778	3.9	15.0
30 Carbophenothion	2.0000	1.7496	12.5	15.0
29 Triphenyl phosphate	2.0000	1.7275	13.6	15.0
30 Fensulfothion	2.0000	2.0824	4.1	15.0
35 Phosmet / EPN	4.0000	3.4695	13.3	15.0
33 Famphur	2.0000	1.7579	12.1	15.0
34 Azinphos-methyl	2.0000	1.8108	9.5	15.0
35 Azinphos-ethyl	2.0000	1.7982	10.1	15.0
36 Coumaphos	2.0000	1.9588	2.1	15.0

*<-OK*

*<-ok, see total demeton*

*<-OK*

*<-ok, see total demeton*

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	2.0000	1.6146	19.3	15.0
40 Total Demeton	2.0000	2.2483	12.4	15.0

Average %D = 24.2

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6816	10.6	15.0
2 Dichlorvos	3.0000	2.8457	5.1	15.0
3 Mevinphos	3.0000	2.6789	10.7	15.0
4 Chlormefos	3.0000	3.1969	6.6	15.0
5 Thionazin	3.0000	2.8724	4.3	15.0
6 Demeton-O	0.9750	0.9537	2.2	15.0
7 Ethoprop	3.0000	2.9060	3.1	15.0
8 Naled	3.0000	2.3519	21.6	15.0
9 Sulfotepp	3.0000	3.1051	3.5	15.0
10 Phorate	3.0000	3.0333	1.1	15.0
11 Dimethoate	3.0000	3.0797	2.7	15.0
12 Demeton-S	2.0400	2.1332	4.6	15.0
13 Simazine	3.0000	3.3112	10.4	15.0
14 Atrazine	3.0000	3.1680	5.6	15.0
15 propazine	3.0000	3.1813	6.0	15.0
17 Disulfoton	3.0000	2.9623	1.3	15.0
16 Diazinon	3.0000	3.1341	4.5	15.0
18 Methyl Parathion	3.0000	3.0020	0.1	15.0
19 Ronnel	3.0000	2.9298	2.3	15.0
20 Malathion	3.0000	2.9153	2.8	15.0
21 Fenthion	3.0000	2.9311	2.3	15.0
22 Parathion	3.0000	2.9803	0.7	15.0
23 Chlorpyrifos	3.0000	3.1137	3.8	15.0
24 Trichloronate	3.0000	3.1459	4.9	15.0
25 Anilazine	3.0000	1.5882	47.1	15.0
148 Merphos-A (Merphos)	3.0000	2.1991	26.7	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.6173	12.8	15.0
28 Tokuthion	3.0000	3.1710	5.7	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.9483	131.6	999.0
29 Carbophenothion-methyl	3.0000	3.0127	0.4	15.0
29 Fensulfothion	3.0000	2.8001	6.7	15.0
30 Bolstar / Famphur	6.0000	5.9498	0.8	15.0
32 Carbophenothion	3.0000	3.0373	1.2	15.0
31 Triphenyl phosphate	3.0000	2.9775	0.8	15.0
34 Phosmet	3.0000	2.8475	5.1	15.0
32 EPN	3.0000	3.0078	0.3	15.0
33 Azinphos-methyl	3.0000	2.8768	4.1	15.0
35 Azinphos-ethyl	3.0000	2.9631	1.2	15.0
36 Coumaphos	3.0000	3.0385	1.3	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.2247	7.5	15.0
40 Total Demeton	3.0000	3.0869	2.9	15.0

Average %D = 9.19

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6732	10.9	15.0
2 Dichlorvos	3.0000	2.7445	8.5	15.0
3 Chlormefos	3.0000	3.1434	4.8	15.0
4 Mevinphos	3.0000	2.7962	6.8	15.0
5 Demeton-O	0.9750	0.9905	1.6	15.0
6 Thionazin	3.0000	2.9759	0.8	15.0
7 Ethoprop	3.0000	2.8559	4.8	15.0
8 Phorate	3.0000	3.2113	7.0	15.0
10 Naled	3.0000	2.5980	13.4	15.0
146 Sulfotepp	3.0000	3.0720	2.4	15.0
10 Simazine	3.0000	2.9810	0.6	15.0
12 Diazinon	3.0000	3.0817	2.7	15.0
150 Atrazine	3.0000	3.4669	15.6	15.0 <-
13 Propazine	3.0000	3.2538	8.5	15.0
14 Disulfoton	3.0000	3.1235	4.1	15.0
15 Demeton-S	2.0400	1.8994	6.9	15.0
16 Dimethoate	3.0000	3.0065	0.2	15.0
17 Ronnel	3.0000	2.8752	4.2	15.0
148 Merphos-A (Merphos)	3.0000	2.2490	25.0	999.0
18 Chlorpyrifos	3.0000	3.1462	4.9	15.0
19 Fenthion	3.0000	3.0376	1.3	15.0
20 Trichloronate	3.0000	3.1893	6.3	15.0
21 Anilazine	3.0000	1.1314	62.3	15.0 <-
23 Methyl Parathion	3.0000	3.2271	7.6	15.0
24 Malathion	3.0000	3.2435	8.1	15.0
25 Tokuthion	3.0000	3.1034	3.4	15.0
26 Parathion	3.0000	2.8711	4.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.4788	116.0	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.9194	2.7	15.0
28 Carbophenothion methyl	3.0000	3.1683	5.6	15.0
28 Bolstar	3.0000	3.2160	7.2	15.0
30 Carbophenothion	3.0000	3.1768	5.9	15.0
29 Triphenyl phosphate	3.0000	3.2806	9.4	15.0
30 Fensulfothion	3.0000	3.0927	3.1	15.0
35 Phosmet / EPN	6.0000	5.8461	2.6	15.0
33 Famphur	3.0000	2.7291	9.0	15.0
34 Azinphos-methyl	3.0000	2.8371	5.4	15.0
35 Azinphos-ethyl	3.0000	3.0920	3.1	15.0
36 Coumaphos	3.0000	3.1035	3.4	15.0



Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\019F1901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	3.2640	8.8	15.0
40 Total Demeton	3.0000	2.8899	3.7	15.0

Average %D = 10.1

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED	MEASURED	%D	MAX
	CONC.	CONC.		%D
1 o,o,o-TEPT	3.0000	2.8218	5.9	15.0
2 Dichlorvos	3.0000	2.8304	5.7	15.0
3 Mevinphos	3.0000	2.6552	11.5	15.0
4 Chlormefos	3.0000	3.0356	1.2	15.0
5 Thionazin	3.0000	2.8846	3.8	15.0
6 Demeton-O	0.9750	1.1089	13.7	15.0
7 Ethoprop	3.0000	3.2239	7.5	15.0
8 Naled	3.0000	1.8139	39.5	15.0<-
9 Sulfotepp	3.0000	3.0130	0.4	15.0
10 Phorate	3.0000	3.0193	0.6	15.0
11 Dimethoate	3.0000	2.9893	0.4	15.0
12 Demeton-S	2.0400	2.1060	3.2	15.0
13 Simazine	3.0000	3.4001	13.3	15.0
14 Atrazine	3.0000	3.2309	7.7	15.0
15 propazine	3.0000	3.0091	0.3	15.0
17 Disulfoton	3.0000	2.7422	8.6	15.0
16 Diazinon	3.0000	3.1584	5.3	15.0
18 Methyl Parathion	3.0000	3.0137	0.5	15.0
19 Ronnel	3.0000	2.9565	1.4	15.0
20 Malathion	3.0000	2.8366	5.4	15.0
21 Fenthion	3.0000	2.8471	5.1	15.0
22 Parathion	3.0000	2.9564	1.5	15.0
23 Chlorpyrifos	3.0000	3.0022	0.1	15.0
24 Trichloronate	3.0000	3.1508	5.0	15.0
25 Anilazine	3.0000	2.1130	29.6	15.0<-
148 Merphos-A (Merphos)	3.0000	2.6447	11.8	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.4443	18.5	15.0<-
28 Tokuthion	3.0000	3.1390	4.6	15.0
149 Merphos-B (Merphos Oxone)	3.0000	4.6954	56.5	999.0
29 Carbophenothion-methyl	3.0000	2.9046	3.2	15.0
29 Fensulfothion	3.0000	2.8499	5.0	15.0
30 Bolstar / Famphur	6.0000	5.6912	5.1	15.0
32 Carbophenothion	3.0000	2.8072	6.4	15.0
31 Triphenyl phosphate	3.0000	3.0801	2.7	15.0
34 Phosmet	3.0000	2.6152	12.8	15.0
32 EPN	3.0000	2.8279	5.7	15.0
33 Azinphos-methyl	3.0000	2.6249	12.5	15.0
35 Azinphos-ethyl	3.0000	2.8450	5.2	15.0
36 Coumaphos	3.0000	2.8862	3.8	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\039F3901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.0951	3.2	15.0
40 Total Demeton	3.0000	3.2150	7.2	15.0

Average %D = 8.33

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.8166	6.1	15.0
2 Dichlorvos	3.0000	2.8245	5.8	15.0
3 Chlormefos	3.0000	3.2183	7.3	15.0
4 Mevinphos	3.0000	2.9838	0.5	15.0
5 Demeton-O	0.9750	0.9758	0.1	15.0
6 Thionazin	3.0000	2.8054	6.5	15.0
7 Ethoprop	3.0000	2.8590	4.7	15.0
8 Phorate	3.0000	3.1654	5.5	15.0
10 Naled	3.0000	2.2828	23.9	15.0<-
146 Sulfotepp	3.0000	2.8627	4.6	15.0
10 Simazine	3.0000	2.9076	3.1	15.0
12 Diazinon	3.0000	2.8253	5.8	15.0
150 Atrazine	3.0000	2.9267	2.4	15.0
13 Propazine	3.0000	2.8284	5.7	15.0
14 Disulfoton	3.0000	2.9455	1.8	15.0
15 Demeton-S	2.0400	1.8853	7.6	15.0
16 Dimethoate	3.0000	2.8716	4.3	15.0
17 Ronnel	3.0000	2.7428	8.6	15.0
148 Merphos-A (Merphos)	3.0000	2.4110	19.6	999.0
18 Chlorpyrifos	3.0000	3.1163	3.9	15.0
19 Fenthion	3.0000	2.9120	2.9	15.0
20 Trichloronate	3.0000	3.3902	13.0	15.0
21 Anilazine	3.0000	1.7240	42.5	15.0<-
23 Methyl Parathion	3.0000	2.8664	4.5	15.0
24 Malathion	3.0000	2.7318	8.9	15.0
25 Tokuthion	3.0000	2.9114	3.0	15.0
26 Parathion	3.0000	2.9008	3.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	3.5874	19.6	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.6695	11.0	15.0
28 Carbophenothion methyl	3.0000	3.0681	2.3	15.0
28 Bolstar	3.0000	3.0614	2.0	15.0
30 Carbophenothion	3.0000	3.3384	11.3	15.0
29 Triphenyl phosphate	3.0000	2.8735	4.2	15.0
30 Fensulfothion	3.0000	2.9476	1.7	15.0
35 Phosmet / EPN	6.0000	5.6693	5.5	15.0
33 Famphur	3.0000	3.0504	1.7	15.0
34 Azinphos-methyl	3.0000	2.9582	1.4	15.0
35 Azinphos-ethyl	3.0000	2.9123	2.9	15.0
36 Courmaphos	3.0000	2.9494	1.7	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\039F3901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	2.8269	5.8	15.0
40 Total Demeton	3.0000	2.8612	4.6	15.0

Average %D = 6.87

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L7 GSV0634				
4	Vial 4	OPP L6 GSV0637				
5	Vial 5	OPP L5 GSV0635				
6	Vial 6	OPP L4 GSV0638				
7	Vial 7	OPP L3 GSV0639				
8	Vial 8	OPP L2 GSV0640				
9	Vial 9	OPP L1 GSV0641				
10	Vial 10	OPP SS GSV0633				
11	Vial 11	GSV075309 SPK				
12	Vial 12	LE2931AA,MB				
13	Vial 13	LE2931AC,LCS				
14	Vial 14	LE2931AD,LCS				
15	Vial 15	LEQA91AC,222-15			10	
16	Vial 16	LEQA91AC,222-15			3	
17	Vial 17	LEQCQ1AC,222-18			2	
18	Vial 18	LERD61AD,377-1				
19	Vial 19	LERD81AH,377-3				
20	Vial 20	LERN71AF,115-1				
21	Vial 21	LERPQ1AF,115-2				
22	Vial 22	LERPX1AF,115-3				
23	Vial 23	LE1F91AJ,138-1				
24	Vial 24	OPP L5 GSV0635				
25	Vial 25	LE29M1AA,MB				
26	Vial 26	LE29M1AC,LCS				
27	Vial 27	LE29M1AD,LCS				
28	Vial 28	LEQA91AA,222-15			10	
29	Vial 29	LEQA91AA,222-15			3	
30	Vial 30	LEQCQ1AA,222-18			2	
31	Vial 31	LFARC1AA,MB				
32	Vial 32	LFARC1AC,LCS				
33	Vial 33	LFARC1AD,LCS				
34	Vial 34	LEKL02AA,185-1				
35	Vial 35	LE29L1AA,MB				
36	Vial 36	LE29L1AC,LCS				
37	Vial 37	LE29L1AD,LCS				
38	Vial 38	LERCV1AA,370-1				
39	Vial 39	LEWJG1AA,143-1				
40	Vial 40	OPP L5 GSV0635				
41	Vial 41	LE5PX1AA,MB				
42	Vial 42	LE5PX1AC,LCS				
43	Vial 43	LE5PX1AD,LCS				
44	Vial 44	LE39F1AA,179-1				
45	Vial 45	LE3PF1AA,179-2				
46	Vial 46	LE39L1AA,179-3				
47	Vial 47	LFARL1AA,MB				
48	Vial 48	LFARL1AC,LCS				
49	Vial 49	LFARL1AD,LCS				
50	Vial 50	LEKLE2AE,180-2				
51	Vial 51	LEKLF2AE,180-3				
52	Vial 52	LEKLL2AE,180-4				
53	Vial 53	LEKLO2AE,180-5				
54	Vial 54	LENR72AD,322-1				
55	Vial 55	LEPG32AJ,161-1				
56	Vial 56	OPP L5 GSV0635				
57	Vial 57	LFD4N1AA,MB				
58	Vial 58	LFD4N1AC,LCS				

15744

168147

170431

168145

168353

170430

173102

RR

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
59	Vial 59	LFD4N1AD, LCSD				
60	Vial 60	LE3041AJ, 158-1				
61	Vial 61	LFD4W1AA, MB				
62	Vial 62	LFD4W1AC, LCS				
63	Vial 63	LFD4W1AD, LCSD				
64	Vial 64	LE7EE1AA, 266-2				
65	Vial 65	LE9Q61AA, 216-2				
66	Vial 66	LE9RA1AA, 216-3				
67	Vial 67	LFC4Q1AD, 199-2				
68	Vial 68	OPP L5 GSV0635				
69	Vial 69	LFAN01AA, MB				
70	Vial 70	LFAN01AC, LCS				
71	Vial 71	LFAN01AD, LCSD				
72	Vial 72	LE4291AA, 273-1				
73	Vial 73	LE4291AD, 273-1S				
74	Vial 74	LE4291AE, 273-1D				
75	Vial 75	LE9PJ1AA, 215-1				
76	Vial 76	OPP L5 GSV0635				
77	Vial 77	OPP L1 GSV0641				
78	Vial 100	HEXANE/ACETONE				

Sequence Table (Back Injector):

No entries - empty table!

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L5 GSV0635				
4	Vial 4	LE5PX1AA,MB				
5	Vial 5	LE5PX1AC,LCS				
6	Vial 6	LE5PX1AD,LCSD				
7	Vial 7	LE39F1AA,179-1				
8	Vial 8	LE3PF1AA,179-2				
9	Vial 9	LE39L1AA,179-3				
10	Vial 10	LFARL1AA,MB				
11	Vial 11	LFARL1AC,LCS				
12	Vial 12	LFARL1AD,LCSD				
13	Vial 13	LEKLE2AE,180-2				
14	Vial 14	LEKLF2AE,180-3				
15	Vial 15	LEKLL2AE,180-4				
16	Vial 16	LEKLO2AE,180-5				
17	Vial 17	LENR72AD,322-1				
18	Vial 18	LEPG32AJ,161-1				
19	Vial 19	OPP L5 GSV0635				
20	Vial 20	LFD4N1AA,MB				
21	Vial 21	LFD4N1AC,LCS				
22	Vial 22	LFD4N1AD,LCSD				
23	Vial 23	LE3041AJ,158-1				
24	Vial 24	LFD4W1AA,MB				
25	Vial 25	LFD4W1AC,LCS				
26	Vial 26	LFD4W1AD,LCSD				
27	Vial 27	LE7EE1AA,266-2				
28	Vial 28	LE9Q61AA,216-2				
29	Vial 29	LE9RA1AA,216-3				
30	Vial 30	LFC4Q1AD,199-2				
31	Vial 31	OPP L5 GSV0635				
32	Vial 32	LFAN01AA,MB				
33	Vial 33	LFAN01AC,LCS				
34	Vial 34	LFAN01AD,LCSD				
35	Vial 35	LE4291AA,273-1				
36	Vial 36	LE4291AD,273-1S				
37	Vial 37	LE4291AE,273-1D				
38	Vial 38	LE9PJ1AA,215-1				
39	Vial 39	OPP L5 GSV0635				
40	Vial 40	OPP L1 GSV0641				
41	Vial 100	HEXANE/ACETONE				

*— bad injection; ccv not needed, only 9 samples*

Sequence Table (Back Injector):

No entries - empty table!



TestAmerica  
**Semivolatile GC**  
CLP-Like Forms

Lot ID: D9F200199

Client: Northgate/Tronox

Method: SW846 8141A

Associated Samples: 002

Batch: 9173103

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1054 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-34B  
**Lab Sample ID:** D9F200199-002  
**Lab WorkOrder:** LFC4Q1AD  
**Date/Time Collected:** 06/19/09 11:40  
**Date/Time Received:** 06/20/09 08:40  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 07:43  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
86-50-0	Azinphos-methyl	0.17	0.17	2.5	U
35400-43-2	Bolstar	0.31	0.31	1.0	U
2921-88-2	Chlorpyrifos	0.36	0.36	1.0	U
56-72-4	Coumaphos	0.14	0.14	1.0	U
298-03-3	Demeton-O	0.14	0.14	1.0	U
126-75-0	Demeton-S	0.069	0.069	1.0	U
333-41-5	Diazinon	0.15	0.15	1.0	U
62-73-7	Dichlorvos	0.16	0.16	1.0	U
60-51-5	Dimethoate	0.45	0.45	1.5	U
298-04-4	Disulfoton	0.32	0.32	1.0	U
2104-64-5	EPN	0.15	0.15	1.2	U
13194-48-4	Ethoprop	0.18	0.18	0.50	U
56-38-2	Ethyl parathion	0.14	0.14	1.0	U
52-85-7	Famphur	0.18	0.18	1.0	U
115-90-2	Fensulfothion	0.54	0.54	2.5	U
55-38-9	Fenthion	0.15	0.15	2.5	U
121-75-5	Malathion	0.13	0.13	1.2	U
150-50-5	Merphos	0.17	0.17	5.0	U
298-00-0	Methyl parathion	0.14	0.14	4.0	U
7786-34-7	Mevinphos	0.46	0.46	6.2	U
300-76-5	Naled	0.25	0.25	1.0	U
298-02-2	Phorate	0.15	0.15	1.2	U
299-84-3	Ronnel	0.12	0.12	10	U
3689-24-5	Sulfotepp	0.17	0.17	1.5	U
961-11-5	Tetrachlorvinphos (Stirophos)	0.12	0.12	3.5	U

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1054 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-34B  
**Lab Sample ID:** D9F200199-002  
**Lab WorkOrder:** LFC4Q1AD  
**Date/Time Collected:** 06/19/09 11:40  
**Date/Time Received:** 06/20/09 08:40  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 07:43  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
297-97-2	Thionazin	0.31	0.31	1.0	U
34643-46-4	Tokuthion	0.12	0.12	1.6	U
327-98-0	Trichloronate	0.24	0.24	1.0	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	73	60	154	
24934-91-6	Chlormefos	53	49	171	

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F220000-103B  
**Lab WorkOrder:** LFD4W1AA  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 04:58  
**Instrument ID:** D2

CAS No.	Analyte	Conc.	MDL	RL	Q
62-73-7	Dichlorvos	0.16	0.16	1.0	U
297-97-2	Thionazin	0.31	0.31	1.0	U
60-51-5	Dimethoate	0.45	0.45	1.5	U
298-04-4	Disulfoton	0.32	0.32	1.0	U
2104-64-5	EPN	0.15	0.15	1.2	U
13194-48-4	Ethoprop	0.18	0.18	0.50	U
52-85-7	Famphur	0.18	0.18	1.0	U
115-90-2	Fensulfothion	0.54	0.54	2.5	U
55-38-9	Fenthion	0.15	0.15	2.5	U
121-75-5	Malathion	0.13	0.13	1.2	U
150-50-5	Merphos	0.17	0.17	5.0	U
298-00-0	Methyl parathion	0.14	0.14	4.0	U
86-50-0	Azinphos-methyl	0.17	0.17	2.5	U
7786-34-7	Mevinphos	0.46	0.46	6.2	U
300-76-5	Naled	0.25	0.25	1.0	U
56-38-2	Ethyl parathion	0.14	0.14	1.0	U
298-02-2	Phorate	0.15	0.15	1.2	U
299-84-3	Ronnel	0.12	0.12	10	U
3689-24-5	Sulfotepp	0.17	0.17	1.5	U
34643-46-4	Tokuthion	0.12	0.12	1.6	U
327-98-0	Trichloronate	0.24	0.24	1.0	U
35400-43-2	Bolstar	0.31	0.31	1.0	U
961-11-5	Tetrachlorvinphos (Stirophos)	0.12	0.12	3.5	U
2921-88-2	Chlorpyrifos	0.36	0.36	1.0	U
56-72-4	Coumaphos	0.14	0.14	1.0	U
298-03-3	Demeton-O	0.14	0.14	1.0	U
126-75-0	Demeton-S	0.069	0.069	1.0	U
333-41-5	Diazinon	0.15	0.15	1.0	U

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

## Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: 8304607  
Matrix: WATER  
% Moisture:  
Basis: Wet  
Analysis Method: 8141A  
Unit: ug/L  
QC Batch ID: 9173103  
Sample Aliquot: 1000 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9F220000-103B  
Lab WorkOrder: LFD4W1AA  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 06/22/09 12:00  
Date/Time Analyzed: 06/30/09 04:58  
Instrument ID: D2

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	78	60	154	
24934-91-6	Chlormefos	53	49	171	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

## Surrogate Recovery Summary

Lab Name: TESTAMERICA DENVER

Extraction 109P29H

Lot/SDG Number: 8304607

QC Batch ID: 9173103

Client ID	Work Order	SRG1	SRG2	SRG3	SRG4	SRG5	SRG6	SRG7	SRG8	TOT OUT
M-39B	LE7EE1AA	55	79							0
M-123B	LE9Q61AA	50	78							0
M-123009B	LE9RA1AA	57	88							0
M-34B	LFC4Q1AD	53	73							0
INTRA-LAB BLANK	LFD4W1AA	53	78							0
CHECK SAMPLE	LFD4W1AC	73	77							0
DUPLICATE CHECK	LFD4W1AD	74	85							0

Surrogate Number	Surrogate Name	Lower Control Limit	Upper Control Limit
SRG 1	Chlormefos	49	171
SRG 2	Triphenyl phosphate	60	154

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F220000-103C  
**Lab WorkOrder:** LFD4W1AC  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 05:26  
**Instrument ID:** D2

Analyte	True	Found	%Rec	Q	Limits
Dichlorvos	4.00	3.12	78		40 - 193
Thionazin	4.00	3.31	83		39 - 180
Dimethoate	4.00	3.17	79		33 - 139
Disulfoton	4.00	2.30	58		44 - 139
Ethoprop	4.00	3.45	86		43 - 165
Famphur	8.00	6.43	80		51 - 131
Fensulfothion	4.00	3.03	76		46 - 115
Fenthion	4.00	3.16	79		63 - 128
Malathion	4.00	2.71	68		53 - 137
Methyl parathion	4.00	3.29	82		55 - 131
Azinphos-methyl	4.00	3.15	79		42 - 125
Mevinphos	4.00	2.65	66		39 - 175
Ethyl parathion	4.00	3.49	87		47 - 142
Phorate	4.00	3.11	78		46 - 142
Ronnel	4.00	2.97	74		43 - 115
Sulfotepp	4.00	2.92	73		29 - 166
Trichloronate	4.00	2.64	66		60 - 115
Chlorpyrifos	4.00	3.18	79		60 - 120
Coumaphos	4.00	3.34	84		61 - 115
Diazinon	4.00	3.51	88		47 - 149

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	77	60	154	
24934-91-6	Chlormefos	73	49	171	

Northgate Environmental Management, Inc.

Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** 8304607  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 8141A  
**Unit:** ug/L  
**QC Batch ID:** 9173103  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F220000-103L  
**Lab WorkOrder:** LFD4W1AD  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/22/09 12:00  
**Date/Time Analyzed:** 06/30/09 05:53  
**Instrument ID:** D2

Analyte	True	Found	C	% Rec	Q	RPD	Q	QC Limits	
								% Rec	RPD
Dichlorvos	4.00	3.36		84		7.5		40 - 193	49
Thionazin	4.00	3.60		90		8.4		39 - 180	40
Dimethoate	4.00	3.14		79		0.82		33 - 139	50
Disulfoton	4.00	2.44		61		5.7		44 - 139	40
Ethoprop	4.00	3.74		94		8.2		43 - 165	36
Famphur	8.00	6.89		86		7.0		51 - 131	88
Fensulfothion	4.00	3.01		75		0.89		46 - 115	62
Fenthion	4.00	3.43		86		8.1		63 - 128	41
Malathion	4.00	2.99		75		9.7		53 - 137	28
Methyl parathion	4.00	3.67		92		11		55 - 131	30
Azinphos-methyl	4.00	3.03		76		3.7		42 - 125	36
Mevinphos	4.00	2.75		69		3.9		39 - 175	40
Ethyl parathion	4.00	3.77		94		7.7		47 - 142	40
Phorate	4.00	3.29		82		5.6		46 - 142	40
Ronnel	4.00	3.40		85		14		43 - 115	39
Sulfotepp	4.00	3.13		78		7.1		29 - 166	40
Trichloronate	4.00	2.81		70		6.0		60 - 115	38
Chlorpyrifos	4.00	3.50		88		9.7		60 - 120	34
Coumaphos	4.00	3.44		86		2.7		61 - 115	43
Diazinon	4.00	4.14		104		16		47 - 149	40

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	85	60	154	
24934-91-6	Chlormefos	74	49	171	



## Method Blank Summary

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: 8304607  
Matrix: WATER  
Analysis Method: 8141A  
Extraction Method: I09P29H  
QC Batch ID: 9173103

Lab File ID: 027F2701.  
Lab Sample ID: D9F220000-103B  
Lab Work Order: LFD4W1AA  
Date/Time Extracted: 06/22/09 12:00  
Date/Time Analyzed: 06/30/09 04:58  
Instrument ID: D2

Client ID	Sample Work Order #	Lab File ID	Date Analyzed	Time Analyzed
M-39B	LE7EE1AA	027F2701.	06/30/09	06:20
M-123B	LE9Q61AA	028F2801.	06/30/09	06:47
M-123009B	LE9RA1AA	029F2901.	06/30/09	07:15
M-34B	LFC4Q1AD	030F3001.	06/30/09	07:43
CHECK SAMPLE	LFD4W1AC C	025F2501.	06/30/09	05:26
DUPLICATE CHECK	LFD4W1AD L	026F2601.	06/30/09	05:53

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.1

Calibration File Names:

Level 1: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\009F0901.D  
 Level 2: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\008F0801.D  
 Level 3: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\007F0701.D  
 Level 4: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\006F0601.D  
 Level 5: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\005F0501.D  
 Level 6: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\004F0401.D  
 Level 7: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0626091.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	ml	m2	%RSD	OR R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6							
1 o,o,o'-TEBP	3.11591	2.63737	2.67945	2.89676	2.71623	2.90430	AVRG		2.81778			5.91149	
2 Dichlorvos	2.01706	1.62225	1.58545	1.76366	1.71981	1.74982	AVRG		1.74977			7.99554	
3 Mevinphos	1.01774	0.91295	0.90158	1.01760	0.95159	0.98250	AVRG		0.96118			4.85992	
5 Thionazin	2.12707	1.94606	1.94866	2.08214	1.96051	2.00095	AVRG		1.99966			3.79706	
	1.93224												



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\Densvtr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	5.0000											
	Level 7											
14 Simazine	4819	16248	29382	64611	115426	147784	WLINR	0.03988	0.73140			0.99336
	130219											1/2
15 Atrazine	0.70185	0.76532	0.75073	0.84628	0.85434	0.90844	AVRG		0.81743			9.61085
	0.89508											
16 propazine	0.73887	0.70136	0.69239	0.78178	0.75651	0.81417	AVRG		0.75424			6.13423
	0.79462											
17 Disulfoton	15404	33208	61920	127893	193050	247845	WLINR	-0.01928	1.20917			0.99576
	290419											1/1
18 Diazinon	2.20234	1.83553	1.83772	2.01856	1.98676	1.84115	AVRG		1.94942			6.88114
	1.92388											
19 Methyl Parathion	1.22644	1.10389	1.13741	1.32395	1.30344	1.29686	AVRG		1.23630			6.92144
	1.26213											
20 Ronnel	1.42863	1.23369	1.21320	1.29342	1.24446	1.34650	AVRG		1.27796			6.65504
	1.18584											

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.200000	0.500000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
21 Malathion	15443 283462	30581	57103	119836	186013	228260	WLNR	-0.02066	1.14436		0.99783
22 Fenthion	1.46442 1.18151	1.18458	1.16481	1.29096	1.25584	1.25506	AVRG		1.25674		8.19381
23 Parathion	1.42438 1.31279	1.25387	1.23322	1.38998	1.36308	1.38514	AVRG		1.33749		5.43501
24 Chlorpyrifos	1.85614 1.56216	1.56747	1.47379	1.62915	1.61527	1.62330	AVRG		1.61818		7.28314
25 Trichloronate	1.44751 1.43428	1.42551	1.34762	1.48171	1.46256	1.52450	AVRG		1.44624		3.78186
26 Anilazine	1493 ++++	2095	5311	12790	19893	29375	QUAD	0.02107	9.16488	-8.66056	0.99476
27 Merphos-A (Merphos)	1.24844 1.18648	1.15527	1.15966	1.23989	1.21263	1.24409	AVRG		1.20664		3.30523

X

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.200000	0.500000	1.0000	2.0000	3.0000	4.0000	CURVE	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	OR R^2
28 Trachlorvinphos (Sticropfos)	0.76814 0.82648	0.74606	0.73464	0.83451	0.85233	0.85150	AVRG		0.80195		6.32809
29 Tokuthion	1.50295 1.37817	1.28283	1.29501	1.44234	1.39452	1.40891	AVRG		1.38639		5.62055
30 Merphos-B (Merphos Oxone)	3884 79809	7933	11676	34113	50056	65974	WLNIR	0.01044	0.32634		0.98820
31 Carbofenothion-methyl	14924 266724	30542	55023	105577	167145	206137	WLNIR	-0.03349	1.03813		0.99979
32 Fensulfiohion	8319 295978	23000	51304	104440	185778	229856	WLNIR	0.04728	1.18751		0.99821
33 Bolstar / Pamphur	1.54988 1.23307	1.27794	1.32328	1.33835	1.27633	1.28540	AVRG		1.32632		7.86825
34 Carbofenothion	1.57916 1.25966	1.19992	1.27687	1.32336	1.26122	1.41398	AVRG		1.33059		9.63398

NTC  
 <- See Merphos  
 1/x  
 1/x

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\Densvrv03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						or R^2
	5.0000											
	Level 7											
36 Phosmet	1.22087	1.01385	1.11032	1.20586	1.12340	1.16129	AVRG		1.13890			6.04111
	1.13672											
37 EPN	9525	23196	48705	111165	171283	220388	WLINR	0.02456	1.11450			0.99317
	294020											
38 Azinphos-methyl	1.19565	1.13516	1.16767	1.28235	1.23551	1.26700	AVRG		1.21360			4.33999
	1.21185											
40 Azinphos-ethyl	23154	43578	74071	134607	209971	253982	WLINR	-0.07409	1.26388			0.99928
	318459											
41 Coumaphos	1.00140	0.89806	0.92250	1.01947	1.01017	1.01013	AVRG		0.97884			4.92558
	0.99015											
42 Merphos	1.61523	1.45962	1.38820	1.59026	1.52873	1.58626	AVRG		1.52393			5.34513
	1.49925											
M 43 Total Demeton	1.94415	1.66775	1.60440	1.71838	1.66174	1.66727	AVRG		1.70696			6.44185
	1.68503											

1/2  
1/2

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	OR R <sup>2</sup>
	5.0000										
	Level 7										
\$ 4 Chlorimefos	2.28223	2.03679	2.00000	2.26084	2.35620	2.24671	AVRG		2.19114		6.04132
	2.15521										
\$ 35 Triphenyl phosphate	1.09980	0.99217	0.96977	1.05450	0.99627	1.00900	AVRG		1.01117		4.94580
	0.95665										



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Quant Method : ISTD  
Target Version : 4.14  
Integrator : FALCON  
Method File : \\Densvrr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
Start Cal Date: 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Last Cal Level: 1  
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\003F0301.D

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\010F1001.D		
26-JUN-2009 19:50	8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D		
26-JUN-2009 19:23	8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D		

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Calibration File Names:  
 Level 1: \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Level 2: \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Level 3: \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\007F0701.D  
 Level 4: \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Level 5: \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0501.D  
 Level 6: \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D  
 Level 7: \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients ml	m2	%RSD or R^2
1 o,o'-TEPT	2.92648	2.44243	2.35582	2.65851	2.57132	2.61478	AVRG		2.58691		7.02274
2 Dichlorvos	1.96421	1.82228	1.84036	2.17503	2.12732	2.04712	AVRG		2.01995		7.32345
4 Mevinphos	1.44354	1.24995	1.21811	1.44363	1.32123	1.40873	AVRG		1.36067		7.12634
5 Demeton-O	1.19821	1.29971	1.18493	1.34261	1.38930	1.37760	AVRG		1.29658		6.26552
	1.28370										
	5.0000										
	Level 7										

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcom  
 Method file : \\Densvtr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						or R^2
	5.0000											
	Level 7											
6 Thiomazin	2.15838	1.84195	1.93751	1.98059	2.08762	2.20076	AVRG		2.03479			6.19054
	2.03673											
7 Ethoprop	1.70034	1.41105	1.44674	1.51565	1.56615	1.54046	AVRG		1.52044			6.33190
	1.46268											
8 Phorate	1.89356	1.60276	1.58391	1.69691	1.82591	1.99241	AVRG		1.76315			8.53946
	1.74661											
9 Naled	94.00000	1666	10859	28010	46004	58330	WLINR	0.13436	0.49080			0.99248
	78857											
10 Sulfotepp	2.79835	2.53605	2.59328	2.75080	2.67397	2.68532	AVRG		2.65923			3.59851
	2.57687											
12 Simazine	0.36415	0.34683	0.35351	0.38559	0.39087	0.41510	AVRG		0.38086			7.05346
	0.41001											
13 Diazinon	12067	15923	49407	98649	155648	181790	WLINR	0.01456	1.44446			0.99190
	228810											

X

X



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	ml	m2	\$RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	5.0000											
	Level 7											
21 Chlorpyrifos	1.28253 1.37311	1.15885	1.24944	1.20702	1.32365	1.38773	AVRG		1.28319			6.60140
22 Fenitron	1.20874 1.18668	1.15890	1.17283	1.16181	1.25398	1.18816	AVRG		1.19016			2.76871
23 Trichloronate	6944 296442	26053	49357	106326	170976	208762	WLINR	0.05263	1.73863			0.99738
24 Anilazine	1634 19108	2256	3581	6899	11039	13112	LINR	-0.00058	0.10979			0.99085
25 Methyl Parathion	1.21391 1.41908	1.12059	1.22102	1.33829	1.35198	1.32937	AVRG		1.28489			8.00353
26 Malathion	1.23986 1.27856	1.19694	1.15056	1.17724	1.17540	1.20726	AVRG		1.20369			3.60449
27 Tokuthion	1.50291 1.40826	1.31056	1.35261	1.35076	1.45106	1.48916	AVRG		1.40933			5.28420

X

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
28 Parathion	1.27111 1.28450	1.15628	1.24872	1.23420	1.30817	1.35972	AVRG		1.26610			5.02432
29 Merphos-B (Merphos Oxone)	3793 65080	6271	15065	23458	40683	62127	WLNLR	-0.05169	0.21659			0.96366
30 Tetrachlorvinphos (stirophos)	0.86036 0.86651	0.73114	0.73243	0.80291	0.86664	0.87311	AVRG		0.81902			7.82425
31 Carbophenothion methyl	1.16513 1.26700	1.02032	1.04699	1.17159	1.27808	1.26831	AVRG		1.17392			9.08251
32 Bolstar	1.33280 1.20152	1.22387	1.19075	1.20601	1.27262	1.22830	AVRG		1.23655			4.05030
33 Carbophenothion	1.18442 1.28180	1.13595	1.15332	1.18001	1.34689	1.22912	AVRG		1.21593			6.21486
35 Fenulfethion	0.88346 0.92148	0.80409	0.88036	0.97346	0.94597	1.00424	AVRG		0.91615			7.30438

NTC,  
see merphos



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						
	5.0000											
	Level 7											
37 Phosmet / EPN	1.9707	35826	68186	146012	207459	263604	WLNLR	-0.04262	1.00518			0.99785
	330448											
38 Pamphur	1.45536	1.20800	1.18770	1.39816	1.20947	1.39569	AVRG		1.31178			8.35158
	1.32805											
39 Azinphos-methyl	1.25589	1.08970	1.07858	1.30240	1.20427	1.27709	AVRG		1.19999			7.33978
	1.19199											
40 Azinphos-ethyl	1.14013	1.11628	1.12015	1.18786	1.16269	1.14594	AVRG		1.14286			2.23350
	1.12699											
41 Coumaphos	0.78930	0.81655	0.85887	0.90448	0.89897	0.94628	AVRG		0.87871			6.77030
	0.93653											
S 42 Merphos	1.56460	1.43887	1.64263	1.66880	1.73437	1.91569	AVRG		1.66682			8.85773
	1.70275											
M 43 Total Demeton	3533	23328	47171	100663	168375	213468	WLNLR	0.06780	1.63923			0.99469
	244812											

X

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients ml	m2	%RSD or R <sup>2</sup>
\$ 3 Chloroethos	2.19506	1.83698	1.78322	2.03418	2.29040	2.05386	AVRG		2.03341		8.83890
	2.04016										
\$ 34 Triphenyl phosphate	1.10969	0.86972	0.91132	1.07710	1.01080	0.99885	AVRG		0.99779		8.47904
	1.00703										

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Quant Method : ISTD  
Target Version : 4.14  
Integrator : FALCON  
Method file : \\Densvrr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Start Cal Date: 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Last Cal Level: 1  
 Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\003F0301.D

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\010F1001.D
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0577	2.9	15.0
2 Dichlorvos	2.0000	1.9061	4.7	15.0
3 Mevinphos	2.0000	1.6977	15.1	15.0
4 Chlornefos	2.0000	1.7808	11.0	15.0
5 Thionazin	2.0000	1.9740	1.3	15.0
6 Demeton-O	0.6500	1.8707	187.8	15.0
7 Ethoprop	2.0000	2.0536	2.7	15.0
8 Naled	2.0000	1.1983	40.1	15.0
9 Sulfotepp	2.0000	1.7932	10.3	15.0
10 Phorate	2.0000	2.0180	0.9	15.0
11 Dimethoate	2.0000	2.0859	4.3	15.0
12 Demeton-S	1.3600	0.2313	83.0	15.0
13 Simazine	2.0000	2.6218	31.1	15.0
14 Atrazine	2.0000	1.9566	2.2	15.0
15 propazine	2.0000	1.9127	4.4	15.0
17 Disulfoton	2.0000	1.5890	20.6	15.0
16 Diazinon	2.0000	2.1583	7.9	15.0
18 Methyl Parathion	2.0000	2.0404	2.0	15.0
19 Ronnel	2.0000	2.1513	7.6	15.0
20 Malathion	2.0000	1.6248	18.8	15.0
21 Fenthion	2.0000	1.8840	5.8	15.0
22 Parathion	2.0000	1.9436	2.8	15.0
23 Chlorpyrifos	2.0000	1.9720	1.4	15.0
24 Trichloronate	2.0000	1.8619	6.9	15.0
25 Anilazine	2.0000	1.0151	49.2	15.0
148 Merphos-A (Merphos)	2.0000	0.4078	79.6	999.0
26 Tetrachlorvinphos (Stirophos)	2.0000	2.0880	4.4	15.0
28 Tokuthion	2.0000	2.0254	1.3	15.0
149 Merphos-B (Merphos Oxone)	2.0000	6.6232	231.2	999.0
29 Carbophenothion-methyl	2.0000	1.3536	32.3	15.0
29 Fensulfothion	2.0000	1.9235	3.8	15.0
30 Bolstar / Famphur	4.0000	4.0636	1.6	15.0
32 Carbophenothion	2.0000	1.8639	6.8	15.0
31 Triphenyl phosphate	2.0000	1.7170	14.2	15.0
34 Phosmet	2.0000	1.6471	17.6	15.0
32 EPN	2.0000	1.7931	10.3	15.0
33 Azinphos-methyl	2.0000	1.9226	3.9	15.0
35 Azinphos-ethyl	2.0000	1.8331	8.3	15.0
36 Coumaphos	2.0000	2.0063	0.3	15.0

*ok*

*ok, see total demeton*

*ok, see total demeton*

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	2.0000	1.7215	13.9	15.0
40 Total Demeton	2.0000	2.1021	5.1	15.0

Average %D = 23.4

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0069	0.3	15.0
2 Dichlorvos	2.0000	1.7707	11.5	15.0
3 Chlormefos	2.0000	1.6957	15.2	15.0
4 Mevinphos	2.0000	1.8364	8.2	15.0
5 Demeton-O	0.6500	2.0472	215.0	15.0
6 Thionazin	2.0000	1.8758	6.2	15.0
7 Ethoprop	2.0000	1.8962	5.2	15.0
8 Phorate	2.0000	1.9509	2.5	15.0
10 Naled	2.0000	1.0486	47.6	15.0
146 Sulfotepp	2.0000	1.7143	14.3	15.0
10 Simazine	2.0000	3.6013	80.1	15.0
12 Diazinon	2.0000	2.0803	4.0	15.0
150 Atrazine	2.0000	1.9693	1.5	15.0
13 Propazine	2.0000	1.8742	6.3	15.0
14 Disulfoton	2.0000	1.6970	15.1	15.0
15 Demeton-S	1.3600	0.2011	85.2	15.0
16 Dimethoate	2.0000	1.8701	6.5	15.0
17 Ronnel	2.0000	2.0112	0.6	15.0
148 Merphos-A (Merphos)	2.0000	0.5348	73.3	999.0
18 Chlorpyrifos	2.0000	2.1084	5.4	15.0
19 Fenthion	2.0000	2.0634	3.2	15.0
20 Trichloronate	2.0000	1.8617	6.9	15.0
21 Anilazine	2.0000	1.2425	37.9	15.0
23 Methyl Parathion	2.0000	2.0228	1.1	15.0
24 Malathion	2.0000	1.5362	23.2	15.0
25 Tokuthion	2.0000	1.8925	5.4	15.0
26 Parathion	2.0000	2.1337	6.7	15.0
149 Merphos-B (Merphos Oxone)	2.0000	5.0080	150.4	999.0
27 Tetrachlorvinphos (stirophos)	2.0000	2.0814	4.1	15.0
28 Carbophenothion methyl	2.0000	1.2466	37.7	15.0
28 Bolstar	2.0000	2.0778	3.9	15.0
30 Carbophenothion	2.0000	1.7496	12.5	15.0
29 Triphenyl phosphate	2.0000	1.7275	13.6	15.0
30 Fensulfothion	2.0000	2.0824	4.1	15.0
35 Phosmet / EPN	4.0000	3.4695	13.3	15.0
33 Famphur	2.0000	1.7579	12.1	15.0
34 Azinphos-methyl	2.0000	1.8108	9.5	15.0
35 Azinphos-ethyl	2.0000	1.7982	10.1	15.0
36 Coumaphos	2.0000	1.9588	2.1	15.0

*OK*  
*OK, see total demeton*  
*OK*  
*OK, see total demeton*



Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\010F1001.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	2.0000	1.6146	19.3	15.0
40 Total Demeton	2.0000	2.2483	12.4	15.0

Average %D = 24.2

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED	MEASURED	%D	MAX
	CONC.	CONC.		%D
1 o,o,o-TEPT	3.0000	2.6816	10.6	15.0
2 Dichlorvos	3.0000	2.8457	5.1	15.0
3 Mevinphos	3.0000	2.6789	10.7	15.0
4 Chlormefos	3.0000	3.1969	6.6	15.0
5 Thionazin	3.0000	2.8724	4.3	15.0
6 Demeton-O	0.9750	0.9537	2.2	15.0
7 Ethoprop	3.0000	2.9060	3.1	15.0
8 Naled	3.0000	2.3519	21.6	15.0<-
9 Sulfotepp	3.0000	3.1051	3.5	15.0
10 Phorate	3.0000	3.0333	1.1	15.0
11 Dimethoate	3.0000	3.0797	2.7	15.0
12 Demeton-S	2.0400	2.1332	4.6	15.0
13 Simazine	3.0000	3.3112	10.4	15.0
14 Atrazine	3.0000	3.1680	5.6	15.0
15 propazine	3.0000	3.1813	6.0	15.0
17 Disulfoton	3.0000	2.9623	1.3	15.0
16 Diazinon	3.0000	3.1341	4.5	15.0
18 Methyl Parathion	3.0000	3.0020	0.1	15.0
19 Ronnel	3.0000	2.9298	2.3	15.0
20 Malathion	3.0000	2.9153	2.8	15.0
21 Fenthion	3.0000	2.9311	2.3	15.0
22 Parathion	3.0000	2.9803	0.7	15.0
23 Chlorpyrifos	3.0000	3.1137	3.8	15.0
24 Trichloronate	3.0000	3.1459	4.9	15.0
25 Anilazine	3.0000	1.5882	47.1	15.0<-
148 Merphos-A (Merphos)	3.0000	2.1991	26.7	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.6173	12.8	15.0
28 Tokuthion	3.0000	3.1710	5.7	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.9483	131.6	999.0
29 Carbophenothion-methyl	3.0000	3.0127	0.4	15.0
29 Fensulfothion	3.0000	2.8001	6.7	15.0
30 Bolstar / Famphur	6.0000	5.9498	0.8	15.0
32 Carbophenothion	3.0000	3.0373	1.2	15.0
31 Triphenyl phosphate	3.0000	2.9775	0.8	15.0
34 Phosmet	3.0000	2.8475	5.1	15.0
32 EPN	3.0000	3.0078	0.3	15.0
33 Azinphos-methyl	3.0000	2.8768	4.1	15.0
35 Azinphos-ethyl	3.0000	2.9631	1.2	15.0
36 Coumaphos	3.0000	3.0385	1.3	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.2247	7.5	15.0
40 Total Demeton	3.0000	3.0869	2.9	15.0

Average %D = 9.19

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6732	10.9	15.0
2 Dichlorvos	3.0000	2.7445	8.5	15.0
3 Chlormefos	3.0000	3.1434	4.8	15.0
4 Mevinphos	3.0000	2.7962	6.8	15.0
5 Demeton-O	0.9750	0.9905	1.6	15.0
6 Thionazin	3.0000	2.9759	0.8	15.0
7 Ethoprop	3.0000	2.8559	4.8	15.0
8 Phorate	3.0000	3.2113	7.0	15.0
10 Naled	3.0000	2.5980	13.4	15.0
146 Sulfotepp	3.0000	3.0720	2.4	15.0
10 Simazine	3.0000	2.9810	0.6	15.0
12 Diazinon	3.0000	3.0817	2.7	15.0
150 Atrazine	3.0000	3.4669	15.6	15.0 <-
13 Propazine	3.0000	3.2538	8.5	15.0
14 Disulfoton	3.0000	3.1235	4.1	15.0
15 Demeton-S	2.0400	1.8994	6.9	15.0
16 Dimethoate	3.0000	3.0065	0.2	15.0
17 Ronnel	3.0000	2.8752	4.2	15.0
148 Merphos-A (Merphos)	3.0000	2.2490	25.0	999.0
18 Chlorpyrifos	3.0000	3.1462	4.9	15.0
19 Fenthion	3.0000	3.0376	1.3	15.0
20 Trichloronate	3.0000	3.1893	6.3	15.0
21 Anilazine	3.0000	1.1314	62.3	15.0 <-
23 Methyl Parathion	3.0000	3.2271	7.6	15.0
24 Malathion	3.0000	3.2435	8.1	15.0
25 Tokuthion	3.0000	3.1034	3.4	15.0
26 Parathion	3.0000	2.8711	4.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.4788	116.0	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.9194	2.7	15.0
28 Carbophenothion methyl	3.0000	3.1683	5.6	15.0
28 Bolstar	3.0000	3.2160	7.2	15.0
30 Carbophenothion	3.0000	3.1768	5.9	15.0
29 Triphenyl phosphate	3.0000	3.2806	9.4	15.0
30 Fensulfothion	3.0000	3.0927	3.1	15.0
35 Phosmet / EPN	6.0000	5.8461	2.6	15.0
33 Famphur	3.0000	2.7291	9.0	15.0
34 Azinphos-methyl	3.0000	2.8371	5.4	15.0
35 Azinphos-ethyl	3.0000	3.0920	3.1	15.0
36 Coumaphos	3.0000	3.1035	3.4	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\019F1901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	3.2640	8.8	15.0
40 Total Demeton	3.0000	2.8899	3.7	15.0

Average %D = 10.1

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED	MEASURED	%D	MAX
	CONC.	CONC.		%D
1 o,o,o-TEPT	3.0000	2.8218	5.9	15.0
2 Dichlorvos	3.0000	2.8304	5.7	15.0
3 Mevinphos	3.0000	2.6552	11.5	15.0
4 Chlormefos	3.0000	3.0356	1.2	15.0
5 Thionazin	3.0000	2.8846	3.8	15.0
6 Demeton-O	0.9750	1.1089	13.7	15.0
7 Etheprop	3.0000	3.2239	7.5	15.0
8 Naled	3.0000	1.8139	39.5	15.0<-
9 Sulfotepp	3.0000	3.0130	0.4	15.0
10 Phorate	3.0000	3.0193	0.6	15.0
11 Dimethoate	3.0000	2.9893	0.4	15.0
12 Demeton-S	2.0400	2.1060	3.2	15.0
13 Simazine	3.0000	3.4001	13.3	15.0
14 Atrazine	3.0000	3.2309	7.7	15.0
15 propazine	3.0000	3.0091	0.3	15.0
17 Disulfoton	3.0000	2.7422	8.6	15.0
16 Diazinon	3.0000	3.1584	5.3	15.0
18 Methyl Parathion	3.0000	3.0137	0.5	15.0
19 Ronnel	3.0000	2.9565	1.4	15.0
20 Malathion	3.0000	2.8366	5.4	15.0
21 Fenthion	3.0000	2.8471	5.1	15.0
22 Parathion	3.0000	2.9564	1.5	15.0
23 Chlorpyrifos	3.0000	3.0022	0.1	15.0
24 Trichloronate	3.0000	3.1508	5.0	15.0
25 Anilazine	3.0000	2.1130	29.6	15.0<-
148 Merphos-A (Merphos)	3.0000	2.6447	11.8	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.4443	18.5	15.0<-
28 Tokuthion	3.0000	3.1390	4.6	15.0
149 Merphos-B (Merphos Oxone)	3.0000	4.6954	56.5	999.0
29 Carbophenothion-methyl	3.0000	2.9046	3.2	15.0
29 Fensulfothion	3.0000	2.8499	5.0	15.0
30 Bolstar / Famphur	6.0000	5.6912	5.1	15.0
32 Carbophenothion	3.0000	2.8072	6.4	15.0
31 Triphenyl phosphate	3.0000	3.0801	2.7	15.0
34 Phosmet	3.0000	2.6152	12.8	15.0
32 EPN	3.0000	2.8279	5.7	15.0
33 Azinphos-methyl	3.0000	2.6249	12.5	15.0
35 Azinphos-ethyl	3.0000	2.8450	5.2	15.0
36 Coumaphos	3.0000	2.8862	3.8	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\039F3901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.0951	3.2	15.0
40 Total Demeton	3.0000	3.2150	7.2	15.0

Average %D = 8.33

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.8166	6.1	15.0
2 Dichlorvos	3.0000	2.8245	5.8	15.0
3 Chlormefos	3.0000	3.2183	7.3	15.0
4 Mevinphos	3.0000	2.9838	0.5	15.0
5 Demeton-O	0.9750	0.9758	0.1	15.0
6 Thionazin	3.0000	2.8054	6.5	15.0
7 Ethoprop	3.0000	2.8590	4.7	15.0
8 Phorate	3.0000	3.1654	5.5	15.0
10 Naled	3.0000	2.2828	23.9	15.0<-
146 Sulfotepp	3.0000	2.8627	4.6	15.0
10 Simazine	3.0000	2.9076	3.1	15.0
12 Diazinon	3.0000	2.8253	5.8	15.0
150 Atrazine	3.0000	2.9267	2.4	15.0
13 Propazine	3.0000	2.8284	5.7	15.0
14 Disulfoton	3.0000	2.9455	1.8	15.0
15 Demeton-S	2.0400	1.8853	7.6	15.0
16 Dimethoate	3.0000	2.8716	4.3	15.0
17 Ronnel	3.0000	2.7428	8.6	15.0
148 Merphos-A (Merphos)	3.0000	2.4110	19.6	999.0
18 Chlorpyrifos	3.0000	3.1163	3.9	15.0
19 Fenthion	3.0000	2.9120	2.9	15.0
20 Trichloronate	3.0000	3.3902	13.0	15.0
21 Anilazine	3.0000	1.7240	42.5	15.0<-
23 Methyl Parathion	3.0000	2.8664	4.5	15.0
24 Malathion	3.0000	2.7318	8.9	15.0
25 Tokuthion	3.0000	2.9114	3.0	15.0
26 Parathion	3.0000	2.9008	3.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	3.5874	19.6	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.6695	11.0	15.0
28 Carbophenothion methyl	3.0000	3.0681	2.3	15.0
28 Bolstar	3.0000	3.0614	2.0	15.0
30 Carbophenothion	3.0000	3.3384	11.3	15.0
29 Triphenyl phosphate	3.0000	2.8735	4.2	15.0
30 Fensulfothion	3.0000	2.9476	1.7	15.0
35 Phosmet / EPN	6.0000	5.6693	5.5	15.0
33 Pamphur	3.0000	3.0504	1.7	15.0
34 Azinphos-methyl	3.0000	2.9582	1.4	15.0
35 Azinphos-ethyl	3.0000	2.9123	2.9	15.0
36 Coumaphos	3.0000	2.9494	1.7	15.0



Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\039F3901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\06

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	2.8269	5.8	15.0
40 Total Demeton	3.0000	2.8612	4.6	15.0

Average %D = 6.87

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L7 GSV0634				
4	Vial 4	OPP L6 GSV0637				
5	Vial 5	OPP L5 GSV0635				
6	Vial 6	OPP L4 GSV0638				
7	Vial 7	OPP L3 GSV0639				
8	Vial 8	OPP L2 GSV0640				
9	Vial 9	OPP L1 GSV0641				
10	Vial 10	OPP SS GSV0633				
11	Vial 11	GSV075309 SPK				
12	Vial 12	LE2931AA, MB				
13	Vial 13	LE2931AC, LCS				
14	Vial 14	LE2931AD, LCSD				
15	Vial 15	LEQA91AC, 222-15			10	
16	Vial 16	LEQA91AC, 222-15			3	
17	Vial 17	LEQCQ1AC, 222-18			2	
18	Vial 18	LERD61AD, 377-1				
19	Vial 19	LERD81AH, 377-3				
20	Vial 20	LERN71AF, 115-1				
21	Vial 21	LERPQ1AF, 115-2				
22	Vial 22	LERPX1AF, 115-3				
23	Vial 23	LE1F91AJ, 138-1				
24	Vial 24	OPP L5 GSV0635				
25	Vial 25	LE29M1AA, MB				
26	Vial 26	LE29M1AC, LCS				
27	Vial 27	LE29M1AD, LCSD				
28	Vial 28	LEQA91AA, 222-15			10	
29	Vial 29	LEQA91AA, 222-15			3	
30	Vial 30	LEQCQ1AA, 222-18			2	
31	Vial 31	LFARC1AA, MB				
32	Vial 32	LFARC1AC, LCS				
33	Vial 33	LFARC1AD, LCSD				
34	Vial 34	LEKLO2AA, 185-1				
35	Vial 35	LE29L1AA, MB				
36	Vial 36	LE29L1AC, LCS				
37	Vial 37	LE29L1AD, LCSD				
38	Vial 38	LERCV1AA, 370-1				
39	Vial 39	LEWJG1AA, 143-1				
40	Vial 40	OPP L5 GSV0635				
41	Vial 41	LE5PX1AA, MB				
42	Vial 42	LE5PX1AC, LCS				
43	Vial 43	LE5PX1AD, LCSD				
44	Vial 44	LE39F1AA, 179-1				
45	Vial 45	LE3PF1AA, 179-2				
46	Vial 46	LE39L1AA, 179-3				
47	Vial 47	LFARL1AA, MB				
48	Vial 48	LFARL1AC, LCS				
49	Vial 49	LFARL1AD, LCSD				
50	Vial 50	LEKLE2AE, 180-2				
51	Vial 51	LEKLF2AE, 180-3				
52	Vial 52	LEKLL2AE, 180-4				
53	Vial 53	LEKLO2AE, 180-5				
54	Vial 54	LENR72AD, 322-1				
55	Vial 55	LEPG32AJ, 161-1				
56	Vial 56	OPP L5 GSV0635				
57	Vial 57	LFD4N1AA, MB				
58	Vial 58	LFD4N1AC, LCS				

17044

17047

17043

17045

17043

17043

17042

RR

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
59	Vial 59	LFD4N1AD, LCSD				
60	Vial 60	LE3041AJ, 158-1				
61	Vial 61	LFD4W1AA, MB				
62	Vial 62	LFD4W1AC, LCS				
63	Vial 63	LFD4W1AD, LCSD				
64	Vial 64	LE7EE1AA, 266-2				
65	Vial 65	LE9Q61AA, 216-2				
66	Vial 66	LE9RA1AA, 216-3				
67	Vial 67	LFC4Q1AD, 199-2				
68	Vial 68	OPP L5 GSV0635				
69	Vial 69	LFAN01AA, MB				
70	Vial 70	LFAN01AC, LCS				
71	Vial 71	LFAN01AD, LCSD				
72	Vial 72	LE4291AA, 273-1				
73	Vial 73	LE4291AD, 273-1S				
74	Vial 74	LE4291AE, 273-1D				
75	Vial 75	LE9PJ1AA, 215-1				
76	Vial 76	OPP L5 GSV0635				
77	Vial 77	OPP L1 GSV0641				
78	Vial 100	HEXANE/ACETONE				

13103

10419

Sequence Table (Back Injector):

No entries - empty table!

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L5 GSV0635				
4	Vial 4	LE5PX1AA,MB				
5	Vial 5	LE5PX1AC,LCS				
6	Vial 6	LE5PX1AD,LCSD				
7	Vial 7	LE39F1AA,179-1				
8	Vial 8	LE3PF1AA,179-2				
9	Vial 9	LE39L1AA,179-3				
10	Vial 10	LFARL1AA,MB				
11	Vial 11	LFARL1AC,LCS				
12	Vial 12	LFARL1AD,LCSD				
13	Vial 13	LEKLE2AE,180-2				
14	Vial 14	LEKLF2AE,180-3				
15	Vial 15	LEKLL2AE,180-4				
16	Vial 16	LEKLO2AE,180-5				
17	Vial 17	LENR72AD,322-1				
18	Vial 18	LEPG32AJ,161-1				
19	Vial 19	OPP L5 GSV0635				
20	Vial 20	LFD4N1AA,MB				
21	Vial 21	LFD4N1AC,LCS				
22	Vial 22	LFD4N1AD,LCSD				
23	Vial 23	LE3041AJ,158-1				
24	Vial 24	LFD4W1AA,MB				
25	Vial 25	LFD4W1AC,LCS				
26	Vial 26	LFD4W1AD,LCSD				
27	Vial 27	LE7EE1AA,266-2				
28	Vial 28	LE9Q61AA,216-2				
29	Vial 29	LE9RA1AA,216-3				
30	Vial 30	LFC4Q1AD,199-2				
31	Vial 31	OPP L5 GSV0635				
32	Vial 32	LFAN01AA,MB				
33	Vial 33	LFAN01AC,LCS				
34	Vial 34	LFAN01AD,LCSD				
35	Vial 35	LE4291AA,273-1				
36	Vial 36	LE4291AD,273-1S				
37	Vial 37	LE4291AE,273-1D				
38	Vial 38	LE9PJ1AA,215-1				
39	Vial 39	OPP L5 GSV0635				
40	Vial 40	OPP L1 GSV0641				
41	Vial 100	HEXANE/ACETONE				

*- bad injection; ccv not needed, only 9 samples*

Sequence Table (Back Injector):

No entries - empty table!

TestAmerica  
**Total Metals**  
CLP-Like Forms

Lot ID: D9F180266

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001

Total Metals Analysis  
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc.

SDG No.: D9F180266

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SOW No.: \_\_\_\_\_

<u>Sample ID.</u>	<u>Lab Sample No.</u>
<u>M-29B</u>	<u>D9F180266-001</u>
<u>M-29B MS</u>	<u>D9F180266-001S</u>
<u>M-29B MSD</u>	<u>D9F180266-001SD</u>

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins

Name: Janice Collins

Date: 6/29/09

Title: Metals Analyst

Northgate Environmental Management, Inc.

**Total Metals Analysis Data Sheet**

<b>Lab Name:</b>	<u>TESTAMERICA DENVER</u>	<b>Client Sample ID:</b>	<u>M-29B</u>
<b>Lot/SDG Number:</b>	<u>D9F180266</u>	<b>Lab Sample ID:</b>	<u>D9F180266-001</u>
<b>Matrix:</b>	<u>WATER</u>	<b>Lab WorkOrder:</b>	<u>LE7CT</u>
<b>% Moisture:</b>	<u>N/A</u>	<b>Date/Time Collected:</b>	<u>06/16/09 09:00</u>
<b>Basis:</b>	<u>Wet</u>	<b>Date/Time Received:</b>	<u>06/18/09 09:15</u>
<b>Analysis Method:</b>	<u>6020</u>	<b>Date Leached:</b>	
<b>Unit:</b>	<u>ug/L</u>	<b>Date/Time Extracted:</b>	<u>06/24/09 06:00</u>
<b>QC Batch ID:</b>	<u>9174190</u>	<b>Date/Time Analyzed:</b>	<u>06/25/09 02:04</u>
<b>Sample Aliquot:</b>	<u>50 mL</u>	<b>Instrument ID:</b>	<u>024</u>
<b>Dilution Factor:</b>	<u>1</u>		

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	12	0.70	5.0	

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

<b>Lab Name:</b>	<u>TESTAMERICA DENVER</u>	<b>Client Sample ID:</b>	<u>M-29B</u>
<b>Lot/SDG Number:</b>	<u>D9F180266</u>	<b>Lab Sample ID:</b>	<u>D9F180266-001</u>
<b>Matrix:</b>	<u>WATER</u>	<b>Lab WorkOrder:</b>	<u>LE7CT</u>
<b>% Moisture:</b>	<u>N/A</u>	<b>Date/Time Collected:</b>	<u>06/16/09 09:00</u>
<b>Basis:</b>	<u>Wet</u>	<b>Date/Time Received:</b>	<u>06/18/09 09:15</u>
<b>Analysis Method:</b>	<u>6020</u>	<b>Date Leached:</b>	
<b>Unit:</b>	<u>ug/L</u>	<b>Date/Time Extracted:</b>	<u>06/24/09 06:00</u>
<b>QC Batch ID:</b>	<u>9174190</u>	<b>Date/Time Analyzed:</b>	<u>06/25/09 20:13</u>
<b>Sample Aliquot:</b>	<u>50 mL</u>	<b>Instrument ID:</b>	<u>024</u>
<b>Dilution Factor:</b>	<u>5</u>		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	64	1.0	25	



**Total Metals Analysis**  
 -2A-  
**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium	40.0	37.8	94.5	50.0	47.1	94.2	48.7	97.4	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**

-2A-

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	47.3	94.6	49.5	99.0	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	49.5	99.0	47.9	95.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	45.8	91.6			M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**  
 -2A-  
**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	40.0	39.6	99.0	50.0	49.5	99.0	50.4	100.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	49.7	99.4	50.9	101.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**  
**-2B-**  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180266

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial			Final	
				True	Found	%R	Found	%R
Selenium				1.00	1.198	119.8		

Comments:

**Total Metals Analysis**  
**-2B-**  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180266

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial			Final	
				True	Found	%R	Found	%R
Arsenic				1.00	0.975	97.5		

Comments:



Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180266  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190B  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 01:54  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	0.70	0.70	5.0	U

## Northgate Environmental Management, Inc.

### Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D9F180266  
Matrix: WATER  
% Moisture:  
Basis: Wet  
Analysis Method: 6020  
Unit: ug/L  
QC Batch ID: 9174190  
Sample Aliquot: 50 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9F230000-190B  
Lab WorkOrder: LFFFX  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 06/24/09 06:00  
Date/Time Analyzed: 06/25/09 20:02  
Instrument ID: 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Selenium	0.700   U	0.700	U	0.700	U	0.700	U	0.70	U	M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M		
		C	1	C	2	C	3			C	
Selenium			0.700	U	0.700	U	0.700	U			M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		C	1	C	2	C	3		
Selenium			0.700	U					M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank		
		1	2	3				C	M	
Arsenic	0.210 U	0.210 U	0.210 U	0.210 U				0.21 U	M	

Comments:

**Total Metals Analysis**

-3-

**BLANKS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		C	1	C	2	C	3		
Arsenic			0.210	U					M

Comments:

**Total Metals Analysis**

-4-

**ICP INTERFERENCE CHECK SAMPLE**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Selenium	0.0	100.0	0.45	101.10	101.1	0.10	98.72	98.7



Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.14	98.91	98.9			

Northgate Environmental Management, Inc.

**Total Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180266  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 1

**Client Sample ID:** M-29B  
**MS Lab Sample ID:** D9F180266-001S  
**MS Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:15  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Selenium	40.0	12		55.2		108		77 - 122

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180266  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** M-29B  
**MSD Lab Sample ID:** D9F180266-001D  
**MSD Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:28  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Selenium	40.0	12		55.9		110		1.3		77 - 122	20

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180266  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 5

**Client Sample ID:** M-29B  
**MS Lab Sample ID:** D9F180266-001S  
**MS Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:23  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	64		106		106		85 - 117

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180266  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 5

**Client Sample ID:** M-29B  
**MSD Lab Sample ID:** D9F180266-001D  
**MSD Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:37  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	64		110		115		3.0		85 - 117	20

Total Metals Analysis  
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

M-29B PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added(SA)	%R	Q	M
Selenium	75 - 125	233.300	11.930	200.00	110.7		M

Comments: \_\_\_\_\_

Total Metals Analysis  
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

M-29B PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added(SA)	%R	Q	M
Arsenic	75 - 125	211.600	12.776	200.00	99.4		M

Comments: \_\_\_\_\_  
\_\_\_\_\_

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180266  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190C  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 01:58  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Selenium	40.0	38.8	97		77 - 122



**Total Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180266  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190C  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:06  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	39.6	99		85 - 117

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

M-29B SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	M
Selenium	11.930	11.755 B	1.5		M

Comments: \_\_\_\_\_

**Total Metals Analysis**

-9-

**ICP SERIAL DILUTIONS**

SAMPLE NO.

M-29B SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: **ug/L**

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	M
Arsenic	12.776	12.830	0.4		M

Comments: \_\_\_\_\_

**Total Metals Analysis**

-10-

**DETECTION LIMITS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: \_\_\_\_\_

Furnace AA ID Number: \_\_\_\_\_

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total Metals Analysis  
-12-  
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

ICP ID Number: Agilent 7500 Date: 4/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180266

Method: MS Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
M-29B	6/24/2009	50.0	50.0
M-29B MS	6/24/2009	50.0	50.0
M-29B MSD	6/24/2009	50.0	50.0
MB9174190	6/24/2009	50.0	50.0
Check Sample	6/24/2009	50.0	50.0

Comments:



Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180266

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
M-29B MSD	1.00	02:28																			X								
CCV	1.00	02:48																			X								
CCB	1.00	02:52																			X								

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14



Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180266

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/25/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A L	N T	T V	Z N	C N			
CAL BLANK	1.00	17:50			X																								
100 PPB	1.00	17:54			X																								
ICV	1.00	17:57			X																								
ICB	1.00	18:04			X																								
RL STD	1.00	18:08			X																								
ICSA	1.00	18:18			X																								
ICSAB	1.00	18:21			X																								
RINSE	1.00	18:25			X																								
LR	1.00	18:28			X																								
RINSE	1.00	18:32			X																								
ALTLR	1.00	18:35			X																								
RINSE	1.00	18:39			X																								
CCV	1.00	18:42			X																								
CCB	1.00	18:46			X																								
CCV	1.00	19:52			X																								
CCB	1.00	19:55			X																								
MB9174190	1.00	20:02			X																								
Check Sample	1.00	20:06			X																								
M-29B	5.00	20:13			X																								
M-29B SER	25.00	20:16			X																								
M-29B PDS	1.00	20:20			X																								
M-29B MS	5.00	20:23			X																								
CCV	1.00	20:27			X																								
CCB	1.00	20:30			X																								
M-29B MSD	5.00	20:37			X																								
CCV	1.00	20:58			X																								
CCB	1.00	21:02			X																								

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica  
**Total Metals**  
CLP-Like Forms

Lot ID: D9F180314

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001

Total Metals Analysis  
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc. SDG No.: D9F180314  
Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_  
SOW No.: \_\_\_\_\_

Sample ID. Lab Sample No.  
M-130B D9F180314-001

Were ICP interelement corrections applied? Yes/No YES  
Were ICP background corrections applied? Yes/No YES  
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins Name: Janice Collins  
Date: 6/29/09 Title: Metals Analyst

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-130B  
**Lab Sample ID:** D9F180314-001  
**Lab WorkOrder:** LE709  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:01  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	6.6	0.70	5.0	

Northgate Environmental Management, Inc.

**Total Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 10

**Client Sample ID:** M-130B  
**Lab Sample ID:** D9F180314-001  
**Lab WorkOrder:** LE709  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:09  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	110	2.1	50	

**Total Metals Analysis**  
 -2A-  
**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium	40.0	37.8	94.5	50.0	47.1	94.2	48.7	97.4	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	47.3	94.6	49.5	99.0	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	49.5	99.0	47.9	95.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115



Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	45.8	91.6			M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	40.0	39.6	99.0	50.0	49.5	99.0	50.4	100.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	49.7	99.4	50.9	101.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**  
-2B-  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180314

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
	True	Found	%R	True	Found	%R	Found	%R
Selenium				1.00	1.198	119.8		

Comments:

**Total Metals Analysis**  
 -2B-  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180314

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				1.00	0.975	97.5		

Comments:

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190B  
**Lab WorkOrder:** LEFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 01:54  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	0.70	0.70	5.0	U

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190B  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:02  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Selenium	0.700 U	0.700	U	0.700	U	0.700	U	0.70	U	M

Comments:



Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Selenium			0.700	U	0.700	U	0.700	U			M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		C	1	C	2	C	3		
Selenium			0.700	U					M

Comments:

**Total Metals Analysis**

-3-

**BLANKS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Arsenic	0.210	U	0.210	U	0.210	U	0.210	U	0.21	U	M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		C	1	C	2	C	3		
Arsenic			0.210	U					M

Comments:

Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Selenium	0.0	100.0	0.45	101.10	101.1	0.10	98.72	98.7

Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.14	98.91	98.9			

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9F180266-001S  
**MS Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:15  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Selenium	40.0	12		55.2		108		77 - 122

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9F180266-001D  
**MSD Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:28  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Selenium	40.0	12		55.9		110		1.3		77 - 122	20



**Northgate Environmental Management, Inc.**

**Total Metals Analysis Data Sheet**

<b>Lab Name:</b>	<u>TESTAMERICA DENVER</u>	<b>Client Sample ID:</b>	<u>LAB MS/MSD</u>
<b>Lot/SDG Number:</b>	<u>D9F180314</u>	<b>MS Lab Sample ID:</b>	<u>D9F180266-001S</u>
<b>Matrix:</b>	<u>WATER</u>	<b>MS Lab WorkOrder:</b>	<u>LE7CT</u>
<b>% Moisture:</b>	<u>N/A</u>	<b>Date/Time Collected:</b>	<u>06/16/09 09:00</u>
<b>Basis:</b>	<u>Wet</u>	<b>Date/Time Received:</b>	<u>06/18/09 09:15</u>
<b>Analysis Method:</b>	<u>6020</u>	<b>Date Leached:</b>	
<b>Unit:</b>	<u>ug/L</u>	<b>Date/Time Extracted:</b>	<u>06/24/09 06:00</u>
<b>QC Batch ID:</b>	<u>9174190</u>	<b>Date/Time Analyzed:</b>	<u>06/25/09 20:23</u>
<b>MS Sample Aliquot:</b>	<u>50 mL</u>	<b>Instrument ID:</b>	<u>024</u>
<b>MS Dilution Factor:</b>	<u>5</u>		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	64		106		106		85 - 117

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 5

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9F180266-001D  
**MSD Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:37  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	64		110		115		3.0		85 - 117	20

Total Metals Analysis  
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Selenium	75 - 125	233.300	11.930	200.00	110.7		M

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Total Metals Analysis**  
-5B-

**POST DIGEST SPIKE SAMPLE RECOVERY**

SAMPLE NO.

INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	211.600	12.776	200.00	99.4		M

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Northgate Environmental Management, Inc.**

**Total Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190C  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 01:58  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Selenium	40.0	38.8	97		77 - 122

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190C  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:06  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	39.6	99		85 - 117

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	M
Selenium	11.930	11.755 B	1.5		M

Comments: \_\_\_\_\_

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	M
Arsenic	12.776	12.830	0.4		M

Comments: \_\_\_\_\_



**Total Metals Analysis**

-10-

**DETECTION LIMITS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: \_\_\_\_\_

Furnace AA ID Number: \_\_\_\_\_

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total Metals Analysis  
-12-  
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

ICP ID Number: Agilent 7500 Date: 4/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Method: MS Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
INTRA-LAB QC	6/24/2009	50.0	50.0
LAB MS/MSD MS	6/24/2009	50.0	50.0
LAB MS/MSD MSD	6/24/2009	50.0	50.0
M-130B	6/24/2009	50.0	50.0
MB9174190	6/24/2009	50.0	50.0
Check Sample	6/24/2009	50.0	50.0

Comments:

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180314

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N				
CAL BLANK	1.00	19:07																			X										
100 PPB	1.00	19:10																			X										
ICV	1.00	19:13																			X										
ICB	1.00	19:20																			X										
RL STD	1.00	19:24																			X										
ICSA	1.00	19:34																			X										
ICSAB	1.00	19:37																			X										
RINSE	1.00	19:40																			X										
LR	1.00	19:44																			X										
RINSE	1.00	19:47																			X										
CCV	1.00	19:52																			X										
CCB	1.00	19:55																			X										
CAL BLANK	1.00	22:17																			X										
100 PPB	1.00	22:20																			X										
CCV	1.00	22:24																			X										
CCB	1.00	22:27																			X										
CCV	1.00	22:58																			X										
CCB	1.00	23:01																			X										
ICSA	1.00	23:08																			X										
ICSAB	1.00	23:11																			X										
WASH	1.00	23:15																			X										
CCV	1.00	23:18																			X										
CCB	1.00	23:21																			X										
CCV	1.00	01:44																			X										
CCB	1.00	01:47																			X										
MB9174190	1.00	01:54																			X										
Check Sample	1.00	01:58																			X										
M-130B	1.00	02:01																			X										
INTRA-LAB QC	1.00	02:04																			X										
INTRA-LAB QC SER	5.00	02:08																			X										
INTRA-LAB QC PDS	1.00	02:11																			X										
LAB MS/MSD MS	1.00	02:15																			X										
CCV	1.00	02:18																			X										

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180314

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																							
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N
CCB	1.00	02:21																			X						
LAB MS/MSD MSD	1.00	02:28																			X						
CCV	1.00	02:48																			X						
CCB	1.00	02:52																			X						

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180314

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/25/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K I	S E	A G	N A	T L	V	Z N	C N		
CAL BLANK	1.00	17:50			X																								
100 PPB	1.00	17:54			X																								
ICV	1.00	17:57			X																								
ICB	1.00	18:04			X																								
RL STD	1.00	18:08			X																								
ICSA	1.00	18:18			X																								
ICSAB	1.00	18:21			X																								
RINSE	1.00	18:25			X																								
LR	1.00	18:28			X																								
RINSE	1.00	18:32			X																								
ALTLR	1.00	18:35			X																								
RINSE	1.00	18:39			X																								
CCV	1.00	18:42			X																								
CCB	1.00	18:46			X																								
CCV	1.00	19:52			X																								
CCB	1.00	19:55			X																								
MB9174190	1.00	20:02			X																								
Check Sample	1.00	20:06			X																								
M-130B	10.00	20:09			X																								
INTRA-LAB QC	5.00	20:13			X																								
INTRA-LAB QC SER	25.00	20:16			X																								
INTRA-LAB QC PDS	1.00	20:20			X																								
LAB MS/MSD MS	5.00	20:23			X																								
CCV	1.00	20:27			X																								
CCB	1.00	20:30			X																								
LAB MS/MSD MSD	5.00	20:37			X																								
CCV	1.00	20:58			X																								
CCB	1.00	21:02			X																								

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica  
**Dissolved Metals**  
CLP-Like Forms

Lot ID: D9F180314

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 002

Dissolved Metals Analysis  
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc.

SDG No.: D9F180314

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SOW No.: \_\_\_\_\_

Sample ID.

Lab Sample No.

M-130BDISS

D9F180314-002

M-130BDISS MS

D9F180314-002S

M-130BDISS MSD

D9F180314-002SD

Were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YES

If yes-were raw data generated before application of background corrections?

Yes/No NO

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins

Name: Janice Collins

Date: 6/29/09

Title: Metals Analyst



Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name:	<u>TESTAMERICA DENVER</u>	Client Sample ID:	<u>M-130BDISS</u>
Lot/SDG Number:	<u>D9F180314</u>	Lab Sample ID:	<u>D9F180314-002</u>
Matrix:	<u>WATER</u>	Lab WorkOrder:	<u>LE71E</u>
% Moisture:	<u>N/A</u>	Date/Time Collected:	<u>06/15/09 10:45</u>
Basis:	<u>Wet</u>	Date/Time Received:	<u>06/17/09 09:30</u>
Analysis Method:	<u>6020</u>	Date Leached:	
Unit:	<u>ug/L</u>	Date/Time Extracted:	<u>06/24/09 06:00</u>
QC Batch ID:	<u>9174183</u>	Date/Time Analyzed:	<u>06/24/09 21:13</u>
Sample Aliquot:	<u>50 mL</u>	Instrument ID:	<u>024</u>
Dilution Factor:	<u>1</u>		

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	7.1	0.70	5.0	

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 10

**Client Sample ID:** M-130BDISS  
**Lab Sample ID:** D9F180314-002  
**Lab WorkOrder:** LE71E  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 05:35  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	110	2.1	50	

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	40.0	40.2	100.5	50.0	50.0	100.0	50.1	100.2	M
Selenium	40.0	37.8	94.5	50.0	47.1	94.2	49.6	99.2	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	50.3	100.6			M
Selenium				50.0	51.5	103.0	46.7	93.4	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	51.1	102.2	51.1	102.2	M
Selenium				50.0	48.7	97.4	47.3	94.6	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	51.7	103.4	51.1	102.2	M
Selenium				50.0	49.5	99.0	53.0	106.0	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	50.3	100.6	50.4	100.8	M
Selenium				50.0	52.3	104.6	54.5	109.0	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Dissolved Metals Analysis**  
**-2B-**  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180314

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial			Final	
				True	Found	%R	Found	%R
Arsenic				1.00	0.920	92.0		
Selenium				1.00	1.198	119.8		

Comments:



## Northgate Environmental Management, Inc.

### Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D9F180314  
Matrix: WATER  
% Moisture:  
Basis: Wet  
Analysis Method: 6020  
Unit: ug/L  
QC Batch ID: 9174183  
Sample Aliquot: 50 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9F230000-183B  
Lab WorkOrder: LFFFC  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 06/24/09 06:00  
Date/Time Analyzed: 06/24/09 21:06  
Instrument ID: 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	0.70	0.70	5.0	U

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-183B  
**Lab WorkOrder:** LFFFC  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 05:28  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U

Dissolved Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Arsenic	0.210	U	0.210	U	0.210	U	0.210	U	0.21	U	M
Selenium	0.700	U	0.700	U	0.700	U	0.700	U	0.70	U	M

Comments:

Dissolved Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Arsenic		0.210	U	0.210	U	0.210	U			M
Selenium		0.887	B	0.700	U	0.700	U			M

Comments:

Dissolved Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Arsenic			0.210	U	0.210	U	0.210	U			M
Selenium			0.700	U	0.913	B	0.700	U			M

Comments:

**Dissolved Metals Analysis**

-3-

**BLANKS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Arsenic		0.210	U							M
Selenium		0.700	U							M

Comments:

Dissolved Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.15	100.90	100.9	0.17	101.70	101.7
Selenium	0.0	100.0	0.45	101.10	101.1	-0.12	107.30	107.3

Dissolved Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0				0.17	100.60	100.6
Selenium	0.0	100.0				0.10	98.72	98.7



Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 1

**Client Sample ID:** M-130BDISS  
**MS Lab Sample ID:** D9F180314-002S  
**MS Lab WorkOrder:** LE71E  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/24/09 21:23  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Selenium	40.0	7.1		51.7		111		77 - 122

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** M-130BDISS  
**MSD Lab Sample ID:** D9F180314-002D  
**MSD Lab WorkOrder:** LE71E  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/24/09 21:26  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Selenium	40.0	7.1		48.1		102		7.2		77 - 122	20

**Northgate Environmental Management, Inc.**

**Dissolved Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 10

**Client Sample ID:** M-130BDISS  
**MS Lab Sample ID:** D9F180314-002S  
**MS Lab WorkOrder:** LE71E  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 05:45  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	110		156		116		85 - 117

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 10

**Client Sample ID:** M-130BDISS  
**MSD Lab Sample ID:** D9F180314-002D  
**MSD Lab WorkOrder:** LE71E  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 05:48  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	110		158		120	N	1.2		85 - 117	20

Dissolved Metals Analysis  
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

M-130BDISS PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	207.600	10.970	200.00	98.3		M
Selenium	75 - 125	227.800	7.126	200.00	110.3		M

Comments: \_\_\_\_\_  
\_\_\_\_\_

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-183C  
**Lab WorkOrder:** LFFFC  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/24/09 21:10  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Selenium	40.0	40.2	101		77 - 122

Northgate Environmental Management, Inc.

**Dissolved Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F180314  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-183C  
**Lab WorkOrder:** LFFFC  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 05:32  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	41.7	104		85 - 117

Dissolved Metals Analysis

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ICP SERIAL DILUTIONS

SAMPLE NO.

M-130BDISS SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	M
Arsenic	10.970	11.210	2.2		M
Selenium	7.126	6.770	5.0		M

Comments: \_\_\_\_\_



Dissolved Metals Analysis

-10-

DETECTION LIMITS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: \_\_\_\_\_

Furnace AA ID Number: \_\_\_\_\_

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dissolved Metals Analysis  
-12-  
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

ICP ID Number: Agilent 7500 Date: 4/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dissolved Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F180314

Method: MS Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
M-130BDISS	6/24/2009	50.0	50.0
M-130BDISS MS	6/24/2009	50.0	50.0
M-130BDISS MSD	6/24/2009	50.0	50.0
MB9174183	6/24/2009	50.0	50.0
Check Sample	6/24/2009	50.0	50.0

Comments:

Dissolved Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180314

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																							
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N
CAL BLANK	1.00	19:07			X															X							
100 PPB	1.00	19:10			X															X							
ICV	1.00	19:13			X															X							
ICB	1.00	19:20			X															X							
RL STD	1.00	19:24			X															X							
ICSA	1.00	19:34			X															X							
ICSAB	1.00	19:37			X															X							
RINSE	1.00	19:40			X															X							
LR	1.00	19:44			X															X							
RINSE	1.00	19:47			X															X							
CCV	1.00	19:52			X															X							
CCB	1.00	19:55			X															X							
CCV	1.00	20:36			X															X							
CCB	1.00	20:39			X															X							
ICSA	1.00	20:46			X															X							
ICSAB	1.00	20:49			X															X							
WASH	1.00	20:52			X															X							
CCV	1.00	20:56			X															X							
CCB	1.00	20:59			X															X							
MB9174183	1.00	21:06																		X							
Check Sample	1.00	21:10																		X							
M-130BDISS	1.00	21:13																		X							
M-130BDISS SER	5.00	21:16																		X							
M-130BDISS PDS	1.00	21:20																		X							
M-130BDISS MS	1.00	21:23																		X							
M-130BDISS MSD	1.00	21:26																		X							
CCV	1.00	21:33																		X							
CCB	1.00	21:36			X															X							
CAL BLANK	1.00	22:17			X															X							
100 PPB	1.00	22:20			X															X							
CCV	1.00	22:24			X															X							
CCB	1.00	22:27			X															X							
CCV	1.00	22:58			X															X							

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Dissolved Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F180314

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
CCB	1.00	23:01				X															X								
ICSA	1.00	23:08				X															X								
ICSAB	1.00	23:11				X															X								
WASH	1.00	23:15				X															X								
CCV	1.00	23:18				X															X								
CCB	1.00	23:21				X															X								
CAL BLANK	1.00	04:51				X															X								
100 PPB	1.00	04:54				X															X								
CCV	1.00	04:57				X															X								
CCB	1.00	05:01				X															X								
CCV	1.00	05:18				X															X								
CCB	1.00	05:21				X															X								
MB9174183	1.00	05:28				X																							
Check Sample	1.00	05:32				X																							
M-130BDISS	10.00	05:35				X																							
M-130BDISS SER	50.00	05:38				X																							
M-130BDISS PDS	1.00	05:42				X																							
M-130BDISS MS	10.00	05:45				X																							
M-130BDISS MSD	10.00	05:48				X																							
CCV	1.00	05:55				X															X								
CCB	1.00	05:59				X															X								

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica  
**Total Metals**  
CLP-Like Forms

Lot ID: D9F190216

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001

Total Metals Analysis  
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc.

SDG No.: D9F190216

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SOW No.: \_\_\_\_\_

Sample ID.

Lab Sample No.

M-78B

D9F190216-001

Were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YES

If yes-were raw data generated before application of background corrections?

Yes/No NO

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins

Name: Janice Collins

Date: 6/30/09

Title: Metals Analyst

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F190216  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-78B  
**Lab Sample ID:** D9F190216-001  
**Lab WorkOrder:** LE9PT  
**Date/Time Collected:** 06/17/09 08:58  
**Date/Time Received:** 06/19/09 09:00  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:32  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	4.7	0.70	5.0	B



**Northgate Environmental Management, Inc.**

**Total Metals Analysis Data Sheet**

<b>Lab Name:</b>	<u>TESTAMERICA DENVER</u>	<b>Client Sample ID:</b>	<u>M-78B</u>
<b>Lot/SDG Number:</b>	<u>D9F190216</u>	<b>Lab Sample ID:</b>	<u>D9F190216-001</u>
<b>Matrix:</b>	<u>WATER</u>	<b>Lab WorkOrder:</b>	<u>LE9PT</u>
<b>% Moisture:</b>	<u>N/A</u>	<b>Date/Time Collected:</b>	<u>06/17/09 08:58</u>
<b>Basis:</b>	<u>Wet</u>	<b>Date/Time Received:</b>	<u>06/19/09 09:00</u>
<b>Analysis Method:</b>	<u>6020</u>	<b>Date Leached:</b>	
<b>Unit:</b>	<u>ug/L</u>	<b>Date/Time Extracted:</b>	<u>06/24/09 06:00</u>
<b>QC Batch ID:</b>	<u>9174190</u>	<b>Date/Time Analyzed:</b>	<u>06/25/09 20:41</u>
<b>Sample Aliquot:</b>	<u>50 mL</u>	<b>Instrument ID:</b>	<u>024</u>
<b>Dilution Factor:</b>	<u>5</u>		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	92	1.0	25	

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D9F190216  
Matrix: WATER  
% Moisture:  
Basis: Wet  
Analysis Method: 6020  
Unit: ug/L  
QC Batch ID: 9174190  
Sample Aliquot: 50 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9F230000-190B  
Lab WorkOrder: LFFFX  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 06/24/09 06:00  
Date/Time Analyzed: 06/25/09 01:54  
Instrument ID: 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	0.70	0.70	5.0	U

**Total Metals Analysis**

-2A-

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium	40.0	37.8	94.5	50.0	47.1	94.2	48.7	97.4	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	47.3	94.6	49.5	99.0	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**

-2A-

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	49.5	99.0	47.9	95.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	45.8	91.6			M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**  
 -2A-  
**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	40.0	39.6	99.0	50.0	49.5	99.0	50.4	100.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**

-2A-

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	49.7	99.4	50.9	101.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115



**Total Metals Analysis**  
**-2B-**  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F190216

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Selenium				1.00	1.198	119.8		

Comments:

**Total Metals Analysis**  
**-2B-**  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F190216

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
				True	Found	%R	Found	%R
Arsenic				1.00	0.975	97.5		

Comments:

**Northgate Environmental Management, Inc.**

**Total Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F190216  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190B  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:02  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Selenium	0.700   U	0.700   U		0.700   U		0.700   U		0.70   U		M

Comments:

**Total Metals Analysis**

-3-

**BLANKS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Selenium			0.700	U	0.700	U	0.700	U			M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Selenium			0.700	U							M

Comments:

**Total Metals Analysis**

-3-

**BLANKS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M	
		1	C	2	C	3	C				
Arsenic	0.210 U	0.210	U	0.210	U	0.210	U	0.210	U	0.21 U	M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Arsenic		0.210	U							M

Comments:



Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Selenium	0.0	100.0	0.45	101.10	101.1	0.10	98.72	98.7

Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.14	98.91	98.9			

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F190216  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9F180266-001S  
**MS Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:** \_\_\_\_\_  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:15  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Selenium	40.0	12		55.2		108		77 - 122

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F190216  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9F180266-001D  
**MSD Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:28  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Selenium	40.0	12		55.9		110		1.3		77 - 122	20

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F190216  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 5

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9F180266-001S  
**MS Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:23  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	64		106		106		85 - 117

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F190216  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 5

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9F180266-001D  
**MSD Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:37  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	64		110		115		3.0		85 - 117	20

**Total Metals Analysis**  
-5B-

**POST DIGEST SPIKE SAMPLE RECOVERY**

SAMPLE NO.

INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added(SA)	%R	Q	M
Selenium	75 - 125	233.300	11.930	200.00	110.7		M

Comments: \_\_\_\_\_

**Total Metals Analysis**  
-5B-

**POST DIGEST SPIKE SAMPLE RECOVERY**

SAMPLE NO.

INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added(SA)	%R	Q	M
Arsenic	75 - 125	211.600	12.776	200.00	99.4		M

Comments: \_\_\_\_\_  
\_\_\_\_\_



## Northgate Environmental Management, Inc.

### Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D9F190216  
Matrix: WATER  
% Moisture: N/A  
Basis: Wet  
Analysis Method: 6020  
Unit: ug/L  
QC Batch ID: 9174190  
Sample Aliquot: 50 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9F230000-190C  
Lab WorkOrder: LFFFX  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 06/24/09 06:00  
Date/Time Analyzed: 06/25/09 01:58  
Instrument ID: 024

Analyte	True	Found	%Rec	Q	Limits
Selenium	40.0	38.8	97		77 - 122

**Northgate Environmental Management, Inc.**

**Total Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F190216  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190C  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:06  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	39.6	99		85 - 117

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Difference	Q	M
		C		C			
Selenium		11.930		11.755	1.5		M

Comments: \_\_\_\_\_

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	M
Arsenic	12.776	12.830 B	0.4		M

Comments: \_\_\_\_\_

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: \_\_\_\_\_

Furnace AA ID Number: \_\_\_\_\_

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total Metals Analysis  
-12-  
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

ICP ID Number: Agilent 7500 Date: 4/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments:

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Total Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F190216

Method: MS Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
INTRA-LAB QC	6/24/2009	50.0	50.0
LAB MS/MSD MS	6/24/2009	50.0	50.0
LAB MS/MSD MSD	6/24/2009	50.0	50.0
M-78B	6/24/2009	50.0	50.0
MB9174190	6/24/2009	50.0	50.0
Check Sample	6/24/2009	50.0	50.0

Comments:

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F190216

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N				
CAL BLANK	1.00	19:07																			X										
100 PPB	1.00	19:10																			X										
ICV	1.00	19:13																			X										
ICB	1.00	19:20																			X										
RL STD	1.00	19:24																			X										
ICSA	1.00	19:34																			X										
ICSAB	1.00	19:37																			X										
RINSE	1.00	19:40																			X										
LR	1.00	19:44																			X										
RINSE	1.00	19:47																			X										
CCV	1.00	19:52																			X										
CCB	1.00	19:55																			X										
CAL BLANK	1.00	22:17																			X										
100 PPB	1.00	22:20																			X										
CCV	1.00	22:24																			X										
CCB	1.00	22:27																			X										
CCV	1.00	22:58																			X										
CCB	1.00	23:01																			X										
ICSA	1.00	23:08																			X										
ICSAB	1.00	23:11																			X										
WASH	1.00	23:15																			X										
CCV	1.00	23:18																			X										
CCB	1.00	23:21																			X										
CCV	1.00	01:44																			X										
CCB	1.00	01:47																			X										
MB9174190	1.00	01:54																			X										
Check Sample	1.00	01:58																			X										
INTRA-LAB QC	1.00	02:04																			X										
INTRA-LAB QC SER	5.00	02:08																			X										
INTRA-LAB QC PDS	1.00	02:11																			X										
LAB MS/MSD MS	1.00	02:15																			X										
CCV	1.00	02:18																			X										
CCB	1.00	02:21																			X										

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14



Total Metals Analysis  
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F190216

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																							
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N
LAB MS/MSD MSD	1.00	02:28																			X						
M-78B	1.00	02:32																			X						
CCV	1.00	02:48																			X						
CCB	1.00	02:52																			X						

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F190216

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/25/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
CAL BLANK	1.00	17:50				X																							
100 PPB	1.00	17:54				X																							
ICV	1.00	17:57				X																							
ICB	1.00	18:04				X																							
RL STD	1.00	18:08				X																							
ICSA	1.00	18:18				X																							
ICSAB	1.00	18:21				X																							
RINSE	1.00	18:25				X																							
LR	1.00	18:28				X																							
RINSE	1.00	18:32				X																							
ALTLR	1.00	18:35				X																							
RINSE	1.00	18:39				X																							
CCV	1.00	18:42				X																							
CCB	1.00	18:46				X																							
CCV	1.00	19:52				X																							
CCB	1.00	19:55				X																							
MB9174190	1.00	20:02				X																							
Check Sample	1.00	20:06				X																							
INTRA-LAB QC	5.00	20:13				X																							
INTRA-LAB QC SER	25.00	20:16				X																							
INTRA-LAB QC PDS	1.00	20:20				X																							
LAB MS/MSD MS	5.00	20:23				X																							
CCV	1.00	20:27				X																							
CCB	1.00	20:30				X																							
LAB MS/MSD MSD	5.00	20:37				X																							
M-78B	5.00	20:41				X																							
CCV	1.00	20:58				X																							
CCB	1.00	21:02				X																							

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica  
**Total Metals**  
CLP-Like Forms

Lot ID: D9F200196

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001 and 003

Total Metals Analysis  
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc.

SDG No.: D9F200196

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SOW No.: \_\_\_\_\_

Sample ID.

Lab Sample No.

H-38B

D9F200196-003

M-128B

D9F200196-001

Were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YES

If yes-were raw data generated before  
application of background corrections?

Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins

Name: Janice Collins

Date: 6/30/09

Title: Metals Analyst

**Northgate Environmental Management, Inc.**

**Total Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-128B  
**Lab Sample ID:** D9F200196-001  
**Lab WorkOrder:** LFC4A  
**Date/Time Collected:** 06/18/09 08:40  
**Date/Time Received:** 06/20/09 08:40  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:35  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	3.6	0.70	5.0	B

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

<b>Lab Name:</b>	<u>TESTAMERICA DENVER</u>	<b>Client Sample ID:</b>	<u>M-128B</u>
<b>Lot/SDG Number:</b>	<u>D9F200196</u>	<b>Lab Sample ID:</b>	<u>D9F200196-001</u>
<b>Matrix:</b>	<u>WATER</u>	<b>Lab WorkOrder:</b>	<u>LFC4A</u>
<b>% Moisture:</b>	<u>N/A</u>	<b>Date/Time Collected:</b>	<u>06/18/09 08:40</u>
<b>Basis:</b>	<u>Wet</u>	<b>Date/Time Received:</b>	<u>06/20/09 08:40</u>
<b>Analysis Method:</b>	<u>6020</u>	<b>Date Leached:</b>	
<b>Unit:</b>	<u>ug/L</u>	<b>Date/Time Extracted:</b>	<u>06/24/09 06:00</u>
<b>QC Batch ID:</b>	<u>9174190</u>	<b>Date/Time Analyzed:</b>	<u>06/25/09 20:44</u>
<b>Sample Aliquot:</b>	<u>50 mL</u>	<b>Instrument ID:</b>	<u>024</u>
<b>Dilution Factor:</b>	<u>5</u>		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	89	1.0	25	

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:** H-38B  
**Lab Sample ID:** D9F200196-003  
**Lab WorkOrder:** LFC4D  
**Date/Time Collected:** 06/18/09 12:40  
**Date/Time Received:** 06/20/09 08:40  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:38  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	0.70	0.70	5.0	U

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 5

**Client Sample ID:** H-38B  
**Lab Sample ID:** D9F200196-003  
**Lab WorkOrder:** LFC4D  
**Date/Time Collected:** 06/18/09 12:40  
**Date/Time Received:** 06/20/09 08:40  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:48  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	140	1.0	25	



Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium	40.0	37.8	94.5	50.0	47.1	94.2	48.7	97.4	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	47.3	94.6	49.5	99.0	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	49.5	99.0	47.9	95.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	45.8	91.6			M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	40.0	39.6	99.0	50.0	49.5	99.0	50.4	100.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**

-2A-

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	49.7	99.4	50.9	101.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**  
**-2B-**  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200196

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
				True	Found	%R	Found	%R
Selenium				1.00	1.198	119.8		

Comments:

**Total Metals Analysis**  
**-2B-**  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200196

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
				True	Found	%R	Found	%R
Arsenic				1.00	0.975	97.5		

Comments:



## Northgate Environmental Management, Inc.

### Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190B  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 01:54  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	0.70	0.70	5.0	U

**Northgate Environmental Management, Inc.**

**Total Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190B  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:02  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U

**Total Metals Analysis**

-3-

**BLANKS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M	
		C	1	C	2	C	3				C
Selenium	0.700	U	0.700	U	0.700	U	0.700	U	0.70	U	M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Selenium		0.700	U	0.700	U	0.700	U			M

Comments:

**Total Metals Analysis**

-3-

**BLANKS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		C	1	C	2	C	3			
Selenium			0.700	U						M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Arsenic	0.210   U	0.210   U		0.210   U		0.210   U		0.21   U		M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		C	1	C	2	C	3		
Arsenic			0.210	U					M

Comments:

Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Selenium	0.0	100.0	0.45	101.10	101.1	0.10	98.72	98.7



Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.14	98.91	98.9			

**Northgate Environmental Management, Inc.**

**Total Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9F180266-001S  
**MS Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:15  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Selenium	40.0	12		55.2		108		77 - 122

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9F180266-001D  
**MSD Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:28  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Selenium	40.0	12		55.9		110		1.3		77 - 122	20

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 5

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9F180266-001S  
**MS Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:23  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	64		106		106		85 - 117

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 5

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9F180266-001D  
**MSD Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:37  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	64		110		115		3.0		85 - 117	20

Total Metals Analysis  
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Selenium	75 - 125	233.300	11.930	200.00	110.7		M

Comments:

\_\_\_\_\_

\_\_\_\_\_

Total Metals Analysis

-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	211.600	12.776	200.00	99.4		M

Comments:

\_\_\_\_\_

\_\_\_\_\_

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190C  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 01:58  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Selenium	40.0	38.8	97		77 - 122



Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190C  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:06  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	39.6	99		85 - 117

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	M
Selenium	11.930	11.755   B	1.5		M

Comments: \_\_\_\_\_

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	M
Arsenic	12.776	12.830 B	0.4		M

Comments: \_\_\_\_\_

**Total Metals Analysis**

-10-

**DETECTION LIMITS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: \_\_\_\_\_

Furnace AA ID Number: \_\_\_\_\_

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments:

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Total Metals Analysis  
-12-  
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

ICP ID Number: Agilent 7500 Date: 4/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Method: MS Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
INTRA-LAB QC	6/24/2009	50.0	50.0
LAB MS/MSD MS	6/24/2009	50.0	50.0
LAB MS/MSD MSD	6/24/2009	50.0	50.0
M-128B	6/24/2009	50.0	50.0
H-38B	6/24/2009	50.0	50.0
MB9174190	6/24/2009	50.0	50.0
Check Sample	6/24/2009	50.0	50.0

Comments:

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200196

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N				
CAL BLANK	1.00	19:07																			X										
100 PPB	1.00	19:10																			X										
ICV	1.00	19:13																			X										
ICB	1.00	19:20																			X										
RL STD	1.00	19:24																			X										
ICSA	1.00	19:34																			X										
ICSAB	1.00	19:37																			X										
RINSE	1.00	19:40																			X										
LR	1.00	19:44																			X										
RINSE	1.00	19:47																			X										
CCV	1.00	19:52																			X										
CCB	1.00	19:55																			X										
CAL BLANK	1.00	22:17																			X										
100 PPB	1.00	22:20																			X										
CCV	1.00	22:24																			X										
CCB	1.00	22:27																			X										
CCV	1.00	22:58																			X										
CCB	1.00	23:01																			X										
ICSA	1.00	23:08																			X										
ICSAB	1.00	23:11																			X										
WASH	1.00	23:15																			X										
CCV	1.00	23:18																			X										
CCB	1.00	23:21																			X										
CCV	1.00	01:44																			X										
CCB	1.00	01:47																			X										
MB9174190	1.00	01:54																			X										
Check Sample	1.00	01:58																			X										
INTRA-LAB QC	1.00	02:04																			X										
INTRA-LAB QC SER	5.00	02:08																			X										
INTRA-LAB QC PDS	1.00	02:11																			X										
LAB MS/MSD MS	1.00	02:15																			X										
CCV	1.00	02:18																			X										
CCB	1.00	02:21																			X										

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200196

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																							
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N
LAB MS/MSD MSD	1.00	02:28																		X							
M-128B	1.00	02:35																		X							
H-38B	1.00	02:38																		X							
CCV	1.00	02:48																		X							
CCB	1.00	02:52																		X							

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14



Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200196

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/25/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
CAL BLANK	1.00	17:50				X																							
100 PPB	1.00	17:54				X																							
ICV	1.00	17:57				X																							
ICB	1.00	18:04				X																							
RL STD	1.00	18:08				X																							
ICSA	1.00	18:18				X																							
ICSAB	1.00	18:21				X																							
RINSE	1.00	18:25				X																							
LR	1.00	18:28				X																							
RINSE	1.00	18:32				X																							
ALTLR	1.00	18:35				X																							
RINSE	1.00	18:39				X																							
CCV	1.00	18:42				X																							
CCB	1.00	18:46				X																							
CCV	1.00	19:52				X																							
CCB	1.00	19:55				X																							
MB9174190	1.00	20:02				X																							
Check Sample	1.00	20:06				X																							
INTRA-LAB QC	5.00	20:13				X																							
INTRA-LAB QC SER	25.00	20:16				X																							
INTRA-LAB QC PDS	1.00	20:20				X																							
LAB MS/MSD MS	5.00	20:23				X																							
CCV	1.00	20:27				X																							
CCB	1.00	20:30				X																							
LAB MS/MSD MSD	5.00	20:37				X																							
M-128B	5.00	20:44				X																							
H-38B	5.00	20:48				X																							
CCV	1.00	20:58				X																							
CCB	1.00	21:02				X																							

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

**Dissolved Metals**

CLP-Like Forms

Lot ID: D9F200196

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 002

Dissolved Metals Analysis  
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc. SDG No.: D9F200196  
Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_  
SOW No.: \_\_\_\_\_

Sample ID. Lab Sample No.  
M-128BDISS D9F200196-002

Were ICP interelement corrections applied? Yes/No YES  
Were ICP background corrections applied? Yes/No YES  
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins Name: Janice Collins  
Date: 6/30/09 Title: Metals Analyst

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-128BDISS  
**Lab Sample ID:** D9F200196-002  
**Lab WorkOrder:** LFC4C  
**Date/Time Collected:** 06/18/09 08:40  
**Date/Time Received:** 06/20/09 08:40  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/24/09 21:30  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	3.2	0.70	5.0	B

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 10

**Client Sample ID:** M-128BDISS  
**Lab Sample ID:** D9F200196-002  
**Lab WorkOrder:** LFC4C  
**Date/Time Collected:** 06/18/09 08:40  
**Date/Time Received:** 06/20/09 08:40  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 05:52  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	87	2.1	50	

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	40.0	40.2	100.5	50.0	50.0	100.0	50.1	100.2	M
Selenium	40.0	37.8	94.5	50.0	47.1	94.2	49.6	99.2	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	50.3	100.6			M
Selenium				50.0	51.5	103.0	46.7	93.4	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	51.1	102.2	51.1	102.2	M
Selenium				50.0	48.7	97.4	47.3	94.6	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115



Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	51.7	103.4	51.1	102.2	M
Selenium				50.0	49.5	99.0	53.0	106.0	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Dissolved Metals Analysis**

-2A-

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	50.3	100.6	50.4	100.8	M
Selenium				50.0	52.3	104.6	54.5	109.0	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Dissolved Metals Analysis**  
**-2B-**  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200196

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				1.00	0.920	92.0		
Selenium				1.00	1.198	119.8		

Comments:

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-183B  
**Lab WorkOrder:** LFFFC  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/24/09 21:06  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	0.70	0.70	5.0	U

## Northgate Environmental Management, Inc.

### Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D9F200196  
Matrix: WATER  
% Moisture:  
Basis: Wet  
Analysis Method: 6020  
Unit: ug/L  
QC Batch ID: 9174183  
Sample Aliquot: 50 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9F230000-183B  
Lab WorkOrder: LFFFC  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 06/24/09 06:00  
Date/Time Analyzed: 06/25/09 05:28  
Instrument ID: 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U

Dissolved Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank		M
		1	2	3	C	C	C	C		
Arsenic	0.210 U	0.210 U	0.210 U	0.210 U	0.210 U	0.210 U	0.21	U	M	
Selenium	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.70	U	M	

Comments:

Dissolved Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Arsenic		0.210	U	0.210	U	0.210	U			M
Selenium		0.887	B	0.700	U	0.700	U			M

Comments:

Dissolved Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	
		1	C	2	C	3	C	C	M
Arsenic		0.210	U	0.210	U	0.210	U		M
Selenium		0.700	U	0.913	B	0.700	U		M

Comments:



Dissolved Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Arsenic		0.210	U							M
Selenium		0.700	U							M

Comments:

Dissolved Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.15	100.90	100.9	0.17	101.70	101.7
Selenium	0.0	100.0	0.45	101.10	101.1	-0.12	107.30	107.3

Dissolved Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0				0.17	100.60	100.6
Selenium	0.0	100.0				0.10	98.72	98.7

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9F180314-002S  
**MS Lab WorkOrder:** LE71E  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/24/09 21:23  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Selenium	40.0	7.1		51.7		111		77 - 122

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9F180314-002D  
**MSD Lab WorkOrder:** LE71E  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/24/09 21:26  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Selenium	40.0	7.1		48.1		102		7.2		77 - 122	20

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 10

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9F180314-002S  
**MS Lab WorkOrder:** LE71E  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 05:45  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	110		156		116		85 - 117

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 10

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9F180314-002D  
**MSD Lab WorkOrder:** LE71E  
**Date/Time Collected:** 06/15/09 10:45  
**Date/Time Received:** 06/17/09 09:30  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 05:48  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	110		158		120	N	1.2		85 - 117	20

Dissolved Metals Analysis  
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added(SA)	%R	Q	M
Arsenic	75 - 125	207.600	10.970	200.00	98.3		M
Selenium	75 - 125	227.800	7.126	200.00	110.3		M

Comments:

\_\_\_\_\_



**Northgate Environmental Management, Inc.**

**Dissolved Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-183C  
**Lab WorkOrder:** LFFFC  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/24/09 21:10  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Selenium	40.0	40.2	101		77 - 122

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200196  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174183  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-183C  
**Lab WorkOrder:** LFFFC  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 05:32  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	41.7	104		85 - 117

Dissolved Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	M
Arsenic	10.970	11.210   B	2.2		M
Selenium	7.126	6.770   B	5.0		M

Comments: \_\_\_\_\_

Dissolved Metals Analysis

-10-

DETECTION LIMITS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: \_\_\_\_\_

Furnace AA ID Number: \_\_\_\_\_

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dissolved Metals Analysis  
-12-  
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

ICP ID Number: Agilent 7500 Date: 4/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dissolved Metals Analysis

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PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200196

Method: MS Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
INTRA-LAB QC	6/24/2009	50.0	50.0
LAB MS/MSD MS	6/24/2009	50.0	50.0
LAB MS/MSD MSD	6/24/2009	50.0	50.0
M-128BDISS	6/24/2009	50.0	50.0
MB9174183	6/24/2009	50.0	50.0
Check Sample	6/24/2009	50.0	50.0

Comments:

Dissolved Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200196

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N				
CAL BLANK	1.00	19:07			X															X											
100 PPB	1.00	19:10			X															X											
ICV	1.00	19:13			X															X											
ICB	1.00	19:20			X															X											
RL STD	1.00	19:24			X															X											
ICSA	1.00	19:34			X															X											
ICSAB	1.00	19:37			X															X											
RINSE	1.00	19:40			X															X											
LR	1.00	19:44			X															X											
RINSE	1.00	19:47			X															X											
CCV	1.00	19:52			X															X											
CCB	1.00	19:55			X															X											
CCV	1.00	20:36			X															X											
CCB	1.00	20:39			X															X											
ICSA	1.00	20:46			X															X											
ICSAB	1.00	20:49			X															X											
WASH	1.00	20:52			X															X											
CCV	1.00	20:56			X															X											
CCB	1.00	20:59			X															X											
MB9174183	1.00	21:06																		X											
Check Sample	1.00	21:10																		X											
INTRA-LAB QC	1.00	21:13																		X											
INTRA-LAB QC SER	5.00	21:16																		X											
INTRA-LAB QC PDS	1.00	21:20																		X											
LAB MS/MSD MS	1.00	21:23																		X											
LAB MS/MSD MSD	1.00	21:26																		X											
M-128BDISS	1.00	21:30																		X											
CCV	1.00	21:33																		X											
CCB	1.00	21:36			X															X											
CAL BLANK	1.00	22:17			X															X											
100 PPB	1.00	22:20			X															X											
CCV	1.00	22:24			X															X											
CCB	1.00	22:27			X															X											

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Dissolved Metals Analysis

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ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200196

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
CCV	1.00	22:58			X															X									
CCB	1.00	23:01			X															X									
ICSA	1.00	23:08			X															X									
ICSAB	1.00	23:11			X															X									
WASH	1.00	23:15			X															X									
CCV	1.00	23:18			X															X									
CCB	1.00	23:21			X															X									
CAL BLANK	1.00	04:51			X															X									
100 PPB	1.00	04:54			X															X									
CCV	1.00	04:57			X															X									
CCB	1.00	05:01			X															X									
CCV	1.00	05:18			X															X									
CCB	1.00	05:21			X															X									
MB9174183	1.00	05:28			X																								
Check Sample	1.00	05:32			X																								
INTRA-LAB QC	10.00	05:35			X																								
INTRA-LAB QC SER	50.00	05:38			X																								
INTRA-LAB QC PDS	1.00	05:42			X																								
LAB MS/MSD MS	10.00	05:45			X																								
LAB MS/MSD MSD	10.00	05:48			X																								
M-128BDISS	10.00	05:52			X																								
CCV	1.00	05:55			X															X									
CCB	1.00	05:59			X															X									

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14



TestAmerica

**Total Metals**

CLP-Like Forms

Lot ID: D9F200199

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001 and 002



## Northgate Environmental Management, Inc.

### Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D9F200199  
Matrix: WATER  
% Moisture: N/A  
Basis: Wet  
Analysis Method: 6020  
Unit: ug/L  
QC Batch ID: 9174190  
Sample Aliquot: 50 mL  
Dilution Factor: 1

Client Sample ID: M-19B  
Lab Sample ID: D9F200199-001  
Lab WorkOrder: LFC4P  
Date/Time Collected: 06/19/09 09:10  
Date/Time Received: 06/20/09 08:40  
Date Leached:  
Date/Time Extracted: 06/24/09 06:00  
Date/Time Analyzed: 06/25/09 02:42  
Instrument ID: 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	3.1	0.70	5.0	B

**Northgate Environmental Management, Inc.**

**Total Metals Analysis Data Sheet**

<b>Lab Name:</b>	<u>TESTAMERICA DENVER</u>	<b>Client Sample ID:</b>	<u>M-19B</u>
<b>Lot/SDG Number:</b>	<u>D9F200199</u>	<b>Lab Sample ID:</b>	<u>D9F200199-001</u>
<b>Matrix:</b>	<u>WATER</u>	<b>Lab WorkOrder:</b>	<u>LFC4P</u>
<b>% Moisture:</b>	<u>N/A</u>	<b>Date/Time Collected:</b>	<u>06/19/09 09:10</u>
<b>Basis:</b>	<u>Wet</u>	<b>Date/Time Received:</b>	<u>06/20/09 08:40</u>
<b>Analysis Method:</b>	<u>6020</u>	<b>Date Leached:</b>	
<b>Unit:</b>	<u>ug/L</u>	<b>Date/Time Extracted:</b>	<u>06/24/09 06:00</u>
<b>QC Batch ID:</b>	<u>9174190</u>	<b>Date/Time Analyzed:</b>	<u>06/25/09 20:51</u>
<b>Sample Aliquot:</b>	<u>50 mL</u>	<b>Instrument ID:</b>	<u>024</u>
<b>Dilution Factor:</b>	<u>5</u>		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	150	1.0	25	

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200199  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:** M-34B  
**Lab Sample ID:** D9F200199-002  
**Lab WorkOrder:** LFC4Q  
**Date/Time Collected:** 06/19/09 11:40  
**Date/Time Received:** 06/20/09 08:40  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:45  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	6.7	0.70	5.0	

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200199  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 5

**Client Sample ID:** M-34B  
**Lab Sample ID:** D9F200199-002  
**Lab WorkOrder:** LFC4Q  
**Date/Time Collected:** 06/19/09 11:40  
**Date/Time Received:** 06/20/09 08:40  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:55  
**Instrument ID:** 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	91	1.0	25	

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium	40.0	37.8	94.5	50.0	47.1	94.2	48.7	97.4	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**  
 -2A-  
**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	47.3	94.6	49.5	99.0	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115



**Total Metals Analysis**  
 -2A-  
**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	49.5	99.0	47.9	95.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Selenium				50.0	45.8	91.6			M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**

-2A-

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	40.0	39.6	99.0	50.0	49.5	99.0	50.4	100.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**

-2A-

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				50.0	49.7	99.4	50.9	101.8	M

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

**Total Metals Analysis**  
**-2B-**  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200199

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial			Final	
				True	Found	%R	Found	%R
Selenium				1.00	1.198	119.8		

Comments:

**Total Metals Analysis**  
**-2B-**  
**CRDL STANDARD FOR AA AND ICP**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200199

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				1.00	0.975	97.5		

Comments:

## Northgate Environmental Management, Inc.

### Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D9F200199  
Matrix: WATER  
% Moisture:  
Basis: Wet  
Analysis Method: 6020  
Unit: ug/L  
QC Batch ID: 9174190  
Sample Aliquot: 50 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9F230000-190B  
Lab WorkOrder: LFFFX  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 06/24/09 06:00  
Date/Time Analyzed: 06/25/09 01:54  
Instrument ID: 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7782-49-2	Selenium	0.70	0.70	5.0	U

## Northgate Environmental Management, Inc.

### Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D9F200199  
Matrix: WATER  
% Moisture:  
Basis: Wet  
Analysis Method: 6020  
Unit: ug/L  
QC Batch ID: 9174190  
Sample Aliquot: 50 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9F230000-190B  
Lab WorkOrder: LFFFX  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 06/24/09 06:00  
Date/Time Analyzed: 06/25/09 20:02  
Instrument ID: 024

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U



Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Selenium	0.700	U	0.700	U	0.700	U	0.700	U	0.70	U	M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Selenium		0.700	U	0.700	U	0.700	U			M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Selenium		0.700	U							M

Comments:

**Total Metals Analysis**

-3-

**BLANKS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Arsenic	0.210 U	0.210	U	0.210	U	0.210	U	0.21	U	M

Comments:

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Arsenic		0.210	U							M

Comments:

Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Selenium	0.0	100.0	0.45	101.10	101.1	0.10	98.72	98.7

**Total Metals Analysis**

-4-

**ICP INTERFERENCE CHECK SAMPLE**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.14	98.91	98.9			

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200199  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9F180266-001S  
**MS Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:15  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Selenium	40.0	12		55.2		108		77 - 122



Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200199  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9F180266-001D  
**MSD Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 02:28  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Selenium	40.0	12		55.9		110		1.3		77 - 122	20

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200199  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MS Sample Aliquot:** 50 mL  
**MS Dilution Factor:** 5

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9F180266-001S  
**MS Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:23  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	64		106		106		85 - 117

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200199  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**MSD Sample Aliquot:** 50 mL  
**MSD Dilution Factor:** 5

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9F180266-001D  
**MSD Lab WorkOrder:** LE7CT  
**Date/Time Collected:** 06/16/09 09:00  
**Date/Time Received:** 06/18/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:37  
**Instrument ID:** 024

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	64		110		115		3.0		85 - 117	20

Total Metals Analysis  
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added(SA)	%R	Q	M
Selenium	75 - 125	233.300	11.930	200.00	110.7		M

Comments:

\_\_\_\_\_

Total Metals Analysis  
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	211.600	12.776	200.00	99.4		M

Comments:

\_\_\_\_\_

\_\_\_\_\_

## Northgate Environmental Management, Inc.

### Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D9F200199  
Matrix: WATER  
% Moisture: N/A  
Basis: Wet  
Analysis Method: 6020  
Unit: ug/L  
QC Batch ID: 9174190  
Sample Aliquot: 50 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9F230000-190C  
Lab WorkOrder: LFFFX  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 06/24/09 06:00  
Date/Time Analyzed: 06/25/09 01:58  
Instrument ID: 024

Analyte	True	Found	%Rec	Q	Limits
Selenium	40.0	38.8	97		77 - 122

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9F200199  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 6020  
**Unit:** ug/L  
**QC Batch ID:** 9174190  
**Sample Aliquot:** 50 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9F230000-190C  
**Lab WorkOrder:** LFFFX  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 06/24/09 06:00  
**Date/Time Analyzed:** 06/25/09 20:06  
**Instrument ID:** 024

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	39.6	99		85 - 117

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	M
Selenium	11.930	11.755 B	1.5		M

Comments: \_\_\_\_\_



**Total Metals Analysis**  
 -9-  
 ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	Serial Dilution Result (S)	% Difference	Q	M
	C	C			
Arsenic	12.776	12.830	0.4		M

Comments: \_\_\_\_\_

**Total Metals Analysis**

-10-

**DETECTION LIMITS**

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: \_\_\_\_\_

Furnace AA ID Number: \_\_\_\_\_

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total Metals Analysis  
-12-  
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

ICP ID Number: Agilent 7500 Date: 4/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9F200199

Method: MS Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
INTRA-LAB QC	6/24/2009	50.0	50.0
LAB MS/MSD MS	6/24/2009	50.0	50.0
LAB MS/MSD MSD	6/24/2009	50.0	50.0
M-19B	6/24/2009	50.0	50.0
M-34B	6/24/2009	50.0	50.0
MB9174190	6/24/2009	50.0	50.0
Check Sample	6/24/2009	50.0	50.0

Comments:

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200199

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N				
CAL BLANK	1.00	19:07																			X										
100 PPB	1.00	19:10																			X										
ICV	1.00	19:13																			X										
ICB	1.00	19:20																			X										
RL STD	1.00	19:24																			X										
ICSA	1.00	19:34																			X										
ICSAB	1.00	19:37																			X										
RINSE	1.00	19:40																			X										
LR	1.00	19:44																			X										
RINSE	1.00	19:47																			X										
CCV	1.00	19:52																			X										
CCB	1.00	19:55																			X										
CAL BLANK	1.00	22:17																			X										
100 PPB	1.00	22:20																			X										
CCV	1.00	22:24																			X										
CCB	1.00	22:27																			X										
CCV	1.00	22:58																			X										
CCB	1.00	23:01																			X										
ICSA	1.00	23:08																			X										
ICSAB	1.00	23:11																			X										
WASH	1.00	23:15																			X										
CCV	1.00	23:18																			X										
CCB	1.00	23:21																			X										
CCV	1.00	01:44																			X										
CCB	1.00	01:47																			X										
MB9174190	1.00	01:54																			X										
Check Sample	1.00	01:58																			X										
INTRA-LAB QC	1.00	02:04																			X										
INTRA-LAB QC SER	5.00	02:08																			X										
INTRA-LAB QC PDS	1.00	02:11																			X										
LAB MS/MSD MS	1.00	02:15																			X										
CCV	1.00	02:18																			X										
CCB	1.00	02:21																			X										

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200199

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/24/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
LAB MS/MSD MSD	1.00	02:28																			X								
M-19B	1.00	02:42																			X								
M-34B	1.00	02:45																			X								
CCV	1.00	02:48																			X								
CCB	1.00	02:52																			X								

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9F200199

Instrument ID Number: Agilent 7500 Method: M

Start Date: 6/25/2009 End Date: 6/25/2009

Sample ID.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	N A	T L	V	Z N	C N				
CAL BLANK	1.00	17:50			X																										
100 PPB	1.00	17:54			X																										
ICV	1.00	17:57			X																										
ICB	1.00	18:04			X																										
RL STD	1.00	18:08			X																										
ICSA	1.00	18:18			X																										
ICSAB	1.00	18:21			X																										
RINSE	1.00	18:25			X																										
LR	1.00	18:28			X																										
RINSE	1.00	18:32			X																										
ALTLR	1.00	18:35			X																										
RINSE	1.00	18:39			X																										
CCV	1.00	18:42			X																										
CCB	1.00	18:46			X																										
CCV	1.00	19:52			X																										
CCB	1.00	19:55			X																										
MB9174190	1.00	20:02			X																										
Check Sample	1.00	20:06			X																										
INTRA-LAB QC	5.00	20:13			X																										
INTRA-LAB QC SER	25.00	20:16			X																										
INTRA-LAB QC PDS	1.00	20:20			X																										
LAB MS/MSD MS	5.00	20:23			X																										
CCV	1.00	20:27			X																										
CCB	1.00	20:30			X																										
LAB MS/MSD MSD	5.00	20:37			X																										
M-19B	5.00	20:51			X																										
M-34B	5.00	20:55			X																										
CCV	1.00	20:58			X																										
CCB	1.00	21:02			X																										

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14





*TestAmerica Denver*  
**Sample Receiving Checklist**

Lot #: D9F180260 Date/Time Received: 6/18/09 0915  
 Company Name & Sampling Site: Northgate - TRONOX

**PM to Complete This Section:** Yes  No  Quarantined: Yes  No

Quote #: 83046

Special Instructions:

Time Zone:  
 • EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

**Unpacking Checks:**

Cooler #(s): \_\_\_\_\_

Temperatures (°C): 2-7 \_\_\_\_\_

N/A Yes No

*Initials*

- |                                     |                                     |                                     |   |            |
|-------------------------------------|-------------------------------------|-------------------------------------|---|------------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.   | <u>WTC</u> |
| -                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ___ No: ___   |            |
|                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 3. Chain of custody present? If no, document on CUR.  |            |
|                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 4. Bottles broken and/or are leaking? If yes, document on CUR.  |            |
|                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 5. Multiphasic samples obvious? If yes, document on CUR.  |            |
|                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.  |            |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 7. pH of all samples checked and meet requirements? If no, document on CUR.   |            |
|                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.                                |            |
|                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.  |            |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | 10. Were VOA samples without headspace? If no, document on CUR.   |            |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 11. Were VOA vials preserved? Preservative <input type="checkbox"/> HCl <input type="checkbox"/> 4±2°C <input type="checkbox"/> Sodium Thiosulfate <input type="checkbox"/> Ascorbic Acid |            |
|                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 12. Did samples require preservation with sodium thiosulfate?   |            |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.  |            |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.  |            |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.  |            |
|                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.   |            |
|                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 17. Are analyses with short holding times requested?  |            |
|                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 18. Was a quick Turn Around (TAT) requested?  |            |

*TestAmerica Denver*  
**Sample Receiving Checklist**

Lot # D9F180266

**Login Checks:**

*Initials*

N/A Yes No

Jm

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? 1
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

**Labeling and Storage Checks:**

*Initials*

CH

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

APR 16/17/9

Required Ship to Lab: TestAmerica  
 Required Project Information: TRONOX LLC, HENDERSON  
 Required Invoice Information: Susan Crowley, Tironox LLC

Lab Name: TestAmerica  
 Address: 4955 Yarrow Street  
 Project #: 2027.001  
 Site Address: 560 W. Lake Mead Drive  
 City/State: Henderson, NV 89009  
 Phone #: (949) 260-9233

Arvada, CO 80002  
 Lab PM: Michael P. Phillips  
 City: Henderson  
 State: NV  
 Lab PM Email: mpphills@testamericainc.com  
 Site PM Name: Derrick Willis  
 Phone/Fax: 303-736-0157  
 Site PM Email: derrick.willis@ngem.com

Lab PM email: testamericainc.com  
 Site PM Email: derrick.willis@ngem.com  
 CC Hardcopy report to: PDF Electronic Version Only  
 CC Hardcopy report to: see additional comments below

Reimbursement project?  Non-reimbursement project?   
 Send EDD to: Frank Hagar Northgate Environmental Management, Inc.  
 CC Hardcopy report to: PDF Electronic Version Only

TAT: Standard 30 day  Rush  
 If Rush, Date due:   
 QC level Required: Standard  
 Special EPA Stage 4 Mark one  
 MA MCP Cert?  CT RCP Cert?  Mark One

Requested Analyses: EPA 8020 Collision Cell  
 Comments/Lab Sample I.D.

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / -)	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	PRESERVATIVES								Temp in OC	Samples on Ice?	Sample intact?	Trip Blank?
							Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other				
1	M-130B	G	6/15/2009	10:45	1	N		X										
2	M-130BDISS	WG	6/15/2009	10:45	1	Y		X										
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Additional Comments/Special Instructions:  
 As Se only by collision cell  
 All PDF reports and EDDs will be uploaded to:  
 Northgate Environmental Management, Inc.  
 FTP site address provided to labs  
 Notifications provided to:  
 cindy.arnold@ngem.com  
 frank.hagar@ngem.com

REQUISITIONED BY: AFFILIATION: DATE: TIME: ACCEPTED BY: AFFILIATION: DATE: TIME:  
 SUPPLYING METHOD: (pick as appropriate)  
 UPS (COURIER) FEDEX  
 PRINT NAME OF SAMPLER: Doug Davis  
 SIGNATURE OF SAMPLER: [Signature]  
 DATE SIGNED: 6/15/09  
 TIME: 1703

TestAmerica Denver  
Sample Receiving Checklist

Lot #: DAF180314 Date/Time Received: 6/17/09 0930  
Company Name & Sampling Site: Northgate - TRONOX

PM to Complete This Section: Yes No  
Residual chlorine check required:   Quarantined:

Quote #: 83046

Special Instructions:

Metals forms

Time Zone:  
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures (°C): 2.7

N/A Yes No

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes:  No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative  HCl  4±2°C  Sodium Thiosulfate  Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

Initials  
AB

TestAmerica Denver  
Sample Receiving Checklist

Lot # DAF180314

**Login Checks:**

Initials

N/A Yes No

AB

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) document on CUR, and contact PM before proceeding. If no,
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed?
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

**Labeling and Storage Checks:**

Initials

AB

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).



TestAmerica Denver  
Sample Receiving Checklist

Lot #: D9F190216 Date/Time Received: 6/19/9 0900

Company Name & Sampling Site: Northgate Tronox

PM to Complete This Section: Yes No  
Residual chlorine check required:   Quarantined:

Quote #: 83046

Special Instructions:

Time Zone:  
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): 2

Temperatures (°C): 3.6 2.2

N/A Yes No

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading  $\leq$  to background levels? Yes:  No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative  HCl  4±2°C  Sodium Thiosulfate  Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

*Initials*  
[Signature]

TestAmerica Denver  
Sample Receiving Checklist

Lot # D9F190216

Login Checks:

N/A Yes No

Initials  
AB

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? All
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

AB

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).





TestAmerica Denver  
Sample Receiving Checklist

Lot #: D9F200196 Date/Time Received: 6/20/9 0840

Company Name & Sampling Site: Northgate Tronox

PM to Complete This Section: Yes  No  Quarantined: Yes  No

Quote #: 83046

Special Instructions:

Time Zone: PDT/PST  
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): \_\_\_\_\_

Temperatures (°C): 1.5°C \_\_\_\_\_

N/A Yes No

Initials

SR

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading  $\leq$  to background levels? Yes: \_\_\_\_\_ No: \_\_\_\_\_
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative  HCl  4±2°C  Sodium Thiosulfate  Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver  
Sample Receiving Checklist

Lot # D9F200196

Login Checks:

N/A Yes No

Initials  
AC

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? All
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

LC

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).



1100 Quail Street, Suite 102, Newport Beach, CA 92660  
(949) 260-9293

### CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00108  
Page: 1 of 4  
Cooler # 1 of 1

4.2°C RC  
6/20/09 IRZ

Required Ship to Lab:		Required Project Information:				Required Invoice Information:				TAT: Standard 30 day		Rush	Mark One
Lab Name:	TestAmerica	Site ID #:	TRONOX LLC, HENDERSON			Send Invoice to:	Susan Crowley Tronox LLC			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Address:	4955 Yarrow Street	Project #:	2027.001			Address:	PO Box 55			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arvada, CO 80002		Site Address:	560 W. Lake Mead Drive			City/State:	Henderson, NV 89009			Phone #:	(949)260-9293		
Lab PM:	Michael P. Phillips	City:	Henderson			Reimbursement project?	<input checked="" type="checkbox"/>			Non-reimbursement project?	<input type="checkbox"/>		
Phone/Fax:	303-736-0157	Site PM Name:	Derrick Willis			Send EDD to:	Frank Hagar Northgate Environmental Management, Inc frank.hagar@ngem.com			Mark one	<input type="checkbox"/>		
Lab PM email:	michaelp@ngem.com	Phone/Fax:	949-375-7004			CC Hardcopy report to:	PDF Electronic Version Only			MA MCP Cert?	<input type="checkbox"/>		
Applicable Lab Quote #:		Site PM Email:	derrick.willis@ngem.com			CC Hardcopy report to:	see additional comments below			CT RCP Cert?	<input type="checkbox"/>		
										Lab Project ID (lab use)			
ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / -)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Requested Analyses	Comments/Lab Sample I.D.				
1	M-19B	WG	G	6/19/2009	9:10	1	N	EPA 8020/Collision Cell EPA 8141 OPP Pest	500 ml Plastic				
2	M-34B	WG	G	6/19/2009	11:40	1	N		500 ml Plastic				
3	M-34B	WG	G	6/19/2009	11:40	2	N		2 x 1 L Amber Glass				
4													
5													
6													
7													
8													
9													
10													
11													
12													

Additional Comments/Special Instructions:  
As Se only by collision cell  
All PDF reports and EDDs will be uploaded to:  
Northgate Environmental Management, Inc.  
FTP site address provided to labs  
Notifications provided to:  
clindy.armold@ngem.com  
frank.hagar@ngem.com

REFINISHED BY AFFILIATION	DATE	TIME	ACCEPTED BY AFFILIATION	DATE	TIME	Temp in OC	Samples on Ice?	Sample intact?	Temp Blank?
<i>[Signature]</i>	6/19	1350	<i>[Signature]</i>	6/19	1350		Y/N	Y/N	Y/N
<i>[Signature]</i>	6/19	1400	<i>[Signature]</i>	6/20	0840		Y/N	Y/N	Y/N

*TestAmerica Denver*  
**Sample Receiving Checklist**

Lot #: DAF200199 Date/Time Received: 6/20/9 0840

Company Name & Sampling Site: Northgate

PM to Complete This Section: Yes  No  Quarantined: Yes  No

Quote #: 83046

Special Instructions:

Time Zone:  
 EDT/EST •  CDT/CST •  MDT/MST •  PDT/PST •  OTHER

**Unpacking Checks:**

Cooler #(s): \_\_\_\_\_

Temperatures (°C): 4.2 \_\_\_\_\_

N/A Yes No

Initials

JK

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: \_\_\_ No: \_\_\_
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 7. pH of all samples checked and meet requirements? If no, document on CUR.
- 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 10. Were VOA samples without headspace? If no, document on CUR.
- 11. Were VOA vials preserved? Preservative  HCl  4±2°C  Sodium Thiosulfate  Ascorbic Acid
- 12. Did samples require preservation with sodium thiosulfate?
- 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 17. Are analyses with short holding times requested?
- 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver  
Sample Receiving Checklist

Lot # D9F200199

Login Checks:

Initials  
AC

N/A Yes No

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? All
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

LC

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box? See #27
- 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

# Semivolatile GC

Supporting Documentation

Sample Sequence, Chromatograms

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9F180266

Client: Northgate

Method: 8141

Associated Samples: 2

Batch #(s): 9173103

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date: N.E. 07.01.09

**GC SEMIVOLATILE  
ORGANIC EXTRACTION  
LOG SHEETS**





LEV	LEV	LEV	LEV
1	2	1	2
Y	Y	Y	Y
Y	Y	Y	Y
-	-	Y	Y

Blank Check MS/MSD  
Weights/Volumes Spike & Surrogate Worksheet  
Vial contains correct volume Labels, greenbars, worksheets  
computer batch: correct & all match  
Anomalies to Extraction Method

Expanded Deliverable  
COC Completed  
Bench Sheet Copied  
Package Submitted to Analytical Group  
Bench Sheet Copied per COC

Extractionist: 008268 Katie Stoltz  
Concentrationist: 000906 Sarah Otis

\*\*\*\*\*  
\* QC BATCH: 9173103 \*  
\* \*\*\*\*\*

PREP DATE: 6/22/09 12:00  
COMP DATE: 6/23/09 23:20

Reviewer/Date: OTISS / 6/23/09

Compounds, Organophosphorus (8141A)  
LIO/LIQ, SKP FUNNEL (PAH, P/P, TPH, Dioxin) - Nominal

EXTR EXPR	ANL DUE	LOT# WORK ORDER	MSPRUN# / ORDER	TEST FIGS	EXT MTH	MATRIX	INIT/FIN WT/VOL	PH'S ADJT	ADJ2	EXTRACTION VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID			
6/23/09	6/30/09	D9F180266-002	IE7ER-1-AA	DR	09	P2	WATER	1064mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6.4.09

6/24/09	7/01/09	D9F190216-002	IE9Q6-1-AA	DR	09	P2	WATER	1066mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6.4.09
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6/24/09	7/01/09	D9F190216-003	IE9RA-1-AA	DR	09	P2	WATER	1066mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6.4.09
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6/26/09	7/02/09	D9F2200199-002	IEC4Q-1-AD	DR	09	P2	WATER	1054mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6.4.09
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6/23/09	0/00/00	D9F2200000-103	IEF4W-1-AAB	09	P2	WATER	1000mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6.4.09
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6/23/09	0/00/00	D9F2200000-103	IEF4W-1-ACC	09	P2	WATER	1000mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0682 6.4.09
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6/23/09	0/00/00	D9F2200000-103	IEF4W-1-ADL	R	09	P2	WATER	1000mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0682 6.4.09
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DV-OP-0006/7 BAL:M27995 H2O:ELGA+NACL:G47616 NA2S04:G45627 MECL2:H10J07  
S/S:KS-F W:KA SHARE MB LCS/D 9173102 TORBOVAP:A@40C HEX:H11E04 PIP:CON-6

R = RUSH C = CLP  
E = EPA 600 D = EXP. DEL)

NUMBER OF WORK ORDERS IN BATCH: 7

**GC SEMIVOLATILE  
INSTRUMENT  
LOG SHEETS**

**TestAmerica**  
  
THE LEADER IN ENVIRONMENTAL TESTING

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L5 GSV0635				
4	Vial 4	LE5PX1AA,MB				
5	Vial 5	LE5PX1AC,LCS				
6	Vial 6	LE5PX1AD,LCS				
7	Vial 7	LE39F1AA,179-1				
8	Vial 8	LE3PF1AA,179-2				
9	Vial 9	LE39L1AA,179-3				
10	Vial 10	LFARL1AA,MB				
11	Vial 11	LFARL1AC,LCS				
12	Vial 12	LFARL1AD,LCS				
13	Vial 13	LEKLE2AE,180-2				
14	Vial 14	LEKLF2AE,180-3				
15	Vial 15	LEKLL2AE,180-4				
16	Vial 16	LEKLO2AE,180-5				
17	Vial 17	LENR72AD,322-1				
18	Vial 18	LEPG32AJ,161-1				
19	Vial 19	OPP L5 GSV0635				
20	Vial 20	LFD4N1AA,MB				
21	Vial 21	LFD4N1AC,LCS				
22	Vial 22	LFD4N1AD,LCS				
23	Vial 23	LE3041AJ,158-1				
24	Vial 24	LFD4W1AA,MB				
25	Vial 25	LFD4W1AC,LCS				
26	Vial 26	LFD4W1AD,LCS				
27	Vial 27	LE7EE1AA,266-2				
28	Vial 28	LE9Q61AA,216-2				
29	Vial 29	LE9RA1AA,216-3				
30	Vial 30	LFC4Q1AD,199-2				
31	Vial 31	OPP L5 GSV0635				
32	Vial 32	LFAN01AA,MB				
33	Vial 33	LFAN01AC,LCS				
34	Vial 34	LFAN01AD,LCS				
35	Vial 35	LE4291AA,273-1				
36	Vial 36	LE4291AD,273-1S				
37	Vial 37	LE4291AE,273-1D				
38	Vial 38	LE9PJ1AA,215-1				
39	Vial 39	OPP L5 GSV0635				
40	Vial 40	OPP L1 GSV0641				
41	Vial 100	HEXANE/ACETONE				

*— bad injection; ccv not needed, only 9 samples*

Sequence Table (Back Injector):

No entries - empty table!

**GC SEMIVOLATILE  
CONTINUING CALIBRATION DATA**

**TestAmerica**  
  
THE LEADER IN ENVIRONMENTAL TESTING

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6816	10.6	15.0
2 Dichlorvos	3.0000	2.8457	5.1	15.0
3 Mevinphos	3.0000	2.6789	10.7	15.0
4 Chlormefos	3.0000	3.1969	6.6	15.0
5 Thionazin	3.0000	2.8724	4.3	15.0
6 Demeton-O	0.9750	0.9537	2.2	15.0
7 Ethoprop	3.0000	2.9060	3.1	15.0
8 Naled	3.0000	2.3519	21.6	15.0
9 Sulfotepp	3.0000	3.1051	3.5	15.0
10 Phorate	3.0000	3.0333	1.1	15.0
11 Dimethoate	3.0000	3.0797	2.7	15.0
12 Demeton-S	2.0400	2.1332	4.6	15.0
13 Simazine	3.0000	3.3112	10.4	15.0
14 Atrazine	3.0000	3.1680	5.6	15.0
15 propazine	3.0000	3.1813	6.0	15.0
17 Disulfoton	3.0000	2.9623	1.3	15.0
16 Diazinon	3.0000	3.1341	4.5	15.0
18 Methyl Parathion	3.0000	3.0020	0.1	15.0
19 Ronnel	3.0000	2.9298	2.3	15.0
20 Malathion	3.0000	2.9153	2.8	15.0
21 Fenthion	3.0000	2.9311	2.3	15.0
22 Parathion	3.0000	2.9803	0.7	15.0
23 Chlorpyrifos	3.0000	3.1137	3.8	15.0
24 Trichloronate	3.0000	3.1459	4.9	15.0
25 Anilazine	3.0000	1.5882	47.1	15.0
148 Merphos-A (Merphos)	3.0000	2.1991	26.7	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.6173	12.8	15.0
28 Tokuthion	3.0000	3.1710	5.7	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.9483	131.6	999.0
29 Carbophenothion-methyl	3.0000	3.0127	0.4	15.0
29 Fensulfothion	3.0000	2.8001	6.7	15.0
30 Bolstar / Famphur	6.0000	5.9498	0.8	15.0
32 Carbophenothion	3.0000	3.0373	1.2	15.0
31 Triphenyl phosphate	3.0000	2.9775	0.8	15.0
34 Phosmet	3.0000	2.8475	5.1	15.0
32 EPN	3.0000	3.0078	0.3	15.0
33 Azinphos-methyl	3.0000	2.8768	4.1	15.0
35 Azinphos-ethyl	3.0000	2.9631	1.2	15.0
36 Coumaphos	3.0000	3.0385	1.3	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.2247	7.5	15.0
40 Total Demeton	3.0000	3.0869	2.9	15.0

Average %D = 9.19

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 02:41  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 19 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds						AMOUNTS	
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
1 o,o,o-TEPT	3.276	3.254	(0.184)	288332	3.00000	2.682	
2 Dichlorvos	4.081	4.074	(0.229)	190001	3.00000	2.846	
3 Mevinphos	5.740	5.739	(0.322)	98255	3.00000	2.679	
\$ 4 Chlormefos	5.835	5.836	(0.327)	267292	3.00000	3.197	
5 Thionazin	7.506	7.507	(0.421)	219177	3.00000	2.872	
6 Demeton-O	7.646	7.649	(0.429)	69455	0.97500	0.9537	
7 Ethoprop	7.848	7.852	(0.440)	194316	3.00000	2.906	
8 Naled	8.055	8.057	(0.451)	39036	3.00000	2.352	
* 9 Tributylphosphate	8.110	8.135	(1.000)	141606	2.00000		
10 Sulfotepp	8.438	8.442	(0.473)	295169	3.00000	3.105	
11 Phorate	8.530	8.532	(0.478)	210053	3.00000	3.033	
12 Dimethoate	8.656	8.659	(0.485)	247743	3.00000	3.080	
13 Demeton-S	8.838	8.846	(0.495)	124437	2.04000	2.133	
14 Simazine	8.921	8.924	(0.500)	90186	3.00000	3.311	
15 Atrazine	9.090	9.094	(0.509)	98818	3.00000	3.168	
16 propazine	9.236	9.241	(0.518)	91559	3.00000	3.181	
17 Disulfoton	9.866	9.869	(0.553)	138461	3.00000	2.962	
18 Diazinon	9.900	9.902	(0.555)	233134	3.00000	3.134	
19 Methyl Parathion	10.715	10.717	(0.601)	141620	3.00000	3.002	
20 Ronnel	11.240	11.241	(0.630)	142874	3.00000	2.930	
21 Malathion	11.800	11.804	(0.661)	129106	3.00000	2.915	
22 Fenthion	11.930	11.932	(0.669)	140561	3.00000	2.931	
23 Parathion	12.018	12.019	(0.674)	152105	3.00000	2.980	
24 Chlorpyrifos	12.066	12.067	(0.676)	192261	3.00000	3.114	
25 Trichloronate	12.495	12.496	(0.700)	173613	3.00000	3.146	
26 Anilazine	12.818	12.817	(0.718)	7053	3.00000	1.588	
27 Merphos-A (Merphos)	13.198	13.199	(0.740)	101256	3.00000	2.199	
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	80093	3.00000	2.617	
29 Tokuthion	14.446	14.449	(0.810)	167753	3.00000	3.171	
30 Merphos-B (Merphos Oxone)	14.648	14.651	(0.821)	86264	3.00000	6.948 (A)	
31 Carbophenothion-methyl	15.236	15.239	(0.854)	121998	3.00000	3.013	
32 Fensulfothion	15.360	15.361	(0.861)	122599	3.00000	2.800	
33 Bolstar / Famphur	16.051	16.053	(0.900)	301122	6.00000	5.950	

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.195	16.197	(0.908)	154215	3.00000	3.037
S 35 Triphenyl phosphate	16.710	16.712	(0.936)	114885	3.00000	2.977 (A)
36 Phosmet	16.963	16.963	(0.951)	123749	3.00000	2.848
37 EPN	17.150	17.151	(0.961)	125827	3.00000	3.008
38 Azinphos-methyl	17.480	17.480	(0.980)	133223	3.00000	2.877
* 39 TOCP	17.843	17.846	(1.000)	76317	2.00000	
40 Azinphos-ethyl	17.925	17.926	(1.005)	150049	3.00000	2.963
41 Coumaphos	18.365	18.366	(1.029)	113491	3.00000	3.038
S 42 Merphos				187520	3.00000	3.225
M 43 Total Demeton				193892	3.00000	3.087

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i	Calibration Date: 29-JUN-2009
Lab File ID: 019F1901.D	Calibration Time: 21:41
Lab Smp Id: OPP L5 GSV0635	Client Smp ID: OPP L5 GSV0635
Analysis Type: SV	Level:
Quant Type: ISTD	Sample Type:
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0629091.B\8141A-1.m	
Misc Info: IS - GSV0633-09	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	108848	54424	217696	141606	30.10
39 TOCP	76040	38020	152080	76317	0.36

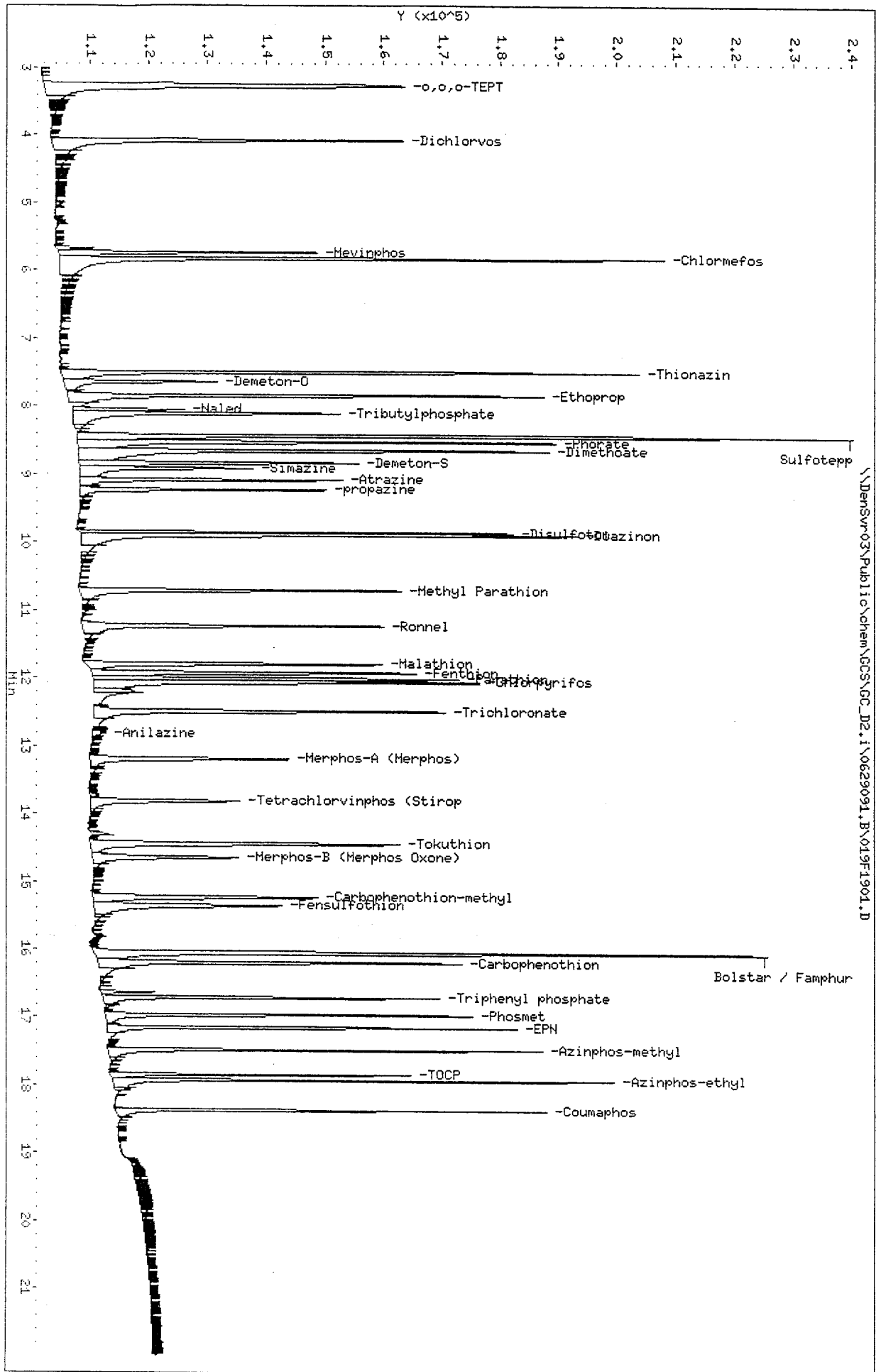
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	-0.03
39 TOCP	17.85	17.35	18.35	17.84	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densv03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D  
 Date : 30-JUN-2009 02:41  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635

Column phase: RTX-1MS

Instrument: GC\_D2.i  
 Operator: MPK/TLM  
 Column diameter: 0.32



CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6732	10.9	15.0
2 Dichlorvos	3.0000	2.7445	8.5	15.0
3 Chlormefos	3.0000	3.1434	4.8	15.0
4 Mevinphos	3.0000	2.7962	6.8	15.0
5 Demeton-O	0.9750	0.9905	1.6	15.0
6 Thionazin	3.0000	2.9759	0.8	15.0
7 Ethoprop	3.0000	2.8559	4.8	15.0
8 Phorate	3.0000	3.2113	7.0	15.0
10 Naled	3.0000	2.5980	13.4	15.0
146 Sulfotepp	3.0000	3.0720	2.4	15.0
10 Simazine	3.0000	2.9810	0.6	15.0
12 Diazinon	3.0000	3.0817	2.7	15.0
150 Atrazine	3.0000	3.4669	15.6	15.0 <-
13 Propazine	3.0000	3.2538	8.5	15.0
14 Disulfoton	3.0000	3.1235	4.1	15.0
15 Demeton-S	2.0400	1.8994	6.9	15.0
16 Dimethoate	3.0000	3.0065	0.2	15.0
17 Ronnel	3.0000	2.8752	4.2	15.0
148 Merphos-A (Merphos)	3.0000	2.2490	25.0	999.0
18 Chlorpyrifos	3.0000	3.1462	4.9	15.0
19 Fenthion	3.0000	3.0376	1.3	15.0
20 Trichloronate	3.0000	3.1893	6.3	15.0
21 Anilazine	3.0000	1.1314	62.3	15.0 <-
23 Methyl Parathion	3.0000	3.2271	7.6	15.0
24 Malathion	3.0000	3.2435	8.1	15.0
25 Tokuthion	3.0000	3.1034	3.4	15.0
26 Parathion	3.0000	2.8711	4.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.4788	116.0	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.9194	2.7	15.0
28 Carbophenothion methyl	3.0000	3.1683	5.6	15.0
28 Bolstar	3.0000	3.2160	7.2	15.0
30 Carbophenothion	3.0000	3.1768	5.9	15.0
29 Triphenyl phosphate	3.0000	3.2806	9.4	15.0
30 Fensulfothion	3.0000	3.0927	3.1	15.0
35 Phosmet / EPN	6.0000	5.8461	2.6	15.0
33 Famphur	3.0000	2.7291	9.0	15.0
34 Azinphos-methyl	3.0000	2.8371	5.4	15.0
35 Azinphos-ethyl	3.0000	3.0920	3.1	15.0
36 Coumaphos	3.0000	3.1035	3.4	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\019F1901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	3.2640	8.8	15.0
40 Total Demeton	3.0000	2.8899	3.7	15.0

Average %D = 10.1

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\019F1901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 02:41  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 19 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.731	4.731	(0.251)	214900	3.00000	2.673
2 Dichlorvos	6.546	6.546	(0.348)	172280	3.00000	2.744
3 Chlormefos	7.383	7.384	(0.392)	198631	3.00000	3.143
4 Mevinphos	9.234	9.234	(0.491)	118236	3.00000	2.796
5 Demeton-O	9.733	9.734	(0.517)	39911	0.97500	0.9905
6 Thionazin	9.983	9.984	(0.531)	188173	3.00000	2.976
7 Ethoprop	10.498	10.499	(0.558)	134937	3.00000	2.856
8 Phorate	10.536	10.539	(0.560)	175954	3.00000	3.211
9 Naled	10.939	10.939	(0.581)	35526	3.00000	2.598
10 Sulfotepp	11.014	11.017	(0.585)	253863	3.00000	3.072 (A)
* 11 Tributylphosphate	11.114	11.116	(1.000)	110664	2.00000	
12 Simazine	11.398	11.399	(0.606)	35282	3.00000	2.981 (A)
13 Diazinon	11.539	11.541	(0.613)	137027	3.00000	3.082
14 Atrazine	11.581	11.584	(0.616)	83824	3.00000	3.467 (A)
15 Propazine	11.744	11.747	(0.624)	67578	3.00000	3.254
16 Disulfoton	12.048	12.049	(0.640)	136123	3.00000	3.123
17 Demeton-S	12.123	12.124	(0.644)	97817	2.04000	1.899
18 Dimethoate	13.281	13.282	(0.706)	175607	3.00000	3.006
19 Ronnel	13.586	13.587	(0.722)	113037	3.00000	2.875
20 Merphos-A (Merphos)	13.688	13.689	(1.232)	90184	3.00000	2.249 (A)
21 Chlorpyrifos	14.408	14.409	(0.766)	125458	3.00000	3.146
22 Fenthion	14.661	14.662	(0.779)	112346	3.00000	3.038
23 Trichloronate	14.706	14.711	(0.782)	166627	3.00000	3.189
24 Anilazine	15.209	15.216	(0.808)	3864	3.00000	1.131
25 Methyl Parathion	15.518	15.519	(0.825)	128855	3.00000	3.227 (A)
26 Malathion	15.723	15.724	(0.836)	121327	3.00000	3.244
27 Tokuthion	16.344	16.344	(0.869)	135918	3.00000	3.103
28 Parathion	16.493	16.494	(0.877)	112964	3.00000	2.871 (M)
29 Merphos-B (Merphos Oxone)	16.508	16.517	(1.485)	78883	3.00000	6.479 (AM)
30 Tetrachlorvinphos (stirophos)	16.974	16.977	(0.902)	74305	3.00000	2.919
31 Carbophenothion methyl	17.081	17.082	(0.908)	115581	3.00000	3.168
32 Bolstar	17.439	17.440	(0.927)	123583	3.00000	3.216
33 Carbophenothion	17.523	17.524	(0.931)	120041	3.00000	3.177 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	101723	3.00000	3.281
35 Fensulfothion	18.558	18.559	(0.986)	88051	3.00000	3.093
* 36 TOCP	18.814	18.816	(1.000)	62152	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	185278	6.00000	5.846 (A)
38 Famphur	19.008	19.011	(1.010)	111253	3.00000	2.729
39 Azinphos-methyl	19.143	19.147	(1.017)	105798	3.00000	2.837
40 Azinphos-ethyl	19.363	19.366	(1.029)	109814	3.00000	3.092
41 Coumaphos	20.344	20.347	(1.081)	84746	3.00000	3.103
S 42 Merphos				169067	3.00000	3.264 (A)
M 43 Total Demeton				137728	3.00000	2.890

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 019F1901.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 29-JUN-2009  
 Calibration Time: 21:41  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	77376	38688	154752	110664	43.02
36 TOCP	55298	27649	110596	62152	12.39

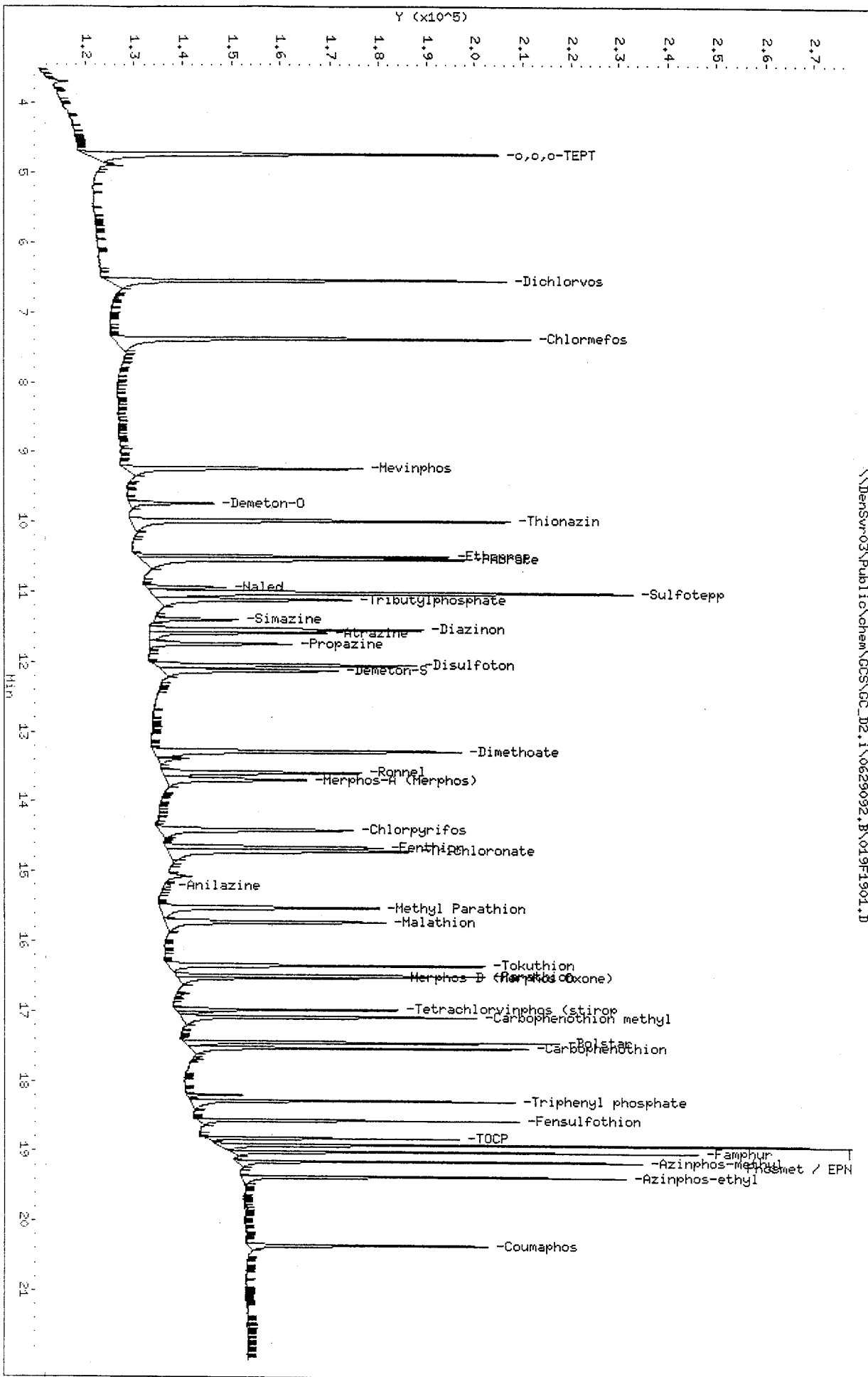
COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	11.12	10.62	11.62	11.11	-0.02
36 TOCP	18.82	18.32	19.32	18.81	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvr03\Public\chem\GCS\GC\_D2.1\0629092.B\019F1901.D  
 Date: 30-JUN-2009 02:44  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTX-OPPEst

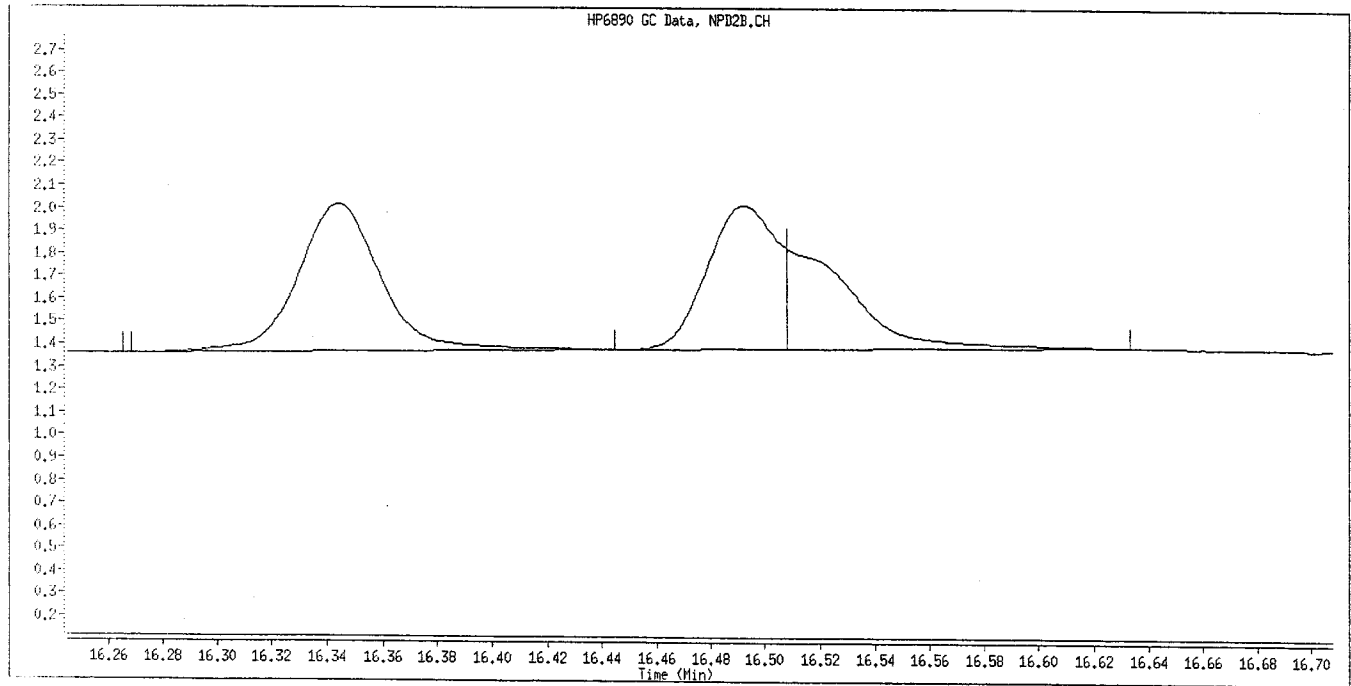
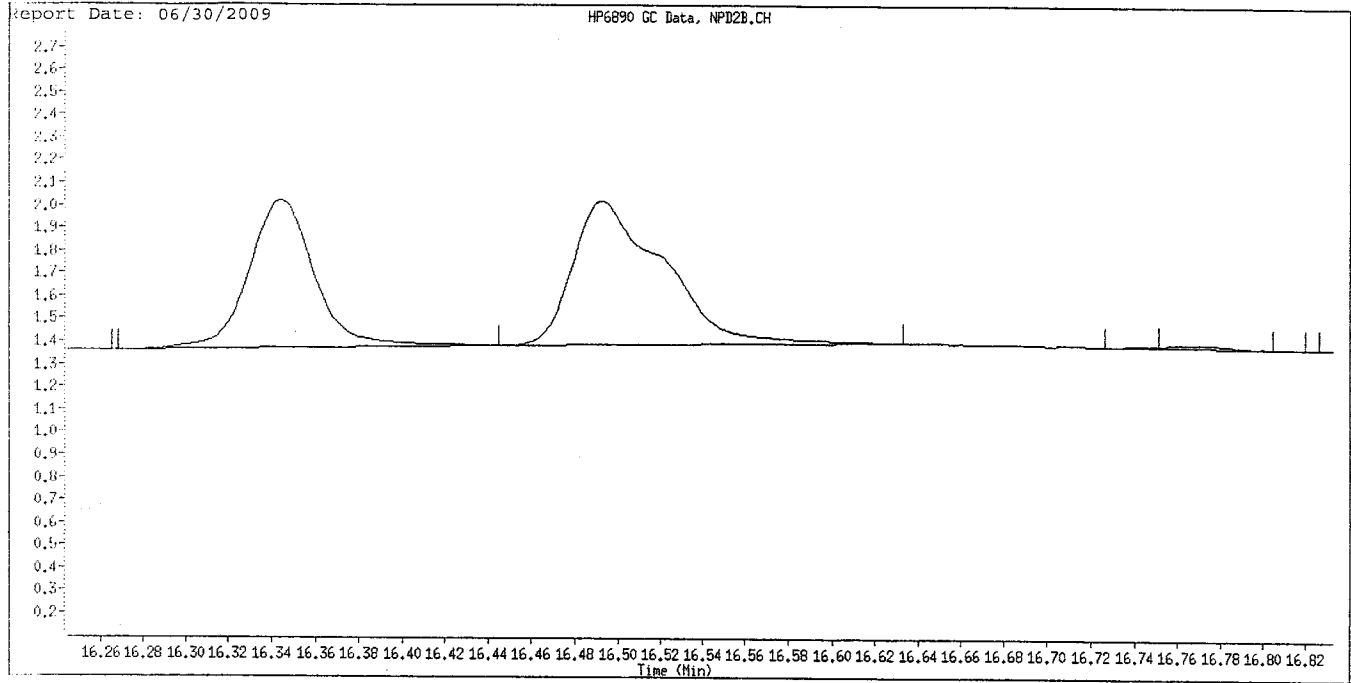
Instrument: GC\_D2.1  
 Operator: HPK/TLW  
 Column diameter: 0.32

\\Densvr03\Public\chem\GCS\GC\_D2.1\0629092.B\019F1901.D





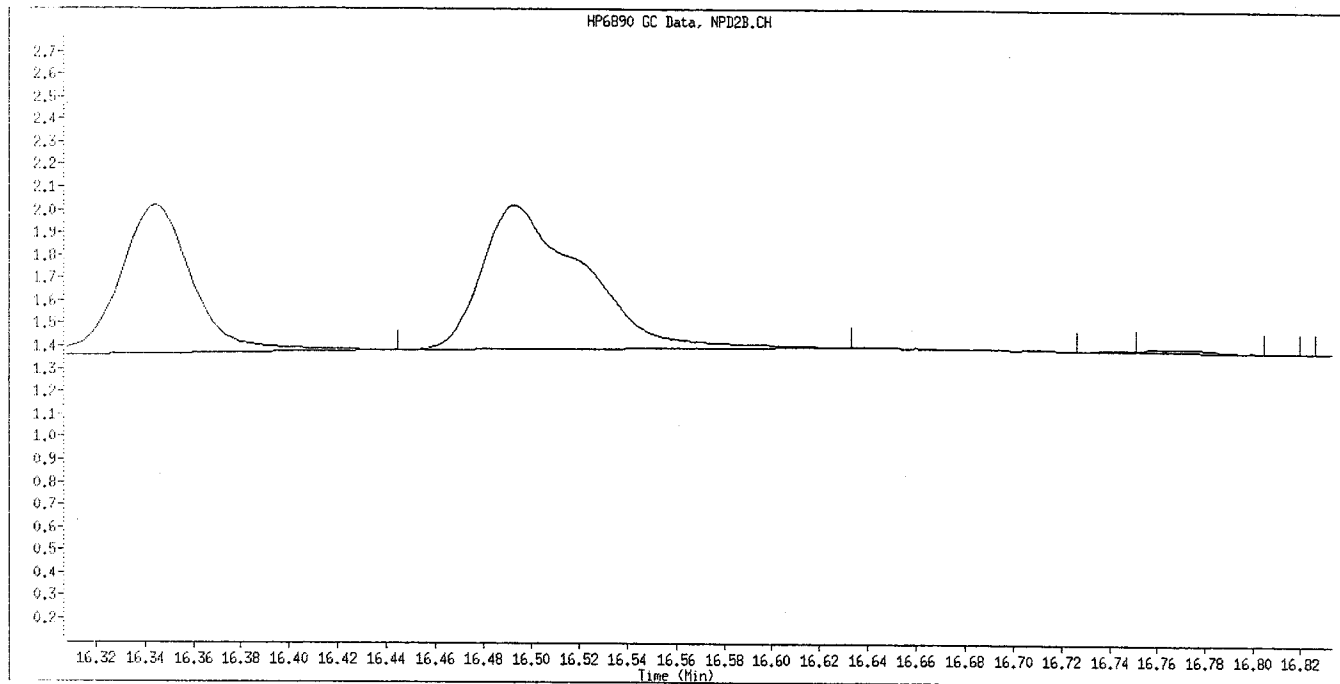
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Inj. Date and Time: 30-JUN-2009 02:41  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Parathion  
CAS #:



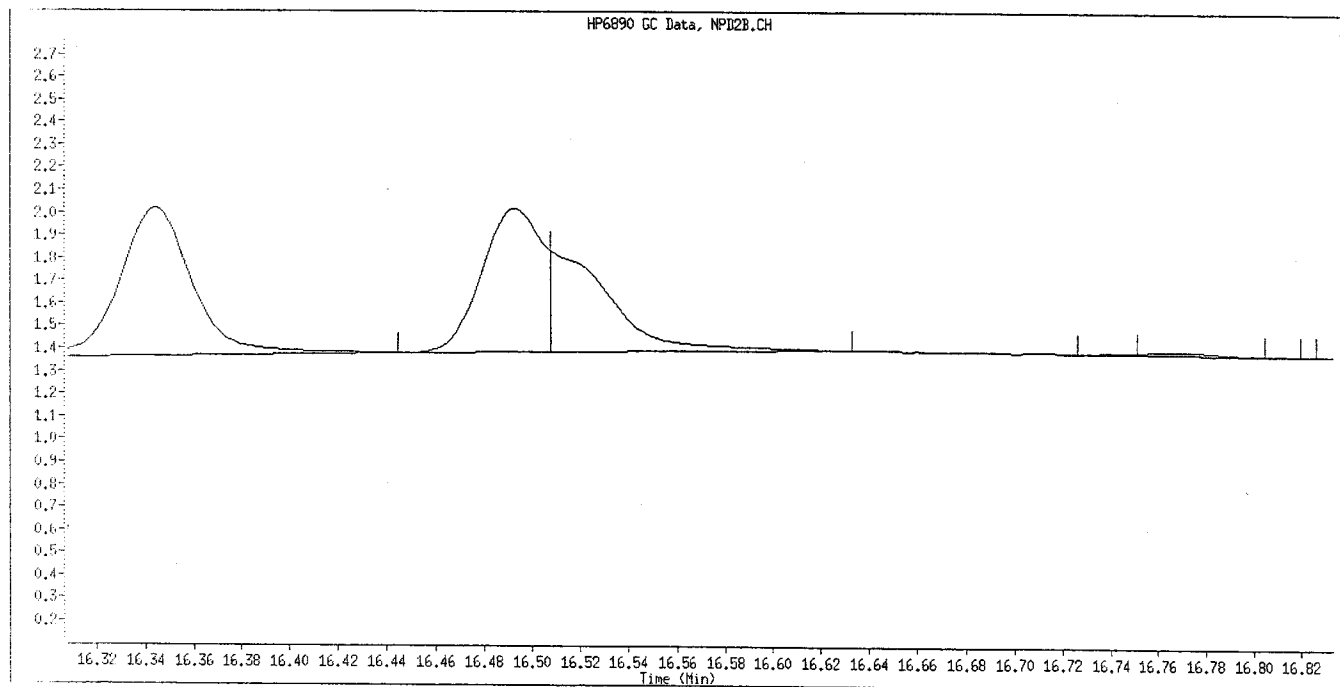
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
JL  
6/30/09

Data File Name: 019F1901.D  
Inj. Date and Time: 30-JUN-2009 02:41  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
6/30/09

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED	MEASURED	%D	MAX
	CONC.	CONC.		%D
1 o,o,o-TEPT	3.0000	2.8218	5.9	15.0
2 Dichlorvos	3.0000	2.8304	5.7	15.0
3 Mevinphos	3.0000	2.6552	11.5	15.0
4 Chlormefos	3.0000	3.0356	1.2	15.0
5 Thionazin	3.0000	2.8846	3.8	15.0
6 Demeton-O	0.9750	1.1089	13.7	15.0
7 Ethoprop	3.0000	3.2239	7.5	15.0
8 Naled	3.0000	1.8139	39.5	15.0
9 Sulfotepp	3.0000	3.0130	0.4	15.0
10 Phorate	3.0000	3.0193	0.6	15.0
11 Dimethoate	3.0000	2.9893	0.4	15.0
12 Demeton-S	2.0400	2.1060	3.2	15.0
13 Simazine	3.0000	3.4001	13.3	15.0
14 Atrazine	3.0000	3.2309	7.7	15.0
15 propazine	3.0000	3.0091	0.3	15.0
17 Disulfoton	3.0000	2.7422	8.6	15.0
16 Diazinon	3.0000	3.1584	5.3	15.0
18 Methyl Parathion	3.0000	3.0137	0.5	15.0
19 Ronnel	3.0000	2.9565	1.4	15.0
20 Malathion	3.0000	2.8366	5.4	15.0
21 Fenthion	3.0000	2.8471	5.1	15.0
22 Parathion	3.0000	2.9564	1.5	15.0
23 Chlorpyrifos	3.0000	3.0022	0.1	15.0
24 Trichloronate	3.0000	3.1508	5.0	15.0
25 Anilazine	3.0000	2.1130	29.6	15.0
148 Merphos-A (Merphos)	3.0000	2.6447	11.8	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.4443	18.5	15.0
28 Tokuthion	3.0000	3.1390	4.6	15.0
149 Merphos-B (Merphos Oxone)	3.0000	4.6954	56.5	999.0
29 Carbophenothion-methyl	3.0000	2.9046	3.2	15.0
29 Fensulfothion	3.0000	2.8499	5.0	15.0
30 Bolstar / Famphur	6.0000	5.6912	5.1	15.0
32 Carbophenothion	3.0000	2.8072	6.4	15.0
31 Triphenyl phosphate	3.0000	3.0801	2.7	15.0
34 Phosmet	3.0000	2.6152	12.8	15.0
32 EPN	3.0000	2.8279	5.7	15.0
33 Azinphos-methyl	3.0000	2.6249	12.5	15.0
35 Azinphos-ethyl	3.0000	2.8450	5.2	15.0
36 Coumaphos	3.0000	2.8862	3.8	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\039F3901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.0951	3.2	15.0
40 Total Demeton	3.0000	3.2150	7.2	15.0

Average %D = 8.33

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\039F3901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 11:49  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 39 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.281	3.254	(0.184)	303682	3.00000	2.822
2 Dichlorvos	4.083	4.074	(0.229)	189151	3.00000	2.830
3 Mevinphos	5.736	5.739	(0.322)	97473	3.00000	2.655
S 4 Chlormefos	5.838	5.836	(0.327)	254040	3.00000	3.036
5 Thionazin	7.506	7.507	(0.421)	220309	3.00000	2.885
6 Demeton-O	7.646	7.649	(0.429)	80536	0.97500	1.109
7 Ethoprop	7.845	7.852	(0.440)	215766	3.00000	3.224
8 Naled	8.055	8.057	(0.451)	29336	3.00000	1.814
* 9 Tributylphosphate	8.093	8.135	(1.000)	150474	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	286869	3.00000	3.013
11 Phorate	8.531	8.532	(0.478)	209273	3.00000	3.019
12 Dimethoate	8.653	8.659	(0.485)	240687	3.00000	2.989
13 Demeton-S	8.833	8.846	(0.495)	122960	2.04000	2.106
14 Simazine	8.918	8.924	(0.500)	92753	3.00000	3.400
15 Atrazine	9.086	9.094	(0.509)	100869	3.00000	3.231
16 propazine	9.231	9.241	(0.517)	86681	3.00000	3.009
17 Disulfoton	9.868	9.869	(0.553)	128421	3.00000	2.742
18 Diazinon	9.898	9.902	(0.555)	235156	3.00000	3.158
19 Methyl Parathion	10.715	10.717	(0.601)	142302	3.00000	3.014
20 Ronnel	11.240	11.241	(0.630)	144306	3.00000	2.956
21 Malathion	11.798	11.804	(0.661)	125783	3.00000	2.836
22 Fenthion	11.930	11.932	(0.669)	136656	3.00000	2.847
23 Parathion	12.018	12.019	(0.674)	151023	3.00000	2.956
24 Chlorpyrifos	12.065	12.067	(0.676)	185547	3.00000	3.002
25 Trichloronate	12.495	12.496	(0.700)	174037	3.00000	3.151
26 Anilazine	12.816	12.817	(0.718)	9824	3.00000	2.113
27 Merphos-A (Merphos)	13.195	13.199	(0.739)	121883	3.00000	2.645
28 Tetrachlorvinphos (Stirophos)	13.815	13.824	(0.774)	74867	3.00000	2.444
29 Tokuthion	14.446	14.449	(0.810)	166210	3.00000	3.139
30 Merphos-B (Merphos Oxone)	14.643	14.651	(0.821)	58263	3.00000	4.695
31 Carbophenothion-methyl	15.235	15.239	(0.854)	117822	3.00000	2.905
32 Fensulfothion	15.358	15.361	(0.861)	124967	3.00000	2.850
33 Bolstar / Famphur	16.050	16.053	(0.899)	288294	6.00000	5.691

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.195	16.197	(0.908)	142661	3.00000	2.807
S 35 Triphenyl phosphate	16.710	16.712	(0.936)	118951	3.00000	3.080 (A)
36 Phosmet	16.963	16.963	(0.951)	113755	3.00000	2.615
37 EPN	17.150	17.151	(0.961)	118279	3.00000	2.828
38 Azinphos-methyl	17.480	17.480	(0.980)	121668	3.00000	2.625
* 39 TOCP	17.843	17.846	(1.000)	76386	2.00000	
40 Azinphos-ethyl	17.925	17.926	(1.005)	144486	3.00000	2.845
41 Coumaphos	18.365	18.366	(1.029)	107900	3.00000	2.886
S 42 Merphos				180146	3.00000	3.095
M 43 Total Demeton				203496	3.00000	3.215

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

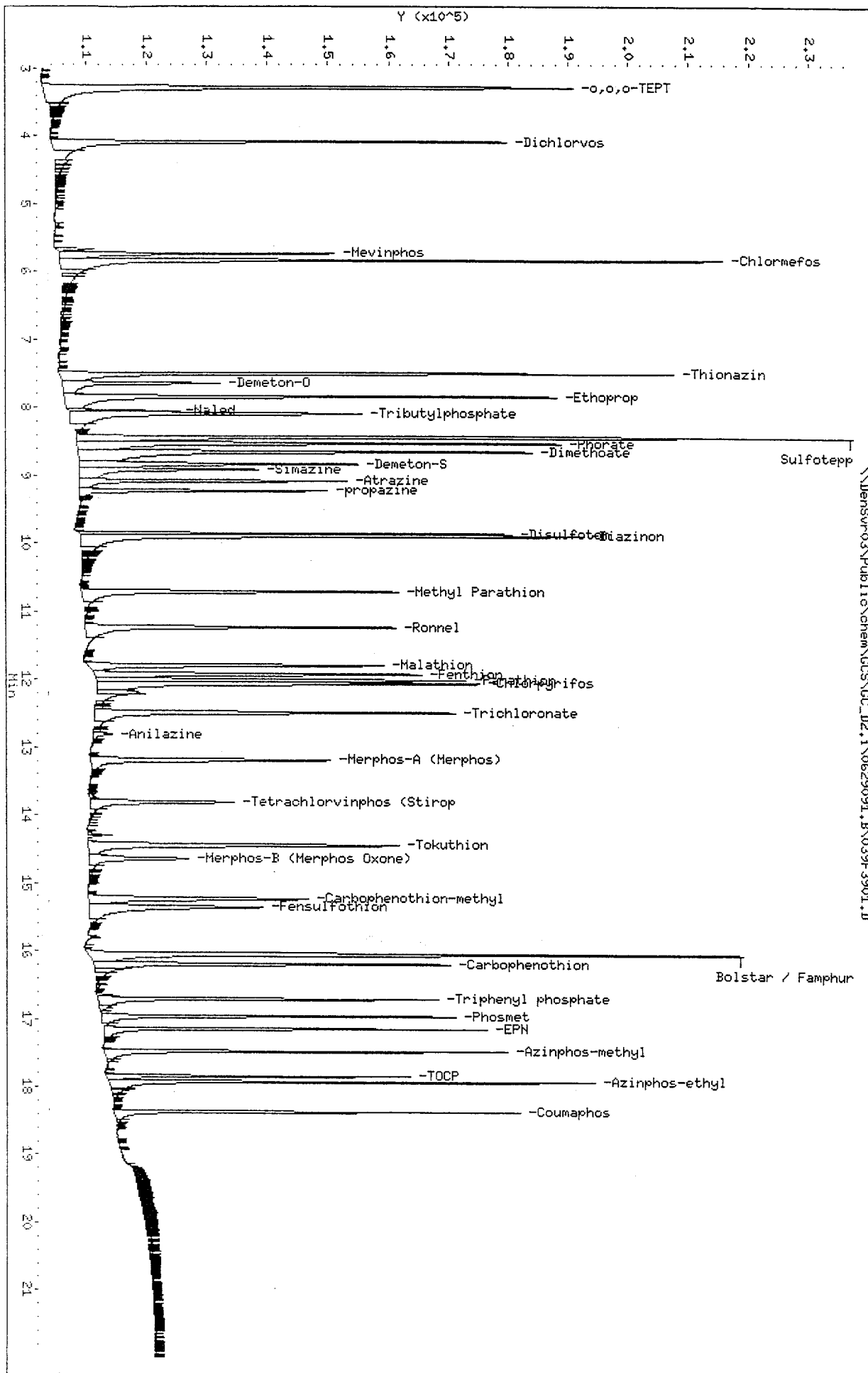
COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	141606	70803	283212	150474	6.26
39 TOCP	76317	38159	152634	76386	0.09

COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	8.11	7.61	8.61	8.09	-0.21
39 TOCP	17.84	17.34	18.34	17.84	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvyr03\Public\chem\GCS\GC\_D2.1\0629091.B\039F3901.D  
 Date: 30-JUN-2009 11:49  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: HPK/TLW  
 Column diameter: 0.32





CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.8166	6.1	15.0
2 Dichlorvos	3.0000	2.8245	5.8	15.0
3 Chlormefos	3.0000	3.2183	7.3	15.0
4 Mevinphos	3.0000	2.9838	0.5	15.0
5 Demeton-O	0.9750	0.9758	0.1	15.0
6 Thionazin	3.0000	2.8054	6.5	15.0
7 Ethoprop	3.0000	2.8590	4.7	15.0
8 Phorate	3.0000	3.1654	5.5	15.0
10 Naled	3.0000	2.2828	23.9	15.0
146 Sulfotepp	3.0000	2.8627	4.6	15.0
10 Simazine	3.0000	2.9076	3.1	15.0
12 Diazinon	3.0000	2.8253	5.8	15.0
150 Atrazine	3.0000	2.9267	2.4	15.0
13 Propazine	3.0000	2.8284	5.7	15.0
14 Disulfoton	3.0000	2.9455	1.8	15.0
15 Demeton-S	2.0400	1.8853	7.6	15.0
16 Dimethoate	3.0000	2.8716	4.3	15.0
17 Ronnel	3.0000	2.7428	8.6	15.0
148 Merphos-A (Merphos)	3.0000	2.4110	19.6	999.0
18 Chlorpyrifos	3.0000	3.1163	3.9	15.0
19 Fenthion	3.0000	2.9120	2.9	15.0
20 Trichloronate	3.0000	3.3902	13.0	15.0
21 Anilazine	3.0000	1.7240	42.5	15.0
23 Methyl Parathion	3.0000	2.8664	4.5	15.0
24 Malathion	3.0000	2.7318	8.9	15.0
25 Tokuthion	3.0000	2.9114	3.0	15.0
26 Parathion	3.0000	2.9008	3.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	3.5874	19.6	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.6695	11.0	15.0
28 Carbophenothion methyl	3.0000	3.0681	2.3	15.0
28 Bolstar	3.0000	3.0614	2.0	15.0
30 Carbophenothion	3.0000	3.3384	11.3	15.0
29 Triphenyl phosphate	3.0000	2.8735	4.2	15.0
30 Fensulfothion	3.0000	2.9476	1.7	15.0
35 Phosmet / EPN	6.0000	5.6693	5.5	15.0
33 Famphur	3.0000	3.0504	1.7	15.0
34 Azinphos-methyl	3.0000	2.9582	1.4	15.0
35 Azinphos-ethyl	3.0000	2.9123	2.9	15.0
36 Coumaphos	3.0000	2.9494	1.7	15.0

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	2.8269	5.8	15.0
40 Total Demeton	3.0000	2.8612	4.6	15.0

Average %D = 6.87

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\039F3901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 11:49  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:05 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 39 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.736	4.731	(0.252)	245165	3.00000	2.817
2 Dichlorvos	6.546	6.546	(0.348)	191968	3.00000	2.824
\$ 3 Chlormefos	7.383	7.384	(0.392)	220191	3.00000	3.218
4 Mevinphos	9.231	9.234	(0.491)	136606	3.00000	2.984
5 Demeton-O	9.731	9.734	(0.517)	42571	0.97500	0.9758
6 Thionazin	9.981	9.984	(0.530)	192069	3.00000	2.805
7 Ethoprop	10.493	10.499	(0.558)	146259	3.00000	2.859
8 Phorate	10.536	10.539	(0.560)	187787	3.00000	3.165
9 Naled	10.936	10.939	(0.581)	33261	3.00000	2.283
10 Sulfotepp	11.014	11.017	(0.585)	256144	3.00000	2.863 (A)
* 11 Tributylphosphate	11.106	11.116	(1.000)	124508	2.00000	
12 Simazine	11.396	11.399	(0.606)	37261	3.00000	2.908 (A)
13 Diazinon	11.538	11.541	(0.613)	135902	3.00000	2.825
14 Atrazine	11.578	11.584	(0.615)	75601	3.00000	2.927 (A)
15 Propazine	11.743	11.747	(0.624)	63428	3.00000	2.828
16 Disulfoton	12.046	12.049	(0.640)	138988	3.00000	2.946
17 Demeton-S	12.119	12.124	(0.644)	105075	2.04000	1.885
18 Dimethoate	13.278	13.282	(0.706)	181606	3.00000	2.872
19 Ronnel	13.584	13.587	(0.722)	116755	3.00000	2.743
20 Merphos-A (Merphos)	13.684	13.689	(1.232)	108777	3.00000	2.411 (A)
21 Chlorpyrifos	14.406	14.409	(0.766)	134546	3.00000	3.116
22 Fenthion	14.658	14.662	(0.779)	116611	3.00000	2.912
23 Trichloronate	14.706	14.711	(0.782)	192170	3.00000	3.390
24 Anilazine	15.211	15.216	(0.808)	6373	3.00000	1.724
25 Methyl Parathion	15.516	15.519	(0.825)	123922	3.00000	2.866 (A)
26 Malathion	15.721	15.724	(0.836)	110638	3.00000	2.732
27 Tokuthion	16.343	16.344	(0.869)	138056	3.00000	2.911
28 Parathion	16.491	16.494	(0.876)	123577	3.00000	2.901 (M)
29 Merphos-B (Merphos Oxone)	16.511	16.517	(1.487)	49765	3.00000	3.587 (AM)
30 Tetrachlorvinphos (stirophos)	16.974	16.977	(0.902)	73565	3.00000	2.670
31 Carbophenothion methyl	17.079	17.082	(0.908)	121188	3.00000	3.068
32 Bolstar	17.439	17.440	(0.927)	127373	3.00000	3.061
33 Carbophenothion	17.523	17.524	(0.931)	136582	3.00000	3.338 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
S 34 Triphenyl phosphate	18.278	18.281	(0.971)	96470	3.00000	2.873
35 Fensulfothion	18.558	18.559	(0.986)	90861	3.00000	2.948
* 36 TOCP	18.816	18.816	(1.000)	67294	2.00000	
37 Phosmet / EPN	18.911	18.909	(1.005)	194625	6.00000	5.669 (A)
38 Pamphur	19.014	19.011	(1.011)	134637	3.00000	3.050
39 Azinphos-methyl	19.153	19.147	(1.018)	119439	3.00000	2.958
40 Azinphos-ethyl	19.371	19.366	(1.029)	111990	3.00000	2.912
41 Coumaphos	20.354	20.347	(1.082)	87203	3.00000	2.949
S 42 Merphos				158542	3.00000	2.827 (A)
M 43 Total Demeton				147646	3.00000	2.861

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 039F3901.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	124508	12.51
36 TOCP	62152	31076	124304	67294	8.27

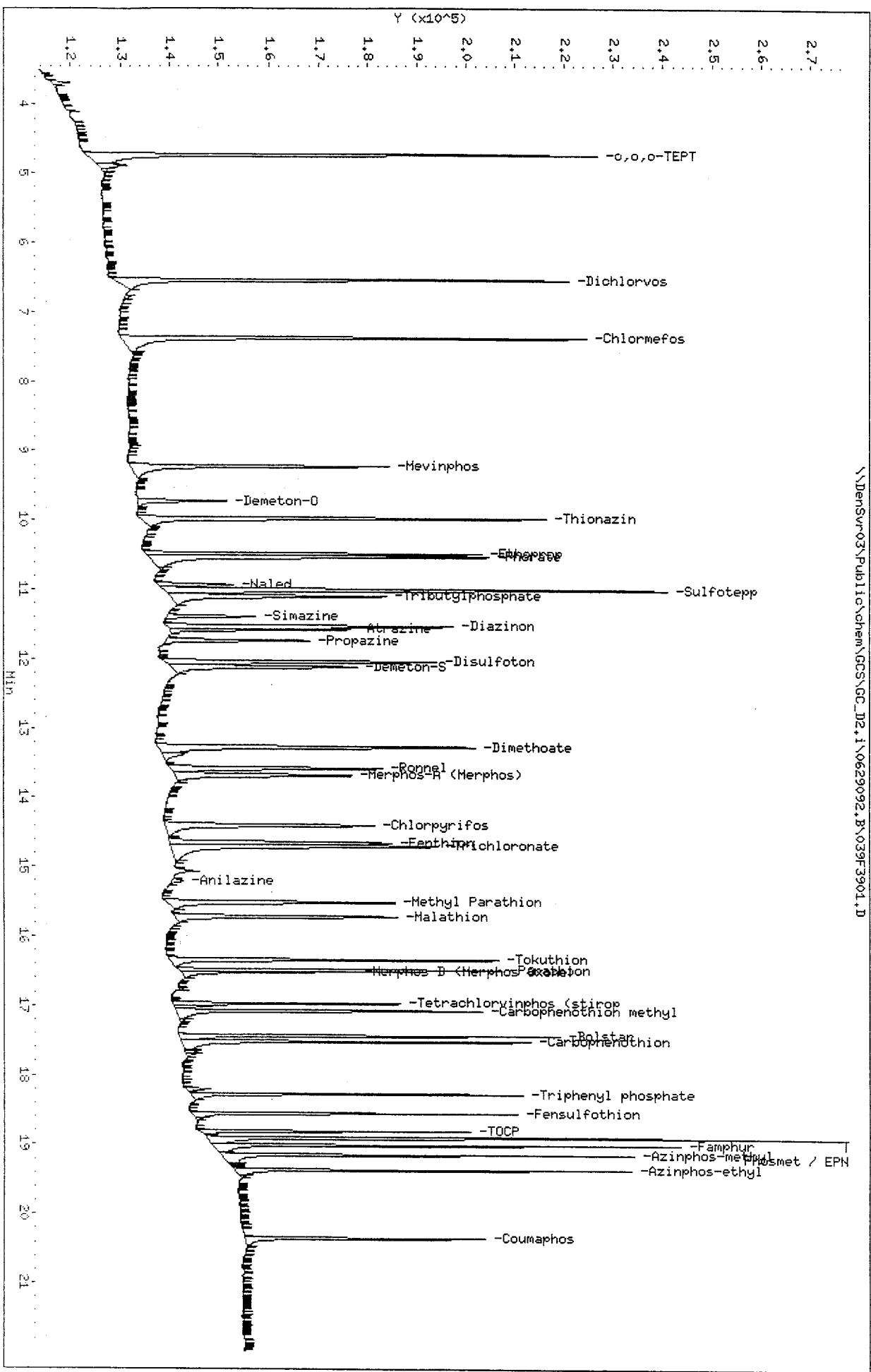
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.11	-0.08
36 TOCP	18.81	18.31	19.31	18.82	0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

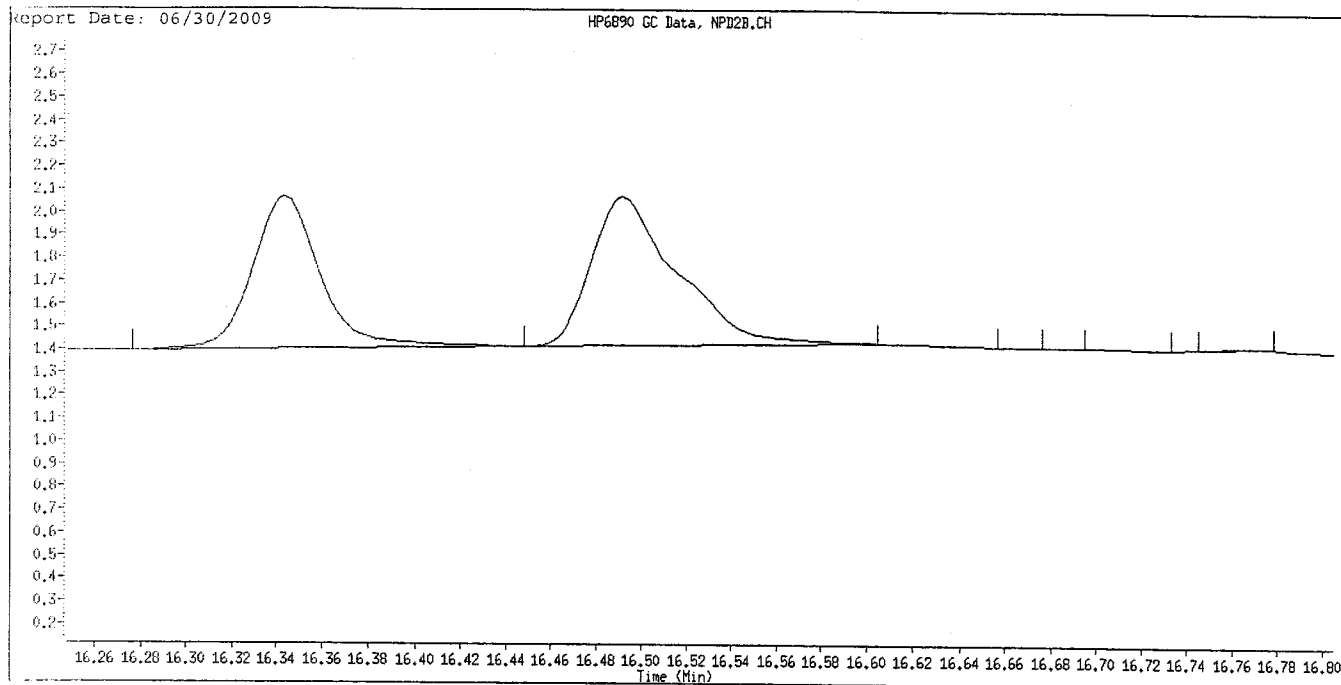
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 Date: 30-JUN-2009 11:49  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635

Instrument: GC\_D2.1  
 Operator: HPK/TLM  
 Column diameter: 0.32

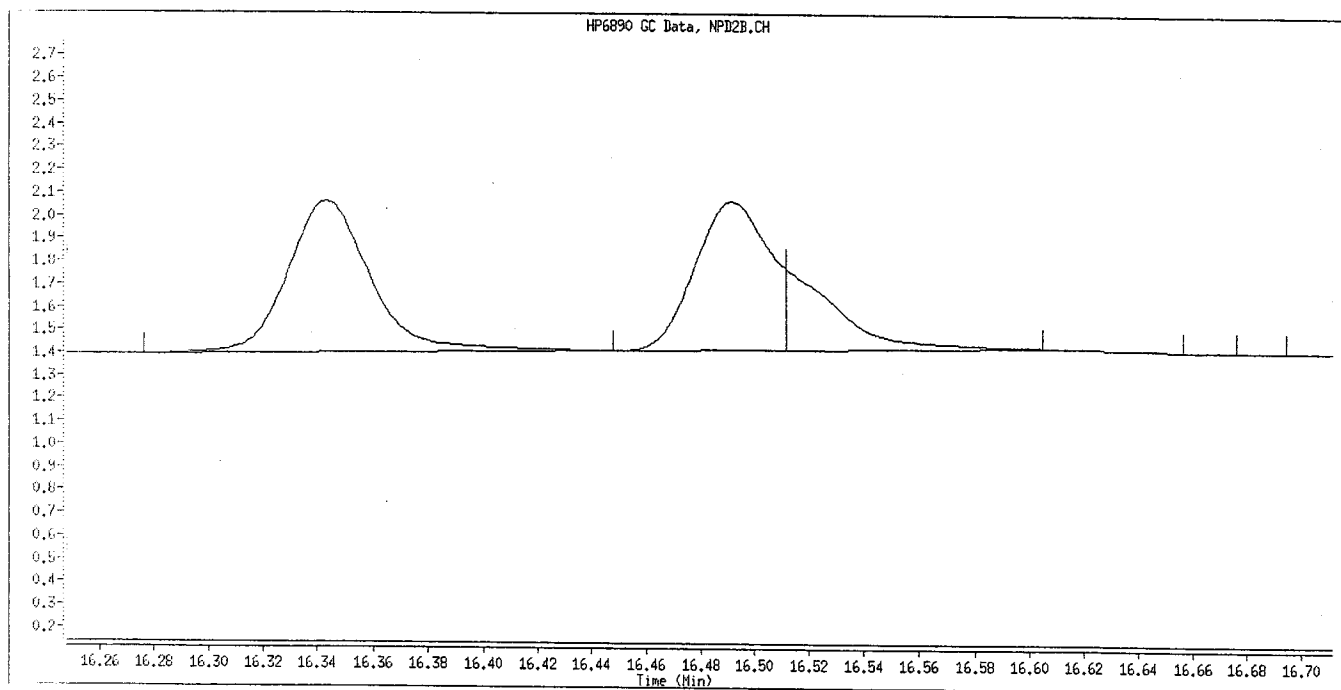
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Data File Name: 039F3901.D  
Inj. Date and Time: 30-JUN-2009 11:49  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Parathion  
CAS #:



Original Integration

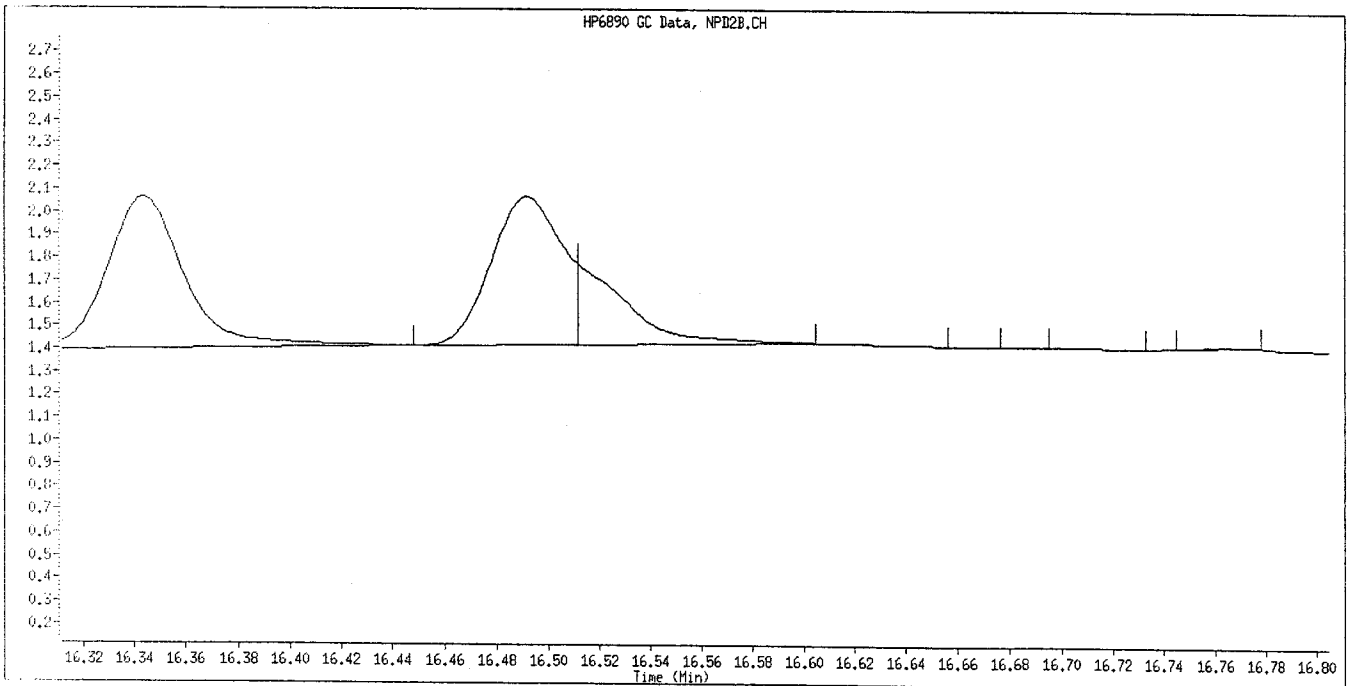
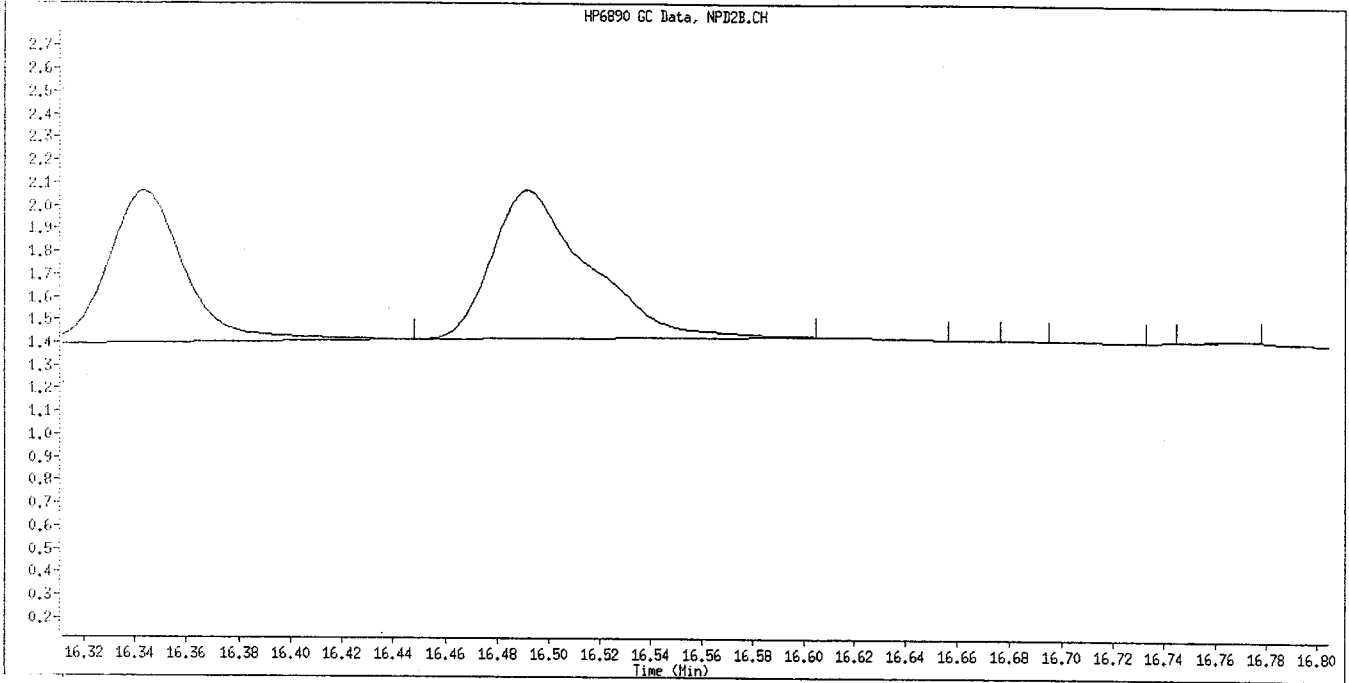


Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date: JG 6/30/09*

Data File Name: 039F3901.D  
Inj. Date and Time: 30-JUN-2009 11:49  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature*  
6/30/09



**GC SEMIVOLATILE  
SAMPLE DATA**

**TestAmerica**  
  
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\024F2401.D  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Inj Date : 30-JUN-2009 04:58  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AA,MB  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 24 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
3 Mevinphos						
\$ 4 Chlormefos	5.838	5.836	(0.327)	48945	0.53028	1.060
5 Thionazin						
6 Demeton-O						
7 Ethoprop						
8 Naled	8.048	8.057	(0.451)	75	0.19641	0.3928 <i>not a peak</i>
* 9 Tributylphosphate	8.114	8.135	(1.000)	122925	2.00000	
10 Sulfotepp						
11 Phorate						
12 Dimethoate						
13 Demeton-S						
14 Simazine						
15 Atrazine						
16 propazine						
17 Disulfoton						
18 Diazinon						
19 Methyl Parathion						
20 Ronnel						
21 Malathion						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion						
24 Chlorpyrifos	12.064	12.067	(0.676)	95	0.00139	0.002787(a)
25 Trichloronate						
26 Anilazine						
27 Merphos-A (Merphos)	13.236	13.199	(0.742)	75	0.00148	0.002951
28 Tetrachlorvinphos (Stirophos)	13.821	13.824	(0.775)	121	0.00358	0.007164
29 Tokuthion						
30 Merphos-B (Merphos Oxone)	14.651	14.651	(0.821)	122	0.02976	0.05952
31 Carbophenothion-methyl						
32 Fensulfothion						
33 Bolstar / Famphur						
34 Carbophenothion						
\$ 35 Triphenyl phosphate	16.713	16.712	(0.937)	33336	0.78264	1.565
36 Phosmet						
37 EPN						
38 Azinphos-methyl						
* 39 TOCP	17.844	17.846	(1.000)	84248	2.00000	
40 Azinphos-ethyl						
41 Coumaphos						
S 42 Merphos				197	0.00307	0.006138
M 43 Total Demeton						

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC_D2.i	Calibration Date: 30-JUN-2009
Lab File ID: 024F2401.D	Calibration Time: 02:41
Lab Smp Id: LFD4W1AA	Client Smp ID: BLANK
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: WATER
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0629091.B\8141A-1.m	
Misc Info: IS - GSV0633-09	

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	141606	70803	283212	122925	-13.19
39 TOCP	76317	38159	152634	84248	10.39

COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.06
39 TOCP	17.84	17.34	18.34	17.84	0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: BLANK  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	2.000	1.060	53.03	48-114
\$ 35 Triphenyl phosphat	2.000	1.565	78.26	50-150

Data File: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0629091.B\024F2401.D  
Date : 30-JUN-2009 04:58

Client ID: BLANK

Sample Info: LFD4N2A9.JB

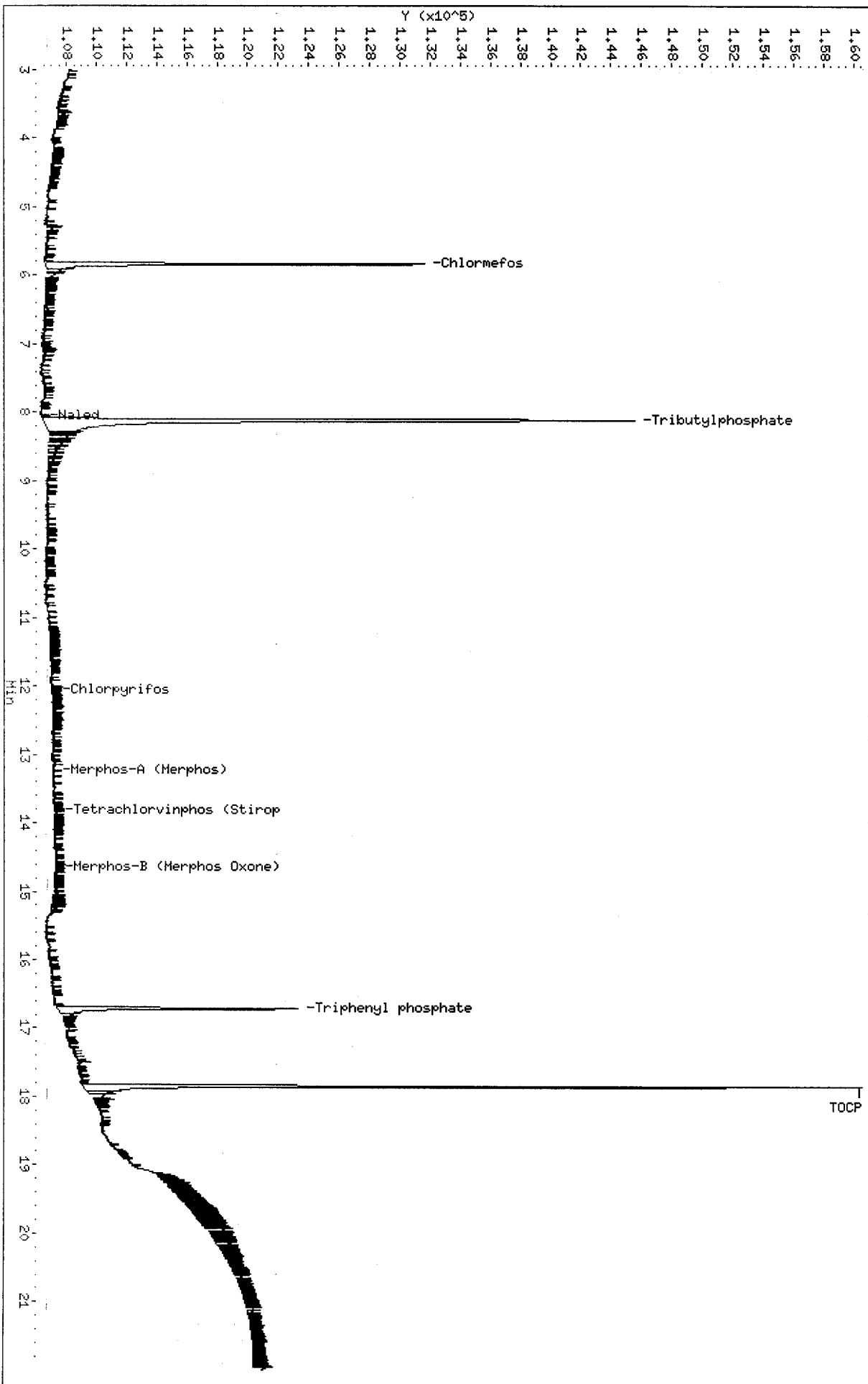
Column phase: RTX-1MS

Instrument: GC\_D2.1

Operator: MPK/TLW

Column diameter: 0.32

\\DensSvr03\Public\chem\GCS\GC\_D2.1\0629091.B\024F2401.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\024F2401.D  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Inj Date : 30-JUN-2009 04:58  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AA,MB  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 24 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
\$ 3 Chlormefos	7.384	7.384	(0.392)	42280	0.59193	1.184
4 Mevinphos						
5 Demeton-O						
6 Thionazin						
7 Ethoprop						
8 Phorate						
9 Naled	10.936	10.939	(0.581)	150	0.27743	0.5549
10 Sulfotepp	11.019	11.017	(0.586)	120	0.00128	0.002569 (aA)
* 11 Tributylphosphate	11.116	11.116	(1.000)	102153	2.00000	
12 Simazine	11.352	11.399	(0.603)	77	0.00576	0.01151 (aA)
13 Diazinon						
14 Atrazine	11.581	11.584	(0.616)	118	0.23644	0.4729 (aA)
15 Propazine						
16 Disulfoton						
17 Demeton-S	12.104	12.124	(0.643)	108	0.12082	0.2416
18 Dimethoate						
19 Ronnel						
20 Merphos-A (Merphos)	13.692	13.689	(1.232)	51	0.00138	0.002756 (aA)
21 Chlorpyrifos						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.681	14.711	(0.780)	96	0.10683	0.2137
24 Anilazine	Compound Not Detected.					
25 Methyl Parathion	Compound Not Detected.					
26 Malathion	15.751	15.724	(0.837)	70	0.00166	0.003311(a)
27 Tokuthion	Compound Not Detected.					
28 Parathion	16.499	16.494	(0.877)	124	0.00279	0.005576(a)
29 Merphos-B (Merphos Oxone)	Compound Not Detected.					
30 Tetrachlorvinphos (stirophos)	Compound Not Detected.					
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	Compound Not Detected.					
33 Carbophenothion	Compound Not Detected.					
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	26301	0.75040	1.501
35 Fensulfothion	Compound Not Detected.					
* 36 TOCP	18.814	18.816	(1.000)	70254	2.00000	
37 Phosmet / EPN	Compound Not Detected.					
38 Famphur	Compound Not Detected.					
39 Azinphos-methyl	Compound Not Detected.					
40' Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	Compound Not Detected.					
S 42 Merphos	Compound Not Detected.					
M 43 Total Demeton				108	0.12082	0.2416

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.



TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 024F2401.D  
 Lab Smp Id: LFD4W1AA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: BLANK  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	102153	-7.69
36 TOCP	62152	31076	124304	70254	13.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.12	0.01
36 TOCP	18.81	18.31	19.31	18.81	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: BLANK  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	2.000	1.184	59.19	48-114
\$ 34 Triphenyl phosphat	2.000	1.501	75.04	50-150

Date : 30-JUN-2009 04:58

Client ID: BLANK

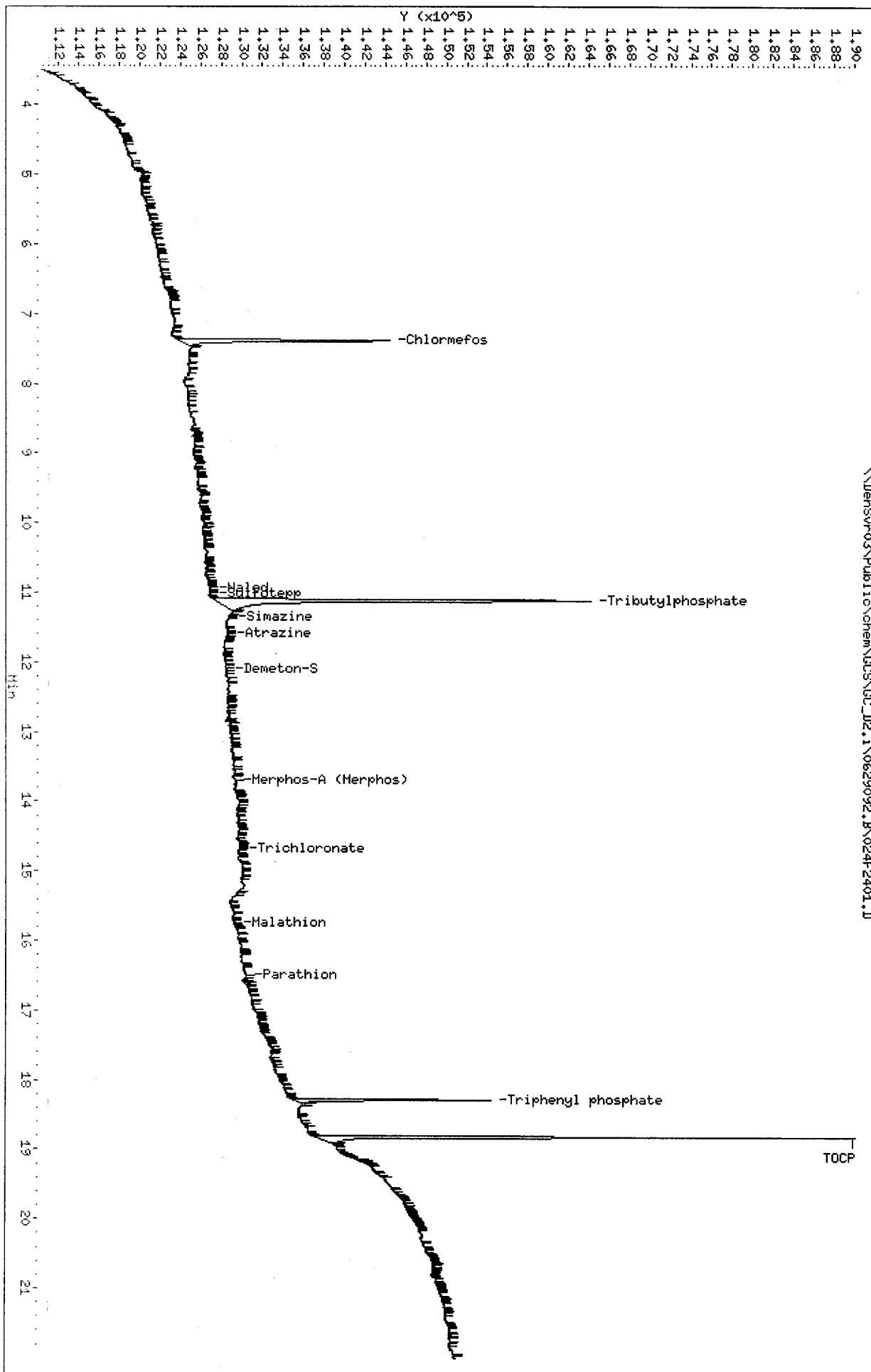
Sample Info: LFD4M4A,HB

Instrument: GC\_D2.1

Column phase: RTX-QPcast

Operator: HPK/TLM  
Column diameter: 0.32

\\DensSvr-03\Public\chem\GCST\GC\_D2.i\0629092.B\024F2401.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\025F2501.D  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Inj Date : 30-JUN-2009 05:26  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AC,LCS  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 25 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT	3.283	3.254	(0.184)	138523	1.15632	2.313
2 Dichlorvos	4.090	4.074	(0.229)	116083	1.56046	3.121
3 Mevinphos	5.747	5.739	(0.322)	54068	1.32312	2.646
§ 4 Chlormefos	5.837	5.836	(0.327)	67783	0.72763	1.455
5 Thionazin	7.508	7.507	(0.421)	140540	1.65313	3.306
6 Demeton-O	7.648	7.649	(0.429)	36990	0.44243	0.8849(R)
7 Ethoprop	7.852	7.852	(0.440)	128464	1.72434	3.449
8 Naled	8.058	8.057	(0.452)	13245	0.85021	1.700
* 9 Tributylphosphate	8.110	8.135	(1.000)	139396	2.00000	
10 Sulfotepp	8.440	8.442	(0.473)	158318	1.45884	2.918
11 Phorate	8.530	8.532	(0.478)	119956	1.55476	3.110
12 Dimethoate	8.657	8.659	(0.485)	142057	1.58498	3.170
13 Demeton-S	8.840	8.846	(0.495)	13483	0.20746	0.4149(R)
14 Simazine	8.920	8.924	(0.500)	49547	1.67315	3.346
15 Atrazine	9.088	9.094	(0.509)	54035	1.55484	3.110
16 propazine	9.235	9.241	(0.518)	50946	1.58878	3.178
17 Disulfoton	9.867	9.869	(0.553)	61203	1.15200	2.304
18 Diazinon	9.902	9.902	(0.555)	145502	1.75560	3.511
19 Methyl Parathion	10.715	10.717	(0.601)	86433	1.64444	3.289
20 Ronnel	11.240	11.241	(0.630)	80696	1.48524	2.970
21 Malathion	11.800	11.804	(0.661)	68038	1.35714	2.714
22 Fenthion	11.930	11.932	(0.669)	84464	1.58085	3.162

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion	12.017	12.019	(0.673)	99182	1.74423	3.488
24 Chlorpyrifos	12.067	12.067	(0.676)	109317	1.58900	3.178
25 Trichloronate	12.493	12.496	(0.700)	81279	1.32190	2.644
26 Anilazine	12.815	12.817	(0.718)	9566	1.88507	3.770
27 Merphos-A (Merphos)	13.192	13.199	(0.739)	53	0.00103	0.002066
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	52138	1.52922	3.058
29 Tokuthion	14.448	14.449	(0.810)	95769	1.62481	3.250
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	102981	7.44341	14.89(A)
31 Carbophenothion-methyl	Compound Not Detected.					
32 Fensulfothion	15.362	15.361	(0.861)	71787	1.51647	3.033
33 Bolstar / Famphur	16.050	16.053	(0.899)	181269	3.21468	6.429
34 Carbophenothion	16.193	16.197	(0.908)	88279	1.56054	3.121
S 35 Triphenyl phosphate	16.710	16.712	(0.936)	32919	0.76575	1.531
36 Phosmet	16.962	16.963	(0.951)	63736	1.31632	2.633
37 EPN	17.148	17.151	(0.961)	73272	1.59553	3.191
38 Azinphos-methyl	17.478	17.480	(0.980)	81177	1.57333	3.147
* 39 TOCP	17.843	17.846	(1.000)	85029	2.00000	
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	18.365	18.366	(1.029)	69555	1.67140	3.343
S 42 Merphos				103034	1.59029	3.180
M 43 Total Demeton				50473	0.64989	1.300(R)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i	Calibration Date: 30-JUN-2009
Lab File ID: 025F2501.D	Calibration Time: 02:41
Lab Smp Id: LFD4W1AC	Client Smp ID: LCS
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: WATER
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0629091.B\8141A-1.m	
Misc Info: IS - GSV0633-09	

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	141606	70803	283212	139396	-1.56
39 TOCP	76317	38159	152634	85029	11.42

COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.01
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCS  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 o,o,o-TEPT	4.000	2.313	57.82	36-119
2 Dichlorvos	4.000	3.121	78.02	50-120
3 Mevinphos	4.000	2.646	66.16	35-108
\$ 4 Chlormefos	2.000	1.455	72.76	48-114
5 Thionazin	4.000	3.306	82.66	65-116
6 Demeton-O	2.792	0.8849	31.69*	36-119
7 Ethoprop	4.000	3.449	86.22	65-108
8 Naled	4.000	1.700	42.51	36-119
10 Sulfotepp	4.000	2.918	72.94	69-103
11 Phorate	4.000	3.110	77.74	62-104
12 Dimethoate	4.000	3.170	79.25	28-115
13 Demeton-S	1.208	0.4149	34.35*	36-119
14 Simazine	4.000	3.346	83.66	47-109
15 Atrazine	4.000	3.110	77.74	36-119
16 propazine	4.000	3.178	79.44	36-119
18 Diazinon	4.000	3.511	87.78	36-119
17 Disulfoton	4.000	2.304	57.60	36-119
19 Methyl Parathion	4.000	3.289	82.22	68-119
20 Ronnel	4.000	2.970	74.26	62-115
21 Malathion	4.000	2.714	67.86	67-115
22 Fenthion	4.000	3.162	79.04	36-119
23 Parathion	4.000	3.488	87.21	36-119
24 Chlorpyrifos	4.000	3.178	79.45	36-119
25 Trichloronate	4.000	2.644	66.10	36-119
26 Anilazine	4.000	3.770	94.25	47-115
S 42 Merphos	4.000	3.180	79.51	36-119
28 Tetrachlorvinphos	4.000	3.058	76.46	36-119
29 Tokuthion	4.000	3.250	81.24	36-119
31 Carbophenothion-m	4.000	0.0000	*	36-119
32 Fensulfothion	4.000	3.033	75.82	61-115
33 Bolstar / Famphur	8.000	6.429	80.37	36-119
34 Carbophenothion	4.000	3.121	78.03	36-119
\$ 35 Triphenyl phosphat	2.000	1.531	76.57	50-150
36 Phosmet	4.000	2.633	65.82	36-119
37 EPN	4.000	3.191	79.78	36-119
38 Azinphos-methyl	4.000	3.147	78.67	55-115
40 Azinphos-ethyl	4.000	0.0000	*	36-119
41 Coumaphos	4.000	3.343	83.57	62-115
M 43 Total Demeton	4.000	1.300	32.49*	47-115

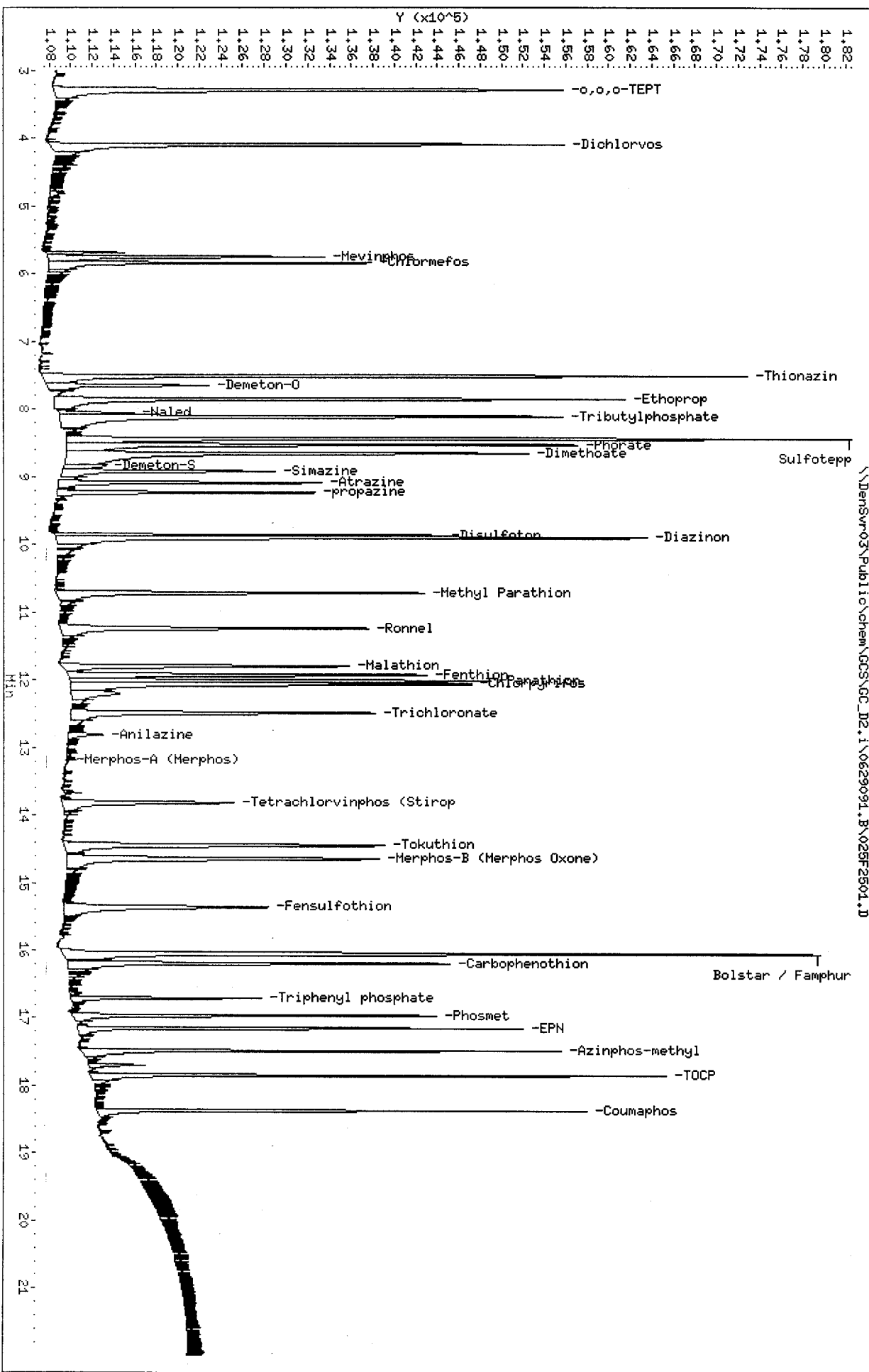
TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: LCS  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	2.000	1.455	72.76	48-114
\$ 35 Triphenyl phosphat	2.000	1.531	76.57	50-150





TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\025F2501.D  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Inj Date : 30-JUN-2009 05:26  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AC,LCS  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 25 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (ug/L)
1 o,o,o-TEPT	4.736	4.731 (0.252)		104457	1.19467	2.389
2 Dichlorvos	6.548	6.546 (0.348)		112676	1.65037	3.301
\$ 3 Chlormefos	7.383	7.384 (0.392)		46525	0.67694	1.354
4 Mevinphos	9.233	9.234 (0.491)		68670	1.49315	2.986
5 Demeton-O	9.733	9.734 (0.517)		21426	0.48891	0.9778 (R)
6 Thionazin	9.983	9.984 (0.531)		120494	1.75201	3.504
7 Ethoprop	10.498	10.499 (0.558)		88246	1.71718	3.434
8 Phorate	10.535	10.539 (0.560)		88901	1.49179	2.984
9 Naled	10.940	10.939 (0.581)		12202	1.00429	2.008
10 Sulfotepp	11.015	11.017 (0.585)		130898	1.45635	2.913 (A)
* 11 Tributylphosphate	11.113	11.116 (1.000)		118388	2.00000	
12 Simazine	11.398	11.399 (0.606)		28332	2.20088	4.402 (A)
13 Diazinon	11.538	11.541 (0.613)		91373	1.90066	3.801
14 Atrazine	11.580	11.584 (0.615)		45757	1.85573	3.711 (A)
15 Propazine	11.743	11.747 (0.624)		38062	1.71304	3.426
16 Disulfoton	12.048	12.049 (0.640)		64593	1.36272	2.725
17 Demeton-S	Compound Not Detected.					
18 Dimethoate	13.280	13.282 (0.706)		99039	1.55898	3.118
19 Ronnel	13.585	13.587 (0.722)		68431	1.60033	3.201
20 Merphos-A (Merphos)	13.720	13.689 (1.235)		187	0.00436	0.008718 (aA)
21 Chlorpyrifos	14.406	14.409 (0.766)		75604	1.74318	3.486
22 Fenthion	14.661	14.662 (0.779)		72514	1.80263	3.605

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.706	14.711	(0.782)	74495	1.37294	2.746
24 Anilazine	15.213	15.216	(0.809)	7337	1.97603	3.952
25 Methyl Parathion	15.516	15.519	(0.825)	76857	1.76973	3.539
26 Malathion	15.721	15.724	(0.836)	57870	1.42242	2.845
27 Tokuthion	16.343	16.344	(0.869)	73500	1.54299	3.086
28 Parathion	16.493	16.494	(0.877)	73320	1.71334	3.427
29 Merphos-B (Merphos Oxone)	16.520	16.517	(1.486)	83434	6.40430	12.81 (A)
30 Tetrachlorvinphos (stirophos)	16.975	16.977	(0.902)	48611	1.75603	3.512
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	17.440	17.440	(0.927)	73422	1.75672	3.513
33 Carbophenothion	17.521	17.524	(0.931)	71491	1.73953	3.479 (A)
\$ 34 Triphenyl phosphate	18.278	18.281	(0.971)	30050	0.89104	1.782
35 Fensulfothion	18.558	18.559	(0.986)	61930	1.99997	4.000
* 36 TOCP	18.815	18.816	(1.000)	67599	2.00000	
37 Phosmet / EPN	18.906	18.909	(1.005)	108511	3.10866	6.217
38 Famphur	19.008	19.011	(1.010)	69120	1.55895	3.118
39 Azinphos-methyl	19.143	19.147	(1.017)	62082	1.53066	3.061
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	20.343	20.347	(1.081)	54198	1.82485	3.650
S 42 Merphos				83621	1.48429	2.968
M 43 Total Demeton				21426	0.48891	0.9778 (R)

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 025F2501.D  
 Lab Smp Id: LFD4W1AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: LCS  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	118388	6.98
36 TOCP	62152	31076	124304	67599	8.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.11	-0.01
36 TOCP	18.81	18.31	19.31	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

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RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCS  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 o,o,o-TEPT	4.000	2.389	59.73	36-119
2 Dichlorvos	4.000	3.301	82.52	50-120
\$ 3 Chlormefos	2.000	1.354	67.69	58-114
4 Mevinphos	4.000	2.986	74.66	35-108
5 Demeton-O	2.800	0.9778	34.92*	36-119
6 Thionazin	4.000	3.504	87.60	65-116
7 Ethoprop	4.000	3.434	85.86	36-119
8 Phorate	4.000	2.984	74.59	36-119
9 Naled	4.000	2.008	50.21	36-119
10 Sulfotepp	4.000	2.913	72.82	36-119
12 Simazine	4.000	4.402	110.04	36-119
13 Diazinon	4.000	3.801	95.03	36-119
14 Atrazine	4.000	3.711	92.79	36-119
15 Propazine	4.000	3.426	85.65	36-119
16 Disulfoton	4.000	2.725	68.14	61-103
17 Demeton-S	1.200	0.0000	*	36-119
18 Dimethoate	4.000	3.118	77.95	28-82
19 Ronnel	4.000	3.201	80.02	62-99
21 Chlorpyrifos	4.000	3.486	87.16	66-101
22 Fenthion	4.000	3.605	90.13	36-119
23 Trichloronate	4.000	2.746	68.65	36-119
24 Anilazine	4.000	3.952	98.80	36-119
25 Methyl Parathion	4.000	3.539	88.49	36-119
26 Malathion	4.000	2.845	71.12	36-119
27 Tokuthion	4.000	3.086	77.15	36-119
28 Parathion	4.000	3.427	85.67	36-119
30 Tetrachlorvinphos	4.000	3.512	87.80	36-119
31 Carbophenothion m	4.000	0.0000	*	36-119
32 Bolstar	4.000	3.513	87.84	36-119
33 Carbophenothion	4.000	3.479	86.98	36-119
\$ 34 Triphenyl phosphat	2.000	1.782	89.10	36-119
35 Fensulfothion	4.000	4.000	100.00	20-105
37 Phosmet / EPN	8.000	6.217	77.72	36-119
38 Famphur	4.000	3.118	77.95	61-108
39 Azinphos-methyl	4.000	3.061	76.53	55-103
40 Azinphos-ethyl	4.000	0.0000	*	36-119
41 Coumaphos	4.000	3.650	91.24	36-119
S 42 Merphos	4.000	2.968	74.21	36-119
M 43 Total Demeton	4.000	0.9778	24.45*	47-100

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RECOVERY REPORT

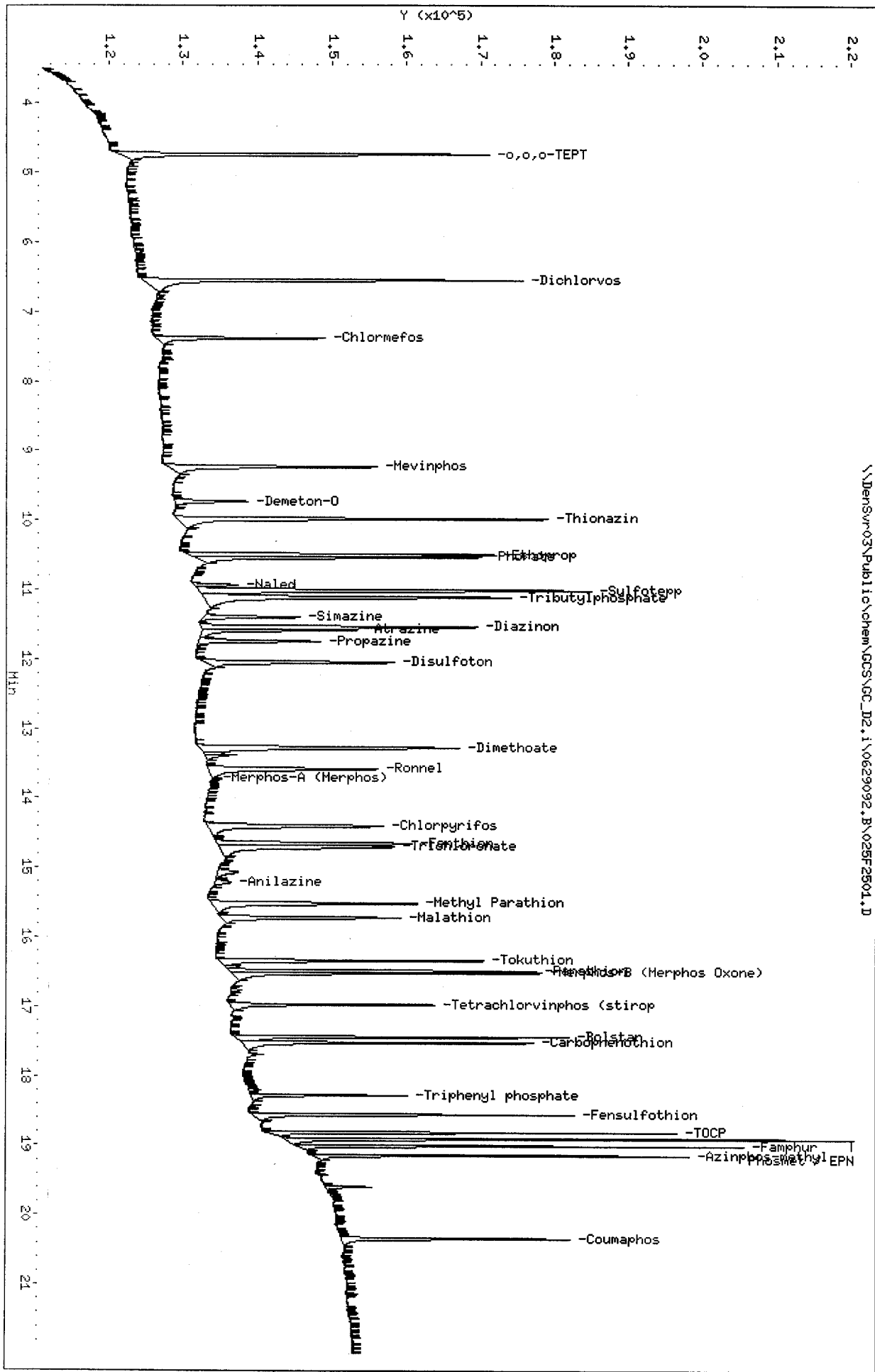
Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCS  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	2.000	1.354	67.69	48-114
\$ 34 Triphenyl phosphat	2.000	1.782	89.10	50-150

Data File: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0629092.B\029F2501.D  
 Date: 30-JUN-2009 05:26  
 Client ID: LCS  
 Sample Info: LFD4MLAC,LCS  
 Column phase: RTX-QPest

Instrument: GC\_D2.1  
 Operator: MPK/TLW  
 Column diameter: 0.32

\\DensSvr03\Public\chem\GCS\GC\_D2.1\0629092.B\029F2501.D



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Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\026F2601.D  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Inj Date : 30-JUN-2009 05:53  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AD,LCSD  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 26 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (ug/L)
1 o,o,o-TEPT	3.286	3.254	(0.184)	141739	1.27499	2.550 -RPT 2 <sup>o</sup>
2 Dichlorvos	4.091	4.074	(0.229)	116087	1.68162	3.363
3 Mevinphos	5.748	5.739	(0.322)	52159	1.37547	2.751
§ 4 Chlormefos	5.838	5.836	(0.327)	63622	0.73597	1.472
5 Thionazin	7.508	7.507	(0.421)	141890	1.79854	3.597
6 Demeton-O	7.648	7.649	(0.429)	38070	0.49350	0.9870(R)
7 Ethoprop	7.851	7.852	(0.440)	129460	1.87258	3.745
8 Naled	8.060	8.057	(0.452)	13470	0.91328	1.826
* 9 Tributylphosphate	8.111	8.135	(1.000)	127878	2.00000	
10 Sulfotepp	8.440	8.442	(0.473)	157329	1.56716	3.134
11 Phorate	8.531	8.532	(0.478)	117800	1.64532	3.291
12 Dimethoate	8.658	8.659	(0.485)	130746	1.57200	3.144
13 Demeton-S	8.838	8.846	(0.495)	9463	0.15690	0.3138(R)
14 Simazine	8.920	8.924	(0.500)	45523	1.65737	3.315
15 Atrazine	9.090	9.094	(0.509)	51567	1.59898	3.198
16 propazine	9.235	9.241	(0.518)	50969	1.71286	3.426
17 Disulfoton	9.868	9.869	(0.553)	60048	1.22019	2.440
18 Diazinon	9.900	9.902	(0.555)	159268	2.07085	4.142
19 Methyl Parathion	10.715	10.717	(0.601)	89397	1.83283	3.666
20 Ronnel	11.238	11.241	(0.630)	85722	1.70020	3.400
21 Malathion	11.800	11.804	(0.661)	69385	1.49552	2.991
22 Fenthion	11.930	11.932	(0.669)	84971	1.71377	3.428



Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion	12.018	12.019	(0.674)	99425	1.88421	3.768
24 Chlorpyrifos	12.066	12.067	(0.676)	111760	1.75059	3.501
25 Trichloronate	12.495	12.496	(0.700)	80135	1.40445	2.809
26 Anilazine	12.816	12.817	(0.718)	8534	1.82199	3.644
27 Merphos-A (Merphos)	13.185	13.199	(0.739)	106	0.00223	0.004453
28 Tetrachlorvinphos (Stirophos)	13.820	13.824	(0.775)	51677	1.63333	3.267
29 Tokuthion	14.448	14.449	(0.810)	91825	1.67881	3.358
30 Merphos-B (Merphos Oxone)	14.648	14.651	(0.821)	93586	7.28977	14.58(A)
31 Carbophenothion-methyl	Compound Not Detected.					
32 Fensulfothion	15.363	15.361	(0.861)	65995	1.50320	3.006
33 Bolstar / Famphur	16.051	16.053	(0.900)	180350	3.44662	6.893
34 Carbophenothion	16.195	16.197	(0.908)	92463	1.76136	3.523
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	33822	0.84782	1.696
36 Phosmet	16.963	16.963	(0.951)	65375	1.45496	2.910
37 EPN	17.150	17.151	(0.961)	76811	1.79604	3.592
38 Azinphos-methyl	17.480	17.480	(0.980)	72586	1.51601	3.032
* 39 TOCP	17.843	17.846	(1.000)	78905	2.00000	
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	18.365	18.366	(1.029)	66344	1.71797	3.436
S 42 Merphos				93692	1.55834	3.117
M 43 Total Demeton				47533	0.65040	1.301(R)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.



TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCS D  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCS D  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 o,o,o-TEPT	4.000	2.550	63.75	36-119
2 Dichlorvos	4.000	3.363	84.08	50-120
3 Mevinphos	4.000	2.751	68.77	35-108
\$ 4 Chlormefos	2.000	1.472	73.60	48-114
5 Thionazin	4.000	3.597	89.93	65-116
6 Demeton-O	2.792	0.9870	35.35*	36-119
7 Ethoprop	4.000	3.745	93.63	65-108
8 Naled	4.000	1.826	45.66	36-119
10 Sulfotepp	4.000	3.134	78.36	69-103
11 Phorate	4.000	3.291	82.27	62-104
12 Dimethoate	4.000	3.144	78.60	28-115
13 Demeton-S	1.208	0.3138	25.98*	36-119
14 Simazine	4.000	3.315	82.87	47-109
15 Atrazine	4.000	3.198	79.95	36-119
16 propazine	4.000	3.426	85.64	36-119
18 Diazinon	4.000	4.142	103.54	36-119
17 Disulfoton	4.000	2.440	61.01	36-119
19 Methyl Parathion	4.000	3.666	91.64	68-119
20 Ronnel	4.000	3.400	85.01	62-115
21 Malathion	4.000	2.991	74.78	67-115
22 Fenthion	4.000	3.428	85.69	36-119
23 Parathion	4.000	3.768	94.21	36-119
24 Chlorpyrifos	4.000	3.501	87.53	36-119
25 Trichloronate	4.000	2.809	70.22	36-119
26 Anilazine	4.000	3.644	91.10	47-115
S 42 Merphos	4.000	3.117	77.92	36-119
28 Tetrachlorvinphos	4.000	3.267	81.67	36-119
29 Tokuthion	4.000	3.358	83.94	36-119
31 Carbophenothion-m	4.000	0.0000	*	36-119
32 Fensulfothion	4.000	3.006	75.16	61-115
33 Bolstar / Famphur	8.000	6.893	86.17	36-119
34 Carbophenothion	4.000	3.523	88.07	36-119
\$ 35 Triphenyl phosphat	2.000	1.696	84.78	50-150
36 Phosmet	4.000	2.910	72.75	36-119
37 EPN	4.000	3.592	89.80	36-119
38 Azinphos-methyl	4.000	3.032	75.80	55-115
40 Azinphos-ethyl	4.000	0.0000	*	36-119
41 Coumaphos	4.000	3.436	85.90	62-115
M 43 Total Demeton	4.000	1.301	32.52*	47-115

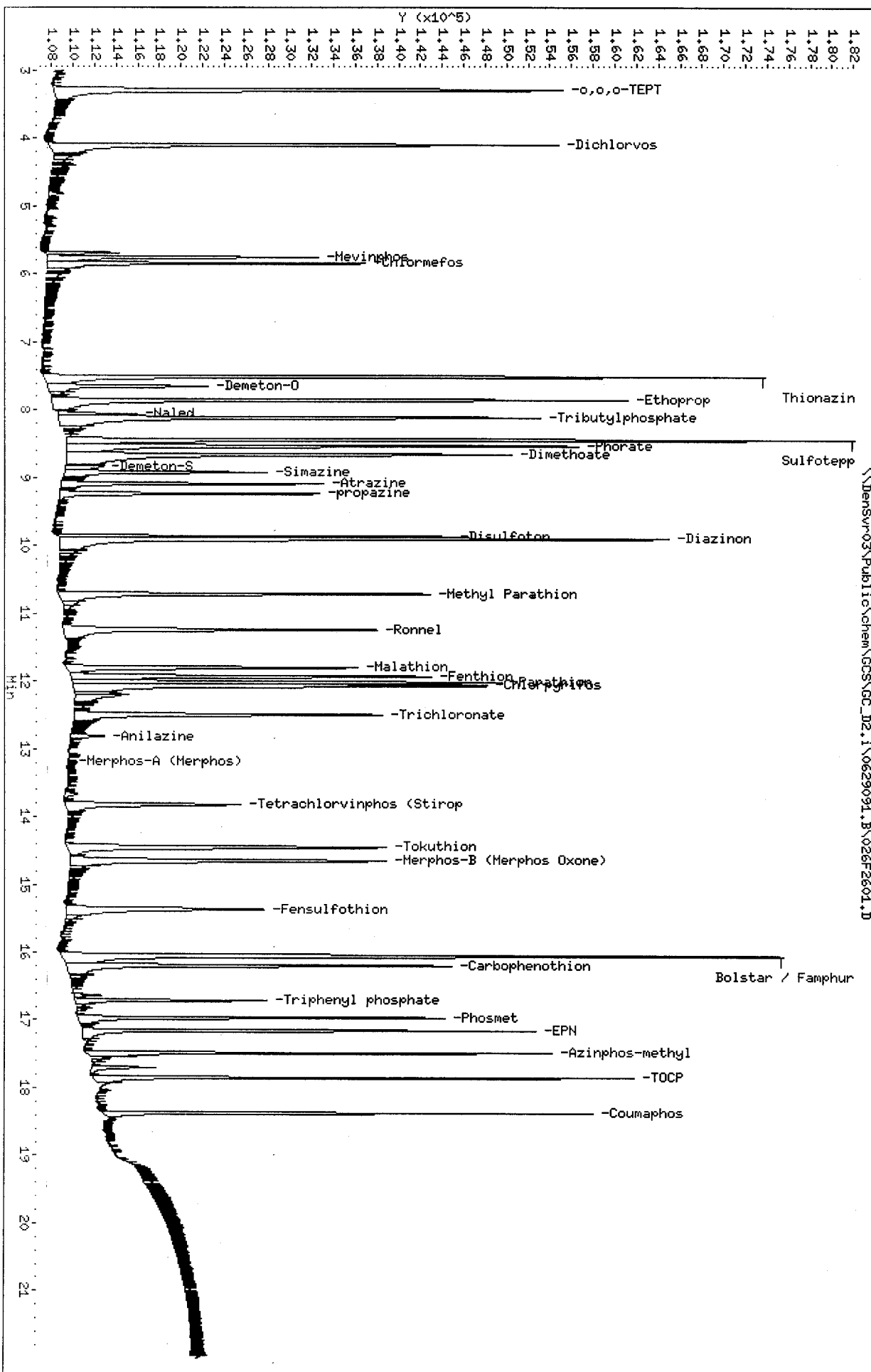
TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: LCSD  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	2.000	1.472	73.60	48-114
\$ 35 Triphenyl phosphat	2.000	1.696	84.78	50-150

\\DensSvr-03\Public\chem\GCSS\GC\_ID2.1\0629091.B\026F2601.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\026F2601.D  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Inj Date : 30-JUN-2009 05:53  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AD,LCSD  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 26 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (ug/L)
1 o,o,o-TEPT	4.738	4.731	(0.252)	114192	1.33441	2.669
2 Dichlorvos	6.549	6.546	(0.348)	103656	1.55128	3.102
\$ 3 Chlormefos	7.384	7.384	(0.392)	42095	0.62581	1.252
4 Mevinphos	9.234	9.234	(0.491)	75490	1.67714	3.354
5 Demeton-O	9.733	9.734	(0.517)	21005	0.48973	0.9795 (R)
6 Thionazin	9.984	9.984	(0.531)	124413	1.84834	3.697
7 Ethoprop	10.499	10.499	(0.558)	85997	1.70981	3.420
8 Phorate	10.538	10.539	(0.560)	90461	1.55098	3.102
9 Naled	10.941	10.939	(0.582)	12103	1.01419	2.028
10 Sulfotepp	11.016	11.017	(0.586)	130888	1.48791	2.976 (A)
* 11 Tributylphosphate	11.114	11.116	(1.000)	107752	2.00000	
12 Simazine	11.399	11.399	(0.606)	26110	2.07238	4.145 (A)
13 Diazinon	11.539	11.541	(0.613)	91041	1.93442	3.869
14 Atrazine	11.579	11.584	(0.615)	44824	1.85722	3.714 (A)
15 Propazine	11.744	11.747	(0.624)	37540	1.72585	3.452
16 Disulfoton	12.048	12.049	(0.640)	61147	1.31808	2.636
17 Demeton-S	Compound Not Detected.					
18 Dimethoate	13.281	13.282	(0.706)	94783	1.52444	3.049
19 Ronnel	13.586	13.587	(0.722)	70586	1.68663	3.373
20 Merphos-A (Merphos)	13.713	13.689	(1.234)	855	0.02190	0.04380 (aA)
21 Chlorpyrifos	14.409	14.409	(0.766)	69729	1.64269	3.285
22 Fenthion	14.659	14.662	(0.779)	70738	1.79673	3.593

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.706	14.711	(0.782)	68787	1.30127	2.602
24 Anilazine	15.213	15.216	(0.809)	5761	1.58509	3.170
25 Methyl Parathion	15.518	15.519	(0.825)	72480	1.70524	3.410
26 Malathion	15.723	15.724	(0.836)	57225	1.43716	2.874
27 Tokuthion	16.343	16.344	(0.869)	72375	1.55242	3.105
28 Parathion	16.493	16.494	(0.877)	70521	1.68378	3.368
29 Merphos-B (Merphos Oxone)	16.519	16.517	(1.486)	81996	6.92343	13.85 (A)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	48095	1.77518	3.550
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	17.439	17.440	(0.927)	68048	1.66355	3.327
33 Carbophenothion	17.521	17.524	(0.931)	63909	1.58887	3.178 (A)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	33221	1.00649	2.013
35 Fensulfothion	18.558	18.559	(0.986)	58752	1.93861	3.877
* 36 TOCP	18.814	18.816	(1.000)	66160	2.00000	
37 Phosmet / EPN	18.906	18.909	(1.005)	113369	3.32422	6.648
38 Famphur	19.008	19.011	(1.010)	73634	1.69689	3.394
39 Azinphos-methyl	19.144	19.147	(1.018)	62081	1.56392	3.128
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	20.344	20.347	(1.081)	50528	1.73828	3.476
S 42 Merphos				82851	1.50260	3.005
M 43 Total Demeton				21005	0.48973	0.9795 (R)

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 026F2601.D  
 Lab Smp Id: LFD4W1AD  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: LCSO  
 Level: LOW  
 Sample Type: WATER

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	110664	55332	221328	107752	-2.63
36 TOCP	62152	31076	124304	66160	6.45

COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	11.11	10.61	11.61	11.11	0.00
36 TOCP	18.81	18.31	19.31	18.81	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCSD  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 o,o,o-TEPT	4.000	2.669	66.72	36-119
2 Dichlorvos	4.000	3.102	77.56	50-120
\$ 3 Chlormefos	2.000	1.252	62.58	58-114
4 Mevinphos	4.000	3.354	83.86	35-108
5 Demeton-O	2.800	0.9795	34.98*	36-119
6 Thionazin	4.000	3.697	92.42	65-116
7 Ethoprop	4.000	3.420	85.49	36-119
8 Phorate	4.000	3.102	77.55	36-119
9 Naled	4.000	2.028	50.71	36-119
10 Sulfotepp	4.000	2.976	74.40	36-119
12 Simazine	4.000	4.145	103.62	36-119
13 Diazinon	4.000	3.869	96.72	36-119
14 Atrazine	4.000	3.714	92.86	36-119
15 Propazine	4.000	3.452	86.29	36-119
16 Disulfoton	4.000	2.636	65.90	61-103
17 Demeton-S	1.200	0.0000	*	36-119
18 Dimethoate	4.000	3.049	76.22	28-82
19 Ronnel	4.000	3.373	84.33	62-99
21 Chlorpyrifos	4.000	3.285	82.13	66-101
22 Fenthion	4.000	3.593	89.84	36-119
23 Trichloronate	4.000	2.602	65.06	36-119
24 Anilazine	4.000	3.170	79.25	36-119
25 Methyl Parathion	4.000	3.410	85.26	36-119
26 Malathion	4.000	2.874	71.86	36-119
27 Tokuthion	4.000	3.105	77.62	36-119
28 Parathion	4.000	3.368	84.19	36-119
30 Tetrachlorvinphos	4.000	3.550	88.76	36-119
31 Carbophenothion m	4.000	0.0000	*	36-119
32 Bolstar	4.000	3.327	83.18	36-119
33 Carbophenothion	4.000	3.178	79.44	36-119
\$ 34 Triphenyl phosphat	2.000	2.013	100.65	36-119
35 Fensulfothion	4.000	3.877	96.93	20-105
37 Phosmet / EPN	8.000	6.648	83.11	36-119
38 Famphur	4.000	3.394	84.84	61-108
39 Azinphos-methyl	4.000	3.128	78.20	55-103
40 Azinphos-ethyl	4.000	0.0000	*	36-119
41 Coumaphos	4.000	3.476	86.91	36-119
S 42 Merphos	4.000	3.005	75.13	36-119
M 43 Total Demeton	4.000	0.9795	24.49*	47-100

TestAmerica

RECOVERY REPORT

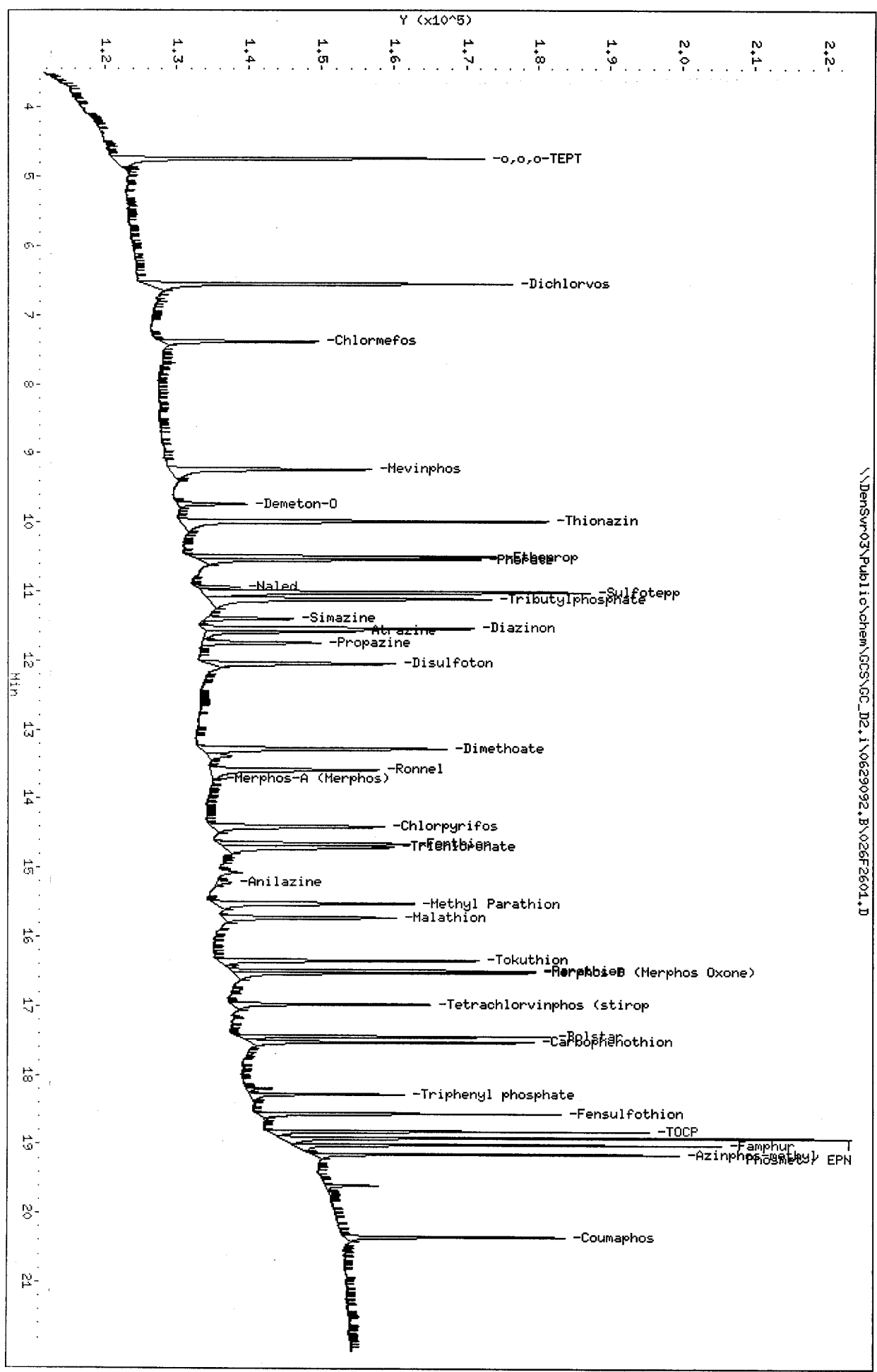
Client Name: Client SDG: D9F220000  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: LCSD  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	2.000	1.252	62.58	48-114
\$ 34 Triphenyl phosphat	2.000	2.013	100.65	50-150

Data File: \\Densysv03\Public\chem\CCS\CC\_D2.1\0629092.B\026F2601.D  
 Date: 30-JUN-2009 05:53  
 Client ID: LCSD  
 Sample Info: LFD4M1AD,LCSD  
 Column phase: RTX-0PPast

Instrument: GC\_D2.1  
 Operator: MPK/TLM  
 Column diameter: 0.32

\\Densysv03\Public\chem\CCS\CC\_D2.1\0629092.B\026F2601.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\027F2701.D  
 Lab Smp Id: LE7EE1AA Client Smp ID: M-39B  
 Inj Date : 30-JUN-2009 06:20  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LE7EE1AA,266-2  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 27  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1064.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
3 Mevinphos						
\$ 4 Chlormefos	5.839	5.836	(0.327)	49425	0.55107	1.036
5 Thionazin						
6 Demeton-O						
7 Ethoprop						
8 Naled						
* 9 Tributylphosphate	8.114	8.135	(1.000)	115560	2.00000	
10 Sulfotepp						
11 Phorate						
12 Dimethoate						
13 Demeton-S						
14 Simazine						
15 Atrazine						
16 propazine						
17 Disulfoton						
18 Diazinon						
19 Methyl Parathion						
20 Ronnel						
21 Malathion						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion						
24 Chlorpyrifos	12.068	12.067	(0.676)	227	0.00343	0.006442(a)
25 Trichloronate						
26 Anilazine						
27 Merphos-A (Merphos)	13.178	13.199	(0.738)	126	0.00255	0.004795
28 Tetrachlorvinphos (Stirophos)	13.833	13.824	(0.775)	54	0.00165	0.003092
29 Tokuthion						
30 Merphos-B (Merphos Oxone)	14.663	14.651	(0.822)	60	0.02538	0.04770
31 Carbophenothion-methyl						
32 Fensulfothion						
33 Bolstar / Famphur						
34 Carbophenothion						
\$ 35 Triphenyl phosphate	16.711	16.712	(0.936)	32631	0.78839	1.482
36 Phosmet						
37 EPN						
38 Azinphos-methyl						
* 39 TOCP	17.844	17.846	(1.000)	81865	2.00000	
40 Azinphos-ethyl						
41 Coumaphos						
S 42 Merphos				186	0.00298	0.005605
M 43 Total Demeton						

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i	Calibration Date: 30-JUN-2009
Lab File ID: 027F2701.D	Calibration Time: 02:41
Lab Smp Id: LE7EE1AA	Client Smp ID: M-39B
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: WATER
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0629091.B\8141A-1.m	
Misc Info: IS - GSV0633-09	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	115560	-18.39
39 TOCP	76317	38159	152634	81865	7.27

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.06
39 TOCP	17.84	17.34	18.34	17.84	0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Northgate Environmen18-JUN-2009 00:00 Client SDG: D9F1802  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LE7EE1AA Client Smp ID: M-39B  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: SAMPLE  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	1.880	1.036	55.11	48-114
\$ 35 Triphenyl phosphat	1.880	1.482	78.84	50-150

Data File: \\DensSvr-03\Public\chem\GCS\GC\_D2.i\0629091.B\027F2701.D  
Date : 30-JUN-2009 06:20

Client ID: H-39B

Sample Info: LE7EE1A0,266-2

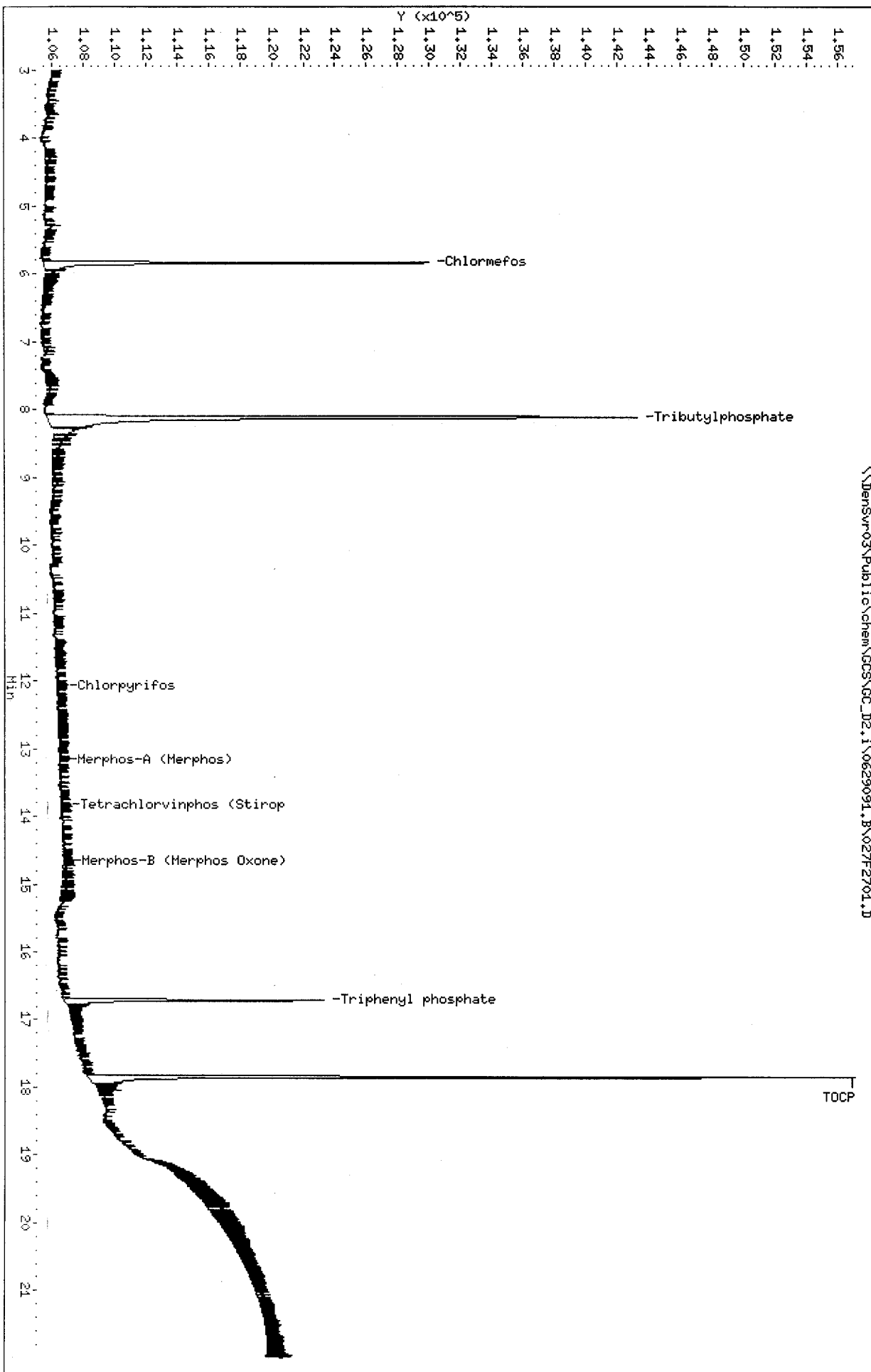
Column phase: RTX-1MS

Instrument: GC\_D2.i

Operator: NPK/TLM

Column diameter: 0.32

\\DensSvr-03\Public\chem\GCS\GC\_D2.i\0629091.B\027F2701.D





TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\027F2701.D  
 Lab Smp Id: LE7EE1AA Client Smp ID: M-39B  
 Inj. Date : 30-JUN-2009 06:20  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LE7EE1AA,266-2  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 27  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1064.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
\$ 3 Chlormefos	7.384	7.384	(0.392)	38366	0.54877	1.032
4 Mevinphos						
5 Demeton-O						
6 Thionazin						
7 Ethoprop						
8 Phorate						
9 Naled	10.946	10.939	(0.582)	52	0.27181	0.5109 <i>Not a peak</i>
10 Sulfotepp	10.981	11.017	(0.584)	83	9e-004	0.001706 (aA)
* 11 Tributylphosphate	11.116	11.116	(1.000)	92749	2.00000	
12 Simazine	11.374	11.399	(0.605)	51	0.00389	0.007321 (aA)
13 Diazinon						
14 Atrazine	11.592	11.584	(0.616)	123	0.23670	0.4449 (aA)
15 Propazine						
16 Disulfoton						
17 Demeton-S						
18 Dimethoate						
19 Ronnel						
20 Merphos-A (Merphos)	13.669	13.689	(1.230)	65	0.00193	0.003635 (aA)
21 Chlorpyrifos						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.697	14.711	(0.781)	172	0.10814	0.2033
24 Anilazine	Compound Not Detected.					
25 Methyl Parathion	Compound Not Detected.					
26 Malathion	15.699	15.724	(0.834)	53	0.00128	0.002407(a)
27 Tokuthion	Compound Not Detected.					
28 Parathion	16.502	16.494	(0.877)	94	0.00216	0.004059(a)
29 Merphos-B (Merphos Oxone)	Compound Not Detected.					
30 Tetrachlorvinphos (stirophos)	Compound Not Detected.					
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	Compound Not Detected.					
33 Carbophenothion	Compound Not Detected.					
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	31639	0.92226	1.734
35 Fensulfothion	Compound Not Detected.					
* 36 TOCP	18.814	18.816	(1.000)	68764	2.00000	
37 Phosmet / EPN	Compound Not Detected.					
38 Famphur	Compound Not Detected.					
39 Azinphos-methyl	Compound Not Detected.					
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	Compound Not Detected.					
S 42 Merphos	Compound Not Detected.					
M 43 Total Demeton	Compound Not Detected.					

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 027F2701.D  
 Lab Smp Id: LE7EE1AA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: M-39B  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	92749	-16.19
36 TOCP	62152	31076	124304	68764	10.64

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.12	0.01
36 TOCP	18.81	18.31	19.31	18.81	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Northgate Environmen18-JUN-2009 00:00 Client SDG: D9F1802  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LE7EE1AA Client Smp ID: M-39B  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: SAMPLE  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	1.880	1.032	54.88	48-114
\$ 34 Triphenyl phosphat	1.880	1.734	92.23	50-150

Date: 30-JUN-2009 06:20

Client ID: M-39B

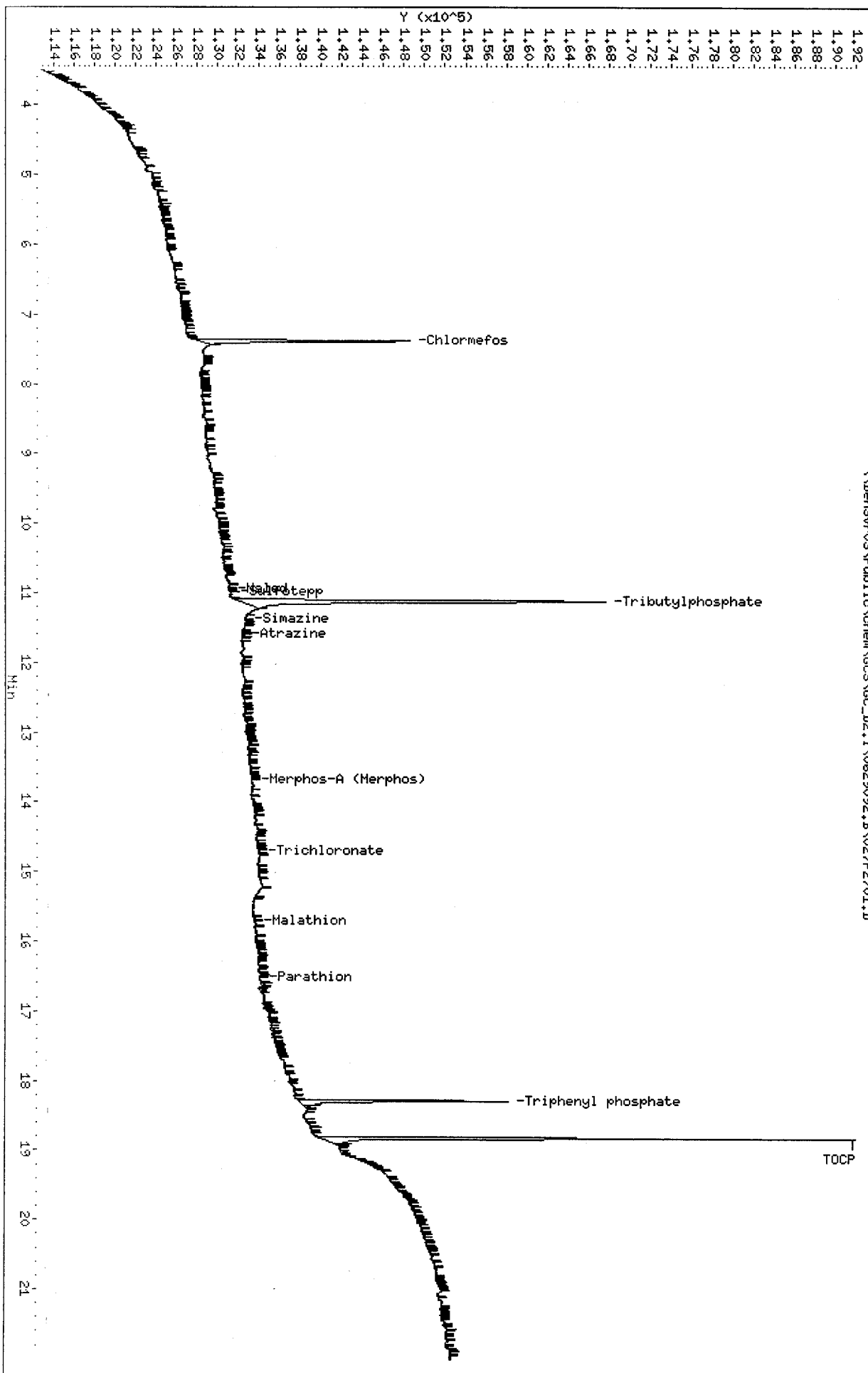
Sample Info: LEZEEIAA,266-2

Instrument: GC\_D2.i

Column phase: RTX-QPest

Operator: HPK/TLM  
Column diameter: 0.32

\\DensSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\027F2701.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\028F2801.D  
 Lab Smp Id: LE9Q61AA Client Smp ID: M-123B  
 Inj Date : 30-JUN-2009 06:47  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LE9Q61AA,216-2  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 28  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1066.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
3 Mevinphos						
\$ 4 Chlormefos	5.837	5.836	(0.327)	41242	0.42830	0.8036(R) - 2PT 2 <sup>o</sup>
5 Thionazin						
6 Demeton-O						
7 Ethoprop						
8 Naled	8.059	8.057	(0.452)	55	0.19529	0.3664 not a peak
* 9 Tributylphosphate	8.114	8.135	(1.000)	125536	2.00000	
10 Sulfotepp						
11 Phorate						
12 Dimethoate						
13 Demeton-S						
14 Simazine						
15 Atrazine						
16 propazine						
17 Disulfoton						
18 Diazinon						
19 Methyl Parathion						
20 Ronnel						
21 Malathion						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion					Compound Not Detected.	
24 Chlorpyrifos	12.069	12.067	(0.676)	106	0.00149	0.002796 (a)
25 Trichloronate					Compound Not Detected.	
26 Anilazine					Compound Not Detected.	
27 Merphos-A (Merphos)	13.227	13.199	(0.741)	77	0.00145	0.002724
28 Tetrachlorvinphos (Stirophos)	13.811	13.824	(0.774)	64	0.00182	0.003407
29 Tokuthion					Compound Not Detected.	
30 Merphos-B (Merphos Oxone)	14.642	14.651	(0.821)	303	0.04201	0.07883
31 Carbophenothion-methyl					Compound Not Detected.	
32 Fensulfothion					Compound Not Detected.	
33 Bolstar / Famphur					Compound Not Detected.	
34 Carbophenothion					Compound Not Detected.	
\$ 35 Triphenyl phosphate	16.711	16.712	(0.937)	34720	0.78133	1.466
36 Phosmet					Compound Not Detected.	
37 EPN					Compound Not Detected.	
38 Azinphos-methyl					Compound Not Detected.	
* 39 TOCP	17.842	17.846	(1.000)	87893	2.00000	
40 Azinphos-ethyl					Compound Not Detected.	
41 Coumaphos					Compound Not Detected.	
S 42 Merphos				380	0.00567	0.01064
M 43 Total Demeton					Compound Not Detected.	

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 028F2801.D  
 Lab Smp Id: LE9Q61AA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: M-123B  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	125536	-11.35
39 TOCP	76317	38159	152634	87893	15.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.05
39 TOCP	17.84	17.34	18.34	17.84	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

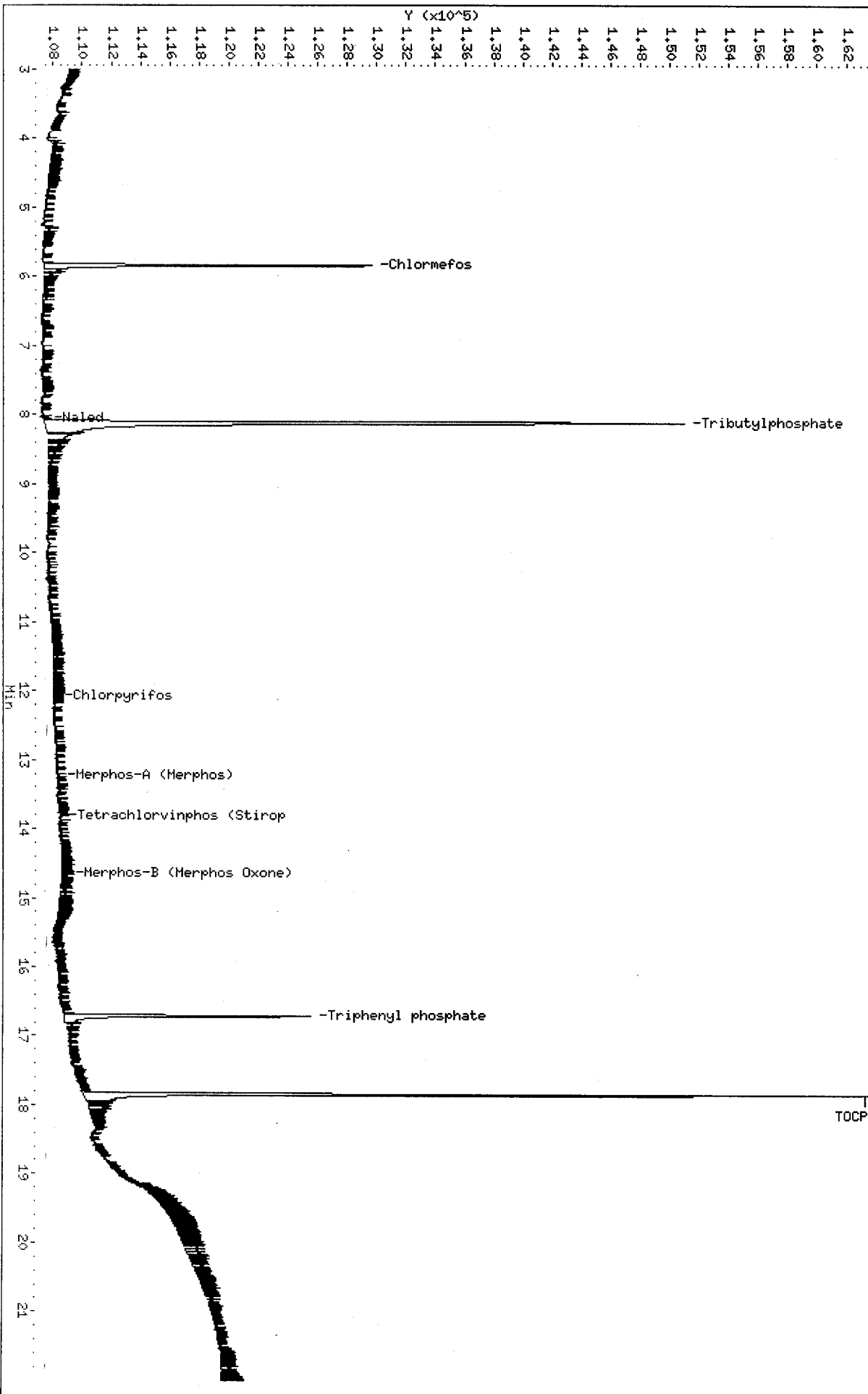


TestAmerica

RECOVERY REPORT

Client Name: Northgate Environmen19-JUN-2009 00:00 Client SDG: 8304607  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LE9Q61AA Client Smp ID: M-123B  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: SAMPLE  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	1.876	0.8036	42.83*	48-114
\$ 35 Triphenyl phosphat	1.876	1.466	78.13	50-150



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\028F2801.D  
 Lab Smp Id: LE9Q61AA Client Smp ID: M-123B  
 Inj Date : 30-JUN-2009 06:47  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LE9Q61AA,216-2  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 28  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1066.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
\$ 3 Chlormefos	7.384	7.384	(0.392)	34710	0.50346	0.9446
4 Mevinphos						
5 Demeton-O						
6 Thionazin						
7 Ethoprop						
8 Phorate						
9 Naled	10.947	10.939	(0.582)	73	0.27312	0.524 <i>not a peak</i>
10 Sulfotepp	11.014	11.017	(0.585)	123	0.00136	0.002560 (aA)
* 11 Tributylphosphate	11.115	11.116	(1.000)	96892	2.00000	
12 Simazine	11.395	11.399	(0.606)	148	0.01146	0.02150 (aA)
13 Diazinon						
14 Atrazine	11.620	11.584	(0.618)	96	0.23581	0.4424 (aA)
15 Propazine						
16 Disulfoton						
17 Demeton-S	12.104	12.124	(0.643)	55	0.12000	0.2251
18 Dimethoate						
19 Ronnel						
20 Merphos-A (Merphos)	13.699	13.689	(1.232)	71	0.00202	0.003794 (aA)
21 Chlorpyrifos						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23: Trichloronate	14.705	14.711	(0.782)	107	0.10707	0.2009
24 Anilazine	Compound Not Detected.					
25 Methyl Parathion	Compound Not Detected.					
26 Malathion	15.702	15.724	(0.835)	50	0.00123	0.002299 (a)
27 Tokuthion	Compound Not Detected.					
28 Parathion	16.482	16.494	(0.876)	102	0.00238	0.004458 (a)
29 Merphos-B (Merphos Oxone)	Compound Not Detected.					
30 Tetrachlorvinphos (stirophos)	Compound Not Detected.					
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	Compound Not Detected.					
33: Carbophenothion	Compound Not Detected.					
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	30867	0.91242	1.712
35 Fensulfothion	Compound Not Detected.					
* 36 TOCP	18.814	18.816	(1.000)	67810	2.00000	
37 Phosmet / EPN	Compound Not Detected.					
38 Famphur	Compound Not Detected.					
39 Azinphos-methyl	Compound Not Detected.					
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	Compound Not Detected.					
S 42 Merphos	Compound Not Detected.					
M 43 Total Demeton				55	0.12000	0.2251

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 30-JUN-2009  
 Lab File ID: 028F2801.D Calibration Time: 02:41  
 Lab Smp Id: LE9Q61AA Client Smp ID: M-123B  
 Analysis Type: SV Level: LOW  
 Quant Type: ISTD Sample Type: WATER  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	96892	-12.44
36 TOCP	62152	31076	124304	67810	9.10

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.12	0.01
36 TOCP	18.81	18.31	19.31	18.81	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Northgate Environmen19-JUN-2009 00:00 Client SDG: 8304607  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LE9Q61AA Client Smp ID: M-123B  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: SAMPLE  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	1.876	0.9446	50.35	48-114
\$ 34 Triphenyl phosphat	1.876	1.712	91.24	50-150

Date : 30-JUN-2009 06:47

Client ID: M-1238

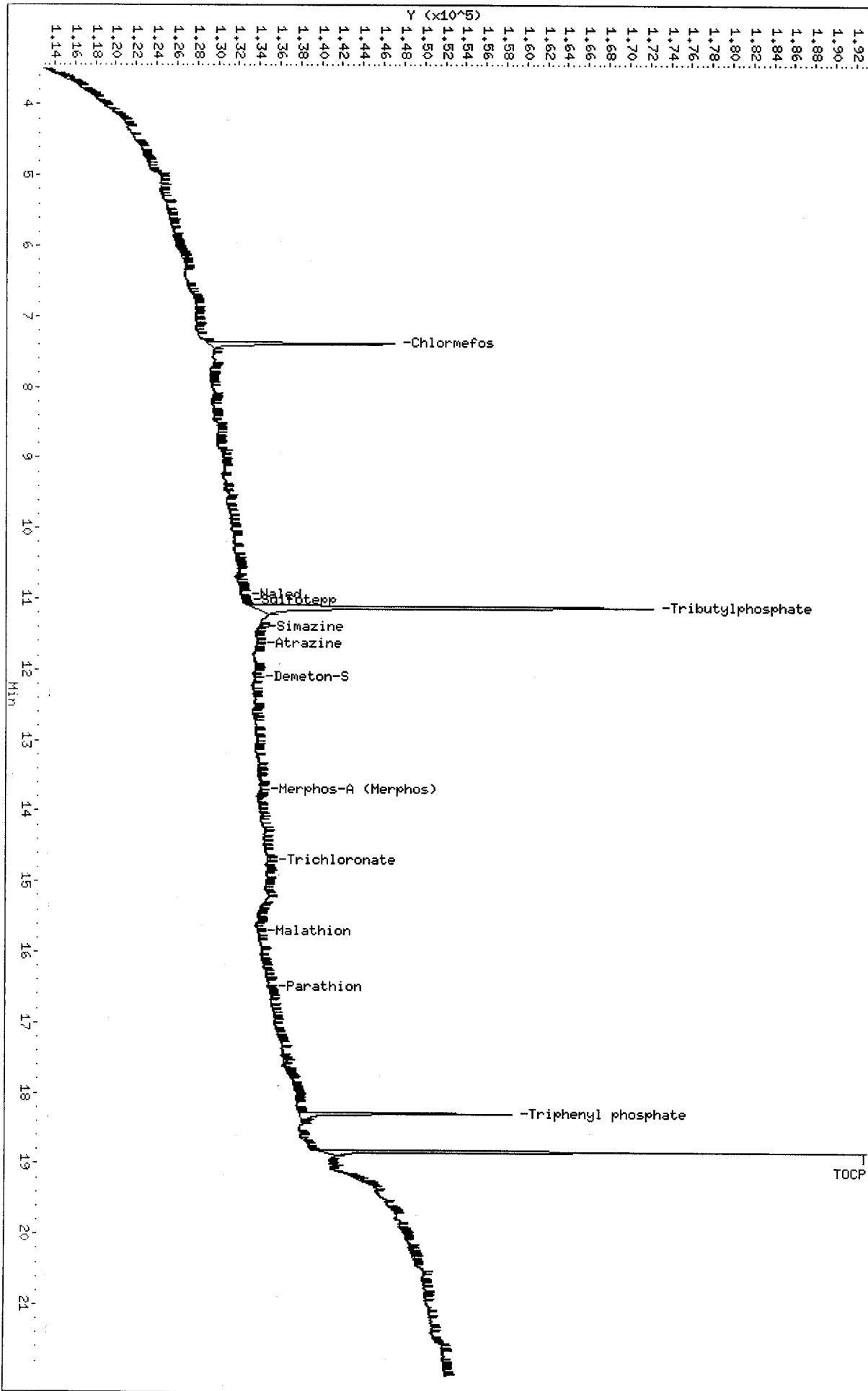
Sample Info: LE906140, 216-2

Instrument: GC\_D2.1

Column phase: RTX-QPest

Operator: HPK/TLM  
Column diameter: 0.32

\\DensSvr-03\Public\chem\GCST\GC\_D2.1\0629092.B\028F2801.D



**GC SEMIVOLATILE  
INITIAL CALIBRATION DATA**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**



GC and HPLC ICAL Review Checklist

608 8081 8082 8151 8141  
 TPH/DRO Other SV Lab  
 8310 8330 Other HPLC \_\_\_\_\_

601 602 8021 BTEX  
 TPH/GRO Other Volatile GC \_\_\_\_\_

Calibration Date: 6/26/09  
 Instrument ID: D2

Initial Calibration	Review Items	Level 1			Level 2	Comments
		Yes	No	N/A		
1.	Are correct data files used?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
2.	Is there a sufficient number of calibration points used?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
3.	Are reasons for removal of points documented?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Better linearity
4.	Is linearity acceptable, 8000 Series: linear least-squares regression with $r \geq 0.990$ , (DOD projects require $r \geq 0.995$ ) quadratic fit COD $r^2 > 0.990$ , or average response factors with RSD $\leq 20\%$ ?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
5.	600 Series: < 10% RSD or linear regression Are the correct RT windows applied to the ICAL integration?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
6.	Are DDT & Endrin breakdown < 15%?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	NA	
7.	Is each manual integration completely documented, signed and appropriate?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
8.	Is traceability of standards properly documented?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
9.	Was second level hand calculation performed? (document analyte checked)	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
10.	Was second-source ICV performed & recovery 85-115%?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Primary Include %R Maled -40.1%, Simazine +31.1%, Disulfoton -20.6%, Malathion -18.8%, Atrazine -49.2%, Carbofenthiol-methyl -32.3%, Phosmet-17.6%, Secondary Include %R Maled -47.6%, Simazine +80.1%, Atrazine -39.9%, Malathion -23.2%, Carbofenthiol-methyl -39.7%, Megphos -19.3%

1st Level Reviewer: [Signature] Date: 6/30/09  
 2nd Level Reviewer: [Signature] Date: 6/30/09

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
====	=====	=====	=====	=====	=====	=====
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L7 GSV0634				
4	Vial 4	OPP L6 GSV0637				
5	Vial 5	OPP L5 GSV0635				
6	Vial 6	OPP L4 GSV0638				
7	Vial 7	OPP L3 GSV0639				
8	Vial 8	OPP L2 GSV0640				
9	Vial 9	OPP L1 GSV0641				
10	Vial 10	OPP SS GSV0633				
11	Vial 11	GSV075309 SPK				
12	Vial 12	LE2931AA,MB				
13	Vial 13	LE2931AC,LCS				
14	Vial 14	LE2931AD,LCSD				
15	Vial 15	LEQA91AC,222-15			10	
16	Vial 16	LEQA91AC,222-15			3	
17	Vial 17	LEQCQ1AC,222-18			2	
18	Vial 18	LERD61AD,377-1				
19	Vial 19	LERD81AH,377-3				
20	Vial 20	LERN71AF,115-1				
21	Vial 21	LERPQ1AF,115-2				
22	Vial 22	LERPX1AF,115-3				
23	Vial 23	LE1F91AJ,138-1				
24	Vial 24	OPP L5 GSV0635				
25	Vial 25	LE29M1AA,MB				
26	Vial 26	LE29M1AC,LCS				
27	Vial 27	LE29M1AD,LCSD				
28	Vial 28	LEQA91AA,222-15			10	
29	Vial 29	LEQA91AA,222-15			3	
30	Vial 30	LEQCQ1AA,222-18			2	
31	Vial 31	LFARC1AA,MB				
32	Vial 32	LFARC1AC,LCS				
33	Vial 33	LFARC1AD,LCSD				
34	Vial 34	LEKL02AA,185-1				
35	Vial 35	LE29L1AA,MB				
36	Vial 36	LE29L1AC,LCS				
37	Vial 37	LE29L1AD,LCSD				
38	Vial 38	LERCV1AA,370-1				
39	Vial 39	LEWJG1AA,143-1				
40	Vial 40	OPP L5 GSV0635				
41	Vial 41	LE5PX1AA,MB				
42	Vial 42	LE5PX1AC,LCS				
43	Vial 43	LE5PX1AD,LCSD				
44	Vial 44	LE39F1AA,179-1				
45	Vial 45	LE3PF1AA,179-2				
46	Vial 46	LE39L1AA,179-3				
47	Vial 47	LFARL1AA,MB				
48	Vial 48	LFARL1AC,LCS				
49	Vial 49	LFARL1AD,LCSD				
50	Vial 50	LEKLE2AE,180-2				
51	Vial 51	LEKLF2AE,180-3				
52	Vial 52	LEKLL2AE,180-4				
53	Vial 53	LEKLO2AE,180-5				
54	Vial 54	LENR72AD,322-1				
55	Vial 55	LEPG32AJ,161-1				
56	Vial 56	OPP L5 GSV0635				
57	Vial 57	LFD4N1AA,MB				
58	Vial 58	LFD4N1AC,LCS				

9168144

9168147

9170431

9168145

9168533

9170430

9173102

RR

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
59	Vial 59	LFD4N1AD, LCSD				
60	Vial 60	LE3041AJ, 158-1				
61	Vial 61	LFD4W1AA, MB				
62	Vial 62	LFD4W1AC, LCS				
63	Vial 63	LFD4W1AD, LCSD				
64	Vial 64	LE7EE1AA, 266-2				
65	Vial 65	LE9Q61AA, 216-2				
66	Vial 66	LE9RA1AA, 216-3				
67	Vial 67	LFC4Q1AD, 199-2				
68	Vial 68	OPP L5 GSV0635				
69	Vial 69	LFAN01AA, MB				
70	Vial 70	LFAN01AC, LCS				
71	Vial 71	LFAN01AD, LCSD				
72	Vial 72	LE4291AA, 273-1				
73	Vial 73	LE4291AD, 273-1S				
74	Vial 74	LE4291AE, 273-1D				
75	Vial 75	LE9PJ1AA, 215-1				
76	Vial 76	OPP L5 GSV0635				
77	Vial 77	OPP L1 GSV0641				
78	Vial 100	HEXANE/ACETONE				

11/23/03

11/20/09

Sequence Table (Back Injector):

No entries - empty table!

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Calibration File Names:

Level 1: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\009F0901.D  
 Level 2: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\008F0801.D  
 Level 3: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\007F0701.D  
 Level 4: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\006F0601.D  
 Level 5: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\005F0501.D  
 Level 6: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\004F0401.D  
 Level 7: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	Coefficients							Curve	b	ml	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7					
1 o,o'-TEPP	3.11591 2.77446	2.63737	2.67945	2.89676	2.71623	2.90430	AVRG		2.81778			5.91149
2 Dichlorvos	2.01706 1.79032	1.62225	1.58545	1.76366	1.71981	1.74982	AVRG		1.74977			7.99554
3 Mevinphos	1.01774 0.94429	0.91295	0.90158	1.01760	0.95159	0.98250	AVRG		0.96118			4.85992
5 Thiomazin	2.12707 1.93224	1.94606	1.94866	2.08214	1.96051	2.00095	AVRG		1.99966			3.79706



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	Coefficients							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	m1			m2		
14 Simazine	4819 190219	16248	29382	64611	115426	147784	WLNMR	0.03988	0.73140		0.99336	1/2
15 Atrazine	0.70185 0.89508	0.76532	0.75073	0.84628	0.85434	0.90844	AVRG		0.81743		9.61085	
16 propazine	0.73887 0.79462	0.70136	0.69239	0.78178	0.75651	0.81417	AVRG		0.75424		6.13423	
17 Disulfoton	15404 290419	33208	61920	127893	193050	247845	WLNMR	-0.01928	1.20917		0.99576	1/1
18 Diazinon	2.20234 1.92388	1.83553	1.83772	2.01856	1.98676	1.84115	AVRG		1.94942		6.88114	
19 Methyl Parathion	1.22644 1.26213	1.10389	1.13741	1.32395	1.30344	1.29686	AVRG		1.23630		6.92144	
20 Ronnel	1.42863 1.18584	1.23369	1.21320	1.29342	1.2446	1.34650	AVRG		1.27796		6.65504	

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients ml	m2	%RSD or R <sup>2</sup>
21 Malathion	15443 283462	30581	57103	119836	186013	228260	WLNIR	-0.02066	1.14436		0.99783
22 Fenthion	1.46442 1.18151	1.18458	1.16481	1.29096	1.25584	1.25506	AVRG		1.25674		8.19381
23 Parathion	1.42438 1.31279	1.25387	1.23322	1.38998	1.36308	1.38514	AVRG		1.33749		5.43501
24 Chlorpyrifos	1.85614 1.56216	1.56747	1.47379	1.62915	1.61527	1.62330	AVRG		1.61818		7.28314
25 Trichloronate	1.44751 1.43428	1.42551	1.34762	1.48171	1.46256	1.52450	AVRG		1.44624		3.78186
26 Anilazine	1493 +++++	2095	5311	12790	19893	29375	QUAD	0.02107	9.16488	-8.66056	0.99476
27 Merphos-A (Merphos)	1.24844 1.18648	1.15527	1.15966	1.23989	1.21263	1.24409	AVRG		1.20664		3.30523

X

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Target Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients		%RSD or R <sup>2</sup>
									m1	m2	
28 Tetrachlorvinphos (Stirophos)	0.76814 0.82648	0.74606	0.73464	0.83451	0.85233	0.85150	AVRG		0.80195		6.32809
29 Tokuthion	1.50295 1.37817	1.28283	1.29501	1.44234	1.39452	1.40891	AVRG		1.38639		5.62055
30 Merphos-B (Merphos Oxone)	3884 79809	7933	11676	34113	50056	65974	WLNMR	0.01044	0.32634		0.98820
31 Carophenothion-methyl	14924 266724	30542	55023	105577	167145	206137	WLNMR	-0.03349	1.03813		0.99979
32 Fensulfothion	8319 295978	23000	51304	104440	185778	229856	WLNMR	0.04728	1.18751		0.99821
33 Bolstar / Fampnur	1.54988 1.23307	1.27794	1.32328	1.33835	1.27633	1.28540	AVRG		1.32632		7.86825
34 Carophenothion	1.57916 1.25966	1.19992	1.27687	1.32336	1.26122	1.41398	AVRG		1.33059		9.63398

NTC  
 See Merphos

1/2 X



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\Densv03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	Retention Times							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	m1			m2		
36 Phosmet	1.22087 1.13672	1.01385	1.11032	1.20586	1.12340	1.16129	AVRG		1.13890		6.04111	
37 EPN	9525 294020	23196	48705	111165	171283	220388	WLNMR	0.02456	1.11450		0.99317	
38 Azinphos-methyl	1.19565 1.21185	1.13516	1.16767	1.28235	1.23551	1.26700	AVRG		1.21360		4.33999	
40 Azinphos-ethyl	23154 318459	43578	74071	134607	209971	253982	WLNMR	-0.07409	1.26388		0.99928	
41 Coumaphos	1.00140 0.99015	0.89806	0.92250	1.01947	1.01017	1.01013	AVRG		0.97884		4.92558	
42 Merphos	1.61523 1.49925	1.45962	1.38820	1.59026	1.52873	1.58626	AVRG		1.52393		5.34513	
43 Total Demeton	1.94415 1.68503	1.66775	1.60440	1.71838	1.66174	1.66727	AVRG		1.70696		6.44185	

1/2  
1/2

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
	5.0000 Level 7										
\$ 4 Chloroformos	2.28223	2.03679	2.00000	2.26084	2.35620	2.24671	AVRG		2.19114		6.04132
	2.15521										
\$ 35 Triphenyl phosphate	1.09980	0.99217	0.96977	1.05450	0.99627	1.00900	AVRG		1.01117		4.94580
	0.95665										

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
Start Cal Date: 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Last Cal Level: 1  
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\003F0301.D

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\010F1001.D
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Calibration File Names:

Level 1: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Level 2: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Level 3: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\007F0701.D  
 Level 4: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Level 5: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0501.D  
 Level 6: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D  
 Level 7: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			ml	or R <sup>2</sup>
1 o,o'-TEPT	2.92648 2.53900	2.44243	2.35582	2.65851	2.57132	2.61478	AVRG		2.58691	7.02274
2 Dichlorvos	1.96421 2.16332	1.82228	1.84036	2.17503	2.12732	2.04712	AVRG		2.01995	7.32345
4 Mevinphos	1.44354 1.43954	1.24995	1.21811	1.44363	1.32123	1.40873	AVRG		1.36067	7.12634
5 Demeton-O	1.19821 1.28370	1.29971	1.18493	1.34261	1.38930	1.37760	AVRG		1.29658	6.26552

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
6 Thionazin	2.15838 2.03673	1.84195	1.93751	1.98059	2.08762	2.20076	AVRG		2.03479		6.19054
7 Ethoprop	1.70034 1.46268	1.41105	1.44674	1.51565	1.56615	1.54046	AVRG		1.52044		6.33190
8 Phorate	1.89356 1.74661	1.60276	1.58391	1.69691	1.82591	1.99241	AVRG		1.76315		8.53946
9 Naled	94.00000 78857	1666	10859	28010	46004	58330	WLINR	0.13436	0.49080		0.99248
10 Sulfofepp	2.79835 2.57687	2.53605	2.59328	2.75080	2.67397	2.68532	AVRG		2.65923		3.59851
12 Salmazine	0.36415 0.41001	0.34683	0.35351	0.38559	0.39087	0.41510	AVRG		0.38086		7.05346
13 Diazinon	12067 228810	15923	49407	98649	155648	181790	WLINR	0.01456	1.44446		0.99190

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcom  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Level							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
14 Altrazine	5427 128612	1231	21316	49088	85997	98759	LINR	0.11621	0.83396		0.99221	
15 Propazine	4880 110050	8102	20907	43235	72628	85745	WLINR	0.02910	0.68050		0.99492	
16 Disulfoton	1.39584 1.37843	1.32983	1.36835	1.41433	1.46581	1.46415	AVRG		1.40239		3.56764	
17 Demeton-S	667 175573	15766	33785	70921	121463	157195	WLINR	0.05954	1.76807		0.99272	
18 Dimethoate	1.93513 1.92489	1.88284	1.72920	1.81890	1.98388	1.88204	AVRG		1.87955		4.46888	
19 Ronnel	1.49381 1.27410	1.09752	1.14631	1.23377	1.29336	1.31702	AVRG		1.26513		10.15653	
20 Merphos-A (Merphos)	0.73714 0.62474	0.72841	0.76463	0.71117	0.75339	0.75359	AVRG		0.72472		6.56840	

X X



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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\Densvrv03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Level							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
21 Chlorpyrifos	1.28253 1.37311	1.15885	1.24944	1.20702	1.32365	1.38773	AVRG		1.28319		6.60140	
22 Fenitihion	1.20874 1.18668	1.15890	1.17283	1.16181	1.25398	1.18816	AVRG		1.19016		2.76871	
23 Trichloronate	6944 296442	26053	49357	106326	170976	208762	WLINR	0.05263	1.73863		0.99738	
24 Anilazine	1634 19108	2256	3581	6899	11039	13112	LINR	-0.00058	0.10979		0.99085	
25 Methyl Parathion	1.21391 1.41908	1.12059	1.22102	1.33829	1.35198	1.32937	AVRG		1.28489		8.00353	
26 Malathion	1.23986 1.27856	1.19694	1.15056	1.17724	1.17540	1.20726	AVRG		1.20369		3.60449	
27 Tokuthion	1.50291 1.40826	1.31056	1.35261	1.35076	1.45106	1.48916	AVRG		1.40933		5.28420	

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
28 Parathion	1.27111	1.15628	1.24872	1.23420	1.30817	1.35972	AVRG		1.26610		5.02432
	1.28450										
29 Merphos-B (Merphos Oxone)	3793	6271	15065	23458	40683	62127	WLNIR	-0.05169	0.21659		0.96366
	65080										
30 Tetrachlorvinphos (stirophos)	0.86036	0.73114	0.73243	0.80291	0.86664	0.87311	AVRG		0.81902		7.82425
	0.86651										
31 Carbophenothion methyl	1.16513	1.02032	1.04699	1.17159	1.27808	1.26831	AVRG		1.17392		9.08251
	1.26700										
32 Bolstar	1.33280	1.22387	1.19075	1.20601	1.27262	1.22830	AVRG		1.23655		4.05030
	1.20152										
33 Carbophenothion	1.18442	1.13595	1.15332	1.18001	1.34689	1.22912	AVRG		1.21593		6.21486
	1.28180										
35 Pemsulfotion	0.88346	0.80409	0.88036	0.97346	0.94597	1.00424	AVRG		0.91615		7.30438
	0.92148										

NTC,  
 See Merphos

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	%RSD	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
37 Phosmet / EPN	19707 330448	35826	68186	146012	207459	263604	WLNLR	-0.04262	1.00518		0.99785
38 Fenphur	1.45536 1.32805	1.20800	1.18770	1.39816	1.20947	1.39569	AVRG		1.31178		8.35158
39 Azinphos-methyl	1.25589 1.19199	1.08970	1.07858	1.30240	1.20427	1.27709	AVRG		1.19999		7.33978
40 Azinphos-ethyl	1.14013 1.12699	1.11628	1.12015	1.18786	1.16269	1.14594	AVRG		1.14286		2.23350
41 Coumaphos	0.78930 0.93653	0.81655	0.85887	0.90448	0.89897	0.94628	AVRG		0.87871		6.77030
42 Merphos	1.56460 1.70275	1.43887	1.64263	1.66880	1.73437	1.91569	AVRG		1.66682		8.85773
M 43 Total Demeton	3533 244812	23328	47171	100663	168375	213468	WLNLR	0.06780	1.63923		0.99469

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
\$ 3 Chloroethfos	2.19506	1.83698	1.78322	2.03418	2.29040	2.05386	AVRG		2.03341		8.83890
	2.04016										
\$ 34 Triphenyl phosphate	1.10969	0.86972	0.91132	1.07710	1.01080	0.99885	AVRG		0.99779		8.47904
	1.00703										

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Resp/ml	Response
Linear	Amt = b + Resp/ml	Response
Wt Linear	Amt = b + Resp/ml	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Start Cal Date: 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Last Cal Level: 1  
 Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\003F0301.D

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\010F1001.D
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0577	2.9	15.0
2 Dichlorvos	2.0000	1.9061	4.7	15.0
3 Mevinphos	2.0000	1.6977	15.1	15.0
4 Chlorfepos	2.0000	1.7808	11.0	15.0
5 Thionazin	2.0000	1.9740	1.3	15.0
6 Demeton-O	0.6500	1.8707	187.8	15.0
7 Ethoprop	2.0000	2.0536	2.7	15.0
8 Naled	2.0000	1.1983	40.1	15.0
9 Sulfotepp	2.0000	1.7932	10.3	15.0
10 Phorate	2.0000	2.0180	0.9	15.0
11 Dimethoate	2.0000	2.0859	4.3	15.0
12 Demeton-S	1.3600	0.2313	83.0	15.0
13 Simazine	2.0000	2.6218	31.1	15.0
14 Atrazine	2.0000	1.9566	2.2	15.0
15 propazine	2.0000	1.9127	4.4	15.0
17 Disulfoton	2.0000	1.5890	20.6	15.0
16 Diazinon	2.0000	2.1583	7.9	15.0
18 Methyl Parathion	2.0000	2.0404	2.0	15.0
19 Ronnel	2.0000	2.1513	7.6	15.0
20 Malathion	2.0000	1.6248	18.8	15.0
21 Fenthion	2.0000	1.8840	5.8	15.0
22 Parathion	2.0000	1.9436	2.8	15.0
23 Chlorpyrifos	2.0000	1.9720	1.4	15.0
24 Trichloronate	2.0000	1.8619	6.9	15.0
25 Anilazine	2.0000	1.0151	49.2	15.0
148 Merphos-A (Merphos)	2.0000	0.4078	79.6	999.0
26 Tetrachlorvinphos (Stirophos)	2.0000	2.0880	4.4	15.0
28 Tokuthion	2.0000	2.0254	1.3	15.0
149 Merphos-B (Merphos Oxone)	2.0000	6.6232	231.2	999.0
29 Carbophenothion-methyl	2.0000	1.3536	32.3	15.0
29 Fensulfothion	2.0000	1.9235	3.8	15.0
30 Bolstar / Famphur	4.0000	4.0636	1.6	15.0
32 Carbophenothion	2.0000	1.8639	6.8	15.0
31 Triphenyl phosphate	2.0000	1.7170	14.2	15.0
34 Phosmet	2.0000	1.6471	17.6	15.0
32 EPN	2.0000	1.7931	10.3	15.0
33 Azinphos-methyl	2.0000	1.9226	3.9	15.0
35 Azinphos-ethyl	2.0000	1.8331	8.3	15.0
36 Coumaphos	2.0000	2.0063	0.3	15.0

*<-ok*

*<-ok, see total demeton*

*<-ok, see total demeton*



CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	2.0000	1.7215	13.9	15.0
40 Total Demeton	2.0000	2.1021	5.1	15.0

Average %D = 23.4

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0069	0.3	15.0
2 Dichlorvos	2.0000	1.7707	11.5	15.0
3 Chlormefos	2.0000	1.6957	15.2	15.0
4 Mevinphos	2.0000	1.8364	8.2	15.0
5 Demeton-O	0.6500	2.0472	215.0	15.0
6 Thionazin	2.0000	1.8758	6.2	15.0
7 Ethoprop	2.0000	1.8962	5.2	15.0
8 Phorate	2.0000	1.9509	2.5	15.0
10 Naled	2.0000	1.0486	47.6	15.0
146 Sulfotepp	2.0000	1.7143	14.3	15.0
10 Simazine	2.0000	3.6013	80.1	15.0
12 Diazinon	2.0000	2.0803	4.0	15.0
150 Atrazine	2.0000	1.9693	1.5	15.0
13 Propazine	2.0000	1.8742	6.3	15.0
14 Disulfoton	2.0000	1.6970	15.1	15.0
15 Demeton-S	1.3600	0.2011	85.2	15.0
16 Dimethoate	2.0000	1.8701	6.5	15.0
17 Ronnel	2.0000	2.0112	0.6	15.0
148 Merphos-A (Merphos)	2.0000	0.5348	73.3	999.0
18 Chlorpyrifos	2.0000	2.1084	5.4	15.0
19 Fenthion	2.0000	2.0634	3.2	15.0
20 Trichloronate	2.0000	1.8617	6.9	15.0
21 Anilazine	2.0000	1.2425	37.9	15.0
23 Methyl Parathion	2.0000	2.0228	1.1	15.0
24 Malathion	2.0000	1.5362	23.2	15.0
25 Tokuthion	2.0000	1.8925	5.4	15.0
26 Parathion	2.0000	2.1337	6.7	15.0
149 Merphos-B (Merphos Oxone)	2.0000	5.0080	150.4	999.0
27 Tetrachlorvinphos (stirophos)	2.0000	2.0814	4.1	15.0
28 Carbophenothion methyl	2.0000	1.2466	37.7	15.0
28 Bolstar	2.0000	2.0778	3.9	15.0
30 Carbophenothion	2.0000	1.7496	12.5	15.0
29 Triphenyl phosphate	2.0000	1.7275	13.6	15.0
30 Fensulfothion	2.0000	2.0824	4.1	15.0
35 Phosmet / EPN	4.0000	3.4695	13.3	15.0
33 Famphur	2.0000	1.7579	12.1	15.0
34 Azinphos-methyl	2.0000	1.8108	9.5	15.0
35 Azinphos-ethyl	2.0000	1.7982	10.1	15.0
36 Coumaphos	2.0000	1.9588	2.1	15.0

*ok*

*ok, see total demeton*

*ok*

*ok, see total demeton*

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	2.0000	1.6146	19.3	15.0
40 Total Demeton	2.0000	2.2483	12.4	15.0

Average %D = 24.2

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\003F0301.D  
 Lab Smp Id: OPP L7 GSV0634 Client Smp ID: OPP L7 GSV0634  
 Inj Date : 26-JUN-2009 18:28  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L7 GSV0634  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:18 Cal File: 007F0701.D  
 Als bottle: 3 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

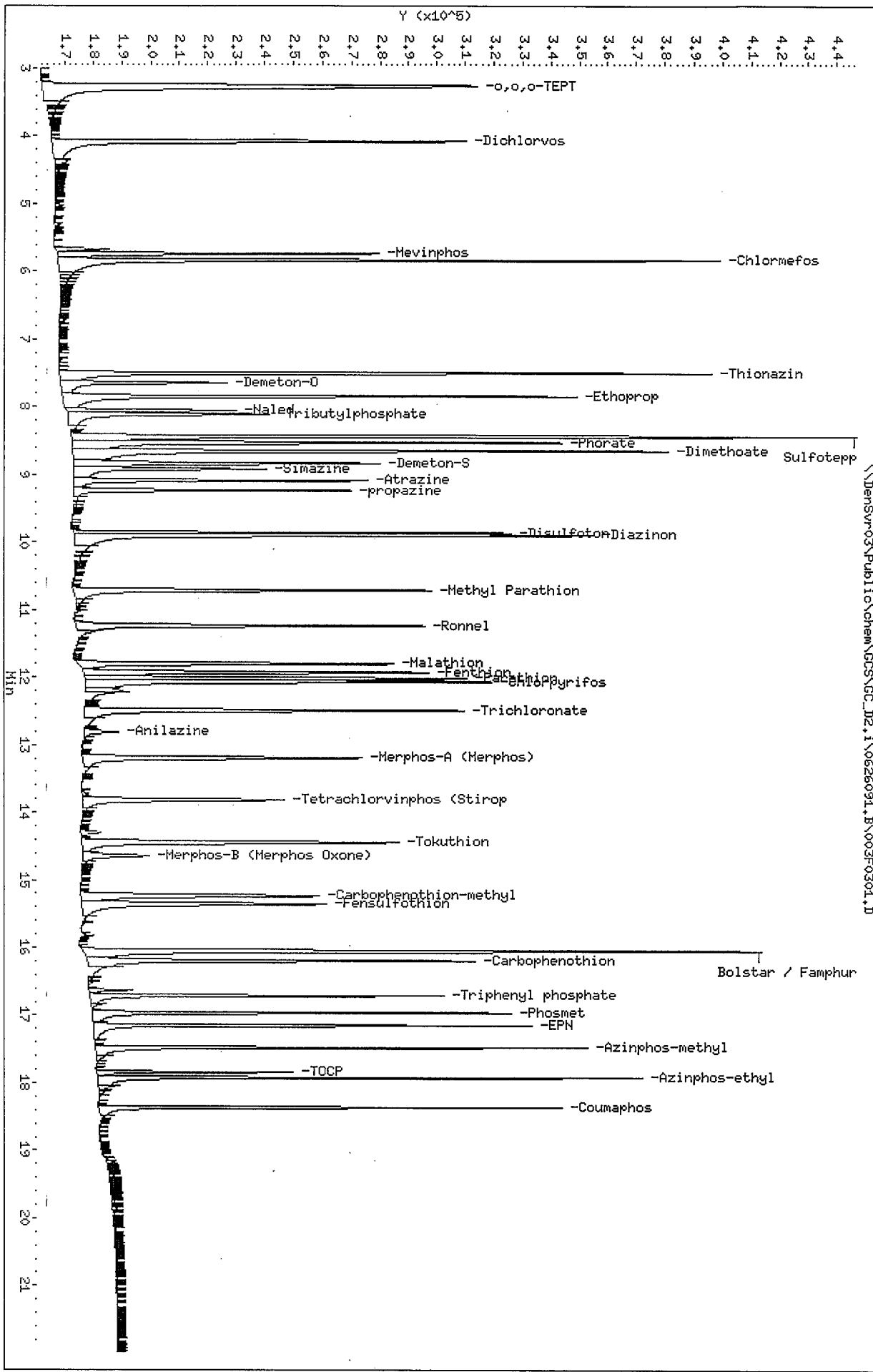
Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.256	3.254	(0.183)	707938	5.00000	4.923
2 Dichlorvos	4.075	4.074	(0.228)	456822	5.00000	5.116 (A)
3 Mevinphos	5.736	5.739	(0.322)	240948	5.00000	4.912
§ 4 Chlormefos	5.835	5.836	(0.327)	549929	5.00000	4.918
5 Thionazin	7.505	7.507	(0.421)	493034	5.00000	4.831
6 Demeton-O	7.645	7.649	(0.428)	165003	1.62500	1.714
7 Ethoprop	7.846	7.852	(0.440)	445084	5.00000	4.977
8 Naled	8.053	8.057	(0.451)	121152	5.00000	5.203 (A)
* 9 Tributylphosphate	8.110	8.135	(1.000)	206876	2.00000	
10 Sulfotepp	8.440	8.442	(0.473)	609341	5.00000	4.831
11 Phorate	8.530	8.532	(0.478)	441181	5.00000	4.764
12 Dimethoate	8.655	8.659	(0.485)	565436	5.00000	5.256 (A)
13 Demeton-S	8.838	8.846	(0.495)	264954	3.40000	3.396
14 Simazine	8.921	8.924	(0.500)	190219	5.00000	5.176 (A)
15 Atrazine	9.091	9.094	(0.510)	228392	5.00000	5.475 (A)
16 propazine	9.236	9.241	(0.518)	202756	5.00000	5.268 (A)
17 Disulfoton	9.866	9.869	(0.553)	290419	5.00000	4.668
18 Diazinon	9.900	9.902	(0.555)	490902	5.00000	4.934
19 Methyl Parathion	10.715	10.717	(0.601)	322048	5.00000	5.104 (A)
20 Ronnel	11.238	11.241	(0.630)	302582	5.00000	4.640
21 Malathion	11.801	11.804	(0.661)	283462	5.00000	4.812
22 Fenthion	11.930	11.932	(0.669)	301476	5.00000	4.701
23 Parathion	12.020	12.019	(0.674)	334974	5.00000	4.908
24 Chlorpyrifos	12.068	12.067	(0.676)	398604	5.00000	4.827
25 Trichloronate	12.493	12.496	(0.700)	365975	5.00000	4.959
26 Anilazine	12.815	12.817	(0.718)	34322	5.00000	4.247
27 Merphos-A (Merphos)	13.196	13.199	(0.740)	302744	5.00000	4.916
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	210886	5.00000	5.153 (A)
29 Tokuthion	14.448	14.449	(0.810)	351657	5.00000	4.970
30 Merphos-B (Merphos Oxone)	14.646	14.651	(0.821)	79809	5.00000	4.813
31 Carbophenothion-methyl	15.235	15.239	(0.854)	266724	5.00000	4.968
32 Fensulfothion	15.356	15.361	(0.861)	295978	5.00000	4.978
33 Bolstar / Famphur	16.053	16.053	(0.900)	629265	10.0000	9.297

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.196	16.197	(0.908)	321417	5.00000	4.733
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	244102	5.00000	4.730 (A)
36 Phosmet	16.963	16.963	(0.951)	290049	5.00000	4.990
37 EPN	17.150	17.151	(0.961)	294020	5.00000	5.219 (A)
38 Azinphos-methyl	17.478	17.480	(0.980)	309219	5.00000	4.993
* 39 TOCP	17.843	17.846	(1.000)	102065	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	318459	5.00000	4.789
41 Coumaphos	18.363	18.366	(1.029)	252650	5.00000	5.058 (A)
S 42 Merphos				382553	5.00000	4.876
M 43 Total Demeton				429957	5.00000	5.110

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.





TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\004F0401.D  
 Lab Smp Id: OPP L6 GSV0637 Client Smp ID: OPP L6 GSV0637  
 Inj Date : 26-JUN-2009 18:55  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L6 GSV0637  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:28 Cal File: 003F0301.D  
 Als bottle: 4 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.254	3.254	(0.182)	559984	4.00000	4.123
2 Dichlorvos	4.074	4.074	(0.228)	337386	4.00000	4.000
3 Mevinphos	5.736	5.739	(0.321)	189437	4.00000	4.089
4 Chlorfepos	5.834	5.836	(0.327)	433193	4.00000	4.101
5 Thionazin	7.504	7.507	(0.421)	385808	4.00000	4.002
6 Demeton-O	7.646	7.649	(0.429)	113108	1.30000	1.237
7 Ethoprop	7.848	7.852	(0.440)	343730	4.00000	4.069
8 Naled	8.054	8.057	(0.451)	90892	4.00000	4.172
* 9 Tributylphosphate	8.111	8.135	(1.000)	190710	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	486417	4.00000	4.072
11 Phorate	8.531	8.532	(0.478)	345415	4.00000	3.949
12 Dimethoate	8.654	8.659	(0.485)	445385	4.00000	4.383
13 Demeton-S	8.838	8.846	(0.495)	208362	2.72000	2.828
14 Simazine	8.919	8.924	(0.500)	147784	4.00000	4.272
15 Atrazine	9.089	9.094	(0.509)	175159	4.00000	4.445
16 propazine	9.236	9.241	(0.518)	156982	4.00000	4.318
17 Disulfoton	9.868	9.869	(0.553)	247845	4.00000	4.214
18 Diazinon	9.901	9.902	(0.555)	354996	4.00000	3.778
19 Methyl Parathion	10.714	10.717	(0.601)	250051	4.00000	4.196
20 Ronnel	11.239	11.241	(0.630)	259621	4.00000	4.214
21 Malathion	11.799	11.804	(0.661)	228260	4.00000	4.097
22 Fenthion	11.931	11.932	(0.669)	241990	4.00000	3.995
23 Parathion	12.018	12.019	(0.674)	267071	4.00000	4.142
24 Chlorpyrifos	12.066	12.067	(0.676)	312992	4.00000	4.013
25 Trichloronate	12.493	12.496	(0.700)	293942	4.00000	4.216
26 Anilazine	12.814	12.817	(0.718)	29375	4.00000	4.019
27 Merphos-A (Merphos)	13.196	13.199	(0.740)	239875	4.00000	4.124
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	164180	4.00000	4.247
29 Tokuthion	14.446	14.449	(0.810)	271654	4.00000	4.065
30 Merphos-B (Merphos Oxone)	14.648	14.651	(0.821)	65974	4.00000	4.215
31 Carbophenothion-methyl	15.234	15.239	(0.854)	206137	4.00000	4.052
32 Fensulfotion	15.358	15.361	(0.861)	229856	4.00000	4.110
33 Bolstar / Famphur	16.053	16.053	(0.900)	495681	8.00000	7.753



AMOUNTS

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.194	16.197	(0.908)	272632	4.00000	4.251
\$ 35 Triphenyl phosphate	16.711	16.712	(0.937)	194548	4.00000	3.991 (A)
36 Phosmet	16.963	16.963	(0.951)	223910	4.00000	4.079
37 EPN	17.148	17.151	(0.961)	220388	4.00000	4.152
38 Azinphos-methyl	17.478	17.480	(0.980)	244293	4.00000	4.176
* 39 TOCP	17.843	17.846	(1.000)	96406	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	253982	4.00000	4.021
41 Coumaphos	18.363	18.366	(1.029)	194765	4.00000	4.128
S 42 Merphos				305849	4.00000	4.161
M 43 Total Demeton				321470	4.00000	4.064

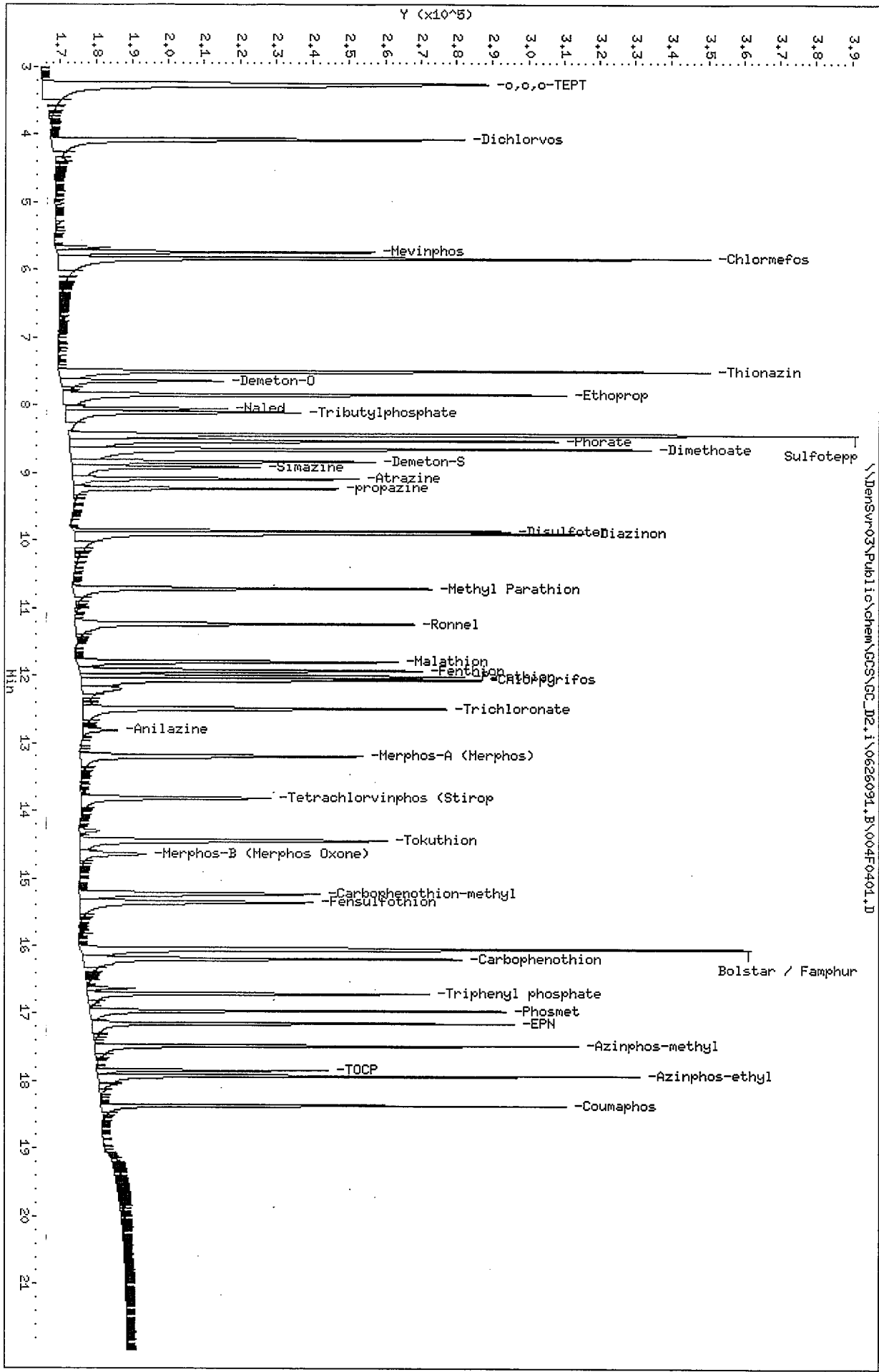
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\Densvr03\Public\chem\GCSS\GC\_D2.1\0626091.B\004F0401.D  
 Date: 26-JUN-2009 18:55  
 Client ID: OPP L6 GSW0637  
 Sample Info: OPP L6 GSW0637  
 Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: HPK/TLW  
 Column diameter: 0.32



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\005F0501.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 26-JUN-2009 19:23  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:55 Cal File: 004F0401.D  
 Als bottle: 5 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.254	3.254	(0.182)	430120	3.00000	2.892
2 Dichlorvos	4.074	4.074	(0.228)	272336	3.00000	2.949
3 Mevinphos	5.737	5.739	(0.322)	150686	3.00000	2.970
4 Chlorfepos	5.834	5.836	(0.327)	373109	3.00000	3.226
5 Thionazin	7.504	7.507	(0.421)	310451	3.00000	2.941
6 Demeton-O	7.646	7.649	(0.429)	96004	0.97500	0.9530
7 Ethoprop	7.847	7.852	(0.440)	275706	3.00000	2.981
8 Naled	8.054	8.057	(0.451)	67594	3.00000	2.896
9 Tributylphosphate	8.111	8.135	(1.000)	190357	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	393078	3.00000	2.987
11 Phorate	8.531	8.532	(0.478)	279291	3.00000	2.916
12 Dimethoate	8.654	8.659	(0.485)	354003	3.00000	3.181
13 Demeton-S	8.837	8.846	(0.495)	167136	2.04000	2.071
14 Simazine	8.919	8.924	(0.500)	115426	3.00000	3.070
15 Atrazine	9.089	9.094	(0.509)	135287	3.00000	3.135
16 propazine	9.236	9.241	(0.518)	119795	3.00000	3.009
17 Disulfoton	9.867	9.869	(0.553)	193050	3.00000	2.986
18 Diazinon	9.901	9.902	(0.555)	314608	3.00000	3.057
19 Methyl Parathion	10.714	10.717	(0.600)	206402	3.00000	3.163
20 Ronnel	11.239	11.241	(0.630)	197062	3.00000	2.921
21 Malathion	11.799	11.804	(0.661)	186013	3.00000	3.038
22 Fenthion	11.931	11.932	(0.669)	198864	3.00000	2.998
23 Parathion	12.017	12.019	(0.674)	215846	3.00000	3.057
24 Chlorpyrifos	12.066	12.067	(0.676)	255782	3.00000	2.995
25 Trichloronate	12.494	12.496	(0.700)	231599	3.00000	3.034
26 Anilazine	12.812	12.817	(0.718)	19893	3.00000	2.881
27 Merphos-A (Merphos)	13.196	13.199	(0.740)	192022	3.00000	3.015
28 Tetrachlorvinphos (Stirophos)	13.816	13.824	(0.774)	134968	3.00000	3.188
29 Tokuthion	14.447	14.449	(0.810)	220825	3.00000	3.018
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	50056	3.00000	2.927
31 Carbophenothion-methyl	15.236	15.239	(0.854)	167145	3.00000	2.983
32 Fensulfothion	15.356	15.361	(0.861)	185778	3.00000	3.058
33 Bolstar / Famphur	16.051	16.053	(0.900)	404218	6.00000	5.774

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.194	16.197	(0.908)	199717	3.00000	2.844
\$ 35 Triphenyl phosphate	16.711	16.712	(0.937)	157761	3.00000	2.956 (A)
36 Phosmet	16.962	16.963	(0.951)	177892	3.00000	2.959
37 EPN	17.149	17.151	(0.961)	171283	3.00000	2.961
38 Azinphos-methyl	17.476	17.480	(0.979)	195645	3.00000	3.054
* 39 TOCP	17.842	17.846	(1.000)	105568	2.00000	
40 Azinphos-ethyl	17.922	17.926	(1.004)	209971	3.00000	2.999
41 Coumaphos	18.364	18.366	(1.029)	159962	3.00000	3.096
S 42 Merphos				242078	3.00000	2.978
M 43 Total Demeton				263140	3.00000	3.024

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 005F0501.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 26-JUN-2009  
 Calibration Time: 21:40  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

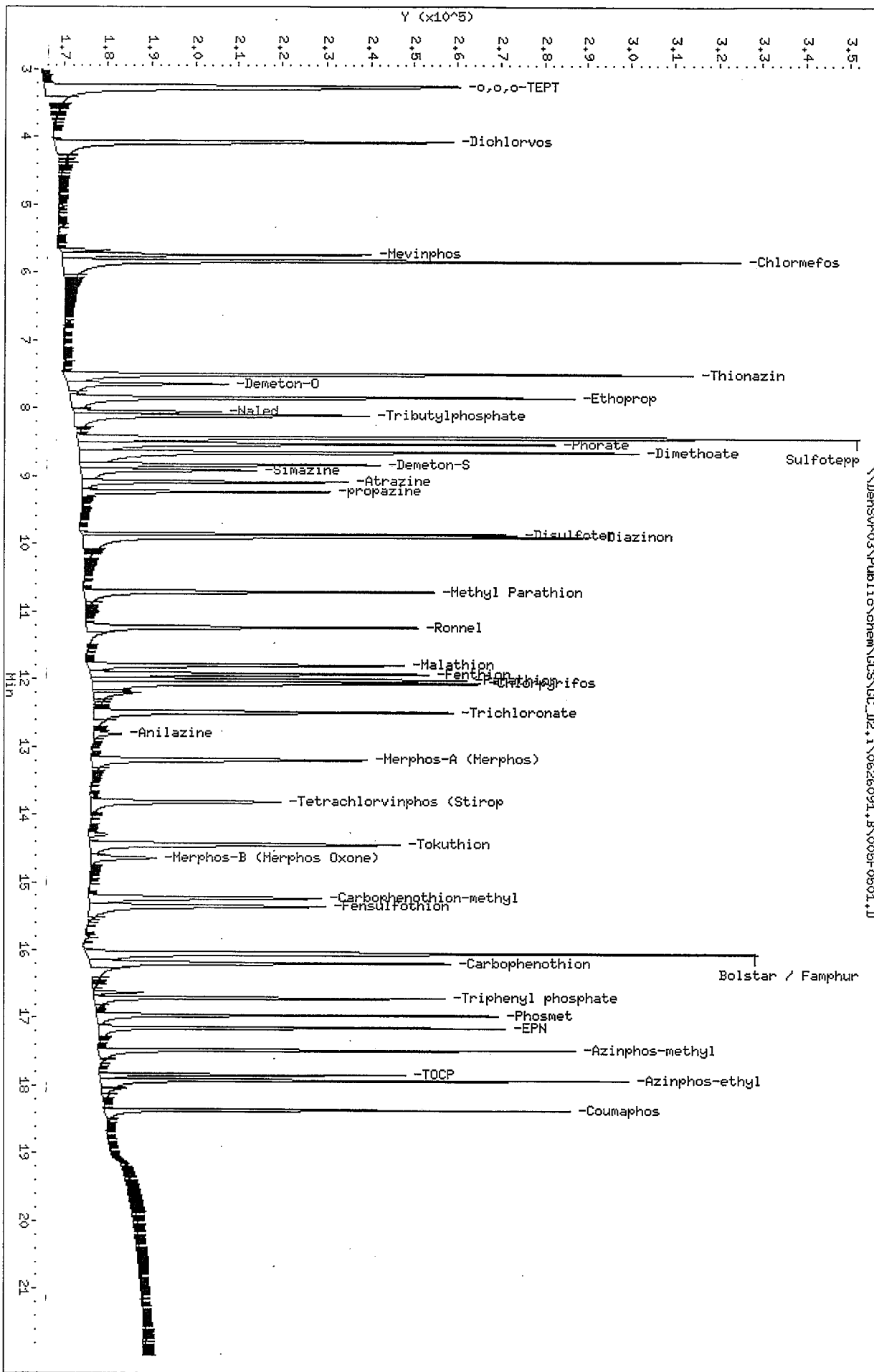
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	166572	83286	333144	190357	14.28
39 TOCP	99647	49824	199294	105568	5.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	-0.02
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densw03\Public\chem\GCS\GC\_D2+1\0626094\_B\005F0504.D  
 Date: 26-JUN-2009 19:23  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTX-1MS

Instrument: GC\_D2+1  
 Operator: HPK/TLN  
 Column diameter: 0.32



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\006F0601.D  
 Lab Smp Id: OPP L4 GSV0638 Client Smp ID: OPP L4 GSV0638  
 Inj. Date : 26-JUN-2009 19:50  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L4 GSV0638  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:23 Cal File: 005F0501.D  
 Als bottle: 6 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.255	3.254	(0.182)	282037	2.00000	2.056
2 Dichlorvos	4.075	4.074	(0.228)	171715	2.00000	2.016
3 Mevinphos	5.737	5.739	(0.322)	99077	2.00000	2.117
\$ 4 Chlorfepos	5.834	5.836	(0.327)	220122	2.00000	2.064
5 Thionazin	7.504	7.507	(0.421)	202723	2.00000	2.082
6 Demeton-O	7.647	7.649	(0.429)	62341	0.65000	0.6633
7 Ethoprop	7.849	7.852	(0.440)	168636	2.00000	1.977
8 Naled	8.055	8.057	(0.451)	36940	2.00000	1.794
* 9 Tributylphosphate	8.112	8.135	(1.000)	160310	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	259970	2.00000	2.122
11 Phorate	8.530	8.532	(0.478)	177561	2.00000	2.010
12 Dimethoate	8.655	8.659	(0.485)	219744	2.00000	2.141
13 Demeton-S	8.840	8.846	(0.495)	104966	1.36000	1.410
14 Simazine	8.919	8.924	(0.500)	64611	2.00000	1.894
15 Atrazine	9.089	9.094	(0.509)	82396	2.00000	2.070
16 propazine	9.235	9.241	(0.518)	76116	2.00000	2.073
17 Disulfoton	9.867	9.869	(0.553)	127893	2.00000	2.134
18 Diazinon	9.902	9.902	(0.555)	196533	2.00000	2.071
19 Methyl Parathion	10.714	10.717	(0.600)	128904	2.00000	2.142
20 Ronnel	11.239	11.241	(0.630)	125931	2.00000	2.024
21 Malathion	11.799	11.804	(0.661)	119836	2.00000	2.110
22 Fenthion	11.930	11.932	(0.669)	125692	2.00000	2.054
23 Parathion	12.017	12.019	(0.673)	135333	2.00000	2.078
24 Chlorpyrifos	12.067	12.067	(0.676)	158619	2.00000	2.014
25 Trichloronate	12.494	12.496	(0.700)	144264	2.00000	2.049
26 Anilazine	12.815	12.817	(0.718)	12790	2.00000	2.151
27 Merphos-A (Merphos)	13.197	13.199	(0.740)	120719	2.00000	2.055
28 Tetrachlorvinphos (Stirophos)	13.817	13.824	(0.774)	81250	2.00000	2.081
29 Tokuthion	14.447	14.449	(0.810)	140431	2.00000	2.081
30 Merphos-B (Merphos Oxone)	14.649	14.651	(0.821)	34113	2.00000	2.168
31 Carbophenothion-methyl	15.235	15.239	(0.854)	105577	2.00000	2.022
32 Fensulfothion	15.357	15.361	(0.861)	104440	2.00000	1.901
33 Bolstar / Famphur	16.052	16.053	(0.900)	260611	4.00000	4.036



Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.195	16.197	(0.908)	128846	2.00000	1.989
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	102669	2.00000	2.086 (A)
36 Phosmet	16.962	16.963	(0.951)	117406	2.00000	2.118
37 EPN	17.149	17.151	(0.961)	111165	2.00000	2.098
38 Azinphos-methyl	17.477	17.480	(0.979)	124853	2.00000	2.113
* 39 TOCP	17.844	17.846	(1.000)	97363	2.00000	
40 Azinphos-ethyl	17.924	17.926	(1.004)	134607	2.00000	2.040
S 41 Coumaphos	18.364	18.366	(1.029)	99259	2.00000	2.083
M 42 Merphos				154832	2.00000	2.068
M 43 Total Demeton				167307	2.00000	2.074

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 006F0601.D  
 Lab Smp Id: OPP L4 GSV0638  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L4 GSV0638  
 Level:  
 Sample Type:

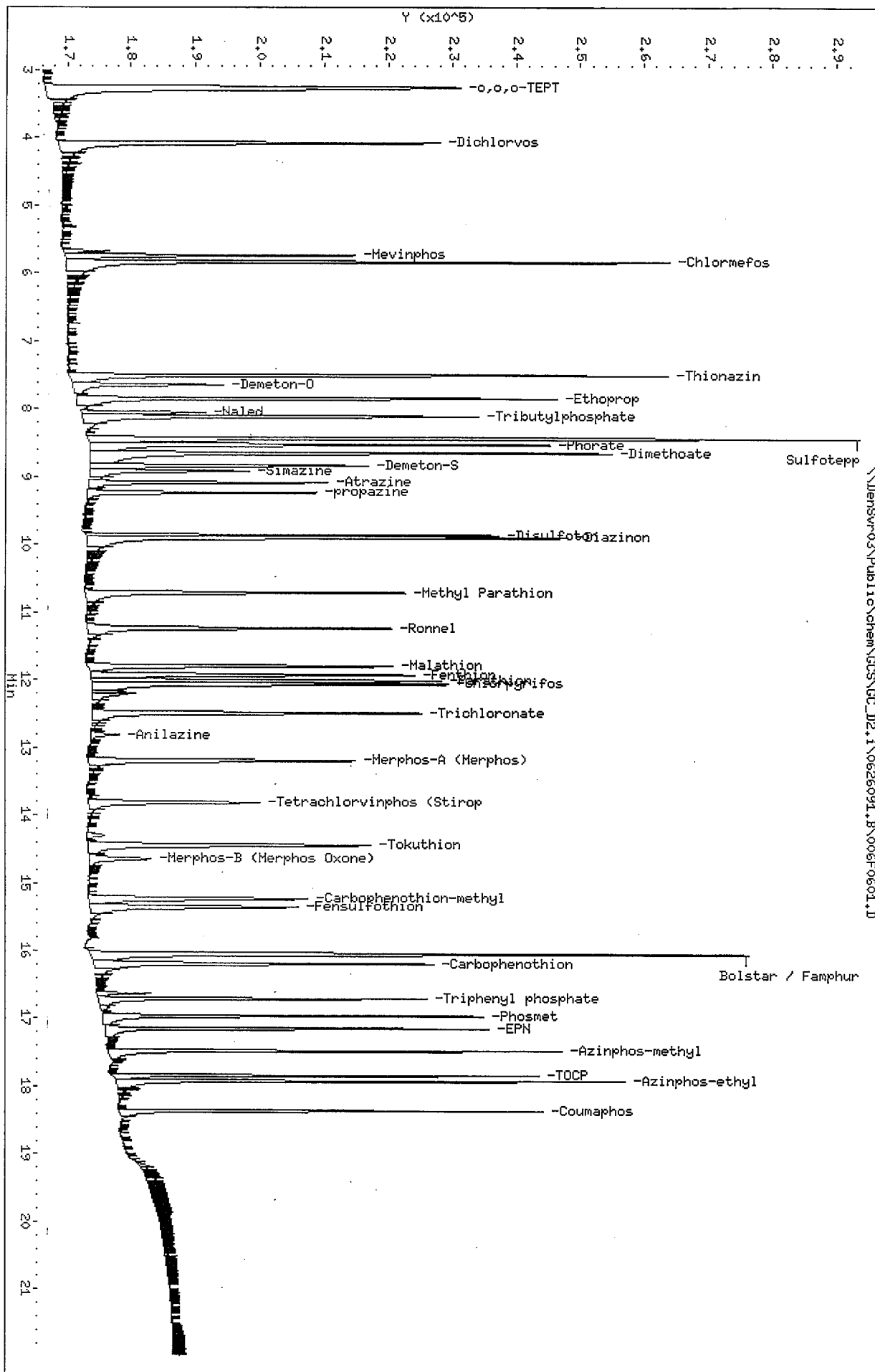
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	160310	0.00
39 TOCP	97363	48682	194726	97363	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.00
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densv03\Public\chem\GCS\GC\_D2.i\0626091.B\006F0604.D  
 Date: 26-JUN-2009 19:50  
 Client ID: OPP L4 GSV0638  
 Sample Info: OPP L4 GSV0638  
 Column phase: RTX-IMS

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\007F0701.D  
 Lab Smp Id: OPP L3 GSV0639 Client Smp ID: OPP L3 GSV0639  
 Inj Date : 26-JUN-2009 20:18  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L3 GSV0639  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:50 Cal File: 006F0601.D  
 Als bottle: 7 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.253	3.254	(0.182)	136897	1.00000	0.9509
2 Dichlorvos	4.075	4.074	(0.228)	81003	1.00000	0.9061
3 Mevinphos	5.738	5.739	(0.322)	46063	1.00000	0.9380
\$ 4 Chlormefos	5.833	5.836	(0.327)	102183	1.00000	0.9128
5 Thionazin	7.503	7.507	(0.421)	99560	1.00000	0.9745
6 Demeton-O	7.645	7.649	(0.429)	30145	0.32500	0.2917
7 Ethoprop	7.850	7.852	(0.440)	82934	1.00000	0.9263
8 Naled	8.055	8.057	(0.451)	15042	1.00000	0.8141
* 9 Tributylphosphate	8.113	8.135	(1.000)	156624	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	131347	1.00000	0.9856
11 Phorate	8.530	8.532	(0.478)	88795	1.00000	0.9577
12 Dimethoate	8.657	8.659	(0.485)	105981	1.00000	0.9840
13 Demeton-S	8.840	8.846	(0.495)	51826	0.68000	0.6636
14 Simazine	8.918	8.924	(0.500)	29382	1.00000	0.8660
15 Atrazine	9.088	9.094	(0.509)	38356	1.00000	0.9184
16 propazine	9.235	9.241	(0.518)	35375	1.00000	0.9180
17 Disulfoton	9.867	9.869	(0.553)	61920	1.00000	0.9637
18 Diazinon	9.902	9.902	(0.555)	93892	1.00000	0.9427
19 Methyl Parathion	10.715	10.717	(0.601)	58112	1.00000	0.9200
20 Ronnel	11.240	11.241	(0.630)	61984	1.00000	0.9493
21 Malathion	11.800	11.804	(0.661)	57103	1.00000	0.9353
22 Fenthion	11.930	11.932	(0.669)	59512	1.00000	0.9268
23 Parathion	12.017	12.019	(0.674)	63007	1.00000	0.9220
24 Chlorpyrifos	12.067	12.067	(0.676)	75298	1.00000	0.9108
25 Trichloronate	12.493	12.496	(0.700)	68852	1.00000	0.9318
26 Anilazine	12.817	12.817	(0.718)	5311	1.00000	0.9480
27 Merphos-A (Merphos)	13.198	13.199	(0.740)	59249	1.00000	0.9611
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.775)	37534	1.00000	0.9161
29 Tokuthion	14.448	14.449	(0.810)	66164	1.00000	0.9341
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	11676	1.00000	0.7212
31 Carbophenothion-methyl	15.235	15.239	(0.854)	55023	1.00000	0.9704
32 Fensulfothion	15.360	15.361	(0.861)	51304	1.00000	0.9402
33 Bolstar / Famphur	16.050	16.053	(0.900)	135217	2.00000	1.995

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
===== 34 Carbophenothion	16.193	16.197	(0.908)	65237	1.00000	0.9596
\$ 35 Triphenyl phosphate	16.708	16.712	(0.936)	49547	1.00000	0.9591
36 Phosmet	16.962	16.963	(0.951)	56728	1.00000	0.9749
37 EPN	17.148	17.151	(0.961)	48705	1.00000	0.9045
38 Azinphos-methyl	17.478	17.480	(0.980)	59658	1.00000	0.9622
* 39 TOCP	17.842	17.846	(1.000)	102183	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.005)	74071	1.00000	0.9989
41 Coumaphos	18.363	18.366	(1.029)	47132	1.00000	0.9424
S 42 Merphos				70925	1.00000	0.8976
M 43 Total Demeton				81971	1.00000	0.9553

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 007F0701.D Calibration Time: 19:50  
 Lab Smp Id: OPP L3 GSV0639 Client Smp ID: OPP L3 GSV0639  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	156624	-2.30
39 TOCP	97363	48682	194726	102183	4.95

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.02
39 TOCP	17.84	17.34	18.34	17.84	-0.01

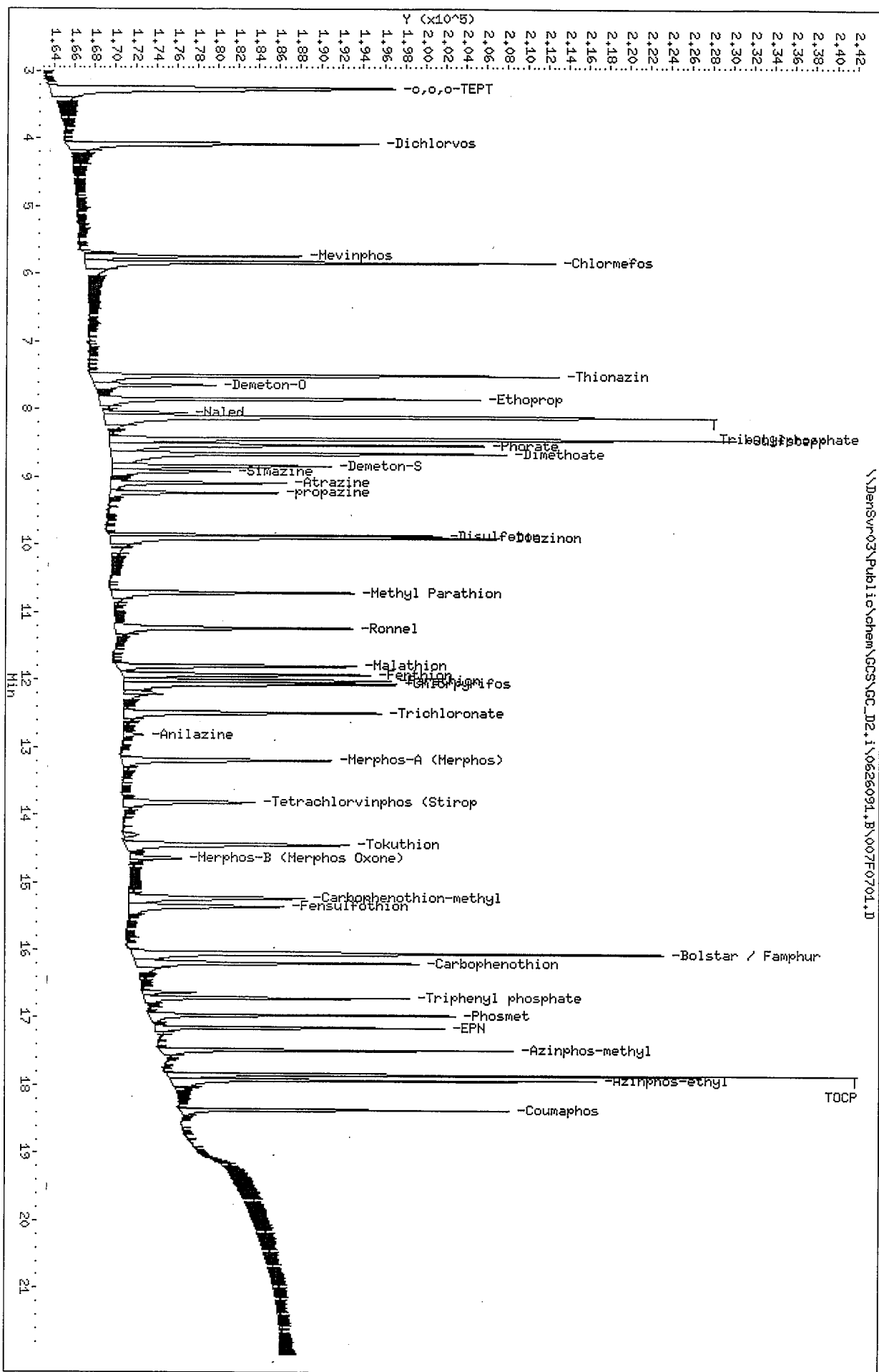
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvr-03\Public\chem\GCS\GC\_D2.1\0626091.B\007F0701.D  
 Date: 26-JUN-2009 20:18  
 Client ID: OPP L3 GSV0639  
 Sample Info: OPP L3 GSV0639

Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: NPK/TLW  
 Column diameter: 0.32

\\Densvr-03\Public\chem\GCS\GC\_D2.1\0626091.B\007F0701.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\008F0801.D  
 Lab Smp Id: OPP L2 GSV0640 Client Smp ID: OPP L2 GSV0640  
 Inj Date : 26-JUN-2009 20:45  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L2 GSV0640  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:18 Cal File: 007F0701.D  
 Als bottle: 8 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.255	3.254	(0.182)	68743	0.50000	0.4680
2 Dichlorvos	4.076	4.074	(0.228)	42284	0.50000	0.4636
3 Mevinphos	5.738	5.739	(0.322)	23796	0.50000	0.4749
4 Chlormefos	5.833	5.836	(0.327)	53089	0.50000	0.4648
5 Thionazin	7.505	7.507	(0.421)	50724	0.50000	0.4866
6 Demeton-O	7.646	7.649	(0.429)	17553	0.16250	0.1554
7 Ethoprop	7.851	7.852	(0.440)	44525	0.50000	0.4874
8 Naled	8.056	8.057	(0.452)	6103	0.50000	0.4398
* 9 Tributylphosphate	8.113	8.135	(1.000)	165852	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	70885	0.50000	0.4886
11 Phorate	8.530	8.532	(0.478)	47685	0.50000	0.5040
12 Dimethoate	8.660	8.659	(0.485)	46100	0.50000	0.4195
13 Demeton-S	8.843	8.846	(0.496)	25917	0.34000	0.3252
14 Simazine	8.920	8.924	(0.500)	16248	0.50000	0.5059
15 Atrazine	9.091	9.094	(0.510)	19948	0.50000	0.4681
16 propazine	9.236	9.241	(0.518)	18281	0.50000	0.4649
17 Disulfoton	9.866	9.869	(0.553)	33208	0.50000	0.4883
18 Diazinon	9.903	9.902	(0.555)	47843	0.50000	0.4708
19 Methyl Parathion	10.715	10.717	(0.601)	28773	0.50000	0.4464
20 Ronnel	11.240	11.241	(0.630)	32156	0.50000	0.4827
21 Malathion	11.800	11.804	(0.661)	30581	0.50000	0.4713
22 Fenthion	11.931	11.932	(0.669)	30876	0.50000	0.4713
23 Parathion	12.016	12.019	(0.673)	32682	0.50000	0.4687
24 Chlorpyrifos	12.066	12.067	(0.676)	40856	0.50000	0.4843
25 Trichloronate	12.493	12.496	(0.700)	37156	0.50000	0.4928
26 Anilazine	12.820	12.817	(0.718)	2095	0.50000	0.4035 (M)
27 Merphos-A (Merphos)	13.200	13.199	(0.740)	30112	0.50000	0.4787
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	19446	0.50000	0.4652
29 Tokuthion	14.448	14.449	(0.810)	33437	0.50000	0.4626
30 Merphos-B (Merphos Oxone)	14.651	14.651	(0.821)	7933	0.50000	0.4872 (M)
31 Carbophenothion-methyl	15.235	15.239	(0.854)	30542	0.50000	0.4974
32 Fensulfothion	15.360	15.361	(0.861)	23000	0.50000	0.4661
33 Bolstar / Famphur	16.050	16.053	(0.899)	66619	1.00000	0.9635



Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.193	16.197	(0.908)	31276	0.50000	0.4509
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	25861	0.50000	0.4906
36 Phosmet	16.961	16.963	(0.951)	26426	0.50000	0.4451
37 EPN	17.148	17.151	(0.961)	23196	0.50000	0.4484
38 Azinphos-methyl	17.478	17.480	(0.980)	29588	0.50000	0.4677
* 39 TOCP	17.843	17.846	(1.000)	104260	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	43578	0.50000	0.5132
41 Coumaphos	18.363	18.366	(1.029)	23408	0.50000	0.4587
S 42 Merphos				38045	0.50000	0.4789
M 43 Total Demeton				43470	0.50000	0.4806

QC Flag Legend

M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC_D2.i	Calibration Date: 26-JUN-2009
Lab File ID: 008F0801.D	Calibration Time: 19:50
Lab Smp Id: OPP L2 GSV0640	Client Smp ID: OPP L2 GSV0640
Analysis Type: SV	Level:
Quant Type: ISTD	Sample Type:
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\8141A-1.m	
Misc Info: IS - GSV0633-09	

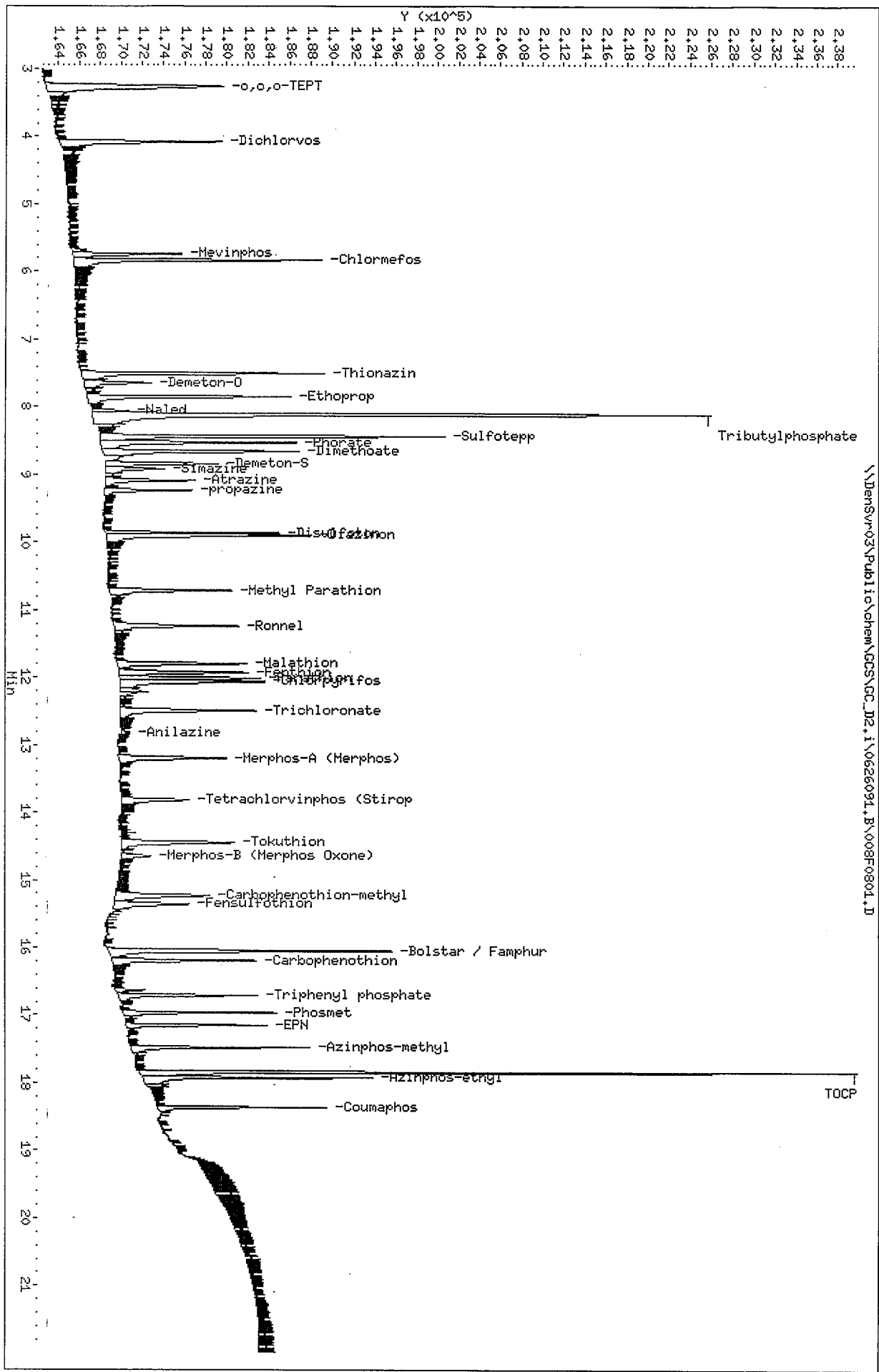
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	165852	3.46
39 TOCP	97363	48682	194726	104260	7.08

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.01
39 TOCP	17.84	17.34	18.34	17.84	-0.00

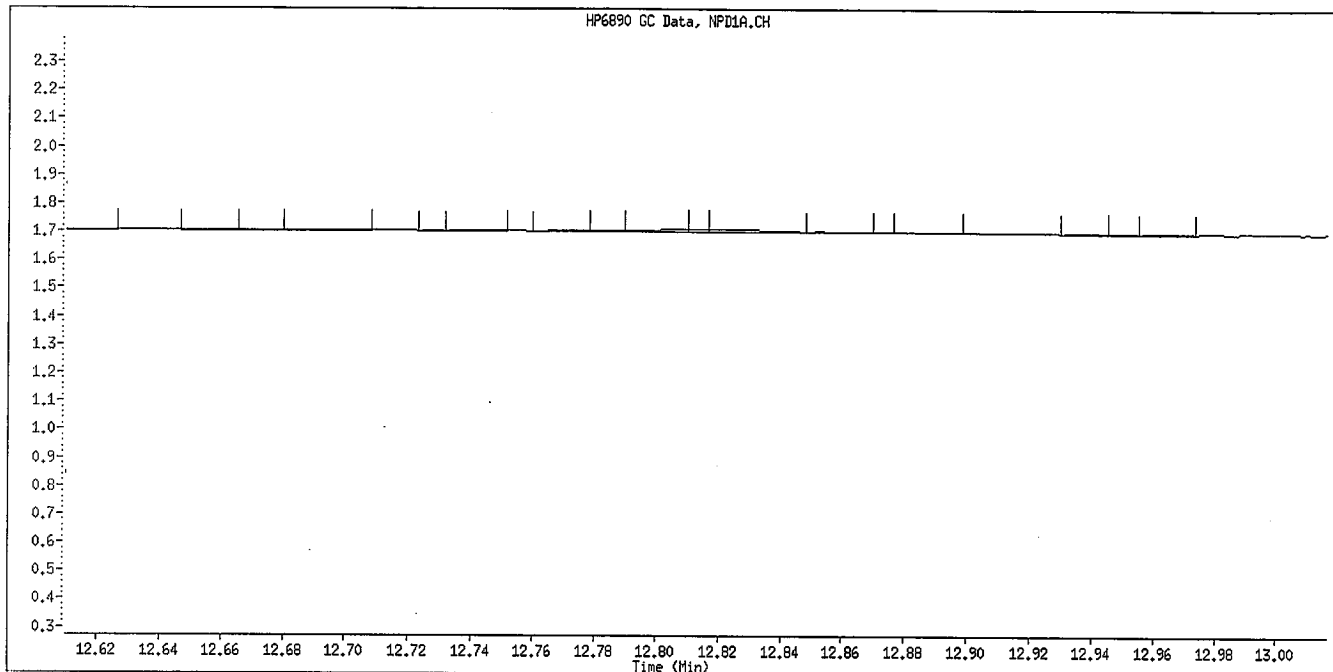
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvyr03\Public\chem\GCS\GC\_D2.1\0626091.B\008F0801.D  
 Date: 26-JUN-2009 20:45  
 Client ID: OPP L2 GSV0640  
 Sample Info: OPP L2 GSV0640  
 Column phase: RTX-1MS

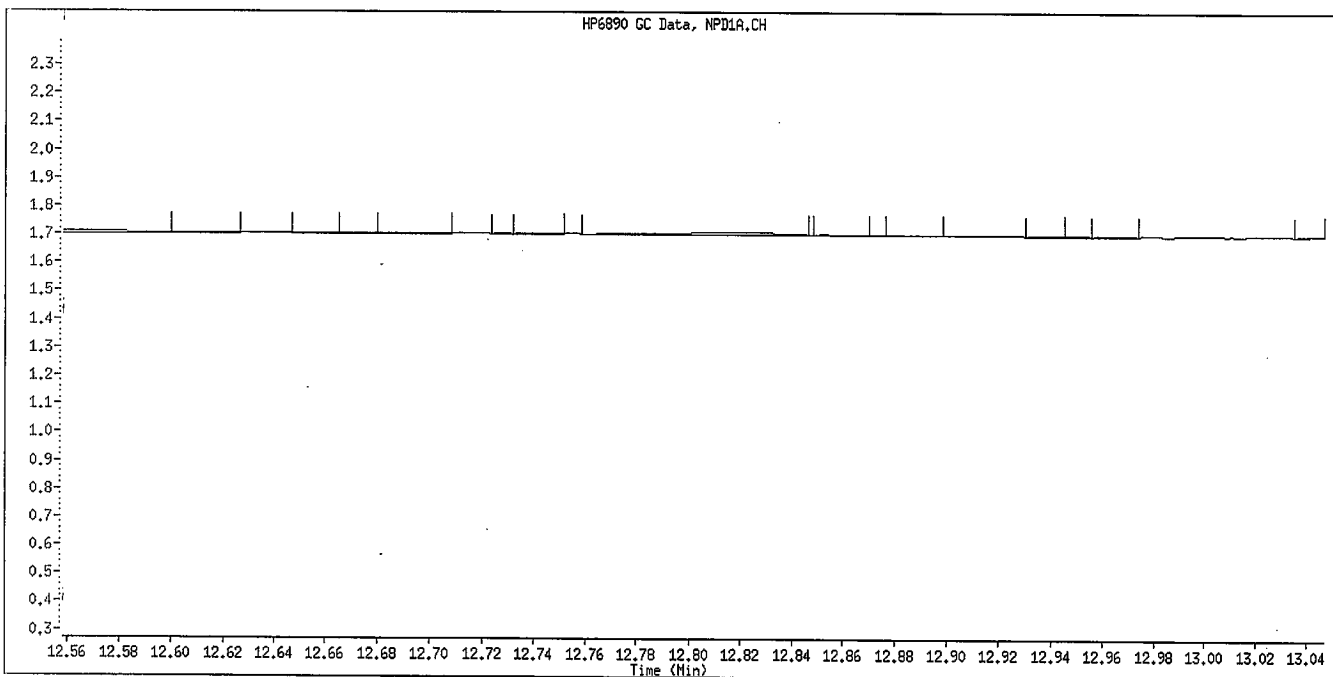
Instrument: GC\_D2.i  
 Operator: MPK/TLM  
 Column diameter: 0.32



Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

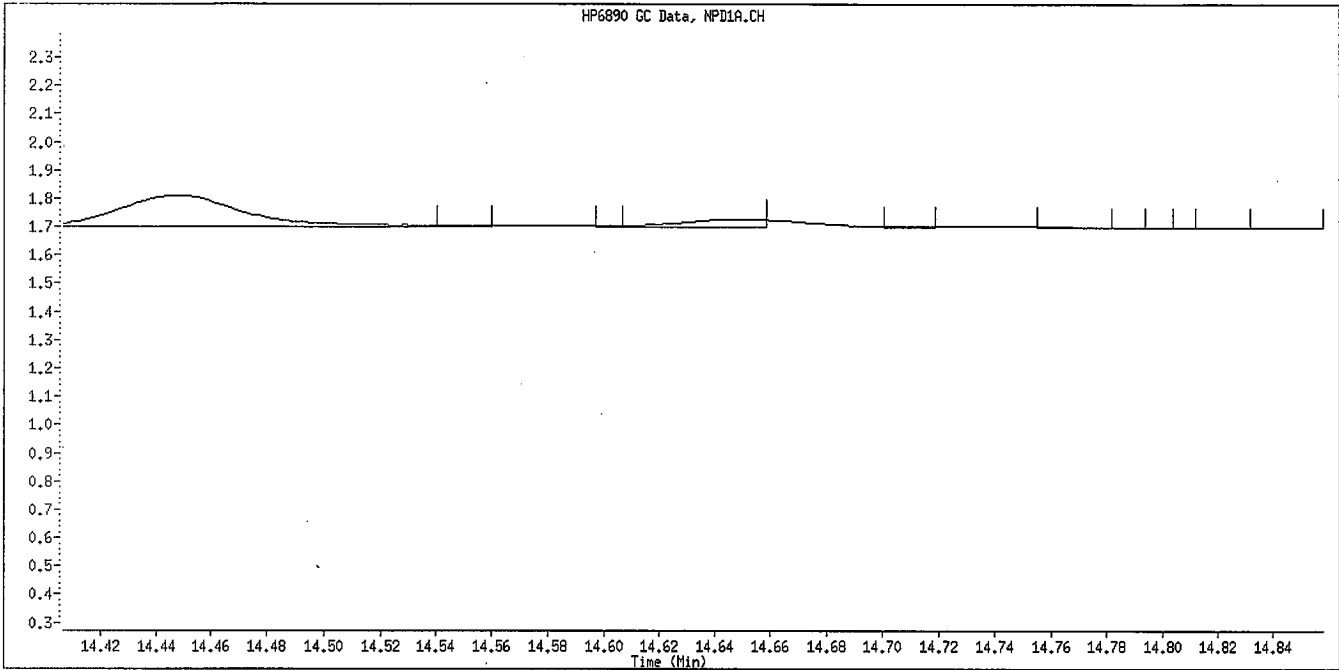


Manual Integration

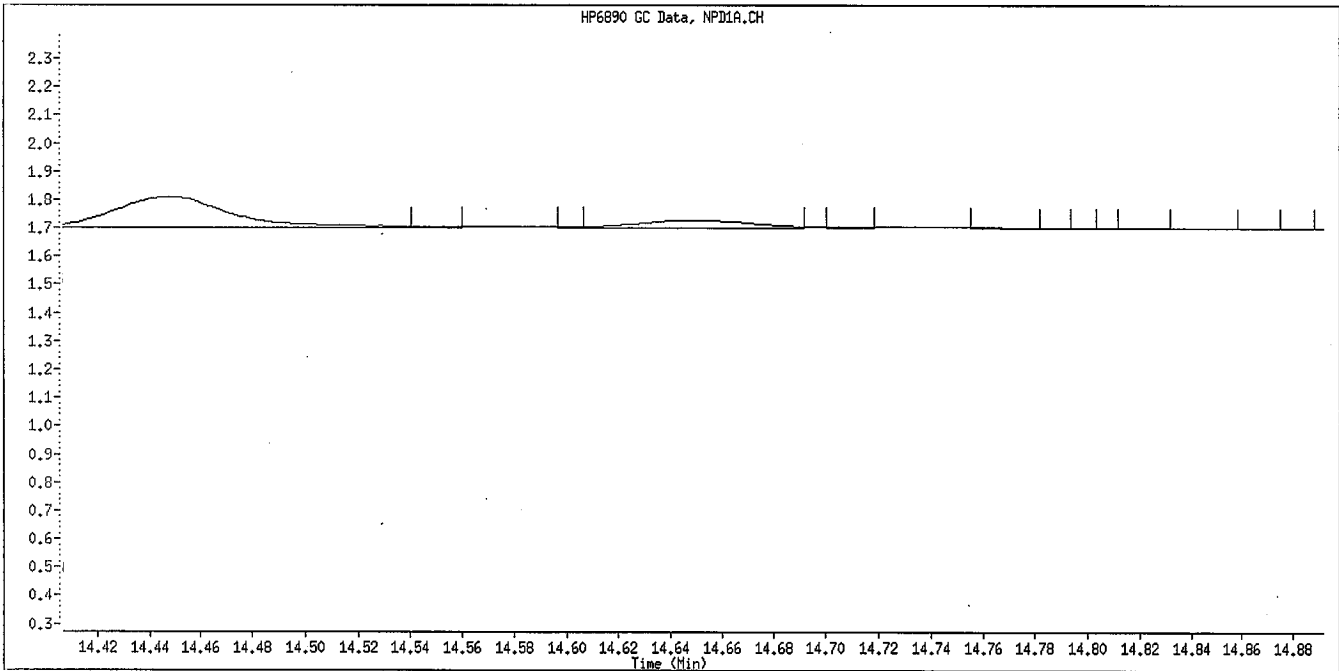
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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JL  
6/30/09

Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Je*  
*6/30/09*

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\009F0901.D  
 Lab Smp Id: OPP L1 GSV0641 Client Smp ID: OPP L1 GSV0641  
 Inj Date : 26-JUN-2009 21:13  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L1 GSV0641  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:45 Cal File: 008F0801.D  
 Als bottle: 9 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.258	3.254	(0.183)	32995	0.20000	0.2212
2 Dichlorvos	4.081	4.074	(0.229)	21359	0.20000	0.2306
3 Mevinphos	5.743	5.739	(0.322)	10777	0.20000	0.2118
\$ 4 Chlormefos	5.834	5.836	(0.327)	24167	0.20000	0.2083
5 Thionazin	7.506	7.507	(0.421)	22524	0.20000	0.2127
6 Demeton-O	7.646	7.649	(0.429)	9836	0.06500	0.07420
7 Ethoprop	7.854	7.852	(0.440)	20488	0.20000	0.2208
8 Naled	8.063	8.057	(0.452)	1992	0.20000	0.2720 (M)
* 9 Tributylphosphate	8.114	8.135	(1.000)	165799	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	34658	0.20000	0.1992
11 Phorate	8.531	8.532	(0.478)	21475	0.20000	0.2235
12 Dimethoate	8.664	8.659	(0.486)	20073	0.20000	0.1798
13 Demeton-S	8.846	8.846	(0.496)	10751	0.13600	0.1328
14 Simazine	8.926	8.924	(0.500)	4819	0.20000	0.2042 (M)
15 Atrazine	9.093	9.094	(0.510)	7432	0.20000	0.1717
16 propazine	9.238	9.241	(0.518)	7824	0.20000	0.1959
17 Disulfoton	9.868	9.869	(0.553)	15404	0.20000	0.2020
18 Diazinon	9.904	9.902	(0.555)	23321	0.20000	0.2259
19 Methyl Parathion	10.716	10.717	(0.601)	12987	0.20000	0.1984
20 Ronnel	11.239	11.241	(0.630)	15128	0.20000	0.2236
21 Malathion	11.801	11.804	(0.661)	15443	0.20000	0.2136
22 Fenthion	11.931	11.932	(0.669)	15507	0.20000	0.2330
23 Parathion	12.019	12.019	(0.674)	15083	0.20000	0.2130
24 Chlorpyrifos	12.069	12.067	(0.676)	19655	0.20000	0.2294
25 Trichloronate	12.494	12.496	(0.700)	15328	0.20000	0.2002
26 Anilazine	12.824	12.817	(0.719)	1493	0.20000	0.2971 (M)
27 Merphos-A (Merphos)	13.199	13.199	(0.740)	13220	0.20000	0.2069
28 Tetrachlorvinphos (Stirophos)	13.823	13.824	(0.775)	8134	0.20000	0.1916
29 Tokuthion	14.448	14.449	(0.810)	15915	0.20000	0.2168
30 Merphos-B (Merphos Oxone)	14.656	14.651	(0.821)	3884	0.20000	0.2457 (M)
31 Carbophenothion-methyl	15.238	15.239	(0.854)	14924	0.20000	0.2045
32 Fensulfotion	15.364	15.361	(0.861)	8319	0.20000	0.2269
33 Bolstar / Famphur	16.049	16.053	(0.899)	32824	0.40000	0.4674

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
===== 34 Carbophenothion	16.193	16.197	(0.908)	16722	0.20000	0.2374
\$ 35 Triphenyl phosphate	16.709	16.712	(0.936)	11646	0.20000	0.2175
36 Phosmet	16.963	16.963	(0.951)	12928	0.20000	0.2144
37 EPN	17.148	17.151	(0.961)	9525	0.20000	0.2105
38 Azinphos-methyl	17.478	17.480	(0.980)	12661	0.20000	0.1970
* 39 TOCP	17.843	17.846	(1.000)	105892	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	23154	0.20000	0.1978
41 Coumaphos	18.364	18.366	(1.029)	10604	0.20000	0.2046
S 42 Merphos				17104	0.20000	0.2120
M 43 Total Demeton				20587	0.20000	0.2070

QC Flag Legend

M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 009F0901.D Calibration Time: 19:50  
 Lab Smp Id: OPP L1 GSV0641 Client Smp ID: OPP L1 GSV0641  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	165799	3.42
39 TOCP	97363	48682	194726	105892	8.76

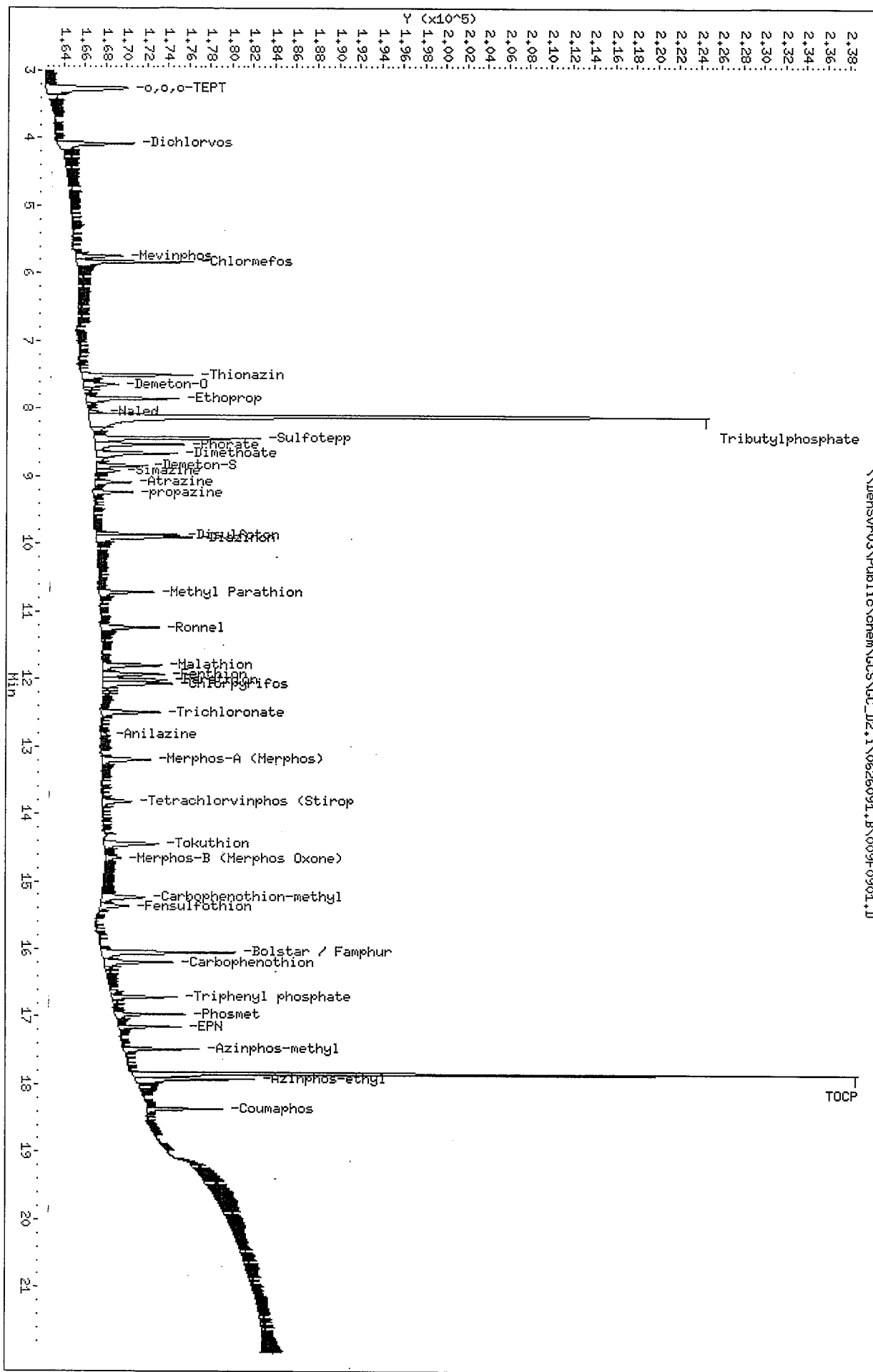
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.03
39 TOCP	17.84	17.34	18.34	17.84	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\Densur-03\Public\chem\GC\GC\_D2.1\0626091.B\009F0901.D  
 Date: 26-JUN-2009 21:13  
 Client ID: OPP L1 GSV0641  
 Sample Info: OPP L1 GSV0641  
 Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: HPK/TLW  
 Column diameter: 0.32



Data File Name: 009F0901.D

Inj. Date and Time: 26-JUN-2009 21:13

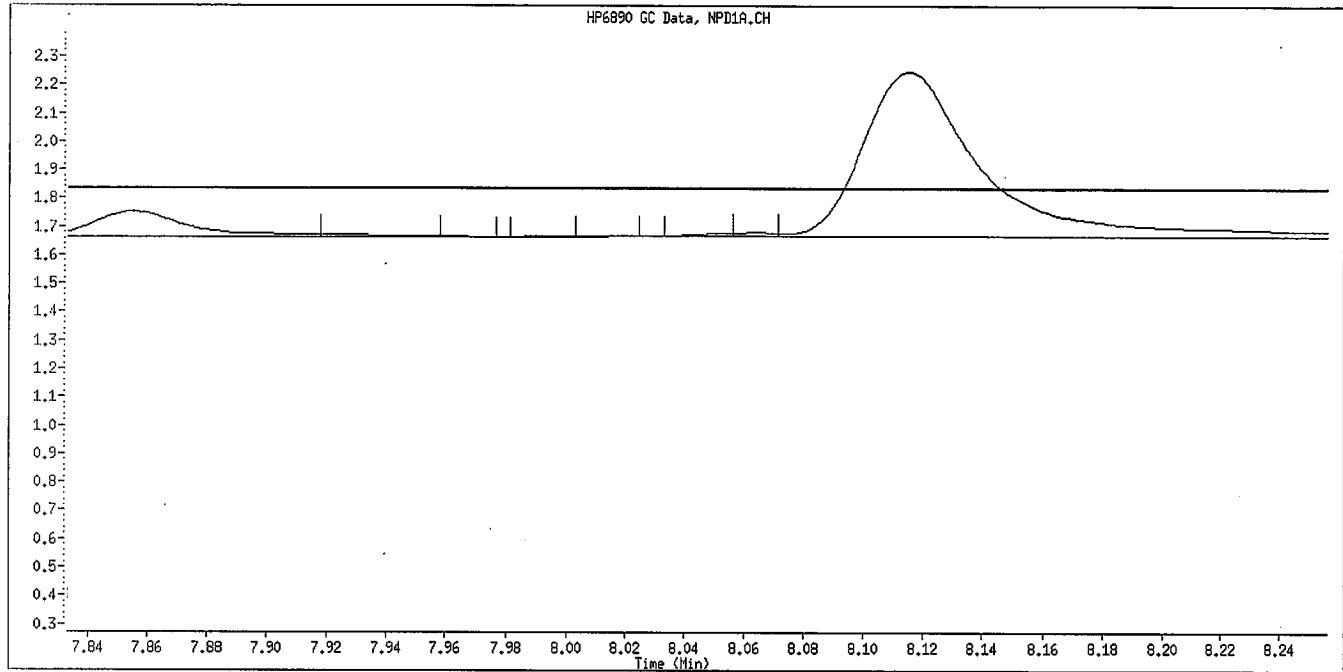
Instrument ID: GC\_D2.i

Client ID: OPP L1 GSV0641

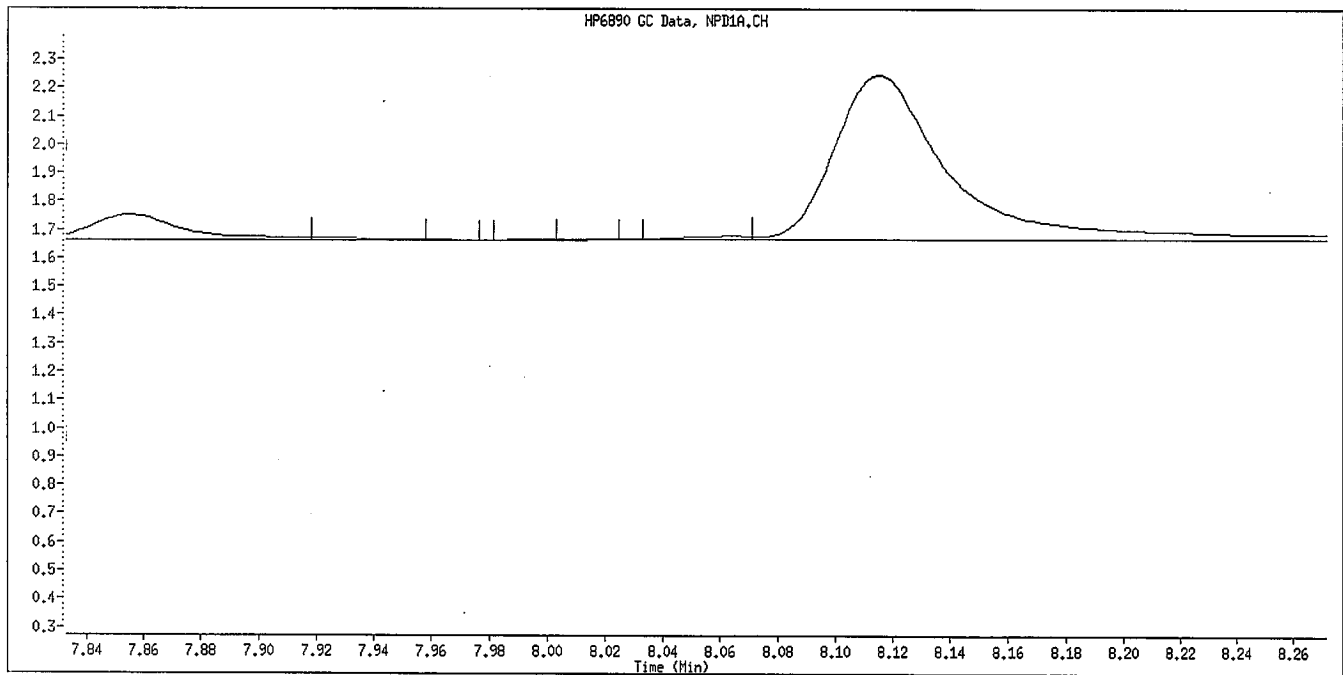
Compound Name: Naled

CAS #:

Report Date: 06/30/2009



Original Integration



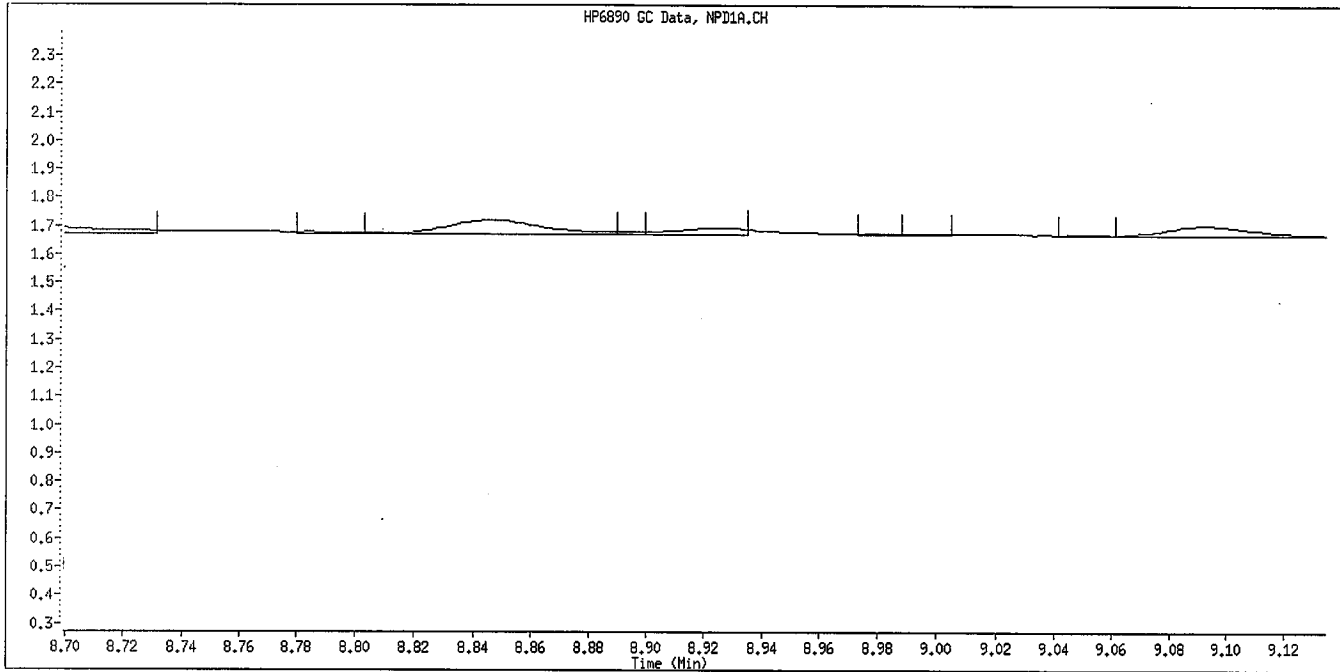
Manual Integration

Manually Integrated By: williamst

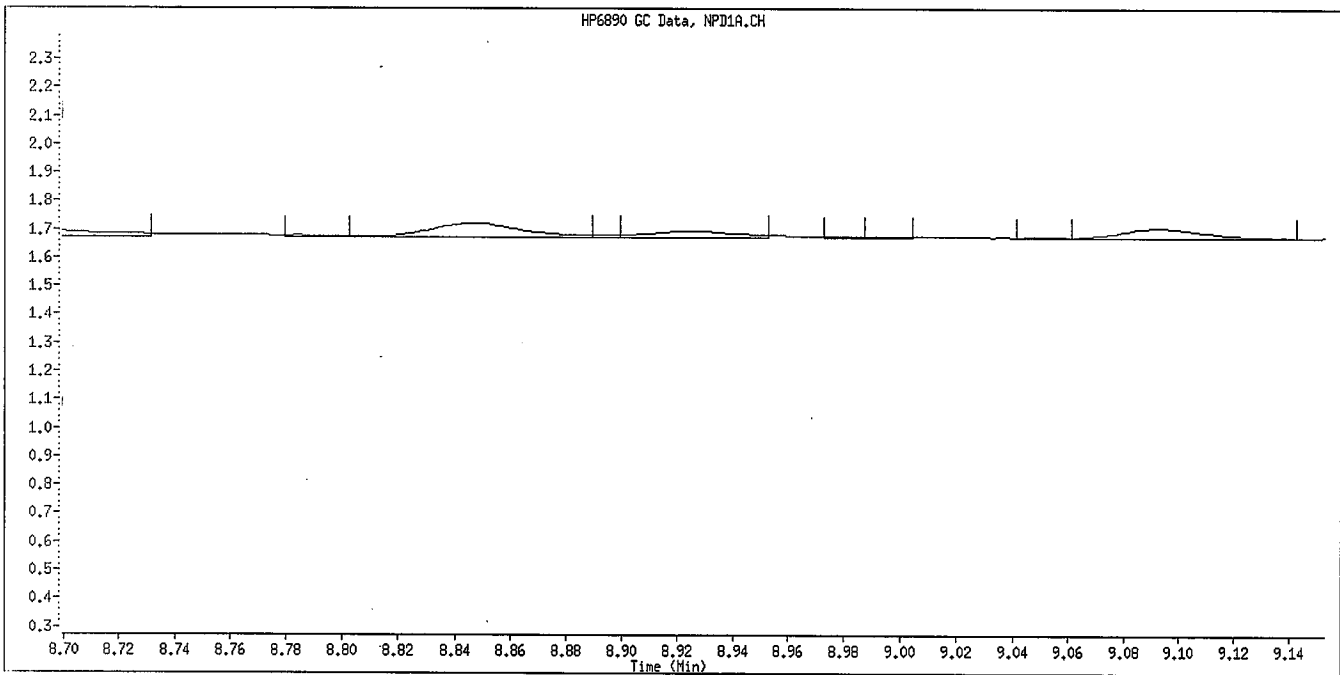
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Simazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

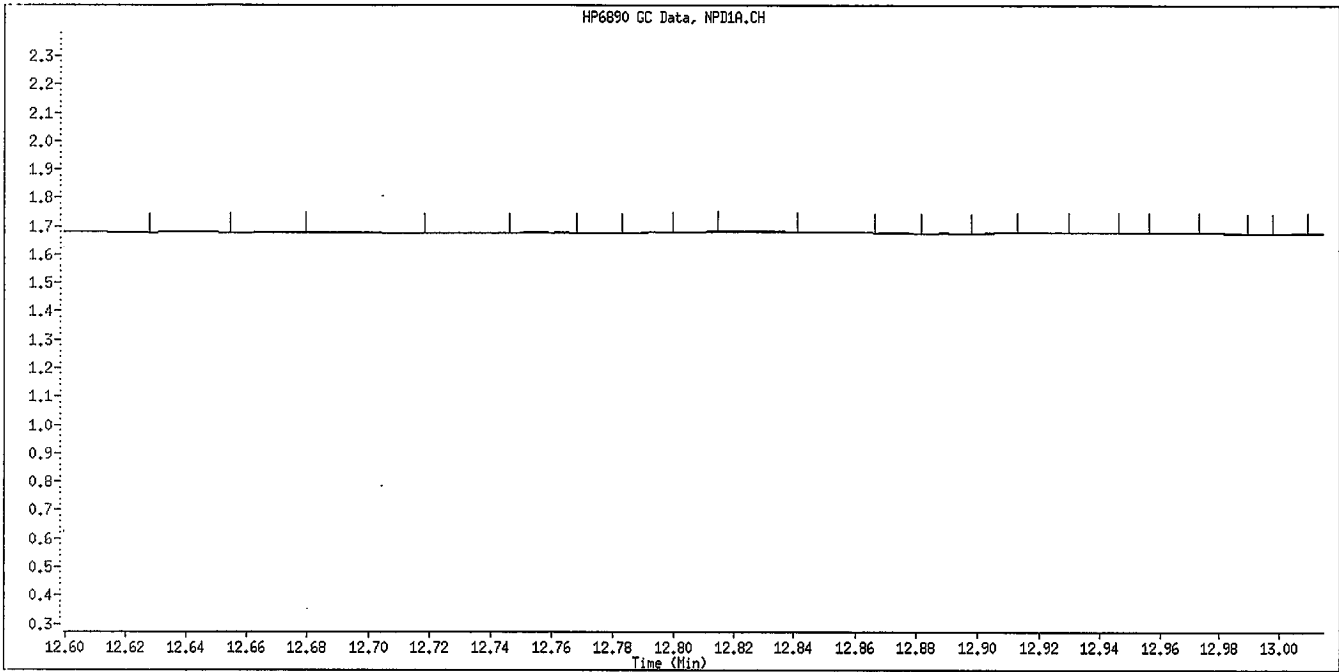


Manual Integration

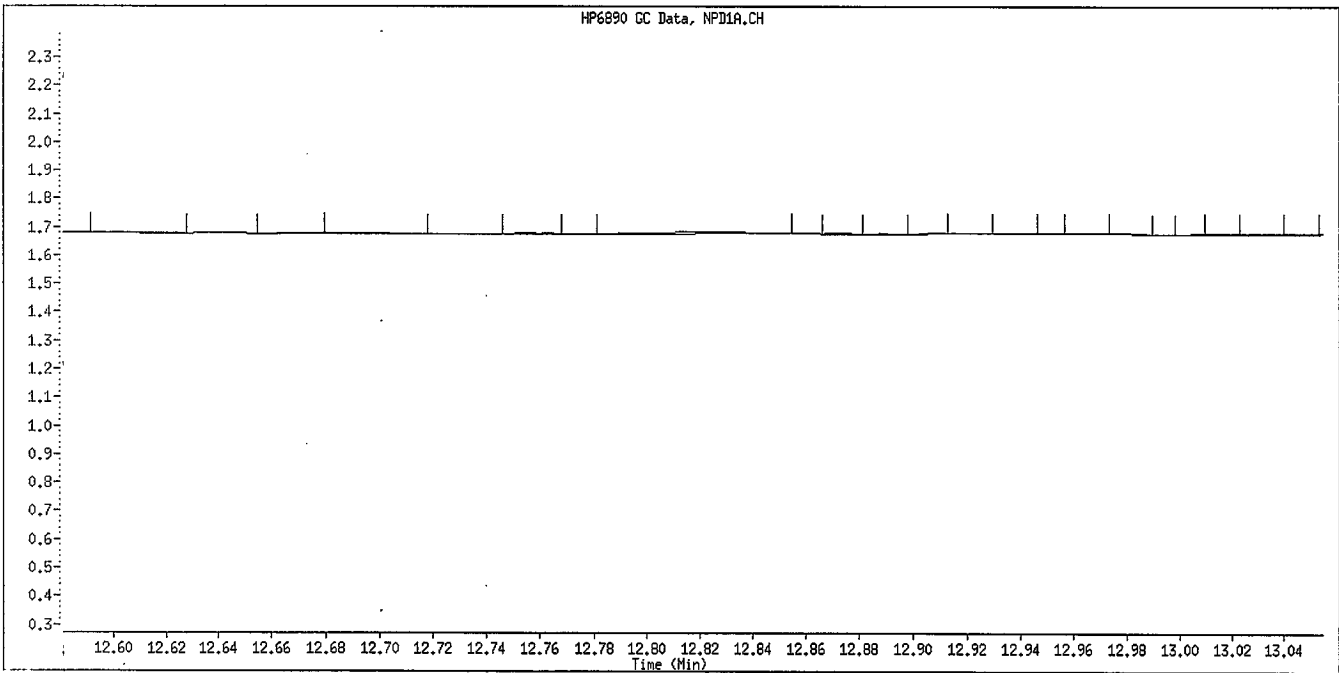
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

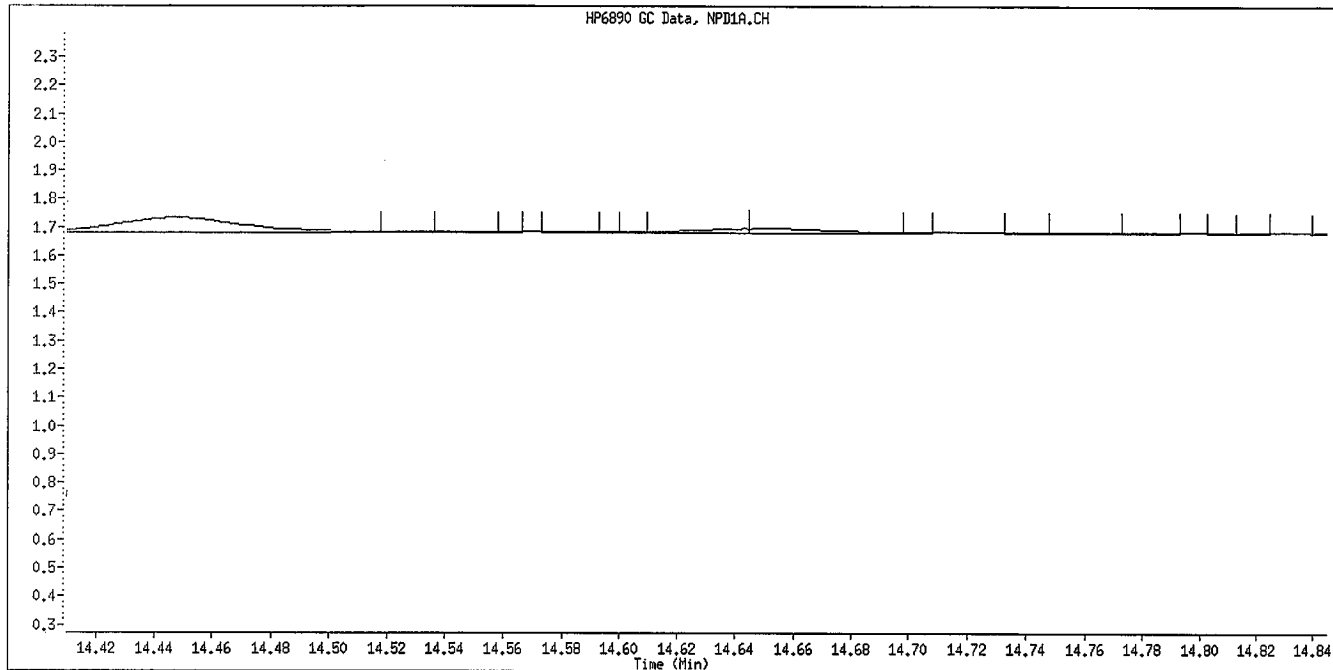


Manual Integration

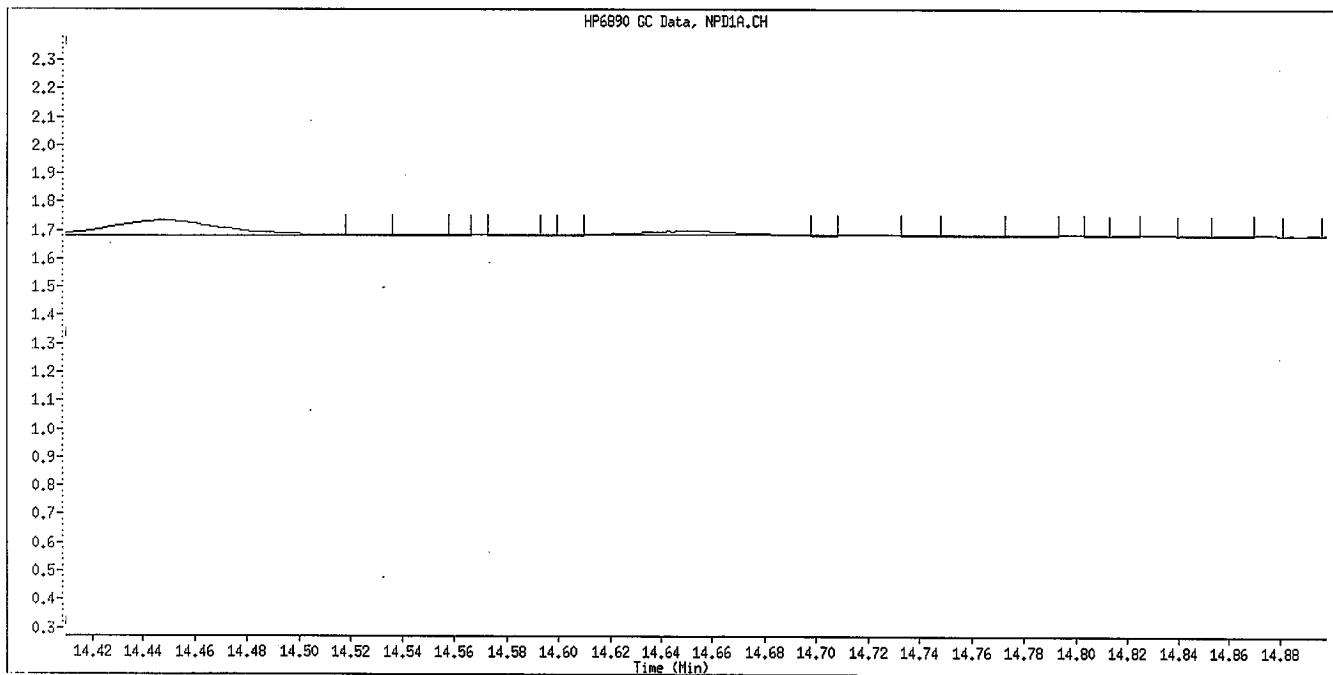
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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7/6  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\010F1001.D  
 Lab Smp Id: OPP SS GSV0633 Client Smp ID: OPP SS GSV0633  
 Inj Date : 26-JUN-2009 21:40  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP SS GSV0633  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 10 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.252	3.254	(0.182)	288886	2.00000	2.058
2 Dichlorvos	4.074	4.074	(0.228)	166172	2.00000	1.906
3 Mevinphos	5.737	5.739	(0.322)	81302	2.00000	1.698
4 Chlormefos	5.834	5.836	(0.327)	194413	2.00000	1.781
5 Thionazin	7.504	7.507	(0.421)	196672	2.00000	1.974
6 Demeton-O	7.645	7.649	(0.429)	175593	0.65000	1.871
7 Ethoprop	7.849	7.852	(0.440)	179292	2.00000	2.054
8 Naled	8.054	8.057	(0.451)	23739	2.00000	1.198
9 Tributylphosphate	8.112	8.135	(1.000)	166572	2.00000	
10 Sulfotepp	8.437	8.442	(0.473)	226133	2.00000	1.793
11 Phorate	8.529	8.532	(0.478)	182466	2.00000	2.018
12 Dimethoate	8.654	8.659	(0.485)	219089	2.00000	2.086
13 Demeton-S	8.842	8.846	(0.496)	17618	1.36000	0.2313
14 Simazine	8.919	8.924	(0.500)	92634	2.00000	2.622
15 Atrazine	9.089	9.094	(0.509)	79689	2.00000	1.957
16 propazine	9.235	9.241	(0.518)	71876	2.00000	1.913
17 Disulfoton	9.865	9.869	(0.553)	98052	2.00000	1.589
18 Diazinon	9.900	9.902	(0.555)	209627	2.00000	2.158
19 Methyl Parathion	10.714	10.717	(0.600)	125682	2.00000	2.040
20 Ronnel	11.237	11.241	(0.630)	136977	2.00000	2.151
21 Malathion	11.799	11.804	(0.661)	94998	2.00000	1.625
22 Fenthion	11.929	11.932	(0.669)	117968	2.00000	1.884
23 Parathion	12.017	12.019	(0.674)	129518	2.00000	1.944
24 Chlorpyrifos	12.067	12.067	(0.676)	158990	2.00000	1.972
25 Trichloronate	12.492	12.496	(0.700)	134163	2.00000	1.862
26 Anilazine	12.817	12.817	(0.718)	5585	2.00000	1.015
27 Merphos-A (Merphos)	13.195	13.199	(0.740)	24516	2.00000	0.4078
28 Tetrachlorvinphos (Stirophos)	13.817	13.824	(0.774)	83430	2.00000	2.088
29 Tokuthion	14.444	14.449	(0.810)	139904	2.00000	2.025
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	107349	2.00000	6.623(A)
31 Carbophenothion-methyl	15.234	15.239	(0.854)	73477	2.00000	1.354
32 Fensulfothion	15.355	15.361	(0.861)	108213	2.00000	1.924
33 Bolstar / Famphur	16.047	16.053	(0.899)	268528	4.00000	4.064

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
===== 34 Carbophenothion	16.194	16.197	(0.908)	123570	2.00000	1.864
\$ 35 Triphenyl phosphate	16.709	16.712	(0.936)	86501	2.00000	1.717
36 Phosmet	16.960	16.963	(0.951)	93465	2.00000	1.647
37 EPN	17.147	17.151	(0.961)	96842	2.00000	1.793
38 Azinphos-methyl	17.477	17.480	(0.980)	116249	2.00000	1.922
* 39 TOCP	17.842	17.846	(1.000)	99647	2.00000	
40 Azinphos-ethyl	17.922	17.926	(1.004)	124764	2.00000	1.833
41 Coumaphos	18.362	18.366	(1.029)	97846	2.00000	2.006
S 42 Merphos				131865	2.00000	1.737
M 43 Total Demeton				193211	2.00000	2.102

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 010F1001.D Calibration Time: 19:50  
 Lab Smp Id: OPP SS GSV0633 Client Smp ID: OPP SS GSV0633  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	166572	3.91
39 TOCP	97363	48682	194726	99647	2.35

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.00
39 TOCP	17.84	17.34	18.34	17.84	-0.01

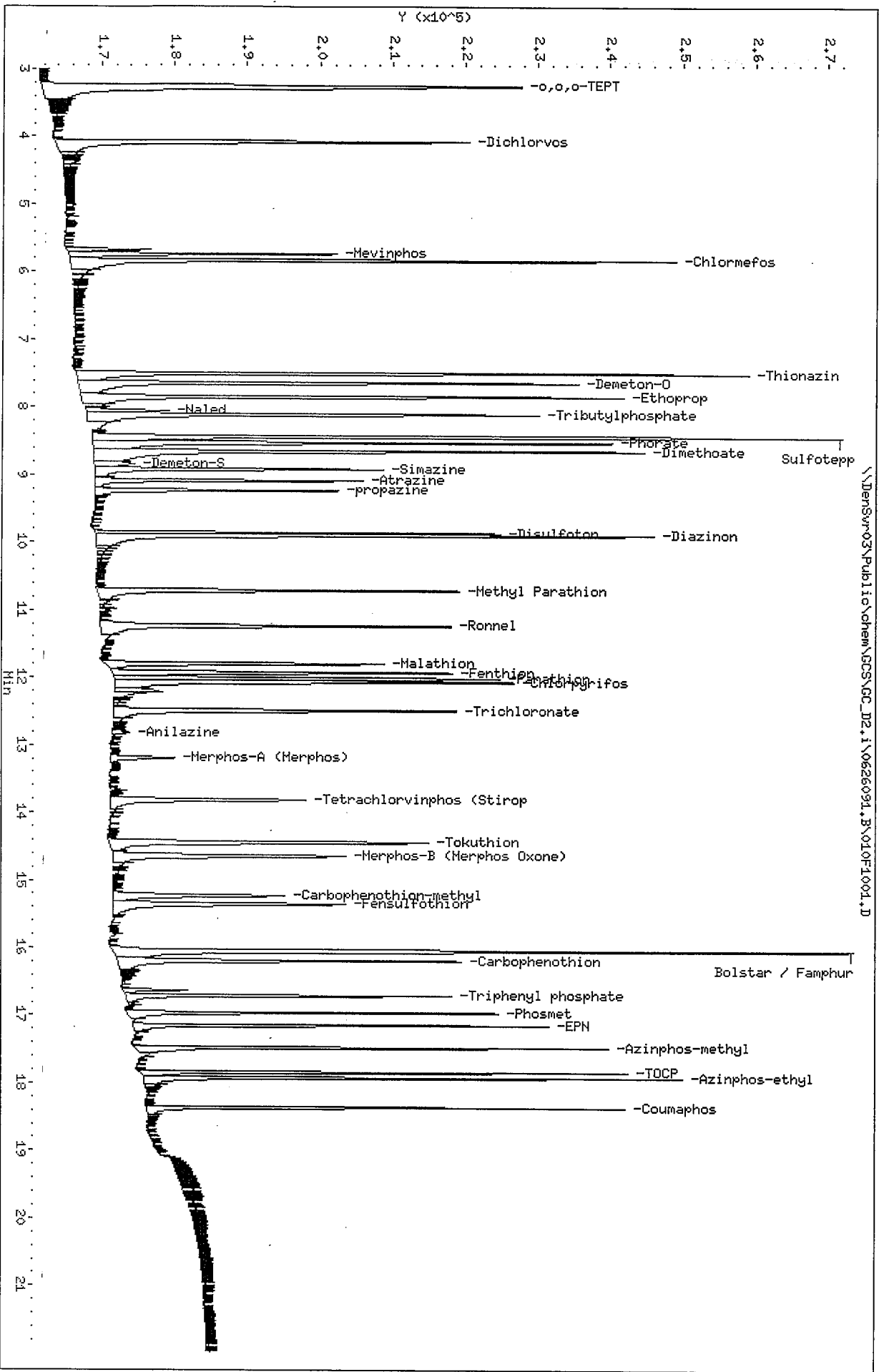
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\DensSvr-03\Public\chem\GCS\GC\_D2.1\0626091.B\010F1001.D  
 Date: 26-JUN-2009 21:40  
 Client ID: OPP SS GSV0633  
 Sample Info: OPP SS GSV0633  
 Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: HPK/TLW  
 Column diameter: 0.32

\\DensSvr-03\Public\chem\GCS\GC\_D2.1\0626091.B\010F1001.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0301.D  
 Lab Smp Id: OPP L7 GSV0634 Client Smp ID: OPP L7 GSV0634  
 Inj Date : 26-JUN-2009 18:28  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L7 GSV0634  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 3 Calibration Sample, Level: 7  
 Dil Factor: 1.00000 Compound Sublist: 8141A.sub  
 Integrator: Falcon  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.729	4.731	(0.251)	421372	5.00000	4.907
2 Dichlorvos	6.546	6.546	(0.348)	359024	5.00000	5.355 (A)
\$ 3 Chlormefos	7.383	7.384	(0.392)	338585	5.00000	5.016 (A)
4 Mevinphos	9.233	9.234	(0.491)	238906	5.00000	5.290 (A)
5 Demeton-O	9.733	9.734	(0.517)	69239	1.62500	1.609
6 Thionazin	9.984	9.984	(0.531)	338015	5.00000	5.005 (A)
7 Ethoprop	10.499	10.499	(0.558)	242747	5.00000	4.810
8 Phorate	10.538	10.539	(0.560)	289868	5.00000	4.953
9 Naled	10.939	10.939	(0.581)	78857	5.00000	5.109 (A)
10 Sulfofotepp	11.018	11.017	(0.586)	427657	5.00000	4.845 (A)
* 11 Tributylphosphate	11.116	11.116	(1.000)	139264	2.00000	
12 Simazine	11.401	11.399	(0.606)	68046	5.00000	5.383 (A)
13 Diazinon	11.541	11.541	(0.613)	228810	5.00000	4.801
14 Atrazine	11.584	11.584	(0.616)	128612	5.00000	4.879 (A)
15 Propazine	11.746	11.747	(0.624)	110050	5.00000	4.930
16 Disulfoton	12.049	12.049	(0.640)	228764	5.00000	4.914
17 Demeton-S	12.124	12.124	(0.644)	175573	3.40000	3.111
18 Dimethoate	13.283	13.282	(0.706)	319454	5.00000	5.120 (A)
19 Ronnel	13.588	13.587	(0.722)	211449	5.00000	5.035 (A)
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	217509	5.00000	4.310 (A)
21 Chlorpyrifos	14.411	14.409	(0.766)	227882	5.00000	5.350 (A)
22 Fenthion	14.663	14.662	(0.779)	196942	5.00000	4.985
23 Trichloronate	14.711	14.711	(0.782)	296442	5.00000	5.242 (A)
24 Anilazine	15.214	15.216	(0.809)	19108	5.00000	5.242 (A)
25 Methyl Parathion	15.521	15.519	(0.825)	235511	5.00000	5.522 (A)
26 Malathion	15.724	15.724	(0.836)	212190	5.00000	5.311 (A)
27 Tokuthion	16.344	16.344	(0.869)	233715	5.00000	4.996
28 Parathion	16.493	16.494	(0.877)	213175	5.00000	5.073 (AM)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.486)	65080	5.00000	4.212 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	143806	5.00000	5.290 (A)
31 Carbophenothion methyl	17.081	17.082	(0.908)	210272	5.00000	5.396 (A)
32 Bolstar	17.441	17.440	(0.927)	199405	5.00000	4.858
33 Carbophenothion	17.523	17.524	(0.931)	212727	5.00000	5.271 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	167127	5.00000	5.046 (A)
35 Fensulfothion	18.558	18.559	(0.986)	152929	5.00000	5.029 (A)
* 36 TOCP	18.814	18.816	(1.000)	66384	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	330448	10.0000	9.819 (A)
38 Famphur	19.011	19.011	(1.010)	220404	5.00000	5.062 (A)
39 Azinphos-methyl	19.146	19.147	(1.018)	197822	5.00000	4.967
40 Azinphos-ethyl	19.364	19.366	(1.029)	187035	5.00000	4.930
41 Coumaphos	20.348	20.347	(1.081)	155426	5.00000	5.329 (A)
S 42 Merphos				282589	5.00000	5.108 (A)
M 43 Total Demeton				244812	5.00000	4.720

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 003F0301.D  
 Lab Smp Id: OPP L7 GSV0634  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 21:40  
 Client Smp ID: OPP L7 GSV0634  
 Level:  
 Sample Type:

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	123933	61967	247866	139264	12.37
36 TOCP	68831	34416	137662	66384	-3.56

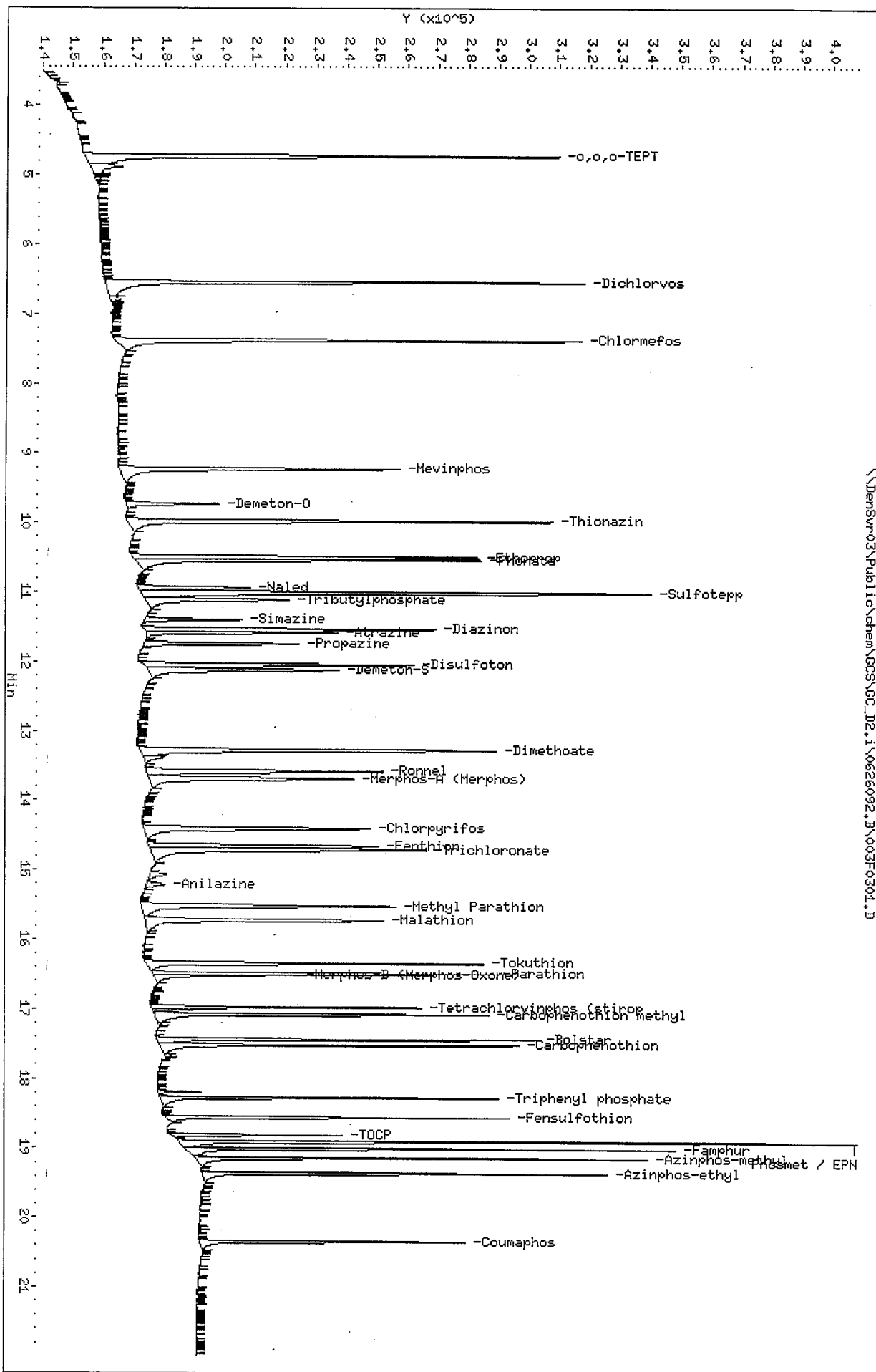
COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.01
36 TOCP	18.82	18.32	19.32	18.81	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

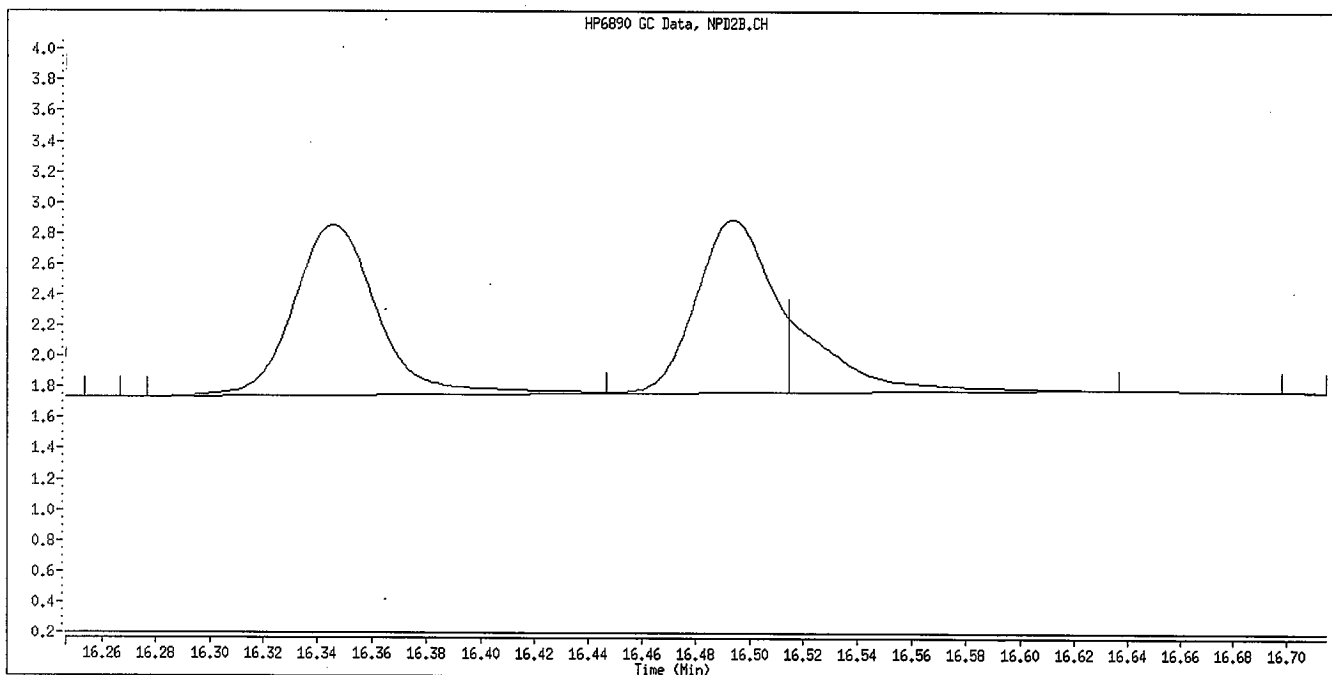
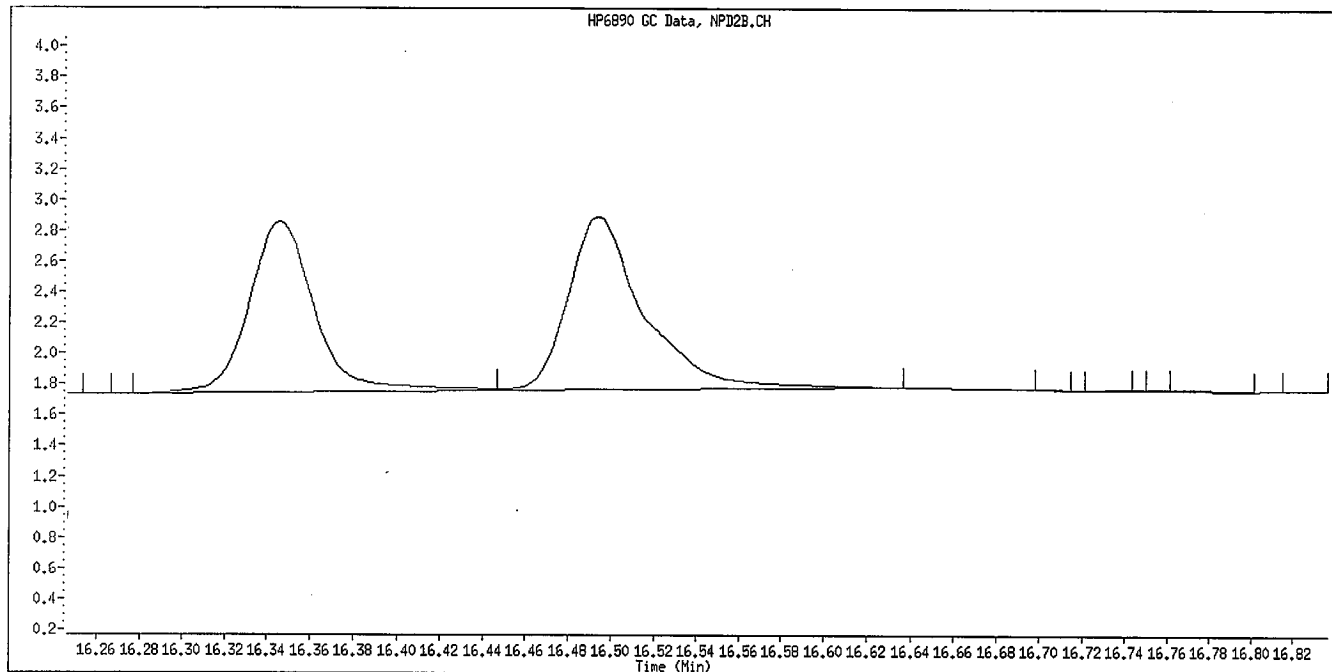
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 Date: 26-JUN-2009 18:28  
 Client ID: OPP L7 GSV0634  
 Sample Info: OPP L7 GSV0634  
 Column phase: RTX-OPPest

Instrument: GC\_D2.i  
 Operator: HPK/TLH  
 Column diameter: 0.32

\\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0304.D



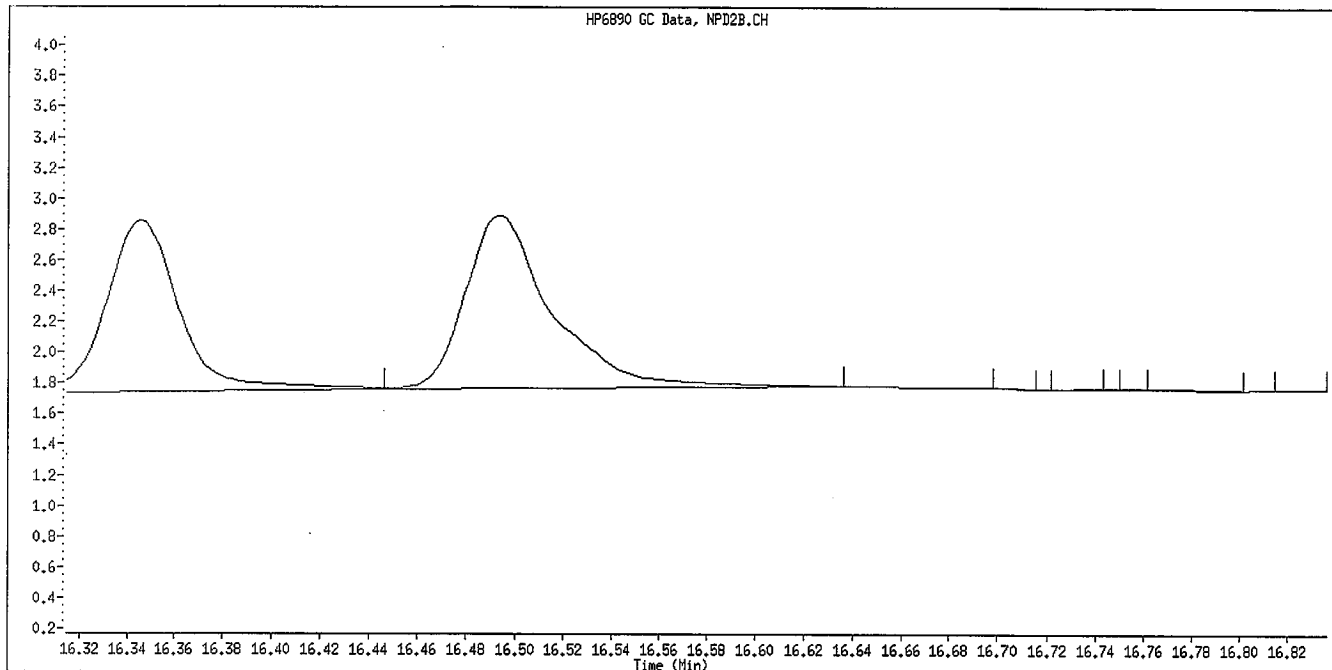
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Inj. Date and Time: 26-JUN-2009 18:28  
Instrument ID: GC\_D2.i  
Client ID: OPP L7 GSV0634  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



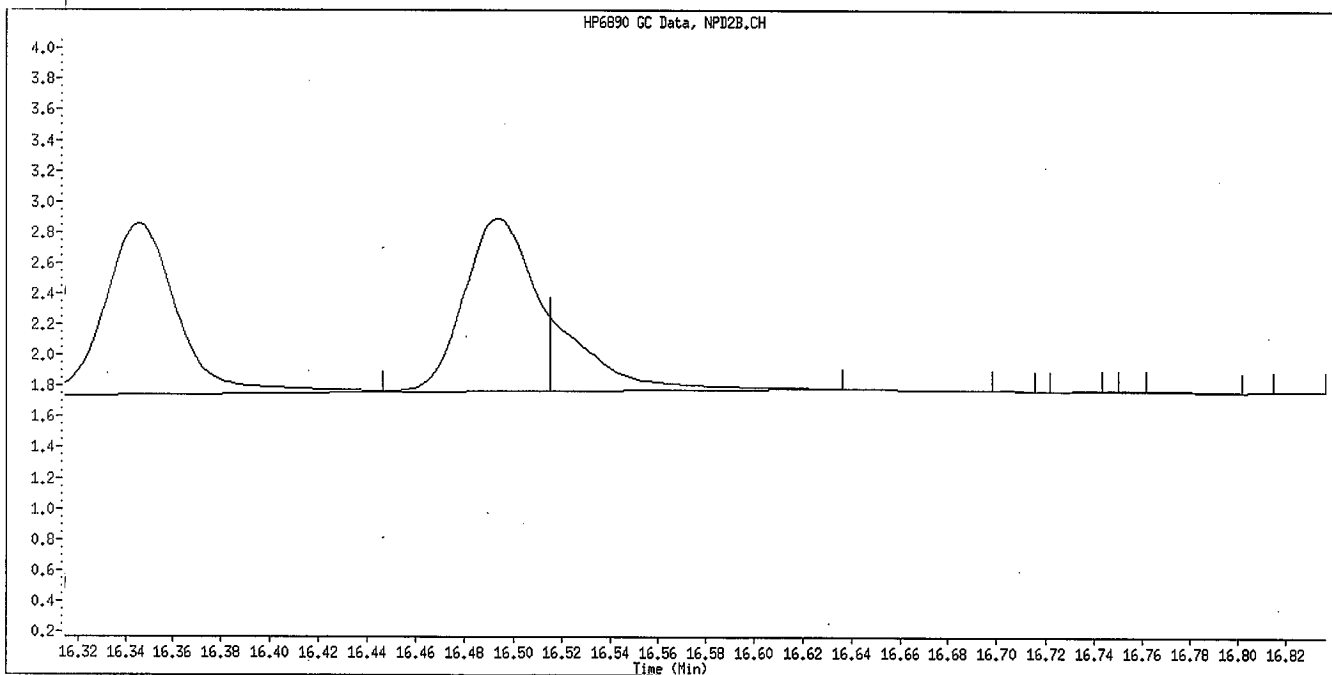
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 003F0301.D  
Inj. Date and Time: 26-JUN-2009 18:28  
Instrument ID: GC\_D2.i  
Client ID: OPP L7 GSV0634  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D  
 Lab Smp Id: OPP L6 GSV0637 Client Smp ID: OPP L6 GSV0637  
 Inj Date : 26-JUN-2009 18:55  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L6 GSV0637  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:28 Cal File: 003F0301.D  
 Als bottle: 4 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.729	4.731	(0.251)	328646	4.00000	4.043
2 Dichlorvos	6.546	6.546	(0.348)	257298	4.00000	4.054
\$ 3 Chlormefos	7.384	7.384	(0.392)	258146	4.00000	4.040
4 Mevinphos	9.234	9.234	(0.491)	177060	4.00000	4.141
5 Demeton-O	9.734	9.734	(0.517)	56273	1.30000	1.381
6 Thionazin	9.984	9.984	(0.531)	276609	4.00000	4.326
7 Ethoprop	10.499	10.499	(0.558)	193617	4.00000	4.053
8 Phorate	10.537	10.539	(0.560)	250422	4.00000	4.520
9 Naled	10.941	10.939	(0.582)	58330	4.00000	4.051
10 Sulfotepp	11.017	11.017	(0.586)	337512	4.00000	4.039 (A)
* 11 Tributylphosphate	11.116	11.116	(1.000)	118534	2.00000	
12 Simazine	11.401	11.399	(0.606)	52173	4.00000	4.360 (A)
13 Diazinon	11.541	11.541	(0.613)	181790	4.00000	4.034
14 Atrazine	11.582	11.584	(0.616)	98759	4.00000	4.001 (A)
15 Propazine	11.746	11.747	(0.624)	85745	4.00000	4.068
16 Disulfoton	12.049	12.049	(0.640)	184026	4.00000	4.176
17 Demeton-S	12.124	12.124	(0.644)	157195	2.72000	2.948
18 Dimethoate	13.282	13.282	(0.706)	236550	4.00000	4.005
19 Ronnel	13.589	13.587	(0.722)	165534	4.00000	4.164
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	178652	4.00000	4.159 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	174421	4.00000	4.326
22 Fenthion	14.662	14.662	(0.779)	149338	4.00000	3.993
23 Trichloronate	14.709	14.711	(0.782)	208762	4.00000	3.926
24 Anilazine	15.216	15.216	(0.809)	13112	4.00000	3.800 (M)
25 Methyl Parathion	15.519	15.519	(0.825)	167086	4.00000	4.138 (A)
26 Malathion	15.724	15.724	(0.836)	151738	4.00000	4.012
27 Tokuthion	16.346	16.344	(0.869)	187169	4.00000	4.226
28 Parathion	16.492	16.494	(0.877)	170901	4.00000	4.296 (M)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.486)	62127	4.00000	4.736 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	109740	4.00000	4.264
31 Carbophenothion methyl	17.081	17.082	(0.908)	159411	4.00000	4.322
32 Bolstar	17.441	17.440	(0.927)	154382	4.00000	3.973
33 Carbophenothion	17.522	17.524	(0.931)	154486	4.00000	4.043 (A)



Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	125543	4.00000	4.004
35 Fensulfothion	18.557	18.559	(0.986)	126221	4.00000	4.385
* 36 TOCP	18.814	18.816	(1.000)	62844	2.00000	
37 Phosmet / EPN	18.907	18.909	(1.005)	263604	8.00000	8.261 (A)
38 Famphur	19.009	19.011	(1.010)	175421	4.00000	4.256
39 Azinphos-methyl	19.144	19.147	(1.018)	160515	4.00000	4.257
40 Azinphos-ethyl	19.362	19.366	(1.029)	144031	4.00000	4.011
41 Coumaphos	20.346	20.347	(1.081)	118936	4.00000	4.308
S 42 Merphos				240779	4.00000	4.597 (A)
M 43 Total Demeton				213468	4.00000	4.330

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 004F0401.D Calibration Time: 21:40  
 Lab Smp Id: OPP L6 GSV0637 Client Smp ID: OPP L6 GSV0637  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	123933	61967	247866	118534	-4.36
36 TOCP	68831	34416	137662	62844	-8.70

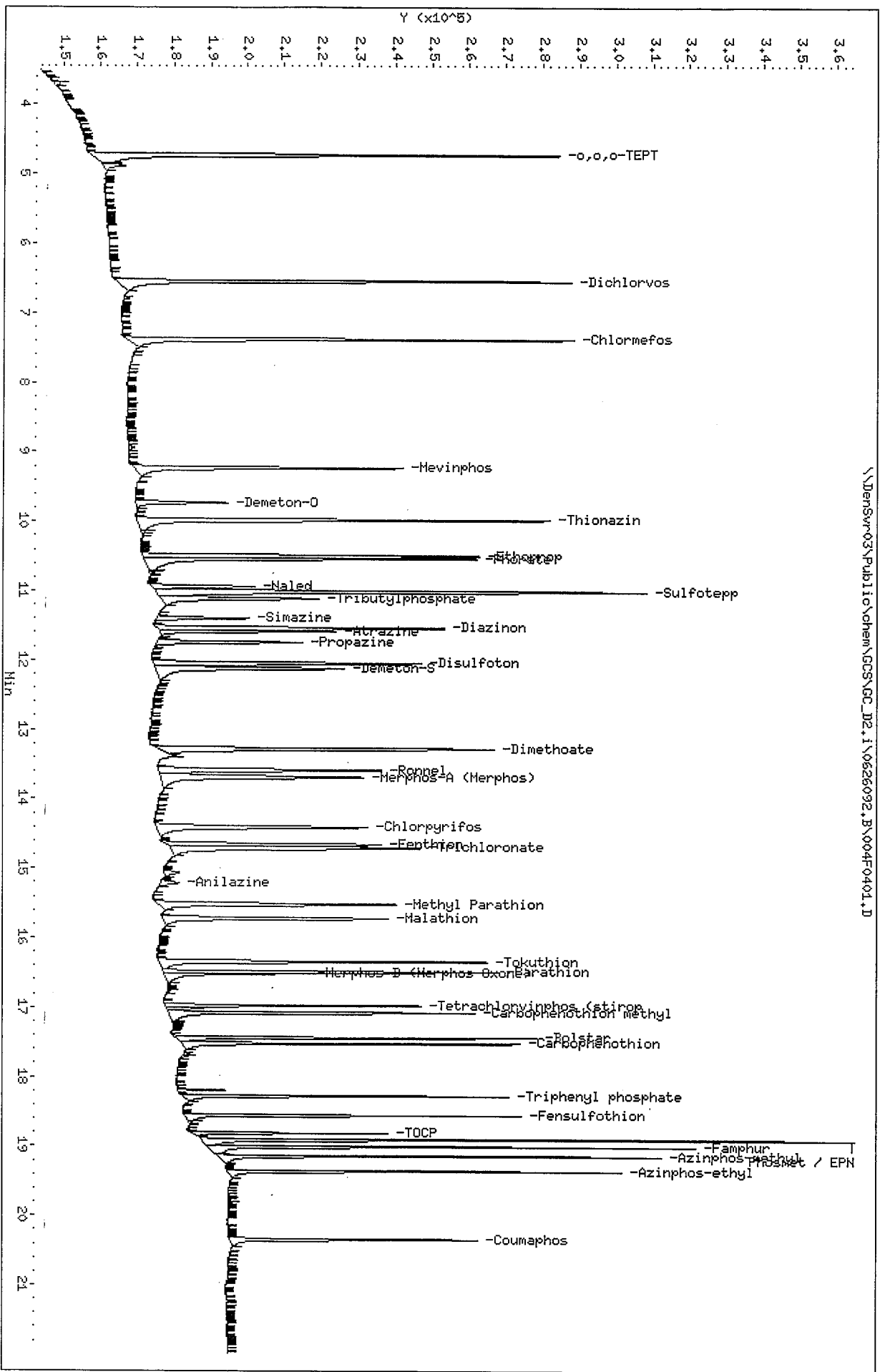
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.01
36 TOCP	18.82	18.32	19.32	18.81	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

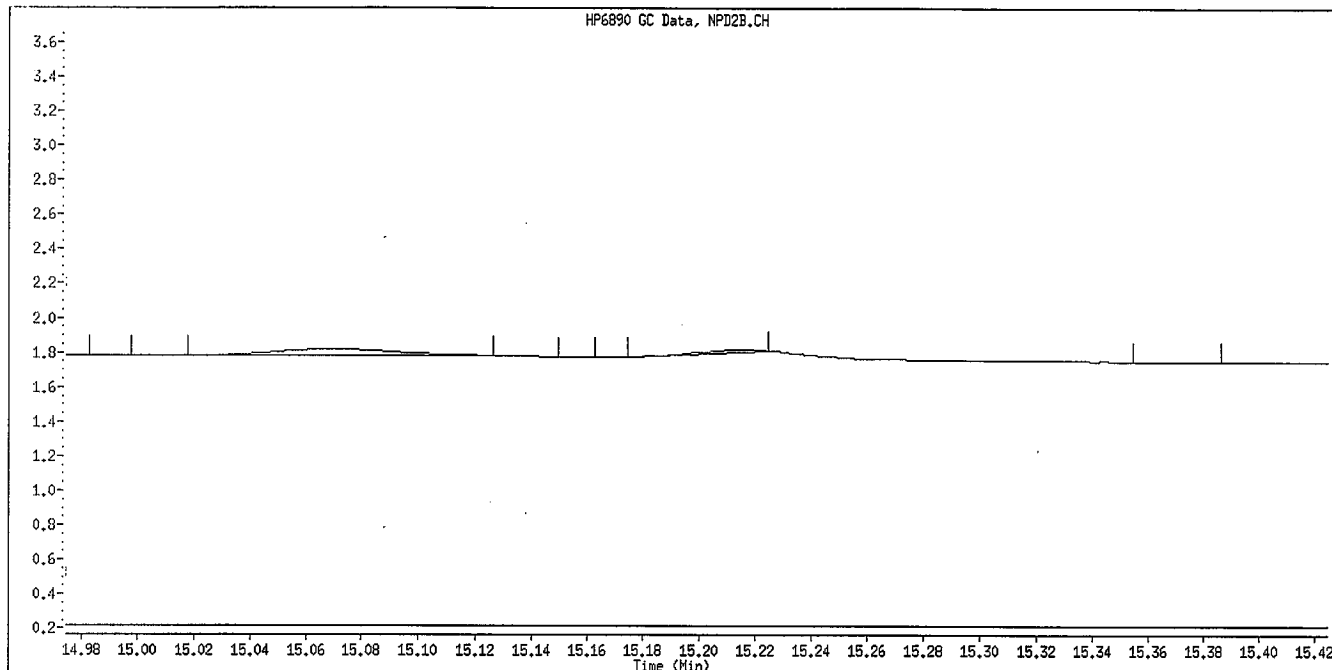
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 Date: 26-JUN-2009 18:55  
 Client ID: OPP L6 GSW0637  
 Sample Info: OPP L6 GSW0637  
 Column phase: RTX-OPPest

Instrument: GC\_D2.i  
 Operator: HPK/TLN  
 Column diameter: 0.32

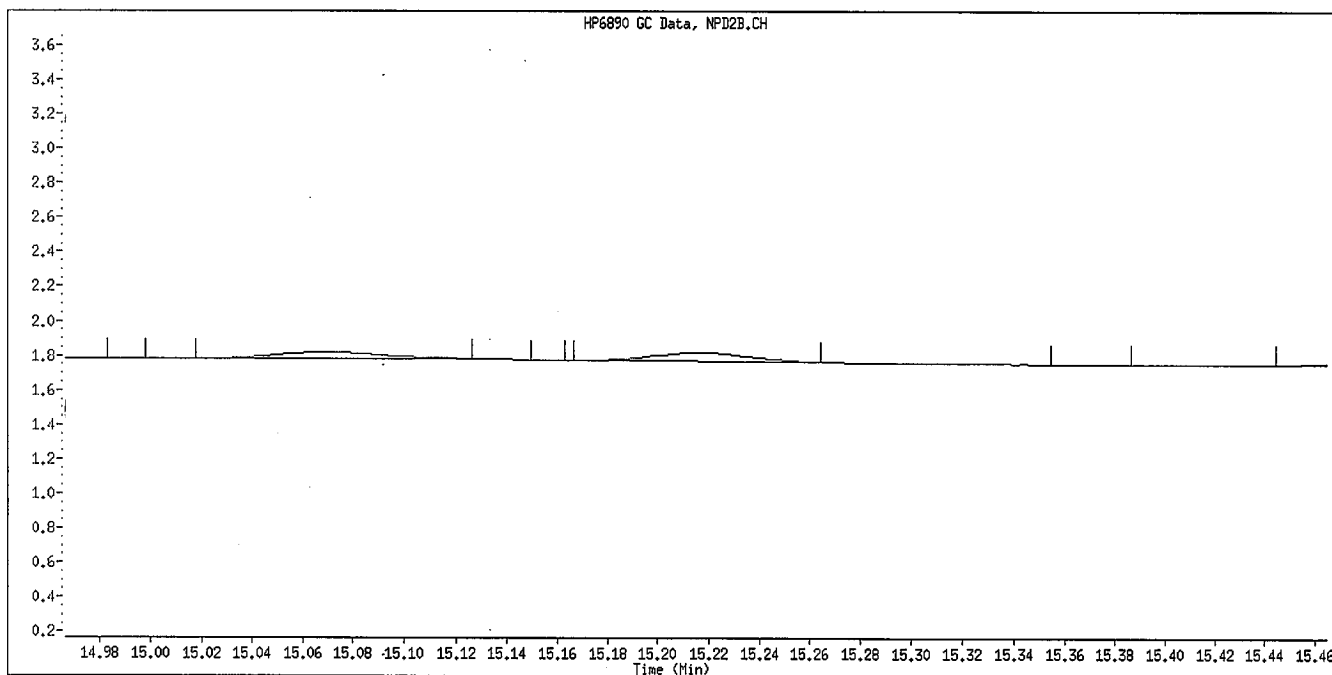
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Data File Name: 004F0401.D  
Inj. Date and Time: 26-JUN-2009 18:55  
Instrument ID: GC\_D2.i  
Client ID: OPP L6 GSV0637  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

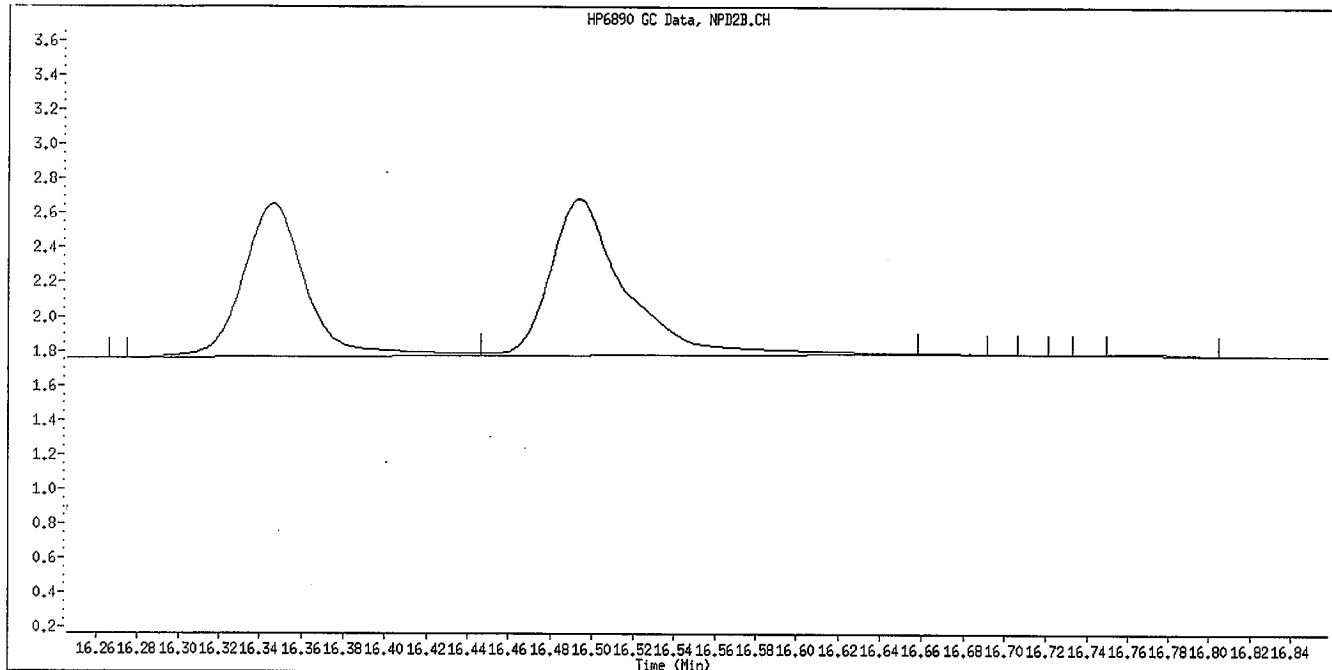


Manual Integration

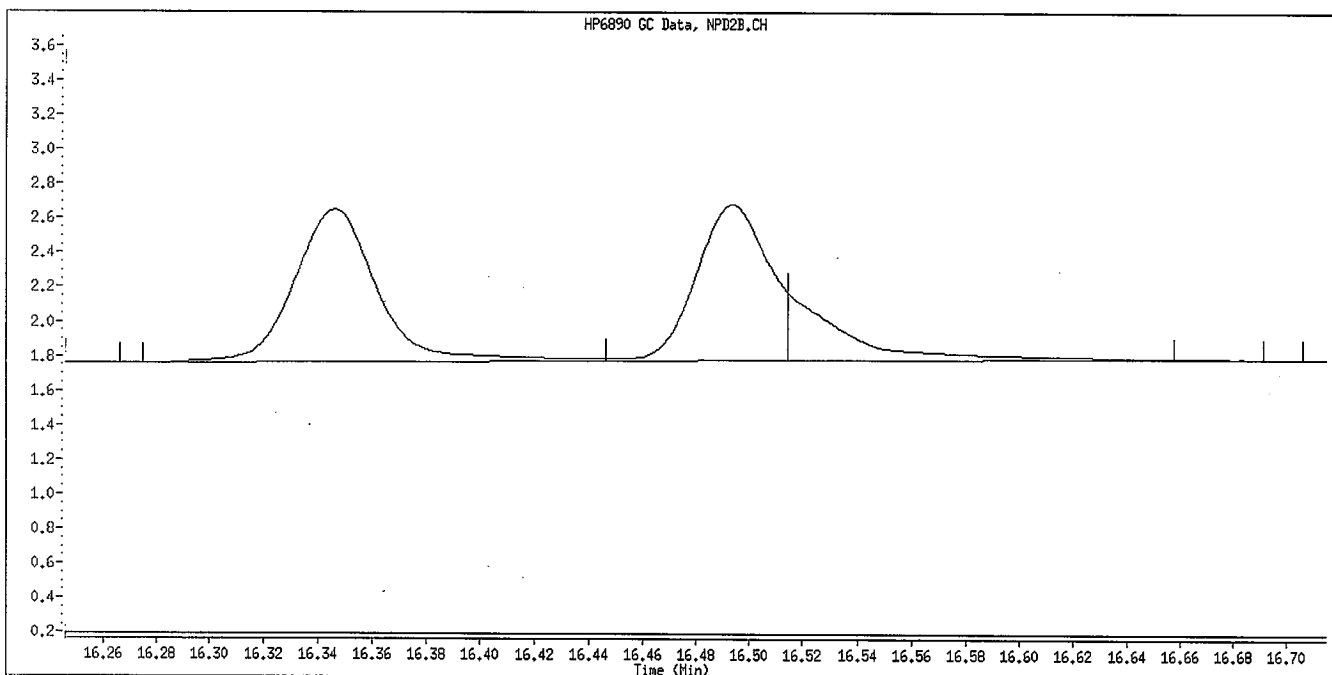
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 004F0401.D  
Inj. Date and Time: 26-JUN-2009 18:55  
Instrument ID: GC\_D2.i  
Client ID: OPP L6 GSV0637  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

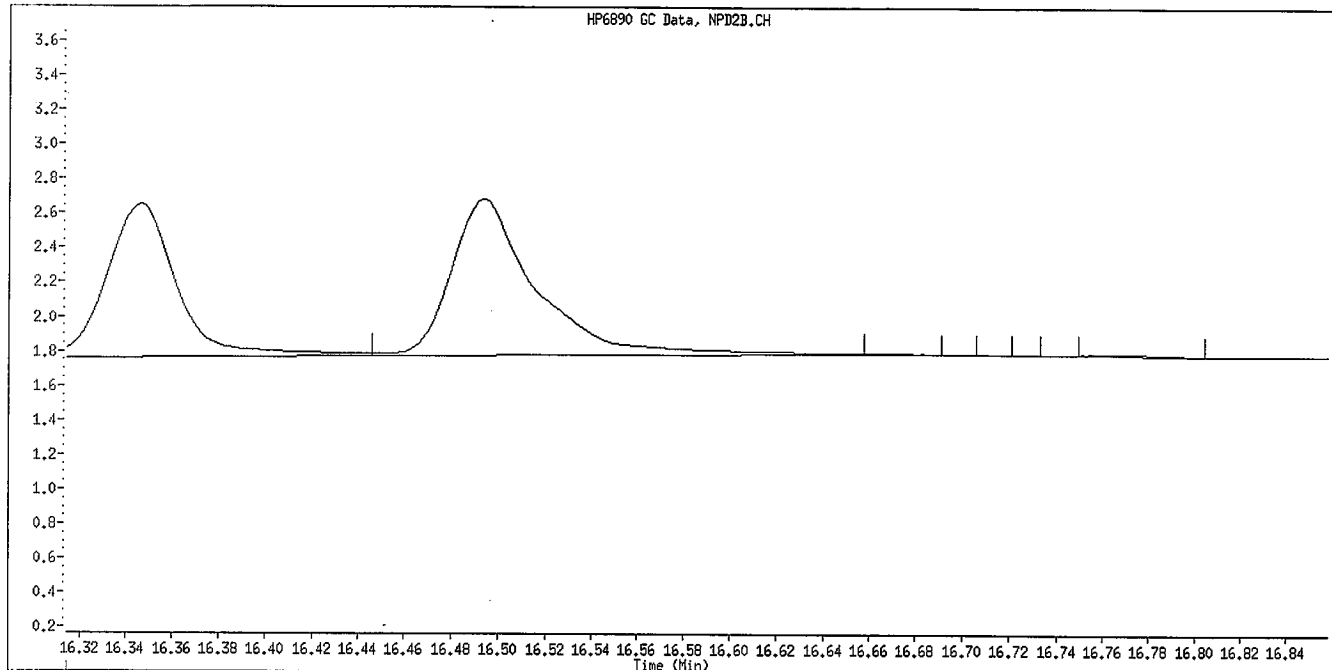


Manual Integration

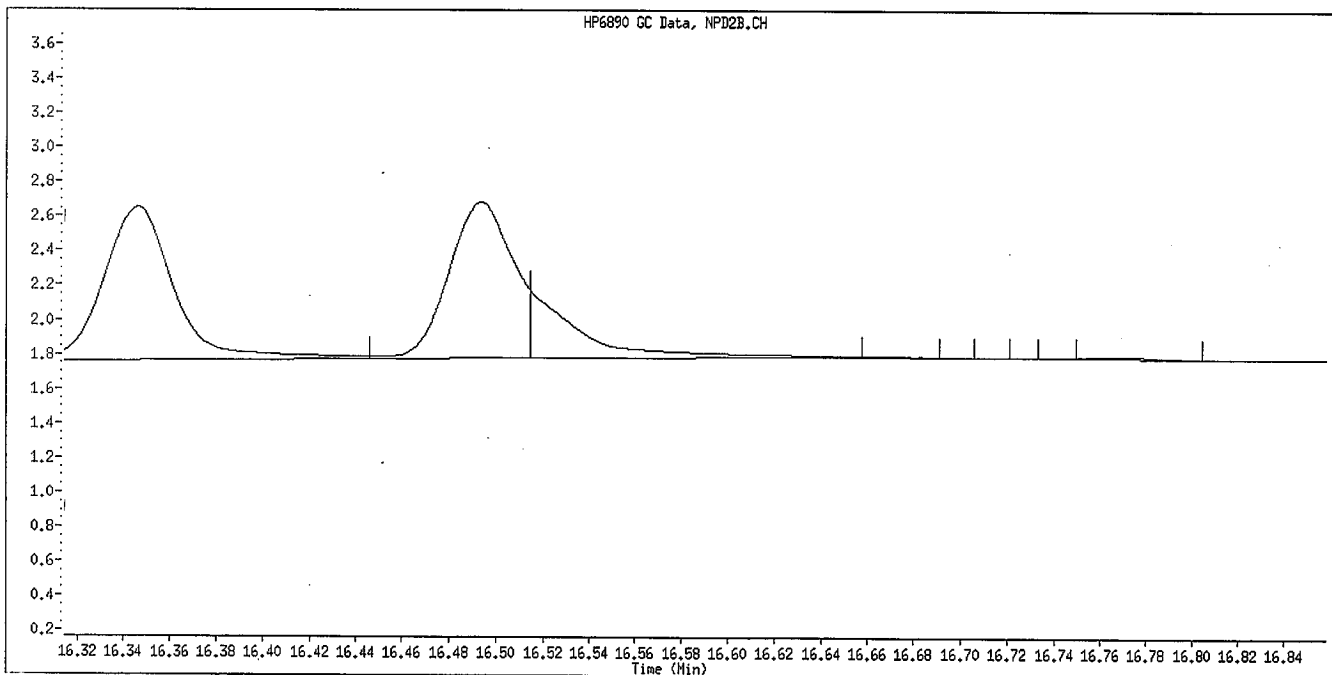
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*YJL*  
*6/30/09*

Data File Name: 004F0401.D  
Inj. Date and Time: 26-JUN-2009 18:55  
Instrument ID: GC\_D2.i  
Client ID: OPP L6 GSV0637  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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yl  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0501.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 26-JUN-2009 19:23  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:55 Cal File: 004F0401.D  
 Als bottle: 5 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.730	4.731	(0.251)	267154	3.00000	2.982
2 Dichlorvos	6.545	6.546	(0.348)	221023	3.00000	3.159
\$ 3 Chlormefos	7.384	7.384	(0.392)	237967	3.00000	3.379
4 Mevinphos	9.234	9.234	(0.491)	137272	3.00000	2.913
5 Demeton-O	9.734	9.734	(0.517)	46912	0.97500	1.045
6 Thionazin	9.984	9.984	(0.531)	216898	3.00000	3.078
7 Ethoprop	10.499	10.499	(0.558)	162719	3.00000	3.090
8 Phorate	10.539	10.539	(0.560)	189707	3.00000	3.107
9 Naled	10.939	10.939	(0.581)	46004	3.00000	2.975
10 Sulfotepp	11.017	11.017	(0.586)	277819	3.00000	3.017 (A)
* 11 Tributylphosphate	11.115	11.116	(1.000)	123454	2.00000	
12 Simazine	11.399	11.399	(0.606)	40610	3.00000	3.079 (A)
13 Diazinon	11.540	11.541	(0.613)	155648	3.00000	3.140
14 Atrazine	11.584	11.584	(0.616)	85997	3.00000	3.210 (A)
15 Propazine	11.747	11.747	(0.624)	72628	3.00000	3.140
16 Disulfoton	12.049	12.049	(0.640)	152294	3.00000	3.136
17 Demeton-S	12.124	12.124	(0.644)	121463	2.04000	2.103
18 Dimethoate	13.282	13.282	(0.706)	206120	3.00000	3.166
19 Ronnel	13.587	13.587	(0.722)	134377	3.00000	3.067
20 Merphos-A (Merphos)	13.689	13.689	(1.232)	139514	3.00000	3.119 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	137524	3.00000	3.094
22 Fenthion	14.662	14.662	(0.779)	130285	3.00000	3.161
23 Trichloronate	14.710	14.711	(0.782)	170976	3.00000	2.945
24 Anilazine	15.215	15.216	(0.809)	11039	3.00000	2.902
25 Methyl Parathion	15.519	15.519	(0.825)	140467	3.00000	3.157 (A)
26 Malathion	15.724	15.724	(0.836)	122121	3.00000	2.929
27 Tokuthion	16.344	16.344	(0.869)	150762	3.00000	3.089
28 Parathion	16.494	16.494	(0.877)	135916	3.00000	3.100 (M)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.486)	40683	3.00000	2.940 (AM)
30 Tetrachlorvinphos (stirophos)	16.977	16.977	(0.902)	90042	3.00000	3.174
31 Carbophenothion methyl	17.082	17.082	(0.908)	132789	3.00000	3.266
32 Bolstar	17.440	17.440	(0.927)	132222	3.00000	3.088
33 Carbophenothion	17.524	17.524	(0.931)	139939	3.00000	3.323 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.280	18.281	(0.972)	105020	3.00000	3.039
35 Fensulfothion	18.559	18.559	(0.986)	98284	3.00000	3.098
* 36 TOCP	18.815	18.816	(1.000)	69265	2.00000	
37 Phosmet / EPN	18.909	18.909	(1.005)	207459	6.00000	5.874 (A)
38 Famphur	19.010	19.011	(1.010)	125661	3.00000	2.766
39 Azinphos-methyl	19.147	19.147	(1.018)	125121	3.00000	3.011
40 Azinphos-ethyl	19.365	19.366	(1.029)	120801	3.00000	3.052
41 Coumaphos	20.347	20.347	(1.081)	93401	3.00000	3.069
S 42 Merphos				180197	3.00000	3.122 (A)
M 43 Total Demeton				168375	3.00000	3.147

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M -, Compound response manually integrated.



TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 005F0501.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 21:40  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	123933	61967	247866	123454	-0.39
36 TOCP	68831	34416	137662	69265	0.63

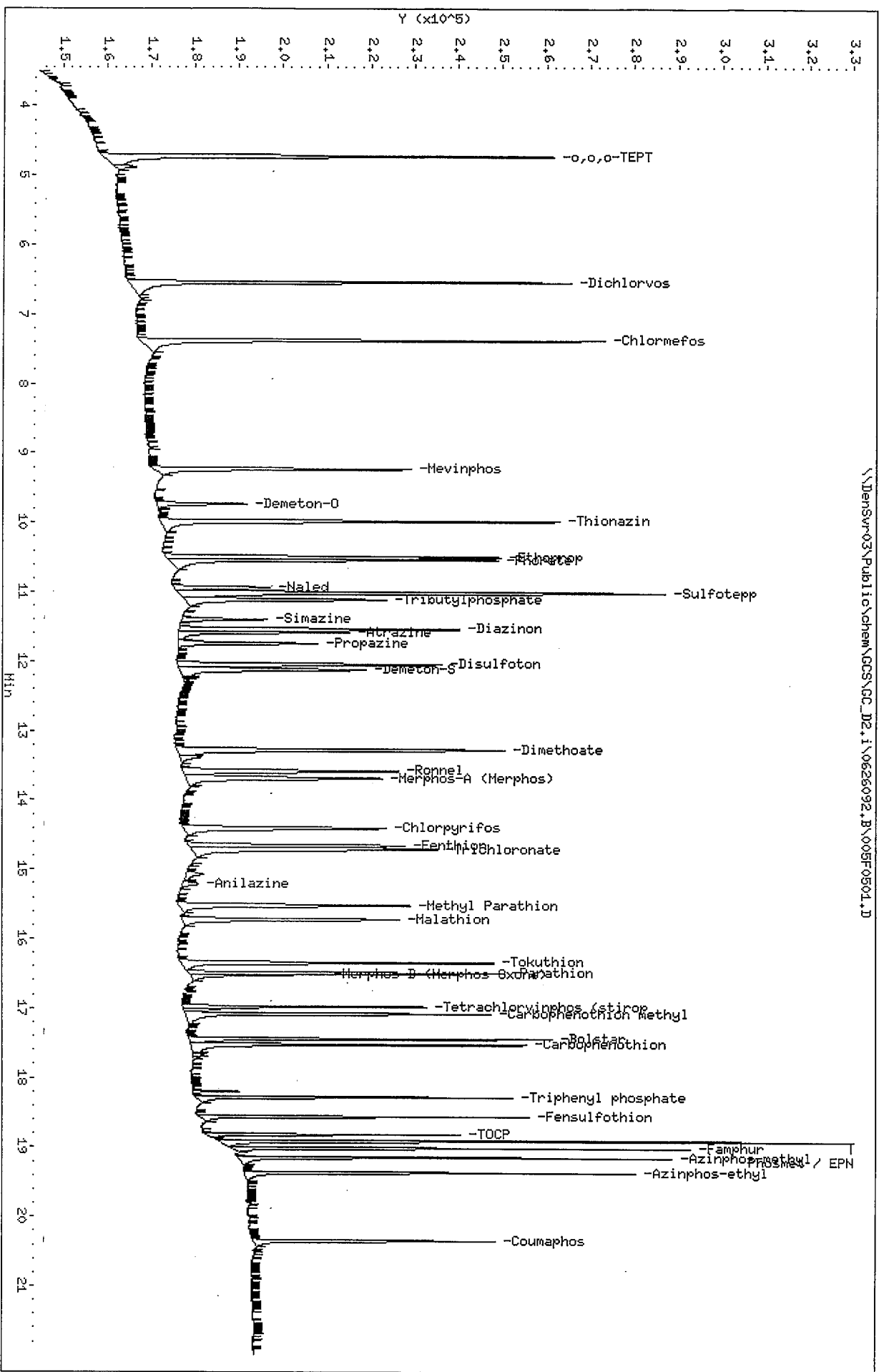
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.00
36 TOCP	18.82	18.32	19.32	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

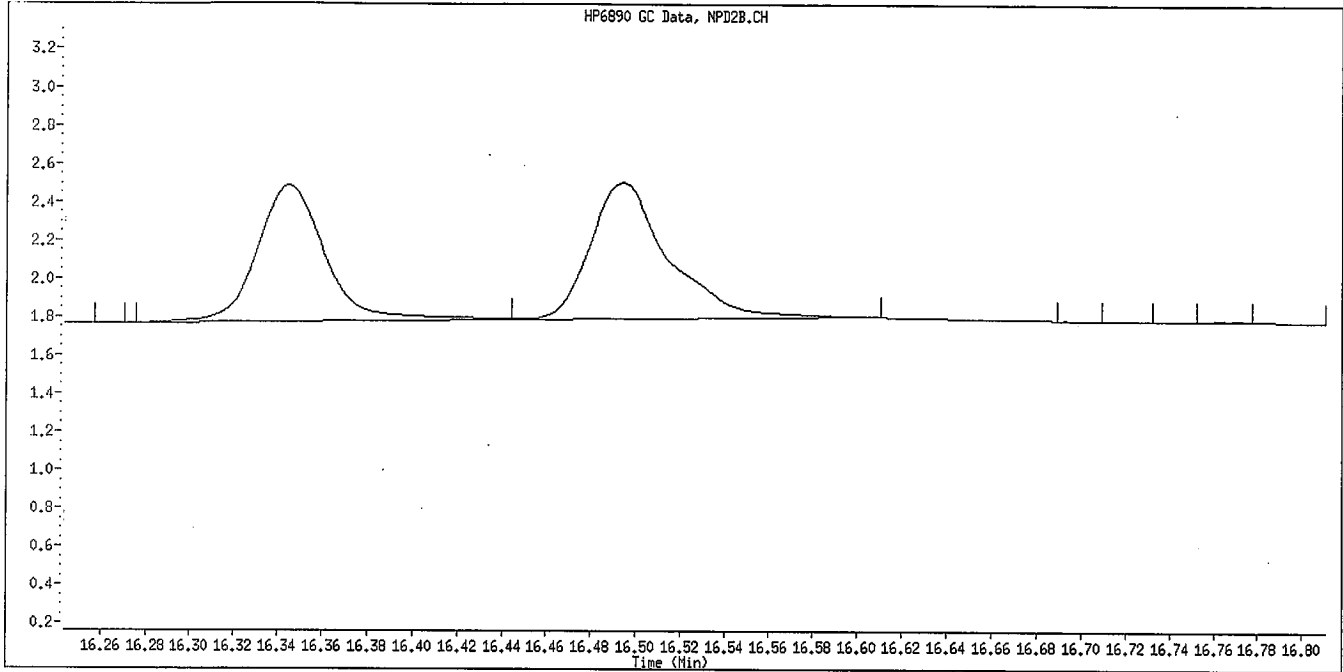
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 Date: 26-JUN-2009 19:23  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTx-OPPest

Instrument: GC\_D2.i  
 Operator: MPK/TLM  
 Column diameter: 0.32

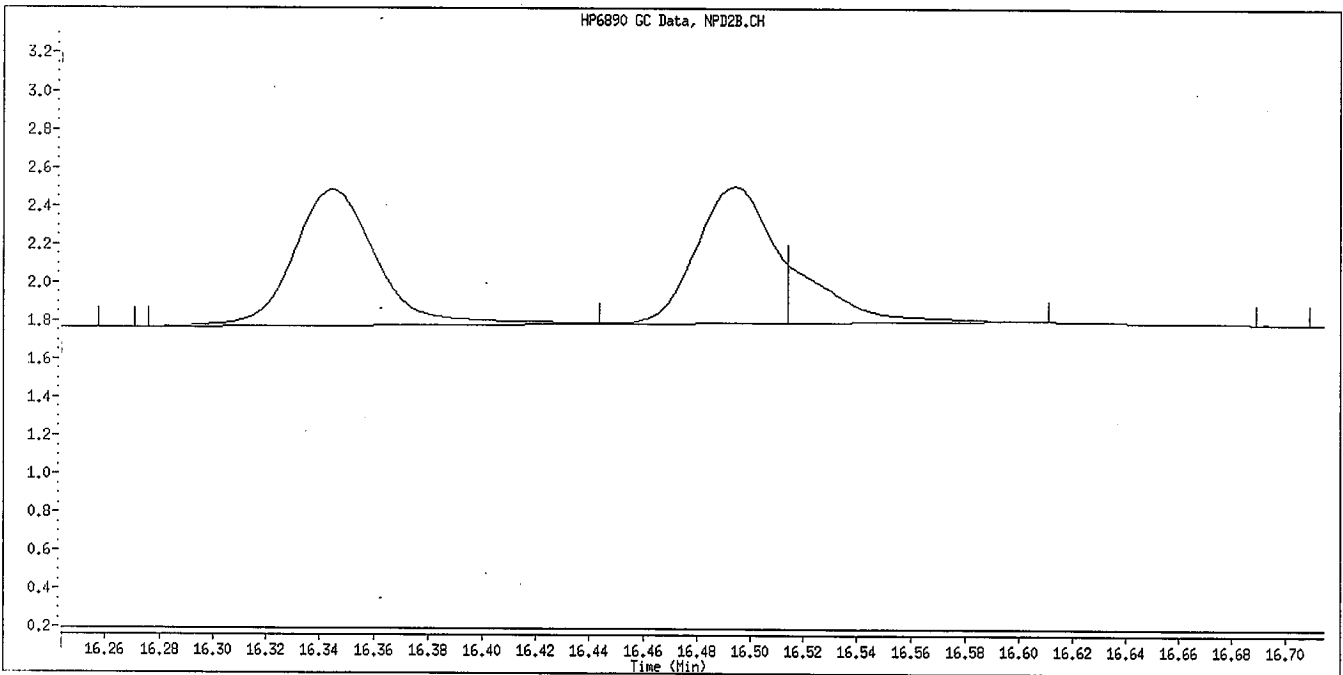
\\DensSvr-03\Public\chem\GC8\GC\_D2.i\0626092.B\005F0504.D



Data File Name: 005F0501.D  
Inj. Date and Time: 26-JUN-2009 19:23  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

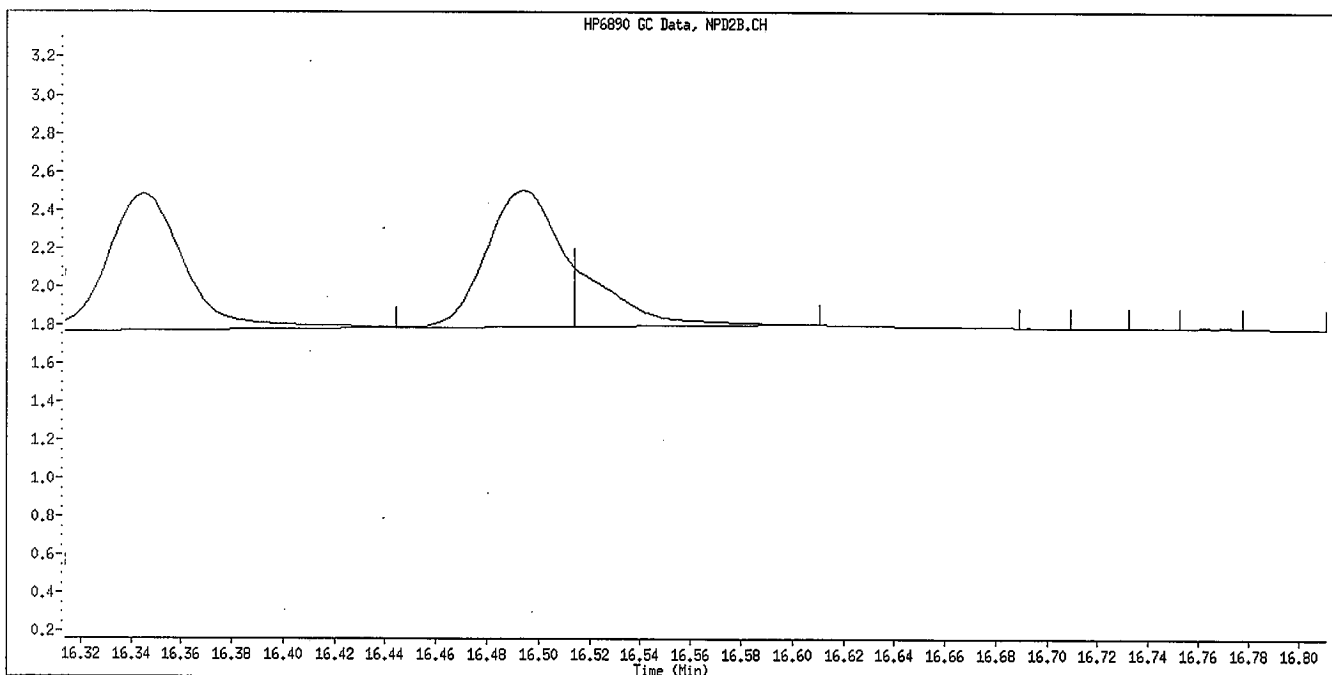
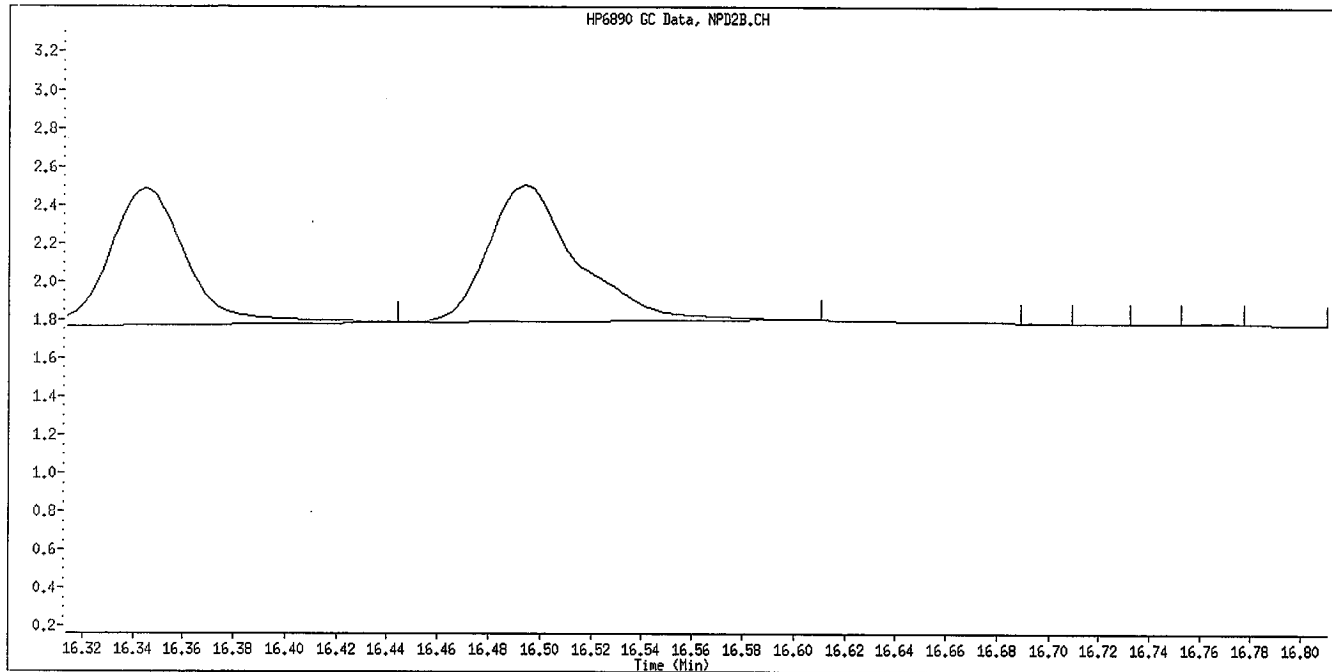


Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 005F0501.D  
Inj. Date and Time: 26-JUN-2009 19:23  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*St*  
*6/30/09*

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Lab Smp Id: OPP L4 GSV0638 Client Smp ID: OPP L4 GSV0638  
 Inj Date : 26-JUN-2009 19:50  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L4 GSV0638  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:23 Cal File: 005F0501.D  
 Als bottle: 6 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.730	4.731	(0.251)	181207	2.00000	2.055
2 Dichlorvos	6.545	6.546	(0.348)	148252	2.00000	2.154
\$ 3 Chlormefos	7.383	7.384	(0.392)	138652	2.00000	2.001
4 Mevinphos	9.233	9.234	(0.491)	98399	2.00000	2.122
5 Demeton-O	9.733	9.734	(0.517)	29742	0.65000	0.6731
6 Thionazin	9.983	9.984	(0.531)	134999	2.00000	1.947
7 Ethoprop	10.498	10.499	(0.558)	103308	2.00000	1.994
8 Phorate	10.537	10.539	(0.560)	115663	2.00000	1.925
9 Naled	10.940	10.939	(0.581)	28010	2.00000	1.943
10 <sup>1</sup> Sulfotepp	11.017	11.017	(0.586)	187497	2.00000	2.069 (A)
* 11 Tributylphosphate	11.115	11.116	(1.000)	126959	2.00000	
12 Simazine	11.398	11.399	(0.606)	26282	2.00000	2.025 (A)
13 Diazinon	11.540	11.541	(0.613)	98649	2.00000	2.033
14 Atrazine	11.582	11.584	(0.616)	49088	2.00000	1.960 (A)
15 Propazine	11.745	11.747	(0.624)	43235	2.00000	1.922
16 Disulfoton	12.050	12.049	(0.640)	96402	2.00000	2.017
17 Demeton-S	12.125	12.124	(0.644)	70921	1.36000	1.296
18 Dimethoate	13.280	13.282	(0.706)	123978	2.00000	1.935
19 Ronnel	13.588	13.587	(0.722)	84095	2.00000	1.950
20 <sup>1</sup> Merphos-A (Merphos)	13.690	13.689	(1.232)	90289	2.00000	1.962 (A)
21 Chlorpyrifos	14.408	14.409	(0.766)	82272	2.00000	1.881
22 Fenthion	14.660	14.662	(0.779)	79190	2.00000	1.952
23 Trichloronate	14.708	14.711	(0.782)	106326	2.00000	1.900
24 Anilazine	15.212	15.216	(0.808)	6899	2.00000	1.843
25 Methyl Parathion	15.520	15.519	(0.825)	91219	2.00000	2.083 (A)
26 Malathion	15.725	15.724	(0.836)	80242	2.00000	1.956
27 Tokuthion	16.345	16.344	(0.869)	92069	2.00000	1.917
28 Parathion	16.493	16.494	(0.877)	84124	2.00000	1.950 (M)
29 Merphos-B (Merphos Oxone)	16.513	16.517	(1.486)	23458	2.00000	1.603 (AM)
30 <sup>1</sup> Tetrachlorvinphos (stirophos)	16.977	16.977	(0.902)	54727	2.00000	1.961
31 Carbophenothion methyl	17.082	17.082	(0.908)	79857	2.00000	1.996
32 Bolstar	17.440	17.440	(0.927)	82203	2.00000	1.951
33 Carbophenothion	17.523	17.524	(0.931)	80431	2.00000	1.941 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.280	18.281	(0.972)	73416	2.00000	2.159
35 Fensulfothion	18.558	18.559	(0.986)	66352	2.00000	2.125
* 36 TOCP	18.815	18.816	(1.000)	68161	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	146012	4.00000	4.177
38 Famphur	19.012	19.011	(1.010)	95300	2.00000	2.132
39 Azinphos-methyl	19.147	19.147	(1.018)	88773	2.00000	2.171
40 Azinphos-ethyl	19.365	19.366	(1.029)	80966	2.00000	2.079
41 Coumaphos	20.347	20.347	(1.081)	61650	2.00000	2.059
S 42 Merphos				113747	2.00000	2.002 (A)
M 43 Total Demeton				100663	2.00000	1.969

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 006F0601.D Calibration Time: 19:50  
 Lab Smp Id: OPP L4 GSV0638 Client Smp ID: OPP L4 GSV0638  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	126959	63480	253918	126959	0.00
36 TOCP	68161	34081	136322	68161	0.00

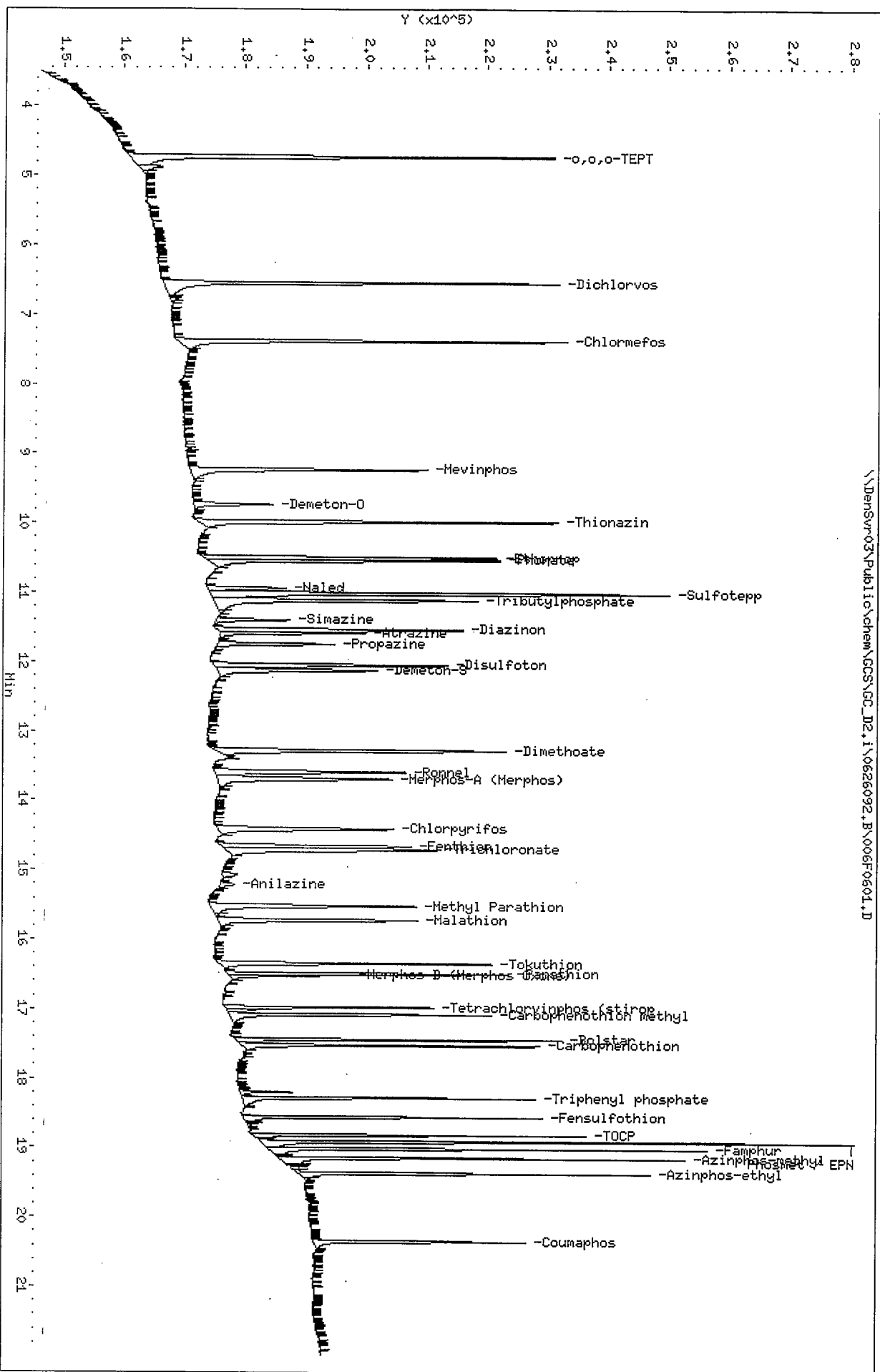
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.00
36 TOCP	18.82	18.32	19.32	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densv03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Date: 26-JUN-2009 19:50  
 Client ID: OPP L4 GSV0638  
 Sample Info: OPP L4 GSV0638  
 Column phase: RTX-OPpest

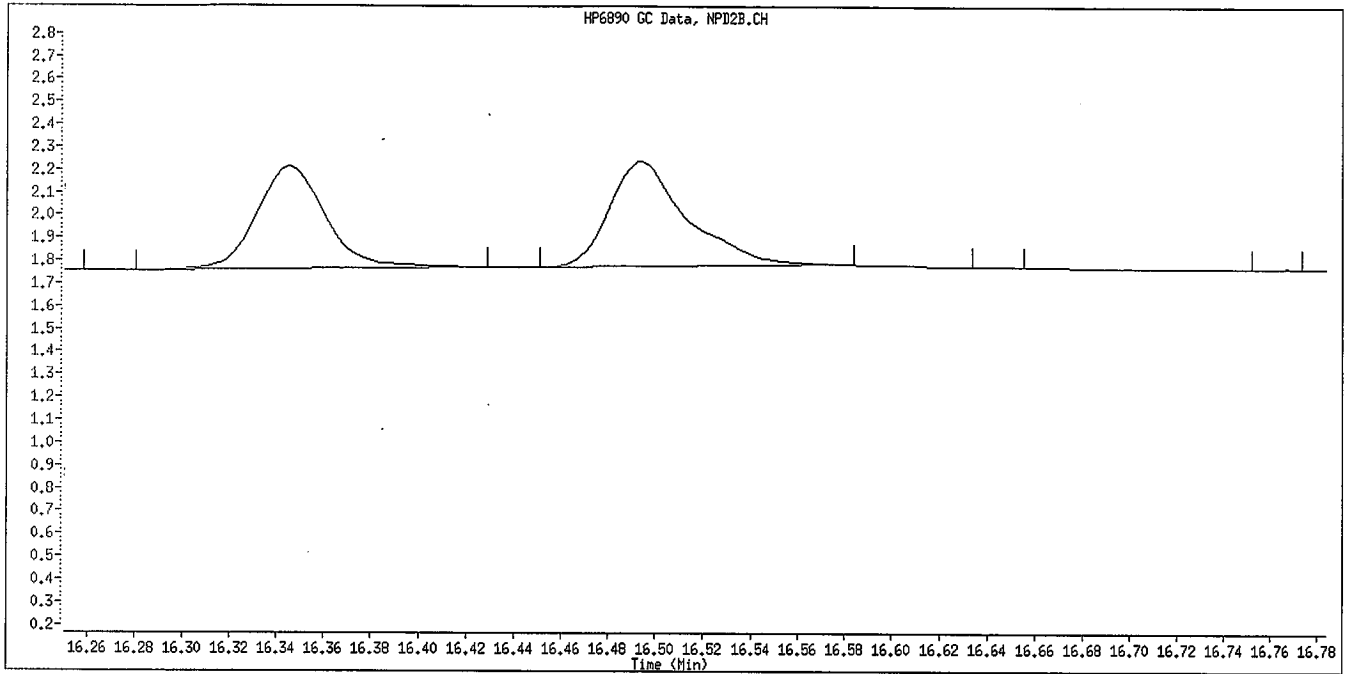
Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32

\\Densv03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D

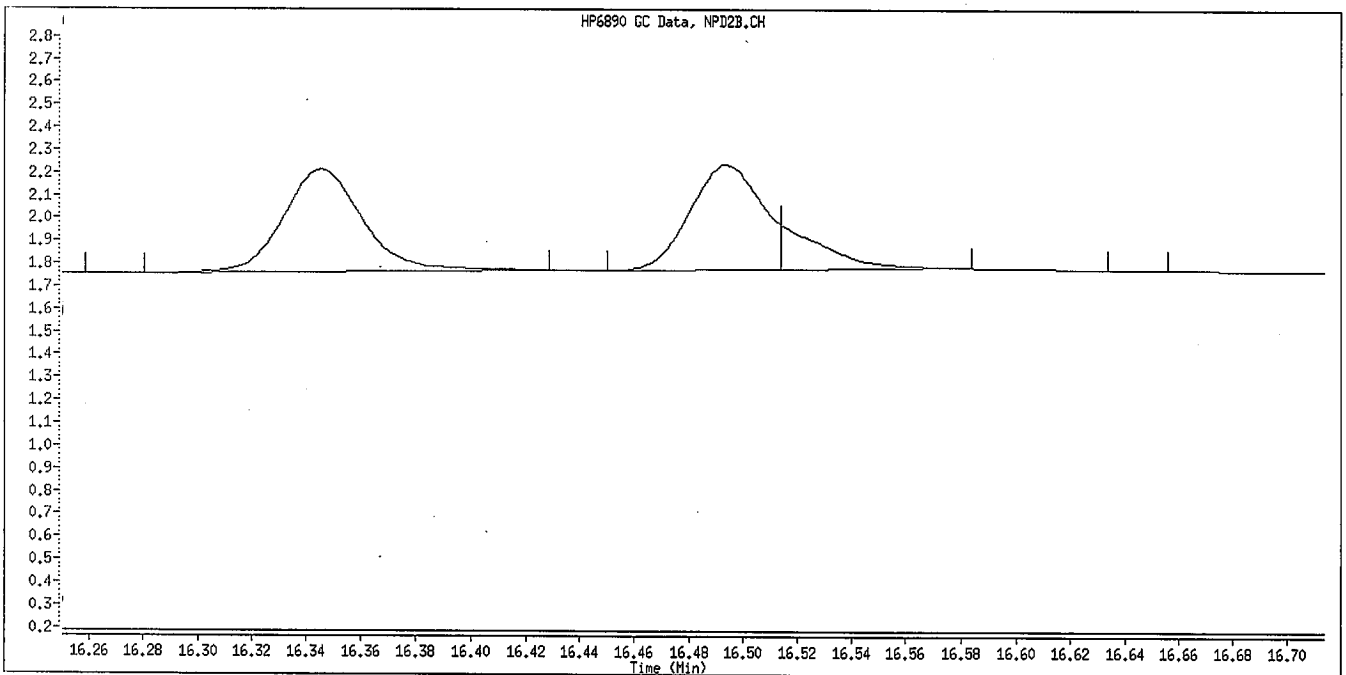




Data File Name: 006F0601.D  
Inj. Date and Time: 26-JUN-2009 19:50  
Instrument ID: GC\_D2.i  
Client ID: OPP L4 GSV0638  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

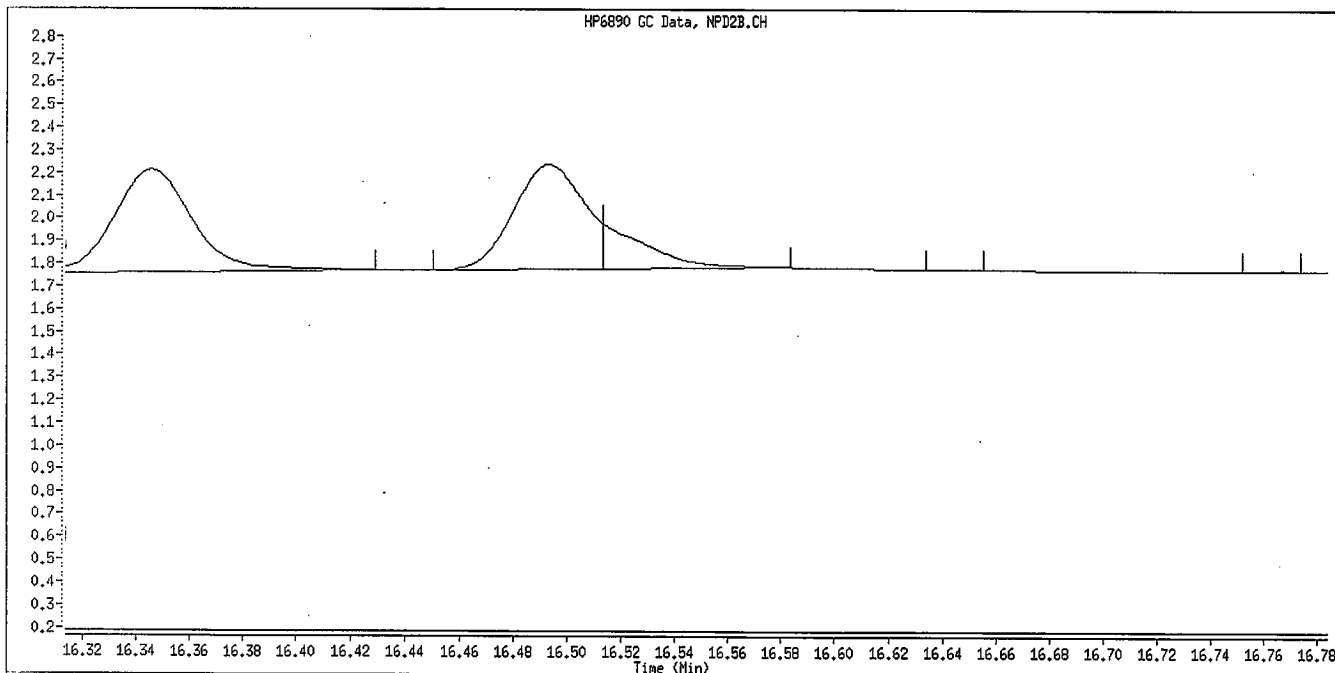
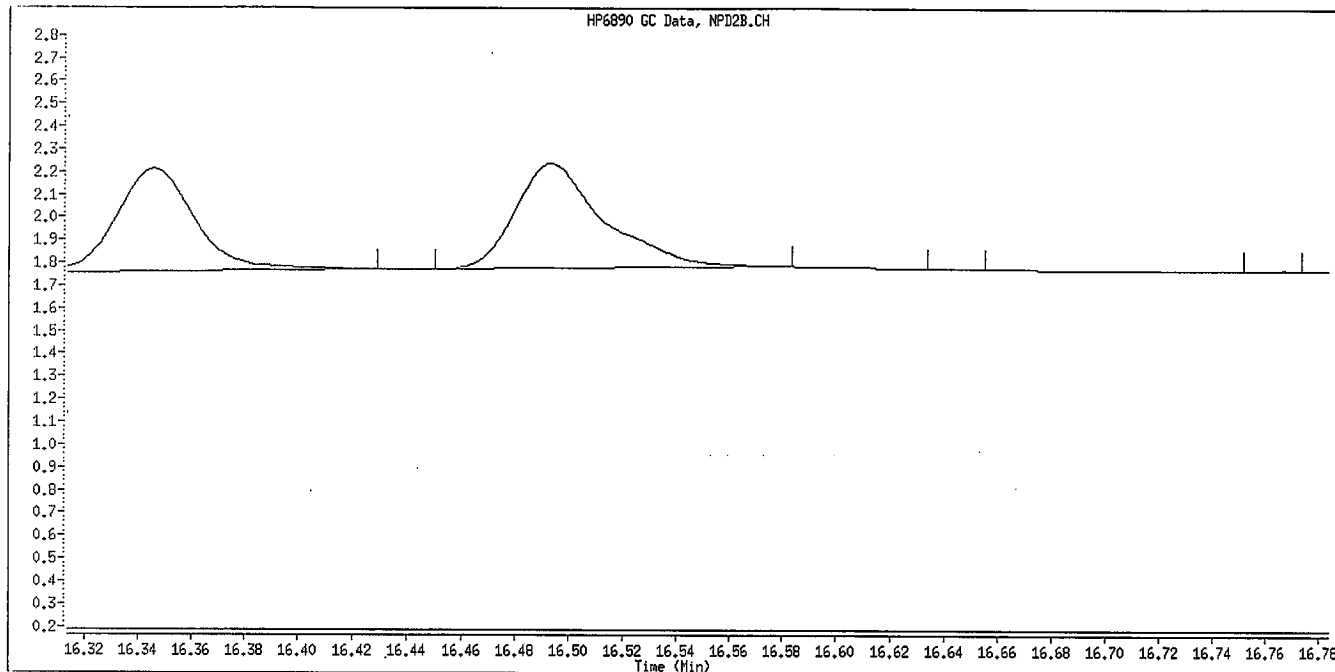


Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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Data File Name: 006F0601.D  
Inj. Date and Time: 26-JUN-2009 19:50  
Instrument ID: GC\_D2.i  
Client ID: OPP L4 GSV0638  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*W*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\007F0701.D  
 Lab Smp Id: OPP L3 GSV0639 Client Smp ID: OPP L3 GSV0639  
 Inj Date : 26-JUN-2009 20:18  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L3 GSV0639  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:50 Cal File: 006F0601.D  
 Als bottle: 7 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.728	4.731	(0.251)	81887	1.00000	0.9107
2 Dichlorvos	6.546	6.546	(0.348)	63970	1.00000	0.9111
\$ 3 Chlormefos	7.383	7.384	(0.392)	61984	1.00000	0.8770
4 Mevinphos	9.235	9.234	(0.491)	42341	1.00000	0.8952
5 Demeton-O	9.733	9.734	(0.517)	13386	0.32500	0.2970
6 Thionazin	9.985	9.984	(0.531)	67347	1.00000	0.9522
7 Ethoprop	10.500	10.499	(0.558)	50288	1.00000	0.9515
8 Phorate	10.536	10.539	(0.560)	55056	1.00000	0.8983
9 Naled	10.941	10.939	(0.582)	10859	1.00000	0.9052
10 Sulfotepp	11.016	11.017	(0.586)	90141	1.00000	0.9752 (A)
* 11 Tributylphosphate	11.116	11.116	(1.000)	109941	2.00000	
12 Simazine	11.398	11.399	(0.606)	12288	1.00000	0.9282 (A)
13 Diazinon	11.541	11.541	(0.613)	49407	1.00000	1.013
14 Atrazine	11.581	11.584	(0.616)	21316	1.00000	0.9678 (A)
15 Propazine	11.746	11.747	(0.624)	20907	1.00000	0.9421
16 Disulfoton	12.050	12.049	(0.640)	47563	1.00000	0.9757
17 Demeton-S	12.126	12.124	(0.645)	33785	0.68000	0.6688
18 Dimethoate	13.283	13.282	(0.706)	60106	1.00000	0.9200
19 Ronnel	13.588	13.587	(0.722)	39845	1.00000	0.9061
20 Merphos-A (Merphos)	13.690	13.689	(1.231)	42032	1.00000	1.055 (A)
21 Chlorpyrifos	14.410	14.409	(0.766)	43430	1.00000	0.9737
22 Fenthion	14.663	14.662	(0.779)	40767	1.00000	0.9854
23 Trichloronate	14.710	14.711	(0.782)	49357	1.00000	0.9220
24 Anilazine	15.218	15.216	(0.809)	3581	1.00000	0.9372 (M)
25 Methyl Parathion	15.520	15.519	(0.825)	42442	1.00000	0.9503
26 Malathion	15.725	15.724	(0.836)	39993	1.00000	0.9559
27 Tokuthion	16.345	16.344	(0.869)	47016	1.00000	0.9598
28 Parathion	16.493	16.494	(0.877)	43405	1.00000	0.9863 (M)
29 Merphos-B (Merphos Oxone)	16.515	16.517	(1.486)	15065	1.00000	1.162 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	25459	1.00000	0.8943
31 Carbophenothion methyl	17.081	17.082	(0.908)	36393	1.00000	0.8919
32 Bolstar	17.441	17.440	(0.927)	41390	1.00000	0.9630
33 Carbophenothion	17.523	17.524	(0.931)	40089	1.00000	0.9485 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====	=====	=====	=====	=====	=====
\$ 34 Triphenyl phosphate	18.280	18.281	(0.972)	31677	1.00000	0.9133
35 Fensulfothion	18.558	18.559	(0.986)	30601	1.00000	0.9609
* 36 TOCP	18.815	18.816	(1.000)	69519	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	68186	2.00000	1.866
38 Famphur	19.010	19.011	(1.010)	41284	1.00000	0.9054
39 Azinphos-methyl	19.145	19.147	(1.018)	37491	1.00000	0.8988
40 Azinphos-ethyl	19.365	19.366	(1.029)	38936	1.00000	0.9801
41 Coumaphos	20.345	20.347	(1.081)	29854	1.00000	0.9774
S 42 Merphos				57097	1.00000	0.9855
M 43 Total Demeton				47171	1.00000	0.9658

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 007F0701.D  
 Lab Smp Id: OPP L3 GSV0639  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L3 GSV0639  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	126959	63480	253918	109941	-13.40
36 TOCP	68161	34081	136322	69519	1.99

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.01
36 TOCP	18.82	18.32	19.32	18.82	-0.00

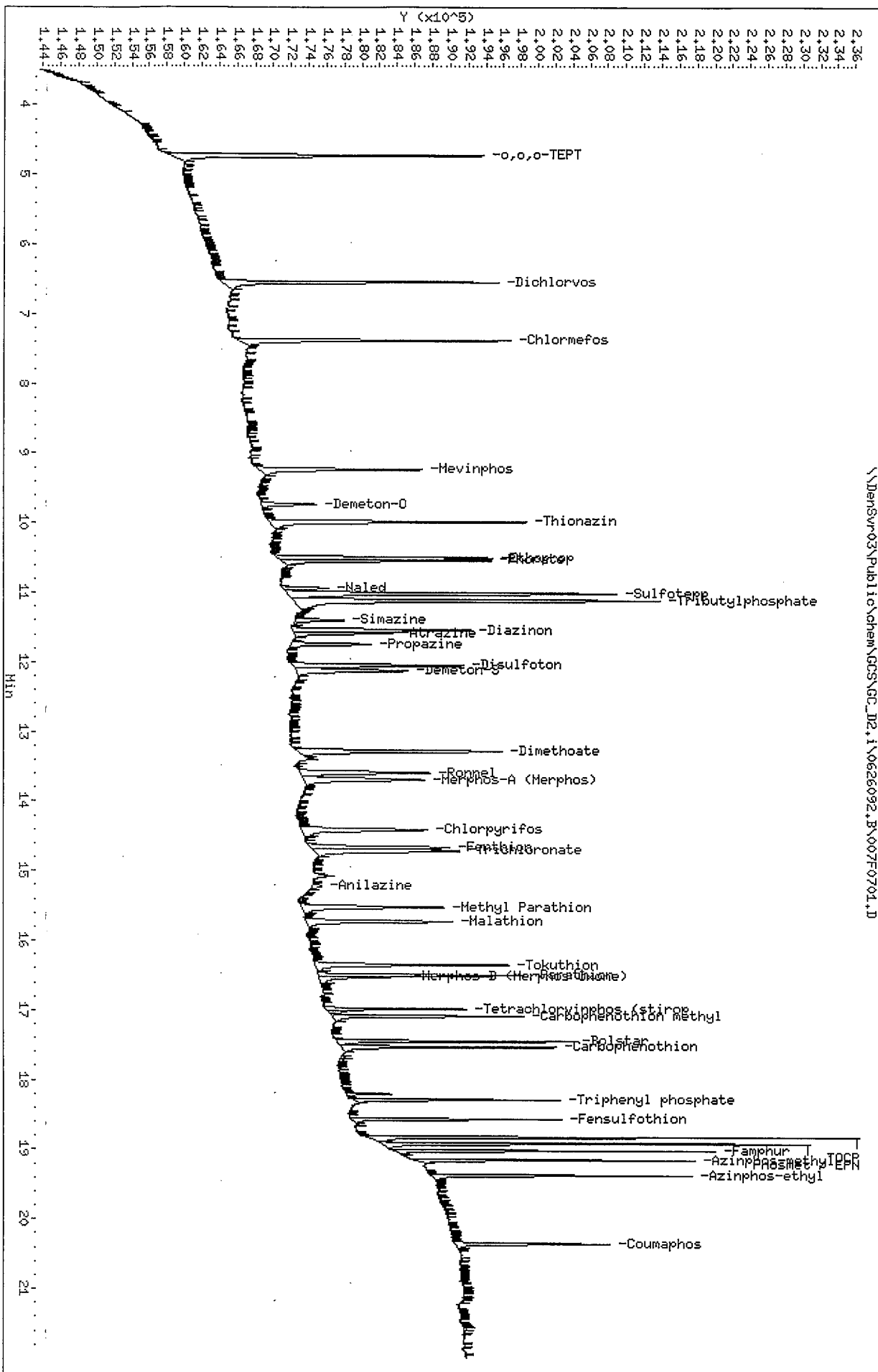
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densur-03\Public\chem\GCS\GC\_D2.1\0626092.B\007F0704.D  
 Date: 26-JUN-2009 20:18  
 Client ID: OPP L3 GSW0639  
 Sample Info: OPP L3 GSW0639

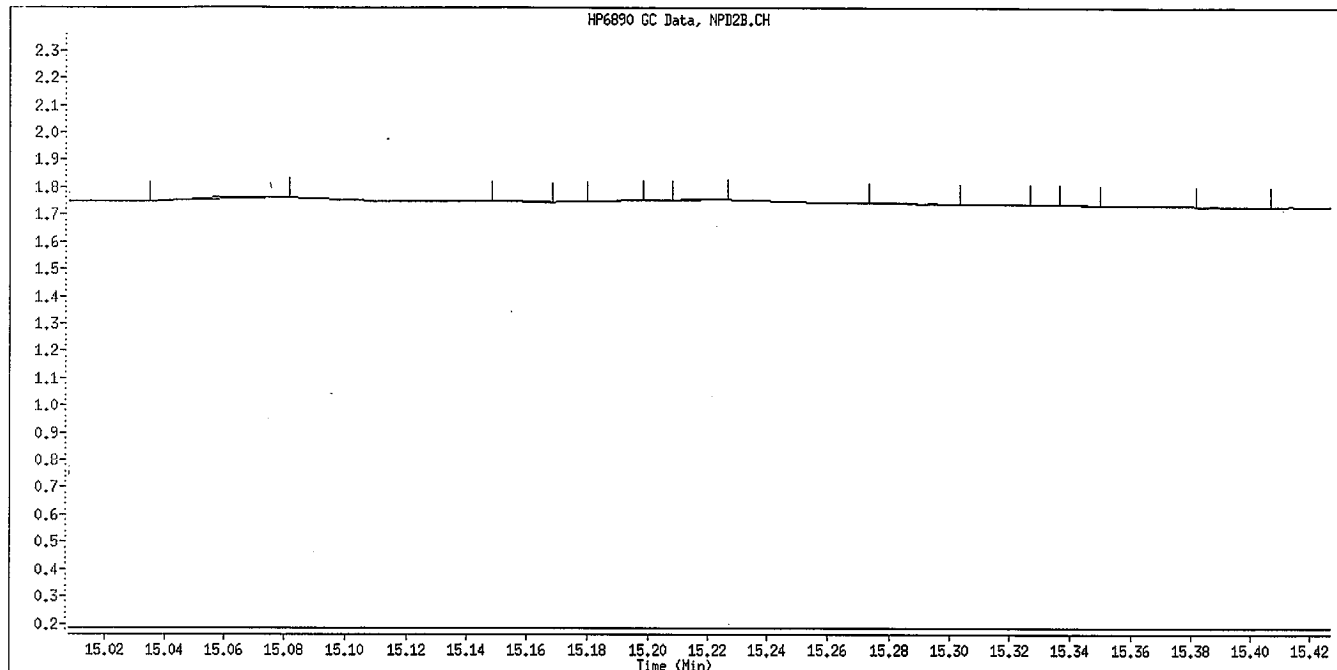
Column phase: RTX-OPPest

Instrument: GC\_D2.1  
 Operator: HPK/TLM  
 Column diameter: 0.32

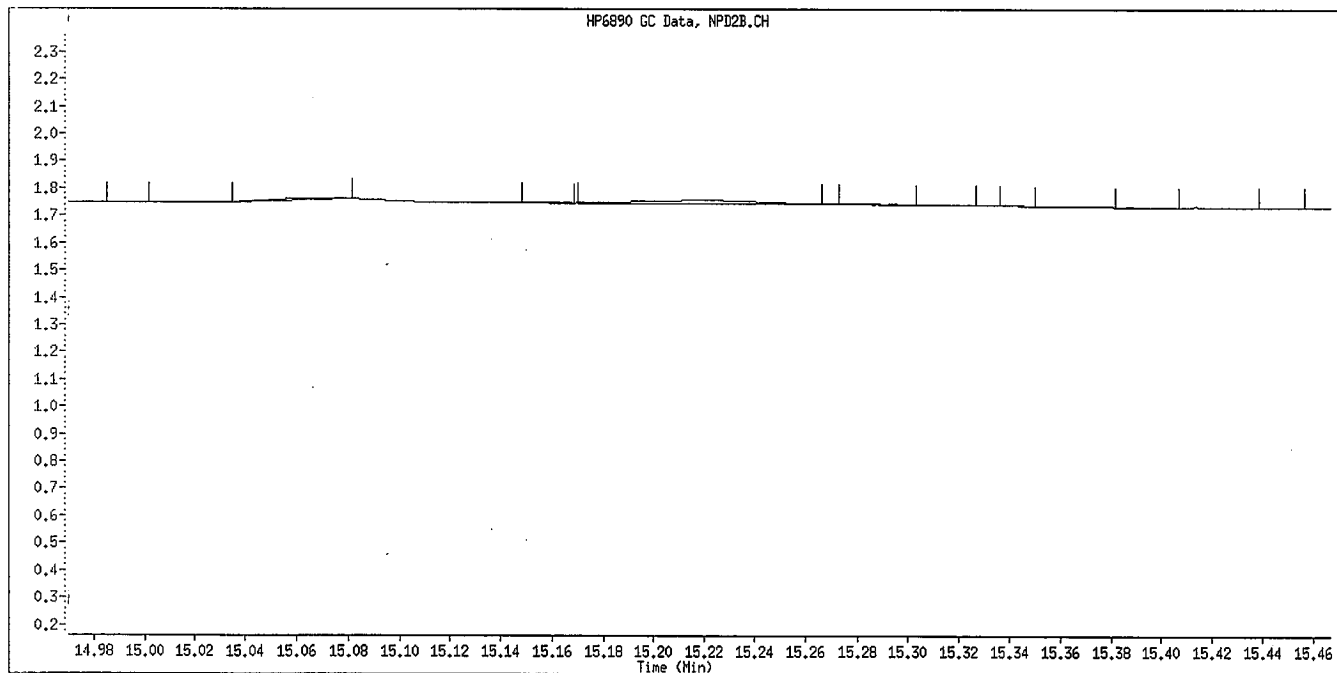
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Data File Name: 007F0701.D  
Inj. Date and Time: 26-JUN-2009 20:18  
Instrument ID: GC\_D2.i  
Client ID: OPP L3 GSV0639  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

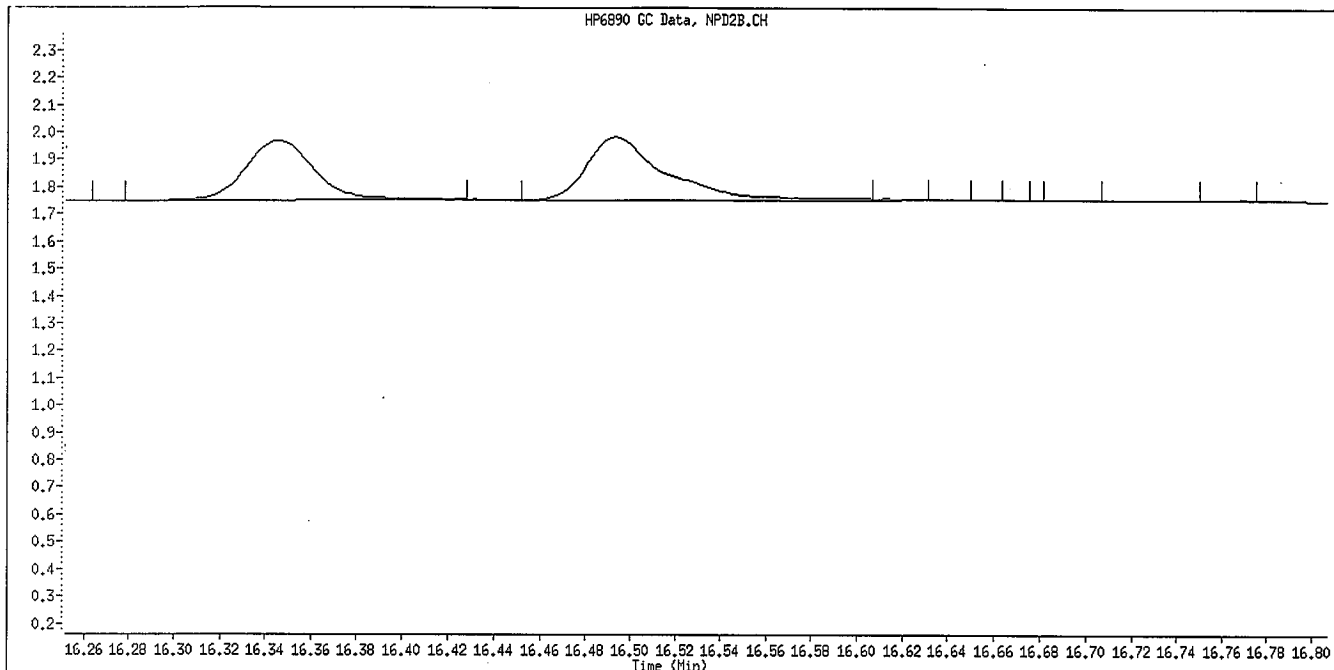


Manual Integration

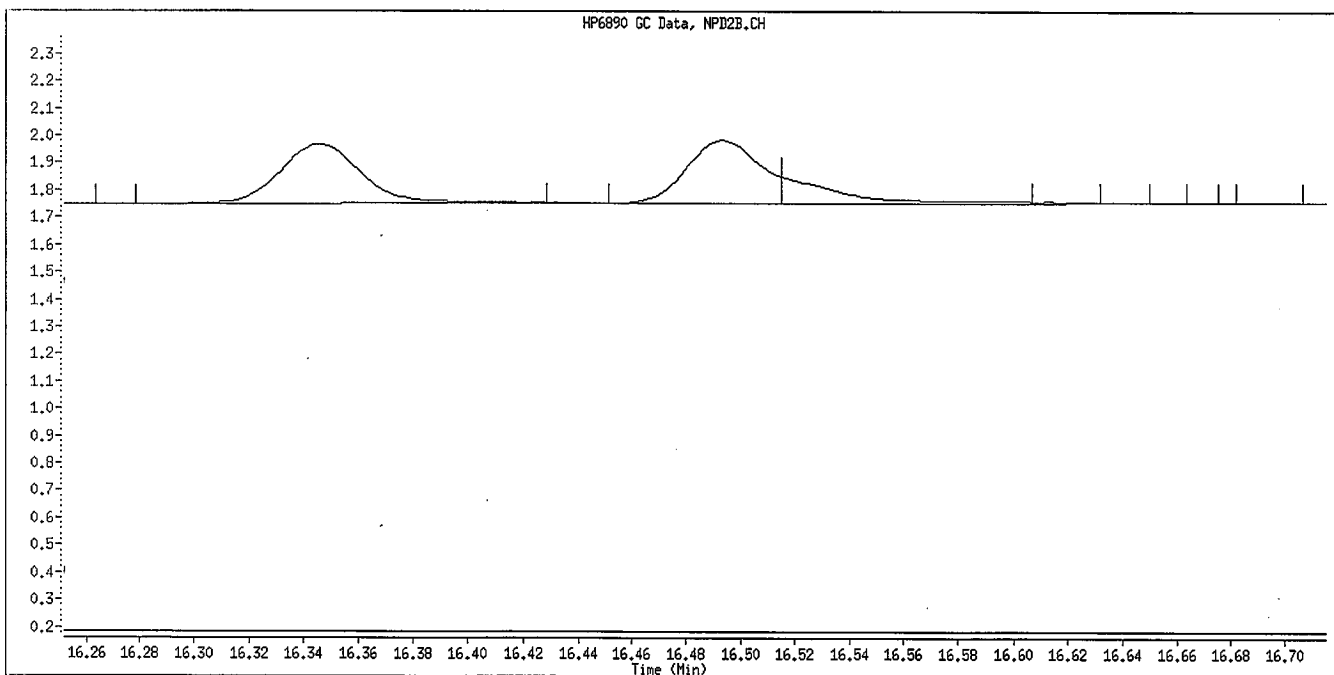
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 007F0701.D  
Inj. Date and Time: 26-JUN-2009 20:18  
Instrument ID: GC\_D2.i  
Client ID: OPP L3 GSV0639  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration



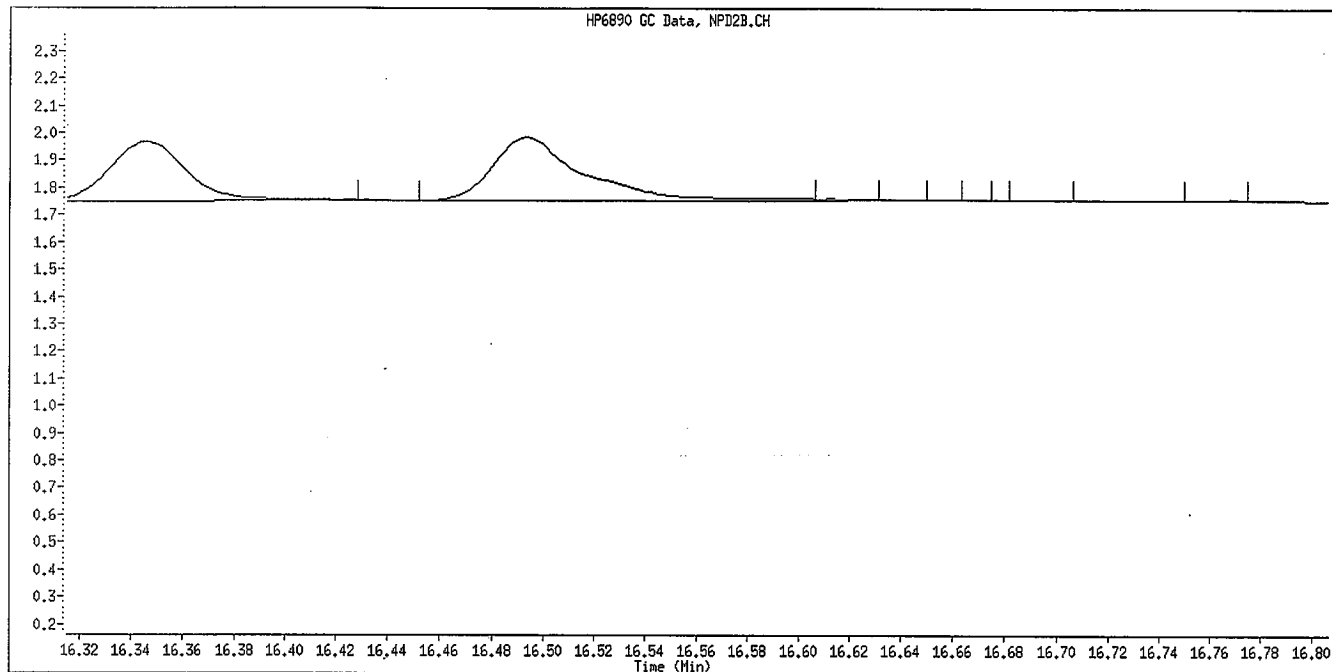
Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

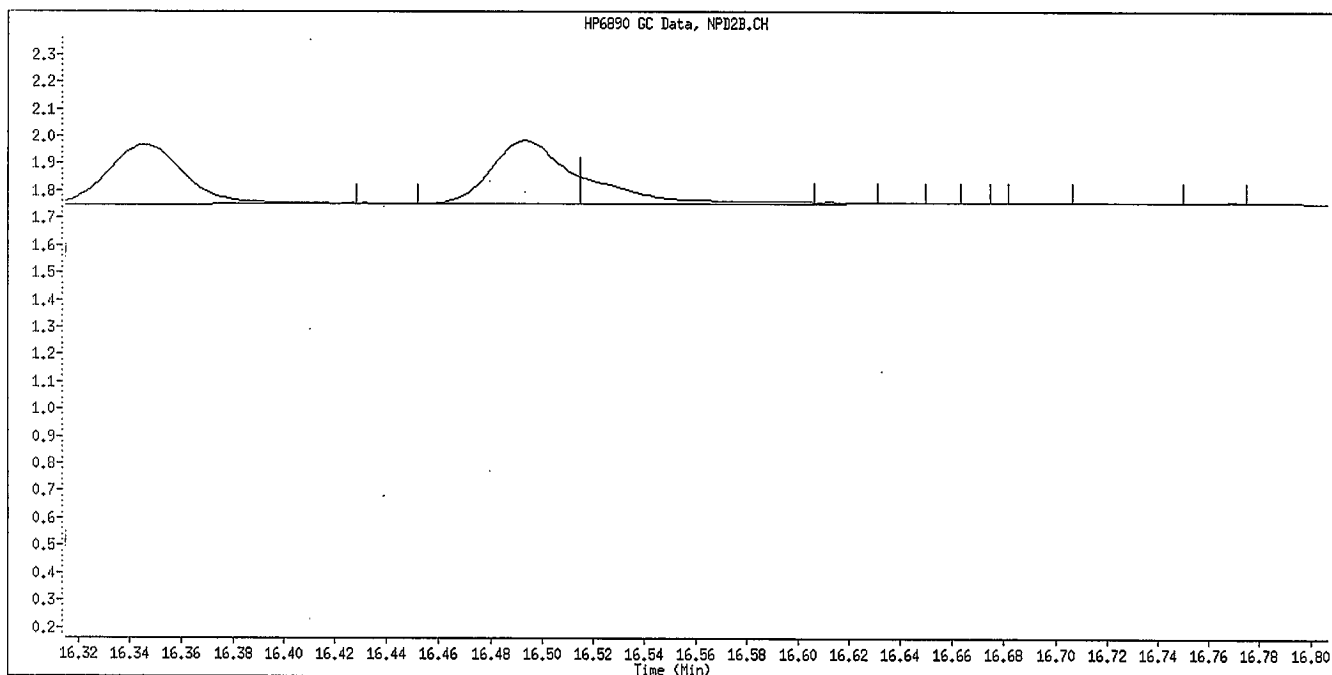
*Handwritten signature*  
6/30/09



Data File Name: 007F0701.D  
Inj. Date and Time: 26-JUN-2009 20:18  
Instrument ID: GC\_D2.i  
Client ID: OPP L3 GSV0639  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Lab Smp Id: OPP L2 GSV0640 Client Smp ID: OPP L2 GSV0640  
 Inj Date : 26-JUN-2009 20:45  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L2 GSV0640  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:18 Cal File: 007F0701.D  
 Als. bottle: 8 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.729	4.731	(0.251)	43725	0.50000	0.4721
2 Dichlorvos	6.546	6.546	(0.348)	32623	0.50000	0.4511
\$ 3 Chlormefos	7.383	7.384	(0.392)	32886	0.50000	0.4517
4 Mevinphos	9.233	9.234	(0.491)	22377	0.50000	0.4593
5 Demeton-O	9.734	9.734	(0.517)	7562	0.16250	0.1629
6 Thionazin	9.983	9.984	(0.531)	32975	0.50000	0.4526
7 Ethoprop	10.501	10.499	(0.558)	25261	0.50000	0.4640
8 Phorate	10.538	10.539	(0.560)	28693	0.50000	0.4545
9 Naled	10.934	10.939	(0.581)	1666	0.50000	0.3635
10 Sulfotepp	11.018	11.017	(0.586)	45401	0.50000	0.4768 (A)
* 11 Tributylphosphate	11.118	11.116	(1.000)	107017	2.00000	
12 Simazine	11.401	11.399	(0.606)	6209	0.50000	0.4553 (A)
13 Diazinon	11.541	11.541	(0.613)	15923	0.50000	0.3370
14 Atrazine	11.579	11.584	(0.615)	1231	0.50000	0.2736 (A)
15 Propazine	11.746	11.747	(0.624)	8102	0.50000	0.3907
16 Disulfoton	12.049	12.049	(0.640)	23807	0.50000	0.4741
17 Demeton-S	12.124	12.124	(0.644)	15766	0.34000	0.3681
18 Dimethoate	13.281	13.282	(0.706)	33707	0.50000	0.5009
19 Ronnel	13.588	13.587	(0.722)	19648	0.50000	0.4338
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	19488	0.50000	0.5025 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	20746	0.50000	0.4515
22 Fenthion	14.661	14.662	(0.779)	20747	0.50000	0.4869
23 Trichloronate	14.709	14.711	(0.782)	26053	0.50000	0.5238
24 Anilazine	15.213	15.216	(0.809)	2256	0.50000	0.5727 (M)
25 Methyl Parathion	15.519	15.519	(0.825)	20061	0.50000	0.4361
26 Malathion	15.724	15.724	(0.836)	21428	0.50000	0.4972
27 Tokuthion	16.346	16.344	(0.869)	23462	0.50000	0.4650
28 Parathion	16.493	16.494	(0.877)	20700	0.50000	0.4566 (M)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.485)	6271	0.50000	0.4377 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	13089	0.50000	0.4464
31 Carbophenothion methyl	17.081	17.082	(0.908)	18266	0.50000	0.4346
32 Bolstar	17.441	17.440	(0.927)	21910	0.50000	0.4949
33 Carbophenothion	17.521	17.524	(0.931)	20336	0.50000	0.4671 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	15570	0.50000	0.4358
35 Fensulfothion	18.558	18.559	(0.986)	14395	0.50000	0.4388
* 36 TOCP	18.814	18.816	(1.000)	71609	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	35826	1.00000	0.9102
38 Famphur	19.009	19.011	(1.010)	21626	0.50000	0.4604
39 Azinphos-methyl	19.146	19.147	(1.018)	19508	0.50000	0.4540
40 Azinphos-ethyl	19.364	19.366	(1.029)	19984	0.50000	0.4884
41 Coumaphos	20.348	20.347	(1.081)	14618	0.50000	0.4646
S 42 Merphos				25759	0.50000	0.4316
M 43. Total Demeton				23328	0.50000	0.5310

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 008F0801.D  
 Lab Smp Id: OPP L2 GSV0640  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L2 GSV0640  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	126959	63480	253918	107017	-15.71
36 TOCP	68161	34081	136322	71609	5.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.02
36 TOCP	18.82	18.32	19.32	18.81	-0.00

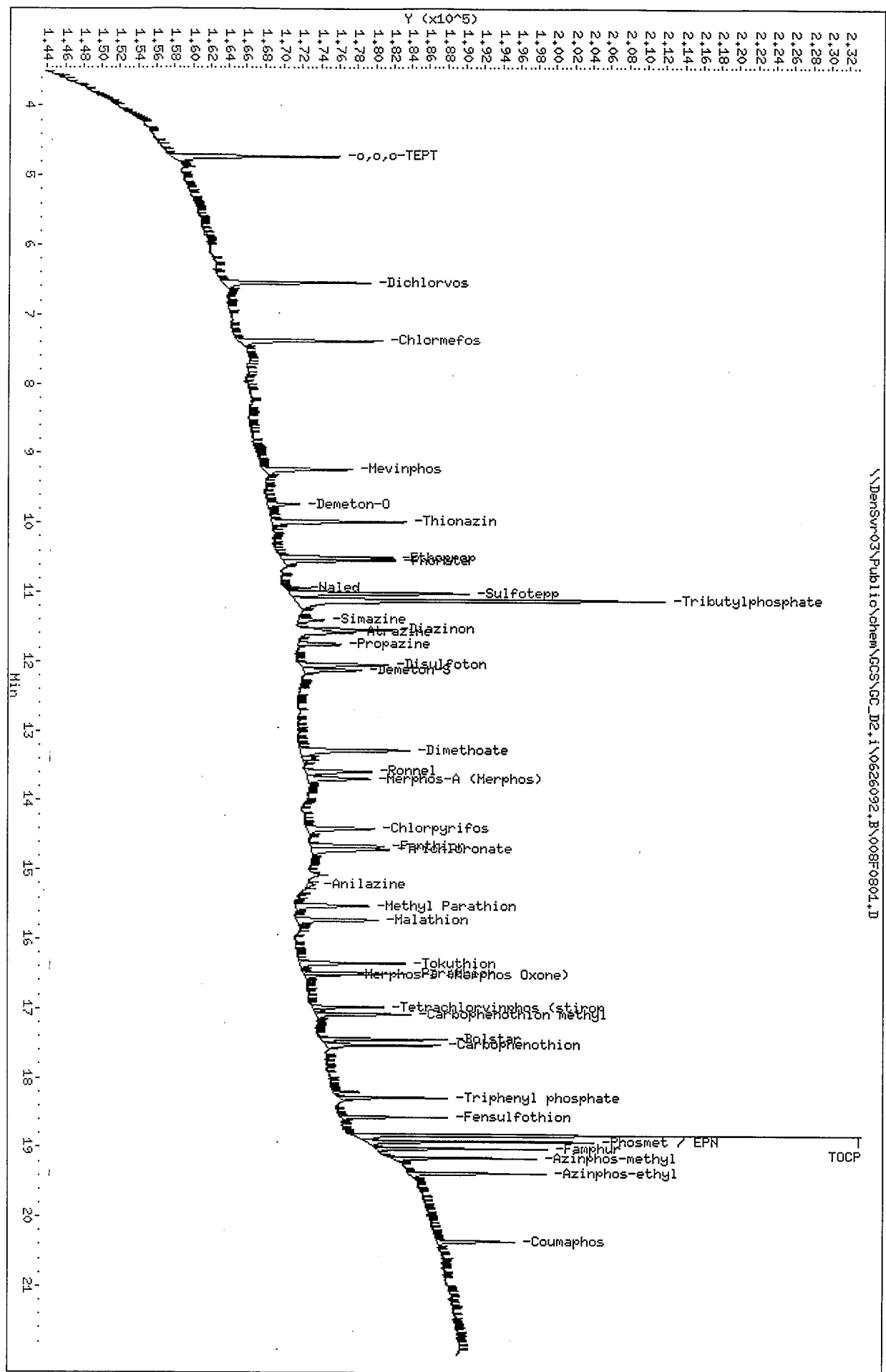
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densur-03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Date: 26-JUN-2009 20:45  
 Client ID: OPP L2 GSV0640  
 Sample Info: OPP L2 GSV0640

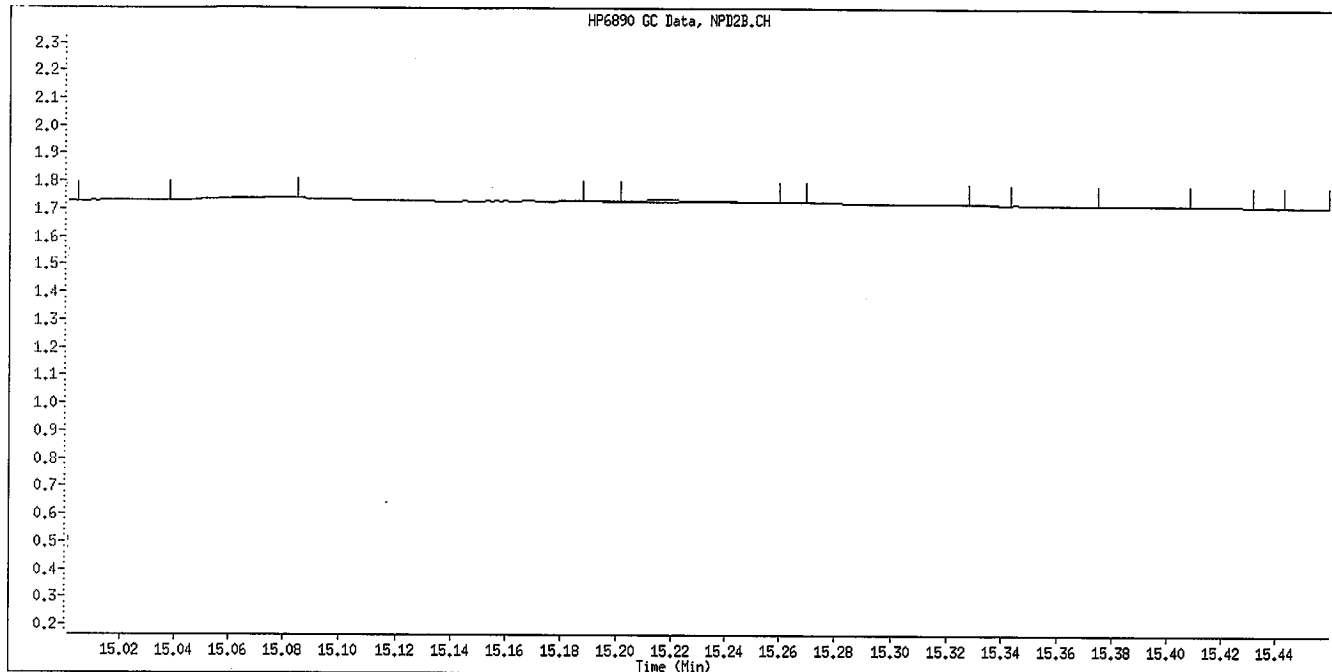
Column phase: RTX-OPPest

Instrument: GC\_D2.i  
 Operator: MPK/TLW  
 Column diameter: 0.32

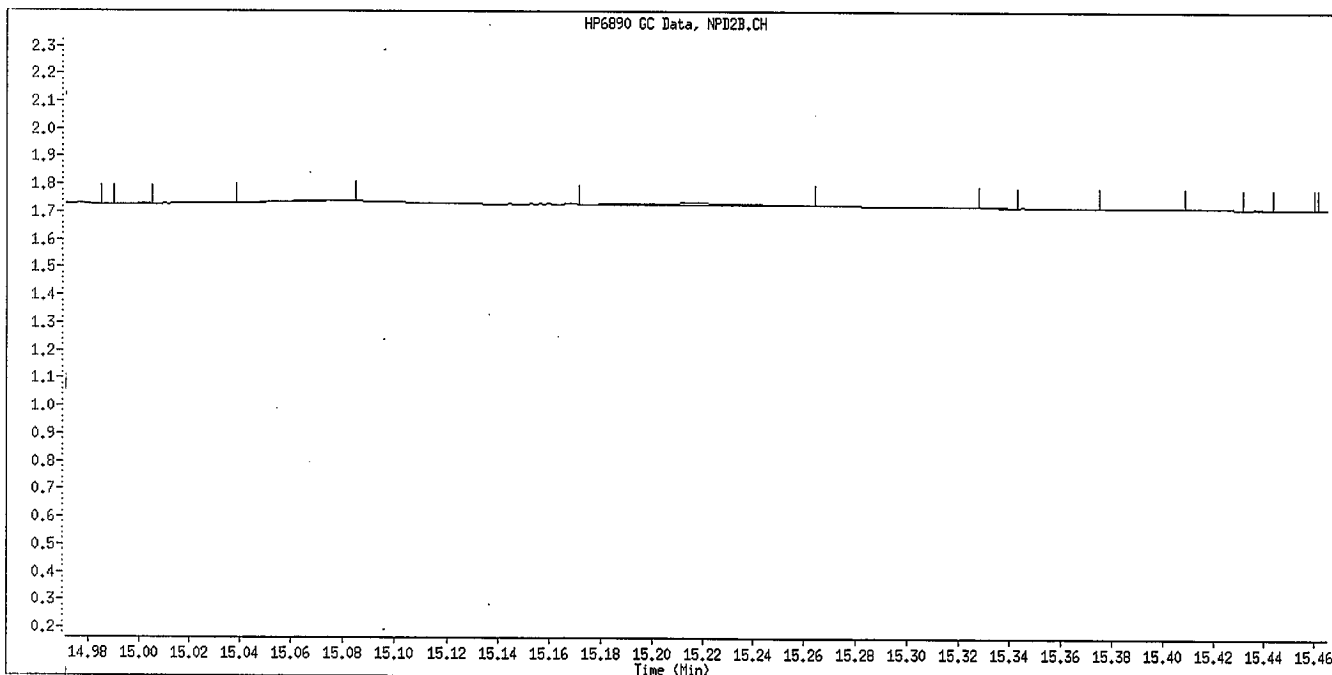
\\Densur-03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D



Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

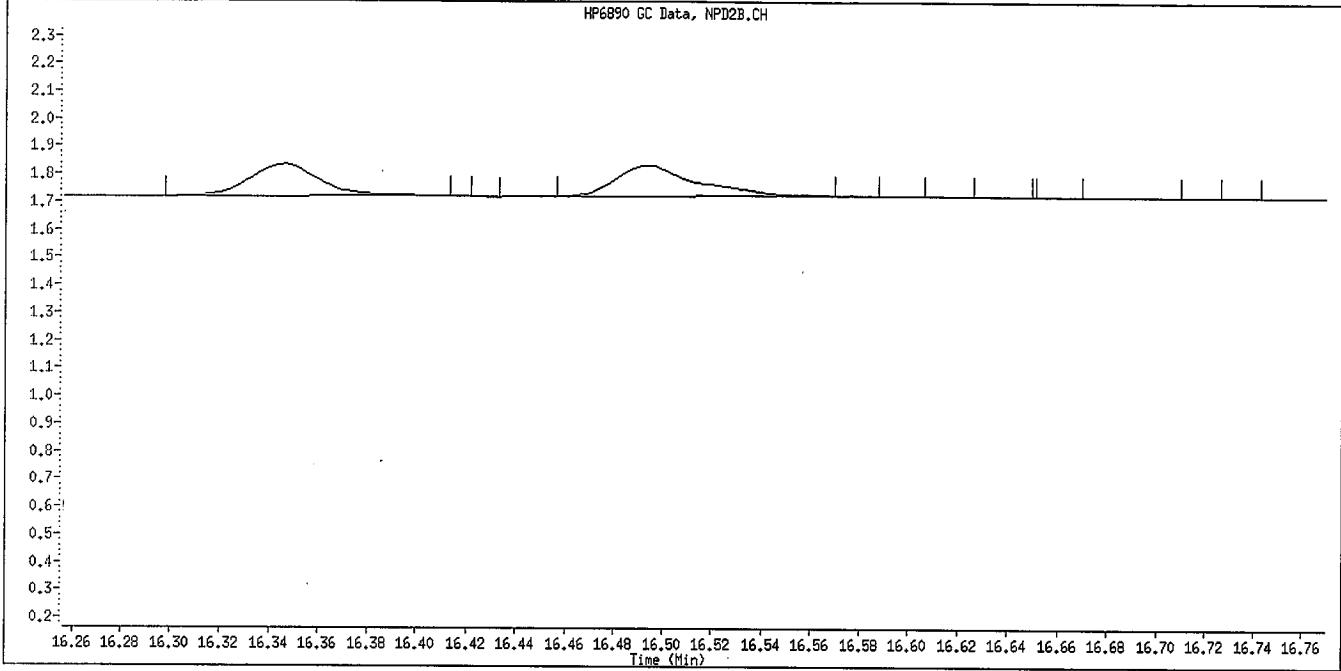


Manual Integration

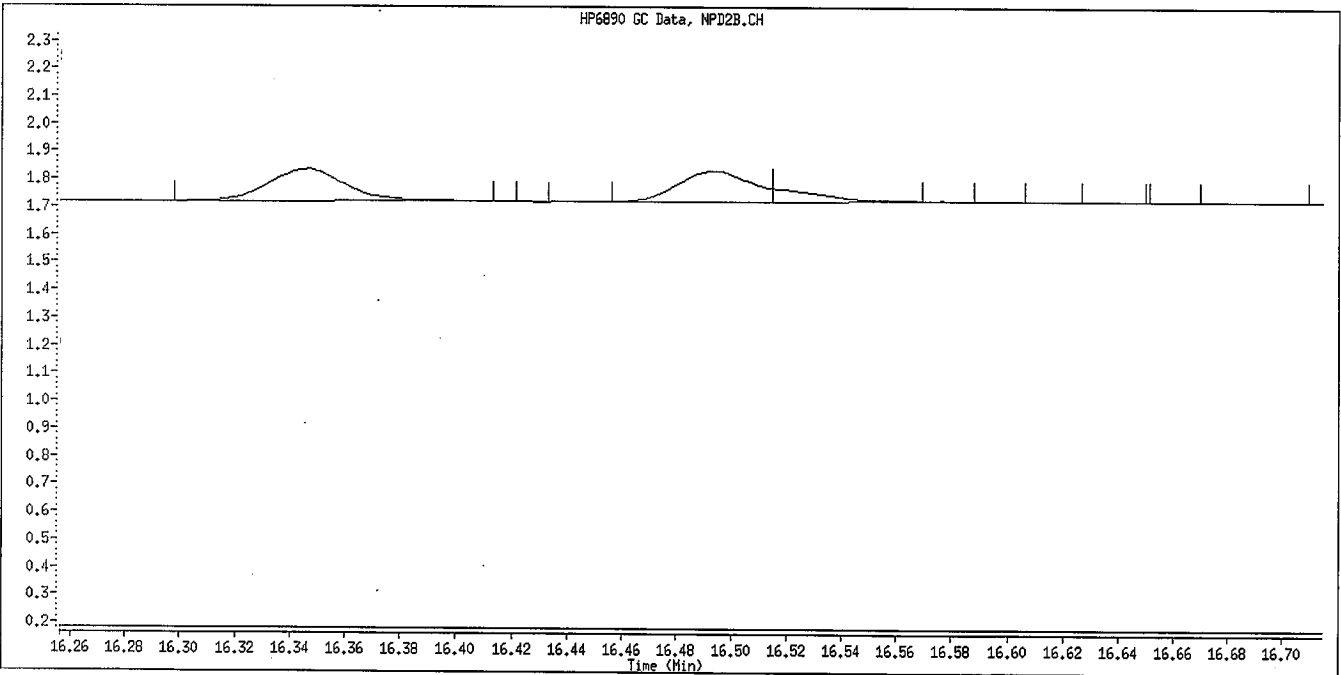
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature*  
6/30/09

Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

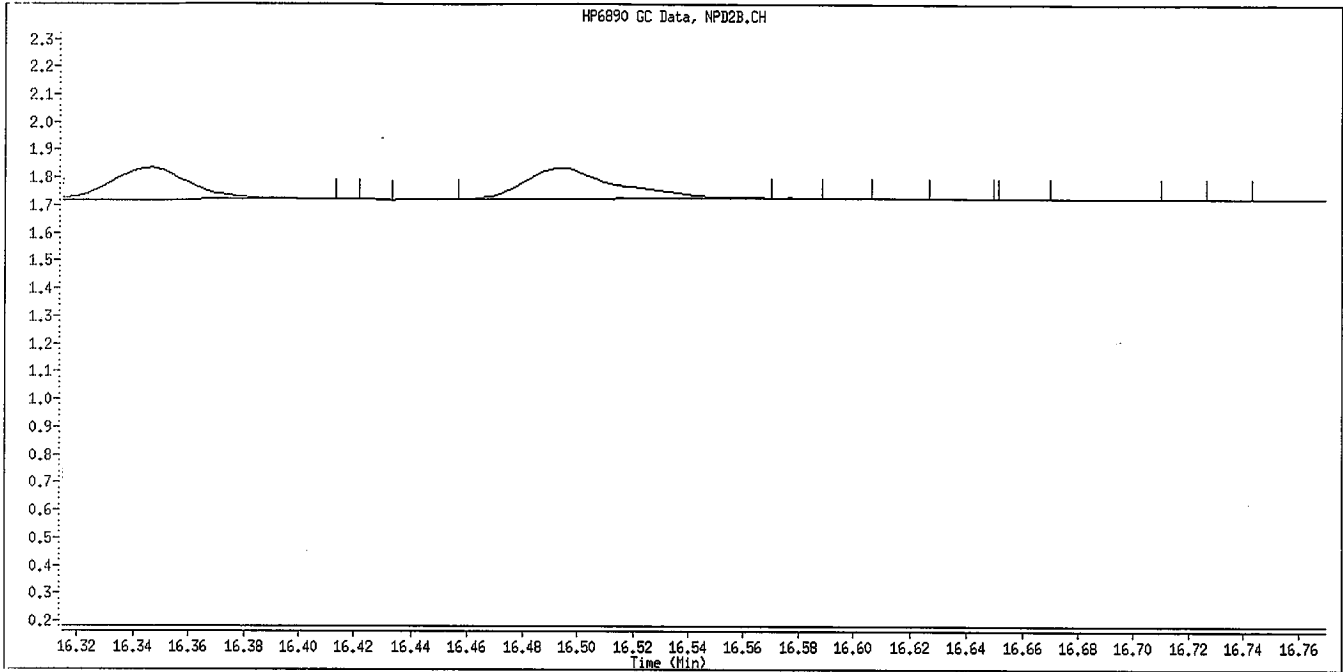


Manual Integration

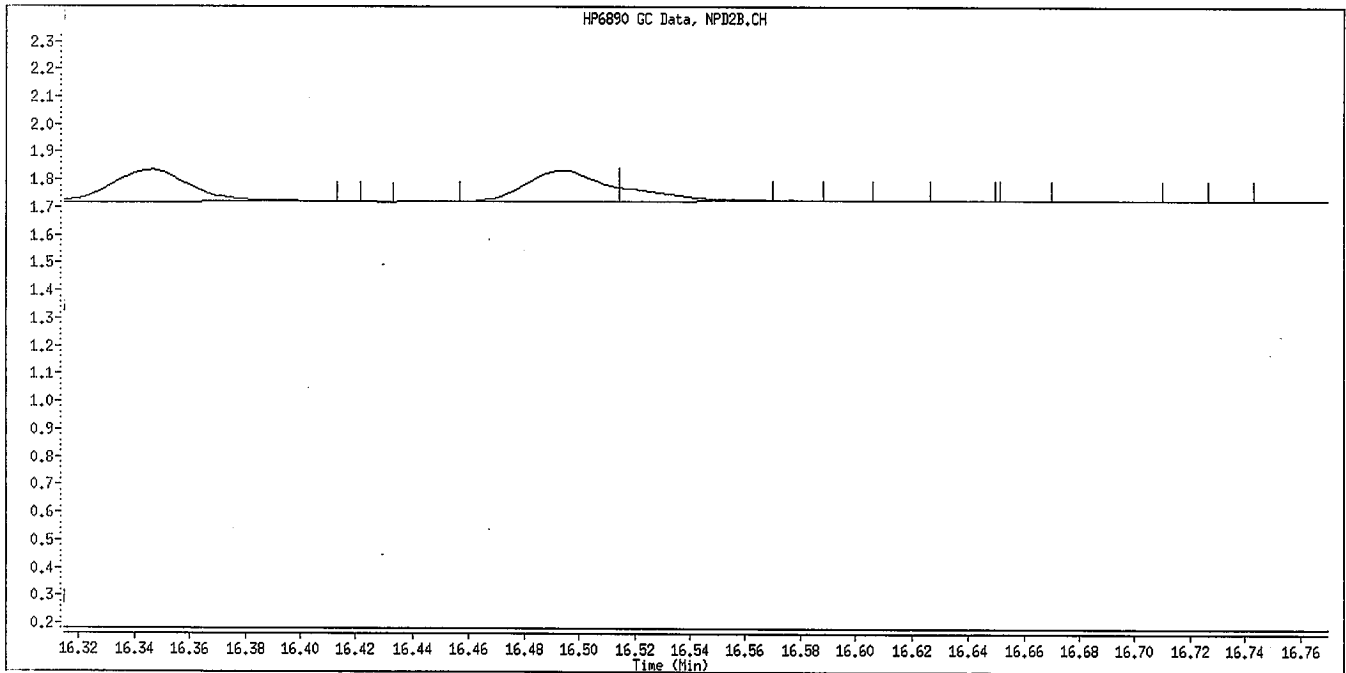
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature*  
6/30/09

Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*WJL*  
6/30/09



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Lab Smp Id: OPP L1 GSV0641 Client Smp ID: OPP L1 GSV0641  
 Inj Date : 26-JUN-2009 21:13  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L1 GSV0641  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:45 Cal File: 008F0801.D  
 Als bottle: 9 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.731	4.731	(0.251)	21538	0.20000	0.2262
2 Dichlorvos	6.546	6.546	(0.348)	14456	0.20000	0.1945
\$ 3 Chlormefos	7.382	7.384	(0.392)	16155	0.20000	0.2159
4 Mevinphos	9.236	9.234	(0.491)	10624	0.20000	0.2122
5 Demeton-O	9.737	9.734	(0.518)	2866	0.06500	0.06007
6 Thionazin	9.986	9.984	(0.531)	15885	0.20000	0.2121
7 Ethoprop	10.502	10.499	(0.558)	12514	0.20000	0.2237
8 Phorate	10.537	10.539	(0.560)	13936	0.20000	0.2148
9 Naled	10.939	10.939	(0.581)	94	0.20000	0.2739
10 Sulfotepp	11.016	11.017	(0.585)	20595	0.20000	0.2105 (A)
* 11 Tributylphosphate	11.117	11.116	(1.000)	104756	2.00000	
12 Simazine	11.399	11.399	(0.606)	2680	0.20000	0.1912 (A)
13 Diazinon	11.541	11.541	(0.613)	12067	0.20000	0.2561
14 Atrazine	11.581	11.584	(0.615)	5427	0.20000	0.4092 (A)
15 Propazine	11.746	11.747	(0.624)	4880	0.20000	0.2531
16 Disulfoton	12.052	12.049	(0.641)	10273	0.20000	0.1991
17 Demeton-S	12.121	12.124	(0.644)	667	0.13600	0.1293
18 Dimethoate	13.282	13.282	(0.706)	14242	0.20000	0.2059
19 Ronnel	13.587	13.587	(0.722)	10994	0.20000	0.2362
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	7722	0.20000	0.2034 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	9439	0.20000	0.1999
22 Fenthion	14.661	14.662	(0.779)	8896	0.20000	0.2031
23 Trichloronate	14.709	14.711	(0.782)	6944	0.20000	0.2138
24 Anilazine	15.217	15.216	(0.809)	1634	0.20000	0.4033 (M)
25 Methyl Parathion	15.519	15.519	(0.825)	8934	0.20000	0.1890
26 Malathion	15.724	15.724	(0.836)	9125	0.20000	0.2060
27 Tokuthion	16.344	16.344	(0.869)	11061	0.20000	0.2133
28 Parathion	16.494	16.494	(0.877)	9355	0.20000	0.2008 (M)
29 Merphos-B (Merphos Oxone)	16.512	16.517	(1.485)	3793	0.20000	0.2310 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	6332	0.20000	0.2101
31 Carbophenothion methyl	17.081	17.082	(0.908)	8575	0.20000	0.1985
32 Bolstar	17.441	17.440	(0.927)	9809	0.20000	0.2156
33 Carbophenothion	17.522	17.524	(0.931)	8717	0.20000	0.1948 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34. Triphenyl phosphate	18.281	18.281	(0.972)	8167	0.20000	0.2224
35 Fensulfothion	18.559	18.559	(0.986)	6502	0.20000	0.1929
* 36 TOCP	18.816	18.816	(1.000)	73597	2.00000	
37 Phosmet / EPN	18.909	18.909	(1.005)	19707	0.40000	0.4475
38 Famphur	19.012	19.011	(1.010)	10711	0.20000	0.2219
39 Azinphos-methyl	19.149	19.147	(1.018)	9243	0.20000	0.2093
40 Azinphos-ethyl	19.367	19.366	(1.029)	8391	0.20000	0.1995
41 Coumaphos	20.349	20.347	(1.081)	5809	0.20000	0.1796
S 42 Merphos				11515	0.20000	0.1877
M 43 Total Demeton				3533	0.20000	0.1894

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 009F0901.D  
 Lab Smp Id: OPP L1 GSV0641  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L1 GSV0641  
 Level:  
 Sample Type:

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	126959	63480	253918	104756	-17.49
36 TOCP	68161	34081	136322	73597	7.98

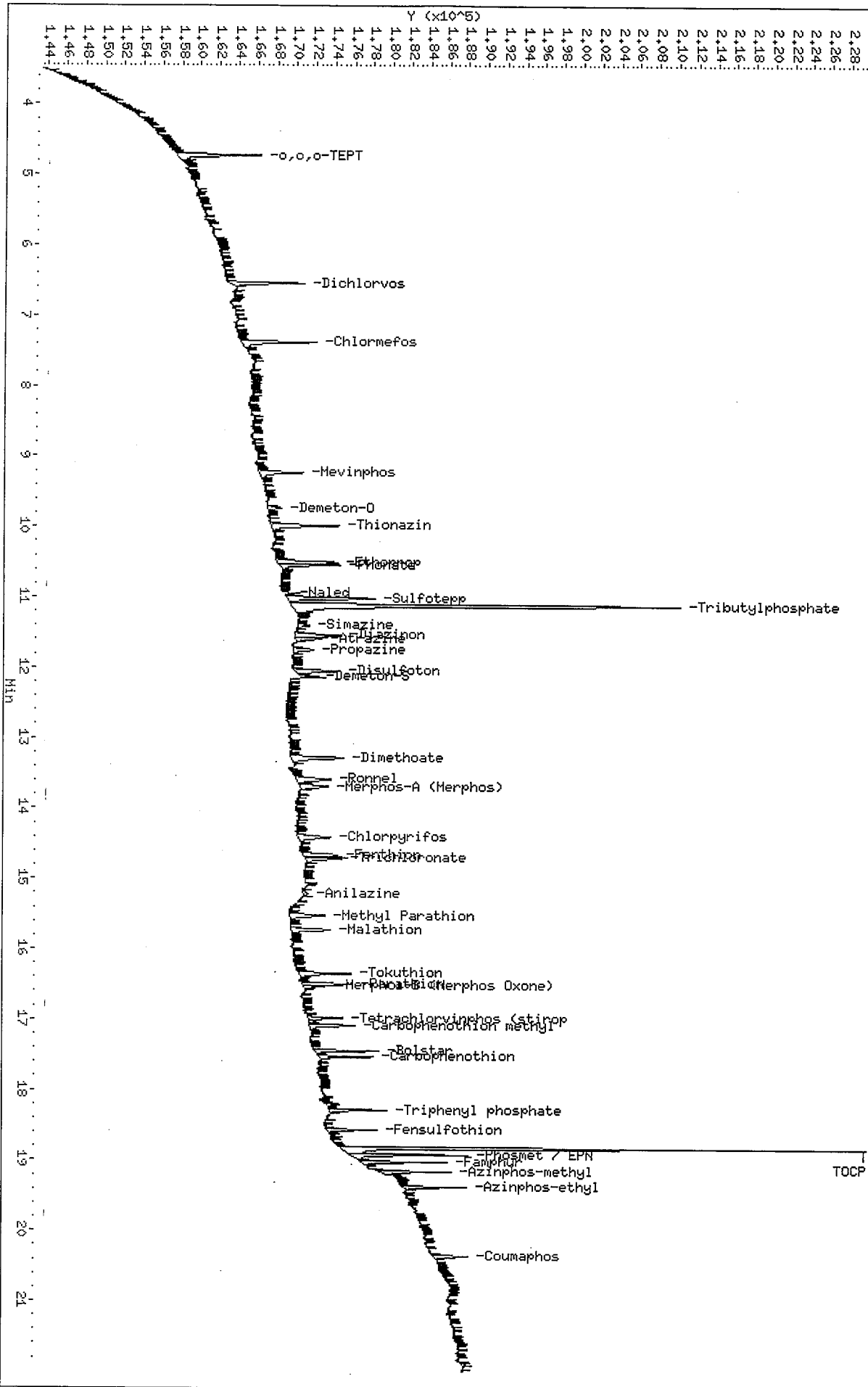
COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.02
36 TOCP	18.82	18.32	19.32	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

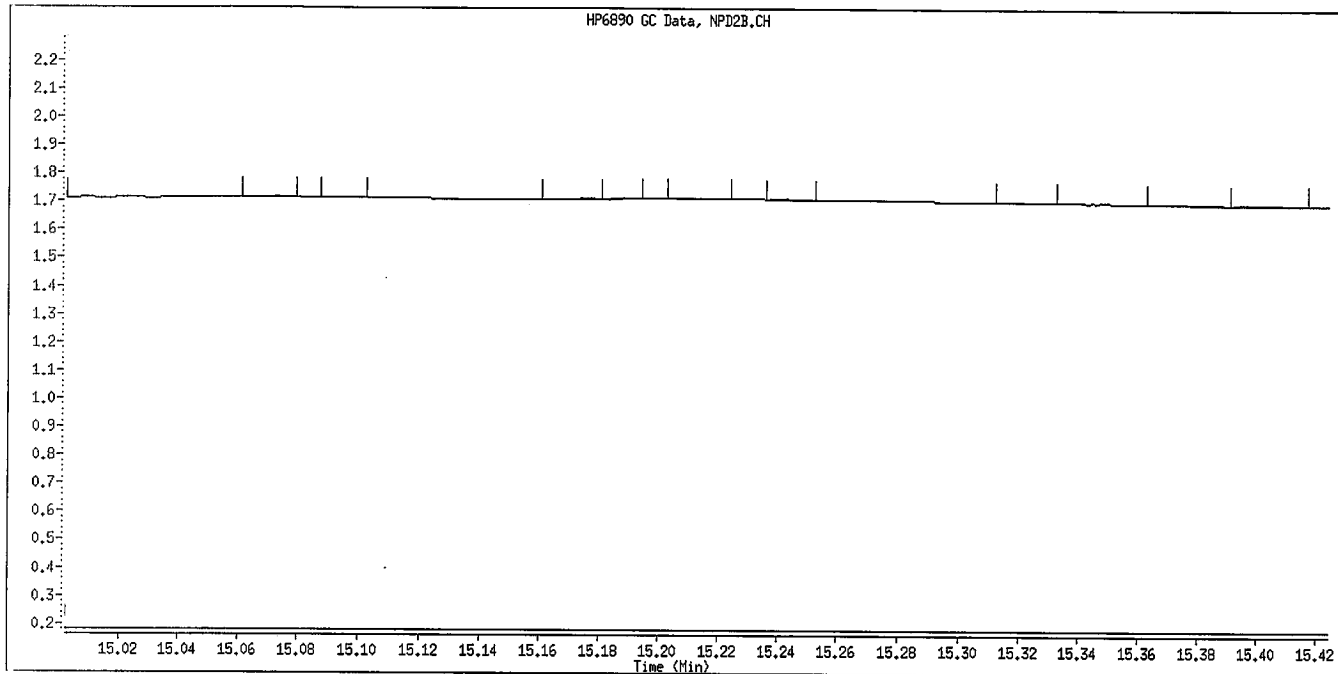
Data File: \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Date: 26-JUN-2009 21:13  
 Client ID: OPP L1 GSV0641  
 Sample Info: OPP L1 GSV0641  
 Column phase: RTX-OPpest

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32

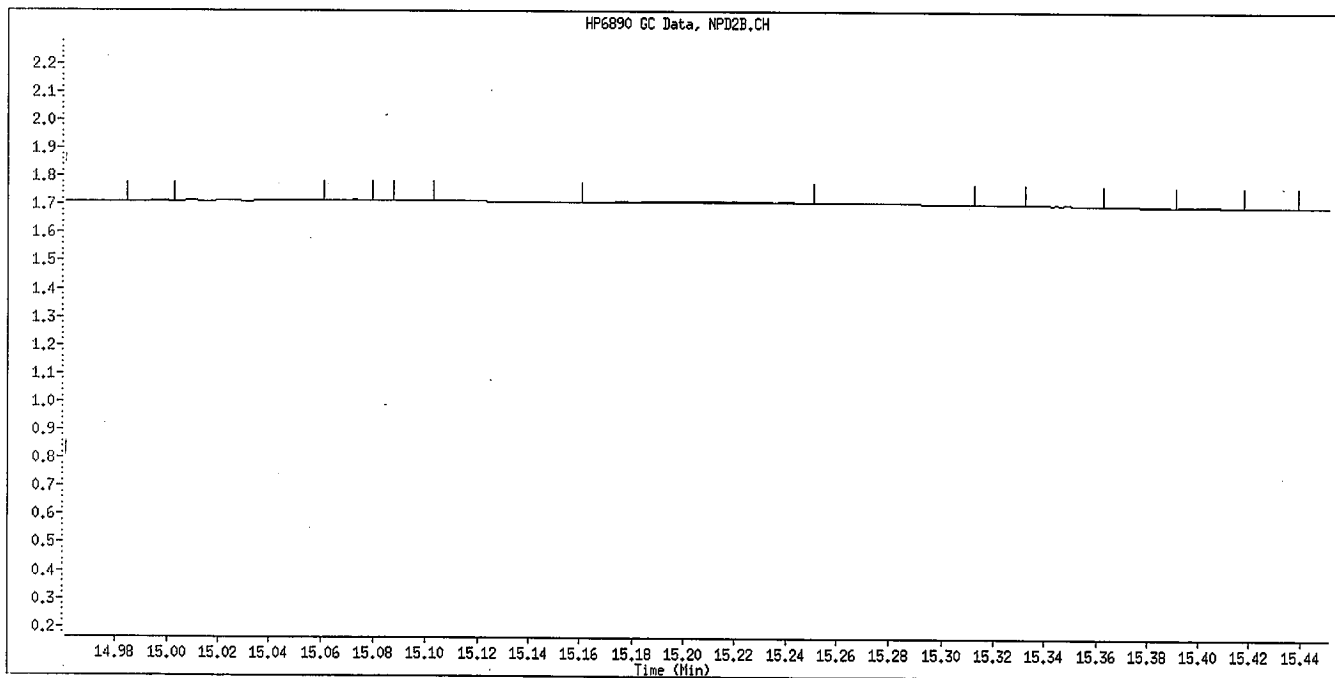
\\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D



Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

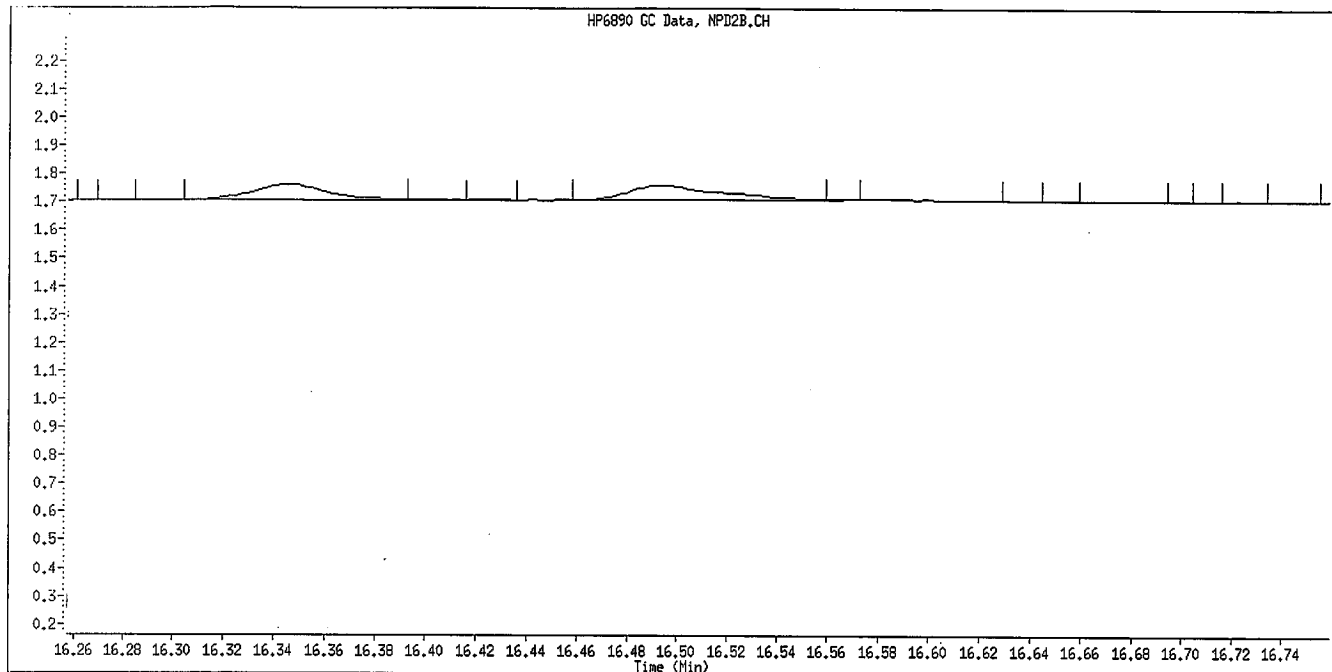


Manual Integration

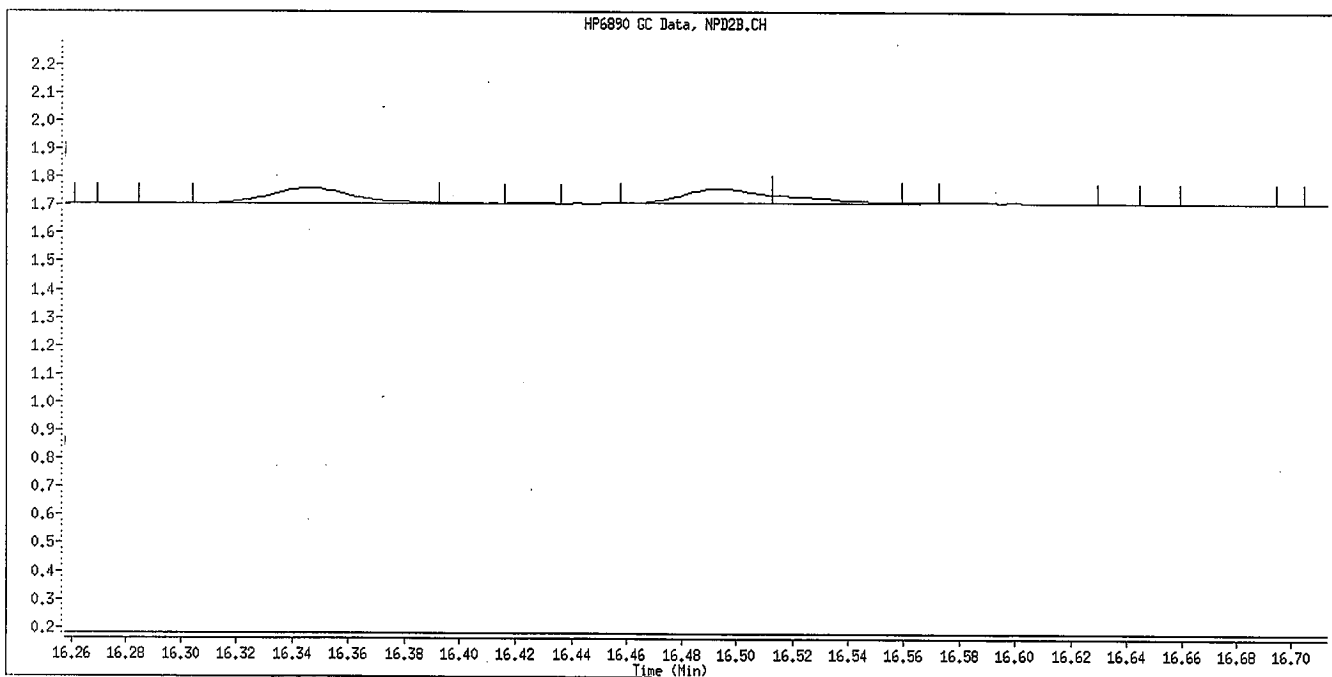
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
JK  
6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

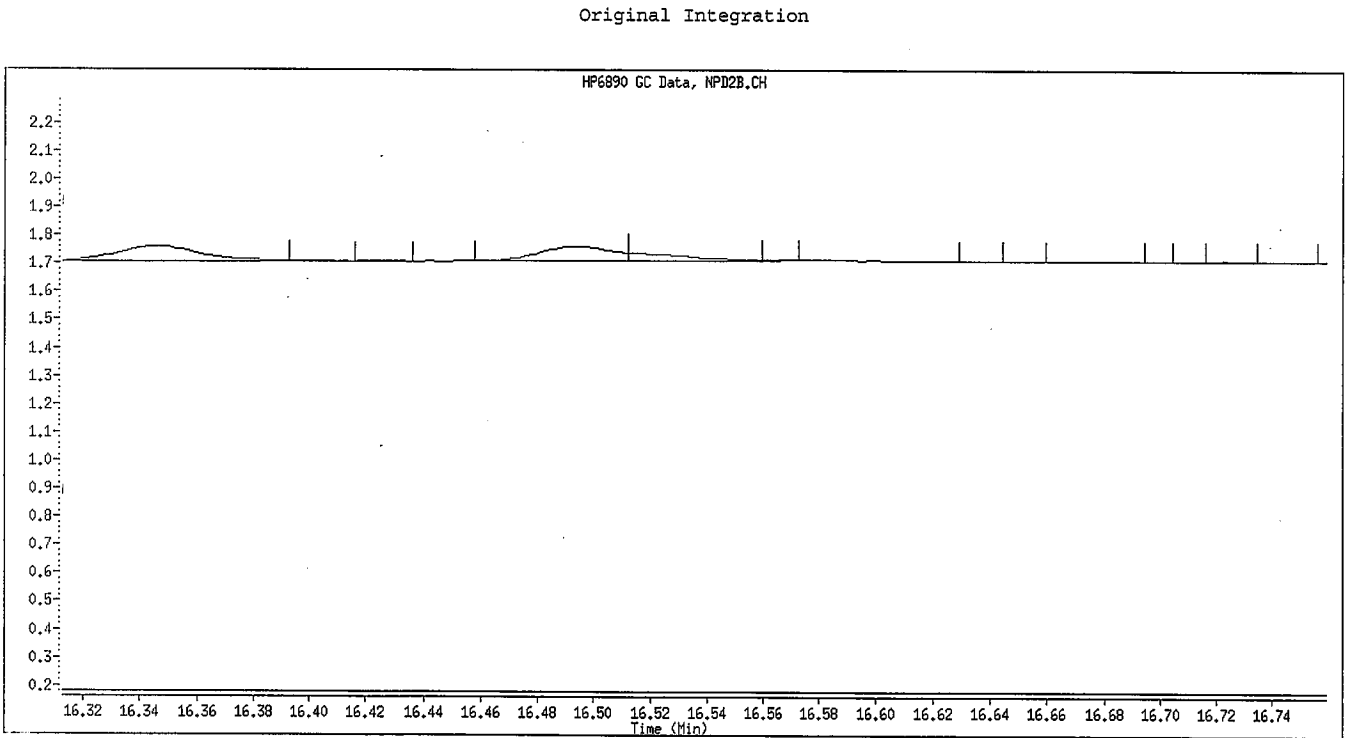
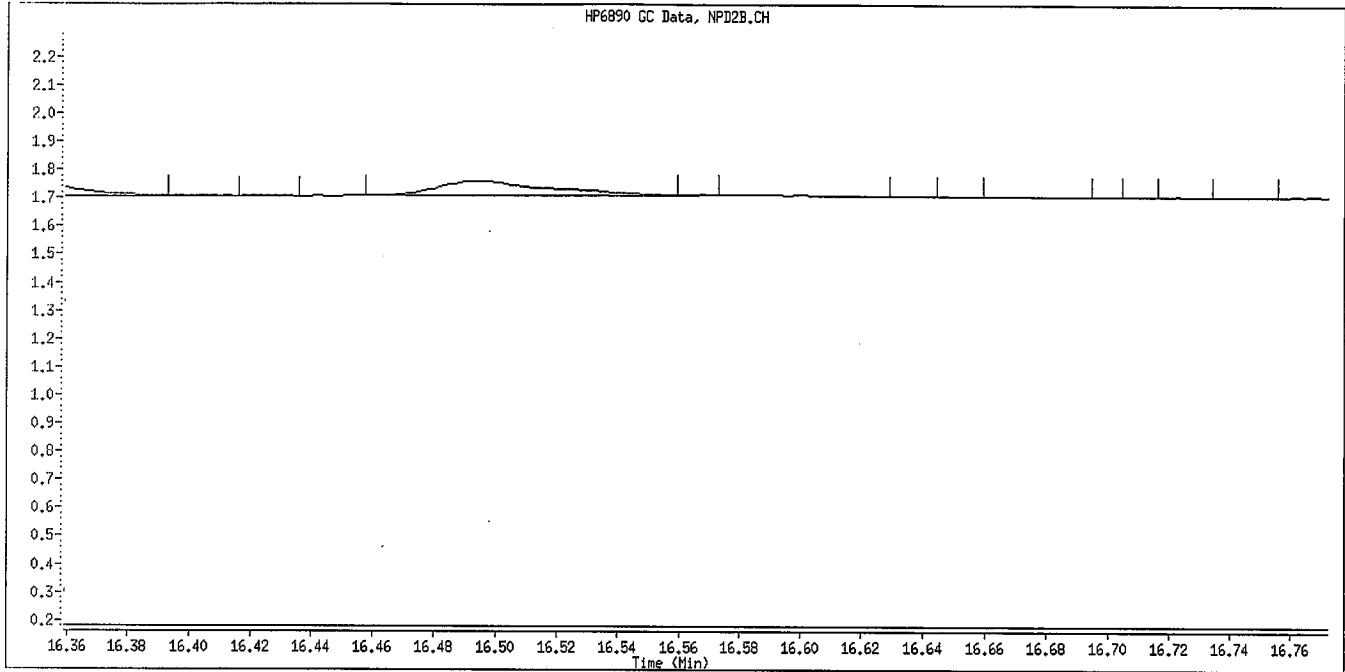


Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
JL  
6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*yl*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\010F1001.D  
 Lab Smp Id: OPP SS GSV0633 Client Smp ID: OPP SS GSV0633  
 Inj Date : 26-JUN-2009 21:40  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP SS GSV0633  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 13:09 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 10 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.728	4.731	(0.251)	178670	2.00000	2.007
2 Dichlorvos	6.545	6.546	(0.348)	123097	2.00000	1.771
3 Chlormefos	7.383	7.384	(0.392)	118669	2.00000	1.696
4 Mevinphos	9.232	9.234	(0.491)	85996	2.00000	1.836
5 Demeton-O	9.733	9.734	(0.517)	91352	0.65000	2.047
6 Thionazin	9.983	9.984	(0.531)	131360	2.00000	1.876
7 Ethoprop	10.498	10.499	(0.558)	99220	2.00000	1.896
8 Phorate	10.537	10.539	(0.560)	118380	2.00000	1.951
9 Naled	10.938	10.939	(0.581)	13173	2.00000	1.049
10 Sulfotepp	11.017	11.017	(0.586)	156890	2.00000	1.714 (A)
* 11 Tributylphosphate	11.115	11.116	(1.000)	123933	2.00000	
12 Simazine	11.398	11.399	(0.606)	47205	2.00000	3.601 (A)
13 Diazinon	11.540	11.541	(0.613)	101968	2.00000	2.080
14 Atrazine	11.580	11.584	(0.615)	49851	2.00000	1.969 (A)
15 Propazine	11.745	11.747	(0.624)	42529	2.00000	1.874
16 Disulfoton	12.048	12.049	(0.640)	81906	2.00000	1.697 (M)
17 Demeton-S	12.120	12.124	(0.644)	4990	1.36000	0.2011 (M)
18 Dimethoate	13.280	13.282	(0.706)	120970	2.00000	1.870
19 Ronnel	13.587	13.587	(0.722)	87569	2.00000	2.011
20 Merphos-A (Merphos)	13.687	13.689	(1.231)	24019	2.00000	0.5348 (A)
21 Chlorpyrifos	14.410	14.409	(0.766)	93110	2.00000	2.108
22 Fenthion	14.660	14.662	(0.779)	84515	2.00000	2.063
23 Trichloronate	14.708	14.711	(0.782)	105095	2.00000	1.862
24 Anilazine	15.215	15.216	(0.809)	4699	2.00000	1.242 (M)
25 Methyl Parathion	15.517	15.519	(0.825)	89448	2.00000	2.023 (A)
26 Malathion	15.723	15.724	(0.836)	63638	2.00000	1.536
27 Tokuthion	16.345	16.344	(0.869)	91793	2.00000	1.892
28 Parathion	16.493	16.494	(0.877)	92973	2.00000	2.134
29 Merphos-B (Merphos Oxone)	16.518	16.517	(1.486)	68602	2.00000	5.008 (A)
30 Tetrachlorvinphos (stirophos)	16.975	16.977	(0.902)	58667	2.00000	2.081
31 Carbophenothion methyl	17.080	17.082	(0.908)	50362	2.00000	1.246
32 Bolstar	17.440	17.440	(0.927)	88423	2.00000	2.078
33 Carbophenothion	17.522	17.524	(0.931)	73217	2.00000	1.750 (A)



Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.278	18.281	(0.971)	59320	2.00000	1.727
35 Fensulfothion	18.558	18.559	(0.986)	65657	2.00000	2.082
* 36 TOCP	18.815	18.816	(1.000)	68831	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	122970	4.00000	3.469
38 Famphur	19.010	19.011	(1.010)	79361	2.00000	1.758
39 Azinphos-methyl	19.145	19.147	(1.018)	74782	2.00000	1.811
40 Azinphos-ethyl	19.363	19.366	(1.029)	70726	2.00000	1.798
41 Coumaphos	20.347	20.347	(1.081)	59237	2.00000	1.959
S 42 Merphos				92621	2.00000	1.615
M 43 Total Demeton				96342	2.00000	2.248

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 010F1001.D  
 Lab Smp Id: OPP SS GSV0633  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 27-JUN-2009  
 Calibration Time: 04:04  
 Client Smp ID: OPP SS GSV0633  
 Level:  
 Sample Type:

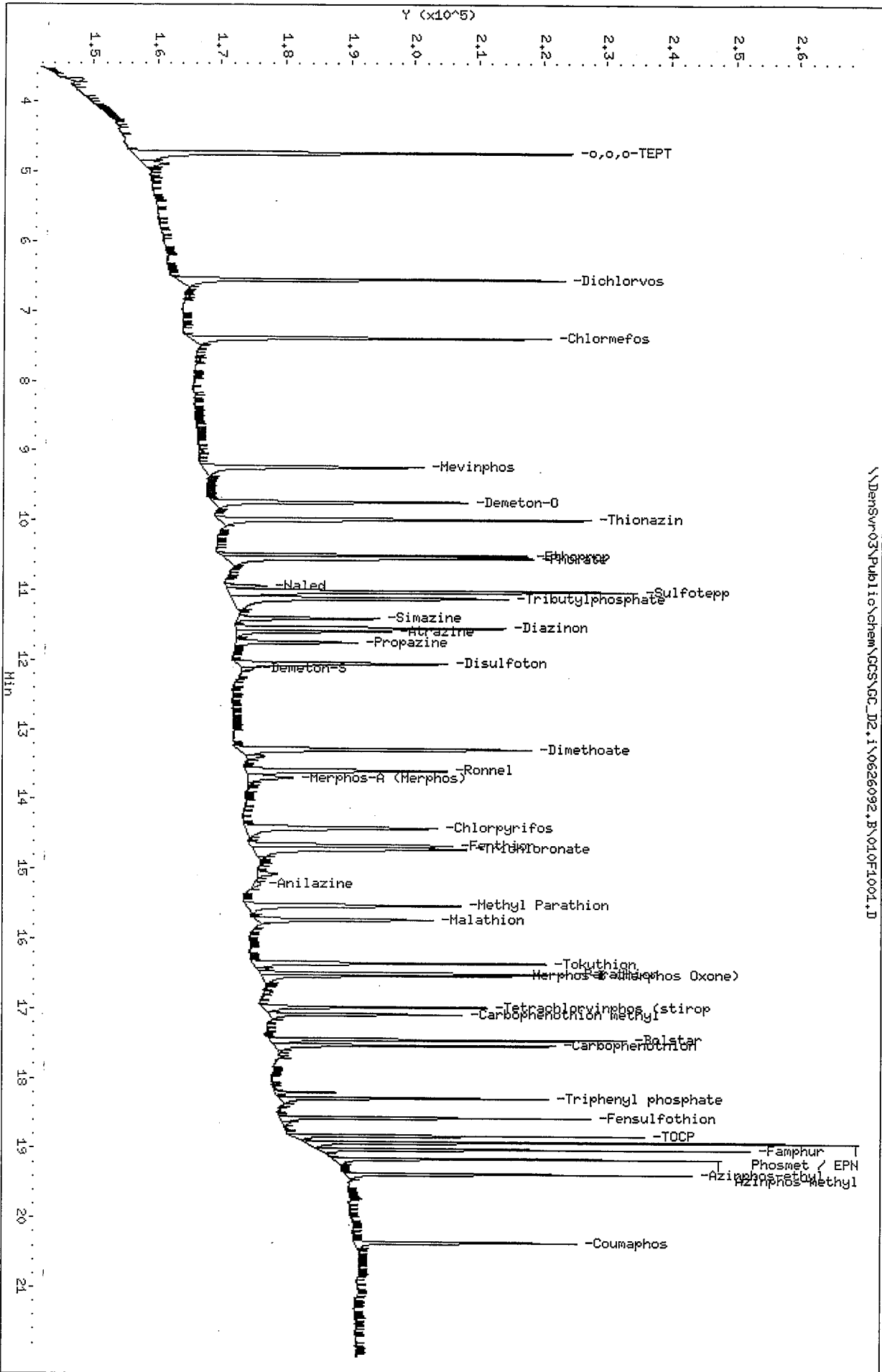
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	143401	71701	286802	123933	-13.58
36 TOCP	69335	34668	138670	68831	-0.73

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	-0.05
36 TOCP	18.82	18.32	19.32	18.82	-0.01

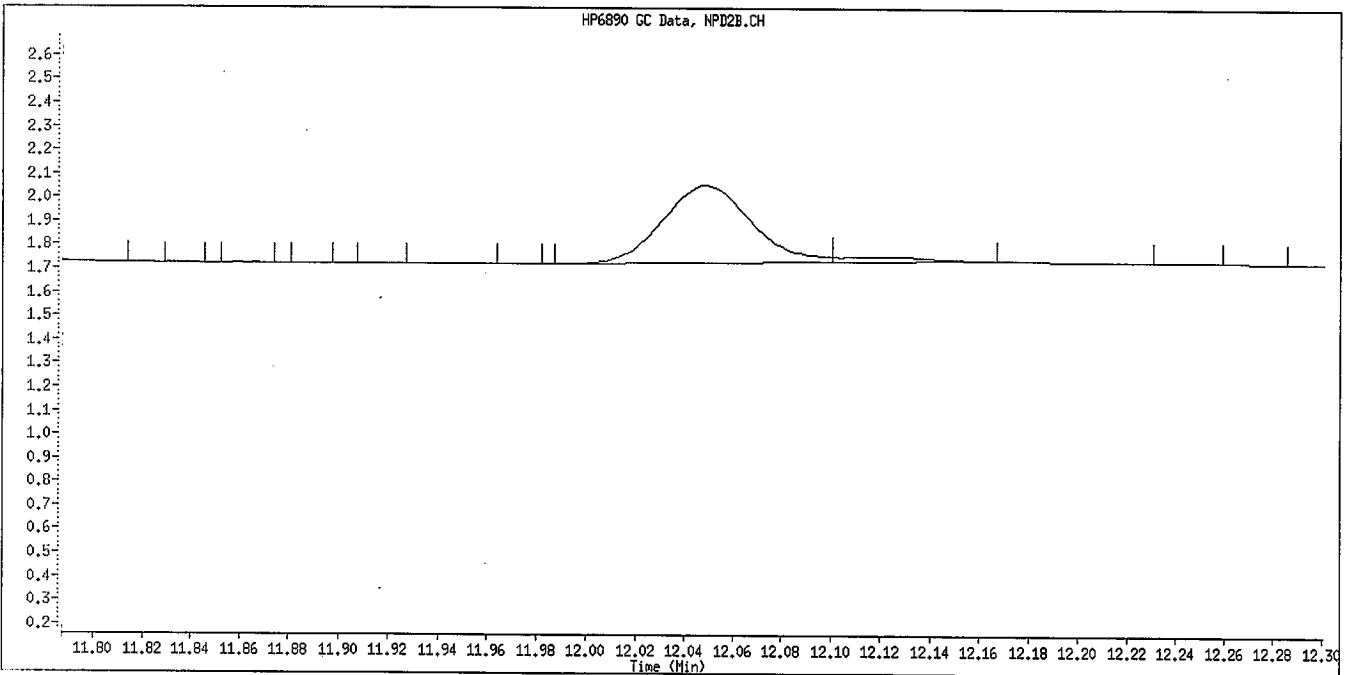
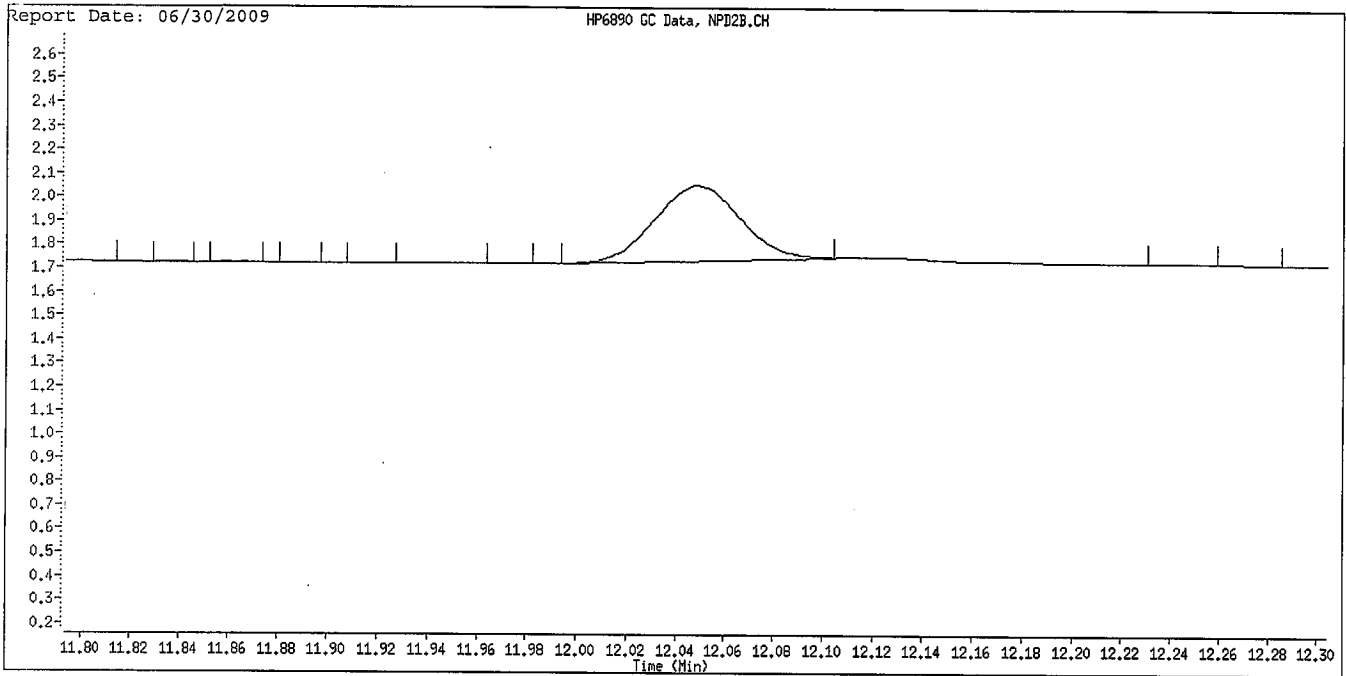
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\010F1001.D  
 Date: 26-JUN-2009 21:40  
 Client ID: OPP SS GSV0633  
 Sample Info: OPP SS GSV0633  
 Column phase: RTX-OPpeat

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32



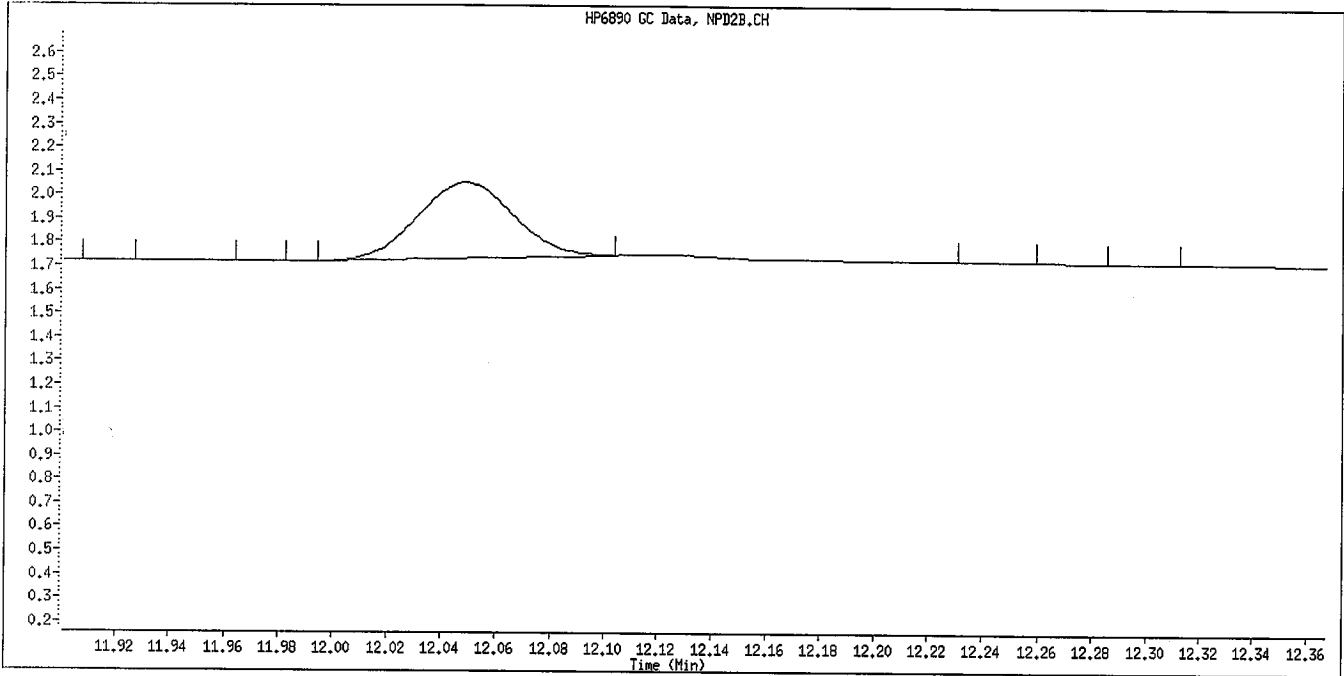
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Instrument ID: GC\_D2.i  
Client ID: OPP SS GSV0633  
Compound Name: Disulfoton  
CAS #: 298-04-4



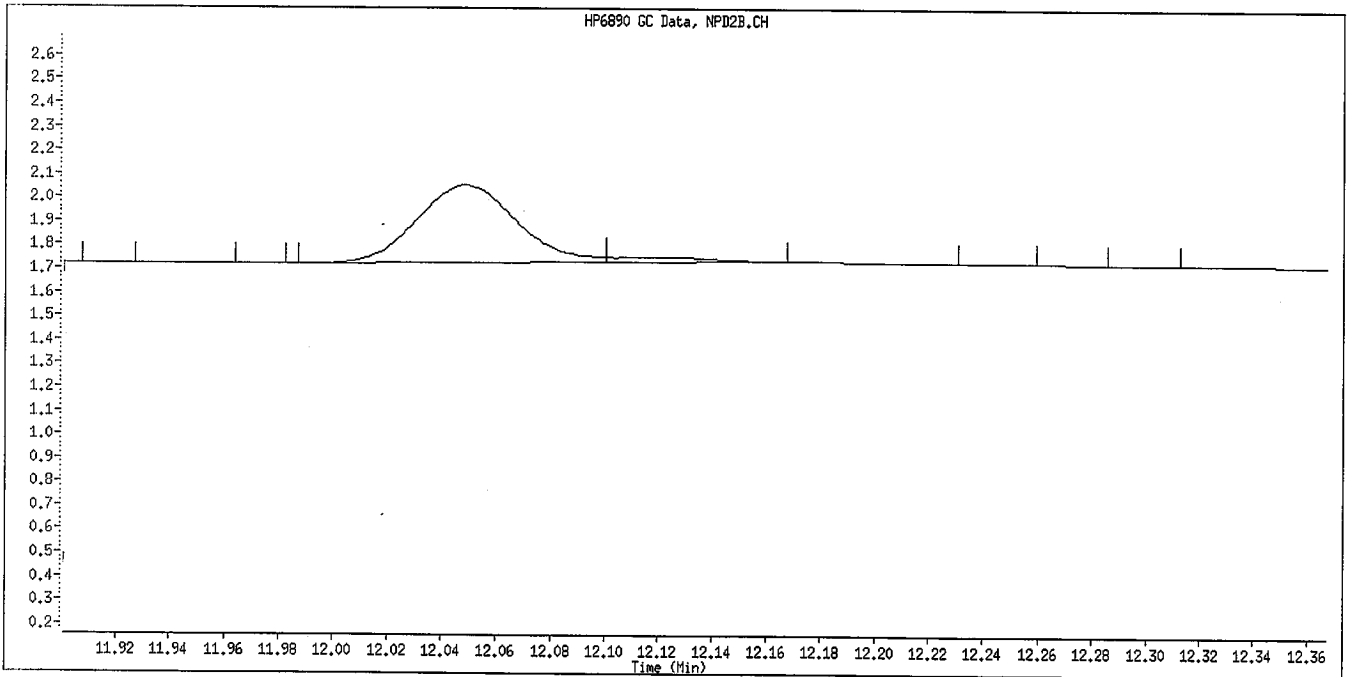
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
6/30/09

Data File Name: 010F1001.D  
Inj. Date and Time: 26-JUN-2009 21:40  
Instrument ID: GC\_D2.i  
Client ID: OPP SS GSV0633  
Compound Name: Demeton-S  
CAS #: 126-75-0  
Report Date: 06/30/2009



Original Integration

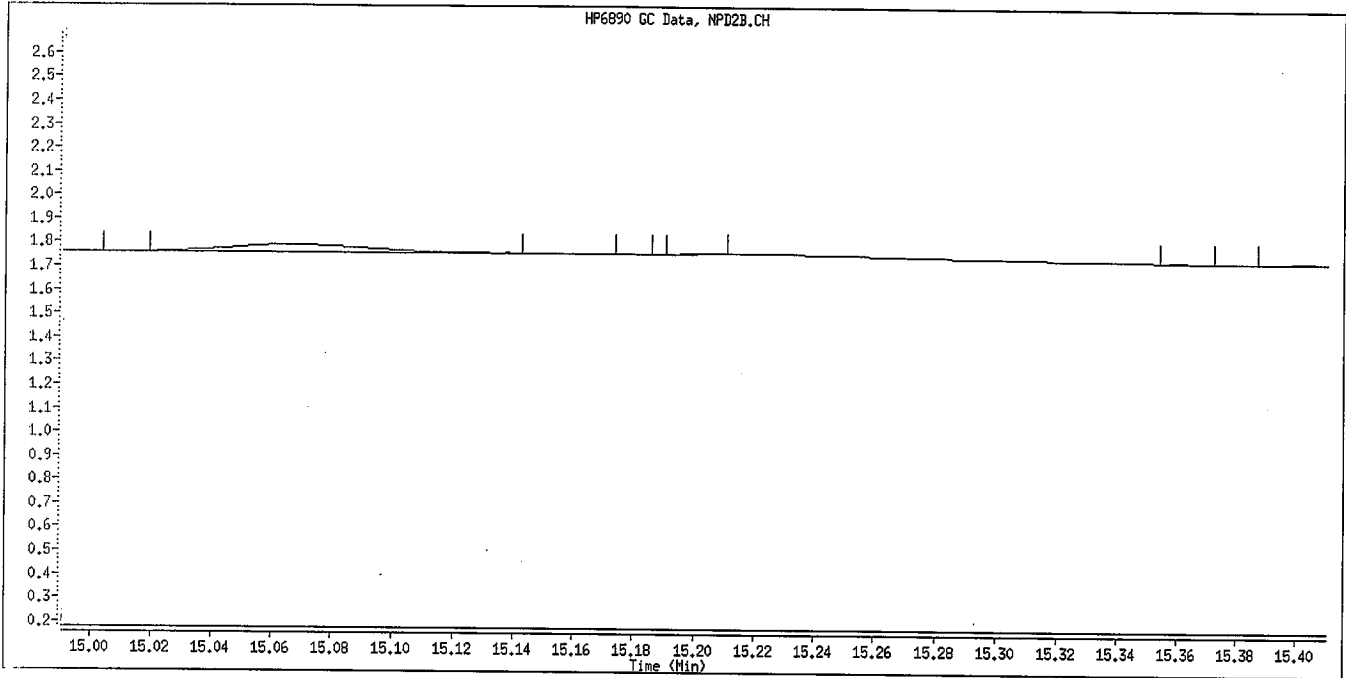


Manual Integration

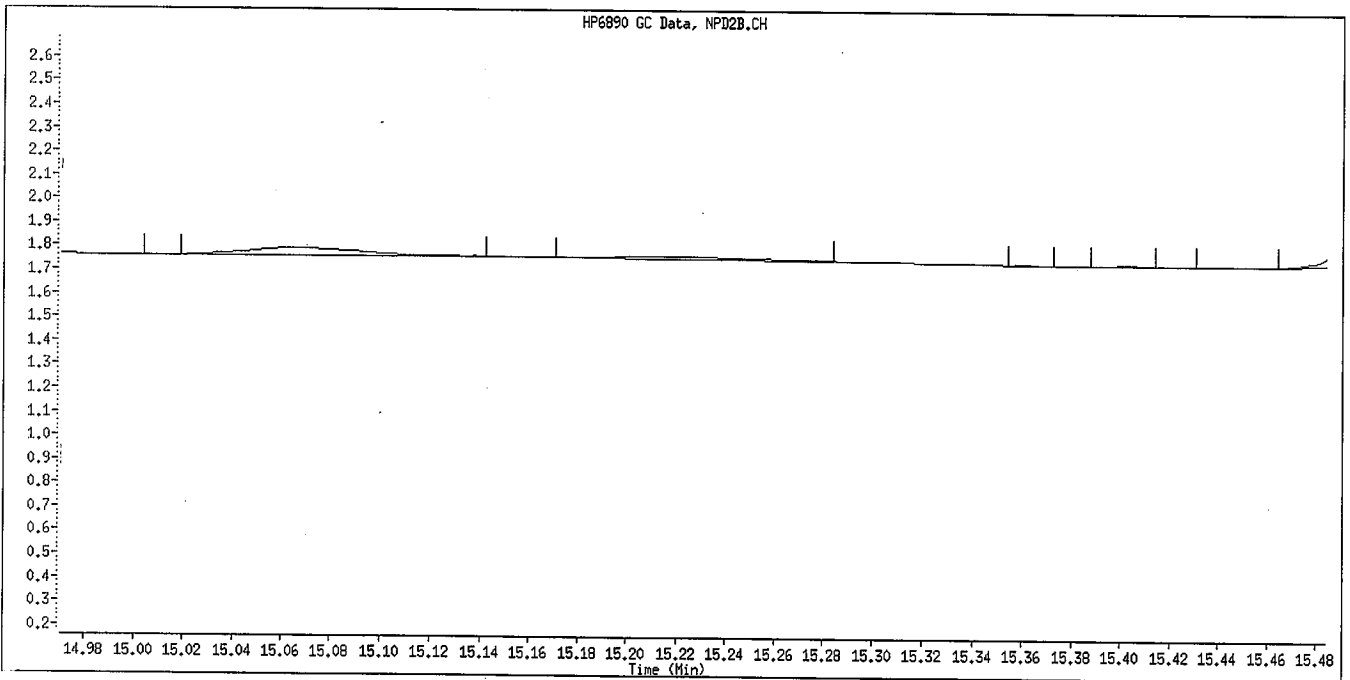
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*WJL*  
*6/30/09*

Data File Name: 010F1001.D  
Inj. Date and Time: 26-JUN-2009 21:40  
Instrument ID: GC\_D2.i  
Client ID: OPP SS GSV0633  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
yg  
6/30/09

# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: 09F180266

Client: Northgate Environmental

Batch(es) #: 9174190

Associated Samples: 1

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date:  6/25/09

## *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9F180266	1 D	SE	LE7CT1AH	20090625	6020TOTA	9174190	AG062409G	024
D9F180266	1 S	SE	LE7CT1AG	20090625	6020TOTA	9174190	AG062409G	024
D9F180266	1	SE	LE7CT1AC	20090625	6020TOTA	9174190	AG062409G	024



**METALS  
PREPARATION LOGS  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

Batch Number: 9174190

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:

JON HARRE

Prep Date: 06/24/09

Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	LFFFX	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	LFFFX	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	LE709 Total		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total		Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	S	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	D	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F190216 Water	LE9PT Total		Due Date: 07/01/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4A Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4D Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4P Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4Q Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*RT checked  
6/24/09*

*✓  
6/25/09*

**TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)**

BATCH # 9174190  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

**CONSUMABLES USED**

Digestion Cups: Manufacturer: Environmental Express Lot #: A901LS267  
One or more samples were filtered prior to analysis at the instrument.  Yes  No  
If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.  
Analyst(s) Initials:                     

**STANDARDS USED**

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

**REAGENTS USED**

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	3

**TEMPERATURE CYCLES**

Thermometer ID: 3311 Block & Cup #: 1, 11

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO <sub>3</sub>	<u>6:00</u>	<u>95</u>	<u>10:20</u>	<u>95</u>
HNO <sub>3</sub>	<u>10:30</u>	<u>94</u>	<u>11:00</u>	<u>93</u>
HNO <sub>3</sub>				

Samples and QC revolved to: 50 mL Analyst's Initials JKH

**COMMENTS:**

I certify that all information above is correct and complete.

Signature: *Kim Anne*

Date: 6/24/09

**METALS  
SAMPLE DATA  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

## ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L. Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

### Quality Control Standards

ICV = Initial Calibration Verification (Second Source)      ICB = Initial Calibration Blank  
 CCV = Continuing Calibration Verification                      CCB = Continuing Calibration Blank

# TestAmerica Denver

## Standards Preparation Logbook Record

Jun-24-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008  
Date Expires(1): 10-01-2009 (None)  
Date Expires(2): 10-01-2009 (None)  
(METALS)-Inventory ID: 779

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	1,000.0	1,000.0

### STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008  
Date Expires(1): 12-01-2009 (None)  
Date Expires(2): 12-01-2009 (None)  
(METALS)-Inventory ID: 803

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1,000.0

### STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010  
Solvent: 1% HNO3  
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009  
Date Expires(1): 03-01-2010 (None)  
Date Expires(2): 03-01-2010 (None)  
(METALS)-Inventory ID: 833

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

### STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H02026 Volume (ml): 100.00  
Date Prep./Opened: 04-01-2009  
Date Expires(1): 12-01-2009 (1 Year)  
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3432-09, ICP-MS (024) INT STD BRC

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-08-2009  
 Date Expires(1): 11-10-2009 (1 Year) ✓  
 Date Expires(2): 12-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Volume (ml): 250.00

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 0.7500  
 Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.2500  
 Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock Aliquot Amount (ml): 0.2500  
 Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,000.0

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year) ✓

Volume (ml): 10.000

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	10.000	1.0000

STD3753-09, ICP-MS ICSA

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-22-2009  
 Date Expires(1): 02-01-2010 (1 Year) ✓  
 Date Expires(2): 02-01-2010 (None)  
 pipettes: Met 8

Analyst: DIAZL  
 Volume (ml): 50.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20,000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20,000	2,000.0

STD3807-09, ICP-MS 10 ppm Sn

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 03-01-2010 (1 Year) ✓  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Analyst: DIAZL  
 Volume (ml): 10.000

Parent Std No.: STD1198-09, 1000 mg/L Sn Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	10.000



STD3808-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 07-24-2009 (1 Month)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 1,000.0

Parent Std No.: STD3806-09, NITRIC ACID

Aliquot Amount (ml): 50.000

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD3809-09, ICP-MS 100 ppb cal

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 06-25-2009 (1 Day)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Lot No.: H12022

Volume (ml): 50.000

Parent Std No.: STD0100-09, Iron Stock

Aliquot Amount (ml): 0.2500

Parent Date Expires(1): 08-01-2009 Parent Date Expires(2): 08-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Fe	1,000.0	5,000.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures

Aliquot Amount (ml): 0.2500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.5000  
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	100.00

STD3810-09, ICP-MS CCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
Date Prep./Opened: 06-24-2009  
Date Expires(1): 06-25-2009 (1 Day)  
Date Verified: 12-31--4714 by - (Verification ID: 0)  
pipettes: Met 20

Volume (ml): 100.00

Parent Std No.: STD0100-09, Iron Stock Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 08-01-2009 Parent Date Expires(2): 08-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Fe	1,000.0	2,500.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	50.000
Al	20.000	50.000
As	20.000	50.000
Ba	20.000	50.000
Be	20.000	50.000
Cd	20.000	50.000
Co	20.000	50.000
Cr	20.000	50.000
Cu	20.000	50.000
Mn	20.000	50.000
Ni	20.000	50.000
Pb	20.000	50.000
Se	20.000	50.000
Th	20.000	50.000
Tl	20.000	50.000
U	20.000	50.000
V	20.000	50.000
Zn	20.000	50.000

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	50.000

Sb 20.000 50.000  
 Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
<u>Sn</u>	<u>10.000</u>	<u>50.000</u>

STD3811-09, ICP-MS RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day) ✓  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
<u>Sn</u>	<u>1.0000</u>	<u>0.0090</u>
1000 Zn	1.0000	0.0090

Parent Std No.: STD3809-09, ICP-MS 100 ppb cal

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 06-25-2009 Parent Date Expires(2): 06-25-2009

Component	Initial Conc (ug/L)	Final Conc (mg/L)
<u>Fe</u>	<u>5,000.0</u>	<u>0.0500</u>
Ag	100.00	0.0010
Al	100.00	0.0010
As	100.00	0.0010
Ba	100.00	0.0010
Be	100.00	0.0010
Cd	100.00	0.0010
Co	100.00	0.0010
Cr	100.00	0.0010
Cu	100.00	0.0010
Mn	100.00	0.0010
Ni	100.00	0.0010
Pb	100.00	0.0010
Se	100.00	0.0010
Th	100.00	0.0010
Tl	100.00	0.0010
U	100.00	0.0010
V	100.00	0.0010
Zn	100.00	0.0010
Mo	100.00	0.0010
Sb	100.00	0.0010
<u>Sn</u>	<u>100.00</u>	<u>0.0010</u>

STD3812-09, ICP-MS AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (2 Days) ✓  
 pipettes: Met 20 and Met 8

Volume (ml): 10.000

Parent Std No.: STD3811-09, ICP-MS RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Fe	0.0500	0.0100
Ag	0.0010	0.0002
Al	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002

STD3813-09, ICP-MS ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Verified: 12-31--4714 by - (Verification ID: Q) ✓  
 pipettes: Met 21, Met 20, and Met 8

Volume (ml): 10.000

Parent Std No.: STD1978-09, ICPMS Interferent Check Standard

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000

Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20,000.	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20,000	2,000.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.0500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.0500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	100.00

STD3814-09, ICPMS LR STD 1000 ppb

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-24-2009

Date Expires(1): 06-25-2009 (1 Day)

Date Verified: 12-31--4714 by - (Verification ID: 0)

pipettes: Met 20 and Met 8

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	1,000.0
Al	20.000	1,000.0
As	20.000	1,000.0
Ba	20.000	1,000.0
Be	20.000	1,000.0
Cd	20.000	1,000.0
Co	20.000	1,000.0
Cr	20.000	1,000.0
Cu	20.000	1,000.0
Mn	20.000	1,000.0
Ni	20.000	1,000.0
Pb	20.000	1,000.0
Se	20.000	1,000.0
Th	20.000	1,000.0
Tl	20.000	1,000.0
U	20.000	1,000.0
V	20.000	1,000.0
Zn	20.000	1,000.0

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	1,000.0
Sb	20.000	1,000.0

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	1,000.0

STD3815-09, ICPMS ICV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 02-27-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD1213-09, ICPMS ICV SOLUTION A (High Purity) Aliquot Amount (ml): 0.0400  
 Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Al	10.000	40.000
As	10.000	40.000
Ba	10.000	40.000
Be	10.000	40.000
Cd	10.000	40.000

Co	10.000	40.000
Cr	10.000	40.000
Cu	10.000	40.000
Fe	250.00	1,000.0
Li	10.000	40.000
Mn	10.000	40.000
Ni	10.000	40.000
Pb	10.000	40.000
Se	10.000	40.000
Th	10.000	40.000
Tl	10.000	40.000
U	10.000	40.000
V	10.000	40.000
Zn	10.000	40.000

Parent Std No.: STD1214-09, ICPMS ICV SOLUTION B (High Purity) Aliquot Amount (ml): 0.0400  
 Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Ag	10.000	40.000
Mo	10.000	40.000
Sb	10.000	40.000
Sn	10.000	40.000
Zr	10.000	40.000

STD3816-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 pipettes: Met 21 and Met 8

Volume (ml): 50.000

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1.0000	0.0020

STD3817-09, LLCCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 05-01-2010 (None)  
 pipettes: Met 20

Volume (ml): 50.000

Parent Std No.: STD3106-09, ICP-MS LLCCV 1

Aliquot Amount (ml): 0.5000

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000

Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By: \_\_\_\_\_

LRD

06/24/2009



Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/25/09 11:05:10
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File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
2	Cal Blank			1.0	06/24/09 19:07		<input type="checkbox"/>
3	100 ppb			1.0	06/24/09 19:10		<input type="checkbox"/>
4	ICV			1.0	06/24/09 19:13		<input type="checkbox"/>
5	RLIV			1.0	06/24/09 19:17		<input type="checkbox"/>
6	ICB			1.0	06/24/09 19:20		<input type="checkbox"/>
7	RL STD			1.0	06/24/09 19:24		<input type="checkbox"/>
8	AFCEE RL			1.0	06/24/09 19:27		<input type="checkbox"/>
9	ALTSe			1.0	06/24/09 19:30		<input type="checkbox"/>
10	ICSA			1.0	06/24/09 19:34		<input type="checkbox"/>
11	ICSAB			1.0	06/24/09 19:37		<input type="checkbox"/>
12	RINSE			1.0	06/24/09 19:40		<input type="checkbox"/>
13	LR			1.0	06/24/09 19:44		<input type="checkbox"/>
14	RINSE			1.0	06/24/09 19:47		<input type="checkbox"/>
15	CCV			1.0	06/24/09 19:52		<input type="checkbox"/>
16	CCB			1.0	06/24/09 19:55		<input type="checkbox"/>
17	RLCV			1.0	06/24/09 19:58		<input type="checkbox"/>
18	LE7RWB	D9F180000	9169492	MS	1.0	06/24/09 20:02	<input type="checkbox"/>
19	LE7RWC	D9F180000	9169492	MS	1.0	06/24/09 20:05	<input type="checkbox"/>
20	LERAH	D9F110358-9	9169492	MS	1.0	06/24/09 20:09	<input type="checkbox"/>
21	LERAX	D9F110358-20	9169492	MS	1.0	06/24/09 20:12	<input type="checkbox"/>
22	LERA0	D9F110358-21	9169492	MS	1.0	06/24/09 20:15	<input type="checkbox"/>
23	LERA4	D9F110358-24	9169492	MS	1.0	06/24/09 20:19	<input type="checkbox"/>
24	LERA4P5	D9F110358	9169492		5.0	06/24/09 20:22	<input type="checkbox"/>
25	LERA4Z	D9F110358-24	9169492		1.0	06/24/09 20:25	<input type="checkbox"/>
26	LERA4S	D9F110358-24	9169492	MS	1.0	06/24/09 20:29	<input type="checkbox"/>
27	LERA4D	D9F110358-24	9169492	MS	1.0	06/24/09 20:32	<input type="checkbox"/>
28	CCV			1.0	06/24/09 20:36		<input type="checkbox"/>
29	CCB			1.0	06/24/09 20:39		<input type="checkbox"/>
30	RLCV			1.0	06/24/09 20:42		<input type="checkbox"/>
31	ICSA			1.0	06/24/09 20:46		<input type="checkbox"/>
32	ICSAB			1.0	06/24/09 20:49		<input type="checkbox"/>
33	WASH			1.0	06/24/09 20:52		<input type="checkbox"/>
34	CCV			1.0	06/24/09 20:56		<input type="checkbox"/>
35	CCB			1.0	06/24/09 20:59		<input type="checkbox"/>
36	RLCV			1.0	06/24/09 21:03		<input type="checkbox"/>
37	LFFFBCBF	D9F230000	9174183	MD	1.0	06/24/09 21:06	<input type="checkbox"/>
38	LFFFCCF	D9F230000	9174183	MD	1.0	06/24/09 21:10	<input type="checkbox"/>
39	LE71EF	D9F180314-2	9174183	MD	1.0	06/24/09 21:13	<input type="checkbox"/>
40	LE71EP5F	D9F180314	9174183		5.0	06/24/09 21:16	<input type="checkbox"/>
41	LE71EZ	D9F180314-2	9174183		1.0	06/24/09 21:20	<input type="checkbox"/>
42	LE71ESF	D9F180314-2	9174183	MD	1.0	06/24/09 21:23	<input type="checkbox"/>
43	LE71EDF	D9F180314-2	9174183	MD	1.0	06/24/09 21:26	<input type="checkbox"/>
44	LFC4CF	D9F200196-2	9174183	MD	1.0	06/24/09 21:30	<input type="checkbox"/>
45	CCV			1.0	06/24/09 21:33		<input type="checkbox"/>
46	CCB			1.0	06/24/09 21:36		<input type="checkbox"/>
47	RLCV			1.0	06/24/09 21:40		<input type="checkbox"/>

Se only. 6/25/09

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
48	RINSE				1.0 06/24/09 21:43		<input type="checkbox"/>
49	RINSE				1.0 06/24/09 21:47		<input type="checkbox"/>
50	RINSE				1.0 06/24/09 21:50		<input type="checkbox"/>
51	RINSE				1.0 06/24/09 21:53		<input type="checkbox"/>
52	RINSE				1.0 06/24/09 21:57		<input type="checkbox"/>
53	RINSE				1.0 06/24/09 22:00		<input type="checkbox"/>
54	CCV				1.0 06/24/09 22:04		<input type="checkbox"/>
55	CCB				1.0 06/24/09 22:07		<input type="checkbox"/>
56	RLCV				1.0 06/24/09 22:10		<input type="checkbox"/>
57	Cal Blank				1.0 06/24/09 22:14		<input type="checkbox"/>
58	Cal Blank				1.0 06/24/09 22:17		<input type="checkbox"/>
59	100 ppb				1.0 06/24/09 22:20		<input type="checkbox"/>
60	CCV				1.0 06/24/09 22:24		<input type="checkbox"/>
61	CCB				1.0 06/24/09 22:27		<input type="checkbox"/>
62	RLCV				1.0 06/24/09 22:31		<input type="checkbox"/>
63	LFFPJBF	D9F230000	9174251	MD	1.0 06/24/09 22:34		<input type="checkbox"/>
64	LFFPJCF	D9F230000	9174251	MD	1.0 06/24/09 22:37		<input type="checkbox"/>
65	LE7RXF	D9F180298-1	9174251	MD	1.0 06/24/09 22:41		<input type="checkbox"/>
66	LE7TDF	D9F180298-2	9174251	MD	1.0 06/24/09 22:44		<input type="checkbox"/>
67	LE7TDP5F	D9F180298	9174251		5.0 06/24/09 22:48		<input type="checkbox"/>
68	LE7TDZF	D9F180298-2	9174251		1.0 06/24/09 22:51		<input type="checkbox"/>
69	LE7TDSF	D9F180298-2	9174251	MD	1.0 06/24/09 22:54		<input type="checkbox"/>
70	CCV				1.0 06/24/09 22:58		<input type="checkbox"/>
71	CCB				1.0 06/24/09 23:01		<input type="checkbox"/>
72	RLCV				1.0 06/24/09 23:05		<input type="checkbox"/>
73	ICSA				1.0 06/24/09 23:08		<input type="checkbox"/>
74	ICSAB				1.0 06/24/09 23:11		<input type="checkbox"/>
75	WASH				1.0 06/24/09 23:15		<input type="checkbox"/>
76	CCV				1.0 06/24/09 23:18		<input type="checkbox"/>
77	CCB				1.0 06/24/09 23:21		<input type="checkbox"/>
78	RLCV				1.0 06/24/09 23:25		<input type="checkbox"/>
79	LE7TDDF	D9F180298-2	9174251	MD	1.0 06/24/09 23:28		<input type="checkbox"/>
80	LE7VVF	D9F180298-3	9174251	MD	1.0 06/24/09 23:32		<input type="checkbox"/>
81	LE7V3F	D9F180298-4	9174251	MD	1.0 06/24/09 23:35		<input type="checkbox"/>
82	LE7V5F	D9F180298-5	9174251	MD	1.0 06/24/09 23:38		<input type="checkbox"/>
83	LE7V8F	D9F180298-6	9174251	MD	1.0 06/24/09 23:42		<input type="checkbox"/>
84	LE7WAF	D9F180298-7	9174251	MD	1.0 06/24/09 23:45		<input type="checkbox"/>
85	LE88DF	D9F190179-1	9174251	MD	1.0 06/24/09 23:49		<input type="checkbox"/>
86	CCV				1.0 06/24/09 23:52		<input type="checkbox"/>
87	CCB				1.0 06/24/09 23:55		<input type="checkbox"/>
88	RLCV				1.0 06/24/09 23:59		<input type="checkbox"/>
89	LE88HF	D9F190179-2	9174251	MD	1.0 06/25/09 00:02		<input type="checkbox"/>
90	LE88JF	D9F190179-3	9174251	MD	1.0 06/25/09 00:06		<input type="checkbox"/>
91	LE88LF	D9F190179-4	9174251	MD	1.0 06/25/09 00:09		<input type="checkbox"/>
92	LE88NF	D9F190179-5	9174251	MD	1.0 06/25/09 00:12		<input type="checkbox"/>
93	LE88QF	D9F190179-6	9174251	MD	1.0 06/25/09 00:16		<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
94	LFEAEF	D9F220120-1	9174251	MD	1.0	06/25/09 00:19	<input type="checkbox"/>
95	LFEA6F	D9F220120-2	9174251	MD	1.0	06/25/09 00:23	<input type="checkbox"/>
96	CCV				1.0	06/25/09 00:26	<input type="checkbox"/>
97	CCB				1.0	06/25/09 00:29	<input type="checkbox"/>
98	RLCV				1.0	06/25/09 00:33	<input type="checkbox"/>
99	LFGFMB	D9F230000	9174418	04	1.0	06/25/09 00:36	<input type="checkbox"/>
100	LFGFMC	D9F230000	9174418	04	1.0	06/25/09 00:40	<input type="checkbox"/>
101	LE4PX	D9F170234-1	9174418	04	1.0	06/25/09 00:43	<input type="checkbox"/>
102	LE4QF	D9F170234-2	9174418	04	1.0	06/25/09 00:46	<input type="checkbox"/>
103	LE4QG	D9F170234-3	9174418	04	1.0	06/25/09 00:50	<input type="checkbox"/>
104	LE4QN	D9F170234-4	9174418	04	1.0	06/25/09 00:53	<input type="checkbox"/>
105	LE63X	D9F180238-1	9174418	04	1.0	06/25/09 00:57	<input type="checkbox"/>
106	LE859	D9F190169-1	9174418	04	1.0	06/25/09 01:00	<input type="checkbox"/>
107	LE862	D9F190169-2	9174418	04	1.0	06/25/09 01:03	<input type="checkbox"/>
108	CCV				1.0	06/25/09 01:07	<input type="checkbox"/>
109	CCB				1.0	06/25/09 01:10	<input type="checkbox"/>
110	RLCV				1.0	06/25/09 01:13	<input type="checkbox"/>
111	LFCHJ	D9F200140-1	9174418	04	1.0	06/25/09 01:17	<input type="checkbox"/>
112	LFCHJP5	D9F200140	9174418		5.0	06/25/09 01:20	<input type="checkbox"/>
113	LFCHJZ	D9F200140-1	9174418		1.0	06/25/09 01:24	<input type="checkbox"/>
114	LFCHJS	D9F200140-1	9174418	04	1.0	06/25/09 01:27	<input type="checkbox"/>
115	LFCHJD	D9F200140-1	9174418	04	1.0	06/25/09 01:30	<input type="checkbox"/>
116	LFCH5	D9F200140-2	9174418	04	1.0	06/25/09 01:34	<input type="checkbox"/>
117	LFCH6	D9F200140-3	9174418	04	1.0	06/25/09 01:37	<input type="checkbox"/>
118	LFCH7	D9F200140-4	9174418	04	1.0	06/25/09 01:41	<input type="checkbox"/>
119	CCV				1.0	06/25/09 01:44	<input type="checkbox"/>
120	CCB				1.0	06/25/09 01:47	<input type="checkbox"/>
121	RLCV				1.0	06/25/09 01:51	<input type="checkbox"/>
122	LFFFXB	D9F230000	9174190	MS	1.0	06/25/09 01:54	<input type="checkbox"/>
123	LFFFXC	D9F230000	9174190	MS	1.0	06/25/09 01:58	<input type="checkbox"/>
124	LE709	D9F180314-1	9174190	MS	1.0	06/25/09 02:01	<input type="checkbox"/>
125	LE7CT	D9F180266-1	9174190	MS	1.0	06/25/09 02:04	<input type="checkbox"/>
126	LE7CTP5	D9F180266	9174190		5.0	06/25/09 02:08	<input type="checkbox"/>
127	LE7CTZ	D9F180266-1	9174190		1.0	06/25/09 02:11	<input type="checkbox"/>
128	LE7CTS	D9F180266-1	9174190	MS	1.0	06/25/09 02:15	<input type="checkbox"/>
129	CCV				1.0	06/25/09 02:18	<input type="checkbox"/>
130	CCB				1.0	06/25/09 02:21	<input type="checkbox"/>
131	RLCV				1.0	06/25/09 02:25	<input type="checkbox"/>
132	LE7CTD	D9F180266-1	9174190	MS	1.0	06/25/09 02:28	<input type="checkbox"/>
133	LE9PT	D9F190216-1	9174190	MS	1.0	06/25/09 02:32	<input type="checkbox"/>
134	LFC4A	D9F200196-1	9174190	MS	1.0	06/25/09 02:35	<input type="checkbox"/>
135	LFC4D	D9F200196-3	9174190	MS	1.0	06/25/09 02:38	<input type="checkbox"/>
136	LFC4P	D9F200199-1	9174190	MS	1.0	06/25/09 02:42	<input type="checkbox"/>
137	LFC4Q	D9F200199-2	9174190	MS	1.0	06/25/09 02:45	<input type="checkbox"/>
138	CCV				1.0	06/25/09 02:48	<input type="checkbox"/>
139	CCB				1.0	06/25/09 02:52	<input type="checkbox"/>

*- See only. AT 6/25/09*

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
140	RLCV				1.0	06/25/09 02:55	<input type="checkbox"/>
141	<del>LFFT1BF</del>	<del>D9F230000</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 02:59</del>	<input type="checkbox"/>
142	LFFT1CF	D9F230000	9174270	MD	1.0	06/25/09 03:02	<input type="checkbox"/>
143	LE6C3F	D9F180143-1	9174270	MD	1.0	06/25/09 03:05	<input type="checkbox"/>
144	LE6C7F	D9F180143-2	9174270	MD	1.0	06/25/09 03:09	<input type="checkbox"/>
145	LE6C8F	D9F180143-3	9174270	MD	1.0	06/25/09 03:12	<input type="checkbox"/>
146	LE6C9F	D9F180143-4	9174270	MD	1.0	06/25/09 03:16	<input type="checkbox"/>
147	LE6DAF	D9F180143-5	9174270	MD	1.0	06/25/09 03:19	<input type="checkbox"/>
148	LE6DCF	D9F180143-6	9174270	MD	1.0	06/25/09 03:22	<input type="checkbox"/>
149	LE6DCP5F	D9F180143	9174270		5.0	06/25/09 03:26	<input type="checkbox"/>
150	LE6DCZF	D9F180143-6	9174270		1.0	06/25/09 03:29	<input type="checkbox"/>
151	CCV				1.0	06/25/09 03:33	<input type="checkbox"/>
152	CCB				1.0	06/25/09 03:36	<input type="checkbox"/>
153	RLCV				1.0	06/25/09 03:39	<input type="checkbox"/>
154	LE6DCSF	D9F180143-6	9174270	MD	1.0	06/25/09 03:43	<input type="checkbox"/>
155	LE6DCDF	D9F180143-6	9174270	MD	1.0	06/25/09 03:46	<input type="checkbox"/>
156	LE9GLF	D9F190197-1	9174270	MD	1.0	06/25/09 03:50	<input type="checkbox"/>
157	LFCECF	D9F200122-1	9174270	MD	1.0	06/25/09 03:53	<input type="checkbox"/>
158	LFCEMF	D9F200122-2	9174270	MD	1.0	06/25/09 03:56	<input type="checkbox"/>
159	LFCENF	D9F200122-3	9174270	MD	1.0	06/25/09 04:00	<input type="checkbox"/>
160	LFCEQF	D9F200122-4	9174270	MD	1.0	06/25/09 04:03	<input type="checkbox"/>
161	LFCERF	D9F200122-5	9174270	MD	1.0	06/25/09 04:07	<input type="checkbox"/>
162	LFCEWF	D9F200122-6	9174270	MD	1.0	06/25/09 04:10	<input type="checkbox"/>
163	LFCEXF	D9F200122-7	9174270	MD	1.0	06/25/09 04:13	<input type="checkbox"/>
164	CCV				1.0	06/25/09 04:17	<input type="checkbox"/>
165	CCB				1.0	06/25/09 04:20	<input type="checkbox"/>
166	RLCV				1.0	06/25/09 04:24	<input type="checkbox"/>
167	RINSE				1.0	06/25/09 04:27	<input type="checkbox"/>
168	RINSE				1.0	06/25/09 04:30	<input type="checkbox"/>
169	RINSE				1.0	06/25/09 04:34	<input type="checkbox"/>
170	RINSE				1.0	06/25/09 04:37	<input type="checkbox"/>
171	RINSE				1.0	06/25/09 04:41	<input type="checkbox"/>
172	RINSE				1.0	06/25/09 04:44	<input type="checkbox"/>
173	<del>Cal Blank</del>				<del>1.0</del>	<del>06/25/09 04:47</del> <i>Ref 6/25/09 did not use.</i>	<input type="checkbox"/>
174	Cal Blank				1.0	06/25/09 04:51	<input type="checkbox"/>
175	100 ppb				1.0	06/25/09 04:54	<input type="checkbox"/>
176	CCV				1.0	06/25/09 04:57	<input type="checkbox"/>
177	CCB				1.0	06/25/09 05:01	<input type="checkbox"/>
178	RLCV				1.0	06/25/09 05:04	<input type="checkbox"/>
179	MDLV BLANK				1.0	06/25/09 05:08	<input type="checkbox"/>
180	MDLV1				1.0	06/25/09 05:11	<input type="checkbox"/>
181	MDLV2				1.0	06/25/09 05:15	<input type="checkbox"/>
182	CCV				1.0	06/25/09 05:18	<input type="checkbox"/>
183	CCB				1.0	06/25/09 05:21	<input type="checkbox"/>
184	RLCV				1.0	06/25/09 05:25	<input type="checkbox"/>
185	LFFFCBF	D9F230000	9174183	MD	1.0	06/25/09 05:28 <i>-As only, Ref 6/25/09</i>	<input type="checkbox"/>

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
186	LFFFCCF	D9F230000	9174183	MD	1.0	06/25/09 05:32	<input type="checkbox"/>
187	LE71EF 10X	D9F180314-2	9174183	MD	10.0	06/25/09 05:35	<input type="checkbox"/>
188	LE71EP50F	D9F180314	9174183		50.0	06/25/09 05:38	<input type="checkbox"/>
189	LE71EZ F	D9F180314-2	9174183		1.0	06/25/09 05:42	<input type="checkbox"/>
190	LE71ESF 10	D9F180314-2	9174183	MD	10.0	06/25/09 05:45	<input type="checkbox"/>
191	LE71EDF 10	D9F180314-2	9174183	MD	10.0	06/25/09 05:48	<input type="checkbox"/>
192	LFC4CF 10X	D9F200196-2	9174183	MD	10.0	06/25/09 05:52	<input type="checkbox"/>
193	CCV				1.0	06/25/09 05:55	<input type="checkbox"/>
194	CCB				1.0	06/25/09 05:59	<input type="checkbox"/>
195	RLCV				1.0	06/25/09 06:02	<input type="checkbox"/>
196	D9F120347-1				1.0	06/25/09 06:05	<input type="checkbox"/>
197	CCV				1.0	06/25/09 06:09	<input type="checkbox"/>
198	CCB				1.0	06/25/09 06:12	<input type="checkbox"/>
199	RLCV				1.0	06/25/09 06:16	<input type="checkbox"/>
200	LFFEFB	D9F230000	9174178	MS	1.0	06/25/09 06:19	<input type="checkbox"/>
201	LFFFC	D9F230000	9174178	MS	1.0	06/25/09 06:22	<input type="checkbox"/>
202	LE9GL	D9F190197-1	9174178	MS	1.0	06/25/09 06:26	<input type="checkbox"/>
203	LE720	D9F180321-1	9174178	MS	1.0	06/25/09 06:29	<input type="checkbox"/>
204	LE721	D9F180321-2	9174178	MS	1.0	06/25/09 06:33	<input type="checkbox"/>
205	LE723	D9F180321-3	9174178	MS	1.0	06/25/09 06:36	<input type="checkbox"/>
206	LE724	D9F180321-4	9174178	MS	1.0	06/25/09 06:39	<input type="checkbox"/>
207	CCV				1.0	06/25/09 06:43	<input type="checkbox"/>
208	CCB				1.0	06/25/09 06:46	<input type="checkbox"/>
209	RLCV				1.0	06/25/09 06:50	<input type="checkbox"/>
210	LFCEC	D9F200122-1	9174178	MS	1.0	06/25/09 06:53	<input type="checkbox"/>
211	LFCEM	D9F200122-2	9174178	MS	1.0	06/25/09 06:56	<input type="checkbox"/>
212	LFCE N	D9F200122-3	9174178	MS	1.0	06/25/09 07:00	<input type="checkbox"/>
213	LFCEQ	D9F200122-4	9174178	MS	1.0	06/25/09 07:03	<input type="checkbox"/>
214	LFCE R	D9F200122-5	9174178	MS	1.0	06/25/09 07:07	<input type="checkbox"/>
215	LFCEW	D9F200122-6	9174178	MS	1.0	06/25/09 07:10	<input type="checkbox"/>
216	LFCEX	D9F200122-7	9174178	MS	1.0	06/25/09 07:13	<input type="checkbox"/>
217	CCV				1.0	06/25/09 07:17	<input type="checkbox"/>
218	CCB				1.0	06/25/09 07:20	<input type="checkbox"/>
219	RLCV				1.0	06/25/09 07:24	<input type="checkbox"/>
220	<del>LFC4W</del>	<del>D9F200200-1</del>	<del>9174178</del>	<del>MS</del>	<del>1.0</del>	<del>06/25/09 07:27</del>	<input type="checkbox"/>
221	LFC4X	D9F200200-2	9174178	MS	1.0	06/25/09 07:31	<input type="checkbox"/>
222	LFC40	D9F200200-3	9174178	MS	1.0	06/25/09 07:34	<input type="checkbox"/>
223	LFC40P5	D9F200200	9174178		5.0	06/25/09 07:37	<input type="checkbox"/>
224	LFC40Z	D9F200200-3	9174178		1.0	06/25/09 07:41	<input type="checkbox"/>
225	LFC40S	D9F200200-3	9174178	MS	1.0	06/25/09 07:44	<input type="checkbox"/>
226	<del>LFC40D</del>	<del>D9F200200-3</del>	<del>9174178</del>	<del>MS</del>	<del>1.0</del>	<del>06/25/09 07:47</del>	<input type="checkbox"/>
227	CCV				1.0	06/25/09 07:51	<input type="checkbox"/>
228	CCB				1.0	06/25/09 07:54	<input type="checkbox"/>
229	RLCV				1.0	06/25/09 07:58	<input type="checkbox"/>
230	LFFV0BF	D9F230000	9174276	MD	1.0	06/25/09 08:01	<input type="checkbox"/>
231	LFFV0CF	D9F230000	9174276	MD	1.0	06/25/09 08:04	<input type="checkbox"/>

*As only, 6/25/09*

*6/25/09 did not use.*

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

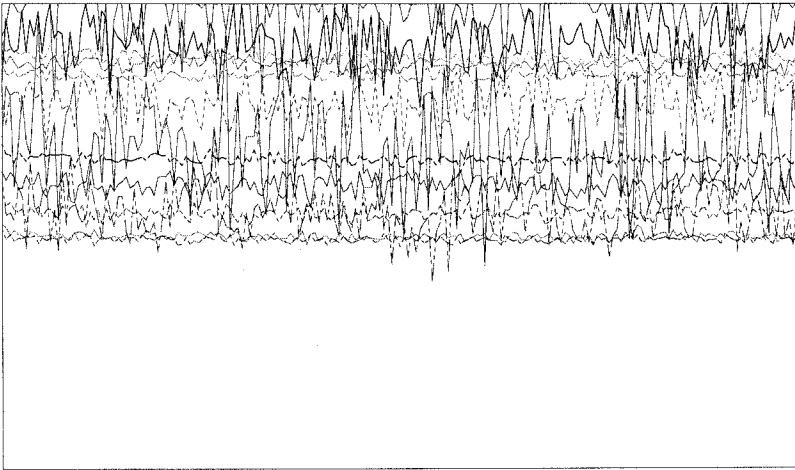
File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
232	LE98FF	D9F190267-1	9174276	MD	1.0	06/25/09 08:08	<input type="checkbox"/>
233	LE98FP5F	D9F190267	9174276		5.0	06/25/09 08:11	<input type="checkbox"/>
234	LE98FZF	D9F190267-1	9174276		1.0	06/25/09 08:15	<input type="checkbox"/>
235	LE98FSF	D9F190267-1	9174276	MD	1.0	06/25/09 08:18	<input type="checkbox"/>
236	LE98FDF	D9F190267-1	9174276	MD	1.0	06/25/09 08:22	<input type="checkbox"/>
237	LE99HF	D9F190267-2	9174276	MD	1.0	06/25/09 08:25	<input type="checkbox"/>
238	LE99RF	D9F190267-3	9174276	MD	1.0	06/25/09 08:28	<input type="checkbox"/>
239	CCV				1.0	06/25/09 08:32	<input type="checkbox"/>
240	CCB				1.0	06/25/09 08:35	<input type="checkbox"/>
241	RLCV				1.0	06/25/09 08:39	<input type="checkbox"/>
242	<del>RINSE</del>				<del>1.0</del>	<del>06/25/09 08:42</del>	<input type="checkbox"/>
243	RINSE				1.0	06/25/09 08:45	<input type="checkbox"/>
244	RINSE				1.0	06/25/09 08:49	<input type="checkbox"/>
245	RINSE				1.0	06/25/09 08:52	<input type="checkbox"/>
246	RINSE				1.0	06/25/09 08:56	<input type="checkbox"/>
247	RINSE				1.0	06/25/09 08:59	<input type="checkbox"/>
248	<del>Cal-Blank</del>				<del>1.0</del>	<del>06/25/09 09:02</del> <i>Not 6/25/09</i>	<input type="checkbox"/>
249	<del>Cal-Blank</del>				<del>1.0</del>	<del>06/25/09 09:06</del>	<input type="checkbox"/>
250	100 ppb				1.0	06/25/09 09:09	<input type="checkbox"/>
251	CCV				1.0	06/25/09 09:12	<input type="checkbox"/>
252	CCB				1.0	06/25/09 09:16	<input type="checkbox"/>
253	RLCV				1.0	06/25/09 09:19	<input type="checkbox"/>
254	LFFC2B	D9F230000	9174162	MS	1.0	06/25/09 09:23	<input type="checkbox"/>
255	LFFC2C	D9F230000	9174162	MS	1.0	06/25/09 09:26	<input type="checkbox"/>
256	LE6AW 2X	D9F180141-1	9174162	MS	2.0	06/25/09 09:29	<input type="checkbox"/>
257	LE6A1 2X	D9F180141-2	9174162	MS	2.0	06/25/09 09:33	<input type="checkbox"/>
258	LE6A2 2X	D9F180141-3	9174162	MS	2.0	06/25/09 09:36	<input type="checkbox"/>
259	LE81M	D9F190156-1	9174162	MS	1.0	06/25/09 09:40	<input type="checkbox"/>
260	CCV				1.0	06/25/09 09:43	<input type="checkbox"/>
261	CCB				1.0	06/25/09 09:47	<input type="checkbox"/>
262	RLCV				1.0	06/25/09 09:50	<input type="checkbox"/>
263	LE81MP5	D9F190156	9174162		5.0	06/25/09 09:53	<input type="checkbox"/>
264	LE81MZ	D9F190156-1	9174162		1.0	06/25/09 09:57	<input type="checkbox"/>
265	LE81MS	D9F190156-1	9174162	MS	1.0	06/25/09 10:00	<input type="checkbox"/>
266	LE81MD	D9F190156-1	9174162	MS	1.0	06/25/09 10:04	<input type="checkbox"/>
267	LE82G	D9F190156-2	9174162	MS	1.0	06/25/09 10:07	<input type="checkbox"/>
268	CCV				1.0	06/25/09 10:10	<input type="checkbox"/>
269	CCB				1.0	06/25/09 10:14	<input type="checkbox"/>
270	RLCV				1.0	06/25/09 10:17	<input type="checkbox"/>
271	LE6A1	D9F180141-2	9174162	MS	1.0	06/25/09 10:21	<input type="checkbox"/>
272	LE6A2	D9F180141-3	9174162	MS	1.0	06/25/09 10:24	<input type="checkbox"/>
273	LE81M	D9F190156-1	9174162	MS	1.0	06/25/09 10:27	<input type="checkbox"/>
274	CCV				1.0	06/25/09 10:31	<input type="checkbox"/>
275	CCB				1.0	06/25/09 10:34	<input type="checkbox"/>
276	<del>RLCV</del>				<del>1.0</del>	<del>06/25/09 10:38</del> <i>Not 6/25/09 did not use.</i>	<input type="checkbox"/>

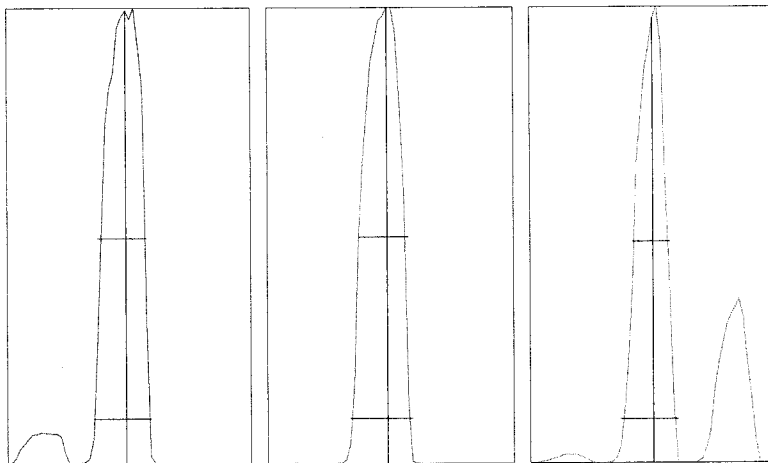
Tune Report

Tune File : NORM.U  
 Comment :



Integration Time: 0.1000 sec  
 Sampling Period: 1.5300 sec  
 n: 200  
 Oxide: 156/140 1.895%  
 Doubly Charged: 70/140 0.993%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1252.0	1210.7	3.15	0.50
7	20,000	17471.0	17359.0	1.29	0.50
59	50,000	24615.0	24727.2	1.47	0.70
63	100	89.0	103.1	10.52	0.60
70	500	416.0	457.8	5.82	1.10
75	100	58.0	68.5	14.27	1.10
78	500	424.0	392.8	5.32	1.10
89	50,000	42041.0	42147.0	1.21	0.80
115	50,000	42683.0	44143.0	1.25	1.10
137	10,000	5345.0	5438.1	2.07	1.50
205	50,000	32275.0	33040.5	1.41	2.80
238	100,000	49874.0	48834.3	1.31	3.20
156/140	5	1.895%	1.914%	4.40	
70/140	2	0.897%	0.986%	5.95	
118	200	104.0	109.9	12.05	1.30



m/z:	7	89	205
Height:	17,515	42,175	35,607
Axis:	7.00	89.00	205.05
W-50%:	0.60	0.60	0.45
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : NORM.U  
Comment :

Tuning Parameters

===Plasma Condition===

RF Power : 1550 W  
RF Matching : 1.7 V  
Smpl Depth : 7.8 mm  
Torch-H : -0.8 mm  
Torch-V : -0.3 mm  
Carrier Gas : 1.03 L/min  
Makeup Gas : 0 L/min  
Optional Gas : --- %  
Nebulizer Pump : 0.1 rps  
Sample Pump : --- rps  
S/C Temp : 2 degC

===Ion Lenses===

Extract 1 : 0 V  
Extract 2 : -175 V  
Omega Bias-ce : -30 V  
Omega Lens-ce : -0.2 V  
Cell Entrance : -30 V  
QP Focus : 5 V  
Cell Exit : -30 V

===Q-Pole Parameters===

AMU Gain : 134  
AMU Offset : 123  
Axis Gain : 1.001  
Axis Offset : -0.05  
QP Bias : -10 V

===Detector Parameters===

Discriminator : 8 mV  
Analog HV : 1740 V  
Pulse HV : 1390 V

===Octopole Parameters===

OctP RF : 180 V  
OctP Bias : -18 V

===Reaction Cell===

Reaction Mode : OFF  
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : --- %



P/A Factor Tuning Report

Acquired: Jun 24 2009 03:49 pm

Mass[amu]	Element	P/A Factor
6	Li	0.056718
7	(Li)	Sensitivity too low
9	Be	0.064016
45	Sc	0.077228
51	V	0.078776
52	Cr	0.082225
53	(Cr)	Sensitivity too low
55	Mn	0.083928
59	Co	0.087112
60	Ni	0.088839
63	Cu	0.091015
66	Zn	0.090699
72	Ge	0.089225
75	As	0.088472
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
95	Mo	0.089221
98	(Mo)	0.089321
99	(Mo)	0.090939
106	(Cd)	0.094970
107	Ag	Sensitivity too low
108	(Cd)	0.095488
111	Cd	0.095962
114	Cd	0.095973
115	In	0.095134
118	Sn	0.094981
121	Sb	0.094672
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
205	Tl	0.104372
206	(Pb)	0.103453
207	(Pb)	0.103546
208	Pb	0.103176
232	Th	0.101788
238	U	0.101858

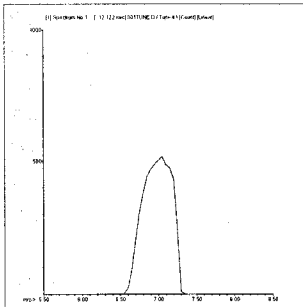
===Detector Parameters===

Discriminator: 8.0 mV  
Analog HV: 1740 V  
Pulse HV: 1390 V

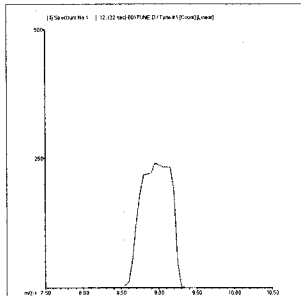
### 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\001TUNE.D  
 Date Acquired: Jun 24 2009 07:03 pm  
 Acq. Method: tun\_isis.M  
 Operator: TEL  
 Sample Name: 200.8 TUNE  
 Misc Info:  
 Vial Number: 4  
 Current Method: C:\ICPCHEM\1\METHODS\tun\_isis.M

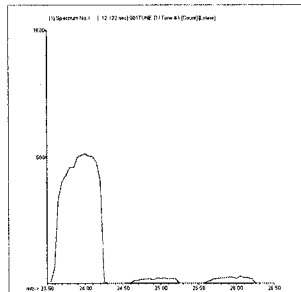
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	10148	10089	10029	10089	10262	10266	2.79	5.00	
9 Be	1755	1771	1805	1760	1707	1730	2.90	5.00	
24 Mg	6955	6982	6967	6851	7035	6938	2.08	5.00	
59 Co	51905	52322	52279	52591	51727	50604	0.94	5.00	
115 In	462597	448980	462469	468100	470802	462631	2.44	5.00	
208 Pb	53885	55337	53878	53810	53372	53027	1.47	5.00	
238 U	106802	108619	107941	107202	105352	104892	2.15	5.00	



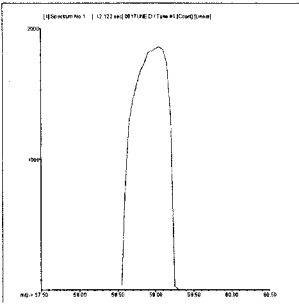
**7 Li**  
**Mass Calib.**  
 Actual: 7.05  
 Required: 6.90 - 7.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**9 Be**  
**Mass Calib.**  
 Actual: 9.05  
 Required: 8.90 - 9.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**24 Mg**  
**Mass Calib.**  
 Actual: 24.00  
 Required: 23.90 - 24.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



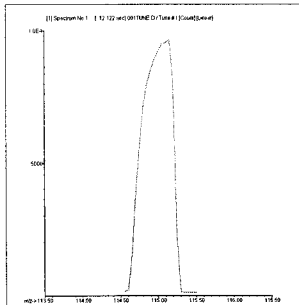
**59 Co**

**Mass Calib.**

Actual: 59.00  
Required: 58.90 - 59.10  
Flag:

**Peak Width**

Actual: 0.60  
Required: 0.90  
Flag:



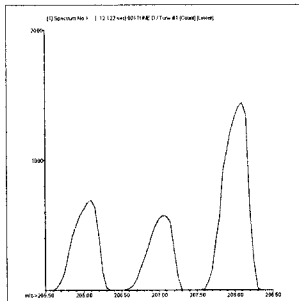
**115 In**

**Mass Calib.**

Actual: 115.05  
Required: 114.90 - 115.10  
Flag:

**Peak Width**

Actual: 0.60  
Required: 0.90  
Flag:



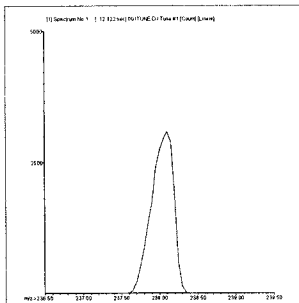
**208 Pb**

**Mass Calib.**

Actual: 208.05  
Required: 207.90 - 208.10  
Flag:

**Peak Width**

Actual: 0.55  
Required: 0.90  
Flag:



**238 U**

**Mass Calib.**

Actual: 238.05  
Required: 237.90 - 238.10  
Flag:

**Peak Width**

Actual: 0.50  
Required: 0.90  
Flag:

**Tune Result:**

Pass

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#  
 Date Acquired: Jun 24 2009 07:07 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:07 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
51	V	72	1	-145	123.07
52	Cr	72	1	1567	3.74
55	Mn	72	1	110	47.24
59	Co	72	1	20	50.00
60	Ni	72	1	43	26.65
63	Cu	72	1	230	8.70
66	Zn	72	1	113	10.70
75	As	72	1	13	17.32
78	Se	72	1	53	28.64
95	Mo	72	1	33	75.50
107	Ag	115	1	120	14.43
111	Cd	115	1	-3	618.90
118	Sn	115	1	953	12.52
121	Sb	115	1	104	15.74
137	Ba	115	1	8	65.47
205	Tl	165	1	152	17.70
208	Pb	165	1	132	13.89
232	Th	165	1	447	11.27
238	U	165	1	60	27.78

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	163501	0.15
45	Sc	1	473295	0.64
72	Ge	1	272811	0.59
115	In	1	858259	0.37
165	Ho	1	1824721	0.44

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

**Calibration Standard QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\003ICAL.D\003ICAL.D#  
 Date Acquired: Jun 24 2009 07:10 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:08 pm  
 Sample Type: ICAL

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	33917	0.70
51	V	72	540931	0.60
52	Cr	72	616152	1.28
55	Mn	72	554630	0.77
59	Co	72	886953	1.07
60	Ni	72	209311	2.01
63	Cu	72	528419	1.26
66	Zn	72	103879	1.21
75	As	72	67913	1.40
78	Se	72	9800	4.23
95	Mo	72	251498	1.05
107	Ag	115	802211	1.04
111	Cd	115	141668	1.10
118	Sn	115	351095	0.81
121	Sb	115	419639	0.73
137	Ba	115	157251	1.35
205	Tl	165	1656113	0.72
208	Pb	165	2343099	0.44
232	Th	165	2212844	0.87
238	U	165	2531076	0.95

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	159533	0.97	163501	97.6	30 - 120
45	Sc	1	459619	1.14	473295	97.1	30 - 120
72	Ge	1	266297	0.78	272811	97.6	30 - 120
115	In	1	825142	0.51	858259	96.1	30 - 120
165	Ho	1	1826683	0.51	1824721	100.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\005WASH.D\005WASH.D#  
Date Acquired: Jun 24 2009 07:17 pm  
Operator: TEL  
Sample Name: RLIV  
Misc Info:  
Vial Number: 1204  
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
Last Cal Update: Jun 24 2009 07:11 pm  
Sample Type: WASH  
Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.013 ppb	16.38	1.30	
51 V	72	1	5.184 ppb	2.90	6.50	
52 Cr	72	1	2.106 ppb	2.23	2.60	
55 Mn	72	1	1.046 ppb	8.96	1.30	
59 Co	72	1	1.025 ppb	8.15	1.30	
60 Ni	72	1	2.042 ppb	5.81	2.60	
63 Cu	72	1	2.102 ppb	0.72	2.60	
66 Zn	72	1	10.290 ppb	3.26	13.00	
75 As	72	1	5.155 ppb	2.67	6.50	
78 Se	72	1	5.665 ppb	6.46	6.50	
95 Mo	72	1	2.116 ppb	1.68	2.60	
107 Ag	115	1	5.133 ppb	0.57	6.50	
111 Cd	115	1	0.950 ppb	4.09	1.30	
118 Sn	115	1	10.280 ppb	0.78	13.00	
121 Sb	115	1	2.148 ppb	1.25	2.60	
137 Ba	115	1	1.023 ppb	6.59	1.30	
205 Tl	165	1	1.145 ppb	2.23	1.30	
208 Pb	165	1	1.046 ppb	0.72	1.30	
232 Th	165	1	2.354 ppb	2.29	2.60	
238 U	165	1	1.064 ppb	1.46	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	160763	1.63	163501	98.3	30 - 120	
45 Sc	1	471262	0.38	473295	99.6	30 - 120	
72 Ge	1	271755	0.51	272811	99.6	30 - 120	
115 In	1	847415	0.20	858259	98.7	30 - 120	
165 Ho	1	1844156	0.82	1824721	101.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
Tune File# 2 C:\ICPCHEM\1\7500\  
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed







**AFCEE RL QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\008AFCE.D\008AFCE.D#  
 Date Acquired: Jun 24 2009 07:27 pm  
 Operator: TEL  
 Sample Name: AFCEE RL  
 Misc Info:  
 Vial Number: 2106  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: AFCEERL  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	0.16 ppb	29.97	0	81.1	80 - 120	
51	V	72	0.22 ppb	21.92	0	112.2	80 - 120	
52	Cr	72	0.16 ppb	14.27	0	86.6	80 - 120	
55	Mn	72	0.21 ppb	4.13	0	107.8	80 - 120	
59	Co	72	0.20 ppb	9.64	0	102.9	80 - 120	
60	Ni	72	0.21 ppb	19.96	0	103.9	80 - 120	
63	Cu	72	0.23 ppb	3.46	0	110.1	80 - 120	
66	Zn	72	2.05 ppb	5.49	2	102.2	80 - 120	
75	As	72	0.20 ppb	11.05	0	106.8	80 - 120	
78	Se	72	0.31 ppb	47.94	0	128.3	80 - 120	
95	Mo	72	0.23 ppb	9.33	0	117.9	80 - 120	
107	Ag	115	0.18 ppb	9.26	0	90.2	80 - 120	
111	Cd	115	0.22 ppb	10.37	0	109.8	80 - 120	
118	Sn	115	2.07 ppb	6.36	2	103.8	80 - 120	
121	Sb	115	0.21 ppb	0.98	0	102.5	80 - 120	
137	Ba	115	0.19 ppb	12.38	0	95.7	80 - 120	
205	Tl	165	0.22 ppb	3.71	0	105.8	80 - 120	
208	Pb	165	0.21 ppb	3.19	0	102.7	80 - 120	
232	Th	165	0.22 ppb	3.83	0	104.1	80 - 120	
238	U	165	0.21 ppb	2.86	0	101.7	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	160158	1.30	163501	98.0	30 - 120
45	Sc	1	466170	0.32	473295	98.5	30 - 120
72	Ge	1	270425	0.78	272811	99.1	30 - 120
115	In	1	841433	0.70	858259	98.0	30 - 120
165	Ho	1	1807963	1.45	1824721	99.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\009SMPL.D\009SMPL.D#  
 Date Acquired: Jun 24 2009 07:30 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ALTSe  
 Misc Info: 2 ppb  
 Vial Number: 2107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	0.02	0.02	ppb	198.41	3600	
52 Cr	72	1	-0.04	-0.04	ppb	31.12	3600	
55 Mn	72	1	0.00	0.00	ppb	629.93	3600	
59 Co	72	1	0.00	0.00	ppb	166.65	3600	
60 Ni	72	1	0.00	0.00	ppb	4583.20	3600	
63 Cu	72	1	0.01	0.01	ppb	137.68	3600	
66 Zn	72	1	0.09	0.09	ppb	14.30	3600	
75 As	72	1	0.00	0.00	ppb	161.72	3600	
78 Se	72	1	2.12	2.12	ppb	35.07	3600	
95 Mo	72	1	-0.01	-0.01	ppb	0.75	3600	
107 Ag	115	1	0.00	0.00	ppb	67.28	3600	
111 Cd	115	1	0.01	0.01	ppb	30.96	3600	
118 Sn	115	1	0.00	0.00	ppb	5718.90	3600	
121 Sb	115	1	-0.01	-0.01	ppb	44.60	3600	
137 Ba	115	1	0.00	0.00	ppb	70.63	3600	
205 Tl	165	1	0.00	0.00	ppb	86.15	3600	
208 Pb	165	1	0.00	0.00	ppb	57.78	3600	
232 Th	165	1	0.00	0.00	ppb	148.71	1000	
238 U	165	1	0.00	0.00	ppb	0.47	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	160785	1.21	163501	98.3	30 - 120	
45 Sc	1	472930	1.03	473295	99.9	30 - 120	
72 Ge	1	274512	0.51	272811	100.6	30 - 120	
115 In	1	854708	0.87	858259	99.6	30 - 120	
165 Ho	1	1840765	1.67	1824721	100.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\010ICSA.D\010ICSA.D#  
 Date Acquired: Jun 24 2009 07:34 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.07 ppb	27.06	1.00
51	V	72	1	-0.15 ppb	63.76	1.00
52	Cr	72	1	1.00 ppb	9.52	1.00
55	Mn	72	1	2.10 ppb	15.02	1.00
59	Co	72	1	0.04 ppb	12.81	1.00
60	Ni	72	1	0.77 ppb	16.00	1.00
63	Cu	72	1	0.36 ppb	16.67	1.00
66	Zn	72	1	2.79 ppb	14.69	10.00
75	As	72	1	0.15 ppb	7.74	1.00
78	Se	72	1	0.45 ppb	30.62	1.00
95	Mo	72	1	2051.00 ppb	14.59	2000.00
107	Ag	115	1	0.08 ppb	16.05	1.00
111	Cd	115	1	0.34 ppb	55.09	1.00
118	Sn	115	1	0.04 ppb	136.34	10.00
121	Sb	115	1	0.22 ppb	25.12	1.00
137	Ba	115	1	1.60 ppb	24.35	1.00
205	Tl	165	1	0.03 ppb	16.30	1.00
208	Pb	165	1	0.13 ppb	20.62	1.00
232	Th	165	1	0.03 ppb	38.59	1.00
238	U	165	1	0.02 ppb	18.11	1.00

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	150867	12.87	163501	92.3	30 - 120
45	Sc	1	392581	18.49	473295	82.9	30 - 120
72	Ge	1	224502	13.80	272811	82.3	30 - 120
115	In	1	685599	16.48	858259	79.9	30 - 120
165	Ho	1	1658393	18.54	1824721	90.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Nnumber of ISTD Failures Allowed



**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\012SMPL.D\012SMPL.D#  
 Date Acquired: Jun 24 2009 07:40 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.19	3600	
51 V	72	1	0.06	0.06	ppb	51.17	3600	
52 Cr	72	1	0.00	0.00	ppb	1189.30	3600	
55 Mn	72	1	0.00	0.00	ppb	108.29	3600	
59 Co	72	1	0.01	0.01	ppb	47.32	3600	
60 Ni	72	1	0.00	0.00	ppb	335.34	3600	
63 Cu	72	1	0.04	0.04	ppb	22.27	3600	
66 Zn	72	1	0.00	0.00	ppb	364.94	3600	
75 As	72	1	0.02	0.02	ppb	98.18	3600	
78 Se	72	1	0.03	0.03	ppb	1244.20	3600	
95 Mo	72	1	0.87	0.87	ppb	7.94	3600	
107 Ag	115	1	0.01	0.01	ppb	78.37	3600	
111 Cd	115	1	0.01	0.01	ppb	314.55	3600	
118 Sn	115	1	-0.01	-0.01	ppb	83.03	3600	
121 Sb	115	1	0.01	0.01	ppb	51.11	3600	
137 Ba	115	1	0.00	0.00	ppb	27.64	3600	
205 Tl	165	1	0.00	0.00	ppb	59.27	3600	
208 Pb	165	1	0.01	0.01	ppb	58.23	3600	
232 Th	165	1	0.25	0.25	ppb	23.49	1000	
238 U	165	1	0.01	0.01	ppb	20.75	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	172816	0.10	163501	105.7	30 - 120	
45 Sc	1	449254	0.62	473295	94.9	30 - 120	
72 Ge	1	259990	0.37	272811	95.3	30 - 120	
115 In	1	822615	0.25	858259	95.8	30 - 120	
165 Ho	1	1864559	1.27	1824721	102.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Linear Dynamic Range Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\013\_LR.D\013\_LR.D#  
 Date Acquired: Jun 24 2009 07:44 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LR  
 Misc Info:  
 Vial Number: 2110  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: LR  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	937.10 ppb	1.11	1000	93.7	90 - 110	
51 V	72	1	932.00 ppb	1.41	1000	93.2	90 - 110	
52 Cr	72	1	964.00 ppb	0.63	1000	96.4	90 - 110	
55 Mn	72	1	969.70 ppb	0.64	1000	97.0	90 - 110	
59 Co	72	1	926.20 ppb	1.18	1000	92.6	90 - 110	
60 Ni	72	1	995.00 ppb	1.85	1000	99.5	90 - 110	
63 Cu	72	1	955.90 ppb	0.71	1000	95.6	90 - 110	
66 Zn	72	1	1020.00 ppb	0.96	1000	102.0	90 - 110	
75 As	72	1	981.30 ppb	0.36	1000	98.1	90 - 110	
78 Se	72	1	950.60 ppb	1.07	1000	95.1	90 - 110	
95 Mo	72	1	1009.00 ppb	1.13	1000	100.9	90 - 110	
107 Ag	115	1	948.10 ppb	2.03	1000	94.8	90 - 110	
111 Cd	115	1	1006.00 ppb	0.95	1000	100.6	90 - 110	
118 Sn	115	1	993.40 ppb	1.10	1000	99.3	90 - 110	
121 Sb	115	1	986.00 ppb	1.37	1000	98.6	90 - 110	
137 Ba	115	1	1008.00 ppb	1.16	1000	100.8	90 - 110	
205 Tl	165	1	957.90 ppb	0.93	1000	95.8	90 - 110	
208 Pb	165	1	967.80 ppb	1.24	1000	96.8	90 - 110	
232 Th	165	1	985.20 ppb	1.85	1000	98.5	90 - 110	
238 U	165	1	979.70 ppb	1.31	1000	98.0	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	167418	0.56	163501	102.4	30 - 120	
45 Sc	1	441840	0.55	473295	93.4	30 - 120	
72 Ge	1	254704	0.98	272811	93.4	30 - 120	
115 In	1	794489	1.38	858259	92.6	30 - 120	
165 Ho	1	1851575	1.22	1824721	101.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed





## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\015\_CCV.D\015\_CCV.D#  
 Date Acquired: Jun 24 2009 07:52 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	47.95 ppb	1.18	50	95.9	90 - 110	
51	V	72	49.01 ppb	1.26	50	98.0	90 - 110	
52	Cr	72	49.82 ppb	1.43	50	99.6	90 - 110	
55	Mn	72	50.08 ppb	0.46	50	100.2	90 - 110	
59	Co	72	48.73 ppb	1.25	50	97.5	90 - 110	
60	Ni	72	50.21 ppb	0.21	50	100.4	90 - 110	
63	Cu	72	50.36 ppb	0.99	50	100.7	90 - 110	
66	Zn	72	49.28 ppb	1.54	50	98.6	90 - 110	
75	As	72	50.00 ppb	0.87	50	100.0	90 - 110	
78	Se	72	47.07 ppb	6.00	50	94.1	90 - 110	
95	Mo	72	50.70 ppb	0.85	50	101.4	90 - 110	
107	Ag	115	50.22 ppb	0.54	50	100.4	90 - 110	
111	Cd	115	50.43 ppb	0.56	50	100.9	90 - 110	
118	Sn	115	50.40 ppb	1.34	50	100.8	90 - 110	
121	Sb	115	50.22 ppb	0.60	50	100.4	90 - 110	
137	Ba	115	50.22 ppb	0.37	50	100.4	90 - 110	
205	Tl	165	51.87 ppb	0.54	50	103.7	90 - 110	
208	Pb	165	50.22 ppb	0.96	50	100.4	90 - 110	
232	Th	165	48.96 ppb	1.93	50	97.9	90 - 110	
238	U	165	50.55 ppb	1.23	50	101.1	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	168391	0.58	163501	103.0	30 - 120
45	Sc	1	461420	0.74	473295	97.5	30 - 120
72	Ge	1	266462	0.21	272811	97.7	30 - 120
115	In	1	830967	0.55	858259	96.8	30 - 120
165	Ho	1	1872058	0.91	1824721	102.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\016\_CCB.D\016\_CCB.D#  
 Date Acquired: Jun 24 2009 07:55 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.009	ppb	173.20	1.00	
51 V	72	1	-0.038	ppb	90.01	1.00	
52 Cr	72	1	-0.014	ppb	95.55	1.00	
55 Mn	72	1	0.005	ppb	127.19	1.00	
59 Co	72	1	0.001	ppb	291.01	1.00	
60 Ni	72	1	-0.007	ppb	138.82	1.00	
63 Cu	72	1	0.012	ppb	208.41	1.00	
66 Zn	72	1	0.019	ppb	34.41	1.00	
75 As	72	1	-0.001	ppb	1011.90	1.00	
78 Se	72	1	0.391	ppb	70.56	1.00	
95 Mo	72	1	0.103	ppb	32.60	1.00	
107 Ag	115	1	0.079	ppb	22.88	1.00	
111 Cd	115	1	0.008	ppb	45.24	1.00	
118 Sn	115	1	0.134	ppb	39.20	1.00	
121 Sb	115	1	0.034	ppb	13.13	1.00	
137 Ba	115	1	0.000	ppb	1521.40	1.00	
205 Tl	165	1	0.074	ppb	9.57	1.00	
208 Pb	165	1	0.001	ppb	30.04	1.00	
232 Th	165	1	0.704	ppb	20.83	1.00	
238 U	165	1	0.005	ppb	6.54	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	165071	1.73	163501	101.0	30 - 120	
45 Sc	1	458156	2.72	473295	96.8	30 - 120	
72 Ge	1	266323	1.54	272811	97.6	30 - 120	
115 In	1	830225	2.53	858259	96.7	30 - 120	
165 Ho	1	1834045	3.17	1824721	100.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\017WASH.D\017WASH.D#  
 Date Acquired: Jun 24 2009 07:58 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.121 ppb	30.68	1.30	
51 V	72	1	5.154 ppb	3.56	6.50	
52 Cr	72	1	2.061 ppb	5.49	2.60	
55 Mn	72	1	1.001 ppb	1.48	1.30	
59 Co	72	1	1.029 ppb	3.34	1.30	
60 Ni	72	1	2.110 ppb	6.42	2.60	
63 Cu	72	1	2.085 ppb	1.98	2.60	
66 Zn	72	1	10.110 ppb	0.87	13.00	
75 As	72	1	5.183 ppb	1.61	6.50	
78 Se	72	1	4.623 ppb	11.87	6.50	
95 Mo	72	1	2.103 ppb	3.10	2.60	
107 Ag	115	1	5.138 ppb	0.77	6.50	
111 Cd	115	1	1.064 ppb	6.44	1.30	
118 Sn	115	1	10.490 ppb	2.92	13.00	
121 Sb	115	1	1.953 ppb	2.16	2.60	
137 Ba	115	1	1.009 ppb	8.26	1.30	
205 Tl	165	1	1.116 ppb	0.50	1.30	
208 Pb	165	1	1.050 ppb	1.33	1.30	
232 Th	165	1	2.150 ppb	0.71	2.60	
238 U	165	1	1.055 ppb	1.61	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	166616	0.49	163501	101.9	30 - 120	
45 Sc	1	470800	0.34	473295	99.5	30 - 120	
72 Ge	1	271876	0.14	272811	99.7	30 - 120	
115 In	1	848189	0.16	858259	98.8	30 - 120	
165 Ho	1	1850275	0.97	1824721	101.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\028\_CCV.D\028\_CCV.D#  
 Date Acquired: Jun 24 2009 08:36 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.91 ppb	4.06	50	99.8	90 - 110	
51	V	72	49.06 ppb	0.65	50	98.1	90 - 110	
52	Cr	72	49.15 ppb	0.81	50	98.3	90 - 110	
55	Mn	72	49.93 ppb	0.46	50	99.9	90 - 110	
59	Co	72	48.38 ppb	0.71	50	96.8	90 - 110	
60	Ni	72	49.43 ppb	1.21	50	98.9	90 - 110	
63	Cu	72	49.60 ppb	0.61	50	99.2	90 - 110	
66	Zn	72	48.83 ppb	1.38	50	97.7	90 - 110	
75	As	72	50.10 ppb	1.52	50	100.2	90 - 110	
78	Se	72	49.60 ppb	3.25	50	99.2	90 - 110	
95	Mo	72	50.21 ppb	0.79	50	100.4	90 - 110	
107	Ag	115	49.85 ppb	0.71	50	99.7	90 - 110	
111	Cd	115	50.33 ppb	1.36	50	100.7	90 - 110	
118	Sn	115	50.19 ppb	0.61	50	100.4	90 - 110	
121	Sb	115	50.21 ppb	0.46	50	100.4	90 - 110	
137	Ba	115	50.84 ppb	0.59	50	101.7	90 - 110	
205	Tl	165	52.34 ppb	1.90	50	104.7	90 - 110	
208	Pb	165	50.99 ppb	1.78	50	102.0	90 - 110	
232	Th	165	50.26 ppb	1.07	50	100.5	90 - 110	
238	U	165	52.01 ppb	0.60	50	104.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	147649	0.21	163501	90.3	30 - 120
45	Sc	1	427867	0.48	473295	90.4	30 - 120
72	Ge	1	249035	0.40	272811	91.3	30 - 120
115	In	1	786127	0.27	858259	91.6	30 - 120
165	Ho	1	1751379	1.24	1824721	96.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\029\_CCB.D\029\_CCB.D#  
 Date Acquired: Jun 24 2009 08:39 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.011 ppb	173.13	1.00	
51 V	72	1	-0.006 ppb	1394.40	1.00	
52 Cr	72	1	-0.032 ppb	101.03	1.00	
55 Mn	72	1	0.005 ppb	108.60	1.00	
59 Co	72	1	0.000 ppb	1570.50	1.00	
60 Ni	72	1	0.003 ppb	266.11	1.00	
63 Cu	72	1	0.018 ppb	27.46	1.00	
66 Zn	72	1	0.016 ppb	140.14	1.00	
75 As	72	1	0.012 ppb	56.52	1.00	
78 Se	72	1	0.279 ppb	108.79	1.00	
95 Mo	72	1	0.060 ppb	40.02	1.00	
107 Ag	115	1	0.109 ppb	28.36	1.00	
111 Cd	115	1	0.011 ppb	53.34	1.00	
118 Sn	115	1	0.039 ppb	55.82	1.00	
121 Sb	115	1	0.016 ppb	34.99	1.00	
137 Ba	115	1	0.005 ppb	108.69	1.00	
205 Tl	165	1	0.019 ppb	23.84	1.00	
208 Pb	165	1	0.003 ppb	38.29	1.00	
232 Th	165	1	0.728 ppb	16.33	1.00	
238 U	165	1	0.006 ppb	38.81	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	148730	1.56	163501	91.0	30 - 120	
45 Sc	1	439376	0.43	473295	92.8	30 - 120	
72 Ge	1	257637	0.39	272811	94.4	30 - 120	
115 In	1	817368	0.32	858259	95.2	30 - 120	
165 Ho	1	1773917	1.34	1824721	97.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\030WASH.D\030WASH.D#  
 Date Acquired: Jun 24 2009 08:42 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.959 ppb	10.84	1.30	
51 V	72	1	5.001 ppb	2.10	6.50	
52 Cr	72	1	2.073 ppb	2.04	2.60	
55 Mn	72	1	1.037 ppb	1.45	1.30	
59 Co	72	1	1.022 ppb	3.89	1.30	
60 Ni	72	1	1.926 ppb	3.49	2.60	
63 Cu	72	1	1.996 ppb	2.34	2.60	
66 Zn	72	1	10.210 ppb	0.70	13.00	
75 As	72	1	5.174 ppb	2.23	6.50	
78 Se	72	1	4.849 ppb	11.65	6.50	
95 Mo	72	1	2.025 ppb	3.19	2.60	
107 Ag	115	1	5.027 ppb	2.25	6.50	
111 Cd	115	1	1.037 ppb	5.78	1.30	
118 Sn	115	1	10.420 ppb	3.19	13.00	
121 Sb	115	1	1.948 ppb	3.09	2.60	
137 Ba	115	1	1.058 ppb	4.46	1.30	
205 Tl	165	1	1.115 ppb	0.89	1.30	
208 Pb	165	1	1.068 ppb	1.04	1.30	
232 Th	165	1	2.208 ppb	1.16	2.60	
238 U	165	1	1.083 ppb	1.42	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	145582	0.61	163501	89.0	30 - 120	
45 Sc	1	440932	0.10	473295	93.2	30 - 120	
72 Ge	1	258827	0.34	272811	94.9	30 - 120	
115 In	1	817143	0.75	858259	95.2	30 - 120	
165 Ho	1	1779277	0.27	1824721	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\031ICSA.D\031ICSA.D#  
 Date Acquired: Jun 24 2009 08:46 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.06 ppb	69.23	1.00
51	V	72	1	0.00 ppb	12424.00	1.00
52	Cr	72	1	0.90 ppb	6.03	1.00
55	Mn	72	1	2.00 ppb	1.68	1.00
59	Co	72	1	0.04 ppb	13.41	1.00
60	Ni	72	1	0.64 ppb	13.77	1.00
63	Cu	72	1	0.33 ppb	6.75	1.00
66	Zn	72	1	2.66 ppb	1.84	10.00
75	As	72	1	0.17 ppb	16.32	1.00
78	Se	72	1	-0.12 ppb	250.61	1.00
95	Mo	72	1	1987.00 ppb	0.59	2000.00
107	Ag	115	1	0.15 ppb	10.46	1.00
111	Cd	115	1	0.34 ppb	8.22	1.00
118	Sn	115	1	0.07 ppb	56.73	10.00
121	Sb	115	1	0.23 ppb	16.82	1.00
137	Ba	115	1	1.50 ppb	2.17	1.00
205	Tl	165	1	0.04 ppb	13.74	1.00
208	Pb	165	1	0.13 ppb	5.13	1.00
232	Th	165	1	0.14 ppb	15.33	1.00
238	U	165	1	0.02 ppb	10.77	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	142331	0.44	163501	87.1	30 - 120
45	Sc	1	386462	0.70	473295	81.7	30 - 120
72	Ge	1	221252	0.75	272811	81.1	30 - 120
115	In	1	696244	0.46	858259	81.1	30 - 120
165	Ho	1	1655055	0.69	1824721	90.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\032ICSB.D\032ICSB.D#  
 Date Acquired: Jun 24 2009 08:49 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	92.45	1.78	100	92.5	80 - 120	
51 V	72	1	98.47	1.03	100	98.5	80 - 120	
52 Cr	72	1	97.21	0.98	100	97.2	80 - 120	
55 Mn	72	1	98.03	0.06	100	98.0	80 - 120	
59 Co	72	1	91.77	0.80	100	91.8	80 - 120	
60 Ni	72	1	91.22	0.22	100	91.2	80 - 120	
63 Cu	72	1	89.66	0.13	100	89.7	80 - 120	
66 Zn	72	1	98.19	0.86	100	98.2	80 - 120	
75 As	72	1	101.70	0.51	100	101.7	80 - 120	
78 Se	72	1	107.30	2.92	100	107.3	80 - 120	
95 Mo	72	1	2111.00	0.65	2100	100.5	80 - 120	
107 Ag	115	1	87.33	3.11	100	87.3	80 - 120	
111 Cd	115	1	96.45	0.75	100	96.5	80 - 120	
118 Sn	115	1	101.30	1.24	100	101.3	80 - 120	
121 Sb	115	1	102.80	0.62	100	102.8	80 - 120	
137 Ba	115	1	104.30	0.55	100	104.3	80 - 120	
205 Tl	165	1	93.90	1.62	100	93.9	80 - 120	
208 Pb	165	1	92.10	2.05	100	92.1	80 - 120	
232 Th	165	1	102.00	0.53	100	102.0	80 - 120	
238 U	165	1	98.05	1.04	100	98.1	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	141789	0.76	163501	86.7	30 - 120	
45 Sc	1	372807	0.46	473295	78.8	30 - 120	
72 Ge	1	213418	0.77	272811	78.2	30 - 120	
115 In	1	668009	0.48	858259	77.8	30 - 120	
165 Ho	1	1645681	0.33	1824721	90.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\033WASH.D\033WASH.D#  
 Date Acquired: Jun 24 2009 08:52 pm  
 Operator: TEL  
 Sample Name: WASH  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.30	
51 V	72	1	0.032 ppb	259.28	6.50	
52 Cr	72	1	-0.006 ppb	153.20	2.60	
55 Mn	72	1	0.019 ppb	35.08	1.30	
59 Co	72	1	0.012 ppb	60.51	1.30	
60 Ni	72	1	0.027 ppb	77.20	2.60	
63 Cu	72	1	0.042 ppb	16.35	2.60	
66 Zn	72	1	-0.008 ppb	388.99	13.00	
75 As	72	1	0.030 ppb	45.45	6.50	
78 Se	72	1	0.186 ppb	33.94	6.50	
95 Mo	72	1	0.978 ppb	15.36	2.60	
107 Ag	115	1	0.025 ppb	22.42	6.50	
111 Cd	115	1	0.018 ppb	28.54	1.30	
118 Sn	115	1	0.043 ppb	45.64	13.00	
121 Sb	115	1	0.016 ppb	41.20	2.60	
137 Ba	115	1	0.018 ppb	30.15	1.30	
205 Tl	165	1	0.014 ppb	7.58	1.30	
208 Pb	165	1	0.016 ppb	18.72	1.30	
232 Th	165	1	0.583 ppb	15.44	2.60	
238 U	165	1	0.021 ppb	20.17	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153786	0.64	163501	94.1	30 - 120	
45 Sc	1	428807	0.32	473295	90.6	30 - 120	
72 Ge	1	253153	0.93	272811	92.8	30 - 120	
115 In	1	808206	0.62	858259	94.2	30 - 120	
165 Ho	1	1787510	1.50	1824721	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\034\_CCV.D\034\_CCV.D#  
 Date Acquired: Jun 24 2009 08:56 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	49.33 ppb	4.28	50	98.7	90 - 110
51	V	72	1	49.34 ppb	1.56	50	98.7	90 - 110
52	Cr	72	1	49.38 ppb	1.39	50	98.8	90 - 110
55	Mn	72	1	49.99 ppb	0.62	50	100.0	90 - 110
59	Co	72	1	48.65 ppb	0.29	50	97.3	90 - 110
60	Ni	72	1	49.52 ppb	1.33	50	99.0	90 - 110
63	Cu	72	1	50.08 ppb	0.95	50	100.2	90 - 110
66	Zn	72	1	49.47 ppb	0.68	50	98.9	90 - 110
75	As	72	1	50.32 ppb	0.62	50	100.6	90 - 110
78	Se	72	1	51.47 ppb	0.64	50	102.9	90 - 110
95	Mo	72	1	50.98 ppb	0.88	50	102.0	90 - 110
107	Ag	115	1	49.57 ppb	0.98	50	99.1	90 - 110
111	Cd	115	1	49.85 ppb	1.11	50	99.7	90 - 110
118	Sn	115	1	50.38 ppb	0.65	50	100.8	90 - 110
121	Sb	115	1	50.63 ppb	0.51	50	101.3	90 - 110
137	Ba	115	1	51.01 ppb	0.65	50	102.0	90 - 110
205	Tl	165	1	52.84 ppb	0.87	50	105.7	90 - 110
208	Pb	165	1	51.41 ppb	0.73	50	102.8	90 - 110
232	Th	165	1	49.16 ppb	1.12	50	98.3	90 - 110
238	U	165	1	51.49 ppb	1.63	50	103.0	90 - 110

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	153433	0.11	163501	93.8	30 - 120
45	Sc	1	436100	0.76	473295	92.1	30 - 120
72	Ge	1	257738	0.44	272811	94.5	30 - 120
115	In	1	817010	0.44	858259	95.2	30 - 120
165	Ho	1	1819218	1.03	1824721	99.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\035\_CCB.D\035\_CCB.D#  
 Date Acquired: Jun 24 2009 08:59 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.018	ppb	439.98	1.00	
52 Cr	72	1	-0.017	ppb	242.94	1.00	
55 Mn	72	1	0.006	ppb	30.19	1.00	
59 Co	72	1	0.004	ppb	61.30	1.00	
60 Ni	72	1	-0.006	ppb	84.11	1.00	
63 Cu	72	1	0.018	ppb	61.00	1.00	
66 Zn	72	1	0.008	ppb	177.31	1.00	
75 As	72	1	0.008	ppb	117.46	1.00	
78 Se	72	1	-0.050	ppb	316.37	1.00	
95 Mo	72	1	0.116	ppb	15.10	1.00	
107 Ag	115	1	0.031	ppb	18.19	1.00	
111 Cd	115	1	0.011	ppb	40.99	1.00	
118 Sn	115	1	0.034	ppb	141.62	1.00	
121 Sb	115	1	0.012	ppb	57.85	1.00	
137 Ba	115	1	0.004	ppb	56.72	1.00	
205 Tl	165	1	0.020	ppb	5.90	1.00	
208 Pb	165	1	0.004	ppb	51.66	1.00	
232 Th	165	1	0.769	ppb	16.34	1.00	
238 U	165	1	0.006	ppb	15.54	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	154869	1.17	163501	94.7	30 - 120	
45 Sc	1	451661	0.35	473295	95.4	30 - 120	
72 Ge	1	263583	0.11	272811	96.6	30 - 120	
115 In	1	833562	0.51	858259	97.1	30 - 120	
165 Ho	1	1835458	0.28	1824721	100.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\036WASH.D\036WASH.D#  
 Date Acquired: Jun 24 2009 09:03 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.951 ppb	27.10	1.30	
51 V	72	1	4.969 ppb	3.16	6.50	
52 Cr	72	1	2.016 ppb	5.02	2.60	
55 Mn	72	1	0.995 ppb	1.50	1.30	
59 Co	72	1	0.986 ppb	4.94	1.30	
60 Ni	72	1	1.983 ppb	4.74	2.60	
63 Cu	72	1	2.086 ppb	1.02	2.60	
66 Zn	72	1	10.170 ppb	1.36	13.00	
75 As	72	1	5.100 ppb	3.51	6.50	
78 Se	72	1	5.716 ppb	8.09	6.50	
95 Mo	72	1	2.075 ppb	2.35	2.60	
107 Ag	115	1	5.141 ppb	1.32	6.50	
111 Cd	115	1	1.007 ppb	3.99	1.30	
118 Sn	115	1	10.460 ppb	0.61	13.00	
121 Sb	115	1	1.963 ppb	2.86	2.60	
137 Ba	115	1	1.014 ppb	2.28	1.30	
205 Tl	165	1	1.107 ppb	1.78	1.30	
208 Pb	165	1	1.082 ppb	1.57	1.30	
232 Th	165	1	2.251 ppb	0.44	2.60	
238 U	165	1	1.097 ppb	2.16	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153782	1.38	163501	94.1	30 - 120	
45 Sc	1	448278	0.23	473295	94.7	30 - 120	
72 Ge	1	265227	0.76	272811	97.2	30 - 120	
115 In	1	842610	0.68	858259	98.2	30 - 120	
165 Ho	1	1831850	0.33	1824721	100.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

...”During the course of an analytical run, the instrument may be “resloped” or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed.”

Analyst: LRD

Date: 06/24/2009

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#  
 Date Acquired: Jun 24 2009 10:17 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:14 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
51	V	72	1	-125	155.01
52	Cr	72	1	1347	3.12
55	Mn	72	1	137	19.15
59	Co	72	1	27	43.97
60	Ni	72	1	33	17.74
63	Cu	72	1	293	31.56
66	Zn	72	1	201	12.52
75	As	72	1	16	32.04
78	Se	72	1	77	62.26
95	Mo	72	1	147	21.43
107	Ag	115	1	107	32.36
111	Cd	115	1	7	50.68
118	Sn	115	1	767	9.91
121	Sb	115	1	64	7.31
137	Ba	115	1	14	52.84
205	Tl	165	1	126	11.03
208	Pb	165	1	148	13.20
232	Th	165	1	913	8.83
238	U	165	1	104	13.31

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	117322	1.68
45	Sc	1	379430	0.45
72	Ge	1	230888	0.98
115	In	1	694252	0.79
165	Ho	1	1482298	0.02

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

**Calibration Standard QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\059ICAL.D\059ICAL.D#  
 Date Acquired: Jun 24 2009 10:20 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:18 pm  
 Sample Type: ICAL

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	25917	2.08
51	V	72	440859	0.40
52	Cr	72	498841	0.38
55	Mn	72	434202	0.35
59	Co	72	693184	0.44
60	Ni	72	170216	0.63
63	Cu	72	436062	0.02
66	Zn	72	90657	0.40
75	As	72	64010	0.60
78	Se	72	8116	1.74
95	Mo	72	212934	0.18
107	Ag	115	641135	1.00
111	Cd	115	113553	0.95
118	Sn	115	285789	0.95
121	Sb	115	375686	0.95
137	Ba	115	133578	0.91
205	Tl	165	1351068	1.18
208	Pb	165	1882489	0.46
232	Th	165	1769191	1.22
238	U	165	2026227	1.62

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range (%)	Flag
6	Li	1	116190	1.75	117322	99.0	30 - 120
45	Sc	1	372196	1.07	379430	98.1	30 - 120
72	Ge	1	228804	0.83	230888	99.1	30 - 120
115	In	1	674227	0.76	694252	97.1	30 - 120
165	Ho	1	1476640	0.84	1482298	99.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\060\_CCV.D\060\_CCV.D#  
 Date Acquired: Jun 24 2009 10:24 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.95 ppb	2.27	50	101.9	90 - 110	
51	V	72	51.38 ppb	1.81	50	102.8	90 - 110	
52	Cr	72	51.09 ppb	1.51	50	102.2	90 - 110	
55	Mn	72	51.40 ppb	0.27	50	102.8	90 - 110	
59	Co	72	51.06 ppb	0.83	50	102.1	90 - 110	
60	Ni	72	51.29 ppb	0.39	50	102.6	90 - 110	
63	Cu	72	51.32 ppb	1.67	50	102.6	90 - 110	
66	Zn	72	50.57 ppb	1.23	50	101.1	90 - 110	
75	As	72	51.06 ppb	0.85	50	102.1	90 - 110	
78	Se	72	48.68 ppb	4.68	50	97.4	90 - 110	
95	Mo	72	51.09 ppb	0.84	50	102.2	90 - 110	
107	Ag	115	50.68 ppb	0.72	50	101.4	90 - 110	
111	Cd	115	51.23 ppb	0.59	50	102.5	90 - 110	
118	Sn	115	50.95 ppb	0.60	50	101.9	90 - 110	
121	Sb	115	50.71 ppb	0.30	50	101.4	90 - 110	
137	Ba	115	50.69 ppb	0.51	50	101.4	90 - 110	
205	Tl	165	52.07 ppb	1.37	50	104.1	90 - 110	
208	Pb	165	51.54 ppb	1.96	50	103.1	90 - 110	
232	Th	165	54.55 ppb	1.65	50	109.1	90 - 110	
238	U	165	52.27 ppb	2.06	50	104.5	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	116863	0.68	117322	99.6	30 - 120
45	Sc	1	367256	0.44	379430	96.8	30 - 120
72	Ge	1	224440	0.68	230888	97.2	30 - 120
115	In	1	667028	1.07	694252	96.1	30 - 120
165	Ho	1	1451654	1.23	1482298	97.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed





**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\062WASH.D\062WASH.D#  
 Date Acquired: Jun 24 2009 10:31 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.996 ppb	9.75	1.30	
51 V	72	1	5.287 ppb	1.19	6.50	
52 Cr	72	1	2.116 ppb	3.39	2.60	
55 Mn	72	1	1.069 ppb	7.23	1.30	
59 Co	72	1	1.052 ppb	3.77	1.30	
60 Ni	72	1	2.104 ppb	5.43	2.60	
63 Cu	72	1	2.107 ppb	1.94	2.60	
66 Zn	72	1	10.040 ppb	2.06	13.00	
75 As	72	1	5.106 ppb	0.91	6.50	
78 Se	72	1	4.258 ppb	39.17	6.50	
95 Mo	72	1	2.010 ppb	4.56	2.60	
107 Ag	115	1	5.207 ppb	1.30	6.50	
111 Cd	115	1	1.034 ppb	3.49	1.30	
118 Sn	115	1	10.620 ppb	3.50	13.00	
121 Sb	115	1	2.017 ppb	0.23	2.60	
137 Ba	115	1	0.968 ppb	5.29	1.30	
205 Tl	165	1	1.101 ppb	0.72	1.30	
208 Pb	165	1	1.065 ppb	2.60	1.30	
232 Th	165	1	2.307 ppb	1.83	2.60	
238 U	165	1	1.090 ppb	0.82	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	116951	0.50	117322	99.7	30 - 120	
45 Sc	1	372991	0.46	379430	98.3	30 - 120	
72 Ge	1	229458	0.38	230888	99.4	30 - 120	
115 In	1	689440	0.45	694252	99.3	30 - 120	
165 Ho	1	1499228	0.34	1482298	101.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\070\_CCV.D\070\_CCV.D#  
 Date Acquired: Jun 24 2009 10:58 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	51.12	ppb	3.62	50	102.2	90 - 110
51	V	72	1	51.40	ppb	1.66	50	102.8	90 - 110
52	Cr	72	1	51.25	ppb	0.98	50	102.5	90 - 110
55	Mn	72	1	51.36	ppb	0.87	50	102.7	90 - 110
59	Co	72	1	51.15	ppb	0.99	50	102.3	90 - 110
60	Ni	72	1	50.39	ppb	1.61	50	100.8	90 - 110
63	Cu	72	1	50.61	ppb	0.70	50	101.2	90 - 110
66	Zn	72	1	51.11	ppb	0.55	50	102.2	90 - 110
75	As	72	1	51.06	ppb	0.34	50	102.1	90 - 110
78	Se	72	1	47.32	ppb	5.38	50	94.6	90 - 110
95	Mo	72	1	50.76	ppb	2.38	50	101.5	90 - 110
107	Ag	115	1	50.53	ppb	0.97	50	101.1	90 - 110
111	Cd	115	1	51.39	ppb	1.09	50	102.8	90 - 110
118	Sn	115	1	51.03	ppb	0.91	50	102.1	90 - 110
121	Sb	115	1	51.36	ppb	0.80	50	102.7	90 - 110
137	Ba	115	1	50.55	ppb	0.59	50	101.1	90 - 110
205	Tl	165	1	52.58	ppb	0.96	50	105.2	90 - 110
208	Pb	165	1	52.00	ppb	1.19	50	104.0	90 - 110
232	Th	165	1	54.86	ppb	0.65	50	109.7	90 - 110
238	U	165	1	52.77	ppb	0.97	50	105.5	90 - 110

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	109473	1.64	117322	93.3	30 - 120
45	Sc	1	341668	0.27	379430	90.0	30 - 120
72	Ge	1	210335	0.32	230888	91.1	30 - 120
115	In	1	636527	0.76	694252	91.7	30 - 120
165	Ho	1	1399322	0.25	1482298	94.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\072WASH.D\072WASH.D#  
 Date Acquired: Jun 24 2009 11:05 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.120 ppb	38.53	1.30	
51 V	72	1	5.253 ppb	6.17	6.50	
52 Cr	72	1	2.013 ppb	0.50	2.60	
55 Mn	72	1	1.103 ppb	2.70	1.30	
59 Co	72	1	1.044 ppb	1.08	1.30	
60 Ni	72	1	2.051 ppb	3.00	2.60	
63 Cu	72	1	2.083 ppb	3.23	2.60	
66 Zn	72	1	10.250 ppb	1.58	13.00	
75 As	72	1	5.277 ppb	1.02	6.50	
78 Se	72	1	4.391 ppb	19.94	6.50	
95 Mo	72	1	1.992 ppb	2.34	2.60	
107 Ag	115	1	5.180 ppb	1.30	6.50	
111 Cd	115	1	0.980 ppb	2.57	1.30	
118 Sn	115	1	10.460 ppb	1.31	13.00	
121 Sb	115	1	2.019 ppb	1.37	2.60	
137 Ba	115	1	1.032 ppb	4.47	1.30	
205 Tl	165	1	1.131 ppb	0.96	1.30	
208 Pb	165	1	1.073 ppb	2.39	1.30	
232 Th	165	1	2.336 ppb	3.22	2.60	
238 U	165	1	1.094 ppb	1.33	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	112305	1.24	117322	95.7	30 - 120	
45 Sc	1	353972	0.54	379430	93.3	30 - 120	
72 Ge	1	218407	0.59	230888	94.6	30 - 120	
115 In	1	657406	0.31	694252	94.7	30 - 120	
165 Ho	1	1437398	1.09	1482298	97.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\073ICSA.D\073ICSA.D#  
 Date Acquired: Jun 24 2009 11:08 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	0.07 ppb	91.65	1.00	
51	V	72	-0.45 ppb	43.52	1.00	
52	Cr	72	0.98 ppb	1.45	1.00	
55	Mn	72	2.21 ppb	6.13	1.00	
59	Co	72	0.04 ppb	8.50	1.00	
60	Ni	72	0.62 ppb	10.61	1.00	
63	Cu	72	0.30 ppb	5.61	1.00	
66	Zn	72	2.43 ppb	0.45	10.00	
75	As	72	0.17 ppb	20.25	1.00	
78	Se	72	0.10 ppb	419.65	1.00	
95	Mo	72	1982.00 ppb	1.43	2000.00	
107	Ag	115	0.13 ppb	2.97	1.00	
111	Cd	115	0.32 ppb	49.44	1.00	
118	Sn	115	0.03 ppb	183.17	10.00	
121	Sb	115	0.24 ppb	5.73	1.00	
137	Ba	115	1.43 ppb	4.56	1.00	
205	Tl	165	0.04 ppb	10.19	1.00	
208	Pb	165	0.13 ppb	3.23	1.00	
232	Th	165	0.16 ppb	30.27	1.00	
238	U	165	0.02 ppb	6.46	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	102993	0.56	117322	87.8	30 - 120
45	Sc	1	315475	0.66	379430	83.1	30 - 120
72	Ge	1	191330	0.71	230888	82.9	30 - 120
115	In	1	568291	0.77	694252	81.9	30 - 120
165	Ho	1	1326927	0.41	1482298	89.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\074ICSB.D\074ICSB.D#  
 Date Acquired: Jun 24 2009 11:11 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	98.42	1.66	100	98.4	80 - 120	
51 V	72	1	96.22	1.36	100	96.2	80 - 120	
52 Cr	72	1	96.05	1.46	100	96.1	80 - 120	
55 Mn	72	1	97.87	0.93	100	97.9	80 - 120	
59 Co	72	1	93.49	1.22	100	93.5	80 - 120	
60 Ni	72	1	91.50	1.23	100	91.5	80 - 120	
63 Cu	72	1	90.00	0.13	100	90.0	80 - 120	
66 Zn	72	1	100.10	1.73	100	100.1	80 - 120	
75 As	72	1	100.60	1.10	100	100.6	80 - 120	
78 Se	72	1	98.72	2.59	100	98.7	80 - 120	
95 Mo	72	1	2095.00	0.31	2100	99.8	80 - 120	
107 Ag	115	1	88.72	0.70	100	88.7	80 - 120	
111 Cd	115	1	96.17	1.00	100	96.2	80 - 120	
118 Sn	115	1	103.30	1.29	100	103.3	80 - 120	
121 Sb	115	1	103.00	0.93	100	103.0	80 - 120	
137 Ba	115	1	100.30	0.59	100	100.3	80 - 120	
205 Tl	165	1	90.87	1.62	100	90.9	80 - 120	
208 Pb	165	1	91.64	2.02	100	91.6	80 - 120	
232 Th	165	1	102.90	3.07	100	102.9	80 - 120	
238 U	165	1	98.85	1.74	100	98.9	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	102532	1.32	117322	87.4	30 - 120	
45 Sc	1	309952	0.42	379430	81.7	30 - 120	
72 Ge	1	186383	0.55	230888	80.7	30 - 120	
115 In	1	554517	0.30	694252	79.9	30 - 120	
165 Ho	1	1331587	1.56	1482298	89.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\075WASH.D\075WASH.D#  
 Date Acquired: Jun 24 2009 11:15 pm  
 Operator: TEL  
 Sample Name: WASH  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.30	
51 V	72	1	0.000 ppb	16827.00	6.50	
52 Cr	72	1	-0.023 ppb	135.11	2.60	
55 Mn	72	1	0.004 ppb	210.96	1.30	
59 Co	72	1	0.008 ppb	111.37	1.30	
60 Ni	72	1	0.013 ppb	116.86	2.60	
63 Cu	72	1	0.027 ppb	46.19	2.60	
66 Zn	72	1	0.192 ppb	17.40	13.00	
75 As	72	1	0.024 ppb	27.96	6.50	
78 Se	72	1	-0.127 ppb	238.35	6.50	
95 Mo	72	1	0.798 ppb	6.52	2.60	
107 Ag	115	1	0.000 ppb	1726.50	6.50	
111 Cd	115	1	0.005 ppb	118.57	1.30	
118 Sn	115	1	0.147 ppb	22.53	13.00	
121 Sb	115	1	0.034 ppb	10.48	2.60	
137 Ba	115	1	0.001 ppb	395.61	1.30	
205 Tl	165	1	0.004 ppb	6.00	1.30	
208 Pb	165	1	0.006 ppb	7.58	1.30	
232 Th	165	1	0.653 ppb	15.07	2.60	
238 U	165	1	0.010 ppb	15.03	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	113953	0.31	117322	97.1	30 - 120	
45 Sc	1	355429	0.70	379430	93.7	30 - 120	
72 Ge	1	219786	0.49	230888	95.2	30 - 120	
115 In	1	664242	0.34	694252	95.7	30 - 120	
165 Ho	1	1438883	0.33	1482298	97.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



### Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\076 CCV.D\076 CCV.D#  
 Date Acquired: Jun 24 2009 11:18 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

#### QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.29 ppb	5.77	50	100.6	90 - 110	
51	V	72	51.40 ppb	1.30	50	102.8	90 - 110	
52	Cr	72	51.37 ppb	0.97	50	102.7	90 - 110	
55	Mn	72	51.70 ppb	0.40	50	103.4	90 - 110	
59	Co	72	51.77 ppb	1.27	50	103.5	90 - 110	
60	Ni	72	51.93 ppb	1.65	50	103.9	90 - 110	
63	Cu	72	51.29 ppb	1.25	50	102.6	90 - 110	
66	Zn	72	51.42 ppb	0.50	50	102.8	90 - 110	
75	As	72	51.68 ppb	0.43	50	103.4	90 - 110	
78	Se	72	49.46 ppb	1.75	50	98.9	90 - 110	
95	Mo	72	51.58 ppb	1.79	50	103.2	90 - 110	
107	Ag	115	51.17 ppb	0.58	50	102.3	90 - 110	
111	Cd	115	51.68 ppb	0.86	50	103.4	90 - 110	
118	Sn	115	51.39 ppb	0.25	50	102.8	90 - 110	
121	Sb	115	51.72 ppb	0.53	50	103.4	90 - 110	
137	Ba	115	51.33 ppb	0.85	50	102.7	90 - 110	
205	Tl	165	52.42 ppb	1.78	50	104.8	90 - 110	
208	Pb	165	51.82 ppb	2.00	50	103.6	90 - 110	
232	Th	165	53.75 ppb	1.32	50	107.5	90 - 110	
238	U	165	52.40 ppb	0.69	50	104.8	90 - 110	

#### ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	114693	0.48	117322	97.8	30 - 120
45	Sc	1	354431	0.24	379430	93.4	30 - 120
72	Ge	1	217392	0.54	230888	94.2	30 - 120
115	In	1	652251	1.03	694252	94.0	30 - 120
165	Ho	1	1447522	1.25	1482298	97.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\077\_CCB.D\077\_CCB.D#  
 Date Acquired: Jun 24 2009 11:21 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.013	ppb	173.23	1.00	
51 V	72	1	-0.004	ppb	1282.60	1.00	
52 Cr	72	1	-0.001	ppb	2544.20	1.00	
55 Mn	72	1	0.002	ppb	542.04	1.00	
59 Co	72	1	0.006	ppb	30.06	1.00	
60 Ni	72	1	0.005	ppb	457.64	1.00	
63 Cu	72	1	0.009	ppb	76.99	1.00	
66 Zn	72	1	-0.054	ppb	31.25	1.00	
75 As	72	1	-0.002	ppb	147.68	1.00	
78 Se	72	1	0.031	ppb	1234.80	1.00	
95 Mo	72	1	0.054	ppb	13.57	1.00	
107 Ag	115	1	0.022	ppb	31.63	1.00	
111 Cd	115	1	0.013	ppb	52.64	1.00	
118 Sn	115	1	0.095	ppb	23.21	1.00	
121 Sb	115	1	0.038	ppb	13.98	1.00	
137 Ba	115	1	0.002	ppb	125.37	1.00	
205 Tl	165	1	0.024	ppb	19.58	1.00	
208 Pb	165	1	0.007	ppb	37.52	1.00	
232 Th	165	1	0.910	ppb	18.59	1.00	
238 U	165	1	0.007	ppb	9.99	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115014	0.64	117322	98.0	30 - 120	
45 Sc	1	361067	1.06	379430	95.2	30 - 120	
72 Ge	1	222710	0.47	230888	96.5	30 - 120	
115 In	1	672947	0.24	694252	96.9	30 - 120	
165 Ho	1	1433333	0.55	1482298	96.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\078WASH.D\078WASH.D#  
 Date Acquired: Jun 24 2009 11:25 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.011 ppb	6.56	1.30	
51 V	72	1	5.430 ppb	2.12	6.50	
52 Cr	72	1	2.113 ppb	3.93	2.60	
55 Mn	72	1	1.097 ppb	5.79	1.30	
59 Co	72	1	1.038 ppb	5.34	1.30	
60 Ni	72	1	2.066 ppb	2.52	2.60	
63 Cu	72	1	2.089 ppb	1.78	2.60	
66 Zn	72	1	10.390 ppb	0.65	13.00	
75 As	72	1	5.259 ppb	1.54	6.50	
78 Se	72	1	3.751 ppb	6.47	6.50	
95 Mo	72	1	2.061 ppb	4.03	2.60	
107 Ag	115	1	5.133 ppb	0.84	6.50	
111 Cd	115	1	1.050 ppb	9.77	1.30	
118 Sn	115	1	10.460 ppb	1.81	13.00	
121 Sb	115	1	1.986 ppb	1.56	2.60	
137 Ba	115	1	1.066 ppb	2.14	1.30	
205 Tl	165	1	1.093 ppb	1.63	1.30	
208 Pb	165	1	1.070 ppb	0.11	1.30	
232 Th	165	1	2.286 ppb	1.31	2.60	
238 U	165	1	1.098 ppb	1.34	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115299	0.91	117322	98.3	30 - 120	
45 Sc	1	365732	0.26	379430	96.4	30 - 120	
72 Ge	1	224138	0.48	230888	97.1	30 - 120	
115 In	1	674529	0.84	694252	97.2	30 - 120	
165 Ho	1	1449277	0.68	1482298	97.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed





**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\121WASH.D\121WASH.D#  
 Date Acquired: Jun 25 2009 01:51 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.045 ppb	11.17	1.30	
51 V	72	1	5.301 ppb	4.50	6.50	
52 Cr	72	1	2.110 ppb	4.23	2.60	
55 Mn	72	1	1.145 ppb	1.19	1.30	
59 Co	72	1	1.082 ppb	7.26	1.30	
60 Ni	72	1	2.099 ppb	2.94	2.60	
63 Cu	72	1	2.068 ppb	2.93	2.60	
66 Zn	72	1	10.390 ppb	2.26	13.00	
75 As	72	1	5.406 ppb	3.22	6.50	
78 Se	72	1	5.484 ppb	9.97	6.50	
95 Mo	72	1	2.044 ppb	5.75	2.60	
107 Ag	115	1	5.172 ppb	1.28	6.50	
111 Cd	115	1	1.086 ppb	6.15	1.30	
118 Sn	115	1	10.450 ppb	1.57	13.00	
121 Sb	115	1	2.010 ppb	2.25	2.60	
137 Ba	115	1	1.015 ppb	7.64	1.30	
205 Tl	165	1	1.142 ppb	2.59	1.30	
208 Pb	165	1	1.084 ppb	3.93	1.30	
232 Th	165	1	2.383 ppb	0.38	2.60	
238 U	165	1	1.107 ppb	3.79	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	107337	1.56	117322	91.5	30 - 120	
45 Sc	1	347744	1.00	379430	91.6	30 - 120	
72 Ge	1	215342	0.57	230888	93.3	30 - 120	
115 In	1	635891	0.67	694252	91.6	30 - 120	
165 Ho	1	1362723	1.21	1482298	91.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\122\_BLK.D\122\_BLK.D#  
 Date Acquired: Jun 25 2009 01:54 am  
 Operator: TEL  
 Sample Name: LFFFXB  
 Misc Info: BLANK 9174190 6020  
 Vial Number: 2307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: BLK  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
51 V	72	1	0.014 ppb	440.81	2.00	
52 Cr	72	1	0.074 ppb	25.76	2.00	
55 Mn	72	1	0.038 ppb	25.17	2.00	
59 Co	72	1	-0.002 ppb	100.51	2.00	
60 Ni	72	1	0.006 ppb	212.92	2.00	
63 Cu	72	1	0.025 ppb	18.07	2.00	
66 Zn	72	1	0.240 ppb	9.93	2.00	
75 As	72	1	-0.011 ppb	29.17	2.00	
78 Se	72	1	-0.238 ppb	123.97	2.00	
95 Mo	72	1	-0.055 ppb	35.60	2.00	
107 Ag	115	1	0.003 ppb	141.92	2.00	
111 Cd	115	1	0.000 ppb	2082.30	2.00	
118 Sn	115	1	0.183 ppb	18.34	2.00	
121 Sb	115	1	0.013 ppb	60.51	2.00	
137 Ba	115	1	0.008 ppb	67.26	2.00	
205 Tl	165	1	0.001 ppb	306.47	2.00	
208 Pb	165	1	0.008 ppb	28.60	2.00	
232 Th	165	1	0.203 ppb	22.71	2.00	
238 U	165	1	-0.002 ppb	20.95	2.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	106242	0.31	117322	90.6	30 - 120	
45 Sc	1	344253	1.69	379430	90.7	30 - 120	
72 Ge	1	212816	1.76	230888	92.2	30 - 120	
115 In	1	628767	1.56	694252	90.6	30 - 120	
165 Ho	1	1348506	1.50	1482298	91.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed









**Dilution Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\126SDIL.D\126SDIL.D#  
 Date Acquired: Jun 25 2009 02:08 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE7CTP5  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2311  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SDIL  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\125AREF.D\125AREF.D#

**QC elements**

Element	IS Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9	Be	6	1.00 ppb	14.07	0.60	166.3	90 - 110	
51	V	72	17.80 ppb	1.40	18.47	96.4	90 - 110	
52	Cr	72	8.49 ppb	1.14	8.80	96.5	90 - 110	
55	Mn	72	41650.00 ppb	0.44	42640.00	97.7	90 - 110	
59	Co	72	4.77 ppb	3.86	4.69	101.6	90 - 110	
60	Ni	72	11.82 ppb	2.28	11.76	100.5	90 - 110	
63	Cu	72	42.23 ppb	1.35	41.66	101.4	90 - 110	
66	Zn	72	16.96 ppb	1.28	16.39	103.5	90 - 110	
75	As	72	13.80 ppb	2.18	14.46	95.4	90 - 110	
78	Se	72	2.35 ppb	20.06	2.39	98.5	90 - 110	
95	Mo	72	0.82 ppb	4.66	0.75	110.0	90 - 110	
107	Ag	115	0.00 ppb	139.88	0.02	13.5	90 - 110	
111	Cd	115	0.27 ppb	23.26	0.27	102.7	90 - 110	
118	Sn	115	0.17 ppb	27.22	0.23	74.0	90 - 110	
121	Sb	115	0.05 ppb	19.88	0.05	95.6	90 - 110	
137	Ba	115	21.51 ppb	0.84	21.76	98.9	90 - 110	
205	Tl	165	0.09 ppb	0.39	0.09	100.7	90 - 110	
208	Pb	165	3.15 ppb	1.89	2.99	105.4	90 - 110	
232	Th	165	1.65 ppb	1.55	1.71	96.6	90 - 110	
238	U	165	3.02 ppb	2.88	2.97	101.8	90 - 110	

**ISTD elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	100153	0.31	117322	85.4	30 - 120	
45	Sc	312890	0.77	379430	82.5	30 - 120	
72	Ge	192635	0.54	230888	83.4	30 - 120	
115	In	560246	0.43	694252	80.7	30 - 120	
165	Ho	1236848	1.73	1482298	83.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:08

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTP5

Serial Dilution: 5.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 126

Method 6020\_

Acquired: 06/25/2009 02:08:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 22:17:00

Units: ug/L

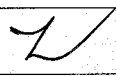
CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	223	4.9960	3.0050	66.3		*	
7440-62-2	Vanadium	51	65967	89.000	92.370	3.65		*	
7440-47-3	Chromium	52	36702	42.470	44.000	3.48		*	
7439-96-5	Manganese	55	52226000	208250	213200	2.32		*	
7440-48-4	Cobalt	59	27835	23.830	23.460	1.58		*	
7440-02-0	Nickel	60	16961	59.100	58.800	0.510		*	
7440-50-8	Copper	63	155193	211.15	208.30	1.37		*	
7440-66-6	Zinc	66	13083	84.800	81.970	3.45		*	
7440-38-2	Arsenic	75	7450	69.000	72.310	4.58	0.21	4.6	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	223	11.755	11.930	1.47	0.70	NC	<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	1593	4.1060	3.7340	9.96		*	
7440-22-4	Silver	107	100	0.01314	0.09698	86.5		*	
7440-43-9	Cadmium	111	265	1.3745	1.3390	2.65		*	
7440-31-5	Tin	118	1027	0.86050	1.1630	26.0		*	
7440-36-0	Antimony	121	201	0.23895	0.24990	4.38		*	
7440-39-3	Barium	137	23881	107.55	108.80	1.15		*	
7440-28-0	Thallium	205	1168	0.46975	0.46630	0.740		*	
7439-92-1	Lead	208	49783	15.750	14.950	5.35		*	
7440-61-1	Uranium	238	51342	15.105	14.840	1.79		*	
7440-29-1	Thorium	232	25169	8.2400	8.5270	3.37		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

\* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

*See only*

Reviewed by: 	Date: <i>6/25/09</i>
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**Post Digestion Spiked Sample (PDS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\127PDS.D\127PDS.D#  
 Date Acquired: Jun 25 2009 02:11 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE7CTZ  
 Misc Info: POST DIGESTION SPIKE  
 Vial Number: 2312  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: PDS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	172.90	3.01	ppb	4.33	200	85.2	75 - 125	
51 V	72	1	298.30	92.37	ppb	0.13	200	102.0	75 - 125	
52 Cr	72	1	242.40	44.00	ppb	2.23	200	99.3	75 - 125	
55 Mn	72	1	204700.00	213200.00	ppb	0.86	200	95.9	75 - 125	
59 Co	72	1	209.10	23.46	ppb	1.01	200	93.6	75 - 125	
60 Ni	72	1	231.80	58.80	ppb	1.26	200	89.6	75 - 125	
63 Cu	72	1	382.60	208.30	ppb	1.06	200	93.7	75 - 125	
66 Zn	72	1	263.60	81.97	ppb	0.26	200	93.5	75 - 125	
75 As	72	1	297.30	72.31	ppb	0.45	200	109.2	75 - 125	
78 Se	72	1	233.30	11.93	ppb	3.39	200	110.1	75 - 125	
95 Mo	72	1	202.90	3.73	ppb	0.42	200	99.6	75 - 125	
107 Ag	115	1	45.75	0.10	ppb	1.20	50	91.3	75 - 125	
111 Cd	115	1	191.70	1.34	ppb	0.26	200	95.2	75 - 125	
118 Sn	115	1	181.60	1.16	ppb	0.82	200	90.3	75 - 125	
121 Sb	115	1	210.00	0.25	ppb	0.82	200	104.9	75 - 125	
137 Ba	115	1	311.70	108.80	ppb	0.69	200	100.9	75 - 125	
205 Tl	165	1	178.60	0.47	ppb	1.27	200	89.1	75 - 125	
208 Pb	165	1	189.60	14.95	ppb	1.20	200	88.2	75 - 125	
232 Th	165	1	7.98	8.53	ppb	1.39	200	3.8	75 - 125	
238 U	165	1	198.90	14.84	ppb	0.79	200	92.6	75 - 125	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	104825	2.96	117322	89.3	30 - 120	
45 Sc	1	297454	0.97	379430	78.4	30 - 120	
72 Ge	1	171500	0.38	230888	74.3	30 - 120	
115 In	1	483356	0.42	694252	69.6	30 - 120	
165 Ho	1	1161004	1.01	1482298	78.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures                      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                        0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:12

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTZ

Spike Dilution: 1.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 127

Method 6020\_

Acquired: 06/25/2009 02:11:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 22:17:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	40403	172.90	3.0050	84.9	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	985902	298.30	92.370	103	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	904878	242.40	44.000	99.2	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	66097000	204700	213200	0.00	200	*	<input type="checkbox"/>
7440-48-4	Cobalt	59	1086600	209.10	23.460	92.8	200		<input type="checkbox"/>
7440-02-0	Nickel	60	295721	231.80	58.800	86.5	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1249950	382.60	208.30	87.2	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	178904	263.60	81.970	90.8	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	142608	297.30	72.310	112	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	14118	233.30	11.930	111	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	323688	202.90	3.7340	99.6	200		<input type="checkbox"/>
7440-22-4	Silver	107	210316	45.750	0.09698	91.3	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	156062	191.70	1.3390	95.2	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	371665	181.60	1.1630	90.2	200		<input type="checkbox"/>
7440-36-0	Antimony	121	565641	210.00	0.24990	105	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	298496	311.70	108.80	101	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	1896680	178.60	0.46630	89.1	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	2805220	189.60	14.950	87.3	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	3169070	198.90	14.840	92.0	200		<input type="checkbox"/>
7440-29-1	Thorium	232	111683	7.9810	8.5270				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

*Se only.*

Reviewed by: 

Date: *6/25/09*

**Spiked Sample (MS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\128\_MS.D\128\_MS.D#  
 Date Acquired: Jun 25 2009 02:15 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE7CTS  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2401  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: MS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	38.86	3.01	ppb	3.64	40	90.4	50 - 150	
51 V	72	1	130.60	92.37	ppb	0.84	40	98.7	50 - 150	
52 Cr	72	1	81.81	44.00	ppb	0.77	40	97.4	50 - 150	
55 Mn	72	1	206700.00	213200.00	ppb	1.15	40	96.9	50 - 150	
59 Co	72	1	59.84	23.46	ppb	0.89	40	94.3	50 - 150	
60 Ni	72	1	93.35	58.80	ppb	1.82	40	94.5	50 - 150	
63 Cu	72	1	241.90	208.30	ppb	0.24	40	97.4	50 - 150	
66 Zn	72	1	120.90	81.97	ppb	0.58	40	99.1	50 - 150	
75 As	72	1	123.60	72.31	ppb	0.52	40	110.1	50 - 150	
78 Se	72	1	55.17	11.93	ppb	3.57	40	106.2	50 - 150	
95 Mo	72	1	40.23	3.73	ppb	2.24	40	92.0	50 - 150	
107 Ag	115	1	37.74	0.10	ppb	0.54	40	94.1	50 - 150	
111 Cd	115	1	40.40	1.34	ppb	1.51	40	97.7	50 - 150	
118 Sn	115	1	1.23	1.16	ppb	3.67	40	3.0	50 - 150	
121 Sb	115	1	27.12	0.25	ppb	1.76	40	67.4	50 - 150	
137 Ba	115	1	148.20	108.80	ppb	0.17	40	99.6	50 - 150	
205 Tl	165	1	37.33	0.47	ppb	0.34	40	92.2	50 - 150	
208 Pb	165	1	50.45	14.95	ppb	0.12	40	91.8	50 - 150	
232 Th	165	1	51.14	8.53	ppb	0.42	40	105.4	50 - 150	
238 U	165	1	53.88	14.84	ppb	0.73	40	98.2	50 - 150	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	100159	5.10	117322	85.4	30 - 120	
45 Sc	1	285071	2.02	379430	75.1	30 - 120	
72 Ge	1	166111	2.56	230888	71.9	30 - 120	
115 In	1	469333	2.74	694252	67.6	30 - 120	
165 Ho	1	1106631	3.49	1482298	74.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures                      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                        0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\129 CC.V.D\129 CC.V.D#  
 Date Acquired: Jun 25 2009 02:18 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	53.09 ppb	2.51	50	106.2	90 - 110	
51	V	72	50.60 ppb	1.29	50	101.2	90 - 110	
52	Cr	72	50.15 ppb	0.51	50	100.3	90 - 110	
55	Mn	72	62.11 ppb	4.59	50	124.2	90 - 110	Fail
59	Co	72	49.51 ppb	0.95	50	99.0	90 - 110	
60	Ni	72	49.92 ppb	2.05	50	99.8	90 - 110	
63	Cu	72	49.89 ppb	0.76	50	99.8	90 - 110	
66	Zn	72	51.56 ppb	0.22	50	103.1	90 - 110	
75	As	72	56.46 ppb	0.80	50	112.9	90 - 110	Fail
78	Se	72	47.87 ppb	8.47	50	95.7	90 - 110	
95	Mo	72	49.48 ppb	1.58	50	99.0	90 - 110	
107	Ag	115	51.19 ppb	0.41	50	102.4	90 - 110	
111	Cd	115	51.57 ppb	0.76	50	103.1	90 - 110	
118	Sn	115	50.57 ppb	1.14	50	101.1	90 - 110	
121	Sb	115	54.19 ppb	0.35	50	108.4	90 - 110	
137	Ba	115	51.68 ppb	0.60	50	103.4	90 - 110	
205	Tl	165	51.27 ppb	0.95	50	102.5	90 - 110	
208	Pb	165	50.76 ppb	1.34	50	101.5	90 - 110	
232	Th	165	53.66 ppb	0.66	50	107.3	90 - 110	
238	U	165	51.64 ppb	1.52	50	103.3	90 - 110	

*Se only  
Z  
6/25/09*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	95230	0.73	117322	81.2	30 - 120
45	Sc	1	313422	0.58	379430	82.6	30 - 120
72	Ge	1	198248	0.34	230888	85.9	30 - 120
115	In	1	569663	0.57	694252	82.1	30 - 120
165	Ho	1	1224221	0.63	1482298	82.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\130 CCB.D\130 CCB.D#  
 Date Acquired: Jun 25 2009 02:21 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.031 ppb	86.64	1.00	
51 V	72	1	0.015 ppb	356.57	1.00	
52 Cr	72	1	-0.022 ppb	32.80	1.00	
55 Mn	72	1	1.154 ppb	9.63	1.00	Fail
59 Co	72	1	0.007 ppb	47.21	1.00	
60 Ni	72	1	-0.004 ppb	78.43	1.00	
63 Cu	72	1	0.010 ppb	66.25	1.00	
66 Zn	72	1	-0.046 ppb	9.11	1.00	
75 As	72	1	0.016 ppb	46.36	1.00	
78 Se	72	1	0.276 ppb	258.45	1.00	
95 Mo	72	1	-0.014 ppb	169.57	1.00	
107 Ag	115	1	0.037 ppb	29.34	1.00	
111 Cd	115	1	-0.002 ppb	267.68	1.00	
118 Sn	115	1	0.151 ppb	30.44	1.00	
121 Sb	115	1	0.056 ppb	16.97	1.00	
137 Ba	115	1	0.003 ppb	141.19	1.00	
205 Tl	165	1	0.024 ppb	18.45	1.00	
208 Pb	165	1	0.008 ppb	17.07	1.00	
232 Th	165	1	0.507 ppb	20.87	1.00	
238 U	165	1	0.010 ppb	3.22	1.00	

*NR*

*Sealy*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	98014	2.78	117322	83.5	30 - 120	
45 Sc	1	332388	3.50	379430	87.6	30 - 120	
72 Ge	1	209164	1.84	230888	90.6	30 - 120	
115 In	1	601113	3.43	694252	86.6	30 - 120	
165 Ho	1	1265864	3.01	1482298	85.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\131WASH.D\131WASH.D#  
 Date Acquired: Jun 25 2009 02:25 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.077 ppb	12.16	1.30	
51 V	72	1	5.388 ppb	1.37	6.50	
52 Cr	72	1	2.011 ppb	3.93	2.60	
55 Mn	72	1	1.546 ppb	2.77	1.30	
59 Co	72	1	1.025 ppb	3.50	1.30	
60 Ni	72	1	2.012 ppb	5.31	2.60	
63 Cu	72	1	1.958 ppb	3.07	2.60	
66 Zn	72	1	10.420 ppb	1.68	13.00	
75 As	72	1	5.473 ppb	1.30	6.50	
78 Se	72	1	5.100 ppb	13.03	6.50	
95 Mo	72	1	1.985 ppb	1.74	2.60	
107 Ag	115	1	5.139 ppb	1.41	6.50	
111 Cd	115	1	0.982 ppb	4.15	1.30	
118 Sn	115	1	10.200 ppb	2.21	13.00	
121 Sb	115	1	2.036 ppb	2.72	2.60	
137 Ba	115	1	1.037 ppb	5.24	1.30	
205 Tl	165	1	1.070 ppb	2.16	1.30	
208 Pb	165	1	1.029 ppb	1.25	1.30	
232 Th	165	1	2.182 ppb	1.85	2.60	
238 U	165	1	1.050 ppb	1.79	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	98628	1.73	117322	84.1	30 - 120	
45 Sc	1	345052	0.13	379430	90.9	30 - 120	
72 Ge	1	213318	0.12	230888	92.4	30 - 120	
115 In	1	620168	0.41	694252	89.3	30 - 120	
165 Ho	1	1292111	1.49	1482298	87.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed







**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\135SMPL.D\135SMPL.D#  
 Date Acquired: Jun 25 2009 02:38 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4D  
 Misc Info: D9F200196  
 Vial Number: 2405  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.02	0.02	ppb	173.20	3600	
51 V	72	1	2.42	2.42	ppb	11.14	3600	
52 Cr	72	1	5.83	5.83	ppb	2.47	3600	
55 Mn	72	1	673.20	673.20	ppb	0.76	3600	
59 Co	72	1	0.70	0.70	ppb	2.97	3600	
60 Ni	72	1	7.59	7.59	ppb	7.70	3600	
63 Cu	72	1	1.56	1.56	ppb	2.51	3600	
66 Zn	72	1	1.96	1.96	ppb	4.90	3600	
75 As	72	1	176.10	176.10	ppb	0.94	3600	
78 Se	72	1	0.02	0.02	ppb	4714.30	3600	
95 Mo	72	1	41.80	41.80	ppb	1.07	3600	
107 Ag	115	1	0.07	0.07	ppb	37.37	3600	
111 Cd	115	1	0.05	0.05	ppb	56.17	3600	
118 Sn	115	1	0.94	0.94	ppb	26.26	3600	
121 Sb	115	1	0.38	0.38	ppb	4.61	3600	
137 Ba	115	1	20.72	20.72	ppb	1.08	3600	
205 Tl	165	1	0.05	0.05	ppb	17.95	3600	
208 Pb	165	1	0.26	0.26	ppb	5.52	3600	
232 Th	165	1	0.00	0.00	ppb	236.28	1000	
238 U	165	1	95.46	95.46	ppb	0.11	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62661	3.83	117322	53.4	30 - 120	
45 Sc	1	177196	0.63	379430	46.7	30 - 120	
72 Ge	1	108258	1.32	230888	46.9	30 - 120	
115 In	1	296194	0.80	694252	42.7	30 - 120	
165 Ho	1	678678	1.49	1482298	45.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\136SMPL.D\136SMPL.D#  
 Date Acquired: Jun 25 2009 02:42 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4P  
 Misc Info: D9F200199  
 Vial Number: 2406  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	57.39	57.39	ppb	3.12	3600	
52 Cr	72	1	349.90	349.90	ppb	1.02	3600	
55 Mn	72	1	6.67	6.67	ppb	1.52	3600	
59 Co	72	1	5.81	5.81	ppb	2.23	3600	
60 Ni	72	1	10.65	10.65	ppb	3.94	3600	
63 Cu	72	1	0.42	0.42	ppb	10.37	3600	
66 Zn	72	1	0.37	0.37	ppb	17.83	3600	
75 As	72	1	185.40	185.40	ppb	0.41	3600	
78 Se	72	1	3.11	3.11	ppb	6.12	3600	
95 Mo	72	1	149.20	149.20	ppb	1.12	3600	
107 Ag	115	1	0.41	0.41	ppb	8.65	3600	
111 Cd	115	1	0.02	0.02	ppb	414.43	3600	
118 Sn	115	1	-0.16	-0.16	ppb	15.48	3600	
121 Sb	115	1	0.16	0.16	ppb	14.52	3600	
137 Ba	115	1	29.80	29.80	ppb	0.71	3600	
205 Tl	165	1	0.04	0.04	ppb	29.43	3600	
208 Pb	165	1	0.03	0.03	ppb	11.59	3600	
232 Th	165	1	-0.03	-0.03	ppb	8.27	1000	
238 U	165	1	18.30	18.30	ppb	1.57	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62647	1.05	117322	53.4	30 - 120	
45 Sc	1	203182	1.32	379430	53.5	30 - 120	
72 Ge	1	126133	1.09	230888	54.6	30 - 120	
115 In	1	345279	1.28	694252	49.7	30 - 120	
165 Ho	1	781819	0.44	1482298	52.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed





**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\138\_CCV.D\138\_CCV.D#  
 Date Acquired: Jun 25 2009 02:48 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	61.15 ppb	3.08	50	122.3	90 - 110	Fail
51	V	72	1	50.08 ppb	0.58	50	100.2	90 - 110	
52	Cr	72	1	50.30 ppb	1.06	50	100.6	90 - 110	
55	Mn	72	1	48.83 ppb	1.06	50	97.7	90 - 110	
59	Co	72	1	48.38 ppb	1.21	50	96.8	90 - 110	
60	Ni	72	1	48.87 ppb	2.44	50	97.7	90 - 110	
63	Cu	72	1	49.38 ppb	1.21	50	98.8	90 - 110	
66	Zn	72	1	54.84 ppb	0.57	50	109.7	90 - 110	
75	As	72	1	65.05 ppb	0.95	50	130.1	90 - 110	Fail
78	Se	72	1	45.79 ppb	2.17	50	91.6	90 - 110	
95	Mo	72	1	49.19 ppb	1.32	50	98.4	90 - 110	
107	Ag	115	1	52.65 ppb	0.53	50	105.3	90 - 110	
111	Cd	115	1	53.13 ppb	2.07	50	106.3	90 - 110	
118	Sn	115	1	51.40 ppb	0.48	50	102.8	90 - 110	
121	Sb	115	1	59.54 ppb	0.35	50	119.1	90 - 110	Fail
137	Ba	115	1	55.08 ppb	0.33	50	110.2	90 - 110	Fail
205	Tl	165	1	52.98 ppb	0.52	50	106.0	90 - 110	
208	Pb	165	1	52.54 ppb	0.96	50	105.1	90 - 110	
232	Th	165	1	54.85 ppb	0.72	50	109.7	90 - 110	
238	U	165	1	53.25 ppb	0.99	50	106.5	90 - 110	

*Scandy*  
*Z*  
*6/25/09*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	61254	1.77	117322	52.2	30 - 120
45	Sc	1	206162	0.78	379430	54.3	30 - 120
72	Ge	1	134977	0.81	230888	58.5	30 - 120
115	In	1	368867	0.74	694252	53.1	30 - 120
165	Ho	1	784294	0.88	1482298	52.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\139\_CCB.D\139\_CCB.D#  
 Date Acquired: Jun 25 2009 02:52 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.036	ppb	333.79	1.00	
52 Cr	72	1	0.483	ppb	10.99	1.00	
55 Mn	72	1	0.422	ppb	8.18	1.00	
59 Co	72	1	0.007	ppb	105.78	1.00	
60 Ni	72	1	0.016	ppb	67.80	1.00	
63 Cu	72	1	0.044	ppb	36.71	1.00	
66 Zn	72	1	-0.013	ppb	298.88	1.00	
75 As	72	1	0.099	ppb	47.87	1.00	
78 Se	72	1	0.394	ppb	211.54	1.00	
95 Mo	72	1	-0.012	ppb	356.35	1.00	
107 Ag	115	1	0.008	ppb	73.56	1.00	
111 Cd	115	1	0.013	ppb	81.55	1.00	
118 Sn	115	1	0.147	ppb	29.98	1.00	
121 Sb	115	1	0.053	ppb	29.90	1.00	
137 Ba	115	1	0.016	ppb	74.67	1.00	
205 Tl	165	1	0.022	ppb	12.48	1.00	
208 Pb	165	1	0.008	ppb	19.60	1.00	
232 Th	165	1	0.852	ppb	11.35	1.00	
238 U	165	1	0.011	ppb	22.33	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62733	1.68	117322	53.5	30 - 120	
45 Sc	1	215967	0.80	379430	56.9	30 - 120	
72 Ge	1	140696	1.49	230888	60.9	30 - 120	
115 In	1	383814	0.78	694252	55.3	30 - 120	
165 Ho	1	815818	0.65	1482298	55.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\140WASH.D\140WASH.D#  
 Date Acquired: Jun 25 2009 02:55 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.124 ppb	10.47	1.30	
51 V	72	1	5.159 ppb	1.59	6.50	
52 Cr	72	1	2.387 ppb	8.34	2.60	
55 Mn	72	1	1.403 ppb	6.80	1.30	
59 Co	72	1	1.050 ppb	4.80	1.30	
60 Ni	72	1	2.138 ppb	4.37	2.60	
63 Cu	72	1	2.028 ppb	1.54	2.60	
66 Zn	72	1	11.320 ppb	2.17	13.00	
75 As	72	1	6.770 ppb	6.25	6.50	
78 Se	72	1	4.702 ppb	13.58	6.50	
95 Mo	72	1	1.954 ppb	10.98	2.60	
107 Ag	115	1	5.358 ppb	1.39	6.50	
111 Cd	115	1	1.122 ppb	13.99	1.30	
118 Sn	115	1	10.880 ppb	3.97	13.00	
121 Sb	115	1	2.328 ppb	1.99	2.60	
137 Ba	115	1	1.092 ppb	9.09	1.30	
205 Tl	165	1	1.094 ppb	2.88	1.30	
208 Pb	165	1	1.061 ppb	2.52	1.30	
232 Th	165	1	2.313 ppb	0.58	2.60	
238 U	165	1	1.092 ppb	1.45	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	63763	0.94	117322	54.3	30 - 120	
45 Sc	1	220434	0.22	379430	58.1	30 - 120	
72 Ge	1	142718	0.10	230888	61.8	30 - 120	
115 In	1	392669	0.48	694252	56.6	30 - 120	
165 Ho	1	824043	0.50	1482298	55.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

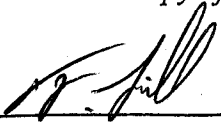
Lot ID:           D9F180266          

Client:           Northgate Environmental          

Batch(es) #:           9174190          

Associated Samples:           1          

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date:            6/29/09

# *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9F180266	1 D	AS	LE7CT1AF	20090625	6020TOTA	9174190	AG062509	024
D9F180266	1 S	AS	LE7CT1AE	20090625	6020TOTA	9174190	AG062509	024
D9F180266	1	AS	LE7CT1AA	20090625	6020TOTA	9174190	AG062509	024

**METALS  
PREPARATION LOGS  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

Batch Number: 9174190

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:  
JON HARRE

Prep Date: 06/24/09  
Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	LFFFX	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	LFFFX	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	LE709 Total		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total		Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT	S	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	D	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F190216 Water	LE9PT Total		Due Date: 07/01/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4A Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4D Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4P Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4Q Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*Checked  
6/24/09*

*✓  
2  
6/29/09*

**TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)**

BATCH # 9174190  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

**CONSUMABLES USED**

Digestion Cups: Manufacturer: Environmental Express Lot #: A901LS267

One or more samples were filtered prior to analysis at the instrument.  Yes  No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials:                     

**STANDARDS USED**

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

**REAGENTS USED**

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	3

**TEMPERATURE CYCLES**

Thermometer ID: 3311 Block & Cup #: 1,11

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO <sub>3</sub>	<u>6:00</u>	<u>95</u>	<u>10:20</u>	<u>95</u>
HNO <sub>3</sub>	<u>10:30</u>	<u>94</u>	<u>11:00</u>	<u>93</u>
HNO <sub>3</sub>				

Samples and QC revolved to: 50 mL Analyst's Initials JKH

**COMMENTS:**

I certify that all information above is correct and complete.

Signature: *Kim Anne*

Date: 6/24/09



**METALS  
SAMPLE DATA  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

### ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L. Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

### Quality Control Standards

ICV = Initial Calibration Verification (Second Source)      ICB = Initial Calibration Blank  
 CCV = Continuing Calibration Verification                      CCB = Continuing Calibration Blank

# TestAmerica Denver

## Standards Preparation Logbook Record

Jun-26-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008  
Date Expires(1): 10-01-2009 (None)  
Date Expires(2): 10-01-2009 (None)  
(METALS)-Inventory ID: 779

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	1,000.0	1,000.0

### STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008  
Date Expires(1): 12-01-2009 (None)  
Date Expires(2): 12-01-2009 (None)  
(METALS)-Inventory ID: 803

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1,000.0

### STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010  
Solvent: 1% HNO3  
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009  
Date Expires(1): 03-01-2010 (None)  
Date Expires(2): 03-01-2010 (None)  
(METALS)-Inventory ID: 833

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

### STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HN03 Lot No.: H02026 Volume (ml): 100.00  
Date Prep./Opened: 04-01-2009  
Date Expires(1): 12-01-2009 (1 Year)  
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3609-09, ICP-MS 10 ppm Zn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year)  
 Date Expires(2): 10-01-2009 (None)

Parent Std No.: STD4841-08, 1000 Zn (Inorganic Ventures) Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	10.000

STD3610-09, ICP-MS 10 ppm Sn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 03-01-2010 (1 Year)  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Parent Std No.: STD1198-09, 1000 mg/L Sn Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	10.000

STD3611-09, ICP-MS 1ppm Sn/Zn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000

STD3662-09, ICP-MS (024) INT STD BRC-HIGH

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-17-2009  
 Date Expires(1): 11-10-2009 (1 Year)  
 Date Expires(2): 12-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Volume (ml): 250.00

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 1.2000

Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	4,800.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.5000

Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	6,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,600.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	1,600.0

Parent Std No.: STD6318-08, Holmium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,600.0

STD3839-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)  
 Cu and Ag 1000 ppb

Volume (ml): 100.00

Parent Std No.: STD0749-09, 1000 ppm Ag Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
1000 ppm Ag	1,000.0	1.0000

Parent Std No.: STD2485-09, 1000 Cu Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Cu	1,000.0	1.0000

STD3841-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 07-25-2009 (1 Month)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 1,000.0

Parent Std No.: STD3840-09, NITRIC ACID

Aliquot Amount (ml): 50.000

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD3842-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Lot No.: H12022

Volume (ml): 10.000

Parent Std No.: STD1198-09, 1000 mg/L Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	10.000

STD3843-09, ICP-MS HIGH CAL STD

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Lot No.: H12022

Volume (ml): 100.00

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000

Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Al	2,000.0	10.000
Ca	2,000.0	10.000
Fe	2,000.0	10.000
K	2,000.0	10.000
Mg	2,000.0	10.000
Na	2,000.0	10.000

STD3844-09, ICP-MS HIGH CCV STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	0.0500
As	20.000	0.0500
Ba	20.000	0.0500
Be	20.000	0.0500
Cd	20.000	0.0500
Co	20.000	0.0500
Cr	20.000	0.0500
Cu	20.000	0.0500
Mn	20.000	0.0500
Ni	20.000	0.0500
Pb	20.000	0.0500
Se	20.000	0.0500
Th	20.000	0.0500
Tl	20.000	0.0500
U	20.000	0.0500
V	20.000	0.0500
Zn	20.000	0.0500

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.0500
Sb	20.000	0.0500
Sn	20.000	0.0500

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	5.0000
Ca	2,000.0	5.0000
Fe	2,000.0	5.0000
K	2,000.0	5.0000
Mg	2,000.0	5.0000
Na	2,000.0	5.0000

STD3845-09, ICP-MS HIGH RL STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD3843-09, ICP-MS HIGH CAL STD

Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	0.1000	0.0010
As	0.1000	0.0010
Ba	0.1000	0.0010
Be	0.1000	0.0010
Cd	0.1000	0.0010
Co	0.1000	0.0010
Cr	0.1000	0.0010
Cu	0.1000	0.0010
Mn	0.1000	0.0010
Ni	0.1000	0.0010
Pb	0.1000	0.0010
Se	0.1000	0.0010
Th	0.1000	0.0010
Tl	0.1000	0.0010
U	0.1000	0.0010
V	0.1000	0.0010
Zn	0.1000	0.0010
Mo	0.1000	0.0010



Sb	0.1000	0.0010
Sn	0.1000	0.0010
Al	10.000	0.1000
Ca	10.000	0.1000
Fe	10.000	0.1000
K	10.000	0.1000
Mg	10.000	0.1000
Na	10.000	0.1000

STD3846-09, ICP-MS HIGH AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3845-09, ICP-MS HIGH RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Ag	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002
Al	0.1000	0.0200
Ca	0.1000	0.0200
Fe	0.1000	0.0200
K	0.1000	0.0200
Mg	0.1000	0.0200
Na	0.1000	0.0200

STD3847-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 07-25-2009 (1 Month)  
 Date Expires(2): 02-01-2010 (None)  
 pipettes: Met 8

Volume (ml): 50.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD3848-09, ICP-MS HIGH ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
Al	1,000.0	100.00
C	2,000.0	200.00
Ca	1,000.0	100.00
Cl	10,000	1,000.0
Fe	1,000.0	100.00
K	1,000.0	100.00
Mg	1,000.0	100.00
Mo	20.000	2.0000
Na	1,000.0	100.00
P	1,000.0	100.00
S	1,000.0	100.00
Ti	20.000	2.0000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
------------------	----------------------------	--------------------------

Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

STD3849-09, ICP-MS HIGH LR STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	1.0000
As	20.000	1.0000
Ba	20.000	1.0000
Be	20.000	1.0000
Cd	20.000	1.0000
Co	20.000	1.0000
Cr	20.000	1.0000
Cu	20.000	1.0000
Mn	20.000	1.0000
Ni	20.000	1.0000
Pb	20.000	1.0000
Se	20.000	1.0000
Th	20.000	1.0000
Tl	20.000	1.0000
U	20.000	1.0000
V	20.000	1.0000
Zn	20.000	1.0000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	1.0000
Sb	20.000	1.0000
Sn	20.000	1.0000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

STD3850-09, ICP-MS HIGH ICV STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3113-09, ICP-MS TA ICV A

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
As	20.000	0.0400
Ba	20.000	0.0400
Be	20.000	0.0400
Cd	20.000	0.0400
Co	20.000	0.0400
Cr	20.000	0.0400
Cu	20.000	0.0400
Mn	20.000	0.0400
Ni	20.000	0.0400
Pb	20.000	0.0400
Se	20.000	0.0400
Th	20.000	0.0400
Tl	20.000	0.0400
U	20.000	0.0400
V	20.000	0.0400
Zn	20.000	0.0400

Parent Std No.: STD3114-09, ICP-MS TA ICV B

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0400
Mo	20.000	0.0400
Sb	20.000	0.0400
Sn	20.000	0.0400

Parent Std No.: STD3115-09, ICP-MS TA ICV Alt

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	4.0000
Ca	2,000.0	4.0000
Fe	2,000.0	4.0000
K	2,000.0	4.0000
Mg	2,000.0	4.0000
Na	2,000.0	4.0000

STD3851-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

STD3852-09, LLCCV/RLICV

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Date Expires(2): 05-01-2010 (None)

pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000
Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000

Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2

Aliquot Amount (ml): 1.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By: \_\_\_\_\_

*R. Hill* 6/26/09

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/26/09 15:07:10
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File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
2	Cal Blank				1.0 06/25/09 17:43		<input type="checkbox"/>
3	Cal Blank				1.0 06/25/09 17:47		<input type="checkbox"/>
4	Cal Blank				1.0 06/25/09 17:50		<input type="checkbox"/>
5	100 ppb				1.0 06/25/09 17:54		<input type="checkbox"/>
6	ICV				1.0 06/25/09 17:57		<input type="checkbox"/>
7	RLIV				1.0 06/25/09 18:01		<input type="checkbox"/>
8	ICB				1.0 06/25/09 18:04		<input type="checkbox"/>
9	RL STD				1.0 06/25/09 18:08		<input type="checkbox"/>
10	AFCEE RL				1.0 06/25/09 18:11		<input type="checkbox"/>
11	ALTSe				1.0 06/25/09 18:15		<input type="checkbox"/>
12	ICSA				1.0 06/25/09 18:18		<input type="checkbox"/>
13	ICSAB				1.0 06/25/09 18:21		<input type="checkbox"/>
14	RINSE				1.0 06/25/09 18:25		<input type="checkbox"/>
15	LR				1.0 06/25/09 18:28		<input type="checkbox"/>
16	RINSE				1.0 06/25/09 18:32		<input type="checkbox"/>
17	ALTLR				1.0 06/25/09 18:35		<input type="checkbox"/>
18	RINSE				1.0 06/25/09 18:39		<input type="checkbox"/>
19	CCV				1.0 06/25/09 18:42		<input type="checkbox"/>
20	CCB				1.0 06/25/09 18:46		<input type="checkbox"/>
21	RLCV				1.0 06/25/09 18:49		<input type="checkbox"/>
22	<del>LE3WPB</del>	<del>D9F170000</del>	<del>9168244</del>	<del>04</del>	<del>1.0 06/25/09 18:53</del>		<input type="checkbox"/>
23	LE3WPC	D9F170000	9168244	04	1.0 06/25/09 18:56		<input type="checkbox"/>
24	LE3WPL	D9F170000	9168244	04	1.0 06/25/09 19:00		<input type="checkbox"/>
25	LEPAF	D9F110137-1	9168244	04	1.0 06/25/09 19:03		<input type="checkbox"/>
26	LEPAFP5	D9F110137	9168244	5.0	06/25/09 19:07		<input type="checkbox"/>
27	LEPAFZ	D9F110137-1	9168244	1.0	06/25/09 19:10		<input type="checkbox"/>
28	LEPCC	D9F110137-3	9168257	1.0	06/25/09 19:13		<input type="checkbox"/>
29	LEPCK	D9F110137-4	9168257	1.0	06/25/09 19:17		<input type="checkbox"/>
30	CCV				1.0 06/25/09 19:21		<input type="checkbox"/>
31	CCB				1.0 06/25/09 19:24		<input type="checkbox"/>
32	RLCV				1.0 06/25/09 19:28		<input type="checkbox"/>
33	LE35QB	D9F170000	9168263	04	1.0 06/25/09 19:31		<input type="checkbox"/>
34	LE35QC	D9F170000	9168263	04	1.0 06/25/09 19:35		<input type="checkbox"/>
35	LE35QL	D9F170000	9168263	04	1.0 06/25/09 19:38		<input type="checkbox"/>
36	LEPC5	D9F110137-7	9168263	04	1.0 06/25/09 19:42		<input type="checkbox"/>
37	LEPC5P5	D9F110137	9168263	5.0	06/25/09 19:45		<input type="checkbox"/>
38	<del>LEPC5Z</del>	<del>D9F110137-7</del>	<del>9168263</del>	<del>1.0</del>	<del>06/25/09 19:49</del>	<i>At 6/26/09 did not use.</i>	<input type="checkbox"/>
39	CCV				1.0 06/25/09 19:52		<input type="checkbox"/>
40	CCB				1.0 06/25/09 19:55		<input type="checkbox"/>
41	RLCV				1.0 06/25/09 19:59		<input type="checkbox"/>
42	LFFFXB	D9F230000	9174190	MS	1.0 06/25/09 20:02		<input type="checkbox"/>
43	LFFFXC	D9F230000	9174190	MS	1.0 06/25/09 20:06		<input type="checkbox"/>
44	LE709 10X	D9F180314-1	9174190	MS	10.0 06/25/09 20:09		<input type="checkbox"/>
45	LE7CT 5X	D9F180266-1	9174190	MS	5.0 06/25/09 20:13		<input type="checkbox"/>
46	LE7CTP25	D9F180266	9174190		25.0 06/25/09 20:16		<input type="checkbox"/>
47	LE7CTZ	D9F180266-1	9174190		1.0 06/25/09 20:20		<input type="checkbox"/>

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/26/09 15:07:10
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File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
48	LE7CTS 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:23	<input type="checkbox"/>
49	CCV				1.0	06/25/09 20:27	<input type="checkbox"/>
50	CCB				1.0	06/25/09 20:30	<input type="checkbox"/>
51	RLCV				1.0	06/25/09 20:34	<input type="checkbox"/>
52	LE7CTD 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:37	<input type="checkbox"/>
53	LE9PT 5X	D9F190216-1	9174190	MS	5.0	06/25/09 20:41	<input type="checkbox"/>
54	LFC4A 5X	D9F200196-1	9174190	MS	5.0	06/25/09 20:44	<input type="checkbox"/>
55	LFC4D 5X	D9F200196-3	9174190	MS	5.0	06/25/09 20:48	<input type="checkbox"/>
56	LFC4P 5X	D9F200199-1	9174190	MS	5.0	06/25/09 20:51	<input type="checkbox"/>
57	LFC4Q 5X	D9F200199-2	9174190	MS	5.0	06/25/09 20:55	<input type="checkbox"/>
58	CCV				1.0	06/25/09 20:58	<input type="checkbox"/>
59	CCB				1.0	06/25/09 21:02	<input type="checkbox"/>
60	RLCV				1.0	06/25/09 21:05	<input type="checkbox"/>
61	<del>LF1T1BF</del>	<del>D9F230000</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 21:09</del>	<input type="checkbox"/>
62	LF1T1CF	D9F230000	9174270	MD	1.0	06/25/09 21:12	<input type="checkbox"/>
63	RINSE				1.0	06/25/09 21:16	<input type="checkbox"/>
64	RINSE				1.0	06/25/09 21:19	<input type="checkbox"/>
65	RINSE				1.0	06/25/09 21:23	<input type="checkbox"/>
66	RINSE				1.0	06/25/09 21:26	<input type="checkbox"/>
67	RINSE				1.0	06/25/09 21:30	<input type="checkbox"/>
68	RINSE				1.0	06/25/09 21:33	<input type="checkbox"/>
69	Cal Blank				1.0	06/25/09 21:37	<input type="checkbox"/> <i>6/26/09 did not use.</i>
70	Cal Blank				1.0	06/25/09 21:40	<input type="checkbox"/>
71	100 ppb				1.0	06/25/09 21:43	<input type="checkbox"/>
72	CCV				1.0	06/25/09 21:47	<input type="checkbox"/>
73	CCB				1.0	06/25/09 21:50	<input type="checkbox"/>
74	RLCV				1.0	06/25/09 21:54	<input type="checkbox"/>
75	ICSA				1.0	06/25/09 21:57	<input type="checkbox"/>
76	ICSAB				1.0	06/25/09 22:01	<input type="checkbox"/>
77	WASH				1.0	06/25/09 22:04	<input type="checkbox"/>
78	CCV				1.0	06/25/09 22:08	<input type="checkbox"/>
79	CCB				1.0	06/25/09 22:11	<input type="checkbox"/>
80	RLCV				1.0	06/25/09 22:15	<input type="checkbox"/>
81	LF1T1BF	D9F230000	9174270	MD	1.0	06/25/09 22:18	<input type="checkbox"/>
82	LF1T1CF	D9F230000	9174270	MD	1.0	06/25/09 22:22	<input type="checkbox"/>
83	LE6C3F	D9F180143-1	9174270	MD	1.0	06/25/09 22:25	<input type="checkbox"/>
84	LE6C7F	D9F180143-2	9174270	MD	1.0	06/25/09 22:29	<input type="checkbox"/>
85	LE6C8F	D9F180143-3	9174270	MD	1.0	06/25/09 22:32	<input type="checkbox"/>
86	LE6C9F	D9F180143-4	9174270	MD	1.0	06/25/09 22:36	<input type="checkbox"/>
87	LE6DAF	D9F180143-5	9174270	MD	1.0	06/25/09 22:39	<input type="checkbox"/>
88	LE6DCF	D9F180143-6	9174270	MD	1.0	06/25/09 22:43	<input type="checkbox"/>
89	LE6DCP5F	D9F180143	9174270		5.0	06/25/09 22:46	<input type="checkbox"/>
90	<del>LE6DCZF</del>	<del>D9F180143-6</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 22:50</del>	<input type="checkbox"/> <i>6/26/09 did not use.</i>
91	CCV				1.0	06/25/09 22:53	<input type="checkbox"/>
92	CCB				1.0	06/25/09 22:57	<input type="checkbox"/>
93	RLCV				1.0	06/25/09 23:00	<input type="checkbox"/>



Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
94	LE6DCSF	D9F180143-6	9174270	MD	1.0	06/25/09 23:04	<input type="checkbox"/>
95	LE6DCDF	D9F180143-6	9174270	MD	1.0	06/25/09 23:07	<input type="checkbox"/>
96	LE9GLF	D9F190197-1	9174270	MD	1.0	06/25/09 23:11	<input type="checkbox"/>
97	LFCECF	D9F200122-1	9174270	MD	1.0	06/25/09 23:14	<input type="checkbox"/>
98	LFCEMF	D9F200122-2	9174270	MD	1.0	06/25/09 23:18	<input type="checkbox"/>
99	LFCENF	D9F200122-3	9174270	MD	1.0	06/25/09 23:21	<input type="checkbox"/>
100	LFCEQF	D9F200122-4	9174270	MD	1.0	06/25/09 23:25	<input type="checkbox"/>
101	LFCERF	D9F200122-5	9174270	MD	1.0	06/25/09 23:28	<input type="checkbox"/>
102	LFCEWF	D9F200122-6	9174270	MD	1.0	06/25/09 23:32	<input type="checkbox"/>
103	LFCEXF	D9F200122-7	9174270	MD	1.0	06/25/09 23:35	<input type="checkbox"/>
104	CCV				1.0	06/25/09 23:39	<input type="checkbox"/>
105	CCB				1.0	06/25/09 23:42	<input type="checkbox"/>
106	RLCV				1.0	06/25/09 23:46	<input type="checkbox"/>
107	<del>LE6DCZF</del>	<del>D9F180143-6</del>	<del>9174270</del>		<del>1.0</del>	<del>06/25/09 23:49</del>	<input type="checkbox"/>
108	LFC4W 2X	D9F200200-1	9174178	MS	2.0	06/25/09 23:53	<input type="checkbox"/>
109	LFC4X 2X	D9F200200-2	9174178	MS	2.0	06/25/09 23:56	<input type="checkbox"/>
110	LFC40 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:00	<input type="checkbox"/>
111	LFC40P10	D9F200200	9174178		10.0	06/26/09 00:03	<input type="checkbox"/>
112	LFC40Z	D9F200200-3	9174178		1.0	06/26/09 00:07	<input type="checkbox"/>
113	LFC40S 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:10	<input type="checkbox"/>
114	LFC40D 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:14	<input type="checkbox"/>
115	CCV				1.0	06/26/09 00:17	<input type="checkbox"/>
116	CCB				1.0	06/26/09 00:21	<input type="checkbox"/>
117	RLCV				1.0	06/26/09 00:24	<input type="checkbox"/>
118	LFFC2B	D9F230000	9174162	MS	1.0	06/26/09 00:28	<input type="checkbox"/>
119	LFFC2C	D9F230000	9174162	MS	1.0	06/26/09 00:31	<input type="checkbox"/>
120	LE6AW 2X	D9F180141-1	9174162	MS	2.0	06/26/09 00:35	<input type="checkbox"/>
121	LE6A1 2X	D9F180141-2	9174162	MS	2.0	06/26/09 00:38	<input type="checkbox"/>
122	LE6A2 2X	D9F180141-3	9174162	MS	2.0	06/26/09 00:42	<input type="checkbox"/>
123	LE81M	D9F190156-1	9174162	MS	1.0	06/26/09 00:45	<input type="checkbox"/>
124	CCV				1.0	06/26/09 00:49	<input type="checkbox"/>
125	CCB				1.0	06/26/09 00:52	<input type="checkbox"/>
126	RLCV				1.0	06/26/09 00:56	<input type="checkbox"/>
127	LE81MP5	D9F190156	9174162		5.0	06/26/09 01:00	<input type="checkbox"/>
128	LE81MZ	D9F190156-1	9174162		1.0	06/26/09 01:03	<input type="checkbox"/>
129	LE81MS	D9F190156-1	9174162	MS	1.0	06/26/09 01:07	<input type="checkbox"/>
130	LE81MD	D9F190156-1	9174162	MS	1.0	06/26/09 01:10	<input type="checkbox"/>
131	LE82G	D9F190156-2	9174162	MS	1.0	06/26/09 01:14	<input type="checkbox"/>
132	CCV				1.0	06/26/09 01:17	<input type="checkbox"/>
133	CCB				1.0	06/26/09 01:21	<input type="checkbox"/>
134	RLCV				1.0	06/26/09 01:24	<input type="checkbox"/>
135	RINSE				1.0	06/26/09 01:28	<input type="checkbox"/>
136	RINSE				1.0	06/26/09 01:31	<input type="checkbox"/>
137	RINSE				1.0	06/26/09 01:35	<input type="checkbox"/>
138	RINSE				1.0	06/26/09 01:38	<input type="checkbox"/>
139	RINSE				1.0	06/26/09 01:41	<input type="checkbox"/>

*not done did not use.*

Denver

RUN SUMMARY

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
140	<del>RINSE</del>				<del>1.0 06/26/09 01:45</del>		<input type="checkbox"/>
141	Cal Blank				1.0 06/26/09 01:49		<input type="checkbox"/>
142	Cal Blank				1.0 06/26/09 01:52		<input type="checkbox"/>
143	100 ppb				1.0 06/26/09 01:56		<input type="checkbox"/>
144	CCV				1.0 06/26/09 01:59		<input type="checkbox"/>
145	CCB				1.0 06/26/09 02:03		<input type="checkbox"/>
146	RLCV				1.0 06/26/09 02:06		<input type="checkbox"/>
147	LFE9NBF	D9F230000	9174124	MD	1.0 06/26/09 02:10		<input type="checkbox"/>
148	LFE9NCF	D9F230000	9174124	MD	1.0 06/26/09 02:13		<input type="checkbox"/>
149	LE9ANF	D9F190184-1	9174124	MD	1.0 06/26/09 02:17		<input type="checkbox"/>
150	LE9CVF	D9F190184-2	9174124	MD	1.0 06/26/09 02:20		<input type="checkbox"/>
151	LE9CWF	D9F190184-3	9174124	MD	1.0 06/26/09 02:24		<input type="checkbox"/>
152	LE9CXF	D9F190184-4	9174124	MD	1.0 06/26/09 02:27		<input type="checkbox"/>
153	LE9C0F	D9F190184-5	9174124	MD	1.0 06/26/09 02:31		<input type="checkbox"/>
154	LE9C1F	D9F190184-6	9174124	MD	1.0 06/26/09 02:34		<input type="checkbox"/>
155	CCV				1.0 06/26/09 02:38		<input type="checkbox"/>
156	CCB				1.0 06/26/09 02:41		<input type="checkbox"/>
157	RLCV				1.0 06/26/09 02:45		<input type="checkbox"/>
158	LE9H7F	D9F190204-1	9174124	MD	1.0 06/26/09 02:48		<input type="checkbox"/>
159	LE9JMF	D9F190204-2	9174124	MD	1.0 06/26/09 02:52		<input type="checkbox"/>
160	LE9JNF	D9F190204-3	9174124	MD	1.0 06/26/09 02:55		<input type="checkbox"/>
161	LE9JPF	D9F190204-4	9174124	MD	1.0 06/26/09 02:59		<input type="checkbox"/>
162	LE9JQF	D9F190204-5	9174124	MD	1.0 06/26/09 03:03		<input type="checkbox"/>
163	LE9JQP5F	D9F190204	9174124		5.0 06/26/09 03:06		<input type="checkbox"/>
164	LE9JQZF	D9F190204-5	9174124		1.0 06/26/09 03:10		<input type="checkbox"/>
165	LE9JQSF	D9F190204-5	9174124	MD	1.0 06/26/09 03:13		<input type="checkbox"/>
166	CCV				1.0 06/26/09 03:17		<input type="checkbox"/>
167	CCB				1.0 06/26/09 03:20		<input type="checkbox"/>
168	RLCV				1.0 06/26/09 03:24		<input type="checkbox"/>
169	LE9JQDF	D9F190204-5	9174124	MD	1.0 06/26/09 03:27		<input type="checkbox"/>
170	LE9KJF	D9F190204-6	9174124	MD	1.0 06/26/09 03:31		<input type="checkbox"/>
171	LE9KMF	D9F190204-7	9174124	MD	1.0 06/26/09 03:34		<input type="checkbox"/>
172	LE9KPF	D9F190204-8	9174124	MD	1.0 06/26/09 03:38		<input type="checkbox"/>
173	LE9KRF	D9F190204-9	9174124	MD	1.0 06/26/09 03:41		<input type="checkbox"/>
174	LE9KXF	D9F190204-10	9174124	MD	1.0 06/26/09 03:45		<input type="checkbox"/>
175	LE9K1F	D9F190204-11	9174124	MD	1.0 06/26/09 03:48		<input type="checkbox"/>
176	CCV				1.0 06/26/09 03:52		<input type="checkbox"/>
177	CCB				1.0 06/26/09 03:55		<input type="checkbox"/>
178	RLCV				1.0 06/26/09 03:59		<input type="checkbox"/>
179	LFE9JB	D9F230000	9174123	MS	1.0 06/26/09 04:02		<input type="checkbox"/>
180	LFE9JC	D9F230000	9174123	MS	1.0 06/26/09 04:06		<input type="checkbox"/>
181	LE9AN	D9F190184-1	9174123	MS	1.0 06/26/09 04:09		<input type="checkbox"/>
182	LE9CV	D9F190184-2	9174123	MS	1.0 06/26/09 04:13		<input type="checkbox"/>
183	LE9CW	D9F190184-3	9174123	MS	1.0 06/26/09 04:16		<input type="checkbox"/>
184	LE9CX	D9F190184-4	9174123	MS	1.0 06/26/09 04:20		<input type="checkbox"/>
185	<del>LE9C0</del>	<del>D9F190184-5</del>	<del>9174123</del>	<del>MS</del>	<del>1.0 06/26/09 04:24</del>	<i>Not used</i>	<input type="checkbox"/>

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
186	<del>LE9G1</del>	<del>D9F190184-6</del>	<del>9174123</del>	<del>MS</del>	<del>1.0</del>	<del>06/26/09 04:27</del>	<input type="checkbox"/>
187	CCV				1.0	06/26/09 04:31	<input type="checkbox"/>
188	CCB				1.0	06/26/09 04:34	<input type="checkbox"/>
189	RLCV				1.0	06/26/09 04:38	<input type="checkbox"/>
190	LE9H7	D9F190204-1	9174123	MS	1.0	06/26/09 04:41	<input type="checkbox"/>
191	LE9H7P5	D9F190204	9174123		5.0	06/26/09 04:45	<input type="checkbox"/>
192	LE9H7Z	D9F190204-1	9174123		1.0	06/26/09 04:48	<input type="checkbox"/>
193	LE9H7S	D9F190204-1	9174123	MS	1.0	06/26/09 04:52	<input type="checkbox"/>
194	LE9H7D	D9F190204-1	9174123	MS	1.0	06/26/09 04:55	<input type="checkbox"/>
195	LE9JM	D9F190204-2	9174123	MS	1.0	06/26/09 04:59	<input type="checkbox"/>
196	LE9JN	D9F190204-3	9174123	MS	1.0	06/26/09 05:02	<input type="checkbox"/>
197	LE9JP	D9F190204-4	9174123	MS	1.0	06/26/09 05:06	<input type="checkbox"/>
198	CCV				1.0	06/26/09 05:09	<input type="checkbox"/>
199	CCB				1.0	06/26/09 05:13	<input type="checkbox"/>
200	RLCV				1.0	06/26/09 05:16	<input type="checkbox"/>
201	LE9JQ	D9F190204-5	9174123	MS	1.0	06/26/09 05:20	<input type="checkbox"/>
202	LE9KJ	D9F190204-6	9174123	MS	1.0	06/26/09 05:23	<input type="checkbox"/>
203	LE9KM	D9F190204-7	9174123	MS	1.0	06/26/09 05:27	<input type="checkbox"/>
204	LE9KP	D9F190204-8	9174123	MS	1.0	06/26/09 05:31	<input type="checkbox"/>
205	LE9KR	D9F190204-9	9174123	MS	1.0	06/26/09 05:34	<input type="checkbox"/>
206	LE9KX	D9F190204-10	9174123	MS	1.0	06/26/09 05:38	<input type="checkbox"/>
207	LE9K1	D9F190204-11	9174123	MS	1.0	06/26/09 05:41	<input type="checkbox"/>
208	CCV				1.0	06/26/09 05:45	<input type="checkbox"/>
209	CCB				1.0	06/26/09 05:48	<input type="checkbox"/>
210	RLCV				1.0	06/26/09 05:52	<input type="checkbox"/>
211	RINSE				1.0	06/26/09 05:55	<input type="checkbox"/>
212	RINSE				1.0	06/26/09 05:59	<input type="checkbox"/>
213	RINSE				1.0	06/26/09 06:02	<input type="checkbox"/>
214	RINSE				1.0	06/26/09 06:06	<input type="checkbox"/>
215	RINSE				1.0	06/26/09 06:09	<input type="checkbox"/>
216	RINSE				1.0	06/26/09 06:13	<input type="checkbox"/>
217	<del>Cal Blank</del>				<del>1.0</del>	<del>06/26/09 06:16</del> <i>did not use.</i>	<input type="checkbox"/>
218	Cal Blank				1.0	06/26/09 06:20	<input type="checkbox"/>
219	100 ppb				1.0	06/26/09 06:23	<input type="checkbox"/>
220	CCV				1.0	06/26/09 06:27	<input type="checkbox"/>
221	CCB				1.0	06/26/09 06:30	<input type="checkbox"/>
222	RLCV				1.0	06/26/09 06:34	<input type="checkbox"/>
223	LFHREBF	D9F240000	9175213	MD	1.0	06/26/09 06:37	<input type="checkbox"/>
224	LFHRECF	D9F240000	9175213	MD	1.0	06/26/09 06:41	<input type="checkbox"/>
225	LFFPKF	D9F230156-1	9175213	MD	1.0	06/26/09 06:44	<input type="checkbox"/>
226	LFFPTF	D9F230156-2	9175213	MD	1.0	06/26/09 06:48	<input type="checkbox"/>
227	LFFP0F	D9F230156-3	9175213	MD	1.0	06/26/09 06:51	<input type="checkbox"/>
228	LFFP2F	D9F230156-4	9175213	MD	1.0	06/26/09 06:55	<input type="checkbox"/>
229	LFFP4F	D9F230156-5	9175213	MD	1.0	06/26/09 06:58	<input type="checkbox"/>
230	LFFP5F	D9F230156-6	9175213	MD	1.0	06/26/09 07:02	<input type="checkbox"/>
231	CCV				1.0	06/26/09 07:05	<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
232	CCB				1.0 06/26/09 07:09		<input type="checkbox"/>
233	RLCV				1.0 06/26/09 07:12		<input type="checkbox"/>
234	LFFP5PF	D9F230156	9175213		5.0 06/26/09 07:16		<input type="checkbox"/>
235	LFFP5ZF	D9F230156-6	9175213		1.0 06/26/09 07:20		<input type="checkbox"/>
236	LFFP5SF	D9F230156-6	9175213	MD	1.0 06/26/09 07:23		<input type="checkbox"/>
237	LFFP5DF	D9F230156-6	9175213	MD	1.0 06/26/09 07:27		<input type="checkbox"/>
238	LFFP6F	D9F230156-7	9175213	MD	1.0 06/26/09 07:30		<input type="checkbox"/>
239	LFFQAF	D9F230156-8	9175213	MD	1.0 06/26/09 07:34		<input type="checkbox"/>
240	LFFQEF	D9F230156-9	9175213	MD	1.0 06/26/09 07:37		<input type="checkbox"/>
241	LFFQGF	D9F230156-10	9175213	MD	1.0 06/26/09 07:41		<input type="checkbox"/>
242	CCV				1.0 06/26/09 07:44		<input type="checkbox"/>
243	CCB				1.0 06/26/09 07:48		<input type="checkbox"/>
244	RLCV				1.0 06/26/09 07:51		<input type="checkbox"/>
245	LFHP2B	D9F240000	9175194	04	1.0 06/26/09 07:55		<input type="checkbox"/>
246	LFHP2C	D9F240000	9175194	04	1.0 06/26/09 07:58		<input type="checkbox"/>
247	LFFPK	D9F230156-1	9175194	04	1.0 06/26/09 08:02		<input type="checkbox"/>
248	LFFPT	D9F230156-2	9175194	04	1.0 06/26/09 08:06		<input type="checkbox"/>
249	LFFPTP5	D9F230156	9175194		5.0 06/26/09 08:09		<input type="checkbox"/>
250	LFFPTZ	D9F230156-2	9175194		1.0 06/26/09 08:13		<input type="checkbox"/>
251	LFFPTS	D9F230156-2	9175194	04	1.0 06/26/09 08:16		<input type="checkbox"/>
252	LFFPTD	D9F230156-2	9175194	04	1.0 06/26/09 08:20		<input type="checkbox"/>
253	CCV				1.0 06/26/09 08:23		<input type="checkbox"/>
254	CCB				1.0 06/26/09 08:27		<input type="checkbox"/>
255	RLCV				1.0 06/26/09 08:30		<input type="checkbox"/>
256	LFFP0	D9F230156-3	9175194	04	1.0 06/26/09 08:34		<input type="checkbox"/>
257	LFFP2	D9F230156-4	9175194	04	1.0 06/26/09 08:37		<input type="checkbox"/>
258	LFFP4	D9F230156-5	9175194	04	1.0 06/26/09 08:41		<input type="checkbox"/>
259	LFFP5	D9F230156-6	9175194	04	1.0 06/26/09 08:44		<input type="checkbox"/>
260	LFFP6	D9F230156-7	9175194	04	1.0 06/26/09 08:48		<input type="checkbox"/>
261	LFFQA	D9F230156-8	9175194	04	1.0 06/26/09 08:52		<input type="checkbox"/>
262	LFFQE	D9F230156-9	9175194	04	1.0 06/26/09 08:55		<input type="checkbox"/>
263	LFFQG	D9F230156-10	9175194	04	1.0 06/26/09 08:59		<input type="checkbox"/>
264	CCV				1.0 06/26/09 09:02		<input type="checkbox"/>
265	CCB				1.0 06/26/09 09:06		<input type="checkbox"/>
266	RLCV				1.0 06/26/09 09:09		<input type="checkbox"/>
267	<del>RINSE</del>				<del>1.0 06/26/09 09:13</del>		<input type="checkbox"/>
268	RINSE				1.0 06/26/09 09:16		<input type="checkbox"/>
269	RINSE				1.0 06/26/09 09:20		<input type="checkbox"/>
270	RINSE				1.0 06/26/09 09:23		<input type="checkbox"/>
271	RINSE				1.0 06/26/09 09:27		<input type="checkbox"/>
272	RINSE				1.0 06/26/09 09:30		<input type="checkbox"/>
273	Cal Blank				1.0 06/26/09 09:34		<input type="checkbox"/>
274	Cal Blank				1.0 06/26/09 09:37		<input type="checkbox"/>
275	100 ppb				1.0 06/26/09 09:41		<input type="checkbox"/>
276	CCV				1.0 06/26/09 09:44		<input type="checkbox"/>
277	<del>OCB</del>				<del>1.0 06/26/09 09:48</del>	<i>AL c/26/09 did not use.</i>	<input type="checkbox"/>

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/26/09 15:07:10

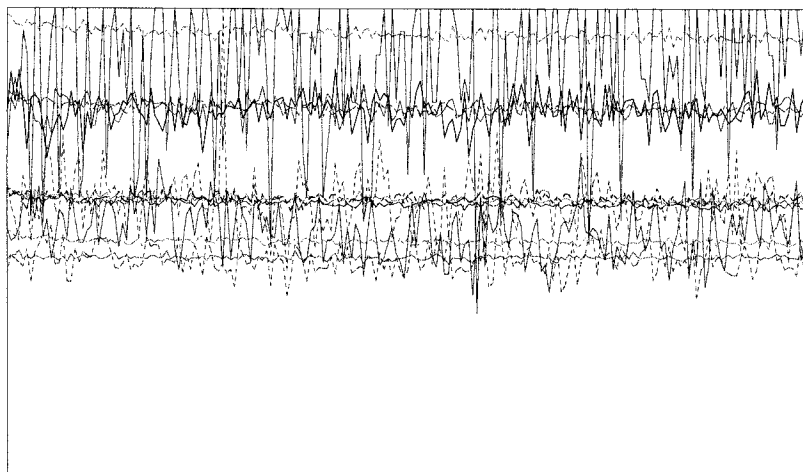
File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
278	<del>RLCV</del>			1.0	<del>06/26/09 09:51</del>		<input type="checkbox"/>
279	RINSE			1.0	06/26/09 09:55		<input type="checkbox"/>
280	RINSE			1.0	06/26/09 09:58		<input type="checkbox"/>
281	RINSE			1.0	06/26/09 10:02		<input type="checkbox"/>
282	RINSE			1.0	06/26/09 10:05		<input type="checkbox"/>
283	RINSE			1.0	06/26/09 10:09		<input type="checkbox"/>
284	RINSE			1.0	06/26/09 10:12		<input type="checkbox"/>
285	<del>Cal Blank</del>			1.0	<del>06/26/09 10:16</del>	<i>Cal blank did not use.</i>	<input type="checkbox"/>
286	Cal Blank			1.0	06/26/09 10:19		<input type="checkbox"/>
287	100 ppb			1.0	06/26/09 10:22		<input type="checkbox"/>
288	CCV			1.0	06/26/09 10:26		<input type="checkbox"/>
289	CCB			1.0	06/26/09 10:30		<input type="checkbox"/>
290	RLCV			1.0	06/26/09 10:33		<input type="checkbox"/>
291	SOLUTION 1			1.0	06/26/09 10:37		<input type="checkbox"/>
292	SOLUTION 2			1.0	06/26/09 10:40		<input type="checkbox"/>
293	CCV			1.0	06/26/09 10:44		<input type="checkbox"/>
294	CCB			1.0	06/26/09 10:47		<input type="checkbox"/>
295	RLCV			1.0	06/26/09 10:51		<input type="checkbox"/>

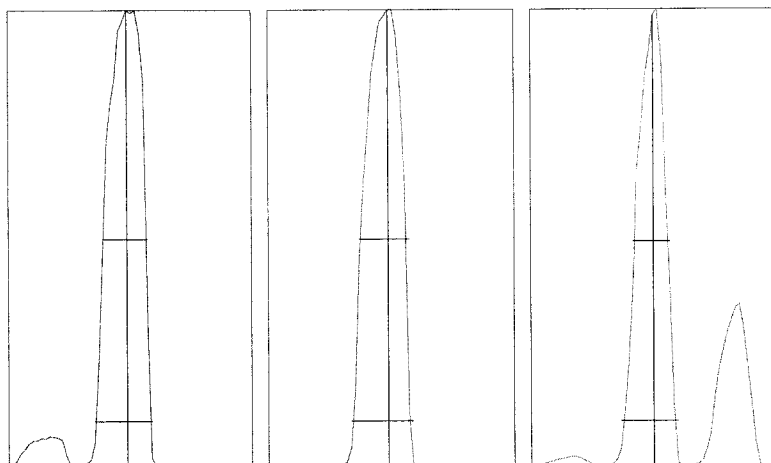
Tune Report

Tune File : NORM.U  
 Comment :



Integration Time: 0.1000 sec  
 Sampling Period: 1.5300 sec  
 n: 200  
 Oxide: 156/140 2.141%  
 Doubly Charged: 70/140 1.504%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1567.0	1571.1	2.71	0.50
7	50,000	23737.0	23564.8	1.07	1.00
59	50,000	29124.0	29753.3	1.34	0.40
63	200	101.0	106.3	10.73	1.00
70	1,000	813.0	782.6	4.46	1.00
75	20	27.0	18.5	23.81	0.50
78	500	209.0	233.2	6.87	1.00
89	50,000	46745.0	47248.3	1.21	0.50
115	100,000	50611.0	50646.2	1.25	1.10
118	200	116.0	119.4	14.11	1.20
137	10,000	5876.0	5968.3	1.81	1.30
205	50,000	38277.0	39401.7	1.44	1.70
238	100,000	57456.0	58700.9	1.39	1.90
156/140	5	2.093%	2.176%	4.33	
70/140	2	1.583%	1.498%	4.63	



m/z:	7	89	205
Height:	23,730	47,034	42,849
Axis:	7.00	89.00	205.05
W-50%:	0.55	0.60	0.45
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : NORM.U  
Comment :

Tuning Parameters

===Plasma Condition===

RF Power : 1550 W  
RF Matching : 1.7 V  
Smpl Depth : 7 mm  
Torch-H : -0.8 mm  
Torch-V : -0.3 mm  
Carrier Gas : 0.83 L/min  
Makeup Gas : 0.2 L/min  
Optional Gas : --- %  
Nebulizer Pump : 0.1 rps  
Sample Pump : --- rps  
S/C Temp : 2 degC

===Ion Lenses===

Extract 1 : 0 V  
Extract 2 : -175 V  
Omega Bias-ce : -30 V  
Omega Lens-ce : -0.2 V  
Cell Entrance : -30 V  
QP Focus : 5 V  
Cell Exit : -30 V  
===Octopole Parameters===  
OctP RF : 180 V  
OctP Bias : -18 V

===Q-Pole Parameters===

AMU Gain : 134  
AMU Offset : 123  
Axis Gain : 1.001  
Axis Offset : -0.05  
QP Bias : -10 V

===Detector Parameters===

Discriminator : 8 mV  
Analog HV : 1720 V  
Pulse HV : 1390 V

===Reaction Cell===

Reaction Mode : OFF  
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : --- %

P/A Factor Tuning Report

Acquired: Jun 25 2009 05:11 pm

Mass[amu]	Element	P/A Factor
6	Li	0.060527
7	(Li)	Sensitivity too low
9	Be	0.068096
23	Na	0.076001
24	Mg	0.079086
27	Al	0.081496
39	K	0.080983
43	Ca	Sensitivity too low
45	Sc	0.081632
51	V	0.083426
52	Cr	0.086119
53	(Cr)	Sensitivity too low
55	Mn	0.088056
57	Fe	Sensitivity too low
59	Co	0.091535
60	Ni	0.092666
63	Cu	0.094952
66	Zn	0.094596
72	Ge	0.093381
75	As	0.092696
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
93	Nb	Sensitivity too low
95	Mo	0.094000
98	(Mo)	0.093591
99	(Mo)	0.095200
105	Pd	0.098595
106	(Cd)	0.098492
107	Ag	Sensitivity too low
108	(Cd)	0.099270
111	Cd	0.099751
114	Cd	0.099467
115	In	0.098711
118	Sn	0.098622
121	Sb	0.098489
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
182	W	Sensitivity too low
195	Pt	Sensitivity too low
205	Tl	0.108051
206	(Pb)	0.106587
207	(Pb)	0.106712
208	Pb	0.106080
232	Th	0.104987
238	U	0.105110

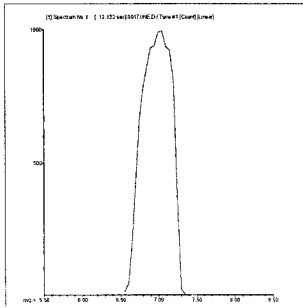
===Detector Parameters===  
Discriminator: 8.0 mV  
Analog HV: 1720 V  
Pulse HV: 1390 V



## 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\001TUNE.D  
 Date Acquired: Jun 25 2009 05:39 pm  
 Acq. Method: tun\_isis.M  
 Operator: TEL  
 Sample Name: 200.8 TUNE  
 Misc Info:  
 Vial Number: 4  
 Current Method: C:\ICPCHEM\1\METHODS\tun\_isis.M

Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	19878	20379	19597	20102	19795	19515	4.04	5.00	
9 Be	2433	2425	2477	2473	2415	2369	4.86	5.00	
24 Mg	9547	9717	9719	9432	9511	9352	1.95	5.00	
59 Co	66184	67525	66235	66635	65306	65215	2.98	5.00	
115 In	801383	798461	799262	802155	805195	801843	0.56	5.00	
208 Pb	66140	67999	66838	66447	65254	64161	2.50	5.00	
238 U	133648	138099	133760	136158	133050	127171	2.46	5.00	



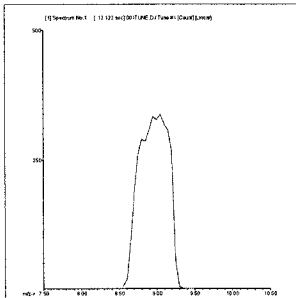
7 Li

**Mass Calib.**

Actual: 7.00  
 Required: 6.90 - 7.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



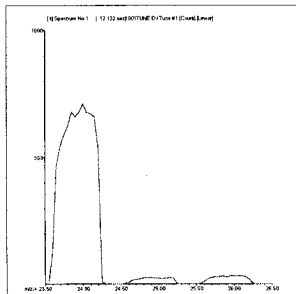
9 Be

**Mass Calib.**

Actual: 9.00  
 Required: 8.90 - 9.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



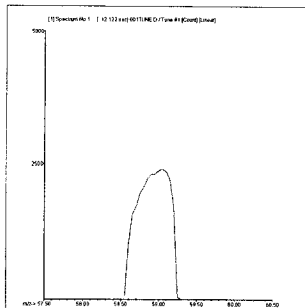
24 Mg

**Mass Calib.**

Actual: 23.95  
 Required: 23.90 - 24.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



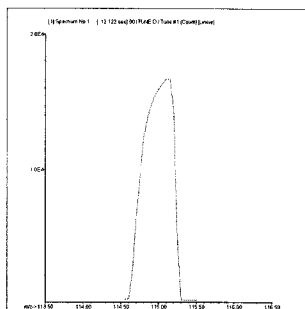
**59 Co**

**Mass Calib.**

Actual: 59.00  
 Required: 58.90 - 59.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



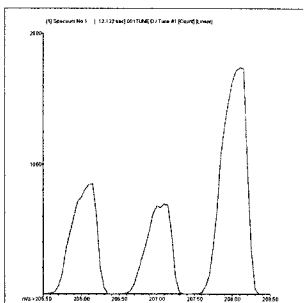
**115 In**

**Mass Calib.**

Actual: 115.05  
 Required: 114.90 - 115.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



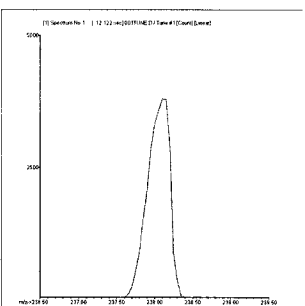
**208 Pb**

**Mass Calib.**

Actual: 208.05  
 Required: 207.90 - 208.10  
 Flag:

**Peak Width**

Actual: 0.50  
 Required: 0.90  
 Flag:



**238 U**

**Mass Calib.**

Actual: 238.10  
 Required: 237.90 - 238.10  
 Flag:

**Peak Width**

Actual: 0.50  
 Required: 0.90  
 Flag:

**Tune Result:**

Pass



**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\002CALB.D\002CALB.D#  
 Date Acquired: Jun 25 2009 05:43 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:44 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	187490	1.26
24	Mg	6	1	1467	3.76
27	Al	45	1	933	3.44
39	K	45	1	56573	1.73
43	Ca	45	1	7	86.60
51	V	72	1	175	130.46
52	Cr	72	1	1967	2.29
55	Mn	72	1	253	8.22
57	Fe	72	1	153	42.43
59	Co	72	1	110	39.63
60	Ni	72	1	60	28.87
63	Cu	72	1	283	23.50
66	Zn	72	1	121	8.18
75	As	72	1	26	27.74
78	Se	72	1	40	43.30
93	Nb	72	1	13	114.56
95	Mo	72	1	80	25.00
105	Pd	115	1	7	86.60
107	Ag	115	1	10	100.00
111	Cd	115	1	13	85.41
114	Cd	115	1	23	49.49
118	Sn	115	1	287	12.25
121	Sb	115	1	24	28.39
137	Ba	115	1	13	43.30
182	W	165	1	583	5.51
195	Pt	165	1	197	7.77
205	Tl	165	1	124	10.83
208	Pb	165	1	186	14.41
232	Th	165	1	303	26.65
238	U	165	1	70	37.80

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	363732	0.54
45	Sc	1	866037	0.98
72	Ge	1	481465	0.71
115	In	1	1530349	0.76
165	Ho	1	3426604	0.46

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Test Acquired 6/25/09 5:44 PM

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\003CALB.D\003CALB.D#  
 Date Acquired: Jun 25 2009 05:47 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 2101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:44 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	189918	0.74
24	Mg	6	1	1133	11.24
27	Al	45	1	913	20.38
39	K	45	1	58259	0.95
43	Ca	45	1	10	0.00
51	V	72	1	-84	139.39
52	Cr	72	1	1820	7.39
55	Mn	72	1	237	19.97
57	Fe	72	1	137	27.70
59	Co	72	1	150	23.09
60	Ni	72	1	47	24.74
63	Cu	72	1	253	23.79
66	Zn	72	1	183	12.02
75	As	72	1	23	20.38
78	Se	72	1	47	61.86
93	Nb	72	1	30	33.33
95	Mo	72	1	43	13.32
105	Pd	115	1	7	86.60
107	Ag	115	1	10	100.00
111	Cd	115	1	13	41.66
114	Cd	115	1	20	50.00
118	Sn	115	1	290	24.14
121	Sb	115	1	20	60.09
137	Ba	115	1	18	28.64
182	W	165	1	633	2.41
195	Pt	165	1	130	13.32
205	Tl	165	1	116	4.41
208	Pb	165	1	160	10.42
232	Th	165	1	227	34.27
238	U	165	1	39	40.51

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	363199	0.55
45	Sc	1	874110	1.41
72	Ge	1	487846	0.60
115	In	1	1544466	0.77
165	Ho	1	3433480	0.31

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#  
 Date Acquired: Jun 25 2009 05:50 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:48 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	191865	0.94
24	Mg	6	1	1784	7.57
27	Al	45	1	1073	3.77
39	K	45	1	58125	1.03
43	Ca	45	1	27	94.37
51	V	72	1	-38	239.76
52	Cr	72	1	1850	4.71
55	Mn	72	1	257	23.48
57	Fe	72	1	160	6.25
59	Co	72	1	133	37.75
60	Ni	72	1	23	49.49
63	Cu	72	1	237	25.47
66	Zn	72	1	114	10.96
75	As	72	1	25	25.38
78	Se	72	1	37	78.73
93	Nb	72	1	23	24.74
95	Mo	72	1	53	54.13
105	Pd	115	1	3	173.21
107	Ag	115	1	10	0.00
111	Cd	115	1	7	214.83
114	Cd	115	1	20	100.00
118	Sn	115	1	183	13.73
121	Sb	115	1	13	0.00
137	Ba	115	1	12	15.75
182	W	165	1	607	8.13
195	Pt	165	1	167	6.93
205	Tl	165	1	98	32.22
208	Pb	165	1	150	12.37
232	Th	165	1	253	8.22
238	U	165	1	31	32.73

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	357213	0.40
45	Sc	1	874931	1.37
72	Ge	1	488215	0.57
115	In	1	1536240	0.42
165	Ho	1	3429199	0.67

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\005ICAL.D\005ICAL.D#  
 Date Acquired: Jun 25 2009 05:54 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:51 pm  
 Sample Type: ICAL

## QC Elements

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	42650	2.23
23	Na	6	22137830	1.26
24	Mg	6	13459580	1.82
27	Al	45	9369846	1.21
39	K	45	13259470	1.08
43	Ca	45	38262	2.23
51	V	72	598158	1.83
52	Cr	72	689748	2.55
55	Mn	72	638890	2.13
57	Fe	72	1807362	0.63
59	Co	72	1008589	1.15
60	Ni	72	234051	1.72
63	Cu	72	572259	1.72
66	Zn	72	105421	1.99
75	As	72	65236	1.81
78	Se	72	9877	1.90
93	Nb	72	27	78.06
95	Mo	72	279637	1.61
105	Pd	115	0	0.00
107	Ag	115	893174	0.92
111	Cd	115	152087	1.51
114	Cd	115	378939	1.78
118	Sn	115	376011	1.54
121	Sb	115	395949	1.95
137	Ba	115	162196	1.45
182	W	165	710	25.86
195	Pt	165	133	31.23
205	Tl	165	1868558	0.59
208	Pb	165	2558274	1.39
232	Th	165	2293497	2.15
238	U	165	2787945	1.82

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	320724	0.42	357213	89.8	30 - 120
45	Sc	1	770897	0.81	874931	88.1	30 - 120
72	Ge	1	429302	0.56	488215	87.9	30 - 120
115	In	1	1391234	0.81	1536240	90.6	30 - 120
165	Ho	1	3180719	0.71	3429199	92.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0



## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\007WASH.D\007WASH.D#  
 Date Acquired: Jun 25 2009 06:01 pm  
 Operator: TEL  
 Sample Name: RLIV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.977 ppb	4.24	1.30	
23 Na	6	1	53.510 ppb	2.95	65.00	
24 Mg	6	1	54.110 ppb	1.89	65.00	
27 Al	45	1	33.130 ppb	1.77	39.00	
39 K	45	1	108.400 ppb	1.67	130.00	
43 Ca	45	1	45.830 ppb	20.04	65.00	
51 V	72	1	4.957 ppb	2.39	6.50	
52 Cr	72	1	2.042 ppb	5.22	2.60	
55 Mn	72	1	1.027 ppb	2.14	1.30	
57 Fe	72	1	50.840 ppb	4.93	65.00	
59 Co	72	1	1.002 ppb	3.94	1.30	
60 Ni	72	1	2.068 ppb	8.40	2.60	
63 Cu	72	1	2.074 ppb	0.92	2.60	
66 Zn	72	1	10.100 ppb	2.93	13.00	
75 As	72	1	5.072 ppb	3.39	6.50	
78 Se	72	1	5.194 ppb	10.40	6.50	
93 Nb	72	1	336.500 ppb	222.08	52.00	
95 Mo	72	1	1.973 ppb	8.51	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.422 ppb	2.72	6.50	
111 Cd	115	1	0.969 ppb	6.76	1.30	
114 Cd	115	1	1.247 ppb	2.67	1.30	
118 Sn	115	1	10.200 ppb	3.75	13.00	
121 Sb	115	1	2.180 ppb	2.06	2.60	
137 Ba	115	1	1.043 ppb	5.61	1.30	
182 W	165	1	-74.470 ppb	68.07	6.50	
195 Pt	165	1	86.750 ppb	91.57	1.30	
205 Tl	165	1	1.195 ppb	3.14	1.30	
208 Pb	165	1	1.064 ppb	1.16	1.30	
232 Th	165	1	2.959 ppb	5.89	2.60	
238 U	165	1	1.057 ppb	2.95	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	331015	0.78	357213	92.7	30 - 120	
45 Sc	1	802941	1.50	874931	91.8	30 - 120	
72 Ge	1	460777	0.36	488215	94.4	30 - 120	
115 In	1	1472933	0.62	1536240	95.9	30 - 120	
165 Ho	1	3274766	0.20	3429199	95.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

ISTD Ref File :

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



## Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\008\_ICB.D\008\_ICB.D#  
 Date Acquired: Jun 25 2009 06:04 pm  
 Operator: TEL  
 Sample Name: ICB  
 Misc Info:  
 Vial Number: 2104  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: ICB  
 Total Dil Factor: 1.00

## QC Summary:

Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS	Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9	Be	6	1	0.00	ppb	0.00	1.00	
23	Na	6	1	1.71	ppb	14.06	20.00	
24	Mg	6	1	-0.27	ppb	34.31	20.00	
27	Al	45	1	1.89	ppb	6.01	20.00	
39	K	45	1	1.04	ppb	51.68	20.00	
43	Ca	45	1	1.08	ppb	229.99	20.00	
51	V	72	1	0.03	ppb	65.24	1.00	
52	Cr	72	1	0.00	ppb	1791.30	1.00	
55	Mn	72	1	0.02	ppb	24.11	1.00	
57	Fe	72	1	1.10	ppb	23.04	20.00	
59	Co	72	1	0.00	ppb	70.81	1.00	
60	Ni	72	1	0.03	ppb	25.62	1.00	
63	Cu	72	1	0.02	ppb	29.19	1.00	
66	Zn	72	1	0.42	ppb	3.86	10.00	
75	As	72	1	0.01	ppb	35.82	1.00	
78	Se	72	1	0.23	ppb	122.79	1.00	
93	Nb	72	1	-366.30	ppb	79.47	2.00	
95	Mo	72	1	0.01	ppb	35.90	1.00	
105	Pd	115	1	-104.90	ppb	169.30	1.00	
107	Ag	115	1	0.01	ppb	19.03	1.00	
111	Cd	115	1	0.00	ppb	109.19	1.00	
114	Cd	115	1	0.01	ppb	69.09	1.00	
118	Sn	115	1	0.15	ppb	10.76	10.00	
121	Sb	115	1	0.12	ppb	14.14	1.00	
137	Ba	115	1	0.00	ppb	436.17	1.00	
182	W	165	1	-0.24	ppb	13902.00	5.00	
195	Pt	165	1	53.50	ppb	224.30	1.00	Fail
205	Tl	165	1	0.07	ppb	9.22	1.00	
208	Pb	165	1	0.01	ppb	16.20	1.00	
232	Th	165	1	0.33	ppb	11.31	2.00	
238	U	165	1	0.01	ppb	7.92	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	336355	0.88	357213	94.2	30 - 120
45	Sc	1	844778	1.23	874931	96.6	30 - 120
72	Ge	1	472720	0.34	488215	96.8	30 - 120
115	In	1	1510792	1.49	1536240	98.3	30 - 120
165	Ho	1	3335348	0.98	3429199	97.3	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 3335348

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

1 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## RL STD QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\009RLST.D\009RLST.D#  
 Date Acquired: Jun 25 2009 06:08 pm  
 Operator: TEL  
 Sample Name: RL STD  
 Misc Info: 2105  
 Vial Number: C:\ICPCHEM\1\METHODS\6020isis.M  
 Current Method: C:\ICPCHEM\1\CALIB\6020isis.C  
 Calibration File: Jun 25 2009 05:54 pm  
 Last Cal Update: RLSTD  
 Sample Type: 1.00  
 Total Dil Factor:

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	1.21 ppb	4.23	1	121.2	50 - 150	
23 Na	6	1	110.70 ppb	1.38	100	110.7	50 - 150	
24 Mg	6	1	109.40 ppb	2.04	100	109.4	50 - 150	
27 Al	45	1	101.80 ppb	2.06	100	101.8	50 - 150	
39 K	45	1	104.90 ppb	2.43	100	104.9	50 - 150	
43 Ca	45	1	116.80 ppb	13.38	100	116.8	50 - 150	
51 V	72	1	0.94 ppb	9.10	1	94.3	50 - 150	
52 Cr	72	1	0.98 ppb	5.86	1	97.8	50 - 150	
55 Mn	72	1	1.01 ppb	1.74	1	100.8	50 - 150	
57 Fe	72	1	97.96 ppb	4.59	100	98.0	50 - 150	
59 Co	72	1	0.99 ppb	0.59	1	99.1	50 - 150	
60 Ni	72	1	0.95 ppb	3.90	1	94.6	50 - 150	
63 Cu	72	1	1.05 ppb	4.45	1	105.4	50 - 150	
66 Zn	72	1	10.09 ppb	1.64	10	100.9	50 - 150	
75 As	72	1	0.98 ppb	8.48	1	97.5	50 - 150	
78 Se	72	1	0.80 ppb	24.01	1	80.1	50 - 150	
93 Nb	72	1	-272.70 ppb	161.42	2	-13635.0	50 - 150	Fail
95 Mo	72	1	0.98 ppb	5.51	1	97.7	50 - 150	
105 Pd	115	1	-1.88 ppb	9378.30	1	-188.2	50 - 150	Fail
107 Ag	115	1	1.04 ppb	1.36	1	103.9	50 - 150	
111 Cd	115	1	1.05 ppb	2.12	1	105.0	50 - 150	
114 Cd	115	1	1.23 ppb	4.06	1	122.8	50 - 150	
118 Sn	115	1	10.02 ppb	3.19	10	100.2	50 - 150	
121 Sb	115	1	1.02 ppb	2.63	1	101.8	50 - 150	
137 Ba	115	1	1.01 ppb	2.94	1	100.7	50 - 150	
182 W	165	1	-41.51 ppb	182.32	1	-4151.0	50 - 150	Fail
195 Pt	165	1	39.80 ppb	171.68	1	3980.0	50 - 150	Fail
205 Tl	165	1	1.09 ppb	0.74	1	108.8	50 - 150	
208 Pb	165	1	1.04 ppb	4.08	1	103.9	50 - 150	
232 Th	165	1	1.11 ppb	4.83	1	111.2	50 - 150	
238 U	165	1	1.03 ppb	4.18	1	103.2	50 - 150	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	339022	0.49	357213	94.9	30 - 120	
45 Sc	1	852135	1.34	874931	97.4	30 - 120	
72 Ge	1	476660	0.24	488215	97.6	30 - 120	
115 In	1	1520028	0.32	1536240	98.9	30 - 120	
165 Ho	1	3339304	0.06	3429199	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\011SMPL.D\011SMPL.D#  
 Date Acquired: Jun 25 2009 06:15 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ALTSe  
 Misc Info: 2 ppb  
 Vial Number: 2107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.01	0.01	ppb	173.15	3600
23	Na	6	1	-2.72	-2.72	ppb	35.07	100000
24	Mg	6	1	-0.23	-0.23	ppb	34.31	100000
27	Al	45	1	0.07	0.07	ppb	190.36	100000
39	K	45	1	-0.91	-0.91	ppb	72.91	100000
43	Ca	45	1	-2.90	-2.90	ppb	95.45	100000
51	V	72	1	0.01	0.01	ppb	223.13	3600
52	Cr	72	1	0.00	0.00	ppb	7708.20	3600
55	Mn	72	1	0.01	0.01	ppb	9.84	18000
57	Fe	72	1	0.38	0.38	ppb	33.95	100000
59	Co	72	1	0.00	0.00	ppb	14.94	3600
60	Ni	72	1	0.01	0.01	ppb	1.12	3600
63	Cu	72	1	0.01	0.01	ppb	63.93	3600
66	Zn	72	1	0.22	0.22	ppb	8.65	3600
75	As	72	1	-0.01	-0.01	ppb	267.90	3600
78	Se	72	1	2.25	2.25	ppb	28.36	3600
93	Nb	72	1	-269.80	-269.80	ppb	61.42	2000
95	Mo	72	1	0.00	0.00	ppb	168.98	3600
105	Pd	115	1	-3.63	-3.63	ppb	4951.70	1000
107	Ag	115	1	0.00	0.00	ppb	49.26	3600
111	Cd	115	1	0.00	0.00	ppb	112.48	3600
114	Cd	115	1	0.00	0.00	ppb	411.65	3600
118	Sn	115	1	0.05	0.05	ppb	19.24	3600
121	Sb	115	1	0.03	0.03	ppb	5.22	3600
137	Ba	115	1	0.00	0.00	ppb	6.71	3600
182	W	165	1	12.60	12.60	ppb	341.90	1000
195	Pt	165	1	43.17	43.17	ppb	426.92	1000
205	Tl	165	1	0.02	0.02	ppb	9.18	3600
208	Pb	165	1	0.00	0.00	ppb	1333.90	3600
232	Th	165	1	0.05	0.05	ppb	12.59	1000
238	U	165	1	0.00	0.00	ppb	154.20	3600

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	340404	1.39	357213	95.3	30 - 120
45	Sc	1	847853	1.60	874931	96.9	30 - 120
72	Ge	1	473050	0.49	488215	96.9	30 - 120
115	In	1	1500983	0.70	1536240	97.7	30 - 120
165	Ho	1	3355885	0.06	3429199	97.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\012ICSA.D\012ICSA.D#  
 Date Acquired: Jun 25 2009 06:18 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.03 ppb	43.08	1.00
23	Na	6	1	97230.00 ppb	0.72	100.00
24	Mg	6	1	93340.00 ppb	0.79	100.00
27	Al	45	1	97800.00 ppb	1.32	100.00
39	K	45	1	99100.00 ppb	0.76	100.00
43	Ca	45	1	104700.00 ppb	0.16	100.00
51	V	72	1	0.06 ppb	5.46	1.00
52	Cr	72	1	1.03 ppb	1.36	1.00
55	Mn	72	1	2.12 ppb	3.28	1.00
57	Fe	72	1	95700.00 ppb	1.69	100.00
59	Co	72	1	0.03 ppb	13.42	1.00
60	Ni	72	1	0.81 ppb	2.92	1.00
63	Cu	72	1	0.29 ppb	5.15	1.00
66	Zn	72	1	2.72 ppb	3.00	10.00
75	As	72	1	0.14 ppb	12.60	1.00
78	Se	72	1	0.18 ppb	133.62	1.00
93	Nb	72	1	2807.00 ppb	39.79	2.00
95	Mo	72	1	2033.00 ppb	0.43	2000.00
105	Pd	115	1	-2323.00 ppb	24.79	1.00
107	Ag	115	1	0.08 ppb	11.81	1.00
111	Cd	115	1	0.37 ppb	47.15	1.00
114	Cd	115	1	1.63 ppb	2.40	1.00
118	Sn	115	1	0.18 ppb	19.11	10.00
121	Sb	115	1	0.25 ppb	7.11	1.00
137	Ba	115	1	1.54 ppb	3.53	1.00
182	W	165	1	1072.00 ppb	2.44	5.00
195	Pt	165	1	-66.66 ppb	355.69	1.00
205	Tl	165	1	0.04 ppb	18.29	1.00
208	Pb	165	1	0.14 ppb	1.55	1.00
232	Th	165	1	0.09 ppb	20.92	2.00
238	U	165	1	0.02 ppb	5.32	1.00

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	303415	1.10	357213	84.9	30 - 120
45	Sc	1	684272	0.87	874931	78.2	30 - 120
72	Ge	1	370154	0.61	488215	75.8	30 - 120
115	In	1	1209203	0.34	1536240	78.7	30 - 120
165	Ho	1	2887854	0.72	3429199	84.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

**Interference Check Solution AB (ICS-AB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\013ICSB.D\013ICSB.D#  
 Date Acquired: Jun 25 2009 06:21 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	91.16	2.22	100	91.2	80 - 120	
23 Na	6	1	92920.00	1.17	110000	84.5	80 - 120	
24 Mg	6	1	89260.00	0.64	110000	81.1	80 - 120	
27 Al	45	1	96070.00	1.20	110000	87.3	80 - 120	
39 K	45	1	97200.00	0.15	110000	88.4	80 - 120	
43 Ca	45	1	101800.00	0.52	110000	92.5	80 - 120	
51 V	72	1	102.90	0.54	100	102.9	80 - 120	
52 Cr	72	1	101.40	1.69	100	101.4	80 - 120	
55 Mn	72	1	101.80	1.23	100	101.8	80 - 120	
57 Fe	72	1	95920.00	1.70	110000	87.2	80 - 120	
59 Co	72	1	96.01	1.02	100	96.0	80 - 120	
60 Ni	72	1	94.40	1.62	100	94.4	80 - 120	
63 Cu	72	1	91.91	1.58	100	91.9	80 - 120	
66 Zn	72	1	98.35	1.28	100	98.4	80 - 120	
75 As	72	1	98.91	0.32	100	98.9	80 - 120	
78 Se	72	1	106.20	2.22	100	106.2	80 - 120	
93 Nb	72	1	2529.00	16.76	200	1264.5	80 - 120	Fail
95 Mo	72	1	2131.00	0.55	2100	101.5	80 - 120	
105 Pd	115	1	-1182.00	37.04	100	-1182.0	80 - 120	Fail
107 Ag	115	1	85.93	1.82	100	85.9	80 - 120	
111 Cd	115	1	94.86	2.62	100	94.9	80 - 120	
114 Cd	115	1	96.58	2.43	100	96.6	80 - 120	
118 Sn	115	1	100.90	2.48	100	100.9	80 - 120	
121 Sb	115	1	101.00	2.28	100	101.0	80 - 120	
137 Ba	115	1	105.80	2.32	100	105.8	80 - 120	
182 W	165	1	983.20	13.21	100	983.2	80 - 120	Fail
195 Pt	165	1	42.84	198.95	100	42.8	80 - 120	Fail
205 Tl	165	1	95.91	1.96	100	95.9	80 - 120	
208 Pb	165	1	95.76	3.19	100	95.8	80 - 120	
232 Th	165	1	104.60	3.31	100	104.6	80 - 120	
238 U	165	1	100.80	2.04	100	100.8	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	307006	0.95	357213	85.9	30 - 120	
45 Sc	1	670438	0.67	874931	76.6	30 - 120	
72 Ge	1	359634	0.80	488215	73.7	30 - 120	
115 In	1	1201588	1.19	1536240	78.2	30 - 120	
165 Ho	1	2919411	1.34	3429199	85.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\014SMPL.D\014SMPL.D#  
 Date Acquired: Jun 25 2009 06:25 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.23	3600	
23 Na	6	1	-8.58	-8.58	ppb	7.89	100000	
24 Mg	6	1	4.37	4.37	ppb	30.17	100000	
27 Al	45	1	5.73	5.73	ppb	24.18	100000	
39 K	45	1	-0.43	-0.43	ppb	122.93	100000	
43 Ca	45	1	1.38	1.38	ppb	185.59	100000	
51 V	72	1	0.01	0.01	ppb	219.58	3600	
52 Cr	72	1	-0.01	-0.01	ppb	64.73	3600	
55 Mn	72	1	0.02	0.02	ppb	47.43	18000	
57 Fe	72	1	6.70	6.70	ppb	26.58	100000	
59 Co	72	1	0.00	0.00	ppb	144.50	3600	
60 Ni	72	1	0.00	0.00	ppb	212.11	3600	
63 Cu	72	1	0.02	0.02	ppb	43.54	3600	
66 Zn	72	1	-0.01	-0.01	ppb	135.79	3600	
75 As	72	1	-0.01	-0.01	ppb	108.15	3600	
78 Se	72	1	0.12	0.12	ppb	169.69	3600	
93 Nb	72	1	44.28	44.28	ppb	387.31	2000	
95 Mo	72	1	0.81	0.81	ppb	15.82	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	0.01	0.01	ppb	25.35	3600	
111 Cd	115	1	0.01	0.01	ppb	74.61	3600	
114 Cd	115	1	0.01	0.01	ppb	65.01	3600	
118 Sn	115	1	0.08	0.08	ppb	24.06	3600	
121 Sb	115	1	0.22	0.22	ppb	14.68	3600	
137 Ba	115	1	0.01	0.01	ppb	104.19	3600	
182 W	165	1	-57.75	-57.75	ppb	78.44	1000	
195 Pt	165	1	134.90	134.90	ppb	262.49	1000	
205 Tl	165	1	0.00	0.00	ppb	16.64	3600	
208 Pb	165	1	0.00	0.00	ppb	65.83	3600	
232 Th	165	1	0.64	0.64	ppb	16.36	1000	
238 U	165	1	0.01	0.01	ppb	20.54	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	357808	0.97	357213	100.2	30 - 120	
45 Sc	1	809505	1.74	874931	92.5	30 - 120	
72 Ge	1	457515	0.32	488215	93.7	30 - 120	
115 In	1	1476245	0.56	1536240	96.1	30 - 120	
165 Ho	1	3374873	0.57	3429199	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Linear Dynamic Range Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\015\_LR.D\015\_LR.D#  
 Date Acquired: Jun 25 2009 06:28 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LR  
 Misc Info:  
 Vial Number: 2110  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: LR  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## Analyte Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	953.30 ppb	0.22	1000	95.3	90 - 110	
23 Na	6	1	98630.00 ppb	0.26	100000	98.6	90 - 110	
24 Mg	6	1	96030.00 ppb	0.17	100000	96.0	90 - 110	
27 Al	45	1	98370.00 ppb	1.10	100000	98.4	90 - 110	
39 K	45	1	98300.00 ppb	0.70	100000	98.3	90 - 110	
43 Ca	45	1	101000.00 ppb	1.07	100000	101.0	90 - 110	
51 V	72	1	998.30 ppb	0.99	1000	99.8	90 - 110	
52 Cr	72	1	978.80 ppb	0.23	1000	97.9	90 - 110	
55 Mn	72	1	957.00 ppb	0.35	1000	95.7	90 - 110	
57 Fe	72	1	94190.00 ppb	0.74	100000	94.2	90 - 110	
59 Co	72	1	924.80 ppb	0.80	1000	92.5	90 - 110	
60 Ni	72	1	946.10 ppb	0.17	1000	94.6	90 - 110	
63 Cu	72	1	885.80 ppb	0.34	1000	88.6	90 - 110	Fail
66 Zn	72	1	900.10 ppb	0.36	1000	90.0	90 - 110	
75 As	72	1	944.80 ppb	0.23	1000	94.5	90 - 110	
78 Se	72	1	952.60 ppb	0.74	1000	95.3	90 - 110	
93 Nb	72	1	1009.00 ppb	80.16	2000	50.5	90 - 110	Fail
95 Mo	72	1	1030.00 ppb	1.00	1000	103.0	90 - 110	
105 Pd	115	1	-435.80 ppb	212.96	1000	-43.6	90 - 110	Fail
107 Ag	115	1	854.10 ppb	0.64	1000	85.4	90 - 110	Fail
111 Cd	115	1	945.50 ppb	0.54	1000	94.6	90 - 110	
114 Cd	115	1	915.50 ppb	1.23	1000	91.6	90 - 110	
118 Sn	115	1	979.20 ppb	0.53	1000	97.9	90 - 110	
121 Sb	115	1	956.50 ppb	0.90	1000	95.7	90 - 110	
137 Ba	115	1	1031.00 ppb	1.12	1000	103.1	90 - 110	
182 W	165	1	427.60 ppb	30.57	1000	42.8	90 - 110	Fail
195 Pt	165	1	64.52 ppb	171.11	1000	6.5	90 - 110	Fail
205 Tl	165	1	918.90 ppb	0.78	1000	91.9	90 - 110	
208 Pb	165	1	904.20 ppb	1.29	1000	90.4	90 - 110	
232 Th	165	1	1008.00 ppb	0.97	1000	100.8	90 - 110	
238 U	165	1	960.30 ppb	0.95	1000	96.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	273131	1.16	357213	76.5	30 - 120	
45 Sc	1	662136	0.98	874931	75.7	30 - 120	
72 Ge	1	359007	1.26	488215	73.5	30 - 120	
115 In	1	1161475	0.75	1536240	75.6	30 - 120	
165 Ho	1	2712036	0.16	3429199	79.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

6 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\016SMPL.D\016SMPL.D#  
 Date Acquired: Jun 25 2009 06:32 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.09	0.09	ppb	66.20	3600	
23 Na	6	1	-8.50	-8.50	ppb	13.36	100000	
24 Mg	6	1	5.46	5.46	ppb	25.68	100000	
27 Al	45	1	6.62	6.62	ppb	19.82	100000	
39 K	45	1	3.69	3.69	ppb	48.73	100000	
43 Ca	45	1	2.13	2.13	ppb	69.09	100000	
51 V	72	1	0.05	0.05	ppb	84.99	3600	
52 Cr	72	1	0.04	0.04	ppb	80.39	3600	
55 Mn	72	1	0.07	0.07	ppb	17.95	18000	
57 Fe	72	1	6.43	6.43	ppb	16.34	100000	
59 Co	72	1	0.05	0.05	ppb	40.82	3600	
60 Ni	72	1	0.07	0.07	ppb	57.75	3600	
63 Cu	72	1	0.07	0.07	ppb	39.17	3600	
66 Zn	72	1	0.07	0.07	ppb	38.37	3600	
75 As	72	1	0.09	0.09	ppb	26.24	3600	
78 Se	72	1	0.24	0.24	ppb	104.69	3600	
93 Nb	72	1	-657.00	-657.00	ppb	0.00	2000	
95 Mo	72	1	0.52	0.52	ppb	19.40	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	0.21	0.21	ppb	14.70	3600	
111 Cd	115	1	0.05	0.05	ppb	26.97	3600	
114 Cd	115	1	0.07	0.07	ppb	19.92	3600	
118 Sn	115	1	1.60	1.60	ppb	1.04	3600	
121 Sb	115	1	1.68	1.68	ppb	0.28	3600	
137 Ba	115	1	0.05	0.05	ppb	27.11	3600	
182 W	165	1	-5.77	-5.77	ppb	633.86	1000	
195 Pt	165	1	123.40	123.40	ppb	79.53	1000	
205 Tl	165	1	0.06	0.06	ppb	12.35	3600	
208 Pb	165	1	0.05	0.05	ppb	26.05	3600	
232 Th	165	1	3.33	3.33	ppb	18.24	1000	
238 U	165	1	0.10	0.10	ppb	18.51	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	340395	1.02	357213	95.3	30 - 120	
45 Sc	1	816743	1.50	874931	93.3	30 - 120	
72 Ge	1	460813	0.55	488215	94.4	30 - 120	
115 In	1	1470258	0.55	1536240	95.7	30 - 120	
165 Ho	1	3230684	1.43	3429199	94.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\017SMPL.D\017SMPL.D#  
 Date Acquired: Jun 25 2009 06:35 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ALTLR  
 Misc Info: Cu/Ag  
 Vial Number: 2112  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	-10.40	-10.40	ppb	13.28	100000	
24 Mg	6	1	0.26	0.26	ppb	14.72	100000	
27 Al	45	1	0.79	0.79	ppb	10.38	100000	
39 K	45	1	0.36	0.36	ppb	574.75	100000	
43 Ca	45	1	-0.61	-0.61	ppb	905.75	100000	
51 V	72	1	0.02	0.02	ppb	94.18	3600	
52 Cr	72	1	0.00	0.00	ppb	819.92	3600	
55 Mn	72	1	0.01	0.01	ppb	59.46	18000	
57 Fe	72	1	0.82	0.82	ppb	33.30	100000	
59 Co	72	1	0.00	0.00	ppb	34.40	3600	
60 Ni	72	1	0.02	0.02	ppb	76.27	3600	
63 Cu	72	1	996.30	996.30	ppb	1.52	3600	
66 Zn	72	1	0.63	0.63	ppb	9.90	3600	
75 As	72	1	0.02	0.02	ppb	51.68	3600	
78 Se	72	1	0.07	0.07	ppb	79.35	3600	
93 Nb	72	1	-370.60	-370.60	ppb	133.86	2000	
95 Mo	72	1	0.16	0.16	ppb	12.92	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	975.90	975.90	ppb	0.71	3600	
111 Cd	115	1	0.00	0.00	ppb	1105.30	3600	
114 Cd	115	1	0.03	0.03	ppb	46.03	3600	
118 Sn	115	1	0.56	0.56	ppb	2.47	3600	
121 Sb	115	1	0.50	0.50	ppb	3.79	3600	
137 Ba	115	1	0.00	0.00	ppb	113.29	3600	
182 W	165	1	-63.64	-63.64	ppb	19.36	1000	
195 Pt	165	1	307.40	307.40	ppb	7.19	1000	
205 Tl	165	1	0.03	0.03	ppb	5.64	3600	
208 Pb	165	1	0.01	0.01	ppb	21.53	3600	
232 Th	165	1	0.72	0.72	ppb	9.80	1000	
238 U	165	1	0.01	0.01	ppb	10.70	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	354196	0.62	357213	99.2	30 - 120	
45 Sc	1	862724	1.88	874931	98.6	30 - 120	
72 Ge	1	479843	0.09	488215	98.3	30 - 120	
115 In	1	1531712	0.37	1536240	99.7	30 - 120	
165 Ho	1	3344703	0.85	3429199	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\018SMPL.D\018SMPL.D#  
 Date Acquired: Jun 25 2009 06:39 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS	Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6		1	0.01	0.01	ppb	173.22	3600	
23 Na	6		1	-10.39	-10.39	ppb	3.61	100000	
24 Mg	6		1	1.17	1.17	ppb	3.69	100000	
27 Al	45		1	1.11	1.11	ppb	10.45	100000	
39 K	45		1	1.24	1.24	ppb	31.26	100000	
43 Ca	45		1	0.03	0.03	ppb	12568.00	100000	
51 V	72		1	0.00	0.00	ppb	5400.60	3600	
52 Cr	72		1	0.00	0.00	ppb	253.53	3600	
55 Mn	72		1	0.01	0.01	ppb	99.44	18000	
57 Fe	72		1	1.12	1.12	ppb	16.65	100000	
59 Co	72		1	0.00	0.00	ppb	76.82	3600	
60 Ni	72		1	0.01	0.01	ppb	130.49	3600	
63 Cu	72		1	0.06	0.06	ppb	67.02	3600	
66 Zn	72		1	0.00	0.00	ppb	508.31	3600	
75 As	72		1	0.02	0.02	ppb	23.95	3600	
78 Se	72		1	0.18	0.18	ppb	30.38	3600	
93 Nb	72		1	-283.10	-283.10	ppb	151.82	2000	
95 Mo	72		1	0.10	0.10	ppb	2.68	3600	
105 Pd	115		1	100.00	100.00	ppb	0.00	1000	
107 Ag	115		1	0.24	0.24	ppb	8.63	3600	
111 Cd	115		1	0.01	0.01	ppb	76.94	3600	
114 Cd	115		1	0.01	0.01	ppb	109.12	3600	
118 Sn	115		1	0.23	0.23	ppb	12.19	3600	
121 Sb	115		1	0.25	0.25	ppb	6.97	3600	
137 Ba	115		1	0.01	0.01	ppb	34.84	3600	
182 W	165		1	-67.79	-67.79	ppb	62.44	1000	
195 Pt	165		1	301.50	301.50	ppb	28.67	1000	
205 Tl	165		1	0.02	0.02	ppb	7.48	3600	
208 Pb	165		1	0.01	0.01	ppb	18.53	3600	
232 Th	165		1	0.19	0.19	ppb	3.15	1000	
238 U	165		1	0.01	0.01	ppb	6.76	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	362228	0.42	357213	101.4	30 - 120	
45 Sc	1	876024	0.49	874931	100.1	30 - 120	
72 Ge	1	491767	0.49	488215	100.7	30 - 120	
115 In	1	1554411	0.14	1536240	101.2	30 - 120	
165 Ho	1	3412353	1.00	3429199	99.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\019\_ccv.D\019\_ccv.D#  
 Date Acquired: Jun 25 2009 06:42 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	48.58 ppb	2.20	50	97.2	90 - 110
23	Na	6	1	5001.00 ppb	0.59	5000	100.0	90 - 110
24	Mg	6	1	5011.00 ppb	0.56	5000	100.2	90 - 110
27	Al	45	1	4937.00 ppb	2.02	5000	98.7	90 - 110
39	K	45	1	4984.00 ppb	1.24	5000	99.7	90 - 110
43	Ca	45	1	4970.00 ppb	1.82	5000	99.4	90 - 110
51	V	72	1	49.44 ppb	1.06	50	98.9	90 - 110
52	Cr	72	1	49.74 ppb	2.48	50	99.5	90 - 110
55	Mn	72	1	49.52 ppb	0.83	50	99.0	90 - 110
57	Fe	72	1	4995.00 ppb	1.86	5000	99.9	90 - 110
59	Co	72	1	49.00 ppb	1.67	50	98.0	90 - 110
60	Ni	72	1	50.51 ppb	1.39	50	101.0	90 - 110
63	Cu	72	1	50.24 ppb	1.17	50	100.5	90 - 110
66	Zn	72	1	48.96 ppb	2.02	50	97.9	90 - 110
75	As	72	1	49.45 ppb	2.04	50	98.9	90 - 110
78	Se	72	1	49.79 ppb	10.19	50	99.6	90 - 110
93	Nb	72	1	35.06 ppb	1941.80	100	35.1	90 - 110 Fail
95	Mo	72	1	48.76 ppb	0.79	50	97.5	90 - 110
105	Pd	115	1	-4.58 ppb	3958.50	50	-9.2	90 - 110 Fail
107	Ag	115	1	50.76 ppb	1.84	50	101.5	90 - 110
111	Cd	115	1	50.03 ppb	2.59	50	100.1	90 - 110
114	Cd	115	1	50.35 ppb	3.13	50	100.7	90 - 110
118	Sn	115	1	50.06 ppb	2.76	50	100.1	90 - 110
121	Sb	115	1	49.62 ppb	2.41	50	99.2	90 - 110
137	Ba	115	1	50.23 ppb	2.69	50	100.5	90 - 110
182	W	165	1	18.42 ppb	393.27	50	36.8	90 - 110 Fail
195	Pt	165	1	210.80 ppb	30.63	50	421.6	90 - 110 Fail
205	Tl	165	1	51.19 ppb	0.47	50	102.4	90 - 110
208	Pb	165	1	50.67 ppb	1.48	50	101.3	90 - 110
232	Th	165	1	49.85 ppb	2.04	50	99.7	90 - 110
238	U	165	1	50.88 ppb	1.59	50	101.8	90 - 110

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	340882	1.15	357213	95.4	30 - 120
45	Sc	1	840133	1.14	874931	96.0	30 - 120
72	Ge	1	461797	0.67	488215	94.6	30 - 120
115	In	1	1479459	0.67	1536240	96.3	30 - 120
165	Ho	1	3292289	0.82	3429199	96.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\020\_CCB.D\020\_CCB.D#  
 Date Acquired: Jun 25 2009 06:46 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9	Be	6	1	0.000	ppb	0.00	1.00
23	Na	6	1	-9.712	ppb	11.08	20.00
24	Mg	6	1	0.032	ppb	282.86	20.00
27	Al	45	1	0.481	ppb	14.31	20.00
39	K	45	1	1.447	ppb	38.74	20.00
43	Ca	45	1	0.079	ppb	4470.80	20.00
51	V	72	1	-0.021	ppb	102.29	1.00
52	Cr	72	1	-0.017	ppb	131.43	1.00
55	Mn	72	1	0.005	ppb	157.12	1.00
57	Fe	72	1	0.806	ppb	40.67	20.00
59	Co	72	1	-0.002	ppb	122.24	1.00
60	Ni	72	1	0.009	ppb	130.87	1.00
63	Cu	72	1	0.010	ppb	73.11	1.00
66	Zn	72	1	0.078	ppb	15.01	10.00
75	As	72	1	0.022	ppb	42.84	1.00
78	Se	72	1	0.088	ppb	210.00	1.00
93	Nb	72	1	184.700	ppb	150.79	2.00
95	Mo	72	1	0.059	ppb	16.78	1.00
105	Pd	115	1	100.000	ppb	0.00	1.00
107	Ag	115	1	0.085	ppb	8.72	1.00
111	Cd	115	1	0.008	ppb	68.72	1.00
114	Cd	115	1	0.009	ppb	88.24	1.00
118	Sn	115	1	0.379	ppb	9.21	10.00
121	Sb	115	1	0.306	ppb	3.89	1.00
137	Ba	115	1	0.006	ppb	51.20	1.00
182	W	165	1	-31.270	ppb	258.43	5.00
195	Pt	165	1	194.000	ppb	63.14	1.00
205	Tl	165	1	0.028	ppb	10.97	1.00
208	Pb	165	1	0.006	ppb	61.36	1.00
232	Th	165	1	0.942	ppb	12.21	2.00
238	U	165	1	0.007	ppb	17.32	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	351044	0.31	357213	98.3	30 - 120
45	Sc	1	870719	0.52	874931	99.5	30 - 120
72	Ge	1	489985	0.29	488215	100.4	30 - 120
115	In	1	1542513	0.43	1536240	100.4	30 - 120
165	Ho	1	3382584	1.10	3429199	98.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\021WASH.D\021WASH.D#  
 Date Acquired: Jun 25 2009 06:49 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.987 ppb	7.94	1.30	
23 Na	6	1	48.090 ppb	0.41	65.00	
24 Mg	6	1	55.170 ppb	0.72	65.00	
27 Al	45	1	32.880 ppb	2.12	39.00	
39 K	45	1	109.000 ppb	0.31	130.00	
43 Ca	45	1	41.610 ppb	19.24	65.00	
51 V	72	1	4.981 ppb	0.96	6.50	
52 Cr	72	1	2.047 ppb	1.06	2.60	
55 Mn	72	1	1.018 ppb	5.61	1.30	
57 Fe	72	1	50.580 ppb	3.06	65.00	
59 Co	72	1	1.013 ppb	0.70	1.30	
60 Ni	72	1	2.131 ppb	2.18	2.60	
63 Cu	72	1	2.131 ppb	0.79	2.60	
66 Zn	72	1	10.090 ppb	1.76	13.00	
75 As	72	1	5.116 ppb	0.62	6.50	
78 Se	72	1	5.418 ppb	10.91	6.50	
93 Nb	72	1	-376.200 ppb	74.40	52.00	
95 Mo	72	1	2.020 ppb	2.50	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.478 ppb	3.31	6.50	
111 Cd	115	1	1.035 ppb	3.59	1.30	
114 Cd	115	1	1.235 ppb	4.10	1.30	
118 Sn	115	1	10.680 ppb	4.31	13.00	
121 Sb	115	1	2.091 ppb	2.57	2.60	
137 Ba	115	1	1.062 ppb	5.70	1.30	
182 W	165	1	16.610 ppb	312.04	6.50	
195 Pt	165	1	62.090 ppb	366.08	1.30	
205 Tl	165	1	1.091 ppb	1.71	1.30	
208 Pb	165	1	1.075 ppb	0.94	1.30	
232 Th	165	1	2.390 ppb	1.59	2.60	
238 U	165	1	1.067 ppb	1.95	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	348321	0.99	357213	97.5	30 - 120	
45 Sc	1	873127	0.27	874931	99.8	30 - 120	
72 Ge	1	488285	0.57	488215	100.0	30 - 120	
115 In	1	1545065	1.13	1536240	100.6	30 - 120	
165 Ho	1	3375135	0.62	3429199	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\039\_CCV.D\039\_CCV.D#  
 Date Acquired: Jun 25 2009 07:52 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	48.74 ppb	4.12	50	97.5	90 - 110	
23	Na	6	1	5153.00 ppb	0.86	5000	103.1	90 - 110	
24	Mg	6	1	5072.00 ppb	1.94	5000	101.4	90 - 110	
27	Al	45	1	4915.00 ppb	2.34	5000	98.3	90 - 110	
39	K	45	1	4996.00 ppb	1.58	5000	99.9	90 - 110	
43	Ca	45	1	4810.00 ppb	0.73	5000	96.2	90 - 110	
51	V	72	1	48.92 ppb	1.25	50	97.8	90 - 110	
52	Cr	72	1	49.33 ppb	1.69	50	98.7	90 - 110	
55	Mn	72	1	49.68 ppb	1.09	50	99.4	90 - 110	
57	Fe	72	1	5031.00 ppb	0.66	5000	100.6	90 - 110	
59	Co	72	1	48.40 ppb	1.58	50	96.8	90 - 110	
60	Ni	72	1	49.73 ppb	1.30	50	99.5	90 - 110	
63	Cu	72	1	49.94 ppb	1.47	50	99.9	90 - 110	
66	Zn	72	1	48.82 ppb	1.93	50	97.6	90 - 110	
75	As	72	1	50.37 ppb	0.68	50	100.7	90 - 110	
78	Se	72	1	52.13 ppb	3.30	50	104.3	90 - 110	
93	Nb	72	1	295800.00 ppb	5.56	100	295800.0	90 - 110	Fail
95	Mo	72	1	49.19 ppb	0.34	50	98.4	90 - 110	Fail
105	Pd	115	1	-211.50 ppb	147.47	50	-423.0	90 - 110	Fail
107	Ag	115	1	50.00 ppb	0.62	50	100.0	90 - 110	
111	Cd	115	1	49.20 ppb	0.81	50	98.4	90 - 110	
114	Cd	115	1	49.01 ppb	2.23	50	98.0	90 - 110	
118	Sn	115	1	50.08 ppb	1.79	50	100.2	90 - 110	
121	Sb	115	1	49.29 ppb	0.98	50	98.6	90 - 110	
137	Ba	115	1	49.35 ppb	1.14	50	98.7	90 - 110	Fail
182	W	165	1	108.50 ppb	10.66	50	217.0	90 - 110	Fail
195	Pt	165	1	31.96 ppb	171.50	50	63.9	90 - 110	Fail
205	Tl	165	1	51.02 ppb	1.55	50	102.0	90 - 110	
208	Pb	165	1	50.70 ppb	2.07	50	101.4	90 - 110	
232	Th	165	1	50.71 ppb	2.43	50	101.4	90 - 110	
238	U	165	1	51.28 ppb	3.53	50	102.6	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	332857	0.23	357213	93.2	30 - 120
45	Sc	1	839245	1.10	874931	95.9	30 - 120
72	Ge	1	458159	0.61	488215	93.8	30 - 120
115	In	1	1489019	0.31	1536240	96.9	30 - 120
165	Ho	1	3302067	1.05	3429199	96.3	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\040\_CCB.D\040\_CCB.D#  
 Date Acquired: Jun 25 2009 07:55 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag	
9	Be	6	1	0.000	ppb	0.00	1.00	
23	Na	6	1	10.720	ppb	12.16	20.00	
24	Mg	6	1	-0.161	ppb	28.66	20.00	
27	Al	45	1	0.312	ppb	37.01	20.00	
39	K	45	1	4.319	ppb	17.62	20.00	
43	Ca	45	1	-3.018	ppb	43.61	20.00	
51	V	72	1	-0.014	ppb	211.30	1.00	
52	Cr	72	1	-0.002	ppb	504.97	1.00	
55	Mn	72	1	0.002	ppb	254.01	1.00	
57	Fe	72	1	0.537	ppb	24.58	20.00	
59	Co	72	1	-0.002	ppb	152.30	1.00	
60	Ni	72	1	0.005	ppb	43.20	1.00	
63	Cu	72	1	0.014	ppb	31.27	1.00	
66	Zn	72	1	0.074	ppb	29.04	10.00	
75	As	72	1	0.002	ppb	220.68	1.00	
78	Se	72	1	0.358	ppb	28.47	1.00	
93	Nb	72	1	200100.000	ppb	9.95	2.00	Fail
95	Mo	72	1	0.049	ppb	28.99	1.00	
105	Pd	115	1	-98.540	ppb	174.55	1.00	
107	Ag	115	1	0.566	ppb	15.16	1.00	
111	Cd	115	1	0.009	ppb	43.15	1.00	
114	Cd	115	1	0.012	ppb	18.99	1.00	
118	Sn	115	1	0.457	ppb	2.92	10.00	
121	Sb	115	1	0.229	ppb	3.57	1.00	
137	Ba	115	1	0.007	ppb	56.18	1.00	
182	W	165	1	16.890	ppb	120.07	5.00	Fail
195	Pt	165	1	191.000	ppb	114.71	1.00	Fail
205	Tl	165	1	0.041	ppb	3.35	1.00	
208	Pb	165	1	0.010	ppb	17.05	1.00	
232	Th	165	1	0.843	ppb	14.20	2.00	
238	U	165	1	0.009	ppb	8.50	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	342068	0.36	357213	95.8	30 - 120
45	Sc	1	870331	1.04	874931	99.5	30 - 120
72	Ge	1	487820	0.23	488215	99.9	30 - 120
115	In	1	1552133	0.84	1536240	101.0	30 - 120
165	Ho	1	3356175	0.82	3429199	97.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\041WASH.D\041WASH.D#  
 Date Acquired: Jun 25 2009 07:59 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.826 ppb	13.06	1.30	
23 Na	6	1	62.380 ppb	2.41	65.00	
24 Mg	6	1	54.380 ppb	2.62	65.00	
27 Al	45	1	31.990 ppb	0.56	39.00	
39 K	45	1	107.900 ppb	0.32	130.00	
43 Ca	45	1	43.640 ppb	18.66	65.00	
51 V	72	1	4.998 ppb	2.61	6.50	
52 Cr	72	1	1.932 ppb	3.77	2.60	
55 Mn	72	1	1.035 ppb	1.40	1.30	
57 Fe	72	1	50.580 ppb	1.61	65.00	
59 Co	72	1	1.014 ppb	3.12	1.30	
60 Ni	72	1	2.108 ppb	1.75	2.60	
63 Cu	72	1	2.068 ppb	0.35	2.60	
66 Zn	72	1	9.893 ppb	2.70	13.00	
75 As	72	1	5.025 ppb	2.69	6.50	
78 Se	72	1	5.913 ppb	10.41	6.50	
93 Nb	72	1	153600.000 ppb	9.09	52.00	
95 Mo	72	1	1.943 ppb	7.32	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.551 ppb	1.79	6.50	
111 Cd	115	1	0.983 ppb	4.98	1.30	
114 Cd	115	1	1.217 ppb	3.90	1.30	
118 Sn	115	1	10.280 ppb	1.85	13.00	
121 Sb	115	1	2.014 ppb	1.23	2.60	
137 Ba	115	1	1.031 ppb	3.47	1.30	
182 W	165	1	7.650 ppb	132.16	6.50	
195 Pt	165	1	51.680 ppb	213.43	1.30	
205 Tl	165	1	1.107 ppb	1.98	1.30	
208 Pb	165	1	1.054 ppb	3.41	1.30	
232 Th	165	1	2.297 ppb	2.11	2.60	
238 U	165	1	1.087 ppb	2.74	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	342745	1.04	357213	95.9	30 - 120	
45 Sc	1	878289	0.18	874931	100.4	30 - 120	
72 Ge	1	486801	0.25	488215	99.7	30 - 120	
115 In	1	1569368	0.39	1536240	102.2	30 - 120	
165 Ho	1	3398464	0.55	3429199	99.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\042\_BLK.D\042\_BLK.D#  
 Date Acquired: Jun 25 2009 08:02 pm  
 Operator: TEL  
 Sample Name: LFFFXB  
 Misc Info: BLANK 9174190 6020  
 Vial Number: 2201  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: BLK  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
23 Na	6	1	7.942 ppb	6.98	40.00	
24 Mg	6	1	-0.024 ppb	514.36	40.00	
27 Al	45	1	0.692 ppb	36.17	40.00	
39 K	45	1	1.278 ppb	17.27	40.00	
43 Ca	45	1	0.715 ppb	631.38	40.00	
51 V	72	1	0.008 ppb	168.52	2.00	
52 Cr	72	1	0.033 ppb	79.93	2.00	
55 Mn	72	1	0.025 ppb	20.91	2.00	
57 Fe	72	1	0.789 ppb	15.39	40.00	
59 Co	72	1	-0.008 ppb	56.98	2.00	
60 Ni	72	1	0.025 ppb	39.31	2.00	
63 Cu	72	1	0.033 ppb	24.37	2.00	
66 Zn	72	1	0.287 ppb	3.10	20.00	
75 As	72	1	0.005 ppb	213.46	2.00	
78 Se	72	1	0.093 ppb	203.92	2.00	
93 Nb	72	1	141200.000 ppb	11.37	4.00	Fail
95 Mo	72	1	0.006 ppb	111.04	2.00	
105 Pd	115	1	-192.400 ppb	150.88	2.00	
107 Ag	115	1	0.058 ppb	7.02	2.00	
111 Cd	115	1	0.007 ppb	180.74	2.00	
114 Cd	115	1	0.017 ppb	27.48	2.00	
118 Sn	115	1	0.402 ppb	6.81	20.00	
121 Sb	115	1	0.072 ppb	10.34	2.00	
137 Ba	115	1	0.014 ppb	54.61	2.00	
182 W	165	1	23.290 ppb	253.41	10.00	Fail
195 Pt	165	1	171.000 ppb	118.19	2.00	Fail
205 Tl	165	1	0.013 ppb	34.54	2.00	
208 Pb	165	1	0.012 ppb	11.64	2.00	
232 Th	165	1	0.191 ppb	12.10	4.00	
238 U	165	1	0.002 ppb	12.09	2.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	344167	0.94	357213	96.3	30 - 120	
45 Sc	1	884330	0.77	874931	101.1	30 - 120	
72 Ge	1	484832	0.72	488215	99.3	30 - 120	
115 In	1	1573611	1.19	1536240	102.4	30 - 120	
165 Ho	1	3426259	1.24	3429199	99.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Laboratory Control Spike (LCS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\043\_LCS.D\043\_LCS.D#  
 Date Acquired: Jun 25 2009 08:06 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LFFFXC  
 Misc Info: LCS  
 Vial Number: 2202  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: LCS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

## Analyte Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	39.77	1.53	40	99.4	80 - 120	
23 Na	6	1	12.94	6.33	4000	0.3	80 - 120	
24 Mg	6	1	0.20	13.52	4000	0.0	80 - 120	
27 Al	45	1	45.13	1.04	4000	1.1	80 - 120	
39 K	45	1	4.48	36.17	4000	0.1	80 - 120	
43 Ca	45	1	0.16	#####	4000	0.0	80 - 120	
51 V	72	1	40.53	0.89	40	101.3	80 - 120	
52 Cr	72	1	41.13	1.04	40	102.8	80 - 120	
55 Mn	72	1	41.09	0.97	40	102.7	80 - 120	
57 Fe	72	1	0.60	62.76	4000	0.0	80 - 120	
59 Co	72	1	40.36	0.57	40	100.9	80 - 120	
60 Ni	72	1	41.39	1.35	40	103.5	80 - 120	
63 Cu	72	1	42.61	0.81	40	106.5	80 - 120	
66 Zn	72	1	39.66	1.04	40	99.2	80 - 120	
75 As	72	1	39.61	0.74	40	99.0	80 - 120	
78 Se	72	1	42.53	5.78	40	106.3	80 - 120	
93 Nb	72	1	112100.00	10.70	80	140125.0	80 - 120	
95 Mo	72	1	39.82	0.81	40	99.6	80 - 120	
105 Pd	115	1	-105.00	169.14	40	-262.5	80 - 120	
107 Ag	115	1	41.84	0.59	40	104.6	80 - 120	
111 Cd	115	1	40.03	0.80	40	100.1	80 - 120	
114 Cd	115	1	38.89	1.19	40	97.2	80 - 120	
118 Sn	115	1	0.13	14.91	40	0.3	80 - 120	
121 Sb	115	1	40.17	1.14	40	100.4	80 - 120	
137 Ba	115	1	41.28	1.04	40	103.2	80 - 120	
182 W	165	1	46.31	58.80	40	115.8	80 - 120	
195 Pt	165	1	-226.10	65.90	40	-565.3	80 - 120	
205 Tl	165	1	42.48	0.49	40	106.2	80 - 120	
208 Pb	165	1	42.34	0.96	40	105.9	80 - 120	
232 Th	165	1	44.02	1.58	40	110.1	80 - 120	
238 U	165	1	41.40	1.08	40	103.5	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	334934	1.49	357213	93.8	30 - 120	
45 Sc	1	857273	1.95	874931	98.0	30 - 120	
72 Ge	1	466043	1.48	488215	95.5	30 - 120	
115 In	1	1511830	1.47	1536240	98.4	30 - 120	
165 Ho	1	3344089	0.94	3429199	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\045AREF.D\045AREF.D#  
 Date Acquired: Jun 25 2009 08:13 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CT 5X  
 Misc Info: D9F180266  
 Vial Number: 2204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: AllRef  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	3.74	0.75	ppb	21.68	3600
23	Na	6	1	125,650.00	25130.00	ppb	0.29	100000
24	Mg	6	1	368,700.00	73740.00	ppb	0.94	100000
27	Al	45	1	21,970.00	4394.00	ppb	1.27	100000
39	K	45	1	43,265.00	8653.00	ppb	1.15	100000
43	Ca	45	1	586,000.00	117200.00	ppb	1.52	100000 >LDR NR
51	V	72	1	92.10	18.42	ppb	1.84	3600
52	Cr	72	1	45.09	9.02	ppb	3.58	3600
55	Mn	72	1	217,150.00	43430.00	ppb	0.90	18000 >LDR NR
57	Fe	72	1	18,695.00	3739.00	ppb	1.33	100000
59	Co	72	1	24.33	4.87	ppb	2.79	3600
60	Ni	72	1	60.90	12.18	ppb	0.23	3600
63	Cu	72	1	218.35	43.67	ppb	1.02	3600
66	Zn	72	1	86.50	17.30	ppb	1.27	3600
75	As	72	1	63.90	12.78	ppb	2.51	3600
78	Se	72	1	13.62	2.72	ppb	17.64	3600
93	Nb	72	1	1,028,000.00	205600.00	ppb	4.14	2000 >LDR NR
95	Mo	72	1	3.63	0.73	ppb	8.20	3600
105	Pd	115	1	-329,600.00	-65920.00	ppb	9.60	1000
107	Ag	115	1	0.12	0.02	ppb	11.98	3600
111	Cd	115	1	1.11	0.22	ppb	1.75	3600
114	Cd	115	1	1.14	0.23	ppb	12.53	3600
118	Sn	115	1	2.18	0.44	ppb	2.42	3600
121	Sb	115	1	0.39	0.08	ppb	4.81	3600
137	Ba	115	1	107.25	21.45	ppb	2.83	3600
182	W	165	1	20,790.00	4158.00	ppb	1.92	1000 >LDR NR
195	Pt	165	1	-6,630.00	-1326.00	ppb	38.91	1000
205	Tl	165	1	0.52	0.10	ppb	3.36	3600
208	Pb	165	1	15.46	3.09	ppb	1.85	3600
232	Th	165	1	9.64	1.93	ppb	3.08	1000
238	U	165	1	15.12	3.02	ppb	2.38	3600

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	345442	0.63	357213	96.7	30 - 120
45	Sc	1	796186	0.82	874931	91.0	30 - 120
72	Ge	1	418901	1.00	488215	85.8	30 - 120
115	In	1	1390221	0.99	1536240	90.5	30 - 120
165	Ho	1	3262596	0.18	3429199	95.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\046SDIL.D\046SDIL.D#  
 Date Acquired: Jun 25 2009 08:16 pm **QC Summary:**  
 Acq. Method: 6020isis.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE7CTP25  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2205  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SDIL  
 Dilution Factor: 5.00

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062509.B\045AREF.D\045AREF.D#

QC elements

Element	IS Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	0.13 ppb	29.18	0.15	89.6	90 - 110	
23 Na	6	1	5261.00 ppb	1.27	5026.00	104.7	90 - 110	
24 Mg	6	1	15770.00 ppb	1.35	14748.00	106.9	90 - 110	
27 Al	45	1	986.60 ppb	2.42	878.80	112.3	90 - 110	
39 K	45	1	1828.00 ppb	0.72	1730.60	105.6	90 - 110	
43 Ca	45	1	24320.00 ppb	1.81	23440.00	103.8	90 - 110	
51 V	72	1	3.55 ppb	4.99	3.68	96.4	90 - 110	
52 Cr	72	1	1.77 ppb	1.31	1.80	98.3	90 - 110	
55 Mn	72	1	8697.00 ppb	0.64	8686.00	100.1	90 - 110	
57 Fe	72	1	761.60 ppb	2.50	747.80	101.8	90 - 110	
59 Co	72	1	0.95 ppb	4.14	0.97	97.8	90 - 110	
60 Ni	72	1	2.64 ppb	4.25	2.44	108.5	90 - 110	
63 Cu	72	1	9.14 ppb	0.88	8.73	104.6	90 - 110	
66 Zn	72	1	4.59 ppb	1.91	3.46	132.8	90 - 110	
75 As	72	1	2.57 ppb	2.32	2.56	100.4	90 - 110	
78 Se	72	1	0.73 ppb	41.81	0.54	133.4	90 - 110	
93 Nb	72	1	85150.00 ppb	6.21	41120.00	207.1	90 - 110	
95 Mo	72	1	0.17 ppb	3.04	0.15	117.1	90 - 110	
105 Pd	115	1	-14520.00 ppb	9.41	-13184.00	110.1	90 - 110	
107 Ag	115	1	0.01 ppb	57.12	0.00	192.2	90 - 110	
111 Cd	115	1	0.06 ppb	21.46	0.04	145.7	90 - 110	
114 Cd	115	1	0.05 ppb	24.77	0.05	101.4	90 - 110	
118 Sn	115	1	0.26 ppb	6.83	0.09	293.0	90 - 110	
121 Sb	115	1	0.04 ppb	6.43	0.02	272.7	90 - 110	
137 Ba	115	1	4.62 ppb	3.56	4.29	107.6	90 - 110	
182 W	165	1	979.60 ppb	12.33	831.60	117.8	90 - 110	
195 Pt	165	1	-1261.00 ppb	10.79	-265.20	475.5	90 - 110	
205 Tl	165	1	0.02 ppb	5.31	0.02	116.5	90 - 110	
208 Pb	165	1	0.70 ppb	1.63	0.62	113.6	90 - 110	
232 Th	165	1	0.39 ppb	8.58	0.39	102.3	90 - 110	
238 U	165	1	0.65 ppb	2.08	0.60	106.8	90 - 110	

ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	337113	1.06	357213	94.4	30 - 120	
45 Sc	1	793164	0.71	874931	90.7	30 - 120	
72 Ge	1	441487	0.63	488215	90.4	30 - 120	
115 In	1	1434933	1.08	1536240	93.4	30 - 120	
165 Ho	1	3268288	0.61	3429199	95.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) ICPMS\_024 Reported: 06/26/09 15:10:48

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTP25

Serial Dilution: 25.00

Sample Dilution: 5.00

Instrument: Agilent7500 Channel 272
File: AG062509 # 46 Method 6020\_
Acquired: 06/25/2009 20:16:00 ICPMS\_024 Matrix: AQUEOUS
Calibrated: 06/25/2009 17:50:00 Units: ug/L

Table with columns: CASN, Analyte Name, M/S, Area, Dilution, Sample, %Diff., MDL, Flag, Q. Rows include elements like Beryllium, Vanadium, Chromium, Manganese, Cobalt, Nickel, Copper, Zinc, Arsenic, Selenium, Molybdenum, Silver, Cadmium, Tin, Antimony, Barium, Thallium, Lead, Uranium, Sodium, Magnesium, Aluminum, Potassium, Calcium, Iron, Niobium, Palladium, Tungsten, Platinum, Thorium, Lithium, Scandium, Indium, Germanium, Holmium.

AS only
6/29/09

\* Analyte not requested for this batch, no MDL
NC : Serial dilution concentration < 100 X MDL
E : Difference greater than Limit (10%)

Reviewed by: [Signature] Date: 6/29/09

## Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\047PDS.D\047PDS.D#  
 Date Acquired: Jun 25 2009 08:20 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CTZ  
 Misc Info: POST DIGESTION SPIKE  
 Vial Number: 2206  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: PDS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

Spike Ref. File: ---

## QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	177.30	0.75	ppb	2.77	200	88.3	75 - 125	
23 Na	6	1	24490.00	25130.00	ppb	1.30	200000	10.9	75 - 125	
24 Mg	6	1	72400.00	73740.00	ppb	1.98	200000	26.4	75 - 125	
27 Al	45	1	4388.00	4394.00	ppb	1.87	200000	2.1	75 - 125	
39 K	45	1	8484.00	8653.00	ppb	1.98	200000	4.1	75 - 125	
43 Ca	45	1	115900.00	117200.00	ppb	2.58	200000	36.5	75 - 125	
51 V	72	1	224.30	18.42	ppb	1.22	200	102.7	75 - 125	
52 Cr	72	1	212.70	9.02	ppb	0.72	200	101.8	75 - 125	
55 Mn	72	1	43400.00	43430.00	ppb	1.20	200	99.5	75 - 125	
57 Fe	72	1	3673.00	3739.00	ppb	2.50	200000	1.8	75 - 125	
59 Co	72	1	194.30	4.86	ppb	1.29	200	94.8	75 - 125	
60 Ni	72	1	199.60	12.18	ppb	1.78	200	94.1	75 - 125	
63 Cu	72	1	231.90	43.67	ppb	1.42	200	95.2	75 - 125	
66 Zn	72	1	203.30	17.30	ppb	1.50	200	93.6	75 - 125	
75 As	72	1	211.60	12.78	ppb	1.55	200	99.4	75 - 125	
78 Se	72	1	220.90	2.72	ppb	2.26	200	109.0	75 - 125	
93 Nb	72	1	178100.00	205600.00	ppb	1.71	400	86.5	75 - 125	
95 Mo	72	1	202.70	0.73	ppb	1.67	200	101.0	75 - 125	
105 Pd	115	1	-70340.00	-65920.00	ppb	15.70	200	107.0	75 - 125	
107 Ag	115	1	45.21	0.02	ppb	2.20	50	90.4	75 - 125	
111 Cd	115	1	188.30	0.22	ppb	2.54	200	94.0	75 - 125	
114 Cd	115	1	188.20	0.23	ppb	2.32	200	94.0	75 - 125	
118 Sn	115	1	179.30	0.44	ppb	2.95	200	89.5	75 - 125	
121 Sb	115	1	196.50	0.08	ppb	2.73	200	98.2	75 - 125	
137 Ba	115	1	222.40	21.45	ppb	2.36	200	100.4	75 - 125	
182 W	165	1	4078.00	4158.00	ppb	1.49	200	93.6	75 - 125	
195 Pt	165	1	-301.40	-1326.00	ppb	84.44	200	26.8	75 - 125	
205 Tl	165	1	189.30	0.10	ppb	2.01	200	94.6	75 - 125	
208 Pb	165	1	191.10	3.09	ppb	2.14	200	94.1	75 - 125	
232 Th	165	1	1.74	1.93	ppb	4.46	200	0.9	75 - 125	
238 U	165	1	197.90	3.02	ppb	2.62	200	97.5	75 - 125	

## ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	325497	1.29	357213	91.1	30 - 120	
45 Sc	1	739834	1.32	874931	84.6	30 - 120	
72 Ge	1	393784	0.94	488215	80.7	30 - 120	
115 In	1	1321729	1.38	1536240	86.0	30 - 120	
165 Ho	1	3104206	1.60	3429199	90.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
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ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/26/09 15:10:55

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTZ

Spike Dilution: 1.00

Sample Dilution: 5.00

Instrument: Agilent7500

Channel 272

File: AG062509 # 47

Method 6020\_

Acquired: 06/25/2009 20:20:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/25/2009 17:50:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	76738	177.30	0.74760	88.3	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	1230350	224.30	18.424	103	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	1344140	212.70	9.0160	102	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	54232000	43400	43420	0.00	200	*	<input type="checkbox"/>
7440-48-4	Cobalt	59	1797210	194.30	4.8660	94.7	200		<input checked="" type="checkbox"/>
7440-02-0	Nickel	60	428374	199.60	12.182	93.7	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1216920	231.90	43.660	94.1	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	196464	203.30	17.298	93.0	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	126586	211.60	12.776	99.4	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	19985	220.90	2.7220	109	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	519946	202.70	0.72540	101	200		<input checked="" type="checkbox"/>
7440-22-4	Silver	107	383551	45.210	0.02476	90.4	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	271982	188.30	0.22160	94.0	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	640204	179.30	0.43520	89.4	200		<input checked="" type="checkbox"/>
7440-36-0	Antimony	121	738908	196.50	0.07870	98.2	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	342571	222.40	21.440	100	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	3451230	189.30	0.10432	94.6	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	4771140	191.10	3.0920	94.0	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	5382990	197.90	3.0240	97.4	200		<input checked="" type="checkbox"/>
7440-23-5	Sodium	23	54755500	24490	25120				
7439-95-4	Magnesium	24	98863900	72400	73740				
7429-90-5	Aluminum	27	3945430	4388.0	4394.0				
7440-09-7	Potassium	39	10801400	8484.0	8652.0				
7440-70-2	Calcium	43	425172	115900	117240				
7439-89-6	Iron	57	608947	3673.0	3740.0				
7440-03-1	Niobium	93	5118	178100	205600				
7440-05-3	Palladium	105	2014	-70340	-65920				
7440-43-9	Cadmium	114	677452	188.20	0.22860				
7440-33-7	Tungsten	182	6408	4078.0	4158.0				
7440-06-4	Platinum	195	213	-301.40	-1326.6				
7440-29-1	Thorium	232	39034	1.7350	1.9278				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

AS only  
Z  
6/26/09

Reviewed by:

Date:

6/26/09

## Spiked Sample (MS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\048\_MS.D\048\_MS.D#  
 Date Acquired: Jun 25 2009 08:23 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CTS 5X  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2207  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: MS  
 Prep Dil. Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

Spike Ref. File: ---

## QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	7.97	0.75	ppb	3.99	40	19.6	50 - 150	
23 Na	6	1	25030.00	25130.00	ppb	0.83	4000	85.9	50 - 150	
24 Mg	6	1	73470.00	73740.00	ppb	0.54	4000	94.5	50 - 150	
27 Al	45	1	4311.00	4394.00	ppb	0.64	4000	51.4	50 - 150	
39 K	45	1	8675.00	8653.00	ppb	0.53	4000	68.6	50 - 150	
43 Ca	45	1	118500.00	117200.00	ppb	1.70	4000	97.8	50 - 150	
51 V	72	1	26.52	18.42	ppb	2.45	40	45.4	50 - 150	
52 Cr	72	1	17.10	9.02	ppb	2.28	40	34.9	50 - 150	
55 Mn	72	1	44050.00	43430.00	ppb	1.14	40	101.3	50 - 150	
57 Fe	72	1	3646.00	3739.00	ppb	1.97	4000	47.1	50 - 150	
59 Co	72	1	12.68	4.86	ppb	2.27	40	28.3	50 - 150	
60 Ni	72	1	20.55	12.18	ppb	2.00	40	39.4	50 - 150	
63 Cu	72	1	51.57	43.67	ppb	2.01	40	61.6	50 - 150	
66 Zn	72	1	24.36	17.30	ppb	1.63	40	42.5	50 - 150	
75 As	72	1	21.28	12.78	ppb	1.81	40	40.3	50 - 150	
78 Se	72	1	10.86	2.72	ppb	2.35	40	25.4	50 - 150	
93 Nb	72	1	161600.00	205600.00	ppb	10.07	80	78.6	50 - 150	
95 Mo	72	1	8.46	0.73	ppb	2.87	40	20.8	50 - 150	
105 Pd	115	1	-68210.00	-65920.00	ppb	3.76	40	103.5	50 - 150	
107 Ag	115	1	7.51	0.02	ppb	2.32	40	18.8	50 - 150	
111 Cd	115	1	7.95	0.22	ppb	3.58	40	19.8	50 - 150	
114 Cd	115	1	7.96	0.23	ppb	4.85	40	19.8	50 - 150	
118 Sn	115	1	0.63	0.44	ppb	1.13	40	1.6	50 - 150	
121 Sb	115	1	5.15	0.08	ppb	3.28	40	12.8	50 - 150	
137 Ba	115	1	29.40	21.45	ppb	1.66	40	47.8	50 - 150	
182 W	165	1	4791.00	4158.00	ppb	4.03	40	114.1	50 - 150	
195 Pt	165	1	-69.05	-1326.00	ppb	308.47	40	5.4	50 - 150	
205 Tl	165	1	8.06	0.10	ppb	1.13	40	20.1	50 - 150	
208 Pb	165	1	11.07	3.09	ppb	0.91	40	25.7	50 - 150	
232 Th	165	1	10.80	1.93	ppb	0.11	40	25.8	50 - 150	
238 U	165	1	11.75	3.02	ppb	2.01	40	27.3	50 - 150	

## ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	323919	0.57	357213	90.7	30 - 120	
45 Sc	1	736519	0.41	874931	84.2	30 - 120	
72 Ge	1	389833	0.42	488215	79.8	30 - 120	
115 In	1	1316916	0.66	1536240	85.7	30 - 120	
165 Ho	1	3129832	0.72	3429199	91.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ---

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\050\_CCB.D\050\_CCB.D#  
 Date Acquired: Jun 25 2009 08:30 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
23 Na	6	1	2.259 ppb	79.28	20.00	
24 Mg	6	1	0.333 ppb	44.49	20.00	
27 Al	45	1	0.355 ppb	20.80	20.00	
39 K	45	1	-1.224 ppb	43.93	20.00	
43 Ca	45	1	-2.622 ppb	153.32	20.00	
51 V	72	1	0.010 ppb	279.56	1.00	
52 Cr	72	1	0.002 ppb	1526.30	1.00	
55 Mn	72	1	0.213 ppb	8.90	1.00	
57 Fe	72	1	0.625 ppb	32.17	20.00	
59 Co	72	1	-0.001 ppb	150.25	1.00	
60 Ni	72	1	0.009 ppb	66.92	1.00	
63 Cu	72	1	0.013 ppb	36.81	1.00	
66 Zn	72	1	0.077 ppb	36.59	10.00	
75 As	72	1	0.013 ppb	176.36	1.00	
78 Se	72	1	0.389 ppb	94.30	1.00	
93 Nb	72	1	37730.000 ppb	8.04	2.00	Fail
95 Mo	72	1	0.047 ppb	49.00	1.00	
105 Pd	115	1	-6.045 ppb	3038.90	1.00	
107 Ag	115	1	0.025 ppb	12.20	1.00	
111 Cd	115	1	0.010 ppb	64.21	1.00	
114 Cd	115	1	0.011 ppb	14.30	1.00	
118 Sn	115	1	0.354 ppb	4.10	10.00	
121 Sb	115	1	0.204 ppb	5.95	1.00	
137 Ba	115	1	0.005 ppb	2.62	1.00	
182 W	165	1	29.380 ppb	321.14	5.00	Fail
195 Pt	165	1	29.030 ppb	1396.80	1.00	Fail
205 Tl	165	1	0.025 ppb	10.38	1.00	
208 Pb	165	1	0.008 ppb	20.25	1.00	
232 Th	165	1	0.725 ppb	16.47	2.00	
238 U	165	1	0.010 ppb	8.79	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	314692	0.96	357213	88.1	30 - 120	
45 Sc	1	774211	1.50	874931	88.5	30 - 120	
72 Ge	1	445434	1.20	488215	91.2	30 - 120	
115 In	1	1458822	1.10	1536240	95.0	30 - 120	
165 Ho	1	3220969	0.39	3429199	93.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\051WASH.D\051WASH.D#  
 Date Acquired: Jun 25 2009 08:34 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.968 ppb	20.57	1.30	
23 Na	6	1	74.820 ppb	1.20	65.00	
24 Mg	6	1	54.680 ppb	1.88	65.00	
27 Al	45	1	32.120 ppb	4.18	39.00	
39 K	45	1	107.900 ppb	6.65	130.00	
43 Ca	45	1	47.630 ppb	11.17	65.00	
51 V	72	1	4.824 ppb	3.33	6.50	
52 Cr	72	1	1.943 ppb	5.37	2.60	
55 Mn	72	1	1.160 ppb	2.99	1.30	
57 Fe	72	1	48.730 ppb	5.04	65.00	
59 Co	72	1	0.934 ppb	3.48	1.30	
60 Ni	72	1	2.093 ppb	5.93	2.60	
63 Cu	72	1	2.039 ppb	2.01	2.60	
66 Zn	72	1	10.090 ppb	1.80	13.00	
75 As	72	1	5.097 ppb	1.59	6.50	
78 Se	72	1	5.262 ppb	16.62	6.50	
93 Nb	72	1	31530.000 ppb	5.93	52.00	
95 Mo	72	1	1.930 ppb	3.14	2.60	
105 Pd	115	1	1.546 ppb	11028.00	1.30	
107 Ag	115	1	5.128 ppb	1.68	6.50	
111 Cd	115	1	1.054 ppb	6.59	1.30	
114 Cd	115	1	1.238 ppb	3.21	1.30	
118 Sn	115	1	10.090 ppb	2.87	13.00	
121 Sb	115	1	2.001 ppb	2.65	2.60	
137 Ba	115	1	1.078 ppb	7.43	1.30	
182 W	165	1	54.400 ppb	118.68	6.50	
195 Pt	165	1	103.500 ppb	226.57	1.30	
205 Tl	165	1	1.111 ppb	2.11	1.30	
208 Pb	165	1	1.085 ppb	2.00	1.30	
232 Th	165	1	2.323 ppb	2.05	2.60	
238 U	165	1	1.079 ppb	2.97	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	329086	0.64	357213	92.1	30 - 120	
45 Sc	1	836283	3.25	874931	95.6	30 - 120	
72 Ge	1	478794	0.67	488215	98.1	30 - 120	
115 In	1	1553843	0.98	1536240	101.1	30 - 120	
165 Ho	1	3364785	0.21	3429199	98.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\052\_MSD.D\052\_MSD.D#  
 Date Acquired: Jun 25 2009 08:37 pm **QC Summary:**  
 Acq. Method: 6020isis.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE7CTD 5X  
 Misc Info: MATRIX SPIKE DUPLICATE  
 Vial Number: 2208  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: MSD  
 Dilution Factor: 5.00

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG062509.B\048\_MS.D\048\_MS.D#

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	8.56 ppb	4.89	7.97	7.15	20	
23 Na	6	1	26090.00 ppb	0.85	25030.00	4.15	20	
24 Mg	6	1	77520.00 ppb	1.80	73470.00	5.36	20	
27 Al	45	1	4321.00 ppb	1.81	4311.00	0.23	20	
39 K	45	1	8935.00 ppb	0.29	8675.00	2.95	20	
43 Ca	45	1	123000.00 ppb	1.45	118500.00	3.73	20	
51 V	72	1	26.80 ppb	0.58	26.52	1.05	20	
52 Cr	72	1	17.03 ppb	2.62	17.10	0.41	20	
55 Mn	72	1	44420.00 ppb	1.38	44050.00	0.84	20	
57 Fe	72	1	3582.00 ppb	1.80	3646.00	1.77	20	
59 Co	72	1	12.57 ppb	1.45	12.68	0.87	20	
60 Ni	72	1	20.33 ppb	2.91	20.55	1.08	20	
63 Cu	72	1	52.05 ppb	2.86	51.57	0.93	20	
66 Zn	72	1	24.82 ppb	0.71	24.36	1.87	20	
75 As	72	1	21.94 ppb	1.03	21.28	3.05	20	
78 Se	72	1	10.89 ppb	5.14	10.86	0.28	20	
93 Nb	72	1	133500.00 ppb	8.67	161600.00	19.04	20	
95 Mo	72	1	8.61 ppb	3.58	8.46	1.76	20	
105 Pd	115	1	-71220.00 ppb	9.57	-68210.00	-4.32	20	
107 Ag	115	1	7.74 ppb	0.66	7.51	3.03	20	
111 Cd	115	1	8.48 ppb	1.14	7.95	6.48	20	
114 Cd	115	1	8.04 ppb	1.83	7.95	1.06	20	
118 Sn	115	1	0.48 ppb	7.14	0.63	27.82	20	
121 Sb	115	1	5.41 ppb	1.57	5.15	4.87	20	
137 Ba	115	1	29.73 ppb	1.75	29.40	1.12	20	
182 W	165	1	4763.00 ppb	4.36	4791.00	0.59	20	
195 Pt	165	1	-145.30 ppb	148.80	-69.05	-71.15	20	
205 Tl	165	1	8.33 ppb	2.26	8.06	3.27	20	
208 Pb	165	1	11.24 ppb	2.15	11.07	1.52	20	
232 Th	165	1	11.25 ppb	2.31	10.80	4.08	20	
238 U	165	1	11.84 ppb	3.05	11.75	0.76	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	324438	1.16	357213	90.8	30 - 120	
45 Sc	1	761049	0.04	874931	87.0	30 - 120	
72 Ge	1	409345	0.59	488215	83.8	30 - 120	
115 In	1	1343378	0.37	1536240	87.4	30 - 120	
165 Ho	1	3141154	0.75	3429199	91.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\053SMPL.D\053SMPL.D#  
 Date Acquired: Jun 25 2009 08:41 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE9PT 5X  
 Misc Info: D9F190216  
 Vial Number: 2209  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.04	0.01	ppb	173.16	3600	
23 Na	6	1	1,565,000.00	313000.00	ppb	0.95	100000	>LDR
24 Mg	6	1	318,700.00	63740.00	ppb	1.22	100000	
27 Al	45	1	135.35	27.07	ppb	2.77	100000	
39 K	45	1	40,080.00	8016.00	ppb	0.35	100000	
43 Ca	45	1	694,000.00	138800.00	ppb	1.62	100000	>LDR
51 V	72	1	-529.50	-105.90	ppb	5.98	3600	
52 Cr	72	1	12,865.00	2573.00	ppb	1.13	3600	
55 Mn	72	1	137.40	27.48	ppb	2.67	18000	
57 Fe	72	1	834.50	166.90	ppb	1.28	100000	
59 Co	72	1	0.77	0.15	ppb	2.29	3600	
60 Ni	72	1	4.20	0.84	ppb	7.58	3600	
63 Cu	72	1	1.14	0.23	ppb	5.43	3600	
66 Zn	72	1	6.43	1.29	ppb	6.51	3600	
75 As	72	1	92.35	18.47	ppb	2.41	3600	
78 Se	72	1	6.20	1.24	ppb	29.25	3600	
93 Nb	72	1	240,400.00	48080.00	ppb	10.26	2000	>LDR
95 Mo	72	1	12.75	2.55	ppb	4.20	3600	
105 Pd	115	1	-703,500.00	-140700.00	ppb	3.80	1000	
107 Ag	115	1	0.97	0.19	ppb	3.09	3600	
111 Cd	115	1	0.44	0.09	ppb	33.06	3600	
114 Cd	115	1	0.50	0.10	ppb	14.54	3600	
118 Sn	115	1	2.06	0.41	ppb	9.53	3600	
121 Sb	115	1	0.47	0.09	ppb	9.81	3600	
137 Ba	115	1	47.03	9.41	ppb	0.76	3600	
182 W	165	1	7,290.00	1458.00	ppb	8.94	1000	>LDR
195 Pt	165	1	-19,215.00	-3843.00	ppb	20.42	1000	
205 Tl	165	1	0.35	0.07	ppb	7.56	3600	
208 Pb	165	1	2.30	0.46	ppb	0.78	3600	
232 Th	165	1	0.62	0.12	ppb	20.51	1000	
238 U	165	1	49.48	9.90	ppb	2.64	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	294713	0.96	357213	82.5	30 - 120	
45 Sc	1	705797	0.90	874931	80.7	30 - 120	
72 Ge	1	371019	1.02	488215	76.0	30 - 120	
115 In	1	1204244	0.79	1536240	78.4	30 - 120	
165 Ho	1	2851906	0.77	3429199	83.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 27 June 2009 11:01 AM

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\054SMPL.D\054SMPL.D#  
 Date Acquired: Jun 25 2009 08:44 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4A 5X  
 Misc Info: D9F200196  
 Vial Number: 2210  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS	Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.08	0.02	ppb	86.58	3600	
23	Na	6	1	366,900.00	73380.00	ppb	1.20	100000	
24	Mg	6	1	117,400.00	23480.00	ppb	2.00	100000	
27	Al	45	1	2,350.50	470.10	ppb	1.65	100000	
39	K	45	1	13,685.00	2737.00	ppb	0.95	100000	
43	Ca	45	1	257,200.00	51440.00	ppb	0.37	100000	
51	V	72	1	30.92	6.18	ppb	1.51	3600	
52	Cr	72	1	45.38	9.08	ppb	3.05	3600	
55	Mn	72	1	40.35	8.07	ppb	3.81	18000	
57	Fe	72	1	1,896.50	379.30	ppb	2.65	100000	
59	Co	72	1	0.74	0.15	ppb	13.15	3600	
60	Ni	72	1	3.29	0.66	ppb	8.25	3600	
63	Cu	72	1	2.02	0.40	ppb	3.61	3600	
66	Zn	72	1	7.95	1.59	ppb	1.53	3600	
75	As	72	1	89.15	17.83	ppb	1.67	3600	
78	Se	72	1	4.50	0.90	ppb	41.40	3600	
93	Nb	72	1	253,700.00	50740.00	ppb	5.41	2000	>LDR
95	Mo	72	1	22.84	4.57	ppb	2.99	3600	
105	Pd	115	1	-261,850.00	-52370.00	ppb	14.61	1000	
107	Ag	115	1	0.04	0.01	ppb	49.50	3600	
111	Cd	115	1	0.11	0.02	ppb	21.35	3600	
114	Cd	115	1	0.07	0.01	ppb	33.88	3600	
118	Sn	115	1	0.79	0.16	ppb	15.83	3600	
121	Sb	115	1	0.24	0.05	ppb	11.51	3600	
137	Ba	115	1	32.43	6.49	ppb	1.44	3600	
182	W	165	1	4,502.00	900.40	ppb	3.36	1000	
195	Pt	165	1	-130.75	-26.15	ppb	586.62	1000	
205	Tl	165	1	0.06	0.01	ppb	11.98	3600	
208	Pb	165	1	1.05	0.21	ppb	6.47	3600	
232	Th	165	1	1.07	0.21	ppb	2.39	1000	
238	U	165	1	20.72	4.14	ppb	2.85	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	313678	1.26	357213	87.8	30 - 120
45	Sc	1	749905	0.67	874931	85.7	30 - 120
72	Ge	1	414942	0.40	488215	85.0	30 - 120
115	In	1	1323413	0.98	1536240	86.1	30 - 120
165	Ho	1	3110668	0.67	3429199	90.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File :

C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

1 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\055SMPL.D\055SMPL.D#  
 Date Acquired: Jun 25 2009 08:48 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4D 5X  
 Misc Info: D9F200196  
 Vial Number: 2211  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	2,868,000.00	573600.00	ppb	0.68	100000	>LDR
24 Mg	6	1	479,700.00	95940.00	ppb	0.98	100000	
27 Al	45	1	45.24	9.05	ppb	6.31	100000	
39 K	45	1	23,780.00	4756.00	ppb	0.24	100000	
43 Ca	45	1	695,000.00	139000.00	ppb	2.13	100000	>LDR
51 V	72	1	3.59	0.72	ppb	2.61	3600	
52 Cr	72	1	5.91	1.18	ppb	8.39	3600	
55 Mn	72	1	701.00	140.20	ppb	2.11	18000	
57 Fe	72	1	1,035.50	207.10	ppb	1.82	100000	
59 Co	72	1	0.69	0.14	ppb	5.27	3600	
60 Ni	72	1	8.88	1.78	ppb	0.56	3600	
63 Cu	72	1	1.76	0.35	ppb	2.60	3600	
66 Zn	72	1	2.04	0.41	ppb	5.59	3600	
75 As	72	1	138.05	27.61	ppb	1.78	3600	
78 Se	72	1	3.24	0.65	ppb	56.51	3600	
93 Nb	72	1	159,000.00	31800.00	ppb	11.87	2000	>LDR
95 Mo	72	1	44.34	8.87	ppb	0.97	3600	
105 Pd	115	1	-779,500.00	-155900.00	ppb	6.90	1000	
107 Ag	115	1	0.24	0.05	ppb	9.00	3600	
111 Cd	115	1	0.14	0.03	ppb	70.91	3600	
114 Cd	115	1	0.15	0.03	ppb	8.91	3600	
118 Sn	115	1	0.99	0.20	ppb	20.61	3600	
121 Sb	115	1	0.41	0.08	ppb	11.22	3600	
137 Ba	115	1	20.36	4.07	ppb	4.99	3600	
182 W	165	1	58,900.00	11780.00	ppb	2.51	1000	>LDR
195 Pt	165	1	-93.70	-18.74	ppb	831.38	1000	
205 Tl	165	1	0.07	0.01	ppb	13.14	3600	
208 Pb	165	1	0.30	0.06	ppb	9.54	3600	
232 Th	165	1	0.10	0.02	ppb	7.15	1000	
238 U	165	1	94.65	18.93	ppb	3.46	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	278841	0.87	357213	78.1	30 - 120	
45 Sc	1	691092	1.07	874931	79.0	30 - 120	
72 Ge	1	357390	0.11	488215	73.2	30 - 120	
115 In	1	1150906	1.54	1536240	74.9	30 - 120	
165 Ho	1	2740570	0.15	3429199	79.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\056SMPL.D\056SMPL.D#  
 Date Acquired: Jun 25 2009 08:51 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4P 5X  
 Misc Info: D9F200199  
 Vial Number: 2212  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.04	0.01	ppb	173.20	3600
23	Na	6	1	814,500.00	162900.00	ppb	0.97	100000 >LDR
24	Mg	6	1	108,900.00	21780.00	ppb	1.79	100000
27	Al	45	1	3.62	0.72	ppb	4.77	100000
39	K	45	1	7,935.00	1587.00	ppb	1.28	100000
43	Ca	45	1	262,850.00	52570.00	ppb	1.91	100000
51	V	72	1	51.80	10.36	ppb	7.76	3600
52	Cr	72	1	341.95	68.39	ppb	1.93	3600
55	Mn	72	1	7.91	1.58	ppb	2.86	18000
57	Fe	72	1	300.65	60.13	ppb	4.05	100000
59	Co	72	1	5.81	1.16	ppb	6.19	3600
60	Ni	72	1	11.05	2.21	ppb	5.48	3600
63	Cu	72	1	0.55	0.11	ppb	19.76	3600
66	Zn	72	1	0.81	0.16	ppb	12.52	3600
75	As	72	1	146.70	29.34	ppb	2.20	3600
78	Se	72	1	4.22	0.84	ppb	91.45	3600
93	Nb	72	1	141,800.00	28360.00	ppb	17.85	2000 >LDR
95	Mo	72	1	149.25	29.85	ppb	2.97	3600
105	Pd	115	1	-234,350.00	-46870.00	ppb	16.99	1000
107	Ag	115	1	0.41	0.08	ppb	1.61	3600
111	Cd	115	1	0.00	0.00	ppb	1735.60	3600
114	Cd	115	1	0.19	0.04	ppb	34.09	3600
118	Sn	115	1	0.73	0.15	ppb	18.63	3600
121	Sb	115	1	0.25	0.05	ppb	14.34	3600
137	Ba	115	1	28.90	5.78	ppb	1.29	3600
182	W	165	1	1,602,000.00	320400.00	ppb	2.91	1000 >LDR
195	Pt	165	1	-4,069.50	-813.90	ppb	36.65	1000
205	Tl	165	1	0.06	0.01	ppb	7.95	3600
208	Pb	165	1	0.09	0.02	ppb	7.64	3600
232	Th	165	1	0.05	0.01	ppb	35.00	1000
238	U	165	1	18.26	3.65	ppb	3.65	3600

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	291354	0.40	357213	81.6	30 - 120
45	Sc	1	721576	0.67	874931	82.5	30 - 120
72	Ge	1	396818	0.23	488215	81.3	30 - 120
115	In	1	1273603	0.82	1536240	82.9	30 - 120
165	Ho	1	2964594	0.72	3429199	86.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\057SMPL.D\057SMPL.D#  
 Date Acquired: Jun 25 2009 08:55 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4Q 5X  
 Misc Info: D9F200199  
 Vial Number: 2301  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.05	0.01	ppb	173.24	3600	
23 Na	6	1	1,590,500.00	318100.00	ppb	0.47	100000	>LDR
24 Mg	6	1	303,700.00	60740.00	ppb	1.06	100000	
27 Al	45	1	56.25	11.25	ppb	10.95	100000	
39 K	45	1	37,510.00	7502.00	ppb	1.53	100000	
43 Ca	45	1	667,500.00	133500.00	ppb	2.40	100000	>LDR
51 V	72	1	-703.00	-140.60	ppb	12.99	3600	
52 Cr	72	1	14,700.00	2940.00	ppb	0.51	3600	
55 Mn	72	1	107.30	21.46	ppb	1.15	18000	
57 Fe	72	1	701.00	140.20	ppb	3.77	100000	
59 Co	72	1	0.66	0.13	ppb	6.32	3600	
60 Ni	72	1	5.47	1.09	ppb	1.47	3600	
63 Cu	72	1	0.61	0.12	ppb	17.73	3600	
66 Zn	72	1	2.73	0.55	ppb	9.59	3600	
75 As	72	1	90.70	18.14	ppb	0.89	3600	
78 Se	72	1	8.45	1.69	ppb	51.42	3600	
93 Nb	72	1	127,550.00	25510.00	ppb	19.88	2000	>LDR
95 Mo	72	1	16.10	3.22	ppb	3.46	3600	
105 Pd	115	1	-630,500.00	-126100.00	ppb	1.47	1000	
107 Ag	115	1	0.09	0.02	ppb	19.62	3600	
111 Cd	115	1	-0.05	-0.01	ppb	230.16	3600	
114 Cd	115	1	0.02	0.00	ppb	137.56	3600	
118 Sn	115	1	0.69	0.14	ppb	3.96	3600	
121 Sb	115	1	0.32	0.06	ppb	13.16	3600	
137 Ba	115	1	37.89	7.58	ppb	4.70	3600	
182 W	165	1	10,335.00	2067.00	ppb	8.25	1000	>LDR
195 Pt	165	1	-10,095.00	-2019.00	ppb	18.26	1000	
205 Tl	165	1	0.17	0.03	ppb	17.92	3600	
208 Pb	165	1	0.12	0.02	ppb	23.68	3600	
232 Th	165	1	0.01	0.00	ppb	168.83	1000	
238 U	165	1	22.29	4.46	ppb	3.50	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	274896	0.70	357213	77.0	30 - 120	
45 Sc	1	691626	1.11	874931	79.0	30 - 120	
72 Ge	1	368140	0.68	488215	75.4	30 - 120	
115 In	1	1193874	1.54	1536240	77.7	30 - 120	
165 Ho	1	2764719	1.17	3429199	80.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\058\_CCV.D\058\_CCV.D#  
 Date Acquired: Jun 25 2009 08:58 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.61 ppb	2.55	50	101.2	90 - 110	
23	Na	6	5100.00 ppb	0.23	5000	102.0	90 - 110	
24	Mg	6	5067.00 ppb	1.05	5000	101.3	90 - 110	
27	Al	45	4927.00 ppb	1.07	5000	98.5	90 - 110	
39	K	45	5054.00 ppb	1.17	5000	101.1	90 - 110	
43	Ca	45	4895.00 ppb	4.24	5000	97.9	90 - 110	
51	V	72	48.02 ppb	2.07	50	96.0	90 - 110	
52	Cr	72	47.76 ppb	1.53	50	95.5	90 - 110	
55	Mn	72	48.02 ppb	0.90	50	96.0	90 - 110	
57	Fe	72	4661.00 ppb	1.54	5000	93.2	90 - 110	
59	Co	72	47.02 ppb	1.84	50	94.0	90 - 110	
60	Ni	72	48.38 ppb	2.45	50	96.8	90 - 110	
63	Cu	72	48.44 ppb	1.61	50	96.9	90 - 110	
66	Zn	72	48.80 ppb	1.20	50	97.6	90 - 110	
75	As	72	50.87 ppb	1.41	50	101.7	90 - 110	
78	Se	72	51.05 ppb	4.16	50	102.1	90 - 110	
93	Nb	72	18090.00 ppb	20.25	100	18090.0	90 - 110	Fail
95	Mo	72	48.16 ppb	1.97	50	96.3	90 - 110	
105	Pd	115	-245.40 ppb	243.81	50	-490.8	90 - 110	Fail
107	Ag	115	48.85 ppb	0.76	50	97.7	90 - 110	
111	Cd	115	49.41 ppb	1.52	50	98.8	90 - 110	
114	Cd	115	49.52 ppb	1.72	50	99.0	90 - 110	
118	Sn	115	49.28 ppb	1.30	50	98.6	90 - 110	
121	Sb	115	50.80 ppb	1.55	50	101.6	90 - 110	
137	Ba	115	50.17 ppb	1.04	50	100.3	90 - 110	
182	W	165	191.20 ppb	23.15	50	382.4	90 - 110	Fail
195	Pt	165	144.60 ppb	84.37	50	289.2	90 - 110	Fail
205	Tl	165	50.85 ppb	0.31	50	101.7	90 - 110	
208	Pb	165	50.59 ppb	1.02	50	101.2	90 - 110	
232	Th	165	51.25 ppb	1.79	50	102.5	90 - 110	
238	U	165	50.79 ppb	1.22	50	101.6	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	279400	1.14	357213	78.2	30 - 120	
45	Sc	699197	1.61	874931	79.9	30 - 120	
72	Ge	406164	1.34	488215	83.2	30 - 120	
115	In	1330655	0.78	1536240	86.6	30 - 120	
165	Ho	3000836	0.97	3429199	87.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\059\_CCB.D\059\_CCB.D#  
 Date Acquired: Jun 25 2009 09:02 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
23 Na	6	1	81.710 ppb	1.43	20.00	Fail
24 Mg	6	1	1.502 ppb	4.94	20.00	
27 Al	45	1	0.588 ppb	36.53	20.00	
39 K	45	1	12.860 ppb	6.53	20.00	
43 Ca	45	1	1.168 ppb	481.25	20.00	
51 V	72	1	0.013 ppb	154.99	1.00	
52 Cr	72	1	0.041 ppb	12.59	1.00	
55 Mn	72	1	0.285 ppb	8.11	1.00	
57 Fe	72	1	0.653 ppb	57.75	20.00	
59 Co	72	1	-0.005 ppb	23.06	1.00	
60 Ni	72	1	0.013 ppb	68.36	1.00	
63 Cu	72	1	0.009 ppb	72.12	1.00	
66 Zn	72	1	0.073 ppb	15.38	10.00	
75 As	72	1	0.011 ppb	85.14	1.00	
78 Se	72	1	0.446 ppb	103.23	1.00	
93 Nb	72	1	14650.000 ppb	8.77	2.00	Fail
95 Mo	72	1	0.031 ppb	29.87	1.00	
105 Pd	115	1	-13.020 ppb	1503.80	1.00	
107 Ag	115	1	0.021 ppb	25.03	1.00	
111 Cd	115	1	0.002 ppb	755.78	1.00	
114 Cd	115	1	0.012 ppb	14.27	1.00	
118 Sn	115	1	0.326 ppb	8.80	10.00	
121 Sb	115	1	0.177 ppb	0.87	1.00	
137 Ba	115	1	0.006 ppb	97.17	1.00	
182 W	165	1	128.200 ppb	42.67	5.00	Fail
195 Pt	165	1	94.370 ppb	299.46	1.00	Fail
205 Tl	165	1	0.020 ppb	12.98	1.00	
208 Pb	165	1	0.010 ppb	3.71	1.00	
232 Th	165	1	0.701 ppb	20.66	2.00	
238 U	165	1	0.008 ppb	14.11	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	287197	0.27	357213	80.4	30 - 120	
45 Sc	1	735910	1.07	874931	84.1	30 - 120	
72 Ge	1	431276	0.66	488215	88.3	30 - 120	
115 In	1	1381851	1.05	1536240	90.0	30 - 120	
165 Ho	1	3064484	1.48	3429199	89.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\060WASH.D\060WASH.D#  
 Date Acquired: Jun 25 2009 09:05 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.940 ppb	14.16	1.30	
23 Na	6	1	123.200 ppb	2.27	65.00	
24 Mg	6	1	56.030 ppb	1.02	65.00	
27 Al	45	1	32.480 ppb	0.93	39.00	
39 K	45	1	116.500 ppb	1.30	130.00	
43 Ca	45	1	48.640 ppb	16.92	65.00	
51 V	72	1	4.965 ppb	3.94	6.50	
52 Cr	72	1	2.002 ppb	3.01	2.60	
55 Mn	72	1	1.240 ppb	2.14	1.30	
57 Fe	72	1	47.620 ppb	3.41	65.00	
59 Co	72	1	0.956 ppb	1.25	1.30	
60 Ni	72	1	1.982 ppb	2.59	2.60	
63 Cu	72	1	1.999 ppb	2.25	2.60	
66 Zn	72	1	9.950 ppb	1.60	13.00	
75 As	72	1	4.942 ppb	2.31	6.50	
78 Se	72	1	4.864 ppb	18.14	6.50	
93 Nb	72	1	17410.000 ppb	15.71	52.00	
95 Mo	72	1	1.946 ppb	5.02	2.60	
105 Pd	115	1	-8.990 ppb	2100.10	1.30	
107 Ag	115	1	5.029 ppb	3.29	6.50	
111 Cd	115	1	1.044 ppb	2.01	1.30	
114 Cd	115	1	1.215 ppb	2.12	1.30	
118 Sn	115	1	10.030 ppb	3.73	13.00	
121 Sb	115	1	2.068 ppb	3.51	2.60	
137 Ba	115	1	1.080 ppb	4.55	1.30	
182 W	165	1	81.170 ppb	89.69	6.50	
195 Pt	165	1	174.300 ppb	71.08	1.30	
205 Tl	165	1	1.098 ppb	0.91	1.30	
208 Pb	165	1	1.083 ppb	3.24	1.30	
232 Th	165	1	2.294 ppb	2.95	2.60	
238 U	165	1	1.070 ppb	1.06	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	287559	1.38	357213	80.5	30 - 120	
45 Sc	1	748913	0.52	874931	85.6	30 - 120	
72 Ge	1	434028	0.21	488215	88.9	30 - 120	
115 In	1	1413851	1.58	1536240	92.0	30 - 120	
165 Ho	1	3076772	0.46	3429199	89.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

## TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9F180314

Client: Northgate Environmental

Batch(es) #: 9174183, 9174190

Associated Samples: 1, 2

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date:  6/25/09

## *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9F180314	1	SE	LE7091AC	20090625	6020TOTA	9174190	AG062409G	024
D9F180314	2 D	SE	LE71E1AG	20090624	6020DSVD	9174183	AG062409G	024
D9F180314	2 S	SE	LE71E1AF	20090624	6020DSVD	9174183	AG062409G	024
D9F180314	2 D	AS	LE71E1AE	20090625	6020DSVD	9174183	AG062409G	024
D9F180314	2 S	AS	LE71E1AD	20090625	6020DSVD	9174183	AG062409G	024
D9F180314	2	SE	LE71E1AC	20090624	6020DSVD	9174183	AG062409G	024
D9F180314	2	AS	LE71E1AA	20090625	6020DSVD	9174183	AG062409G	024



**METALS  
PREPARATION LOGS  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

Batch Number: 9174183

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:

JON HARRE

Prep Date: 06/24/09

Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	<b>LFFFC</b>	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	<b>LFFFC</b>	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	<b>LE71E</b> Dissolved		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180314 Water	<b>LE71E</b> Dissolved	S	Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180314 Water	<b>LE71E</b> Dissolved	D	Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F200196 Water	<b>LFC4C</b> Dissolved		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*Checked  
6/24/09*

*✓  
Z  
6/25/09*

METALS PREP SHEET

SOP: DEN-IP-0014



THE LEADER IN ENVIRONMENTAL TESTING  
TestAmerica Denver

DISSOLVED WATER DIGESTION FOR ICPMS (Prep code MD)

BATCH # 9174183

ALLIQUOTTED BY: JRW

PREP DATE: 6/24/2009

DIGESTED BY: JKH

CONSUMABLES USED

Digestion Cups: Manufacturer: Environmental Express Lot #: A901LS267

Were samples filtered in the lab?  Yes  No

If "yes", then the method blank and the LCS were filtered prior to digestion.

Analyst(s) Initials: JKH

STANDARDS USED

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

REAGENTS USED

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	2

TEMPERATURE CYCLES

Thermometer ID: 4082 Block & Cup #: 4,5

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO3/HCl	6:00	90	11:00	90

Samples and QC revolved to: 50 mL Analyst's Initials: JKH

COMMENTS:

I certify that all information above is correct and complete.

Signature: *[Handwritten Signature]*

Date: 6/24/09

Batch Number: 9174190

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:

JON HARRE

Prep Date: 06/24/09

Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	LFFFX	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	LFFFX	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	LE709 Total		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total		Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	S	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	D	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F190216 Water	LE9PT Total		Due Date: 07/01/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4A Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4D Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4P Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4Q Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*RT checked  
6/24/09*

*✓  
6/25/09*

**TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)**

BATCH # 9174190  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

**CONSUMABLES USED**

Digestion Cups: Manufacturer: Environmental Express Lot #: A901LS267  
One or more samples were filtered prior to analysis at the instrument.  Yes  No  
If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.  
Analyst(s) Initials:                     

**STANDARDS USED**

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

**REAGENTS USED**

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	3

**TEMPERATURE CYCLES**

Thermometer ID: 3311 Block & Cup #: 1, 11

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO <sub>3</sub>	<u>6:00</u>	<u>95</u>	<u>10:20</u>	<u>95</u>
HNO <sub>3</sub>	<u>10:30</u>	<u>94</u>	<u>11:00</u>	<u>93</u>
HNO <sub>3</sub>				

Samples and QC revolved to: 50 mL Analyst's Initials JKH

**COMMENTS:**

I certify that all information above is correct and complete.

Signature: *Kim Anne*

Date: 6/24/09

**METALS  
SAMPLE DATA  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

## ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L. Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

### Quality Control Standards

ICV = Initial Calibration Verification (Second Source)      ICB = Initial Calibration Blank  
 CCV = Continuing Calibration Verification                      CCB = Continuing Calibration Blank

# TestAmerica Denver

## Standards Preparation Logbook Record

Jun-24-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008  
Date Expires(1): 10-01-2009 (None)  
Date Expires(2): 10-01-2009 (None)  
(METALS)-Inventory ID: 779

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	1,000.0	1,000.0

### STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008  
Date Expires(1): 12-01-2009 (None)  
Date Expires(2): 12-01-2009 (None)  
(METALS)-Inventory ID: 803

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1,000.0

### STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010  
Solvent: 1% HNO3  
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009  
Date Expires(1): 03-01-2010 (None)  
Date Expires(2): 03-01-2010 (None)  
(METALS)-Inventory ID: 833

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

### STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H02026 Volume (ml): 100.00  
Date Prep./Opened: 04-01-2009  
Date Expires(1): 12-01-2009 (1 Year)  
pipette: Met 21



Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3432-09, ICP-MS (024) INT STD BRC

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-08-2009  
 Date Expires(1): 11-10-2009 (1 Year) ✓  
 Date Expires(2): 12-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Volume (ml): 250.00

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 0.7500  
 Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.2500  
 Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock Aliquot Amount (ml): 0.2500  
 Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,000.0

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year) ✓

Volume (ml): 10.000

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010  

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000

STD3753-09, ICP-MS ICSA

Solvent: 5% HNO3 Lot No.: H12022 Analyst: DIAZL  
 Date Prep./Opened: 06-22-2009 Volume (ml): 50.000  
 Date Expires(1): 02-01-2010 (1 Year) ✓  
 Date Expires(2): 02-01-2010 (None)  
 pipettes: Met 8

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010  

Component	Initial Conc (ug/ml)	Final Conc (ug/L)
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20,000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20,000	2,000.0

STD3807-09, ICP-MS 10 ppm Sn

Solvent: 5% HNO3 Lot No.: H12022 Analyst: DIAZL  
 Date Prep./Opened: 06-24-2009 Volume (ml): 10.000  
 Date Expires(1): 03-01-2010 (1 Year) ✓  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Parent Std No.: STD1198-09, 1000 mg/L Sn Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010  

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	10.000

STD3808-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 07-24-2009 (1 Month)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 1,000.0

Parent Std No.: STD3806-09, NITRIC ACID

Aliquot Amount (ml): 50.000

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD3809-09, ICP-MS 100 ppb cal

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 06-25-2009 (1 Day)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Lot No.: H12022

Volume (ml): 50.000

Parent Std No.: STD0100-09, Iron Stock

Aliquot Amount (ml): 0.2500

Parent Date Expires(1): 08-01-2009 Parent Date Expires(2): 08-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Fe	1,000.0	5,000.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures

Aliquot Amount (ml): 0.2500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.5000  
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	100.00

STD3810-09, ICP-MS CCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
Date Prep./Opened: 06-24-2009  
Date Expires(1): 06-25-2009 (1 Day)  
Date Verified: 12-31--4714 by - (Verification ID: 0)  
pipettes: Met 20

Volume (ml): 100.00

Parent Std No.: STD0100-09, Iron Stock Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 08-01-2009 Parent Date Expires(2): 08-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Fe	1,000.0	2,500.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	50.000
Al	20.000	50.000
As	20.000	50.000
Ba	20.000	50.000
Be	20.000	50.000
Cd	20.000	50.000
Co	20.000	50.000
Cr	20.000	50.000
Cu	20.000	50.000
Mn	20.000	50.000
Ni	20.000	50.000
Pb	20.000	50.000
Se	20.000	50.000
Th	20.000	50.000
Tl	20.000	50.000
U	20.000	50.000
V	20.000	50.000
Zn	20.000	50.000

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	50.000

Sb 20.000 50.000  
 Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sn	10.000	50.000

STD3811-09, ICP-MS RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day) ✓  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD3809-09, ICP-MS 100 ppb cal Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 06-25-2009 Parent Date Expires(2): 06-25-2009

Component	Initial Conc (ug/L)	Final Conc (mg/L)
Fe	5,000.0	0.0500
Ag	100.00	0.0010
Al	100.00	0.0010
As	100.00	0.0010
Ba	100.00	0.0010
Be	100.00	0.0010
Cd	100.00	0.0010
Co	100.00	0.0010
Cr	100.00	0.0010
Cu	100.00	0.0010
Mn	100.00	0.0010
Ni	100.00	0.0010
Pb	100.00	0.0010
Se	100.00	0.0010
Th	100.00	0.0010
Tl	100.00	0.0010
U	100.00	0.0010
V	100.00	0.0010
Zn	100.00	0.0010
Mo	100.00	0.0010
Sb	100.00	0.0010
Sn	100.00	0.0010

STD3812-09, ICP-MS AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (2 Days) ✓  
 pipettes: Met 20 and Met 8

Volume (ml): 10.000

Parent Std No.: STD3811-09, ICP-MS RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Fe	0.0500	0.0100
Ag	0.0010	0.0002
Al	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002

STD3813-09, ICP-MS ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Verified: 12-31--4714 by - (Verification ID: Q) ✓  
 pipettes: Met 21, Met 20, and Met 8

Volume (ml): 10.000

Parent Std No.: STD1978-09, ICPMS Interferent Check Standard

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000

Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20,000.	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20,000	2,000.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.0500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.0500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	100.00

STD3814-09, ICPMS LR STD 1000 ppb

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-24-2009

Date Expires(1): 06-25-2009 (1 Day)

Date Verified: 12-31--4714 by - (Verification ID: 0)

pipettes: Met 20 and Met 8

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	1,000.0
Al	20.000	1,000.0
As	20.000	1,000.0
Ba	20.000	1,000.0
Be	20.000	1,000.0
Cd	20.000	1,000.0
Co	20.000	1,000.0
Cr	20.000	1,000.0
Cu	20.000	1,000.0
Mn	20.000	1,000.0
Ni	20.000	1,000.0
Pb	20.000	1,000.0
Se	20.000	1,000.0
Th	20.000	1,000.0
Tl	20.000	1,000.0
U	20.000	1,000.0
V	20.000	1,000.0
Zn	20.000	1,000.0

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	1,000.0
Sb	20.000	1,000.0

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	1,000.0

STD3815-09, ICPMS ICV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 02-27-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD1213-09, ICPMS ICV SOLUTION A (High Purity) Aliquot Amount (ml): 0.0400  
 Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Al	10.000	40.000
As	10.000	40.000
Ba	10.000	40.000
Be	10.000	40.000
Cd	10.000	40.000



Co	10.000	40.000
Cr	10.000	40.000
Cu	10.000	40.000
Fe	250.00	1,000.0
Li	10.000	40.000
Mn	10.000	40.000
Ni	10.000	40.000
Pb	10.000	40.000
Se	10.000	40.000
Th	10.000	40.000
Tl	10.000	40.000
U	10.000	40.000
V	10.000	40.000
Zn	10.000	40.000

Parent Std No.: STD1214-09, ICPMS ICV SOLUTION B (High Purity) Aliquot Amount (ml): 0.0400  
 Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Ag	10.000	40.000
Mo	10.000	40.000
Sb	10.000	40.000
Sn	10.000	40.000
Zr	10.000	40.000

STD3816-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 pipettes: Met 21 and Met 8

Volume (ml): 50.000

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1.0000	0.0020

STD3817-09, LLCCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 05-01-2010 (None)  
 pipettes: Met 20

Volume (ml): 50.000

Parent Std No.: STD3106-09, ICP-MS LLCCV 1

Aliquot Amount (ml): 0.5000

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000

Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By: \_\_\_\_\_

LRD

06/24/2009

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/25/09 11:05:10
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File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
2	Cal Blank				1.0 06/24/09 19:07		<input type="checkbox"/>
3	100 ppb				1.0 06/24/09 19:10		<input type="checkbox"/>
4	ICV				1.0 06/24/09 19:13		<input type="checkbox"/>
5	RLIV				1.0 06/24/09 19:17		<input type="checkbox"/>
6	ICB				1.0 06/24/09 19:20		<input type="checkbox"/>
7	RL STD				1.0 06/24/09 19:24		<input type="checkbox"/>
8	AFCEE RL				1.0 06/24/09 19:27		<input type="checkbox"/>
9	ALTSe				1.0 06/24/09 19:30		<input type="checkbox"/>
10	ICSA				1.0 06/24/09 19:34		<input type="checkbox"/>
11	ICSAB				1.0 06/24/09 19:37		<input type="checkbox"/>
12	RINSE				1.0 06/24/09 19:40		<input type="checkbox"/>
13	LR				1.0 06/24/09 19:44		<input type="checkbox"/>
14	RINSE				1.0 06/24/09 19:47		<input type="checkbox"/>
15	CCV				1.0 06/24/09 19:52		<input type="checkbox"/>
16	CCB				1.0 06/24/09 19:55		<input type="checkbox"/>
17	RLCV				1.0 06/24/09 19:58		<input type="checkbox"/>
18	LE7RWB	D9F180000	9169492	MS	1.0 06/24/09 20:02		<input type="checkbox"/>
19	LE7RWC	D9F180000	9169492	MS	1.0 06/24/09 20:05		<input type="checkbox"/>
20	LERAH	D9F110358-9	9169492	MS	1.0 06/24/09 20:09		<input type="checkbox"/>
21	LERAX	D9F110358-20	9169492	MS	1.0 06/24/09 20:12		<input type="checkbox"/>
22	LERA0	D9F110358-21	9169492	MS	1.0 06/24/09 20:15		<input type="checkbox"/>
23	LERA4	D9F110358-24	9169492	MS	1.0 06/24/09 20:19		<input type="checkbox"/>
24	LERA4P5	D9F110358	9169492		5.0 06/24/09 20:22		<input type="checkbox"/>
25	LERA4Z	D9F110358-24	9169492		1.0 06/24/09 20:25		<input type="checkbox"/>
26	LERA4S	D9F110358-24	9169492	MS	1.0 06/24/09 20:29		<input type="checkbox"/>
27	LERA4D	D9F110358-24	9169492	MS	1.0 06/24/09 20:32		<input type="checkbox"/>
28	CCV				1.0 06/24/09 20:36		<input type="checkbox"/>
29	CCB				1.0 06/24/09 20:39		<input type="checkbox"/>
30	RLCV				1.0 06/24/09 20:42		<input type="checkbox"/>
31	ICSA				1.0 06/24/09 20:46		<input type="checkbox"/>
32	ICSAB				1.0 06/24/09 20:49		<input type="checkbox"/>
33	WASH				1.0 06/24/09 20:52		<input type="checkbox"/>
34	CCV				1.0 06/24/09 20:56		<input type="checkbox"/>
35	CCB				1.0 06/24/09 20:59		<input type="checkbox"/>
36	RLCV				1.0 06/24/09 21:03		<input type="checkbox"/>
37	LFFFBCF	D9F230000	9174183	MD	1.0 06/24/09 21:06	Se only. 6/25/09	<input type="checkbox"/>
38	LFFFCCF	D9F230000	9174183	MD	1.0 06/24/09 21:10		<input type="checkbox"/>
39	LE71EF	D9F180314-2	9174183	MD	1.0 06/24/09 21:13		<input type="checkbox"/>
40	LE71EP5F	D9F180314	9174183		5.0 06/24/09 21:16		<input type="checkbox"/>
41	LE71EZF	D9F180314-2	9174183		1.0 06/24/09 21:20		<input type="checkbox"/>
42	LE71ESF	D9F180314-2	9174183	MD	1.0 06/24/09 21:23		<input type="checkbox"/>
43	LE71EDF	D9F180314-2	9174183	MD	1.0 06/24/09 21:26		<input type="checkbox"/>
44	LFC4CF	D9F200196-2	9174183	MD	1.0 06/24/09 21:30	<input type="checkbox"/>	
45	CCV				1.0 06/24/09 21:33	<input type="checkbox"/>	
46	CCB				1.0 06/24/09 21:36	<input type="checkbox"/>	
47	RLCV				1.0 06/24/09 21:40	<input type="checkbox"/>	

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
48	RINSE				1.0 06/24/09 21:43		<input type="checkbox"/>
49	RINSE				1.0 06/24/09 21:47		<input type="checkbox"/>
50	RINSE				1.0 06/24/09 21:50		<input type="checkbox"/>
51	RINSE				1.0 06/24/09 21:53		<input type="checkbox"/>
52	RINSE				1.0 06/24/09 21:57		<input type="checkbox"/>
53	RINSE				1.0 06/24/09 22:00		<input type="checkbox"/>
54	CCV				1.0 06/24/09 22:04		<input type="checkbox"/>
55	CCB				1.0 06/24/09 22:07		<input type="checkbox"/>
56	RLCV				1.0 06/24/09 22:10		<input type="checkbox"/>
57	Cal Blank				1.0 06/24/09 22:14		<input type="checkbox"/>
58	Cal Blank				1.0 06/24/09 22:17		<input type="checkbox"/>
59	100 ppb				1.0 06/24/09 22:20		<input type="checkbox"/>
60	CCV				1.0 06/24/09 22:24		<input type="checkbox"/>
61	CCB				1.0 06/24/09 22:27		<input type="checkbox"/>
62	RLCV				1.0 06/24/09 22:31		<input type="checkbox"/>
63	LFFPJBF	D9F230000	9174251	MD	1.0 06/24/09 22:34		<input type="checkbox"/>
64	LFFPJCF	D9F230000	9174251	MD	1.0 06/24/09 22:37		<input type="checkbox"/>
65	LE7RXF	D9F180298-1	9174251	MD	1.0 06/24/09 22:41		<input type="checkbox"/>
66	LE7TDF	D9F180298-2	9174251	MD	1.0 06/24/09 22:44		<input type="checkbox"/>
67	LE7TDP5F	D9F180298	9174251		5.0 06/24/09 22:48		<input type="checkbox"/>
68	LE7TDZF	D9F180298-2	9174251		1.0 06/24/09 22:51		<input type="checkbox"/>
69	LE7TDSF	D9F180298-2	9174251	MD	1.0 06/24/09 22:54		<input type="checkbox"/>
70	CCV				1.0 06/24/09 22:58		<input type="checkbox"/>
71	CCB				1.0 06/24/09 23:01		<input type="checkbox"/>
72	RLCV				1.0 06/24/09 23:05		<input type="checkbox"/>
73	ICSA				1.0 06/24/09 23:08		<input type="checkbox"/>
74	ICSAB				1.0 06/24/09 23:11		<input type="checkbox"/>
75	WASH				1.0 06/24/09 23:15		<input type="checkbox"/>
76	CCV				1.0 06/24/09 23:18		<input type="checkbox"/>
77	CCB				1.0 06/24/09 23:21		<input type="checkbox"/>
78	RLCV				1.0 06/24/09 23:25		<input type="checkbox"/>
79	LE7TDDF	D9F180298-2	9174251	MD	1.0 06/24/09 23:28		<input type="checkbox"/>
80	LE7VVF	D9F180298-3	9174251	MD	1.0 06/24/09 23:32		<input type="checkbox"/>
81	LE7V3F	D9F180298-4	9174251	MD	1.0 06/24/09 23:35		<input type="checkbox"/>
82	LE7V5F	D9F180298-5	9174251	MD	1.0 06/24/09 23:38		<input type="checkbox"/>
83	LE7V8F	D9F180298-6	9174251	MD	1.0 06/24/09 23:42		<input type="checkbox"/>
84	LE7WAF	D9F180298-7	9174251	MD	1.0 06/24/09 23:45		<input type="checkbox"/>
85	LE88DF	D9F190179-1	9174251	MD	1.0 06/24/09 23:49		<input type="checkbox"/>
86	CCV				1.0 06/24/09 23:52		<input type="checkbox"/>
87	CCB				1.0 06/24/09 23:55		<input type="checkbox"/>
88	RLCV				1.0 06/24/09 23:59		<input type="checkbox"/>
89	LE88HF	D9F190179-2	9174251	MD	1.0 06/25/09 00:02		<input type="checkbox"/>
90	LE88JF	D9F190179-3	9174251	MD	1.0 06/25/09 00:06		<input type="checkbox"/>
91	LE88LF	D9F190179-4	9174251	MD	1.0 06/25/09 00:09		<input type="checkbox"/>
92	LE88NF	D9F190179-5	9174251	MD	1.0 06/25/09 00:12		<input type="checkbox"/>
93	LE88QF	D9F190179-6	9174251	MD	1.0 06/25/09 00:16		<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
94	LFEAEF	D9F220120-1	9174251	MD	1.0	06/25/09 00:19	<input type="checkbox"/>
95	LFEA6F	D9F220120-2	9174251	MD	1.0	06/25/09 00:23	<input type="checkbox"/>
96	CCV				1.0	06/25/09 00:26	<input type="checkbox"/>
97	CCB				1.0	06/25/09 00:29	<input type="checkbox"/>
98	RLCV				1.0	06/25/09 00:33	<input type="checkbox"/>
99	LFGFMB	D9F230000	9174418	04	1.0	06/25/09 00:36	<input type="checkbox"/>
100	LFGFMC	D9F230000	9174418	04	1.0	06/25/09 00:40	<input type="checkbox"/>
101	LE4PX	D9F170234-1	9174418	04	1.0	06/25/09 00:43	<input type="checkbox"/>
102	LE4QF	D9F170234-2	9174418	04	1.0	06/25/09 00:46	<input type="checkbox"/>
103	LE4QG	D9F170234-3	9174418	04	1.0	06/25/09 00:50	<input type="checkbox"/>
104	LE4QN	D9F170234-4	9174418	04	1.0	06/25/09 00:53	<input type="checkbox"/>
105	LE63X	D9F180238-1	9174418	04	1.0	06/25/09 00:57	<input type="checkbox"/>
106	LE859	D9F190169-1	9174418	04	1.0	06/25/09 01:00	<input type="checkbox"/>
107	LE862	D9F190169-2	9174418	04	1.0	06/25/09 01:03	<input type="checkbox"/>
108	CCV				1.0	06/25/09 01:07	<input type="checkbox"/>
109	CCB				1.0	06/25/09 01:10	<input type="checkbox"/>
110	RLCV				1.0	06/25/09 01:13	<input type="checkbox"/>
111	LFCHJ	D9F200140-1	9174418	04	1.0	06/25/09 01:17	<input type="checkbox"/>
112	LFCHJP5	D9F200140	9174418		5.0	06/25/09 01:20	<input type="checkbox"/>
113	LFCHJZ	D9F200140-1	9174418		1.0	06/25/09 01:24	<input type="checkbox"/>
114	LFCHJS	D9F200140-1	9174418	04	1.0	06/25/09 01:27	<input type="checkbox"/>
115	LFCHJD	D9F200140-1	9174418	04	1.0	06/25/09 01:30	<input type="checkbox"/>
116	LFCH5	D9F200140-2	9174418	04	1.0	06/25/09 01:34	<input type="checkbox"/>
117	LFCH6	D9F200140-3	9174418	04	1.0	06/25/09 01:37	<input type="checkbox"/>
118	LFCH7	D9F200140-4	9174418	04	1.0	06/25/09 01:41	<input type="checkbox"/>
119	CCV				1.0	06/25/09 01:44	<input type="checkbox"/>
120	CCB				1.0	06/25/09 01:47	<input type="checkbox"/>
121	RLCV				1.0	06/25/09 01:51	<input type="checkbox"/>
122	LFFFXB	D9F230000	9174190	MS	1.0	06/25/09 01:54	<input type="checkbox"/>
123	LFFFXC	D9F230000	9174190	MS	1.0	06/25/09 01:58	<input type="checkbox"/>
124	LE709	D9F180314-1	9174190	MS	1.0	06/25/09 02:01	<input type="checkbox"/>
125	LE7CT	D9F180266-1	9174190	MS	1.0	06/25/09 02:04	<input type="checkbox"/>
126	LE7CTP5	D9F180266	9174190		5.0	06/25/09 02:08	<input type="checkbox"/>
127	LE7CTZ	D9F180266-1	9174190		1.0	06/25/09 02:11	<input type="checkbox"/>
128	LE7CTS	D9F180266-1	9174190	MS	1.0	06/25/09 02:15	<input type="checkbox"/>
129	CCV				1.0	06/25/09 02:18	<input type="checkbox"/>
130	CCB				1.0	06/25/09 02:21	<input type="checkbox"/>
131	RLCV				1.0	06/25/09 02:25	<input type="checkbox"/>
132	LE7CTD	D9F180266-1	9174190	MS	1.0	06/25/09 02:28	<input type="checkbox"/>
133	LE9PT	D9F190216-1	9174190	MS	1.0	06/25/09 02:32	<input type="checkbox"/>
134	LFC4A	D9F200196-1	9174190	MS	1.0	06/25/09 02:35	<input type="checkbox"/>
135	LFC4D	D9F200196-3	9174190	MS	1.0	06/25/09 02:38	<input type="checkbox"/>
136	LFC4P	D9F200199-1	9174190	MS	1.0	06/25/09 02:42	<input type="checkbox"/>
137	LFC4Q	D9F200199-2	9174190	MS	1.0	06/25/09 02:45	<input type="checkbox"/>
138	CCV				1.0	06/25/09 02:48	<input type="checkbox"/>
139	CCB				1.0	06/25/09 02:52	<input type="checkbox"/>

*- See only. AT 6/25/09*

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
140	RLCV				1.0	06/25/09 02:55	<input type="checkbox"/>
141	<del>LFFT1BF</del>	<del>D9F230000</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 02:59</del>	<input type="checkbox"/>
142	LFFT1CF	D9F230000	9174270	MD	1.0	06/25/09 03:02	<input type="checkbox"/>
143	LE6C3F	D9F180143-1	9174270	MD	1.0	06/25/09 03:05	<input type="checkbox"/>
144	LE6C7F	D9F180143-2	9174270	MD	1.0	06/25/09 03:09	<input type="checkbox"/>
145	LE6C8F	D9F180143-3	9174270	MD	1.0	06/25/09 03:12	<input type="checkbox"/>
146	LE6C9F	D9F180143-4	9174270	MD	1.0	06/25/09 03:16	<input type="checkbox"/>
147	LE6DAF	D9F180143-5	9174270	MD	1.0	06/25/09 03:19	<input type="checkbox"/>
148	LE6DCF	D9F180143-6	9174270	MD	1.0	06/25/09 03:22	<input type="checkbox"/>
149	LE6DCP5F	D9F180143	9174270		5.0	06/25/09 03:26	<input type="checkbox"/>
150	LE6DCZF	D9F180143-6	9174270		1.0	06/25/09 03:29	<input type="checkbox"/>
151	CCV				1.0	06/25/09 03:33	<input type="checkbox"/>
152	CCB				1.0	06/25/09 03:36	<input type="checkbox"/>
153	RLCV				1.0	06/25/09 03:39	<input type="checkbox"/>
154	LE6DCSF	D9F180143-6	9174270	MD	1.0	06/25/09 03:43	<input type="checkbox"/>
155	LE6DCDF	D9F180143-6	9174270	MD	1.0	06/25/09 03:46	<input type="checkbox"/>
156	LE9GLF	D9F190197-1	9174270	MD	1.0	06/25/09 03:50	<input type="checkbox"/>
157	LFCECF	D9F200122-1	9174270	MD	1.0	06/25/09 03:53	<input type="checkbox"/>
158	LFCEMF	D9F200122-2	9174270	MD	1.0	06/25/09 03:56	<input type="checkbox"/>
159	LFCENF	D9F200122-3	9174270	MD	1.0	06/25/09 04:00	<input type="checkbox"/>
160	LFCEQF	D9F200122-4	9174270	MD	1.0	06/25/09 04:03	<input type="checkbox"/>
161	LFCERF	D9F200122-5	9174270	MD	1.0	06/25/09 04:07	<input type="checkbox"/>
162	LFCEWF	D9F200122-6	9174270	MD	1.0	06/25/09 04:10	<input type="checkbox"/>
163	LFCEXF	D9F200122-7	9174270	MD	1.0	06/25/09 04:13	<input type="checkbox"/>
164	CCV				1.0	06/25/09 04:17	<input type="checkbox"/>
165	CCB				1.0	06/25/09 04:20	<input type="checkbox"/>
166	RLCV				1.0	06/25/09 04:24	<input type="checkbox"/>
167	RINSE				1.0	06/25/09 04:27	<input type="checkbox"/>
168	RINSE				1.0	06/25/09 04:30	<input type="checkbox"/>
169	RINSE				1.0	06/25/09 04:34	<input type="checkbox"/>
170	RINSE				1.0	06/25/09 04:37	<input type="checkbox"/>
171	RINSE				1.0	06/25/09 04:41	<input type="checkbox"/>
172	RINSE				1.0	06/25/09 04:44	<input type="checkbox"/>
173	<del>Cal Blank</del>				<del>1.0</del>	<del>06/25/09 04:47</del> <i>RF 6/25/09 did not use.</i>	<input type="checkbox"/>
174	Cal Blank				1.0	06/25/09 04:51	<input type="checkbox"/>
175	100 ppb				1.0	06/25/09 04:54	<input type="checkbox"/>
176	CCV				1.0	06/25/09 04:57	<input type="checkbox"/>
177	CCB				1.0	06/25/09 05:01	<input type="checkbox"/>
178	RLCV				1.0	06/25/09 05:04	<input type="checkbox"/>
179	MDLV BLANK				1.0	06/25/09 05:08	<input type="checkbox"/>
180	MDLV1				1.0	06/25/09 05:11	<input type="checkbox"/>
181	MDLV2				1.0	06/25/09 05:15	<input type="checkbox"/>
182	CCV				1.0	06/25/09 05:18	<input type="checkbox"/>
183	CCB				1.0	06/25/09 05:21	<input type="checkbox"/>
184	RLCV				1.0	06/25/09 05:25	<input type="checkbox"/>
185	LFFFCBF	D9F230000	9174183	MD	1.0	06/25/09 05:28 <i>- AS only, RF 6/25/09</i>	<input type="checkbox"/>

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
186	LFFFCCF	D9F230000	9174183	MD	1.0	06/25/09 05:32	<input type="checkbox"/>
187	LE71EF 10X	D9F180314-2	9174183	MD	10.0	06/25/09 05:35	<input type="checkbox"/>
188	LE71EP50F	D9F180314	9174183		50.0	06/25/09 05:38	<input type="checkbox"/>
189	LE71EZF	D9F180314-2	9174183		1.0	06/25/09 05:42	<input type="checkbox"/>
190	LE71ESF 10	D9F180314-2	9174183	MD	10.0	06/25/09 05:45	<input type="checkbox"/>
191	LE71EDF 10	D9F180314-2	9174183	MD	10.0	06/25/09 05:48	<input type="checkbox"/>
192	LFC4CF 10X	D9F200196-2	9174183	MD	10.0	06/25/09 05:52	<input type="checkbox"/>
193	CCV				1.0	06/25/09 05:55	<input type="checkbox"/>
194	CCB				1.0	06/25/09 05:59	<input type="checkbox"/>
195	RLCV				1.0	06/25/09 06:02	<input type="checkbox"/>
196	D9F120347-1				1.0	06/25/09 06:05	<input type="checkbox"/>
197	CCV				1.0	06/25/09 06:09	<input type="checkbox"/>
198	CCB				1.0	06/25/09 06:12	<input type="checkbox"/>
199	RLCV				1.0	06/25/09 06:16	<input type="checkbox"/>
200	LFFEFB	D9F230000	9174178	MS	1.0	06/25/09 06:19	<input type="checkbox"/>
201	LFFFC	D9F230000	9174178	MS	1.0	06/25/09 06:22	<input type="checkbox"/>
202	LE9GL	D9F190197-1	9174178	MS	1.0	06/25/09 06:26	<input type="checkbox"/>
203	LE720	D9F180321-1	9174178	MS	1.0	06/25/09 06:29	<input type="checkbox"/>
204	LE721	D9F180321-2	9174178	MS	1.0	06/25/09 06:33	<input type="checkbox"/>
205	LE723	D9F180321-3	9174178	MS	1.0	06/25/09 06:36	<input type="checkbox"/>
206	LE724	D9F180321-4	9174178	MS	1.0	06/25/09 06:39	<input type="checkbox"/>
207	CCV				1.0	06/25/09 06:43	<input type="checkbox"/>
208	CCB				1.0	06/25/09 06:46	<input type="checkbox"/>
209	RLCV				1.0	06/25/09 06:50	<input type="checkbox"/>
210	LFCEC	D9F200122-1	9174178	MS	1.0	06/25/09 06:53	<input type="checkbox"/>
211	LFCEM	D9F200122-2	9174178	MS	1.0	06/25/09 06:56	<input type="checkbox"/>
212	LFCEN	D9F200122-3	9174178	MS	1.0	06/25/09 07:00	<input type="checkbox"/>
213	LFCEQ	D9F200122-4	9174178	MS	1.0	06/25/09 07:03	<input type="checkbox"/>
214	LFCER	D9F200122-5	9174178	MS	1.0	06/25/09 07:07	<input type="checkbox"/>
215	LFCEW	D9F200122-6	9174178	MS	1.0	06/25/09 07:10	<input type="checkbox"/>
216	LFCEX	D9F200122-7	9174178	MS	1.0	06/25/09 07:13	<input type="checkbox"/>
217	CCV				1.0	06/25/09 07:17	<input type="checkbox"/>
218	CCB				1.0	06/25/09 07:20	<input type="checkbox"/>
219	RLCV				1.0	06/25/09 07:24	<input type="checkbox"/>
220	<del>LFC4W</del>	<del>D9F200200-1</del>	<del>9174178</del>	<del>MS</del>	<del>1.0</del>	<del>06/25/09 07:27</del>	<input type="checkbox"/>
221	LFC4X	D9F200200-2	9174178	MS	1.0	06/25/09 07:31	<input type="checkbox"/>
222	LFC40	D9F200200-3	9174178	MS	1.0	06/25/09 07:34	<input type="checkbox"/>
223	LFC40P5	D9F200200	9174178		5.0	06/25/09 07:37	<input type="checkbox"/>
224	LFC40Z	D9F200200-3	9174178		1.0	06/25/09 07:41	<input type="checkbox"/>
225	LFC40S	D9F200200-3	9174178	MS	1.0	06/25/09 07:44	<input type="checkbox"/>
226	<del>LFC40D</del>	<del>D9F200200-3</del>	<del>9174178</del>	<del>MS</del>	<del>1.0</del>	<del>06/25/09 07:47</del>	<input type="checkbox"/>
227	CCV				1.0	06/25/09 07:51	<input type="checkbox"/>
228	CCB				1.0	06/25/09 07:54	<input type="checkbox"/>
229	RLCV				1.0	06/25/09 07:58	<input type="checkbox"/>
230	LFFV0BF	D9F230000	9174276	MD	1.0	06/25/09 08:01	<input type="checkbox"/>
231	LFFV0CF	D9F230000	9174276	MD	1.0	06/25/09 08:04	<input type="checkbox"/>

As only, 6/25/09

6/25/09 did not use.

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

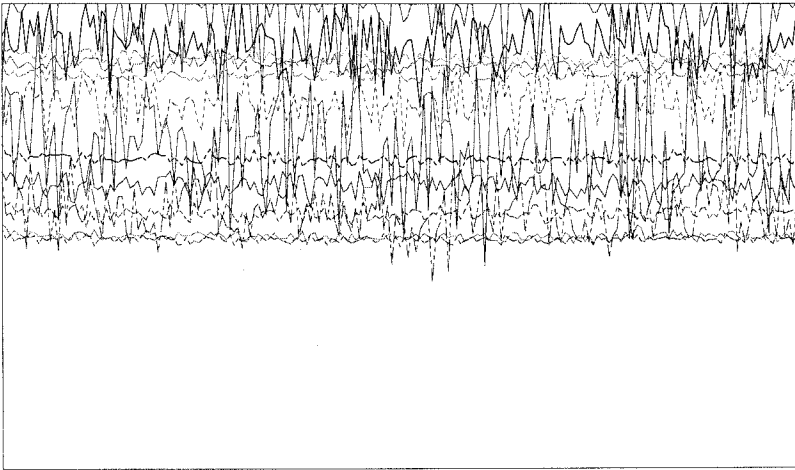
Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
232	LE98FF	D9F190267-1	9174276	MD	1.0	06/25/09 08:08	<input type="checkbox"/>
233	LE98FP5F	D9F190267	9174276		5.0	06/25/09 08:11	<input type="checkbox"/>
234	LE98FZF	D9F190267-1	9174276		1.0	06/25/09 08:15	<input type="checkbox"/>
235	LE98FSF	D9F190267-1	9174276	MD	1.0	06/25/09 08:18	<input type="checkbox"/>
236	LE98FDF	D9F190267-1	9174276	MD	1.0	06/25/09 08:22	<input type="checkbox"/>
237	LE99HF	D9F190267-2	9174276	MD	1.0	06/25/09 08:25	<input type="checkbox"/>
238	LE99RF	D9F190267-3	9174276	MD	1.0	06/25/09 08:28	<input type="checkbox"/>
239	CCV				1.0	06/25/09 08:32	<input type="checkbox"/>
240	CCB				1.0	06/25/09 08:35	<input type="checkbox"/>
241	RLCV				1.0	06/25/09 08:39	<input type="checkbox"/>
242	<del>RINSE</del>				<del>1.0</del>	<del>06/25/09 08:42</del>	<input type="checkbox"/>
243	RINSE				1.0	06/25/09 08:45	<input type="checkbox"/>
244	RINSE				1.0	06/25/09 08:49	<input type="checkbox"/>
245	RINSE				1.0	06/25/09 08:52	<input type="checkbox"/>
246	RINSE				1.0	06/25/09 08:56	<input type="checkbox"/>
247	RINSE				1.0	06/25/09 08:59	<input type="checkbox"/>
248	<del>Cal-Blank</del>				<del>1.0</del>	<del>06/25/09 09:02</del> <i>Not 6/25/09</i>	<input type="checkbox"/>
249	<del>Cal-Blank</del>				<del>1.0</del>	<del>06/25/09 09:06</del>	<input type="checkbox"/>
250	100 ppb				1.0	06/25/09 09:09	<input type="checkbox"/>
251	CCV				1.0	06/25/09 09:12	<input type="checkbox"/>
252	CCB				1.0	06/25/09 09:16	<input type="checkbox"/>
253	RLCV				1.0	06/25/09 09:19	<input type="checkbox"/>
254	LFFC2B	D9F230000	9174162	MS	1.0	06/25/09 09:23	<input type="checkbox"/>
255	LFFC2C	D9F230000	9174162	MS	1.0	06/25/09 09:26	<input type="checkbox"/>
256	LE6AW 2X	D9F180141-1	9174162	MS	2.0	06/25/09 09:29	<input type="checkbox"/>
257	LE6A1 2X	D9F180141-2	9174162	MS	2.0	06/25/09 09:33	<input type="checkbox"/>
258	LE6A2 2X	D9F180141-3	9174162	MS	2.0	06/25/09 09:36	<input type="checkbox"/>
259	LE81M	D9F190156-1	9174162	MS	1.0	06/25/09 09:40	<input type="checkbox"/>
260	CCV				1.0	06/25/09 09:43	<input type="checkbox"/>
261	CCB				1.0	06/25/09 09:47	<input type="checkbox"/>
262	RLCV				1.0	06/25/09 09:50	<input type="checkbox"/>
263	LE81MP5	D9F190156	9174162		5.0	06/25/09 09:53	<input type="checkbox"/>
264	LE81MZ	D9F190156-1	9174162		1.0	06/25/09 09:57	<input type="checkbox"/>
265	LE81MS	D9F190156-1	9174162	MS	1.0	06/25/09 10:00	<input type="checkbox"/>
266	LE81MD	D9F190156-1	9174162	MS	1.0	06/25/09 10:04	<input type="checkbox"/>
267	LE82G	D9F190156-2	9174162	MS	1.0	06/25/09 10:07	<input type="checkbox"/>
268	CCV				1.0	06/25/09 10:10	<input type="checkbox"/>
269	CCB				1.0	06/25/09 10:14	<input type="checkbox"/>
270	RLCV				1.0	06/25/09 10:17	<input type="checkbox"/>
271	LE6A1	D9F180141-2	9174162	MS	1.0	06/25/09 10:21	<input type="checkbox"/>
272	LE6A2	D9F180141-3	9174162	MS	1.0	06/25/09 10:24	<input type="checkbox"/>
273	LE81M	D9F190156-1	9174162	MS	1.0	06/25/09 10:27	<input type="checkbox"/>
274	CCV				1.0	06/25/09 10:31	<input type="checkbox"/>
275	CCB				1.0	06/25/09 10:34	<input type="checkbox"/>
276	<del>RLCV</del>				<del>1.0</del>	<del>06/25/09 10:38</del> <i>Not 6/25/09 did not use.</i>	<input type="checkbox"/>



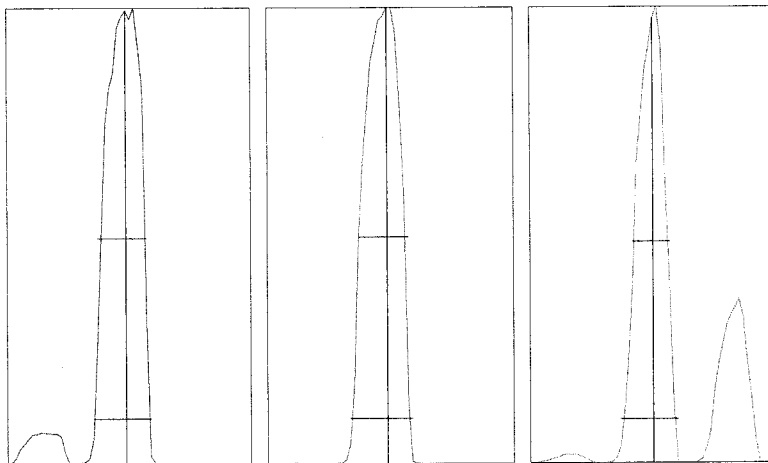
Tune Report

Tune File : NORM.U  
 Comment :



Integration Time: 0.1000 sec  
 Sampling Period: 1.5300 sec  
 n: 200  
 Oxide: 156/140 1.895%  
 Doubly Charged: 70/140 0.993%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1252.0	1210.7	3.15	0.50
7	20,000	17471.0	17359.0	1.29	0.50
59	50,000	24615.0	24727.2	1.47	0.70
63	100	89.0	103.1	10.52	0.60
70	500	416.0	457.8	5.82	1.10
75	100	58.0	68.5	14.27	1.10
78	500	424.0	392.8	5.32	1.10
89	50,000	42041.0	42147.0	1.21	0.80
115	50,000	42683.0	44143.0	1.25	1.10
137	10,000	5345.0	5438.1	2.07	1.50
205	50,000	32275.0	33040.5	1.41	2.80
238	100,000	49874.0	48834.3	1.31	3.20
156/140	5	1.895%	1.914%	4.40	
70/140	2	0.897%	0.986%	5.95	
118	200	104.0	109.9	12.05	1.30



m/z:	7	89	205
Height:	17,515	42,175	35,607
Axis:	7.00	89.00	205.05
W-50%:	0.60	0.60	0.45
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : NORM.U  
Comment :

Tuning Parameters

===Plasma Condition===

RF Power : 1550 W  
RF Matching : 1.7 V  
Smpl Depth : 7.8 mm  
Torch-H : -0.8 mm  
Torch-V : -0.3 mm  
Carrier Gas : 1.03 L/min  
Makeup Gas : 0 L/min  
Optional Gas : --- %  
Nebulizer Pump : 0.1 rps  
Sample Pump : --- rps  
S/C Temp : 2 degC

===Ion Lenses===

Extract 1 : 0 V  
Extract 2 : -175 V  
Omega Bias-ce : -30 V  
Omega Lens-ce : -0.2 V  
Cell Entrance : -30 V  
QP Focus : 5 V  
Cell Exit : -30 V

===Q-Pole Parameters===

AMU Gain : 134  
AMU Offset : 123  
Axis Gain : 1.001  
Axis Offset : -0.05  
QP Bias : -10 V

===Detector Parameters===

Discriminator : 8 mV  
Analog HV : 1740 V  
Pulse HV : 1390 V

===Octopole Parameters===

OctP RF : 180 V  
OctP Bias : -18 V

===Reaction Cell===

Reaction Mode : OFF  
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : --- %

P/A Factor Tuning Report

Acquired: Jun 24 2009 03:49 pm

Mass[amu]	Element	P/A Factor
6	Li	0.056718
7	(Li)	Sensitivity too low
9	Be	0.064016
45	Sc	0.077228
51	V	0.078776
52	Cr	0.082225
53	(Cr)	Sensitivity too low
55	Mn	0.083928
59	Co	0.087112
60	Ni	0.088839
63	Cu	0.091015
66	Zn	0.090699
72	Ge	0.089225
75	As	0.088472
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
95	Mo	0.089221
98	(Mo)	0.089321
99	(Mo)	0.090939
106	(Cd)	0.094970
107	Ag	Sensitivity too low
108	(Cd)	0.095488
111	Cd	0.095962
114	Cd	0.095973
115	In	0.095134
118	Sn	0.094981
121	Sb	0.094672
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
205	Tl	0.104372
206	(Pb)	0.103453
207	(Pb)	0.103546
208	Pb	0.103176
232	Th	0.101788
238	U	0.101858

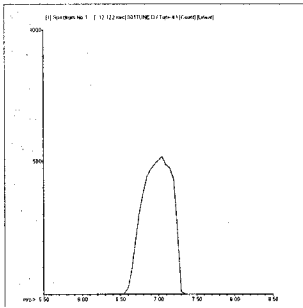
===Detector Parameters===

Discriminator: 8.0 mV  
Analog HV: 1740 V  
Pulse HV: 1390 V

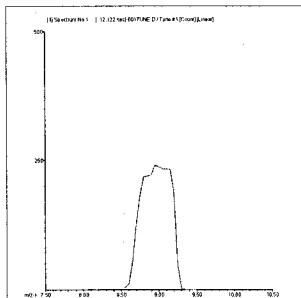
### 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\001TUNE.D  
 Date Acquired: Jun 24 2009 07:03 pm  
 Acq. Method: tun\_isis.M  
 Operator: TEL  
 Sample Name: 200.8 TUNE  
 Misc Info:  
 Vial Number: 4  
 Current Method: C:\ICPCHEM\1\METHODS\tun\_isis.M

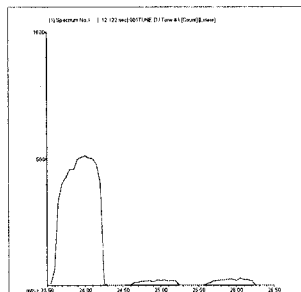
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	10148	10089	10029	10089	10262	10266	2.79	5.00	
9 Be	1755	1771	1805	1760	1707	1730	2.90	5.00	
24 Mg	6955	6982	6967	6851	7035	6938	2.08	5.00	
59 Co	51905	52322	52279	52591	51727	50604	0.94	5.00	
115 In	462597	448980	462469	468100	470802	462631	2.44	5.00	
208 Pb	53885	55337	53878	53810	53372	53027	1.47	5.00	
238 U	106802	108619	107941	107202	105352	104892	2.15	5.00	



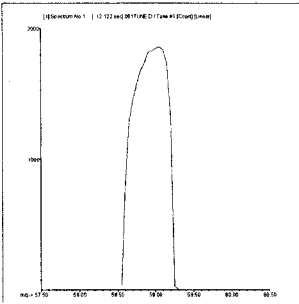
**7 Li**  
**Mass Calib.**  
 Actual: 7.05  
 Required: 6.90 - 7.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**9 Be**  
**Mass Calib.**  
 Actual: 9.05  
 Required: 8.90 - 9.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**24 Mg**  
**Mass Calib.**  
 Actual: 24.00  
 Required: 23.90 - 24.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



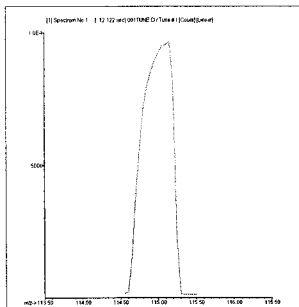
59 Co

Mass Calib.

Actual: 59.00  
Required: 58.90 - 59.10  
Flag:

Peak Width

Actual: 0.60  
Required: 0.90  
Flag:



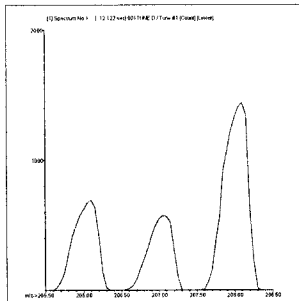
115 In

Mass Calib.

Actual: 115.05  
Required: 114.90 - 115.10  
Flag:

Peak Width

Actual: 0.60  
Required: 0.90  
Flag:



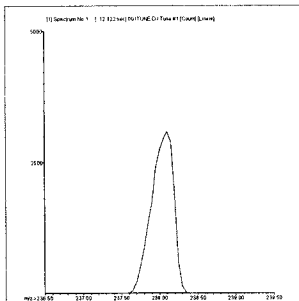
208 Pb

Mass Calib.

Actual: 208.05  
Required: 207.90 - 208.10  
Flag:

Peak Width

Actual: 0.55  
Required: 0.90  
Flag:



238 U

Mass Calib.

Actual: 238.05  
Required: 237.90 - 238.10  
Flag:

Peak Width

Actual: 0.50  
Required: 0.90  
Flag:

Tune Result:

Pass



**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#  
 Date Acquired: Jun 24 2009 07:07 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:07 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
51	V	72	1	-145	123.07
52	Cr	72	1	1567	3.74
55	Mn	72	1	110	47.24
59	Co	72	1	20	50.00
60	Ni	72	1	43	26.65
63	Cu	72	1	230	8.70
66	Zn	72	1	113	10.70
75	As	72	1	13	17.32
78	Se	72	1	53	28.64
95	Mo	72	1	33	75.50
107	Ag	115	1	120	14.43
111	Cd	115	1	-3	618.90
118	Sn	115	1	953	12.52
121	Sb	115	1	104	15.74
137	Ba	115	1	8	65.47
205	Tl	165	1	152	17.70
208	Pb	165	1	132	13.89
232	Th	165	1	447	11.27
238	U	165	1	60	27.78

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	163501	0.15
45	Sc	1	473295	0.64
72	Ge	1	272811	0.59
115	In	1	858259	0.37
165	Ho	1	1824721	0.44

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

**Calibration Standard QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\003ICAL.D\003ICAL.D#  
 Date Acquired: Jun 24 2009 07:10 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:08 pm  
 Sample Type: ICAL

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	33917	0.70
51	V	72	540931	0.60
52	Cr	72	616152	1.28
55	Mn	72	554630	0.77
59	Co	72	886953	1.07
60	Ni	72	209311	2.01
63	Cu	72	528419	1.26
66	Zn	72	103879	1.21
75	As	72	67913	1.40
78	Se	72	9800	4.23
95	Mo	72	251498	1.05
107	Ag	115	802211	1.04
111	Cd	115	141668	1.10
118	Sn	115	351095	0.81
121	Sb	115	419639	0.73
137	Ba	115	157251	1.35
205	Tl	165	1656113	0.72
208	Pb	165	2343099	0.44
232	Th	165	2212844	0.87
238	U	165	2531076	0.95

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	159533	0.97	163501	97.6	30 - 120
45	Sc	1	459619	1.14	473295	97.1	30 - 120
72	Ge	1	266297	0.78	272811	97.6	30 - 120
115	In	1	825142	0.51	858259	96.1	30 - 120
165	Ho	1	1826683	0.51	1824721	100.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

**Initial Calibration Verification (ICV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\004\_ICV.D\004\_ICV.D#  
 Date Acquired: Jun 24 2009 07:13 pm  
 Operator: TEL  
 Sample Name: ICV  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: ICV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	37.74 ppb	2.95	40	94.4	90 - 110	
51	V	72	39.57 ppb	1.14	40	98.9	90 - 110	
52	Cr	72	39.74 ppb	1.46	40	99.4	90 - 110	
55	Mn	72	40.45 ppb	0.97	40	101.1	90 - 110	
59	Co	72	38.83 ppb	0.93	40	97.1	90 - 110	
60	Ni	72	40.85 ppb	1.17	40	102.1	90 - 110	
63	Cu	72	40.59 ppb	0.82	40	101.5	90 - 110	
66	Zn	72	39.58 ppb	0.25	40	99.0	90 - 110	
75	As	72	40.20 ppb	0.49	40	100.5	90 - 110	
78	Se	72	37.76 ppb	5.30	40	94.4	90 - 110	
95	Mo	72	40.09 ppb	1.05	40	100.2	90 - 110	
107	Ag	115	39.56 ppb	1.27	40	98.9	90 - 110	
111	Cd	115	39.92 ppb	0.33	40	99.8	90 - 110	
118	Sn	115	39.19 ppb	1.07	40	98.0	90 - 110	
121	Sb	115	38.41 ppb	0.35	40	96.0	90 - 110	
137	Ba	115	39.27 ppb	1.76	40	98.2	90 - 110	
205	Tl	165	40.47 ppb	1.84	40	101.2	90 - 110	
208	Pb	165	39.45 ppb	1.73	40	98.6	90 - 110	
232	Th	165	41.81 ppb	1.77	40	104.5	90 - 110	
238	U	165	39.37 ppb	1.93	40	98.4	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	162448	0.71	163501	99.4	30 - 120
45	Sc	1	460273	0.72	473295	97.2	30 - 120
72	Ge	1	266258	0.45	272811	97.6	30 - 120
115	In	1	830416	0.73	858259	96.8	30 - 120
165	Ho	1	1855738	0.65	1824721	101.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\005WASH.D\005WASH.D#  
 Date Acquired: Jun 24 2009 07:17 pm  
 Operator: TEL  
 Sample Name: RLIV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.013 ppb	16.38	1.30	
51 V	72	1	5.184 ppb	2.90	6.50	
52 Cr	72	1	2.106 ppb	2.23	2.60	
55 Mn	72	1	1.046 ppb	8.96	1.30	
59 Co	72	1	1.025 ppb	8.15	1.30	
60 Ni	72	1	2.042 ppb	5.81	2.60	
63 Cu	72	1	2.102 ppb	0.72	2.60	
66 Zn	72	1	10.290 ppb	3.26	13.00	
75 As	72	1	5.155 ppb	2.67	6.50	
78 Se	72	1	5.665 ppb	6.46	6.50	
95 Mo	72	1	2.116 ppb	1.68	2.60	
107 Ag	115	1	5.133 ppb	0.57	6.50	
111 Cd	115	1	0.950 ppb	4.09	1.30	
118 Sn	115	1	10.280 ppb	0.78	13.00	
121 Sb	115	1	2.148 ppb	1.25	2.60	
137 Ba	115	1	1.023 ppb	6.59	1.30	
205 Tl	165	1	1.145 ppb	2.23	1.30	
208 Pb	165	1	1.046 ppb	0.72	1.30	
232 Th	165	1	2.354 ppb	2.29	2.60	
238 U	165	1	1.064 ppb	1.46	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	160763	1.63	163501	98.3	30 - 120	
45 Sc	1	471262	0.38	473295	99.6	30 - 120	
72 Ge	1	271755	0.51	272811	99.6	30 - 120	
115 In	1	847415	0.20	858259	98.7	30 - 120	
165 Ho	1	1844156	0.82	1824721	101.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**RL STD QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\007RLST.D\007RLST.D#  
 Date Acquired: Jun 24 2009 07:24 pm  
 Operator: TEL  
 Sample Name: RL STD  
 Misc Info:  
 Vial Number: 2105  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: RLSTD  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	0.97 ppb	18.19	1	96.8	50 - 150
51	V	72	1	0.99 ppb	3.14	1	99.4	50 - 150
52	Cr	72	1	0.93 ppb	7.05	1	92.8	50 - 150
55	Mn	72	1	0.97 ppb	5.07	1	96.7	50 - 150
59	Co	72	1	0.96 ppb	0.68	1	96.0	50 - 150
60	Ni	72	1	1.01 ppb	2.54	1	101.2	50 - 150
63	Cu	72	1	1.03 ppb	3.32	1	103.2	50 - 150
66	Zn	72	1	10.02 ppb	0.47	10	100.2	50 - 150
75	As	72	1	0.92 ppb	3.90	1	92.0	50 - 150
78	Se	72	1	1.20 ppb	45.54	1	119.8	50 - 150
95	Mo	72	1	0.96 ppb	2.00	1	96.4	50 - 150
107	Ag	115	1	0.98 ppb	2.92	1	97.6	50 - 150
111	Cd	115	1	1.01 ppb	4.50	1	100.5	50 - 150
118	Sn	115	1	9.96 ppb	0.72	10	99.6	50 - 150
121	Sb	115	1	1.00 ppb	2.80	1	100.4	50 - 150
137	Ba	115	1	0.98 ppb	5.44	1	97.8	50 - 150
205	Tl	165	1	1.04 ppb	2.28	1	103.8	50 - 150
208	Pb	165	1	1.01 ppb	1.21	1	100.8	50 - 150
232	Th	165	1	1.04 ppb	2.19	1	104.0	50 - 150
238	U	165	1	1.02 ppb	1.33	1	101.7	50 - 150

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	160442	0.99	163501	98.1	30 - 120
45	Sc	1	470835	1.02	473295	99.5	30 - 120
72	Ge	1	273237	0.62	272811	100.2	30 - 120
115	In	1	850139	0.61	858259	99.1	30 - 120
165	Ho	1	1835371	0.47	1824721	100.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**AFCEE RL QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\008AFCE.D\008AFCE.D#  
 Date Acquired: Jun 24 2009 07:27 pm  
 Operator: TEL  
 Sample Name: AFCEE RL  
 Misc Info:  
 Vial Number: 2106  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: AFCEERL  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	0.16 ppb	29.97	0	81.1	80 - 120	
51	V	72	0.22 ppb	21.92	0	112.2	80 - 120	
52	Cr	72	0.16 ppb	14.27	0	86.6	80 - 120	
55	Mn	72	0.21 ppb	4.13	0	107.8	80 - 120	
59	Co	72	0.20 ppb	9.64	0	102.9	80 - 120	
60	Ni	72	0.21 ppb	19.96	0	103.9	80 - 120	
63	Cu	72	0.23 ppb	3.46	0	110.1	80 - 120	
66	Zn	72	2.05 ppb	5.49	2	102.2	80 - 120	
75	As	72	0.20 ppb	11.05	0	106.8	80 - 120	
78	Se	72	0.31 ppb	47.94	0	128.3	80 - 120	
95	Mo	72	0.23 ppb	9.33	0	117.9	80 - 120	
107	Ag	115	0.18 ppb	9.26	0	90.2	80 - 120	
111	Cd	115	0.22 ppb	10.37	0	109.8	80 - 120	
118	Sn	115	2.07 ppb	6.36	2	103.8	80 - 120	
121	Sb	115	0.21 ppb	0.98	0	102.5	80 - 120	
137	Ba	115	0.19 ppb	12.38	0	95.7	80 - 120	
205	Tl	165	0.22 ppb	3.71	0	105.8	80 - 120	
208	Pb	165	0.21 ppb	3.19	0	102.7	80 - 120	
232	Th	165	0.22 ppb	3.83	0	104.1	80 - 120	
238	U	165	0.21 ppb	2.86	0	101.7	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	160158	1.30	163501	98.0	30 - 120
45	Sc	1	466170	0.32	473295	98.5	30 - 120
72	Ge	1	270425	0.78	272811	99.1	30 - 120
115	In	1	841433	0.70	858259	98.0	30 - 120
165	Ho	1	1807963	1.45	1824721	99.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\009SMPL.D\009SMPL.D#  
 Date Acquired: Jun 24 2009 07:30 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ALTSe  
 Misc Info: 2 ppb  
 Vial Number: 2107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	0.02	0.02	ppb	198.41	3600	
52 Cr	72	1	-0.04	-0.04	ppb	31.12	3600	
55 Mn	72	1	0.00	0.00	ppb	629.93	3600	
59 Co	72	1	0.00	0.00	ppb	166.65	3600	
60 Ni	72	1	0.00	0.00	ppb	4583.20	3600	
63 Cu	72	1	0.01	0.01	ppb	137.68	3600	
66 Zn	72	1	0.09	0.09	ppb	14.30	3600	
75 As	72	1	0.00	0.00	ppb	161.72	3600	
78 Se	72	1	2.12	2.12	ppb	35.07	3600	
95 Mo	72	1	-0.01	-0.01	ppb	0.75	3600	
107 Ag	115	1	0.00	0.00	ppb	67.28	3600	
111 Cd	115	1	0.01	0.01	ppb	30.96	3600	
118 Sn	115	1	0.00	0.00	ppb	5718.90	3600	
121 Sb	115	1	-0.01	-0.01	ppb	44.60	3600	
137 Ba	115	1	0.00	0.00	ppb	70.63	3600	
205 Tl	165	1	0.00	0.00	ppb	86.15	3600	
208 Pb	165	1	0.00	0.00	ppb	57.78	3600	
232 Th	165	1	0.00	0.00	ppb	148.71	1000	
238 U	165	1	0.00	0.00	ppb	0.47	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	160785	1.21	163501	98.3	30 - 120	
45 Sc	1	472930	1.03	473295	99.9	30 - 120	
72 Ge	1	274512	0.51	272811	100.6	30 - 120	
115 In	1	854708	0.87	858259	99.6	30 - 120	
165 Ho	1	1840765	1.67	1824721	100.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\010ICSA.D\010ICSA.D#  
 Date Acquired: Jun 24 2009 07:34 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9 Be	6	1	0.07 ppb	27.06	1.00	
51 V	72	1	-0.15 ppb	63.76	1.00	
52 Cr	72	1	1.00 ppb	9.52	1.00	
55 Mn	72	1	2.10 ppb	15.02	1.00	
59 Co	72	1	0.04 ppb	12.81	1.00	
60 Ni	72	1	0.77 ppb	16.00	1.00	
63 Cu	72	1	0.36 ppb	16.67	1.00	
66 Zn	72	1	2.79 ppb	14.69	10.00	
75 As	72	1	0.15 ppb	7.74	1.00	
78 Se	72	1	0.45 ppb	30.62	1.00	
95 Mo	72	1	2051.00 ppb	14.59	2000.00	
107 Ag	115	1	0.08 ppb	16.05	1.00	
111 Cd	115	1	0.34 ppb	55.09	1.00	
118 Sn	115	1	0.04 ppb	136.34	10.00	
121 Sb	115	1	0.22 ppb	25.12	1.00	
137 Ba	115	1	1.60 ppb	24.35	1.00	
205 Tl	165	1	0.03 ppb	16.30	1.00	
208 Pb	165	1	0.13 ppb	20.62	1.00	
232 Th	165	1	0.03 ppb	38.59	1.00	
238 U	165	1	0.02 ppb	18.11	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	150867	12.87	163501	92.3	30 - 120	
45 Sc	1	392581	18.49	473295	82.9	30 - 120	
72 Ge	1	224502	13.80	272811	82.3	30 - 120	
115 In	1	685599	16.48	858259	79.9	30 - 120	
165 Ho	1	1658393	18.54	1824721	90.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Nnumber of ISTD Failures Allowed



**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\012SMPL.D\012SMPL.D#  
 Date Acquired: Jun 24 2009 07:40 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.19	3600	
51 V	72	1	0.06	0.06	ppb	51.17	3600	
52 Cr	72	1	0.00	0.00	ppb	1189.30	3600	
55 Mn	72	1	0.00	0.00	ppb	108.29	3600	
59 Co	72	1	0.01	0.01	ppb	47.32	3600	
60 Ni	72	1	0.00	0.00	ppb	335.34	3600	
63 Cu	72	1	0.04	0.04	ppb	22.27	3600	
66 Zn	72	1	0.00	0.00	ppb	364.94	3600	
75 As	72	1	0.02	0.02	ppb	98.18	3600	
78 Se	72	1	0.03	0.03	ppb	1244.20	3600	
95 Mo	72	1	0.87	0.87	ppb	7.94	3600	
107 Ag	115	1	0.01	0.01	ppb	78.37	3600	
111 Cd	115	1	0.01	0.01	ppb	314.55	3600	
118 Sn	115	1	-0.01	-0.01	ppb	83.03	3600	
121 Sb	115	1	0.01	0.01	ppb	51.11	3600	
137 Ba	115	1	0.00	0.00	ppb	27.64	3600	
205 Tl	165	1	0.00	0.00	ppb	59.27	3600	
208 Pb	165	1	0.01	0.01	ppb	58.23	3600	
232 Th	165	1	0.25	0.25	ppb	23.49	1000	
238 U	165	1	0.01	0.01	ppb	20.75	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	172816	0.10	163501	105.7	30 - 120	
45 Sc	1	449254	0.62	473295	94.9	30 - 120	
72 Ge	1	259990	0.37	272811	95.3	30 - 120	
115 In	1	822615	0.25	858259	95.8	30 - 120	
165 Ho	1	1864559	1.27	1824721	102.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Linear Dynamic Range Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\013\_LR.D\013\_LR.D#  
 Date Acquired: Jun 24 2009 07:44 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LR  
 Misc Info:  
 Vial Number: 2110  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: LR  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	937.10 ppb	1.11	1000	93.7	90 - 110	
51 V	72	1	932.00 ppb	1.41	1000	93.2	90 - 110	
52 Cr	72	1	964.00 ppb	0.63	1000	96.4	90 - 110	
55 Mn	72	1	969.70 ppb	0.64	1000	97.0	90 - 110	
59 Co	72	1	926.20 ppb	1.18	1000	92.6	90 - 110	
60 Ni	72	1	995.00 ppb	1.85	1000	99.5	90 - 110	
63 Cu	72	1	955.90 ppb	0.71	1000	95.6	90 - 110	
66 Zn	72	1	1020.00 ppb	0.96	1000	102.0	90 - 110	
75 As	72	1	981.30 ppb	0.36	1000	98.1	90 - 110	
78 Se	72	1	950.60 ppb	1.07	1000	95.1	90 - 110	
95 Mo	72	1	1009.00 ppb	1.13	1000	100.9	90 - 110	
107 Ag	115	1	948.10 ppb	2.03	1000	94.8	90 - 110	
111 Cd	115	1	1006.00 ppb	0.95	1000	100.6	90 - 110	
118 Sn	115	1	993.40 ppb	1.10	1000	99.3	90 - 110	
121 Sb	115	1	986.00 ppb	1.37	1000	98.6	90 - 110	
137 Ba	115	1	1008.00 ppb	1.16	1000	100.8	90 - 110	
205 Tl	165	1	957.90 ppb	0.93	1000	95.8	90 - 110	
208 Pb	165	1	967.80 ppb	1.24	1000	96.8	90 - 110	
232 Th	165	1	985.20 ppb	1.85	1000	98.5	90 - 110	
238 U	165	1	979.70 ppb	1.31	1000	98.0	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	167418	0.56	163501	102.4	30 - 120	
45 Sc	1	441840	0.55	473295	93.4	30 - 120	
72 Ge	1	254704	0.98	272811	93.4	30 - 120	
115 In	1	794489	1.38	858259	92.6	30 - 120	
165 Ho	1	1851575	1.22	1824721	101.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\014SMPL.D\014SMPL.D#  
 Date Acquired: Jun 24 2009 07:47 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.06	0.06	ppb	99.58	3600	
51 V	72	1	0.04	0.04	ppb	67.88	3600	
52 Cr	72	1	0.00	0.00	ppb	7422.60	3600	
55 Mn	72	1	0.02	0.02	ppb	39.53	3600	
59 Co	72	1	0.03	0.03	ppb	20.63	3600	
60 Ni	72	1	0.01	0.01	ppb	222.29	3600	
63 Cu	72	1	0.06	0.06	ppb	26.83	3600	
66 Zn	72	1	0.05	0.05	ppb	8.94	3600	
75 As	72	1	0.07	0.07	ppb	35.45	3600	
78 Se	72	1	0.32	0.32	ppb	155.20	3600	
95 Mo	72	1	0.53	0.53	ppb	16.69	3600	
107 Ag	115	1	0.27	0.27	ppb	10.31	3600	
111 Cd	115	1	0.02	0.02	ppb	120.38	3600	
118 Sn	115	1	0.60	0.60	ppb	14.22	3600	
121 Sb	115	1	0.28	0.28	ppb	11.01	3600	
137 Ba	115	1	0.03	0.03	ppb	49.25	3600	
205 Tl	165	1	0.53	0.53	ppb	7.28	3600	
208 Pb	165	1	0.03	0.03	ppb	25.90	3600	
232 Th	165	1	2.47	2.47	ppb	17.39	1000	
238 U	165	1	0.07	0.07	ppb	11.38	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	169206	0.80	163501	103.5	30 - 120	
45 Sc	1	452007	0.24	473295	95.5	30 - 120	
72 Ge	1	264993	0.64	272811	97.1	30 - 120	
115 In	1	831332	0.49	858259	96.9	30 - 120	
165 Ho	1	1852436	0.43	1824721	101.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\015\_CCV.D\015\_CCV.D#  
 Date Acquired: Jun 24 2009 07:52 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	47.95 ppb	1.18	50	95.9	90 - 110	
51	V	72	49.01 ppb	1.26	50	98.0	90 - 110	
52	Cr	72	49.82 ppb	1.43	50	99.6	90 - 110	
55	Mn	72	50.08 ppb	0.46	50	100.2	90 - 110	
59	Co	72	48.73 ppb	1.25	50	97.5	90 - 110	
60	Ni	72	50.21 ppb	0.21	50	100.4	90 - 110	
63	Cu	72	50.36 ppb	0.99	50	100.7	90 - 110	
66	Zn	72	49.28 ppb	1.54	50	98.6	90 - 110	
75	As	72	50.00 ppb	0.87	50	100.0	90 - 110	
78	Se	72	47.07 ppb	6.00	50	94.1	90 - 110	
95	Mo	72	50.70 ppb	0.85	50	101.4	90 - 110	
107	Ag	115	50.22 ppb	0.54	50	100.4	90 - 110	
111	Cd	115	50.43 ppb	0.56	50	100.9	90 - 110	
118	Sn	115	50.40 ppb	1.34	50	100.8	90 - 110	
121	Sb	115	50.22 ppb	0.60	50	100.4	90 - 110	
137	Ba	115	50.22 ppb	0.37	50	100.4	90 - 110	
205	Tl	165	51.87 ppb	0.54	50	103.7	90 - 110	
208	Pb	165	50.22 ppb	0.96	50	100.4	90 - 110	
232	Th	165	48.96 ppb	1.93	50	97.9	90 - 110	
238	U	165	50.55 ppb	1.23	50	101.1	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	168391	0.58	163501	103.0	30 - 120
45	Sc	1	461420	0.74	473295	97.5	30 - 120
72	Ge	1	266462	0.21	272811	97.7	30 - 120
115	In	1	830967	0.55	858259	96.8	30 - 120
165	Ho	1	1872058	0.91	1824721	102.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\016\_CCB.D\016\_CCB.D#  
 Date Acquired: Jun 24 2009 07:55 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.009	ppb	173.20	1.00	
51 V	72	1	-0.038	ppb	90.01	1.00	
52 Cr	72	1	-0.014	ppb	95.55	1.00	
55 Mn	72	1	0.005	ppb	127.19	1.00	
59 Co	72	1	0.001	ppb	291.01	1.00	
60 Ni	72	1	-0.007	ppb	138.82	1.00	
63 Cu	72	1	0.012	ppb	208.41	1.00	
66 Zn	72	1	0.019	ppb	34.41	1.00	
75 As	72	1	-0.001	ppb	1011.90	1.00	
78 Se	72	1	0.391	ppb	70.56	1.00	
95 Mo	72	1	0.103	ppb	32.60	1.00	
107 Ag	115	1	0.079	ppb	22.88	1.00	
111 Cd	115	1	0.008	ppb	45.24	1.00	
118 Sn	115	1	0.134	ppb	39.20	1.00	
121 Sb	115	1	0.034	ppb	13.13	1.00	
137 Ba	115	1	0.000	ppb	1521.40	1.00	
205 Tl	165	1	0.074	ppb	9.57	1.00	
208 Pb	165	1	0.001	ppb	30.04	1.00	
232 Th	165	1	0.704	ppb	20.83	1.00	
238 U	165	1	0.005	ppb	6.54	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	165071	1.73	163501	101.0	30 - 120	
45 Sc	1	458156	2.72	473295	96.8	30 - 120	
72 Ge	1	266323	1.54	272811	97.6	30 - 120	
115 In	1	830225	2.53	858259	96.7	30 - 120	
165 Ho	1	1834045	3.17	1824721	100.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\017WASH.D\017WASH.D#  
 Date Acquired: Jun 24 2009 07:58 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.121 ppb	30.68	1.30	
51 V	72	1	5.154 ppb	3.56	6.50	
52 Cr	72	1	2.061 ppb	5.49	2.60	
55 Mn	72	1	1.001 ppb	1.48	1.30	
59 Co	72	1	1.029 ppb	3.34	1.30	
60 Ni	72	1	2.110 ppb	6.42	2.60	
63 Cu	72	1	2.085 ppb	1.98	2.60	
66 Zn	72	1	10.110 ppb	0.87	13.00	
75 As	72	1	5.183 ppb	1.61	6.50	
78 Se	72	1	4.623 ppb	11.87	6.50	
95 Mo	72	1	2.103 ppb	3.10	2.60	
107 Ag	115	1	5.138 ppb	0.77	6.50	
111 Cd	115	1	1.064 ppb	6.44	1.30	
118 Sn	115	1	10.490 ppb	2.92	13.00	
121 Sb	115	1	1.953 ppb	2.16	2.60	
137 Ba	115	1	1.009 ppb	8.26	1.30	
205 Tl	165	1	1.116 ppb	0.50	1.30	
208 Pb	165	1	1.050 ppb	1.33	1.30	
232 Th	165	1	2.150 ppb	0.71	2.60	
238 U	165	1	1.055 ppb	1.61	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	166616	0.49	163501	101.9	30 - 120	
45 Sc	1	470800	0.34	473295	99.5	30 - 120	
72 Ge	1	271876	0.14	272811	99.7	30 - 120	
115 In	1	848189	0.16	858259	98.8	30 - 120	
165 Ho	1	1850275	0.97	1824721	101.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\028\_CCV.D\028\_CCV.D#  
 Date Acquired: Jun 24 2009 08:36 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.91 ppb	4.06	50	99.8	90 - 110	
51	V	72	49.06 ppb	0.65	50	98.1	90 - 110	
52	Cr	72	49.15 ppb	0.81	50	98.3	90 - 110	
55	Mn	72	49.93 ppb	0.46	50	99.9	90 - 110	
59	Co	72	48.38 ppb	0.71	50	96.8	90 - 110	
60	Ni	72	49.43 ppb	1.21	50	98.9	90 - 110	
63	Cu	72	49.60 ppb	0.61	50	99.2	90 - 110	
66	Zn	72	48.83 ppb	1.38	50	97.7	90 - 110	
75	As	72	50.10 ppb	1.52	50	100.2	90 - 110	
78	Se	72	49.60 ppb	3.25	50	99.2	90 - 110	
95	Mo	72	50.21 ppb	0.79	50	100.4	90 - 110	
107	Ag	115	49.85 ppb	0.71	50	99.7	90 - 110	
111	Cd	115	50.33 ppb	1.36	50	100.7	90 - 110	
118	Sn	115	50.19 ppb	0.61	50	100.4	90 - 110	
121	Sb	115	50.21 ppb	0.46	50	100.4	90 - 110	
137	Ba	115	50.84 ppb	0.59	50	101.7	90 - 110	
205	Tl	165	52.34 ppb	1.90	50	104.7	90 - 110	
208	Pb	165	50.99 ppb	1.78	50	102.0	90 - 110	
232	Th	165	50.26 ppb	1.07	50	100.5	90 - 110	
238	U	165	52.01 ppb	0.60	50	104.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	147649	0.21	163501	90.3	30 - 120
45	Sc	1	427867	0.48	473295	90.4	30 - 120
72	Ge	1	249035	0.40	272811	91.3	30 - 120
115	In	1	786127	0.27	858259	91.6	30 - 120
165	Ho	1	1751379	1.24	1824721	96.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\029\_CCB.D\029\_CCB.D#  
 Date Acquired: Jun 24 2009 08:39 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.011 ppb	173.13	1.00	
51 V	72	1	-0.006 ppb	1394.40	1.00	
52 Cr	72	1	-0.032 ppb	101.03	1.00	
55 Mn	72	1	0.005 ppb	108.60	1.00	
59 Co	72	1	0.000 ppb	1570.50	1.00	
60 Ni	72	1	0.003 ppb	266.11	1.00	
63 Cu	72	1	0.018 ppb	27.46	1.00	
66 Zn	72	1	0.016 ppb	140.14	1.00	
75 As	72	1	0.012 ppb	56.52	1.00	
78 Se	72	1	0.279 ppb	108.79	1.00	
95 Mo	72	1	0.060 ppb	40.02	1.00	
107 Ag	115	1	0.109 ppb	28.36	1.00	
111 Cd	115	1	0.011 ppb	53.34	1.00	
118 Sn	115	1	0.039 ppb	55.82	1.00	
121 Sb	115	1	0.016 ppb	34.99	1.00	
137 Ba	115	1	0.005 ppb	108.69	1.00	
205 Tl	165	1	0.019 ppb	23.84	1.00	
208 Pb	165	1	0.003 ppb	38.29	1.00	
232 Th	165	1	0.728 ppb	16.33	1.00	
238 U	165	1	0.006 ppb	38.81	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	148730	1.56	163501	91.0	30 - 120	
45 Sc	1	439376	0.43	473295	92.8	30 - 120	
72 Ge	1	257637	0.39	272811	94.4	30 - 120	
115 In	1	817368	0.32	858259	95.2	30 - 120	
165 Ho	1	1773917	1.34	1824721	97.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\030WASH.D\030WASH.D#  
 Date Acquired: Jun 24 2009 08:42 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.959 ppb	10.84	1.30	
51 V	72	1	5.001 ppb	2.10	6.50	
52 Cr	72	1	2.073 ppb	2.04	2.60	
55 Mn	72	1	1.037 ppb	1.45	1.30	
59 Co	72	1	1.022 ppb	3.89	1.30	
60 Ni	72	1	1.926 ppb	3.49	2.60	
63 Cu	72	1	1.996 ppb	2.34	2.60	
66 Zn	72	1	10.210 ppb	0.70	13.00	
75 As	72	1	5.174 ppb	2.23	6.50	
78 Se	72	1	4.849 ppb	11.65	6.50	
95 Mo	72	1	2.025 ppb	3.19	2.60	
107 Ag	115	1	5.027 ppb	2.25	6.50	
111 Cd	115	1	1.037 ppb	5.78	1.30	
118 Sn	115	1	10.420 ppb	3.19	13.00	
121 Sb	115	1	1.948 ppb	3.09	2.60	
137 Ba	115	1	1.058 ppb	4.46	1.30	
205 Tl	165	1	1.115 ppb	0.89	1.30	
208 Pb	165	1	1.068 ppb	1.04	1.30	
232 Th	165	1	2.208 ppb	1.16	2.60	
238 U	165	1	1.083 ppb	1.42	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	145582	0.61	163501	89.0	30 - 120	
45 Sc	1	440932	0.10	473295	93.2	30 - 120	
72 Ge	1	258827	0.34	272811	94.9	30 - 120	
115 In	1	817143	0.75	858259	95.2	30 - 120	
165 Ho	1	1779277	0.27	1824721	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\031ICSA.D\031ICSA.D#  
 Date Acquired: Jun 24 2009 08:46 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.06 ppb	69.23	1.00
51	V	72	1	0.00 ppb	12424.00	1.00
52	Cr	72	1	0.90 ppb	6.03	1.00
55	Mn	72	1	2.00 ppb	1.68	1.00
59	Co	72	1	0.04 ppb	13.41	1.00
60	Ni	72	1	0.64 ppb	13.77	1.00
63	Cu	72	1	0.33 ppb	6.75	1.00
66	Zn	72	1	2.66 ppb	1.84	10.00
75	As	72	1	0.17 ppb	16.32	1.00
78	Se	72	1	-0.12 ppb	250.61	1.00
95	Mo	72	1	1987.00 ppb	0.59	2000.00
107	Ag	115	1	0.15 ppb	10.46	1.00
111	Cd	115	1	0.34 ppb	8.22	1.00
118	Sn	115	1	0.07 ppb	56.73	10.00
121	Sb	115	1	0.23 ppb	16.82	1.00
137	Ba	115	1	1.50 ppb	2.17	1.00
205	Tl	165	1	0.04 ppb	13.74	1.00
208	Pb	165	1	0.13 ppb	5.13	1.00
232	Th	165	1	0.14 ppb	15.33	1.00
238	U	165	1	0.02 ppb	10.77	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	142331	0.44	163501	87.1	30 - 120
45	Sc	1	386462	0.70	473295	81.7	30 - 120
72	Ge	1	221252	0.75	272811	81.1	30 - 120
115	In	1	696244	0.46	858259	81.1	30 - 120
165	Ho	1	1655055	0.69	1824721	90.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\032ICSB.D\032ICSB.D#  
 Date Acquired: Jun 24 2009 08:49 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	92.45	1.78	100	92.5	80 - 120	
51 V	72	1	98.47	1.03	100	98.5	80 - 120	
52 Cr	72	1	97.21	0.98	100	97.2	80 - 120	
55 Mn	72	1	98.03	0.06	100	98.0	80 - 120	
59 Co	72	1	91.77	0.80	100	91.8	80 - 120	
60 Ni	72	1	91.22	0.22	100	91.2	80 - 120	
63 Cu	72	1	89.66	0.13	100	89.7	80 - 120	
66 Zn	72	1	98.19	0.86	100	98.2	80 - 120	
75 As	72	1	101.70	0.51	100	101.7	80 - 120	
78 Se	72	1	107.30	2.92	100	107.3	80 - 120	
95 Mo	72	1	2111.00	0.65	2100	100.5	80 - 120	
107 Ag	115	1	87.33	3.11	100	87.3	80 - 120	
111 Cd	115	1	96.45	0.75	100	96.5	80 - 120	
118 Sn	115	1	101.30	1.24	100	101.3	80 - 120	
121 Sb	115	1	102.80	0.62	100	102.8	80 - 120	
137 Ba	115	1	104.30	0.55	100	104.3	80 - 120	
205 Tl	165	1	93.90	1.62	100	93.9	80 - 120	
208 Pb	165	1	92.10	2.05	100	92.1	80 - 120	
232 Th	165	1	102.00	0.53	100	102.0	80 - 120	
238 U	165	1	98.05	1.04	100	98.1	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	141789	0.76	163501	86.7	30 - 120	
45 Sc	1	372807	0.46	473295	78.8	30 - 120	
72 Ge	1	213418	0.77	272811	78.2	30 - 120	
115 In	1	668009	0.48	858259	77.8	30 - 120	
165 Ho	1	1645681	0.33	1824721	90.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\033WASH.D\033WASH.D#  
 Date Acquired: Jun 24 2009 08:52 pm  
 Operator: TEL  
 Sample Name: WASH  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.30	
51 V	72	1	0.032 ppb	259.28	6.50	
52 Cr	72	1	-0.006 ppb	153.20	2.60	
55 Mn	72	1	0.019 ppb	35.08	1.30	
59 Co	72	1	0.012 ppb	60.51	1.30	
60 Ni	72	1	0.027 ppb	77.20	2.60	
63 Cu	72	1	0.042 ppb	16.35	2.60	
66 Zn	72	1	-0.008 ppb	388.99	13.00	
75 As	72	1	0.030 ppb	45.45	6.50	
78 Se	72	1	0.186 ppb	33.94	6.50	
95 Mo	72	1	0.978 ppb	15.36	2.60	
107 Ag	115	1	0.025 ppb	22.42	6.50	
111 Cd	115	1	0.018 ppb	28.54	1.30	
118 Sn	115	1	0.043 ppb	45.64	13.00	
121 Sb	115	1	0.016 ppb	41.20	2.60	
137 Ba	115	1	0.018 ppb	30.15	1.30	
205 Tl	165	1	0.014 ppb	7.58	1.30	
208 Pb	165	1	0.016 ppb	18.72	1.30	
232 Th	165	1	0.583 ppb	15.44	2.60	
238 U	165	1	0.021 ppb	20.17	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153786	0.64	163501	94.1	30 - 120	
45 Sc	1	428807	0.32	473295	90.6	30 - 120	
72 Ge	1	253153	0.93	272811	92.8	30 - 120	
115 In	1	808206	0.62	858259	94.2	30 - 120	
165 Ho	1	1787510	1.50	1824721	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\034\_CCV.D\034\_CCV.D#  
 Date Acquired: Jun 24 2009 08:56 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.33 ppb	4.28	50	98.7	90 - 110	
51	V	72	49.34 ppb	1.56	50	98.7	90 - 110	
52	Cr	72	49.38 ppb	1.39	50	98.8	90 - 110	
55	Mn	72	49.99 ppb	0.62	50	100.0	90 - 110	
59	Co	72	48.65 ppb	0.29	50	97.3	90 - 110	
60	Ni	72	49.52 ppb	1.33	50	99.0	90 - 110	
63	Cu	72	50.08 ppb	0.95	50	100.2	90 - 110	
66	Zn	72	49.47 ppb	0.68	50	98.9	90 - 110	
75	As	72	50.32 ppb	0.62	50	100.6	90 - 110	
78	Se	72	51.47 ppb	0.64	50	102.9	90 - 110	
95	Mo	72	50.98 ppb	0.88	50	102.0	90 - 110	
107	Ag	115	49.57 ppb	0.98	50	99.1	90 - 110	
111	Cd	115	49.85 ppb	1.11	50	99.7	90 - 110	
118	Sn	115	50.38 ppb	0.65	50	100.8	90 - 110	
121	Sb	115	50.63 ppb	0.51	50	101.3	90 - 110	
137	Ba	115	51.01 ppb	0.65	50	102.0	90 - 110	
205	Tl	165	52.84 ppb	0.87	50	105.7	90 - 110	
208	Pb	165	51.41 ppb	0.73	50	102.8	90 - 110	
232	Th	165	49.16 ppb	1.12	50	98.3	90 - 110	
238	U	165	51.49 ppb	1.63	50	103.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	153433	0.11	163501	93.8	30 - 120
45	Sc	1	436100	0.76	473295	92.1	30 - 120
72	Ge	1	257738	0.44	272811	94.5	30 - 120
115	In	1	817010	0.44	858259	95.2	30 - 120
165	Ho	1	1819218	1.03	1824721	99.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\035\_CCB.D\035\_CCB.D#  
 Date Acquired: Jun 24 2009 08:59 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.018	ppb	439.98	1.00	
52 Cr	72	1	-0.017	ppb	242.94	1.00	
55 Mn	72	1	0.006	ppb	30.19	1.00	
59 Co	72	1	0.004	ppb	61.30	1.00	
60 Ni	72	1	-0.006	ppb	84.11	1.00	
63 Cu	72	1	0.018	ppb	61.00	1.00	
66 Zn	72	1	0.008	ppb	177.31	1.00	
75 As	72	1	0.008	ppb	117.46	1.00	
78 Se	72	1	-0.050	ppb	316.37	1.00	
95 Mo	72	1	0.116	ppb	15.10	1.00	
107 Ag	115	1	0.031	ppb	18.19	1.00	
111 Cd	115	1	0.011	ppb	40.99	1.00	
118 Sn	115	1	0.034	ppb	141.62	1.00	
121 Sb	115	1	0.012	ppb	57.85	1.00	
137 Ba	115	1	0.004	ppb	56.72	1.00	
205 Tl	165	1	0.020	ppb	5.90	1.00	
208 Pb	165	1	0.004	ppb	51.66	1.00	
232 Th	165	1	0.769	ppb	16.34	1.00	
238 U	165	1	0.006	ppb	15.54	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	154869	1.17	163501	94.7	30 - 120	
45 Sc	1	451661	0.35	473295	95.4	30 - 120	
72 Ge	1	263583	0.11	272811	96.6	30 - 120	
115 In	1	833562	0.51	858259	97.1	30 - 120	
165 Ho	1	1835458	0.28	1824721	100.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\036WASH.D\036WASH.D#  
 Date Acquired: Jun 24 2009 09:03 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.951 ppb	27.10	1.30	
51 V	72	1	4.969 ppb	3.16	6.50	
52 Cr	72	1	2.016 ppb	5.02	2.60	
55 Mn	72	1	0.995 ppb	1.50	1.30	
59 Co	72	1	0.986 ppb	4.94	1.30	
60 Ni	72	1	1.983 ppb	4.74	2.60	
63 Cu	72	1	2.086 ppb	1.02	2.60	
66 Zn	72	1	10.170 ppb	1.36	13.00	
75 As	72	1	5.100 ppb	3.51	6.50	
78 Se	72	1	5.716 ppb	8.09	6.50	
95 Mo	72	1	2.075 ppb	2.35	2.60	
107 Ag	115	1	5.141 ppb	1.32	6.50	
111 Cd	115	1	1.007 ppb	3.99	1.30	
118 Sn	115	1	10.460 ppb	0.61	13.00	
121 Sb	115	1	1.963 ppb	2.86	2.60	
137 Ba	115	1	1.014 ppb	2.28	1.30	
205 Tl	165	1	1.107 ppb	1.78	1.30	
208 Pb	165	1	1.082 ppb	1.57	1.30	
232 Th	165	1	2.251 ppb	0.44	2.60	
238 U	165	1	1.097 ppb	2.16	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153782	1.38	163501	94.1	30 - 120	
45 Sc	1	448278	0.23	473295	94.7	30 - 120	
72 Ge	1	265227	0.76	272811	97.2	30 - 120	
115 In	1	842610	0.68	858259	98.2	30 - 120	
165 Ho	1	1831850	0.33	1824721	100.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\037\_BLK.D\037\_BLK.D#  
 Date Acquired: Jun 24 2009 09:06 pm  
 Operator: TEL  
 Sample Name: LFFFCBF  
 Misc Info: BLANK 9174183 6020  
 Vial Number: 2211  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: BLK  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
51 V	72	1	-0.010 ppb	332.01	2.00	
52 Cr	72	1	-0.053 ppb	9.12	2.00	
55 Mn	72	1	0.032 ppb	51.62	2.00	
59 Co	72	1	0.000 ppb	22336.00	2.00	
60 Ni	72	1	0.034 ppb	28.28	2.00	
63 Cu	72	1	0.057 ppb	20.82	2.00	
66 Zn	72	1	0.344 ppb	5.63	2.00	
75 As	72	1	0.002 ppb	221.18	2.00	
78 Se	72	1	0.068 ppb	638.15	2.00	
95 Mo	72	1	0.035 ppb	44.24	2.00	
107 Ag	115	1	0.004 ppb	90.76	2.00	
111 Cd	115	1	0.006 ppb	61.51	2.00	
118 Sn	115	1	-0.148 ppb	11.60	2.00	
121 Sb	115	1	0.002 ppb	309.98	2.00	
137 Ba	115	1	0.018 ppb	32.87	2.00	
205 Tl	165	1	0.007 ppb	31.41	2.00	
208 Pb	165	1	0.240 ppb	0.91	2.00	
232 Th	165	1	0.055 ppb	12.30	2.00	
238 U	165	1	0.000 ppb	748.50	2.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	156360	1.00	163501	95.6	30 - 120	
45 Sc	1	457767	0.51	473295	96.7	30 - 120	
72 Ge	1	271991	0.59	272811	99.7	30 - 120	
115 In	1	855493	1.05	858259	99.7	30 - 120	
165 Ho	1	1838234	0.49	1824721	100.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Laboratory Control Spike (LCS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\038\_LCS.D\038\_LCS.D#  
 Date Acquired: Jun 24 2009 09:10 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LFFFCCF  
 Misc Info: LCS  
 Vial Number: 2212  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: LCS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**

**Analytes: Pass**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	42.20	3.76	40	105.5	80 - 120	
51 V	72	1	40.39	1.90	40	101.0	80 - 120	
52 Cr	72	1	40.69	1.25	40	101.7	80 - 120	
55 Mn	72	1	41.22	0.37	40	103.1	80 - 120	
59 Co	72	1	40.29	0.41	40	100.7	80 - 120	
60 Ni	72	1	40.73	0.86	40	101.8	80 - 120	
63 Cu	72	1	41.79	0.97	40	104.5	80 - 120	
66 Zn	72	1	41.96	0.40	40	104.9	80 - 120	
75 As	72	1	43.00	0.36	40	107.5	80 - 120	
78 Se	72	1	40.21	5.57	40	100.5	80 - 120	
95 Mo	72	1	41.57	1.24	40	103.9	80 - 120	
107 Ag	115	1	41.29	1.10	40	103.2	80 - 120	
111 Cd	115	1	41.72	1.01	40	104.3	80 - 120	
118 Sn	115	1	-0.16	5.64	40	-0.4	80 - 120	
121 Sb	115	1	42.68	0.76	40	106.7	80 - 120	
137 Ba	115	1	42.26	0.55	40	105.7	80 - 120	
205 Tl	165	1	43.55	1.29	40	108.9	80 - 120	
208 Pb	165	1	42.42	0.94	40	106.1	80 - 120	
232 Th	165	1	40.22	0.77	40	100.6	80 - 120	
238 U	165	1	42.49	0.73	40	106.2	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153202	0.35	163501	93.7	30 - 120	
45 Sc	1	449985	0.92	473295	95.1	30 - 120	
72 Ge	1	266326	0.93	272811	97.6	30 - 120	
115 In	1	834862	0.71	858259	97.3	30 - 120	
165 Ho	1	1849168	0.93	1824721	101.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\039AREF.D\039AREF.D#  
 Date Acquired: Jun 24 2009 09:13 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EF  
 Misc Info: D9F180314  
 Vial Number: 2301  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: AllRef  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	14.90	14.90	ppb	31.84	3600	
52 Cr	72	1	820.90	820.90	ppb	0.68	3600	
55 Mn	72	1	143.50	143.50	ppb	0.48	3600	
59 Co	72	1	0.55	0.55	ppb	5.96	3600	
60 Ni	72	1	2.74	2.74	ppb	5.66	3600	
63 Cu	72	1	0.50	0.50	ppb	8.03	3600	
66 Zn	72	1	2.01	2.01	ppb	2.12	3600	
75 As	72	1	121.20	121.20	ppb	0.66	3600	
78 Se	72	1	7.13	7.13	ppb	13.80	3600	
95 Mo	72	1	115.60	115.60	ppb	0.58	3600	
107 Ag	115	1	0.13	0.13	ppb	25.98	3600	
111 Cd	115	1	0.03	0.03	ppb	13.07	3600	
118 Sn	115	1	-0.13	-0.13	ppb	15.88	3600	
121 Sb	115	1	0.23	0.23	ppb	1.28	3600	
137 Ba	115	1	23.13	23.13	ppb	1.32	3600	
205 Tl	165	1	0.11	0.11	ppb	15.78	3600	
208 Pb	165	1	0.04	0.04	ppb	9.14	3600	
232 Th	165	1	0.87	0.87	ppb	24.18	1000	
238 U	165	1	25.90	25.90	ppb	1.61	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	131709	1.85	163501	80.6	30 - 120	
45 Sc	1	365560	0.28	473295	77.2	30 - 120	
72 Ge	1	193738	0.10	272811	71.0	30 - 120	
115 In	1	596414	1.06	858259	69.5	30 - 120	
165 Ho	1	1428089	0.57	1824721	78.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\040SDIL.D\040SDIL.D#  
 Date Acquired: Jun 24 2009 09:16 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EP5F  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2302  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SDIL  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\039AREF.D\039AREF.D#

## QC elements

Element	IS	Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9	Be	6	1	0.00 ppb	0.00	0.00	#DIV/0!	90 - 110	
51	V	72	1	3.19 ppb	37.54	2.98	107.0	90 - 110	
52	Cr	72	1	161.10 ppb	1.66	164.18	98.1	90 - 110	
55	Mn	72	1	28.25 ppb	1.37	28.70	98.4	90 - 110	
59	Co	72	1	0.11 ppb	6.22	0.11	98.9	90 - 110	
60	Ni	72	1	0.56 ppb	3.56	0.55	102.5	90 - 110	
63	Cu	72	1	0.12 ppb	19.58	0.10	116.8	90 - 110	
66	Zn	72	1	0.49 ppb	10.06	0.40	120.7	90 - 110	
75	As	72	1	23.34 ppb	1.49	24.24	96.3	90 - 110	
78	Se	72	1	1.35 ppb	50.40	1.43	95.0	90 - 110	
95	Mo	72	1	23.02 ppb	1.88	23.12	99.6	90 - 110	
107	Ag	115	1	0.01 ppb	18.55	0.03	53.3	90 - 110	
111	Cd	115	1	0.01 ppb	271.50	0.01	206.4	90 - 110	
118	Sn	115	1	-0.10 ppb	25.11	-0.03	404.0	90 - 110	
121	Sb	115	1	0.03 ppb	23.16	0.05	74.3	90 - 110	
137	Ba	115	1	4.64 ppb	3.10	4.63	100.3	90 - 110	
205	Tl	165	1	0.02 ppb	13.23	0.02	86.0	90 - 110	
208	Pb	165	1	0.01 ppb	13.73	0.01	144.4	90 - 110	
232	Th	165	1	0.09 ppb	7.39	0.17	50.5	90 - 110	
238	U	165	1	5.44 ppb	2.07	5.18	105.1	90 - 110	

## ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	133818	1.12	163501	81.8	30 - 120
45	Sc	1	385916	0.61	473295	81.5	30 - 120
72	Ge	1	222076	0.54	272811	81.4	30 - 120
115	In	1	678210	1.04	858259	79.0	30 - 120
165	Ho	1	1558305	1.10	1824721	85.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:05:29

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE71EP5F

Serial Dilution: 5.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 40

Method 6020\_

Acquired: 06/24/2009 21:16:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 19:07:00

Units: ug/L

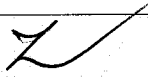
CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9		0	0			*	
7440-62-2	Vanadium	51	14253	15.945	14.900	7.01		*	
7440-47-3	Chromium	52	826794	805.50	820.90	1.88		*	
7439-96-5	Manganese	55	130735	141.25	143.50	1.57		*	
7440-48-4	Cobalt	59	820	0.54300	0.54910	1.11		*	
7440-02-0	Nickel	60	1013	2.8025	2.7350	2.47		*	
7440-50-8	Copper	63	700	0.58250	0.49880	16.8		*	
7440-66-6	Zinc	66	511	2.4255	2.0090	20.7		*	
7440-38-2	Arsenic	75	13225	116.70	121.20	3.71	0.21	3.7	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	153	6.7700	7.1260	5.00	0.70	NC	<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	48302	115.10	115.60	0.433		*	
7440-22-4	Silver	107	187	0.06975	0.13090	46.7		*	
7440-43-9	Cadmium	111	13	0.06210	0.03009	106		*	
7440-31-5	Tin	118	460	-0.50950	-0.12610			*	
7440-36-0	Antimony	121	198	0.16735	0.22520	25.7		*	
7440-39-3	Barium	137	5999	23.190	23.130	0.259		*	
7440-28-0	Thallium	205	407	0.09790	0.11380	14.0		*	
7439-92-1	Lead	208	322	0.05235	0.03625	44.4		*	
7440-61-1	Uranium	238	117535	27.210	25.900	5.06		*	
7440-29-1	Thorium	232	2040	0.43965	0.86990	49.5		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

*See only*

\* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

Reviewed by: 

Date: 6/25/09



Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:05:35

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE71EZF

Spike Dilution: 1.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 41

Method 6020\_

Acquired: 06/24/2009 21:20:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 19:07:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	46532	190.60	0	95.3	200		<input type="checkbox"/>
7440-62-2	Vanadium	51	879744	224.70	14.900	105	200		<input type="checkbox"/>
7440-47-3	Chromium	52	4369910	982.10	820.90	80.6	200	*	<input type="checkbox"/>
7439-96-5	Manganese	55	1318360	328.50	143.50	92.5	200		<input type="checkbox"/>
7440-48-4	Cobalt	59	1159070	180.50	0.54910	90.0	200		<input type="checkbox"/>
7440-02-0	Nickel	60	266510	175.90	2.7350	86.6	200		<input type="checkbox"/>
7440-50-8	Copper	63	667151	174.50	0.49880	87.0	200		<input type="checkbox"/>
7440-66-6	Zinc	66	137974	183.60	2.0090	90.8	200		<input type="checkbox"/>
7440-38-2	Arsenic	75	174201	354.50	121.20	117	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	16117	227.80	7.1260	110	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	568917	312.60	115.60	98.5	200		<input type="checkbox"/>
7440-22-4	Silver	107	234314	42.910	0.13090	85.6	50.0		<input type="checkbox"/>
7440-43-9	Cadmium	111	175818	182.40	0.03009	91.2	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	426615	178.80	-0.12610	89.4	200		<input type="checkbox"/>
7440-36-0	Antimony	121	612862	214.70	0.22520	107	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	243821	227.90	23.130	102	200		<input type="checkbox"/>
7440-28-0	Thallium	205	2099190	174.90	0.11380	87.4	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	2908460	171.30	0.03625	85.6	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	3733680	203.50	25.900	88.8	200		<input type="checkbox"/>
7440-29-1	Thorium	232	1010	0.04264	0.86990				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

*See only*

Reviewed by: 

Date: 6/25/09

**Spiked Sample (MS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\042\_MS.D\042\_MS.D#  
 Date Acquired: Jun 24 2009 09:23 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71ESF  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2304  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: MS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	45.02	0.00	ppb	2.42	40	112.6	50 - 150	
51 V	72	1	61.67	14.90	ppb	3.55	40	112.3	50 - 150	
52 Cr	72	1	851.40	820.90	ppb	0.24	40	98.9	50 - 150	
55 Mn	72	1	173.50	143.50	ppb	1.14	40	94.6	50 - 150	
59 Co	72	1	37.79	0.55	ppb	1.52	40	93.2	50 - 150	
60 Ni	72	1	39.63	2.73	ppb	1.45	40	92.7	50 - 150	
63 Cu	72	1	38.54	0.50	ppb	0.77	40	95.2	50 - 150	
66 Zn	72	1	42.17	2.01	ppb	1.03	40	100.4	50 - 150	
75 As	72	1	191.20	121.20	ppb	0.39	40	118.6	50 - 150	
78 Se	72	1	51.68	7.13	ppb	3.49	40	109.7	50 - 150	
95 Mo	72	1	154.80	115.60	ppb	0.75	40	99.5	50 - 150	
107 Ag	115	1	37.80	0.13	ppb	1.18	40	94.2	50 - 150	
111 Cd	115	1	39.73	0.03	ppb	1.86	40	99.3	50 - 150	
118 Sn	115	1	0.01	-0.13	ppb	130.50	40	0.0	50 - 150	
121 Sb	115	1	49.07	0.23	ppb	0.67	40	122.0	50 - 150	
137 Ba	115	1	68.36	23.13	ppb	1.11	40	108.3	50 - 150	
205 Tl	165	1	38.72	0.11	ppb	0.31	40	96.5	50 - 150	
208 Pb	165	1	37.21	0.04	ppb	0.23	40	92.9	50 - 150	
232 Th	165	1	42.30	0.87	ppb	0.71	40	103.5	50 - 150	
238 U	165	1	64.71	25.90	ppb	0.83	40	98.2	50 - 150	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	100074	3.39	163501	61.2	30 - 120	
45 Sc	1	322574	2.56	473295	68.2	30 - 120	
72 Ge	1	184931	2.17	272811	67.8	30 - 120	
115 In	1	520871	3.89	858259	60.7	30 - 120	
165 Ho	1	1191833	3.59	1824721	65.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures                      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                        0 :Max. Number of ISTD Failures Allowed

## Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\043 MSD.D\043 MSD.D#  
 Date Acquired: Jun 24 2009 09:26 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EDF  
 Misc Info: MATRIX SPIKE DUPLICATE  
 Vial Number: 2305  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: MSD  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass

ISTD: Pass

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\042 MS.D\042 MS.D#

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9	Be	6	44.27 ppb	3.22	45.02	1.68	20	
51	V	72	63.09 ppb	1.71	61.67	2.28	20	
52	Cr	72	849.90 ppb	0.94	851.40	0.18	20	
55	Mn	72	171.90 ppb	1.45	173.50	0.93	20	
59	Co	72	37.24 ppb	0.45	37.79	1.47	20	
60	Ni	72	39.27 ppb	0.79	39.63	0.91	20	
63	Cu	72	37.72 ppb	0.33	38.54	2.15	20	
66	Zn	72	42.88 ppb	1.21	42.17	1.67	20	
75	As	72	191.50 ppb	0.31	191.20	0.16	20	
78	Se	72	48.07 ppb	4.49	51.68	7.24	20	
95	Mo	72	153.80 ppb	1.24	154.80	0.65	20	
107	Ag	115	37.62 ppb	0.81	37.80	0.48	20	
111	Cd	115	38.76 ppb	0.11	39.73	2.47	20	
118	Sn	115	-0.11 ppb	11.76	0.01	-247.40	20	
121	Sb	115	48.77 ppb	0.63	49.07	0.61	20	
137	Ba	115	68.17 ppb	1.37	68.36	0.28	20	
205	Tl	165	37.58 ppb	1.80	38.72	2.99	20	
208	Pb	165	36.24 ppb	1.79	37.21	2.64	20	
232	Th	165	41.64 ppb	1.44	42.30	1.57	20	
238	U	165	64.19 ppb	1.12	64.71	0.81	20	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	97972	4.55	163501	59.9	30 - 120
45	Sc	1	305286	2.56	473295	64.5	30 - 120
72	Ge	1	176755	2.30	272811	64.8	30 - 120
115	In	1	499296	3.37	858259	58.2	30 - 120
165	Ho	1	1166222	2.44	1824721	63.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\044SMPL.D\044SMPL.D#  
 Date Acquired: Jun 24 2009 09:30 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LFC4CF  
 Misc Info: D9F200196  
 Vial Number: 2306  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	27.19	27.19	ppb	1.04	3600	
52 Cr	72	1	39.14	39.14	ppb	0.96	3600	
55 Mn	72	1	4.82	4.82	ppb	2.19	3600	
59 Co	72	1	0.19	0.19	ppb	14.21	3600	
60 Ni	72	1	0.46	0.46	ppb	13.84	3600	
63 Cu	72	1	0.22	0.22	ppb	15.00	3600	
66 Zn	72	1	1.19	1.19	ppb	3.60	3600	
75 As	72	1	101.50	101.50	ppb	1.04	3600	
78 Se	72	1	3.19	3.19	ppb	23.38	3600	
95 Mo	72	1	22.37	22.37	ppb	1.19	3600	
107 Ag	115	1	0.00	0.00	ppb	153.08	3600	
111 Cd	115	1	0.02	0.02	ppb	87.73	3600	
118 Sn	115	1	-0.17	-0.17	ppb	2.31	3600	
121 Sb	115	1	0.17	0.17	ppb	15.54	3600	
137 Ba	115	1	20.29	20.29	ppb	1.60	3600	
205 Tl	165	1	0.02	0.02	ppb	20.44	3600	
208 Pb	165	1	0.02	0.02	ppb	17.19	3600	
232 Th	165	1	0.50	0.50	ppb	11.22	1000	
238 U	165	1	18.66	18.66	ppb	0.63	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	101721	1.22	163501	62.2	30 - 120	
45 Sc	1	318066	0.79	473295	67.2	30 - 120	
72 Ge	1	188602	1.12	272811	69.1	30 - 120	
115 In	1	540766	1.57	858259	63.0	30 - 120	
165 Ho	1	1253246	1.18	1824721	68.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\045 CCV.D\045 CCV.D#  
 Date Acquired: Jun 24 2009 09:33 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	55.77	ppb	0.94	50	111.5	90 - 110	Fail
51	V	72	1	48.46	ppb	1.05	50	96.9	90 - 110	
52	Cr	72	1	47.66	ppb	0.38	50	95.3	90 - 110	
55	Mn	72	1	45.69	ppb	0.26	50	91.4	90 - 110	
59	Co	72	1	46.62	ppb	0.74	50	93.2	90 - 110	
60	Ni	72	1	48.17	ppb	0.81	50	96.3	90 - 110	
63	Cu	72	1	49.62	ppb	0.84	50	99.2	90 - 110	
66	Zn	72	1	52.49	ppb	1.17	50	105.0	90 - 110	
75	As	72	1	57.75	ppb	1.45	50	115.5	90 - 110	Fail
78	Se	72	1	46.67	ppb	2.42	50	93.3	90 - 110	
95	Mo	72	1	49.79	ppb	0.47	50	99.6	90 - 110	
107	Ag	115	1	50.29	ppb	1.40	50	100.6	90 - 110	
111	Cd	115	1	50.77	ppb	2.46	50	101.5	90 - 110	
118	Sn	115	1	50.85	ppb	1.62	50	101.7	90 - 110	
121	Sb	115	1	57.62	ppb	0.82	50	115.2	90 - 110	Fail
137	Ba	115	1	52.59	ppb	1.42	50	105.2	90 - 110	
205	Tl	165	1	51.41	ppb	1.30	50	102.8	90 - 110	
208	Pb	165	1	50.24	ppb	1.78	50	100.5	90 - 110	
232	Th	165	1	51.44	ppb	1.78	50	102.9	90 - 110	
238	U	165	1	50.52	ppb	1.98	50	101.0	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	104505	2.29	163501	63.9	30 - 120
45	Sc	1	330213	0.28	473295	69.8	30 - 120
72	Ge	1	204696	1.86	272811	75.0	30 - 120
115	In	1	596634	1.01	858259	69.5	30 - 120
165	Ho	1	1322749	0.67	1824721	72.5	30 - 120

*Se only*  
*Z*  
*6/25/09*

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\046\_CCB.D\046\_CCB.D#  
 Date Acquired: Jun 24 2009 09:36 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
51 V	72	1	-0.056 ppb	83.79	1.00	
52 Cr	72	1	-0.007 ppb	166.81	1.00	
55 Mn	72	1	0.012 ppb	30.87	1.00	
59 Co	72	1	0.003 ppb	144.38	1.00	
60 Ni	72	1	-0.008 ppb	74.26	1.00	
63 Cu	72	1	0.043 ppb	29.58	1.00	
66 Zn	72	1	0.063 ppb	25.76	1.00	
75 As	72	1	0.017 ppb	33.81	1.00	
78 Se	72	1	0.887 ppb	28.63	1.00	
95 Mo	72	1	0.059 ppb	34.14	1.00	
107 Ag	115	1	0.026 ppb	39.55	1.00	
111 Cd	115	1	0.010 ppb	105.08	1.00	
118 Sn	115	1	0.118 ppb	24.72	1.00	
121 Sb	115	1	0.031 ppb	25.62	1.00	
137 Ba	115	1	0.005 ppb	196.59	1.00	
205 Tl	165	1	0.027 ppb	14.86	1.00	
208 Pb	165	1	0.006 ppb	41.71	1.00	
232 Th	165	1	0.790 ppb	17.84	1.00	
238 U	165	1	0.007 ppb	37.06	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	108190	0.76	163501	66.2	30 - 120	
45 Sc	1	344960	0.19	473295	72.9	30 - 120	
72 Ge	1	211376	0.32	272811	77.5	30 - 120	
115 In	1	626710	1.14	858259	73.0	30 - 120	
165 Ho	1	1351231	1.77	1824721	74.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\047WASH.D\047WASH.D#  
 Date Acquired: Jun 24 2009 09:40 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.186 ppb	10.61	1.30	
51 V	72	1	5.093 ppb	1.61	6.50	
52 Cr	72	1	2.037 ppb	1.03	2.60	
55 Mn	72	1	1.001 ppb	6.70	1.30	
59 Co	72	1	0.982 ppb	2.73	1.30	
60 Ni	72	1	1.992 ppb	3.78	2.60	
63 Cu	72	1	2.086 ppb	3.83	2.60	
66 Zn	72	1	10.780 ppb	0.84	13.00	
75 As	72	1	5.634 ppb	2.99	6.50	
78 Se	72	1	4.775 ppb	10.64	6.50	
95 Mo	72	1	2.117 ppb	4.86	2.60	
107 Ag	115	1	5.143 ppb	2.10	6.50	
111 Cd	115	1	1.006 ppb	6.91	1.30	
118 Sn	115	1	10.340 ppb	1.50	13.00	
121 Sb	115	1	2.213 ppb	0.89	2.60	
137 Ba	115	1	1.151 ppb	8.65	1.30	
205 Tl	165	1	1.102 ppb	1.94	1.30	
208 Pb	165	1	1.060 ppb	2.12	1.30	
232 Th	165	1	2.236 ppb	1.89	2.60	
238 U	165	1	1.074 ppb	2.05	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	108518	1.41	163501	66.4	30 - 120	
45 Sc	1	354521	0.93	473295	74.9	30 - 120	
72 Ge	1	217818	0.44	272811	79.8	30 - 120	
115 In	1	644518	0.89	858259	75.1	30 - 120	
165 Ho	1	1387326	0.15	1824721	76.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

...”During the course of an analytical run, the instrument may be “resloped” or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed.”

Analyst: LRD

Date: 06/24/2009

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#  
Date Acquired: Jun 24 2009 10:17 pm  
Acq. Method: NormISIS.M  
Operator: TEL  
Sample Name: Cal Blank  
Misc Info:  
Vial Number: 1101  
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
Last Cal. Update: Jun 24 2009 10:14 pm  
Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
51	V	72	1	-125	155.01
52	Cr	72	1	1347	3.12
55	Mn	72	1	137	19.15
59	Co	72	1	27	43.97
60	Ni	72	1	33	17.74
63	Cu	72	1	293	31.56
66	Zn	72	1	201	12.52
75	As	72	1	16	32.04
78	Se	72	1	77	62.26
95	Mo	72	1	147	21.43
107	Ag	115	1	107	32.36
111	Cd	115	1	7	50.68
118	Sn	115	1	767	9.91
121	Sb	115	1	64	7.31
137	Ba	115	1	14	52.84
205	Tl	165	1	126	11.03
208	Pb	165	1	148	13.20
232	Th	165	1	913	8.83
238	U	165	1	104	13.31

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	117322	1.68
45	Sc	1	379430	0.45
72	Ge	1	230888	0.98
115	In	1	694252	0.79
165	Ho	1	1482298	0.02

Tune File# 1 c:\icpchem\1\7500\he.u  
Tune File# 2 C:\ICPCHEM\1\7500\  
Tune File# 3 C:\ICPCHEM\1\7500\

**Calibration Standard QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\059ICAL.D\059ICAL.D#  
 Date Acquired: Jun 24 2009 10:20 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:18 pm  
 Sample Type: ICAL

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	25917	2.08
51	V	72	440859	0.40
52	Cr	72	498841	0.38
55	Mn	72	434202	0.35
59	Co	72	693184	0.44
60	Ni	72	170216	0.63
63	Cu	72	436062	0.02
66	Zn	72	90657	0.40
75	As	72	64010	0.60
78	Se	72	8116	1.74
95	Mo	72	212934	0.18
107	Ag	115	641135	1.00
111	Cd	115	113553	0.95
118	Sn	115	285789	0.95
121	Sb	115	375686	0.95
137	Ba	115	133578	0.91
205	Tl	165	1351068	1.18
208	Pb	165	1882489	0.46
232	Th	165	1769191	1.22
238	U	165	2026227	1.62

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range (%)	Flag
6	Li	1	116190	1.75	117322	99.0	30 - 120
45	Sc	1	372196	1.07	379430	98.1	30 - 120
72	Ge	1	228804	0.83	230888	99.1	30 - 120
115	In	1	674227	0.76	694252	97.1	30 - 120
165	Ho	1	1476640	0.84	1482298	99.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\060\_CCV.D\060\_CCV.D#  
 Date Acquired: Jun 24 2009 10:24 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.95 ppb	2.27	50	101.9	90 - 110	
51	V	72	51.38 ppb	1.81	50	102.8	90 - 110	
52	Cr	72	51.09 ppb	1.51	50	102.2	90 - 110	
55	Mn	72	51.40 ppb	0.27	50	102.8	90 - 110	
59	Co	72	51.06 ppb	0.83	50	102.1	90 - 110	
60	Ni	72	51.29 ppb	0.39	50	102.6	90 - 110	
63	Cu	72	51.32 ppb	1.67	50	102.6	90 - 110	
66	Zn	72	50.57 ppb	1.23	50	101.1	90 - 110	
75	As	72	51.06 ppb	0.85	50	102.1	90 - 110	
78	Se	72	48.68 ppb	4.68	50	97.4	90 - 110	
95	Mo	72	51.09 ppb	0.84	50	102.2	90 - 110	
107	Ag	115	50.68 ppb	0.72	50	101.4	90 - 110	
111	Cd	115	51.23 ppb	0.59	50	102.5	90 - 110	
118	Sn	115	50.95 ppb	0.60	50	101.9	90 - 110	
121	Sb	115	50.71 ppb	0.30	50	101.4	90 - 110	
137	Ba	115	50.69 ppb	0.51	50	101.4	90 - 110	
205	Tl	165	52.07 ppb	1.37	50	104.1	90 - 110	
208	Pb	165	51.54 ppb	1.96	50	103.1	90 - 110	
232	Th	165	54.55 ppb	1.65	50	109.1	90 - 110	
238	U	165	52.27 ppb	2.06	50	104.5	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	116863	0.68	117322	99.6	30 - 120
45	Sc	1	367256	0.44	379430	96.8	30 - 120
72	Ge	1	224440	0.68	230888	97.2	30 - 120
115	In	1	667028	1.07	694252	96.1	30 - 120
165	Ho	1	1451654	1.23	1482298	97.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\061\_CCB.D\061\_CCB.D#  
 Date Acquired: Jun 24 2009 10:27 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.013 ppb	173.21	1.00	
51 V	72	1	-0.019 ppb	133.49	1.00	
52 Cr	72	1	0.014 ppb	132.84	1.00	
55 Mn	72	1	-0.003 ppb	205.55	1.00	
59 Co	72	1	0.004 ppb	86.18	1.00	
60 Ni	72	1	-0.002 ppb	376.54	1.00	
63 Cu	72	1	0.006 ppb	281.36	1.00	
66 Zn	72	1	-0.086 ppb	10.54	1.00	
75 As	72	1	0.006 ppb	203.91	1.00	
78 Se	72	1	-0.193 ppb	112.83	1.00	
95 Mo	72	1	0.017 ppb	168.45	1.00	
107 Ag	115	1	0.034 ppb	14.31	1.00	
111 Cd	115	1	0.004 ppb	355.33	1.00	
118 Sn	115	1	0.098 ppb	30.14	1.00	
121 Sb	115	1	0.045 ppb	6.81	1.00	
137 Ba	115	1	0.002 ppb	262.73	1.00	
205 Tl	165	1	0.040 ppb	11.20	1.00	
208 Pb	165	1	0.003 ppb	55.31	1.00	
232 Th	165	1	1.012 ppb	13.11	1.00	Fail
238 U	165	1	0.005 ppb	40.98	1.00	

*MR*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115652	0.56	117322	98.6	30 - 120	
45 Sc	1	370335	1.00	379430	97.6	30 - 120	
72 Ge	1	226326	0.63	230888	98.0	30 - 120	
115 In	1	680142	0.40	694252	98.0	30 - 120	
165 Ho	1	1472058	0.15	1482298	99.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\062WASH.D\062WASH.D#  
 Date Acquired: Jun 24 2009 10:31 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.996 ppb	9.75	1.30	
51 V	72	1	5.287 ppb	1.19	6.50	
52 Cr	72	1	2.116 ppb	3.39	2.60	
55 Mn	72	1	1.069 ppb	7.23	1.30	
59 Co	72	1	1.052 ppb	3.77	1.30	
60 Ni	72	1	2.104 ppb	5.43	2.60	
63 Cu	72	1	2.107 ppb	1.94	2.60	
66 Zn	72	1	10.040 ppb	2.06	13.00	
75 As	72	1	5.106 ppb	0.91	6.50	
78 Se	72	1	4.258 ppb	39.17	6.50	
95 Mo	72	1	2.010 ppb	4.56	2.60	
107 Ag	115	1	5.207 ppb	1.30	6.50	
111 Cd	115	1	1.034 ppb	3.49	1.30	
118 Sn	115	1	10.620 ppb	3.50	13.00	
121 Sb	115	1	2.017 ppb	0.23	2.60	
137 Ba	115	1	0.968 ppb	5.29	1.30	
205 Tl	165	1	1.101 ppb	0.72	1.30	
208 Pb	165	1	1.065 ppb	2.60	1.30	
232 Th	165	1	2.307 ppb	1.83	2.60	
238 U	165	1	1.090 ppb	0.82	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	116951	0.50	117322	99.7	30 - 120	
45 Sc	1	372991	0.46	379430	98.3	30 - 120	
72 Ge	1	229458	0.38	230888	99.4	30 - 120	
115 In	1	689440	0.45	694252	99.3	30 - 120	
165 Ho	1	1499228	0.34	1482298	101.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\070\_CCV.D\070\_CCV.D#  
 Date Acquired: Jun 24 2009 10:58 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	51.12	ppb	3.62	50	102.2	90 - 110
51	V	72	1	51.40	ppb	1.66	50	102.8	90 - 110
52	Cr	72	1	51.25	ppb	0.98	50	102.5	90 - 110
55	Mn	72	1	51.36	ppb	0.87	50	102.7	90 - 110
59	Co	72	1	51.15	ppb	0.99	50	102.3	90 - 110
60	Ni	72	1	50.39	ppb	1.61	50	100.8	90 - 110
63	Cu	72	1	50.61	ppb	0.70	50	101.2	90 - 110
66	Zn	72	1	51.11	ppb	0.55	50	102.2	90 - 110
75	As	72	1	51.06	ppb	0.34	50	102.1	90 - 110
78	Se	72	1	47.32	ppb	5.38	50	94.6	90 - 110
95	Mo	72	1	50.76	ppb	2.38	50	101.5	90 - 110
107	Ag	115	1	50.53	ppb	0.97	50	101.1	90 - 110
111	Cd	115	1	51.39	ppb	1.09	50	102.8	90 - 110
118	Sn	115	1	51.03	ppb	0.91	50	102.1	90 - 110
121	Sb	115	1	51.36	ppb	0.80	50	102.7	90 - 110
137	Ba	115	1	50.55	ppb	0.59	50	101.1	90 - 110
205	Tl	165	1	52.58	ppb	0.96	50	105.2	90 - 110
208	Pb	165	1	52.00	ppb	1.19	50	104.0	90 - 110
232	Th	165	1	54.86	ppb	0.65	50	109.7	90 - 110
238	U	165	1	52.77	ppb	0.97	50	105.5	90 - 110

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	109473	1.64	117322	93.3	30 - 120
45	Sc	1	341668	0.27	379430	90.0	30 - 120
72	Ge	1	210335	0.32	230888	91.1	30 - 120
115	In	1	636527	0.76	694252	91.7	30 - 120
165	Ho	1	1399322	0.25	1482298	94.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\071\_CCB.D\071\_CCB.D#  
 Date Acquired: Jun 24 2009 11:01 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.040 ppb	99.80	1.00	
51 V	72	1	0.025 ppb	151.65	1.00	
52 Cr	72	1	0.003 ppb	1291.30	1.00	
55 Mn	72	1	0.006 ppb	79.96	1.00	
59 Co	72	1	0.007 ppb	44.95	1.00	
60 Ni	72	1	-0.009 ppb	40.03	1.00	
63 Cu	72	1	0.010 ppb	232.72	1.00	
66 Zn	72	1	-0.041 ppb	67.70	1.00	
75 As	72	1	0.018 ppb	48.10	1.00	
78 Se	72	1	-0.068 ppb	620.09	1.00	
95 Mo	72	1	-0.017 ppb	60.34	1.00	
107 Ag	115	1	0.037 ppb	18.17	1.00	
111 Cd	115	1	0.010 ppb	35.50	1.00	
118 Sn	115	1	0.127 ppb	52.02	1.00	
121 Sb	115	1	0.050 ppb	15.28	1.00	
137 Ba	115	1	0.001 ppb	257.21	1.00	
205 Tl	165	1	0.042 ppb	10.70	1.00	
208 Pb	165	1	0.006 ppb	9.70	1.00	
232 Th	165	1	0.946 ppb	16.25	1.00	
238 U	165	1	0.009 ppb	30.23	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	112812	0.84	117322	96.2	30 - 120	
45 Sc	1	352656	1.09	379430	92.9	30 - 120	
72 Ge	1	215877	0.37	230888	93.5	30 - 120	
115 In	1	659266	0.49	694252	95.0	30 - 120	
165 Ho	1	1433503	0.91	1482298	96.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\072WASH.D\072WASH.D#  
 Date Acquired: Jun 24 2009 11:05 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.120 ppb	38.53	1.30	
51 V	72	1	5.253 ppb	6.17	6.50	
52 Cr	72	1	2.013 ppb	0.50	2.60	
55 Mn	72	1	1.103 ppb	2.70	1.30	
59 Co	72	1	1.044 ppb	1.08	1.30	
60 Ni	72	1	2.051 ppb	3.00	2.60	
63 Cu	72	1	2.083 ppb	3.23	2.60	
66 Zn	72	1	10.250 ppb	1.58	13.00	
75 As	72	1	5.277 ppb	1.02	6.50	
78 Se	72	1	4.391 ppb	19.94	6.50	
95 Mo	72	1	1.992 ppb	2.34	2.60	
107 Ag	115	1	5.180 ppb	1.30	6.50	
111 Cd	115	1	0.980 ppb	2.57	1.30	
118 Sn	115	1	10.460 ppb	1.31	13.00	
121 Sb	115	1	2.019 ppb	1.37	2.60	
137 Ba	115	1	1.032 ppb	4.47	1.30	
205 Tl	165	1	1.131 ppb	0.96	1.30	
208 Pb	165	1	1.073 ppb	2.39	1.30	
232 Th	165	1	2.336 ppb	3.22	2.60	
238 U	165	1	1.094 ppb	1.33	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	112305	1.24	117322	95.7	30 - 120	
45 Sc	1	353972	0.54	379430	93.3	30 - 120	
72 Ge	1	218407	0.59	230888	94.6	30 - 120	
115 In	1	657406	0.31	694252	94.7	30 - 120	
165 Ho	1	1437398	1.09	1482298	97.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\073ICSA.D\073ICSA.D#  
 Date Acquired: Jun 24 2009 11:08 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	0.07 ppb	91.65	1.00	
51	V	72	-0.45 ppb	43.52	1.00	
52	Cr	72	0.98 ppb	1.45	1.00	
55	Mn	72	2.21 ppb	6.13	1.00	
59	Co	72	0.04 ppb	8.50	1.00	
60	Ni	72	0.62 ppb	10.61	1.00	
63	Cu	72	0.30 ppb	5.61	1.00	
66	Zn	72	2.43 ppb	0.45	10.00	
75	As	72	0.17 ppb	20.25	1.00	
78	Se	72	0.10 ppb	419.65	1.00	
95	Mo	72	1982.00 ppb	1.43	2000.00	
107	Ag	115	0.13 ppb	2.97	1.00	
111	Cd	115	0.32 ppb	49.44	1.00	
118	Sn	115	0.03 ppb	183.17	10.00	
121	Sb	115	0.24 ppb	5.73	1.00	
137	Ba	115	1.43 ppb	4.56	1.00	
205	Tl	165	0.04 ppb	10.19	1.00	
208	Pb	165	0.13 ppb	3.23	1.00	
232	Th	165	0.16 ppb	30.27	1.00	
238	U	165	0.02 ppb	6.46	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	102993	0.56	117322	87.8	30 - 120
45	Sc	1	315475	0.66	379430	83.1	30 - 120
72	Ge	1	191330	0.71	230888	82.9	30 - 120
115	In	1	568291	0.77	694252	81.9	30 - 120
165	Ho	1	1326927	0.41	1482298	89.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\074ICSB.D\074ICSB.D#  
 Date Acquired: Jun 24 2009 11:11 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	98.42	1.66	100	98.4	80 - 120	
51 V	72	1	96.22	1.36	100	96.2	80 - 120	
52 Cr	72	1	96.05	1.46	100	96.1	80 - 120	
55 Mn	72	1	97.87	0.93	100	97.9	80 - 120	
59 Co	72	1	93.49	1.22	100	93.5	80 - 120	
60 Ni	72	1	91.50	1.23	100	91.5	80 - 120	
63 Cu	72	1	90.00	0.13	100	90.0	80 - 120	
66 Zn	72	1	100.10	1.73	100	100.1	80 - 120	
75 As	72	1	100.60	1.10	100	100.6	80 - 120	
78 Se	72	1	98.72	2.59	100	98.7	80 - 120	
95 Mo	72	1	2095.00	0.31	2100	99.8	80 - 120	
107 Ag	115	1	88.72	0.70	100	88.7	80 - 120	
111 Cd	115	1	96.17	1.00	100	96.2	80 - 120	
118 Sn	115	1	103.30	1.29	100	103.3	80 - 120	
121 Sb	115	1	103.00	0.93	100	103.0	80 - 120	
137 Ba	115	1	100.30	0.59	100	100.3	80 - 120	
205 Tl	165	1	90.87	1.62	100	90.9	80 - 120	
208 Pb	165	1	91.64	2.02	100	91.6	80 - 120	
232 Th	165	1	102.90	3.07	100	102.9	80 - 120	
238 U	165	1	98.85	1.74	100	98.9	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	102532	1.32	117322	87.4	30 - 120	
45 Sc	1	309952	0.42	379430	81.7	30 - 120	
72 Ge	1	186383	0.55	230888	80.7	30 - 120	
115 In	1	554517	0.30	694252	79.9	30 - 120	
165 Ho	1	1331587	1.56	1482298	89.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\075WASH.D\075WASH.D#  
 Date Acquired: Jun 24 2009 11:15 pm  
 Operator: TEL  
 Sample Name: WASH  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.30	
51 V	72	1	0.000 ppb	16827.00	6.50	
52 Cr	72	1	-0.023 ppb	135.11	2.60	
55 Mn	72	1	0.004 ppb	210.96	1.30	
59 Co	72	1	0.008 ppb	111.37	1.30	
60 Ni	72	1	0.013 ppb	116.86	2.60	
63 Cu	72	1	0.027 ppb	46.19	2.60	
66 Zn	72	1	0.192 ppb	17.40	13.00	
75 As	72	1	0.024 ppb	27.96	6.50	
78 Se	72	1	-0.127 ppb	238.35	6.50	
95 Mo	72	1	0.798 ppb	6.52	2.60	
107 Ag	115	1	0.000 ppb	1726.50	6.50	
111 Cd	115	1	0.005 ppb	118.57	1.30	
118 Sn	115	1	0.147 ppb	22.53	13.00	
121 Sb	115	1	0.034 ppb	10.48	2.60	
137 Ba	115	1	0.001 ppb	395.61	1.30	
205 Tl	165	1	0.004 ppb	6.00	1.30	
208 Pb	165	1	0.006 ppb	7.58	1.30	
232 Th	165	1	0.653 ppb	15.07	2.60	
238 U	165	1	0.010 ppb	15.03	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	113953	0.31	117322	97.1	30 - 120	
45 Sc	1	355429	0.70	379430	93.7	30 - 120	
72 Ge	1	219786	0.49	230888	95.2	30 - 120	
115 In	1	664242	0.34	694252	95.7	30 - 120	
165 Ho	1	1438883	0.33	1482298	97.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

### Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\076 CCV.D\076 CCV.D#  
 Date Acquired: Jun 24 2009 11:18 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

#### QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.29 ppb	5.77	50	100.6	90 - 110	
51	V	72	51.40 ppb	1.30	50	102.8	90 - 110	
52	Cr	72	51.37 ppb	0.97	50	102.7	90 - 110	
55	Mn	72	51.70 ppb	0.40	50	103.4	90 - 110	
59	Co	72	51.77 ppb	1.27	50	103.5	90 - 110	
60	Ni	72	51.93 ppb	1.65	50	103.9	90 - 110	
63	Cu	72	51.29 ppb	1.25	50	102.6	90 - 110	
66	Zn	72	51.42 ppb	0.50	50	102.8	90 - 110	
75	As	72	51.68 ppb	0.43	50	103.4	90 - 110	
78	Se	72	49.46 ppb	1.75	50	98.9	90 - 110	
95	Mo	72	51.58 ppb	1.79	50	103.2	90 - 110	
107	Ag	115	51.17 ppb	0.58	50	102.3	90 - 110	
111	Cd	115	51.68 ppb	0.86	50	103.4	90 - 110	
118	Sn	115	51.39 ppb	0.25	50	102.8	90 - 110	
121	Sb	115	51.72 ppb	0.53	50	103.4	90 - 110	
137	Ba	115	51.33 ppb	0.85	50	102.7	90 - 110	
205	Tl	165	52.42 ppb	1.78	50	104.8	90 - 110	
208	Pb	165	51.82 ppb	2.00	50	103.6	90 - 110	
232	Th	165	53.75 ppb	1.32	50	107.5	90 - 110	
238	U	165	52.40 ppb	0.69	50	104.8	90 - 110	

#### ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	114693	0.48	117322	97.8	30 - 120
45	Sc	1	354431	0.24	379430	93.4	30 - 120
72	Ge	1	217392	0.54	230888	94.2	30 - 120
115	In	1	652251	1.03	694252	94.0	30 - 120
165	Ho	1	1447522	1.25	1482298	97.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\077\_CCB.D\077\_CCB.D#  
 Date Acquired: Jun 24 2009 11:21 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.013	ppb	173.23	1.00	
51 V	72	1	-0.004	ppb	1282.60	1.00	
52 Cr	72	1	-0.001	ppb	2544.20	1.00	
55 Mn	72	1	0.002	ppb	542.04	1.00	
59 Co	72	1	0.006	ppb	30.06	1.00	
60 Ni	72	1	0.005	ppb	457.64	1.00	
63 Cu	72	1	0.009	ppb	76.99	1.00	
66 Zn	72	1	-0.054	ppb	31.25	1.00	
75 As	72	1	-0.002	ppb	147.68	1.00	
78 Se	72	1	0.031	ppb	1234.80	1.00	
95 Mo	72	1	0.054	ppb	13.57	1.00	
107 Ag	115	1	0.022	ppb	31.63	1.00	
111 Cd	115	1	0.013	ppb	52.64	1.00	
118 Sn	115	1	0.095	ppb	23.21	1.00	
121 Sb	115	1	0.038	ppb	13.98	1.00	
137 Ba	115	1	0.002	ppb	125.37	1.00	
205 Tl	165	1	0.024	ppb	19.58	1.00	
208 Pb	165	1	0.007	ppb	37.52	1.00	
232 Th	165	1	0.910	ppb	18.59	1.00	
238 U	165	1	0.007	ppb	9.99	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115014	0.64	117322	98.0	30 - 120	
45 Sc	1	361067	1.06	379430	95.2	30 - 120	
72 Ge	1	222710	0.47	230888	96.5	30 - 120	
115 In	1	672947	0.24	694252	96.9	30 - 120	
165 Ho	1	1433333	0.55	1482298	96.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\078WASH.D\078WASH.D#  
 Date Acquired: Jun 24 2009 11:25 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.011 ppb	6.56	1.30	
51 V	72	1	5.430 ppb	2.12	6.50	
52 Cr	72	1	2.113 ppb	3.93	2.60	
55 Mn	72	1	1.097 ppb	5.79	1.30	
59 Co	72	1	1.038 ppb	5.34	1.30	
60 Ni	72	1	2.066 ppb	2.52	2.60	
63 Cu	72	1	2.089 ppb	1.78	2.60	
66 Zn	72	1	10.390 ppb	0.65	13.00	
75 As	72	1	5.259 ppb	1.54	6.50	
78 Se	72	1	3.751 ppb	6.47	6.50	
95 Mo	72	1	2.061 ppb	4.03	2.60	
107 Ag	115	1	5.133 ppb	0.84	6.50	
111 Cd	115	1	1.050 ppb	9.77	1.30	
118 Sn	115	1	10.460 ppb	1.81	13.00	
121 Sb	115	1	1.986 ppb	1.56	2.60	
137 Ba	115	1	1.066 ppb	2.14	1.30	
205 Tl	165	1	1.093 ppb	1.63	1.30	
208 Pb	165	1	1.070 ppb	0.11	1.30	
232 Th	165	1	2.286 ppb	1.31	2.60	
238 U	165	1	1.098 ppb	1.34	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115299	0.91	117322	98.3	30 - 120	
45 Sc	1	365732	0.26	379430	96.4	30 - 120	
72 Ge	1	224138	0.48	230888	97.1	30 - 120	
115 In	1	674529	0.84	694252	97.2	30 - 120	
165 Ho	1	1449277	0.68	1482298	97.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\119\_CCV.D\119\_CCV.D#  
 Date Acquired: Jun 25 2009 01:44 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	53.06 ppb	1.35	50	106.1	90 - 110	
51	V	72	51.93 ppb	1.17	50	103.9	90 - 110	
52	Cr	72	51.30 ppb	1.19	50	102.6	90 - 110	
55	Mn	72	50.14 ppb	1.25	50	100.3	90 - 110	
59	Co	72	51.00 ppb	0.33	50	102.0	90 - 110	
60	Ni	72	50.49 ppb	1.68	50	101.0	90 - 110	
63	Cu	72	50.89 ppb	0.90	50	101.8	90 - 110	
66	Zn	72	51.21 ppb	0.68	50	102.4	90 - 110	
75	As	72	51.99 ppb	0.39	50	104.0	90 - 110	
78	Se	72	49.48 ppb	3.93	50	99.0	90 - 110	
95	Mo	72	50.53 ppb	0.87	50	101.1	90 - 110	
107	Ag	115	50.97 ppb	1.09	50	101.9	90 - 110	
111	Cd	115	51.35 ppb	0.59	50	102.7	90 - 110	
118	Sn	115	51.26 ppb	1.99	50	102.5	90 - 110	
121	Sb	115	52.36 ppb	0.63	50	104.7	90 - 110	
137	Ba	115	50.93 ppb	0.61	50	101.9	90 - 110	
205	Tl	165	52.31 ppb	0.80	50	104.6	90 - 110	
208	Pb	165	51.81 ppb	1.55	50	103.6	90 - 110	
232	Th	165	53.35 ppb	2.41	50	106.7	90 - 110	
238	U	165	53.37 ppb	2.28	50	106.7	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	109303	0.53	117322	93.2	30 - 120
45	Sc	1	343559	0.91	379430	90.5	30 - 120
72	Ge	1	211836	0.13	230888	91.7	30 - 120
115	In	1	621221	0.51	694252	89.5	30 - 120
165	Ho	1	1343613	1.32	1482298	90.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\121WASH.D\121WASH.D#  
 Date Acquired: Jun 25 2009 01:51 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.045 ppb	11.17	1.30	
51 V	72	1	5.301 ppb	4.50	6.50	
52 Cr	72	1	2.110 ppb	4.23	2.60	
55 Mn	72	1	1.145 ppb	1.19	1.30	
59 Co	72	1	1.082 ppb	7.26	1.30	
60 Ni	72	1	2.099 ppb	2.94	2.60	
63 Cu	72	1	2.068 ppb	2.93	2.60	
66 Zn	72	1	10.390 ppb	2.26	13.00	
75 As	72	1	5.406 ppb	3.22	6.50	
78 Se	72	1	5.484 ppb	9.97	6.50	
95 Mo	72	1	2.044 ppb	5.75	2.60	
107 Ag	115	1	5.172 ppb	1.28	6.50	
111 Cd	115	1	1.086 ppb	6.15	1.30	
118 Sn	115	1	10.450 ppb	1.57	13.00	
121 Sb	115	1	2.010 ppb	2.25	2.60	
137 Ba	115	1	1.015 ppb	7.64	1.30	
205 Tl	165	1	1.142 ppb	2.59	1.30	
208 Pb	165	1	1.084 ppb	3.93	1.30	
232 Th	165	1	2.383 ppb	0.38	2.60	
238 U	165	1	1.107 ppb	3.79	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	107337	1.56	117322	91.5	30 - 120	
45 Sc	1	347744	1.00	379430	91.6	30 - 120	
72 Ge	1	215342	0.57	230888	93.3	30 - 120	
115 In	1	635891	0.67	694252	91.6	30 - 120	
165 Ho	1	1362723	1.21	1482298	91.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\122\_BLK.D\122\_BLK.D#  
 Date Acquired: Jun 25 2009 01:54 am  
 Operator: TEL  
 Sample Name: LFFFXB  
 Misc Info: BLANK 9174190 6020  
 Vial Number: 2307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: BLK  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
51 V	72	1	0.014 ppb	440.81	2.00	
52 Cr	72	1	0.074 ppb	25.76	2.00	
55 Mn	72	1	0.038 ppb	25.17	2.00	
59 Co	72	1	-0.002 ppb	100.51	2.00	
60 Ni	72	1	0.006 ppb	212.92	2.00	
63 Cu	72	1	0.025 ppb	18.07	2.00	
66 Zn	72	1	0.240 ppb	9.93	2.00	
75 As	72	1	-0.011 ppb	29.17	2.00	
78 Se	72	1	-0.238 ppb	123.97	2.00	
95 Mo	72	1	-0.055 ppb	35.60	2.00	
107 Ag	115	1	0.003 ppb	141.92	2.00	
111 Cd	115	1	0.000 ppb	2082.30	2.00	
118 Sn	115	1	0.183 ppb	18.34	2.00	
121 Sb	115	1	0.013 ppb	60.51	2.00	
137 Ba	115	1	0.008 ppb	67.26	2.00	
205 Tl	165	1	0.001 ppb	306.47	2.00	
208 Pb	165	1	0.008 ppb	28.60	2.00	
232 Th	165	1	0.203 ppb	22.71	2.00	
238 U	165	1	-0.002 ppb	20.95	2.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	106242	0.31	117322	90.6	30 - 120	
45 Sc	1	344253	1.69	379430	90.7	30 - 120	
72 Ge	1	212816	1.76	230888	92.2	30 - 120	
115 In	1	628767	1.56	694252	90.6	30 - 120	
165 Ho	1	1348506	1.50	1482298	91.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\124SMPL.D\124SMPL.D#  
 Date Acquired: Jun 25 2009 02:01 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE709  
 Misc Info: D9F180314  
 Vial Number: 2309  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.03	0.03	ppb	86.62	3600	
51 V	72	1	19.14	19.14	ppb	13.08	3600	
52 Cr	72	1	848.50	848.50	ppb	1.15	3600	
55 Mn	72	1	176.40	176.40	ppb	0.85	3600	
59 Co	72	1	0.88	0.88	ppb	2.87	3600	
60 Ni	72	1	3.98	3.98	ppb	3.42	3600	
63 Cu	72	1	1.61	1.61	ppb	6.91	3600	
66 Zn	72	1	3.62	3.62	ppb	1.00	3600	
75 As	72	1	123.40	123.40	ppb	1.12	3600	
78 Se	72	1	6.64	6.64	ppb	14.07	3600	
95 Mo	72	1	113.10	113.10	ppb	0.41	3600	
107 Ag	115	1	0.20	0.20	ppb	15.78	3600	
111 Cd	115	1	0.10	0.10	ppb	14.21	3600	
118 Sn	115	1	0.35	0.35	ppb	26.59	3600	
121 Sb	115	1	0.21	0.21	ppb	6.96	3600	
137 Ba	115	1	31.07	31.07	ppb	0.95	3600	
205 Tl	165	1	0.11	0.11	ppb	7.37	3600	
208 Pb	165	1	0.50	0.50	ppb	3.13	3600	
232 Th	165	1	0.89	0.89	ppb	25.87	1000	
238 U	165	1	27.57	27.57	ppb	2.07	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	98231	1.16	117322	83.7	30 - 120	
45 Sc	1	290282	1.38	379430	76.5	30 - 120	
72 Ge	1	166147	0.67	230888	72.0	30 - 120	
115 In	1	481312	0.27	694252	69.3	30 - 120	
165 Ho	1	1123727	1.21	1482298	75.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed





**Dilution Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\126SDIL.D\126SDIL.D#  
 Date Acquired: Jun 25 2009 02:08 am **QC Summary:**  
 Acq. Method: NormISIS.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE7CTP5  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2311  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SDIL  
 Dilution Factor: 1.00

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\125AREF.D\125AREF.D#

**QC elements**

Element	IS Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9	Be	6	1.00 ppb	14.07	0.60	166.3	90 - 110	
51	V	72	17.80 ppb	1.40	18.47	96.4	90 - 110	
52	Cr	72	8.49 ppb	1.14	8.80	96.5	90 - 110	
55	Mn	72	41650.00 ppb	0.44	42640.00	97.7	90 - 110	
59	Co	72	4.77 ppb	3.86	4.69	101.6	90 - 110	
60	Ni	72	11.82 ppb	2.28	11.76	100.5	90 - 110	
63	Cu	72	42.23 ppb	1.35	41.66	101.4	90 - 110	
66	Zn	72	16.96 ppb	1.28	16.39	103.5	90 - 110	
75	As	72	13.80 ppb	2.18	14.46	95.4	90 - 110	
78	Se	72	2.35 ppb	20.06	2.39	98.5	90 - 110	
95	Mo	72	0.82 ppb	4.66	0.75	110.0	90 - 110	
107	Ag	115	0.00 ppb	139.88	0.02	13.5	90 - 110	
111	Cd	115	0.27 ppb	23.26	0.27	102.7	90 - 110	
118	Sn	115	0.17 ppb	27.22	0.23	74.0	90 - 110	
121	Sb	115	0.05 ppb	19.88	0.05	95.6	90 - 110	
137	Ba	115	21.51 ppb	0.84	21.76	98.9	90 - 110	
205	Tl	165	0.09 ppb	0.39	0.09	100.7	90 - 110	
208	Pb	165	3.15 ppb	1.89	2.99	105.4	90 - 110	
232	Th	165	1.65 ppb	1.55	1.71	96.6	90 - 110	
238	U	165	3.02 ppb	2.88	2.97	101.8	90 - 110	

**ISTD elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	100153	0.31	117322	85.4	30 - 120
45	Sc	1	312890	0.77	379430	82.5	30 - 120
72	Ge	1	192635	0.54	230888	83.4	30 - 120
115	In	1	560246	0.43	694252	80.7	30 - 120
165	Ho	1	1236848	1.73	1482298	83.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:08

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTP5

Serial Dilution: 5.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 126

Method 6020\_

Acquired: 06/25/2009 02:08:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 22:17:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	223	4.9960	3.0050	66.3		*	
7440-62-2	Vanadium	51	65967	89.000	92.370	3.65		*	
7440-47-3	Chromium	52	36702	42.470	44.000	3.48		*	
7439-96-5	Manganese	55	52226000	208250	213200	2.32		*	
7440-48-4	Cobalt	59	27835	23.830	23.460	1.58		*	
7440-02-0	Nickel	60	16961	59.100	58.800	0.510		*	
7440-50-8	Copper	63	155193	211.15	208.30	1.37		*	
7440-66-6	Zinc	66	13083	84.800	81.970	3.45		*	
7440-38-2	Arsenic	75	7450	69.000	72.310	4.58	0.21	4.6	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	223	11.755	11.930	1.47	0.70	NC	<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	1593	4.1060	3.7340	9.96		*	
7440-22-4	Silver	107	100	0.01314	0.09698	86.5		*	
7440-43-9	Cadmium	111	265	1.3745	1.3390	2.65		*	
7440-31-5	Tin	118	1027	0.86050	1.1630	26.0		*	
7440-36-0	Antimony	121	201	0.23895	0.24990	4.38		*	
7440-39-3	Barium	137	23881	107.55	108.80	1.15		*	
7440-28-0	Thallium	205	1168	0.46975	0.46630	0.740		*	
7439-92-1	Lead	208	49783	15.750	14.950	5.35		*	
7440-61-1	Uranium	238	51342	15.105	14.840	1.79		*	
7440-29-1	Thorium	232	25169	8.2400	8.5270	3.37		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

\* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

*See only*

Reviewed by: *[Signature]*

Date: *6/25/09*

**Post Digestion Spiked Sample (PDS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\127PDS.D\127PDS.D#  
 Date Acquired: Jun 25 2009 02:11 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE7CTZ  
 Misc Info: POST DIGESTION SPIKE  
 Vial Number: 2312  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: PDS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	172.90	3.01	ppb	4.33	200	85.2	75 - 125	
51 V	72	1	298.30	92.37	ppb	0.13	200	102.0	75 - 125	
52 Cr	72	1	242.40	44.00	ppb	2.23	200	99.3	75 - 125	
55 Mn	72	1	204700.00	213200.00	ppb	0.86	200	95.9	75 - 125	
59 Co	72	1	209.10	23.46	ppb	1.01	200	93.6	75 - 125	
60 Ni	72	1	231.80	58.80	ppb	1.26	200	89.6	75 - 125	
63 Cu	72	1	382.60	208.30	ppb	1.06	200	93.7	75 - 125	
66 Zn	72	1	263.60	81.97	ppb	0.26	200	93.5	75 - 125	
75 As	72	1	297.30	72.31	ppb	0.45	200	109.2	75 - 125	
78 Se	72	1	233.30	11.93	ppb	3.39	200	110.1	75 - 125	
95 Mo	72	1	202.90	3.73	ppb	0.42	200	99.6	75 - 125	
107 Ag	115	1	45.75	0.10	ppb	1.20	50	91.3	75 - 125	
111 Cd	115	1	191.70	1.34	ppb	0.26	200	95.2	75 - 125	
118 Sn	115	1	181.60	1.16	ppb	0.82	200	90.3	75 - 125	
121 Sb	115	1	210.00	0.25	ppb	0.82	200	104.9	75 - 125	
137 Ba	115	1	311.70	108.80	ppb	0.69	200	100.9	75 - 125	
205 Tl	165	1	178.60	0.47	ppb	1.27	200	89.1	75 - 125	
208 Pb	165	1	189.60	14.95	ppb	1.20	200	88.2	75 - 125	
232 Th	165	1	7.98	8.53	ppb	1.39	200	3.8	75 - 125	
238 U	165	1	198.90	14.84	ppb	0.79	200	92.6	75 - 125	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	104825	2.96	117322	89.3	30 - 120	
45 Sc	1	297454	0.97	379430	78.4	30 - 120	
72 Ge	1	171500	0.38	230888	74.3	30 - 120	
115 In	1	483356	0.42	694252	69.6	30 - 120	
165 Ho	1	1161004	1.01	1482298	78.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures                      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                        0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:12

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTZ

Spike Dilution: 1.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 127

Method 6020\_

Acquired: 06/25/2009 02:11:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 22:17:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	40403	172.90	3.0050	84.9	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	985902	298.30	92.370	103	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	904878	242.40	44.000	99.2	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	66097000	204700	213200	0.00	200	*	<input type="checkbox"/>
7440-48-4	Cobalt	59	1086600	209.10	23.460	92.8	200		<input type="checkbox"/>
7440-02-0	Nickel	60	295721	231.80	58.800	86.5	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1249950	382.60	208.30	87.2	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	178904	263.60	81.970	90.8	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	142608	297.30	72.310	112	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	14118	233.30	11.930	111	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	323688	202.90	3.7340	99.6	200		<input type="checkbox"/>
7440-22-4	Silver	107	210316	45.750	0.09698	91.3	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	156062	191.70	1.3390	95.2	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	371665	181.60	1.1630	90.2	200		<input type="checkbox"/>
7440-36-0	Antimony	121	565641	210.00	0.24990	105	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	298496	311.70	108.80	101	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	1896680	178.60	0.46630	89.1	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	2805220	189.60	14.950	87.3	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	3169070	198.90	14.840	92.0	200		<input type="checkbox"/>
7440-29-1	Thorium	232	111683	7.9810	8.5270				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

See only.

Reviewed by: 

Date: 6/25/09



**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\129 CC.V.D\129 CC.V.D#  
 Date Acquired: Jun 25 2009 02:18 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	53.09 ppb	2.51	50	106.2	90 - 110	
51	V	72	50.60 ppb	1.29	50	101.2	90 - 110	
52	Cr	72	50.15 ppb	0.51	50	100.3	90 - 110	
55	Mn	72	62.11 ppb	4.59	50	124.2	90 - 110	Fail
59	Co	72	49.51 ppb	0.95	50	99.0	90 - 110	
60	Ni	72	49.92 ppb	2.05	50	99.8	90 - 110	
63	Cu	72	49.89 ppb	0.76	50	99.8	90 - 110	
66	Zn	72	51.56 ppb	0.22	50	103.1	90 - 110	
75	As	72	56.46 ppb	0.80	50	112.9	90 - 110	Fail
78	Se	72	47.87 ppb	8.47	50	95.7	90 - 110	
95	Mo	72	49.48 ppb	1.58	50	99.0	90 - 110	
107	Ag	115	51.19 ppb	0.41	50	102.4	90 - 110	
111	Cd	115	51.57 ppb	0.76	50	103.1	90 - 110	
118	Sn	115	50.57 ppb	1.14	50	101.1	90 - 110	
121	Sb	115	54.19 ppb	0.35	50	108.4	90 - 110	
137	Ba	115	51.68 ppb	0.60	50	103.4	90 - 110	
205	Tl	165	51.27 ppb	0.95	50	102.5	90 - 110	
208	Pb	165	50.76 ppb	1.34	50	101.5	90 - 110	
232	Th	165	53.66 ppb	0.66	50	107.3	90 - 110	
238	U	165	51.64 ppb	1.52	50	103.3	90 - 110	

*Se only  
Z  
6/25/09*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	95230	0.73	117322	81.2	30 - 120
45	Sc	1	313422	0.58	379430	82.6	30 - 120
72	Ge	1	198248	0.34	230888	85.9	30 - 120
115	In	1	569663	0.57	694252	82.1	30 - 120
165	Ho	1	1224221	0.63	1482298	82.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\130\_CCB.D\130\_CCB.D#  
 Date Acquired: Jun 25 2009 02:21 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.031 ppb	86.64	1.00	
51 V	72	1	0.015 ppb	356.57	1.00	
52 Cr	72	1	-0.022 ppb	32.80	1.00	
55 Mn	72	1	1.154 ppb	9.63	1.00	Fail
59 Co	72	1	0.007 ppb	47.21	1.00	
60 Ni	72	1	-0.004 ppb	78.43	1.00	
63 Cu	72	1	0.010 ppb	66.25	1.00	
66 Zn	72	1	-0.046 ppb	9.11	1.00	
75 As	72	1	0.016 ppb	46.36	1.00	
78 Se	72	1	0.276 ppb	258.45	1.00	
95 Mo	72	1	-0.014 ppb	169.57	1.00	
107 Ag	115	1	0.037 ppb	29.34	1.00	
111 Cd	115	1	-0.002 ppb	267.68	1.00	
118 Sn	115	1	0.151 ppb	30.44	1.00	
121 Sb	115	1	0.056 ppb	16.97	1.00	
137 Ba	115	1	0.003 ppb	141.19	1.00	
205 Tl	165	1	0.024 ppb	18.45	1.00	
208 Pb	165	1	0.008 ppb	17.07	1.00	
232 Th	165	1	0.507 ppb	20.87	1.00	
238 U	165	1	0.010 ppb	3.22	1.00	

*NR*  
*Sealy*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	98014	2.78	117322	83.5	30 - 120	
45 Sc	1	332388	3.50	379430	87.6	30 - 120	
72 Ge	1	209164	1.84	230888	90.6	30 - 120	
115 In	1	601113	3.43	694252	86.6	30 - 120	
165 Ho	1	1265864	3.01	1482298	85.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\131WASH.D\131WASH.D#  
 Date Acquired: Jun 25 2009 02:25 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.077 ppb	12.16	1.30	
51 V	72	1	5.388 ppb	1.37	6.50	
52 Cr	72	1	2.011 ppb	3.93	2.60	
55 Mn	72	1	1.546 ppb	2.77	1.30	
59 Co	72	1	1.025 ppb	3.50	1.30	
60 Ni	72	1	2.012 ppb	5.31	2.60	
63 Cu	72	1	1.958 ppb	3.07	2.60	
66 Zn	72	1	10.420 ppb	1.68	13.00	
75 As	72	1	5.473 ppb	1.30	6.50	
78 Se	72	1	5.100 ppb	13.03	6.50	
95 Mo	72	1	1.985 ppb	1.74	2.60	
107 Ag	115	1	5.139 ppb	1.41	6.50	
111 Cd	115	1	0.982 ppb	4.15	1.30	
118 Sn	115	1	10.200 ppb	2.21	13.00	
121 Sb	115	1	2.036 ppb	2.72	2.60	
137 Ba	115	1	1.037 ppb	5.24	1.30	
205 Tl	165	1	1.070 ppb	2.16	1.30	
208 Pb	165	1	1.029 ppb	1.25	1.30	
232 Th	165	1	2.182 ppb	1.85	2.60	
238 U	165	1	1.050 ppb	1.79	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	98628	1.73	117322	84.1	30 - 120	
45 Sc	1	345052	0.13	379430	90.9	30 - 120	
72 Ge	1	213318	0.12	230888	92.4	30 - 120	
115 In	1	620168	0.41	694252	89.3	30 - 120	
165 Ho	1	1292111	1.49	1482298	87.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed







## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\135SMPL.D\135SMPL.D#  
 Date Acquired: Jun 25 2009 02:38 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4D  
 Misc Info: D9F200196  
 Vial Number: 2405  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.02	0.02	ppb	173.20	3600	
51 V	72	1	2.42	2.42	ppb	11.14	3600	
52 Cr	72	1	5.83	5.83	ppb	2.47	3600	
55 Mn	72	1	673.20	673.20	ppb	0.76	3600	
59 Co	72	1	0.70	0.70	ppb	2.97	3600	
60 Ni	72	1	7.59	7.59	ppb	7.70	3600	
63 Cu	72	1	1.56	1.56	ppb	2.51	3600	
66 Zn	72	1	1.96	1.96	ppb	4.90	3600	
75 As	72	1	176.10	176.10	ppb	0.94	3600	
78 Se	72	1	0.02	0.02	ppb	4714.30	3600	
95 Mo	72	1	41.80	41.80	ppb	1.07	3600	
107 Ag	115	1	0.07	0.07	ppb	37.37	3600	
111 Cd	115	1	0.05	0.05	ppb	56.17	3600	
118 Sn	115	1	0.94	0.94	ppb	26.26	3600	
121 Sb	115	1	0.38	0.38	ppb	4.61	3600	
137 Ba	115	1	20.72	20.72	ppb	1.08	3600	
205 Tl	165	1	0.05	0.05	ppb	17.95	3600	
208 Pb	165	1	0.26	0.26	ppb	5.52	3600	
232 Th	165	1	0.00	0.00	ppb	236.28	1000	
238 U	165	1	95.46	95.46	ppb	0.11	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62661	3.83	117322	53.4	30 - 120	
45 Sc	1	177196	0.63	379430	46.7	30 - 120	
72 Ge	1	108258	1.32	230888	46.9	30 - 120	
115 In	1	296194	0.80	694252	42.7	30 - 120	
165 Ho	1	678678	1.49	1482298	45.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\136SMPL.D\136SMPL.D#  
 Date Acquired: Jun 25 2009 02:42 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4P  
 Misc Info: D9F200199  
 Vial Number: 2406  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	57.39	57.39	ppb	3.12	3600	
52 Cr	72	1	349.90	349.90	ppb	1.02	3600	
55 Mn	72	1	6.67	6.67	ppb	1.52	3600	
59 Co	72	1	5.81	5.81	ppb	2.23	3600	
60 Ni	72	1	10.65	10.65	ppb	3.94	3600	
63 Cu	72	1	0.42	0.42	ppb	10.37	3600	
66 Zn	72	1	0.37	0.37	ppb	17.83	3600	
75 As	72	1	185.40	185.40	ppb	0.41	3600	
78 Se	72	1	3.11	3.11	ppb	6.12	3600	
95 Mo	72	1	149.20	149.20	ppb	1.12	3600	
107 Ag	115	1	0.41	0.41	ppb	8.65	3600	
111 Cd	115	1	0.02	0.02	ppb	414.43	3600	
118 Sn	115	1	-0.16	-0.16	ppb	15.48	3600	
121 Sb	115	1	0.16	0.16	ppb	14.52	3600	
137 Ba	115	1	29.80	29.80	ppb	0.71	3600	
205 Tl	165	1	0.04	0.04	ppb	29.43	3600	
208 Pb	165	1	0.03	0.03	ppb	11.59	3600	
232 Th	165	1	-0.03	-0.03	ppb	8.27	1000	
238 U	165	1	18.30	18.30	ppb	1.57	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62647	1.05	117322	53.4	30 - 120	
45 Sc	1	203182	1.32	379430	53.5	30 - 120	
72 Ge	1	126133	1.09	230888	54.6	30 - 120	
115 In	1	345279	1.28	694252	49.7	30 - 120	
165 Ho	1	781819	0.44	1482298	52.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\138\_CCV.D\138\_CCV.D#  
 Date Acquired: Jun 25 2009 02:48 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	61.15 ppb	3.08	50	122.3	90 - 110	Fail
51	V	72	1	50.08 ppb	0.58	50	100.2	90 - 110	
52	Cr	72	1	50.30 ppb	1.06	50	100.6	90 - 110	
55	Mn	72	1	48.83 ppb	1.06	50	97.7	90 - 110	
59	Co	72	1	48.38 ppb	1.21	50	96.8	90 - 110	
60	Ni	72	1	48.87 ppb	2.44	50	97.7	90 - 110	
63	Cu	72	1	49.38 ppb	1.21	50	98.8	90 - 110	
66	Zn	72	1	54.84 ppb	0.57	50	109.7	90 - 110	
75	As	72	1	65.05 ppb	0.95	50	130.1	90 - 110	Fail
78	Se	72	1	45.79 ppb	2.17	50	91.6	90 - 110	
95	Mo	72	1	49.19 ppb	1.32	50	98.4	90 - 110	
107	Ag	115	1	52.65 ppb	0.53	50	105.3	90 - 110	
111	Cd	115	1	53.13 ppb	2.07	50	106.3	90 - 110	
118	Sn	115	1	51.40 ppb	0.48	50	102.8	90 - 110	
121	Sb	115	1	59.54 ppb	0.35	50	119.1	90 - 110	Fail
137	Ba	115	1	55.08 ppb	0.33	50	110.2	90 - 110	Fail
205	Tl	165	1	52.98 ppb	0.52	50	106.0	90 - 110	
208	Pb	165	1	52.54 ppb	0.96	50	105.1	90 - 110	
232	Th	165	1	54.85 ppb	0.72	50	109.7	90 - 110	
238	U	165	1	53.25 ppb	0.99	50	106.5	90 - 110	

*Scandy*  
*Z*  
*6/25/09*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	61254	1.77	117322	52.2	30 - 120
45	Sc	1	206162	0.78	379430	54.3	30 - 120
72	Ge	1	134977	0.81	230888	58.5	30 - 120
115	In	1	368867	0.74	694252	53.1	30 - 120
165	Ho	1	784294	0.88	1482298	52.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\139\_CCB.D\139\_CCB.D#  
 Date Acquired: Jun 25 2009 02:52 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.036	ppb	333.79	1.00	
52 Cr	72	1	0.483	ppb	10.99	1.00	
55 Mn	72	1	0.422	ppb	8.18	1.00	
59 Co	72	1	0.007	ppb	105.78	1.00	
60 Ni	72	1	0.016	ppb	67.80	1.00	
63 Cu	72	1	0.044	ppb	36.71	1.00	
66 Zn	72	1	-0.013	ppb	298.88	1.00	
75 As	72	1	0.099	ppb	47.87	1.00	
78 Se	72	1	0.394	ppb	211.54	1.00	
95 Mo	72	1	-0.012	ppb	356.35	1.00	
107 Ag	115	1	0.008	ppb	73.56	1.00	
111 Cd	115	1	0.013	ppb	81.55	1.00	
118 Sn	115	1	0.147	ppb	29.98	1.00	
121 Sb	115	1	0.053	ppb	29.90	1.00	
137 Ba	115	1	0.016	ppb	74.67	1.00	
205 Tl	165	1	0.022	ppb	12.48	1.00	
208 Pb	165	1	0.008	ppb	19.60	1.00	
232 Th	165	1	0.852	ppb	11.35	1.00	
238 U	165	1	0.011	ppb	22.33	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62733	1.68	117322	53.5	30 - 120	
45 Sc	1	215967	0.80	379430	56.9	30 - 120	
72 Ge	1	140696	1.49	230888	60.9	30 - 120	
115 In	1	383814	0.78	694252	55.3	30 - 120	
165 Ho	1	815818	0.65	1482298	55.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\140WASH.D\140WASH.D#  
 Date Acquired: Jun 25 2009 02:55 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.124 ppb	10.47	1.30	
51 V	72	1	5.159 ppb	1.59	6.50	
52 Cr	72	1	2.387 ppb	8.34	2.60	
55 Mn	72	1	1.403 ppb	6.80	1.30	
59 Co	72	1	1.050 ppb	4.80	1.30	
60 Ni	72	1	2.138 ppb	4.37	2.60	
63 Cu	72	1	2.028 ppb	1.54	2.60	
66 Zn	72	1	11.320 ppb	2.17	13.00	
75 As	72	1	6.770 ppb	6.25	6.50	
78 Se	72	1	4.702 ppb	13.58	6.50	
95 Mo	72	1	1.954 ppb	10.98	2.60	
107 Ag	115	1	5.358 ppb	1.39	6.50	
111 Cd	115	1	1.122 ppb	13.99	1.30	
118 Sn	115	1	10.880 ppb	3.97	13.00	
121 Sb	115	1	2.328 ppb	1.99	2.60	
137 Ba	115	1	1.092 ppb	9.09	1.30	
205 Tl	165	1	1.094 ppb	2.88	1.30	
208 Pb	165	1	1.061 ppb	2.52	1.30	
232 Th	165	1	2.313 ppb	0.58	2.60	
238 U	165	1	1.092 ppb	1.45	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	63763	0.94	117322	54.3	30 - 120	
45 Sc	1	220434	0.22	379430	58.1	30 - 120	
72 Ge	1	142718	0.10	230888	61.8	30 - 120	
115 In	1	392669	0.48	694252	56.6	30 - 120	
165 Ho	1	824043	0.50	1482298	55.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

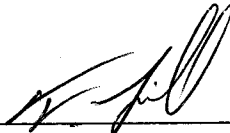
0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

...”During the course of an analytical run, the instrument may be “resloped” or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed.”

Analyst: \_\_\_\_\_



Date: \_\_\_\_\_

6/25/09

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#  
 Date Acquired: Jun 25 2009 04:51 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:48 am  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	13	43.87
51	V	72	1	-102	598.74
52	Cr	72	1	1140	3.09
55	Mn	72	1	1710	10.08
59	Co	72	1	33	45.56
60	Ni	72	1	20	50.41
63	Cu	72	1	320	8.45
66	Zn	72	1	302	9.15
75	As	72	1	21	39.96
78	Se	72	1	77	19.51
95	Mo	72	1	167	24.47
107	Ag	115	1	30	1.00
111	Cd	115	1	20	44.65
118	Sn	115	1	597	10.87
121	Sb	115	1	24	16.27
137	Ba	115	1	8	98.57
205	Tl	165	1	50	30.51
208	Pb	165	1	79	37.71
232	Th	165	1	283	14.05
238	U	165	1	49	57.20

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	62225	0.98
45	Sc	1	221098	0.91
72	Ge	1	143668	0.47
115	In	1	390474	0.99
165	Ho	1	807368	0.51

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\175ICAL.D\175ICAL.D#  
 Date Acquired: Jun 25 2009 04:54 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:51 am  
 Sample Type: ICAL

## QC Elements

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	16513	1.31
51	V	72	263984	0.79
52	Cr	72	290851	0.50
55	Mn	72	241407	0.04
59	Co	72	402037	0.69
60	Ni	72	99432	0.85
63	Cu	72	255527	0.91
66	Zn	72	59681	0.78
75	As	72	51091	0.58
78	Se	72	4741	2.80
95	Mo	72	122658	0.75
107	Ag	115	365376	1.01
111	Cd	115	66044	1.60
118	Sn	115	159762	1.95
121	Sb	115	246791	1.25
137	Ba	115	80543	1.09
205	Tl	165	727520	0.42
208	Pb	165	1006933	0.28
232	Th	165	1002721	0.68
238	U	165	1074608	0.40

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	61261	1.49	62225	98.5	30 - 120
45	Sc	1	216397	1.03	221098	97.9	30 - 120
72	Ge	1	139671	0.46	143668	97.2	30 - 120
115	In	1	377614	0.71	390474	96.7	30 - 120
165	Ho	1	787362	1.00	807368	97.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\176\_CCV.D\176\_CCV.D#  
 Date Acquired: Jun 25 2009 04:57 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	52.14 ppb	3.05	50	104.3	90 - 110	
51	V	72	51.84 ppb	0.80	50	103.7	90 - 110	
52	Cr	72	51.29 ppb	0.24	50	102.6	90 - 110	
55	Mn	72	53.16 ppb	0.26	50	106.3	90 - 110	
59	Co	72	50.99 ppb	1.23	50	102.0	90 - 110	
60	Ni	72	50.66 ppb	2.73	50	101.3	90 - 110	
63	Cu	72	51.65 ppb	1.61	50	103.3	90 - 110	
66	Zn	72	50.45 ppb	0.59	50	100.9	90 - 110	
75	As	72	51.12 ppb	1.61	50	102.2	90 - 110	
78	Se	72	52.95 ppb	7.22	50	105.9	90 - 110	
95	Mo	72	51.18 ppb	2.54	50	102.4	90 - 110	
107	Ag	115	51.35 ppb	0.70	50	102.7	90 - 110	
111	Cd	115	50.08 ppb	1.80	50	100.2	90 - 110	
118	Sn	115	51.39 ppb	0.77	50	102.8	90 - 110	
121	Sb	115	51.31 ppb	1.30	50	102.6	90 - 110	
137	Ba	115	50.98 ppb	0.87	50	102.0	90 - 110	
205	Tl	165	51.07 ppb	0.44	50	102.1	90 - 110	
208	Pb	165	51.39 ppb	0.20	50	102.8	90 - 110	
232	Th	165	52.08 ppb	0.34	50	104.2	90 - 110	
238	U	165	51.57 ppb	0.12	50	103.1	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	61671	1.13	62225	99.1	30 - 120
45	Sc	1	218143	0.12	221098	98.7	30 - 120
72	Ge	1	140332	0.44	143668	97.7	30 - 120
115	In	1	378394	0.55	390474	96.9	30 - 120
165	Ho	1	787763	0.96	807368	97.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\177\_CCB.D\177\_CCB.D#  
 Date Acquired: Jun 25 2009 05:01 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	-0.040	ppb	85.21	1.00	
51 V	72	1	-0.090	ppb	70.66	1.00	
52 Cr	72	1	0.015	ppb	296.83	1.00	
55 Mn	72	1	0.006	ppb	1302.50	1.00	
59 Co	72	1	0.007	ppb	153.20	1.00	
60 Ni	72	1	0.033	ppb	17.35	1.00	
63 Cu	72	1	0.028	ppb	19.01	1.00	
66 Zn	72	1	-0.319	ppb	3.92	1.00	
75 As	72	1	0.008	ppb	28.53	1.00	
78 Se	72	1	0.913	ppb	80.50	1.00	
95 Mo	72	1	-0.024	ppb	78.00	1.00	
107 Ag	115	1	0.026	ppb	60.05	1.00	
111 Cd	115	1	0.013	ppb	54.55	1.00	
118 Sn	115	1	0.078	ppb	14.41	1.00	
121 Sb	115	1	0.062	ppb	18.44	1.00	
137 Ba	115	1	0.004	ppb	55.47	1.00	
205 Tl	165	1	0.064	ppb	5.75	1.00	
208 Pb	165	1	0.010	ppb	24.45	1.00	
232 Th	165	1	1.005	ppb	16.22	1.00	Fail
238 U	165	1	0.011	ppb	39.85	1.00	

*NR*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62750	0.66	62225	100.8	30 - 120	
45 Sc	1	220169	1.44	221098	99.6	30 - 120	
72 Ge	1	143254	0.45	143668	99.7	30 - 120	
115 In	1	386189	0.46	390474	98.9	30 - 120	
165 Ho	1	801411	0.59	807368	99.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\178WASH.D\178WASH.D#  
 Date Acquired: Jun 25 2009 05:04 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.856 ppb	49.86	1.30	
51 V	72	1	5.355 ppb	4.85	6.50	
52 Cr	72	1	2.133 ppb	5.33	2.60	
55 Mn	72	1	1.057 ppb	8.29	1.30	
59 Co	72	1	1.039 ppb	4.56	1.30	
60 Ni	72	1	2.037 ppb	3.32	2.60	
63 Cu	72	1	2.113 ppb	6.02	2.60	
66 Zn	72	1	10.090 ppb	1.42	13.00	
75 As	72	1	5.321 ppb	4.48	6.50	
78 Se	72	1	5.949 ppb	3.28	6.50	
95 Mo	72	1	2.085 ppb	7.19	2.60	
107 Ag	115	1	5.247 ppb	2.26	6.50	
111 Cd	115	1	1.030 ppb	2.85	1.30	
118 Sn	115	1	10.280 ppb	3.44	13.00	
121 Sb	115	1	1.982 ppb	5.53	2.60	
137 Ba	115	1	1.068 ppb	1.60	1.30	
205 Tl	165	1	1.097 ppb	4.29	1.30	
208 Pb	165	1	1.048 ppb	0.89	1.30	
232 Th	165	1	2.249 ppb	2.51	2.60	
238 U	165	1	1.048 ppb	3.06	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62373	1.81	62225	100.2	30 - 120	
45 Sc	1	221417	1.71	221098	100.1	30 - 120	
72 Ge	1	142809	0.34	143668	99.4	30 - 120	
115 In	1	390131	0.77	390474	99.9	30 - 120	
165 Ho	1	808824	0.82	807368	100.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\179SMPL.D\179SMPL.D#  
 Date Acquired: Jun 25 2009 05:08 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: MDLV BLANK  
 Misc Info: HOT Sb  
 Vial Number: 4303  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS	Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	-0.02	-0.02	ppb	1.94	3600	
51	V	72	1	-3.15	-3.15	ppb	18.33	3600	
52	Cr	72	1	0.66	0.66	ppb	9.17	3600	
55	Mn	72	1	0.29	0.29	ppb	11.03	3600	
59	Co	72	1	0.00	0.00	ppb	374.77	3600	
60	Ni	72	1	0.15	0.15	ppb	15.11	3600	
63	Cu	72	1	0.83	0.83	ppb	15.01	3600	
66	Zn	72	1	6.70	6.70	ppb	1.73	3600	
75	As	72	1	0.89	0.89	ppb	14.80	3600	
78	Se	72	1	0.32	0.32	ppb	114.53	3600	
95	Mo	72	1	-0.09	-0.09	ppb	5.69	3600	
107	Ag	115	1	0.04	0.04	ppb	6.30	3600	
111	Cd	115	1	0.00	0.00	ppb	100.24	3600	
118	Sn	115	1	1.18	1.18	ppb	8.29	3600	
121	Sb	115	1	0.07	0.07	ppb	17.62	3600	
137	Ba	115	1	0.32	0.32	ppb	4.28	3600	
205	Tl	165	1	0.01	0.01	ppb	16.24	3600	
208	Pb	165	1	0.08	0.08	ppb	12.18	3600	
232	Th	165	1	0.13	0.13	ppb	2.96	1000	
238	U	165	1	0.00	0.00	ppb	40.79	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	65554	0.79	62225	105.4	30 - 120
45	Sc	1	216441	0.59	221098	97.9	30 - 120
72	Ge	1	140455	0.55	143668	97.8	30 - 120
115	In	1	386276	1.10	390474	98.9	30 - 120
165	Ho	1	814373	0.09	807368	100.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\180SMPL.D\180SMPL.D#  
 Date Acquired: Jun 25 2009 05:11 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: MDLV1  
 Misc Info: HOT Sb  
 Vial Number: 4304  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	-0.04	-0.04	ppb	74.91	3600	
51 V	72	1	-2.59	-2.59	ppb	20.94	3600	
52 Cr	72	1	0.51	0.51	ppb	18.73	3600	
55 Mn	72	1	0.39	0.39	ppb	37.11	3600	
59 Co	72	1	0.00	0.00	ppb	1882.30	3600	
60 Ni	72	1	0.12	0.12	ppb	20.26	3600	
63 Cu	72	1	0.90	0.90	ppb	7.12	3600	
66 Zn	72	1	5.13	5.13	ppb	3.16	3600	
75 As	72	1	0.98	0.98	ppb	7.25	3600	
78 Se	72	1	0.50	0.50	ppb	70.66	3600	
95 Mo	72	1	-0.08	-0.08	ppb	20.08	3600	
107 Ag	115	1	0.03	0.03	ppb	45.76	3600	
111 Cd	115	1	0.00	0.00	ppb	61.52	3600	
118 Sn	115	1	1.34	1.34	ppb	10.34	3600	
121 Sb	115	1	0.17	0.17	ppb	6.17	3600	
137 Ba	115	1	0.24	0.24	ppb	20.88	3600	
205 Tl	165	1	0.01	0.01	ppb	12.70	3600	
208 Pb	165	1	0.19	0.19	ppb	1.78	3600	
232 Th	165	1	0.05	0.05	ppb	6.34	1000	
238 U	165	1	0.00	0.00	ppb	24.89	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	66445	1.50	62225	106.8	30 - 120	
45 Sc	1	219071	0.30	221098	99.1	30 - 120	
72 Ge	1	142529	0.57	143668	99.2	30 - 120	
115 In	1	391031	1.13	390474	100.1	30 - 120	
165 Ho	1	831589	0.98	807368	103.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\181SMPL.D\181SMPL.D#  
 Date Acquired: Jun 25 2009 05:15 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: MDLV2  
 Misc Info: HOT Sb  
 Vial Number: 4305  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	-0.04	-0.04	ppb	146.31	3600	
51 V	72	1	-3.12	-3.12	ppb	6.24	3600	
52 Cr	72	1	0.47	0.47	ppb	6.00	3600	
55 Mn	72	1	0.10	0.10	ppb	55.22	3600	
59 Co	72	1	0.00	0.00	ppb	849.61	3600	
60 Ni	72	1	0.17	0.17	ppb	34.43	3600	
63 Cu	72	1	0.87	0.87	ppb	7.45	3600	
66 Zn	72	1	6.08	6.08	ppb	1.36	3600	
75 As	72	1	0.92	0.92	ppb	10.29	3600	
78 Se	72	1	-0.27	-0.27	ppb	118.66	3600	
95 Mo	72	1	-0.08	-0.08	ppb	39.32	3600	
107 Ag	115	1	0.05	0.05	ppb	18.37	3600	
111 Cd	115	1	-0.01	-0.01	ppb	111.27	3600	
118 Sn	115	1	1.39	1.39	ppb	17.74	3600	
121 Sb	115	1	0.17	0.17	ppb	7.63	3600	
137 Ba	115	1	0.24	0.24	ppb	20.67	3600	
205 Tl	165	1	0.00	0.00	ppb	98.11	3600	
208 Pb	165	1	0.17	0.17	ppb	1.36	3600	
232 Th	165	1	0.01	0.01	ppb	97.04	1000	
238 U	165	1	0.00	0.00	ppb	39.75	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	66495	1.76	62225	106.9	30 - 120	
45 Sc	1	220794	0.23	221098	99.9	30 - 120	
72 Ge	1	143303	0.51	143668	99.7	30 - 120	
115 In	1	394788	0.18	390474	101.1	30 - 120	
165 Ho	1	844318	0.14	807368	104.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\182\_CCV.D\182\_CCV.D#  
 Date Acquired: Jun 25 2009 05:18 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	48.90 ppb	2.18	50	97.8	90 - 110	
51	V	72	50.88 ppb	3.13	50	101.8	90 - 110	
52	Cr	72	51.25 ppb	1.21	50	102.5	90 - 110	
55	Mn	72	52.51 ppb	0.62	50	105.0	90 - 110	
59	Co	72	50.59 ppb	0.92	50	101.2	90 - 110	
60	Ni	72	50.66 ppb	1.05	50	101.3	90 - 110	
63	Cu	72	50.87 ppb	1.16	50	101.7	90 - 110	
66	Zn	72	50.46 ppb	0.49	50	100.9	90 - 110	
75	As	72	50.33 ppb	0.36	50	100.7	90 - 110	
78	Se	72	52.26 ppb	3.84	50	104.5	90 - 110	
95	Mo	72	51.88 ppb	1.02	50	103.8	90 - 110	
107	Ag	115	51.15 ppb	0.58	50	102.3	90 - 110	
111	Cd	115	50.58 ppb	0.98	50	101.2	90 - 110	
118	Sn	115	51.79 ppb	1.40	50	103.6	90 - 110	
121	Sb	115	51.26 ppb	0.76	50	102.5	90 - 110	
137	Ba	115	50.31 ppb	0.32	50	100.6	90 - 110	
205	Tl	165	51.42 ppb	0.51	50	102.8	90 - 110	
208	Pb	165	51.51 ppb	0.51	50	103.0	90 - 110	
232	Th	165	50.76 ppb	0.59	50	101.5	90 - 110	
238	U	165	52.34 ppb	0.96	50	104.7	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	64364	1.47	62225	103.4	30 - 120
45	Sc	1	217691	1.07	221098	98.5	30 - 120
72	Ge	1	141008	0.33	143668	98.1	30 - 120
115	In	1	386520	0.46	390474	99.0	30 - 120
165	Ho	1	822184	0.23	807368	101.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\183\_CCB.D\183\_CCB.D#  
 Date Acquired: Jun 25 2009 05:21 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	-0.041 ppb	83.19	1.00	
51 V	72	1	-0.169 ppb	120.09	1.00	
52 Cr	72	1	0.018 ppb	89.65	1.00	
55 Mn	72	1	-0.067 ppb	79.64	1.00	
59 Co	72	1	0.014 ppb	35.36	1.00	
60 Ni	72	1	0.026 ppb	78.50	1.00	
63 Cu	72	1	0.007 ppb	565.15	1.00	
66 Zn	72	1	-0.306 ppb	4.96	1.00	
75 As	72	1	0.062 ppb	15.37	1.00	
78 Se	72	1	0.142 ppb	362.23	1.00	
95 Mo	72	1	-0.069 ppb	11.65	1.00	
107 Ag	115	1	0.022 ppb	24.36	1.00	
111 Cd	115	1	-0.006 ppb	486.41	1.00	
118 Sn	115	1	0.067 ppb	100.81	1.00	
121 Sb	115	1	0.048 ppb	7.60	1.00	
137 Ba	115	1	0.009 ppb	152.34	1.00	
205 Tl	165	1	0.028 ppb	11.85	1.00	
208 Pb	165	1	0.010 ppb	9.41	1.00	
232 Th	165	1	0.915 ppb	15.17	1.00	
238 U	165	1	0.010 ppb	34.04	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	63544	1.55	62225	102.1	30 - 120	
45 Sc	1	221446	0.67	221098	100.2	30 - 120	
72 Ge	1	143334	0.65	143668	99.8	30 - 120	
115 In	1	395606	0.61	390474	101.3	30 - 120	
165 Ho	1	829347	0.26	807368	102.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\184WASH.D\184WASH.D#  
 Date Acquired: Jun 25 2009 05:25 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.969 ppb	10.37	1.30	
51 V	72	1	5.048 ppb	7.30	6.50	
52 Cr	72	1	2.030 ppb	10.78	2.60	
55 Mn	72	1	0.879 ppb	16.01	1.30	
59 Co	72	1	1.029 ppb	0.48	1.30	
60 Ni	72	1	2.151 ppb	3.11	2.60	
63 Cu	72	1	2.172 ppb	7.10	2.60	
66 Zn	72	1	10.080 ppb	1.76	13.00	
75 As	72	1	5.144 ppb	0.89	6.50	
78 Se	72	1	4.167 ppb	27.62	6.50	
95 Mo	72	1	1.902 ppb	5.54	2.60	
107 Ag	115	1	5.282 ppb	3.36	6.50	
111 Cd	115	1	0.969 ppb	1.65	1.30	
118 Sn	115	1	10.350 ppb	2.02	13.00	
121 Sb	115	1	2.021 ppb	0.99	2.60	
137 Ba	115	1	1.088 ppb	2.94	1.30	
205 Tl	165	1	1.082 ppb	1.19	1.30	
208 Pb	165	1	1.054 ppb	1.15	1.30	
232 Th	165	1	2.222 ppb	3.76	2.60	
238 U	165	1	1.051 ppb	1.94	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	61391	1.70	62225	98.7	30 - 120	
45 Sc	1	219436	0.26	221098	99.2	30 - 120	
72 Ge	1	143709	0.56	143668	100.0	30 - 120	
115 In	1	393133	0.98	390474	100.7	30 - 120	
165 Ho	1	827255	0.40	807368	102.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\185\_BLK.D\185\_BLK.D#  
 Date Acquired: Jun 25 2009 05:28 am  
 Operator: TEL  
 Sample Name: LFFFCBF  
 Misc Info: BLANK 9174183 6020  
 Vial Number: 2211  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: BLK  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	-0.040 ppb	167.84	2.00	
51 V	72	1	-0.155 ppb	143.81	2.00	
52 Cr	72	1	-0.026 ppb	267.59	2.00	
55 Mn	72	1	-0.278 ppb	33.40	2.00	
59 Co	72	1	-0.005 ppb	28.52	2.00	
60 Ni	72	1	0.013 ppb	43.47	2.00	
63 Cu	72	1	0.042 ppb	76.24	2.00	
66 Zn	72	1	-0.054 ppb	98.02	2.00	
75 As	72	1	0.010 ppb	101.14	2.00	
78 Se	72	1	0.544 ppb	122.95	2.00	
95 Mo	72	1	-0.096 ppb	9.48	2.00	
107 Ag	115	1	-0.005 ppb	49.41	2.00	
111 Cd	115	1	-0.001 ppb	237.72	2.00	
118 Sn	115	1	-0.219 ppb	15.62	2.00	
121 Sb	115	1	0.020 ppb	46.98	2.00	
137 Ba	115	1	0.008 ppb	58.13	2.00	
205 Tl	165	1	0.004 ppb	64.83	2.00	
208 Pb	165	1	0.233 ppb	5.40	2.00	
232 Th	165	1	0.061 ppb	16.57	2.00	
238 U	165	1	-0.003 ppb	17.44	2.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	63226	1.07	62225	101.6	30 - 120	
45 Sc	1	220039	0.64	221098	99.5	30 - 120	
72 Ge	1	144559	0.14	143668	100.6	30 - 120	
115 In	1	391556	0.72	390474	100.3	30 - 120	
165 Ho	1	827325	0.27	807368	102.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Laboratory Control Spike (LCS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\186\_LCS.D\186\_LCS.D#  
 Date Acquired: Jun 25 2009 05:32 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LFFFCCF  
 Misc Info: LCS  
 Vial Number: 2212  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: LCS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	42.71	2.61	40	106.8	80 - 120	
51 V	72	1	42.39	1.83	40	106.0	80 - 120	
52 Cr	72	1	42.12	1.02	40	105.3	80 - 120	
55 Mn	72	1	42.10	1.09	40	105.3	80 - 120	
59 Co	72	1	41.65	1.16	40	104.1	80 - 120	
60 Ni	72	1	42.75	2.67	40	106.9	80 - 120	
63 Cu	72	1	43.24	0.56	40	108.1	80 - 120	
66 Zn	72	1	42.08	1.31	40	105.2	80 - 120	
75 As	72	1	41.68	0.80	40	104.2	80 - 120	
78 Se	72	1	40.78	5.47	40	102.0	80 - 120	
95 Mo	72	1	42.22	2.93	40	105.6	80 - 120	
107 Ag	115	1	42.32	0.96	40	105.8	80 - 120	
111 Cd	115	1	41.39	0.78	40	103.5	80 - 120	
118 Sn	115	1	-0.23	4.85	40	-0.6	80 - 120	
121 Sb	115	1	42.16	0.63	40	105.4	80 - 120	
137 Ba	115	1	42.39	1.24	40	106.0	80 - 120	
205 Tl	165	1	42.50	0.87	40	106.3	80 - 120	
208 Pb	165	1	42.56	0.55	40	106.4	80 - 120	
232 Th	165	1	39.20	1.57	40	98.0	80 - 120	
238 U	165	1	42.96	0.08	40	107.4	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62418	1.27	62225	100.3	30 - 120	
45 Sc	1	215903	0.46	221098	97.7	30 - 120	
72 Ge	1	140814	0.45	143668	98.0	30 - 120	
115 In	1	384924	0.49	390474	98.6	30 - 120	
165 Ho	1	807407	1.34	807368	100.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\187AREF.D\187AREF.D#  
 Date Acquired: Jun 25 2009 05:35 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EF 10X  
 Misc Info: D9F180314  
 Vial Number: 2301  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: AllRef  
 Dilution Factor: 10.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 10.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.26	0.03	ppb	143.56	3600	
51 V	72	1	12.99	1.30	ppb	7.50	3600	
52 Cr	72	1	808.00	80.80	ppb	1.30	3600	
55 Mn	72	1	140.10	14.01	ppb	2.23	3600	
59 Co	72	1	0.60	0.06	ppb	11.17	3600	
60 Ni	72	1	2.67	0.27	ppb	26.01	3600	
63 Cu	72	1	0.75	0.07	ppb	35.49	3600	
66 Zn	72	1	-0.99	-0.10	ppb	34.84	3600	
75 As	72	1	109.70	10.97	ppb	1.83	3600	
78 Se	72	1	7.63	0.76	ppb	103.11	3600	
95 Mo	72	1	111.50	11.15	ppb	4.15	3600	
107 Ag	115	1	0.21	0.02	ppb	42.89	3600	
111 Cd	115	1	-0.12	-0.01	ppb	102.14	3600	
118 Sn	115	1	-2.15	-0.22	ppb	12.54	3600	
121 Sb	115	1	0.58	0.06	ppb	22.98	3600	
137 Ba	115	1	21.88	2.19	ppb	4.74	3600	
205 Tl	165	1	0.24	0.02	ppb	7.27	3600	
208 Pb	165	1	0.15	0.02	ppb	27.51	3600	
232 Th	165	1	11.23	1.12	ppb	15.76	1000	
238 U	165	1	27.13	2.71	ppb	0.85	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	58741	1.68	62225	94.4	30 - 120	
45 Sc	1	208759	0.35	221098	94.4	30 - 120	
72 Ge	1	135507	0.52	143668	94.3	30 - 120	
115 In	1	365769	0.62	390474	93.7	30 - 120	
165 Ho	1	784696	0.99	807368	97.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\188SDIL.D\188SDIL.D#  
 Date Acquired: Jun 25 2009 05:38 am **QC Summary:**  
 Acq. Method: NormISIS.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE71EP50F  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2302  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SDIL  
 Dilution Factor: 10.00

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\187AREF.D\187AREF.D#

## QC elements

Element	IS Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	-0.04 ppb	88.89	0.01	-760.5	90 - 110	
51 V	72	1	0.40 ppb	50.04	0.26	153.2	90 - 110	
52 Cr	72	1	16.50 ppb	2.22	16.16	102.1	90 - 110	
55 Mn	72	1	2.64 ppb	4.22	2.80	94.2	90 - 110	
59 Co	72	1	0.00 ppb	56.25	0.01	20.6	90 - 110	
60 Ni	72	1	0.24 ppb	5.31	0.05	454.1	90 - 110	
63 Cu	72	1	0.00 ppb	1221.00	0.01	12.4	90 - 110	
66 Zn	72	1	-0.23 ppb	5.93	-0.02	1153.7	90 - 110	
75 As	72	1	2.24 ppb	3.31	2.19	102.2	90 - 110	
78 Se	72	1	0.50 ppb	44.51	0.15	327.3	90 - 110	
95 Mo	72	1	2.08 ppb	3.36	2.23	93.3	90 - 110	
107 Ag	115	1	0.00 ppb	548.12	0.00	43.3	90 - 110	
111 Cd	115	1	-0.01 ppb	95.77	0.00	341.3	90 - 110	
118 Sn	115	1	-0.23 ppb	6.81	-0.04	523.7	90 - 110	
121 Sb	115	1	0.02 ppb	71.67	0.01	129.3	90 - 110	
137 Ba	115	1	0.47 ppb	5.47	0.44	107.8	90 - 110	
205 Tl	165	1	0.01 ppb	29.26	0.00	129.2	90 - 110	
208 Pb	165	1	0.01 ppb	32.33	0.00	248.5	90 - 110	
232 Th	165	1	0.19 ppb	9.78	0.22	84.6	90 - 110	
238 U	165	1	0.55 ppb	0.40	0.54	102.0	90 - 110	

## ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	61264	0.36	62225	98.5	30 - 120	
45 Sc	1	217341	0.21	221098	98.3	30 - 120	
72 Ge	1	142903	0.61	143668	99.5	30 - 120	
115 In	1	386738	0.45	390474	99.0	30 - 120	
165 Ho	1	804769	0.92	807368	99.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:33

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE71EP50F

Serial Dilution: 50.00

Sample Dilution: 10.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 188

Method 6020\_

Acquired: 06/25/2009 05:38:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/25/2009 04:51:00

Units: ug/L

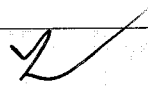
CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	7	-1.9660	0.25850	861		*	
7440-62-2	Vanadium	51	970	19.905	12.990	53.2		*	
7440-47-3	Chromium	52	50036	825.00	808.00	2.10		*	
7439-96-5	Manganese	55	8173	131.95	140.10	5.82		*	
7440-48-4	Cobalt	59	43	0.12410	0.60340	79.4		*	
7440-02-0	Nickel	60	267	12.130	2.6710	354		*	
7440-50-8	Copper	63	323	0.09275	0.74690	87.6		*	
7440-66-6	Zinc	66	162	-11.390	-0.98730			*	
7440-38-2	Arsenic	75	1192	112.10	109.70	2.19	0.21	NC	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	100	24.960	7.6250	227	0.70	NC	<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	2774	104.00	111.50	6.73		*	
7440-22-4	Silver	107	37	0.09195	0.21260	56.7		*	
7440-43-9	Cadmium	111	14	-0.39865	-0.11680			*	
7440-31-5	Tin	118	223	-11.275	-2.1530			*	
7440-36-0	Antimony	121	62	0.75350	0.58270	29.3		*	
7440-39-3	Barium	137	397	23.580	21.880	7.77		*	
7440-28-0	Thallium	205	97	0.31525	0.24400	29.2		*	
7439-92-1	Lead	208	158	0.38465	0.15480	148		*	
7440-61-1	Uranium	238	6126	27.665	27.130	1.97		*	
7440-29-1	Thorium	232	2230	9.5000	11.230	15.4		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

\* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

*AScanby*  
*6/25/09*

Reviewed by:  Date: *6/25/09*



Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:38

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE71EZF

Spike Dilution: 1.00

Sample Dilution: 10.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 189

Method 6020\_

Acquired: 06/25/2009 05:42:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/25/2009 04:51:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	31468	203.60	0.02585	102	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	493756	197.10	1.2990	97.9	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	753978	273.90	80.800	96.5	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	478507	209.70	14.010	97.8	200		<input checked="" type="checkbox"/>
7440-48-4	Cobalt	59	719202	188.50	0.06034	94.2	200		<input type="checkbox"/>
7440-02-0	Nickel	60	175314	185.80	0.26710	92.8	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	454686	187.60	0.07469	93.8	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	109405	193.70	-0.09873	96.8	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	100602	207.60	10.970	98.3	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	8713	195.20	0.76250	97.2	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	244924	210.60	11.150	99.7	200		<input type="checkbox"/>
7440-22-4	Silver	107	159634	46.590	0.02126	93.1	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	118674	191.70	-0.01168	95.8	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	269490	180.20	-0.21530	90.1	200		<input type="checkbox"/>
7440-36-0	Antimony	121	458414	198.10	0.05827	99.0	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	150519	199.30	2.1880	98.6	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	1321180	187.10	0.02440	93.5	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	1836670	188.00	0.01548	94.0	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	2016480	193.40	2.7130	95.3	200		<input type="checkbox"/>
7440-29-1	Thorium	232	1167	0.09235	1.1230				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

Reviewed by: 

Date: 6/25/09



**Duplicate Spike (MSD) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\191 MSD.D\191 MSD.D#  
 Date Acquired: Jun 25 2009 05:48 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EDF 10X  
 Misc Info: MATRIX SPIKE DUPLICATE  
 Vial Number: 2305  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: MSD  
 Dilution Factor: 10.00

**QC Summary:**

**Analytes: Pass**  
**ISTD: Pass**

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\190 MS.D\190 MS.D#

**QC Elements**

Element	IS	Ref	Tune	Conc.	RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9	Be	6	1	4.15 ppb	7.56	4.83	15.09	20	
51	V	72	1	5.96 ppb	17.42	5.40	9.95	20	
52	Cr	72	1	88.69 ppb	1.90	88.49	0.23	20	
55	Mn	72	1	19.17 ppb	2.05	18.80	1.95	20	
59	Co	72	1	4.16 ppb	2.08	4.13	0.55	20	
60	Ni	72	1	4.14 ppb	2.08	4.48	7.98	20	
63	Cu	72	1	4.27 ppb	2.97	4.27	0.09	20	
66	Zn	72	1	3.96 ppb	4.74	4.01	1.35	20	
75	As	72	1	15.78 ppb	3.12	15.59	1.21	20	
78	Se	72	1	5.75 ppb	13.55	5.11	11.77	20	
95	Mo	72	1	15.90 ppb	1.58	15.78	0.76	20	
107	Ag	115	1	4.16 ppb	2.53	4.17	0.24	20	
111	Cd	115	1	4.21 ppb	6.64	4.28	1.48	20	
118	Sn	115	1	-0.09 ppb	42.15	0.13	1054.07	20	
121	Sb	115	1	4.28 ppb	1.31	4.49	4.63	20	
137	Ba	115	1	6.60 ppb	3.02	6.48	1.96	20	
205	Tl	165	1	4.12 ppb	1.96	4.17	1.13	20	
208	Pb	165	1	4.13 ppb	1.21	4.15	0.41	20	
232	Th	165	1	4.26 ppb	0.37	4.19	1.73	20	
238	U	165	1	7.13 ppb	1.22	7.16	0.50	20	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	58753	0.11	62225	94.4	30 - 120
45	Sc	1	207543	0.88	221098	93.9	30 - 120
72	Ge	1	134454	0.36	143668	93.6	30 - 120
115	In	1	361465	0.42	390474	92.6	30 - 120
165	Ho	1	777254	0.36	807368	96.3	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\192SMPL.D\192SMPL.D#  
 Date Acquired: Jun 25 2009 05:52 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LFC4CF 10X  
 Misc Info: D9F200196  
 Vial Number: 2306  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SA  
 Dilution Factor: 10.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 10.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	-0.38	-0.04	ppb	191.85	3600
51	V	72	1	28.53	2.85	ppb	9.09	3600
52	Cr	72	1	41.12	4.11	ppb	2.98	3600
55	Mn	72	1	1.16	0.12	ppb	35.55	3600
59	Co	72	1	0.25	0.03	ppb	11.81	3600
60	Ni	72	1	0.71	0.07	ppb	48.96	3600
63	Cu	72	1	-0.13	-0.01	ppb	181.09	3600
66	Zn	72	1	-2.07	-0.21	ppb	24.23	3600
75	As	72	1	87.26	8.73	ppb	1.12	3600
78	Se	72	1	4.85	0.49	ppb	200.08	3600
95	Mo	72	1	20.97	2.10	ppb	4.19	3600
107	Ag	115	1	0.05	0.00	ppb	115.96	3600
111	Cd	115	1	-0.23	-0.02	ppb	64.27	3600
118	Sn	115	1	-1.31	-0.13	ppb	17.76	3600
121	Sb	115	1	0.25	0.03	ppb	44.90	3600
137	Ba	115	1	19.96	2.00	ppb	9.39	3600
205	Tl	165	1	0.04	0.00	ppb	38.29	3600
208	Pb	165	1	0.06	0.01	ppb	25.92	3600
232	Th	165	1	0.99	0.10	ppb	21.82	1000
238	U	165	1	19.26	1.93	ppb	0.12	3600

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	60474	1.96	62225	97.2	30 - 120
45	Sc	1	212509	0.32	221098	96.1	30 - 120
72	Ge	1	138955	0.32	143668	96.7	30 - 120
115	In	1	375109	0.31	390474	96.1	30 - 120
165	Ho	1	795020	0.70	807368	98.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\193\_CCV.D\193\_CCV.D#  
 Date Acquired: Jun 25 2009 05:55 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.05 ppb	3.20	50	98.1	90 - 110	
51	V	72	51.41 ppb	1.35	50	102.8	90 - 110	
52	Cr	72	51.26 ppb	0.88	50	102.5	90 - 110	
55	Mn	72	52.77 ppb	1.08	50	105.5	90 - 110	
59	Co	72	50.76 ppb	1.75	50	101.5	90 - 110	
60	Ni	72	50.59 ppb	4.31	50	101.2	90 - 110	
63	Cu	72	51.17 ppb	0.53	50	102.3	90 - 110	
66	Zn	72	50.99 ppb	0.90	50	102.0	90 - 110	
75	As	72	50.43 ppb	0.71	50	100.9	90 - 110	
78	Se	72	54.52 ppb	4.55	50	109.0	90 - 110	
95	Mo	72	51.33 ppb	2.93	50	102.7	90 - 110	
107	Ag	115	50.93 ppb	0.53	50	101.9	90 - 110	
111	Cd	115	51.11 ppb	1.51	50	102.2	90 - 110	
118	Sn	115	51.11 ppb	1.56	50	102.2	90 - 110	
121	Sb	115	51.48 ppb	0.75	50	103.0	90 - 110	
137	Ba	115	51.28 ppb	0.06	50	102.6	90 - 110	
205	Tl	165	51.50 ppb	0.19	50	103.0	90 - 110	
208	Pb	165	51.55 ppb	0.95	50	103.1	90 - 110	
232	Th	165	50.34 ppb	0.63	50	100.7	90 - 110	
238	U	165	51.78 ppb	0.75	50	103.6	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	60853	2.31	62225	97.8	30 - 120
45	Sc	1	210236	0.16	221098	95.1	30 - 120
72	Ge	1	137108	0.41	143668	95.4	30 - 120
115	In	1	372957	1.14	390474	95.5	30 - 120
165	Ho	1	783372	0.25	807368	97.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\194\_CCB.D\194\_CCB.D#  
 Date Acquired: Jun 25 2009 05:59 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	-0.080 ppb	0.00	1.00	
51 V	72	1	0.000 ppb	86595.00	1.00	
52 Cr	72	1	-0.027 ppb	139.00	1.00	
55 Mn	72	1	-0.320 ppb	13.65	1.00	
59 Co	72	1	0.010 ppb	37.05	1.00	
60 Ni	72	1	0.025 ppb	145.85	1.00	
63 Cu	72	1	-0.006 ppb	10.61	1.00	
66 Zn	72	1	-0.289 ppb	16.46	1.00	
75 As	72	1	0.016 ppb	26.23	1.00	
78 Se	72	1	-0.214 ppb	416.13	1.00	
95 Mo	72	1	-0.074 ppb	40.50	1.00	
107 Ag	115	1	0.018 ppb	18.24	1.00	
111 Cd	115	1	0.001 ppb	708.67	1.00	
118 Sn	115	1	0.074 ppb	30.50	1.00	
121 Sb	115	1	0.064 ppb	8.36	1.00	
137 Ba	115	1	0.009 ppb	169.81	1.00	
205 Tl	165	1	0.026 ppb	11.27	1.00	
208 Pb	165	1	0.008 ppb	36.54	1.00	
232 Th	165	1	0.884 ppb	14.61	1.00	
238 U	165	1	0.012 ppb	14.85	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	61588	1.12	62225	99.0	30 - 120	
45 Sc	1	212421	0.66	221098	96.1	30 - 120	
72 Ge	1	137435	0.59	143668	95.7	30 - 120	
115 In	1	378786	0.76	390474	97.0	30 - 120	
165 Ho	1	800930	0.74	807368	99.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\195WASH.D\195WASH.D#  
 Date Acquired: Jun 25 2009 06:02 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.870 ppb	20.55	1.30	
51 V	72	1	5.134 ppb	1.76	6.50	
52 Cr	72	1	2.124 ppb	3.51	2.60	
55 Mn	72	1	0.688 ppb	11.94	1.30	
59 Co	72	1	0.987 ppb	7.05	1.30	
60 Ni	72	1	2.166 ppb	3.15	2.60	
63 Cu	72	1	2.026 ppb	2.58	2.60	
66 Zn	72	1	9.966 ppb	0.57	13.00	
75 As	72	1	5.048 ppb	2.01	6.50	
78 Se	72	1	5.664 ppb	13.63	6.50	
95 Mo	72	1	2.099 ppb	11.90	2.60	
107 Ag	115	1	5.276 ppb	1.67	6.50	
111 Cd	115	1	1.097 ppb	4.13	1.30	
118 Sn	115	1	10.910 ppb	4.93	13.00	
121 Sb	115	1	2.066 ppb	1.86	2.60	
137 Ba	115	1	1.036 ppb	10.34	1.30	
205 Tl	165	1	1.081 ppb	2.81	1.30	
208 Pb	165	1	1.067 ppb	0.60	1.30	
232 Th	165	1	2.152 ppb	2.13	2.60	
238 U	165	1	1.044 ppb	0.50	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	61085	1.93	62225	98.2	30 - 120	
45 Sc	1	214770	0.64	221098	97.1	30 - 120	
72 Ge	1	140170	0.50	143668	97.6	30 - 120	
115 In	1	381967	0.47	390474	97.8	30 - 120	
165 Ho	1	802580	0.39	807368	99.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\196SMPL.D\196SMPL.D#  
 Date Acquired: Jun 25 2009 06:05 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: D9F120347-12  
 Misc Info: RAW BOTTLE  
 Vial Number: 4211  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	-0.06	-0.06	ppb	64.63	3600	
51 V	72	1	-0.47	-0.47	ppb	58.35	3600	
52 Cr	72	1	0.23	0.23	ppb	22.20	3600	
55 Mn	72	1	2,275.00	2275.00	ppb	0.41	3600	
59 Co	72	1	3.50	3.50	ppb	3.45	3600	
60 Ni	72	1	8.83	8.83	ppb	4.87	3600	
63 Cu	72	1	0.21	0.21	ppb	19.95	3600	
66 Zn	72	1	17.43	17.43	ppb	1.89	3600	
75 As	72	1	17.76	17.76	ppb	2.47	3600	
78 Se	72	1	0.92	0.92	ppb	59.22	3600	
95 Mo	72	1	1.36	1.36	ppb	13.30	3600	
107 Ag	115	1	0.01	0.01	ppb	16.83	3600	
111 Cd	115	1	-0.03	-0.03	ppb	5.40	3600	
118 Sn	115	1	-0.21	-0.21	ppb	17.78	3600	
121 Sb	115	1	0.09	0.09	ppb	7.83	3600	
137 Ba	115	1	109.80	109.80	ppb	0.46	3600	
205 Tl	165	1	0.06	0.06	ppb	13.46	3600	
208 Pb	165	1	0.18	0.18	ppb	1.62	3600	
232 Th	165	1	-0.01	-0.01	ppb	84.40	1000	
238 U	165	1	17.24	17.24	ppb	0.27	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	57119	0.96	62225	91.8	30 - 120	
45 Sc	1	193751	0.62	221098	87.6	30 - 120	
72 Ge	1	126729	0.19	143668	88.2	30 - 120	
115 In	1	336747	0.80	390474	86.2	30 - 120	
165 Ho	1	746122	0.14	807368	92.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\197 CC.V.D\197 CC.V.D#  
 Date Acquired: Jun 25 2009 06:09 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	53.17 ppb	1.86	50	106.3	90 - 110	
51	V	72	51.07 ppb	0.41	50	102.1	90 - 110	
52	Cr	72	51.60 ppb	0.67	50	103.2	90 - 110	
55	Mn	72	53.28 ppb	0.77	50	106.6	90 - 110	
59	Co	72	51.40 ppb	1.79	50	102.8	90 - 110	
60	Ni	72	51.51 ppb	0.35	50	103.0	90 - 110	
63	Cu	72	52.16 ppb	0.46	50	104.3	90 - 110	
66	Zn	72	51.07 ppb	1.24	50	102.1	90 - 110	
75	As	72	50.85 ppb	0.98	50	101.7	90 - 110	
78	Se	72	51.42 ppb	7.76	50	102.8	90 - 110	
95	Mo	72	51.72 ppb	1.16	50	103.4	90 - 110	
107	Ag	115	51.80 ppb	1.04	50	103.6	90 - 110	
111	Cd	115	51.37 ppb	1.88	50	102.7	90 - 110	
118	Sn	115	51.66 ppb	1.04	50	103.3	90 - 110	
121	Sb	115	51.19 ppb	1.26	50	102.4	90 - 110	
137	Ba	115	51.13 ppb	0.56	50	102.3	90 - 110	
205	Tl	165	51.54 ppb	0.55	50	103.1	90 - 110	
208	Pb	165	51.76 ppb	0.86	50	103.5	90 - 110	
232	Th	165	50.64 ppb	1.17	50	101.3	90 - 110	
238	U	165	51.95 ppb	1.37	50	103.9	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	60209	2.89	62225	96.8	30 - 120
45	Sc	1	204816	0.34	221098	92.6	30 - 120
72	Ge	1	134336	0.89	143668	93.5	30 - 120
115	In	1	367912	0.41	390474	94.2	30 - 120
165	Ho	1	779611	0.67	807368	96.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\198\_CCB.D\198\_CCB.D#  
 Date Acquired: Jun 25 2009 06:12 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.002	ppb	4383.30	1.00	
51 V	72	1	-0.152	ppb	96.24	1.00	
52 Cr	72	1	-0.030	ppb	139.36	1.00	
55 Mn	72	1	-0.333	ppb	9.73	1.00	
59 Co	72	1	0.005	ppb	109.93	1.00	
60 Ni	72	1	0.008	ppb	203.56	1.00	
63 Cu	72	1	-0.025	ppb	32.03	1.00	
66 Zn	72	1	-0.307	ppb	5.88	1.00	
75 As	72	1	0.034	ppb	71.69	1.00	
78 Se	72	1	0.944	ppb	69.75	1.00	
95 Mo	72	1	-0.072	ppb	35.22	1.00	
107 Ag	115	1	0.023	ppb	7.17	1.00	
111 Cd	115	1	-0.009	ppb	42.15	1.00	
118 Sn	115	1	0.068	ppb	76.01	1.00	
121 Sb	115	1	0.068	ppb	17.11	1.00	
137 Ba	115	1	0.007	ppb	173.77	1.00	
205 Tl	165	1	0.024	ppb	23.24	1.00	
208 Pb	165	1	0.012	ppb	22.58	1.00	
232 Th	165	1	0.928	ppb	19.41	1.00	
238 U	165	1	0.014	ppb	12.79	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	60821	1.82	62225	97.7	30 - 120	
45 Sc	1	211853	1.08	221098	95.8	30 - 120	
72 Ge	1	137410	0.30	143668	95.6	30 - 120	
115 In	1	379827	0.97	390474	97.3	30 - 120	
165 Ho	1	804053	0.51	807368	99.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\199WASH.D\199WASH.D#  
 Date Acquired: Jun 25 2009 06:16 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.007 ppb	22.93	1.30	
51 V	72	1	5.413 ppb	3.09	6.50	
52 Cr	72	1	2.175 ppb	4.01	2.60	
55 Mn	72	1	0.678 ppb	5.00	1.30	
59 Co	72	1	1.005 ppb	5.92	1.30	
60 Ni	72	1	2.210 ppb	10.24	2.60	
63 Cu	72	1	1.967 ppb	1.67	2.60	
66 Zn	72	1	10.280 ppb	1.39	13.00	
75 As	72	1	5.270 ppb	4.98	6.50	
78 Se	72	1	5.660 ppb	8.99	6.50	
95 Mo	72	1	2.045 ppb	6.92	2.60	
107 Ag	115	1	5.167 ppb	3.06	6.50	
111 Cd	115	1	0.975 ppb	1.20	1.30	
118 Sn	115	1	10.430 ppb	3.79	13.00	
121 Sb	115	1	2.012 ppb	2.44	2.60	
137 Ba	115	1	1.053 ppb	6.09	1.30	
205 Tl	165	1	1.085 ppb	1.40	1.30	
208 Pb	165	1	1.037 ppb	1.48	1.30	
232 Th	165	1	2.190 ppb	1.91	2.60	
238 U	165	1	1.057 ppb	3.37	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	61596	1.50	62225	99.0	30 - 120	
45 Sc	1	213917	0.73	221098	96.8	30 - 120	
72 Ge	1	140198	1.11	143668	97.6	30 - 120	
115 In	1	384628	1.38	390474	98.5	30 - 120	
165 Ho	1	809206	0.33	807368	100.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9F180314

Client: Northgate Environmental

Batch(es) #: 9174190

Associated Samples: 1

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date:  6/29/09



# *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9F180314	1	AS	LE7091AA	20090625	6020TOTA	9174190	AG062509	024

**METALS  
PREPARATION LOGS  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

Batch Number: 9174190

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:  
JON HARRE

Prep Date: 06/24/09  
Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	LFFFX	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	LFFFX	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	LE709 Total		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total		Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	S	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	D	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F190216 Water	LE9PT Total		Due Date: 07/01/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4A Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4D Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4P Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4Q Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*Checked  
6/24/09*

*✓  
2  
6/29/09*

**TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)**

BATCH # 9174190  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

**CONSUMABLES USED**

Digestion Cups: Manufacturer: Environmental Express Lot #: A901LS267

One or more samples were filtered prior to analysis at the instrument.  Yes  No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials: JKH

**STANDARDS USED**

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

**REAGENTS USED**

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	3

**TEMPERATURE CYCLES**

Thermometer ID: 3311 Block & Cup #: 1,11

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO <sub>3</sub>	<u>6:00</u>	<u>95</u>	<u>10:20</u>	<u>95</u>
HNO <sub>3</sub>	<u>10:30</u>	<u>94</u>	<u>11:00</u>	<u>93</u>
HNO <sub>3</sub>				

Samples and QC revolved to: 50 mL Analyst's Initials JKH

COMMENTS:

I certify that all information above is correct and complete.

Signature:

*Kim Anne*

Date:

6/24/09

**METALS  
SAMPLE DATA  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

### ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L. Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

### Quality Control Standards

ICV = Initial Calibration Verification (Second Source)      ICB = Initial Calibration Blank  
 CCV = Continuing Calibration Verification                      CCB = Continuing Calibration Blank

# TestAmerica Denver

## Standards Preparation Logbook Record

Jun-26-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008  
Date Expires(1): 10-01-2009 (None)  
Date Expires(2): 10-01-2009 (None)  
(METALS)-Inventory ID: 779

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	1,000.0	1,000.0

### STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008  
Date Expires(1): 12-01-2009 (None)  
Date Expires(2): 12-01-2009 (None)  
(METALS)-Inventory ID: 803

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1,000.0

### STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010  
Solvent: 1% HNO3  
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009  
Date Expires(1): 03-01-2010 (None)  
Date Expires(2): 03-01-2010 (None)  
(METALS)-Inventory ID: 833

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

### STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HN03 Lot No.: H02026 Volume (ml): 100.00  
Date Prep./Opened: 04-01-2009  
Date Expires(1): 12-01-2009 (1 Year)  
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3609-09, ICP-MS 10 ppm Zn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year)  
 Date Expires(2): 10-01-2009 (None)

Parent Std No.: STD4841-08, 1000 Zn (Inorganic Ventures) Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	10.000

STD3610-09, ICP-MS 10 ppm Sn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 03-01-2010 (1 Year)  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Parent Std No.: STD1198-09, 1000 mg/L Sn Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	10.000

STD3611-09, ICP-MS 1ppm Sn/Zn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000



STD3662-09, ICP-MS (024) INT STD BRC-HIGH

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-17-2009  
 Date Expires(1): 11-10-2009 (1 Year)  
 Date Expires(2): 12-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Volume (ml): 250.00

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 1.2000

Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	4,800.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.5000

Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	6,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,600.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	1,600.0

Parent Std No.: STD6318-08, Holmium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,600.0

STD3839-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)  
 Cu and Ag 1000 ppb

Volume (ml): 100.00

Parent Std No.: STD0749-09, 1000 ppm Ag Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
1000 ppm Ag	1,000.0	1.0000

Parent Std No.: STD2485-09, 1000 Cu Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Cu	1,000.0	1.0000

STD3841-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 07-25-2009 (1 Month)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 1,000.0

Parent Std No.: STD3840-09, NITRIC ACID

Aliquot Amount (ml): 50.000

Component	Initial Conc (%)	Final Conc (%)
HNO3	100.00	5.0000

STD3842-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Lot No.: H12022

Volume (ml): 10.000

Parent Std No.: STD1198-09, 1000 mg/L Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	10.000

STD3843-09, ICP-MS HIGH CAL STD

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Lot No.: H12022

Volume (ml): 100.00

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000

Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Al	2,000.0	10.000
Ca	2,000.0	10.000
Fe	2,000.0	10.000
K	2,000.0	10.000
Mg	2,000.0	10.000
Na	2,000.0	10.000

STD3844-09, ICP-MS HIGH CCV STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	0.0500
As	20.000	0.0500
Ba	20.000	0.0500
Be	20.000	0.0500
Cd	20.000	0.0500
Co	20.000	0.0500
Cr	20.000	0.0500
Cu	20.000	0.0500
Mn	20.000	0.0500
Ni	20.000	0.0500
Pb	20.000	0.0500
Se	20.000	0.0500
Th	20.000	0.0500
Tl	20.000	0.0500
U	20.000	0.0500
V	20.000	0.0500
Zn	20.000	0.0500

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.0500
Sb	20.000	0.0500
Sn	20.000	0.0500

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Al	2,000.0	5.0000
Ca	2,000.0	5.0000
Fe	2,000.0	5.0000
K	2,000.0	5.0000
Mg	2,000.0	5.0000
Na	2,000.0	5.0000

STD3845-09, ICP-MS HIGH RL STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD3843-09, ICP-MS HIGH CAL STD

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	0.1000	0.0010
As	0.1000	0.0010
Ba	0.1000	0.0010
Be	0.1000	0.0010
Cd	0.1000	0.0010
Co	0.1000	0.0010
Cr	0.1000	0.0010
Cu	0.1000	0.0010
Mn	0.1000	0.0010
Ni	0.1000	0.0010
Pb	0.1000	0.0010
Se	0.1000	0.0010
Th	0.1000	0.0010
Tl	0.1000	0.0010
U	0.1000	0.0010
V	0.1000	0.0010
Zn	0.1000	0.0010
Mo	0.1000	0.0010

Sb	0.1000	0.0010
Sn	0.1000	0.0010
Al	10.000	0.1000
Ca	10.000	0.1000
Fe	10.000	0.1000
K	10.000	0.1000
Mg	10.000	0.1000
Na	10.000	0.1000

STD3846-09, ICP-MS HIGH AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3845-09, ICP-MS HIGH RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Ag	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002
Al	0.1000	0.0200
Ca	0.1000	0.0200
Fe	0.1000	0.0200
K	0.1000	0.0200
Mg	0.1000	0.0200
Na	0.1000	0.0200

STD3847-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 07-25-2009 (1 Month)  
 Date Expires(2): 02-01-2010 (None)  
 pipettes: Met 8

Volume (ml): 50.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD3848-09, ICP-MS HIGH ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
Al	1,000.0	100.00
C	2,000.0	200.00
Ca	1,000.0	100.00
Cl	10,000	1,000.0
Fe	1,000.0	100.00
K	1,000.0	100.00
Mg	1,000.0	100.00
Mo	20.000	2.0000
Na	1,000.0	100.00
P	1,000.0	100.00
S	1,000.0	100.00
Ti	20.000	2.0000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

STD3849-09, ICP-MS HIGH LR STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	1.0000
As	20.000	1.0000
Ba	20.000	1.0000
Be	20.000	1.0000
Cd	20.000	1.0000
Co	20.000	1.0000
Cr	20.000	1.0000
Cu	20.000	1.0000
Mn	20.000	1.0000
Ni	20.000	1.0000
Pb	20.000	1.0000
Se	20.000	1.0000
Th	20.000	1.0000
Tl	20.000	1.0000
U	20.000	1.0000
V	20.000	1.0000
Zn	20.000	1.0000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	1.0000
Sb	20.000	1.0000
Sn	20.000	1.0000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

STD3850-09, ICP-MS HIGH ICV STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3113-09, ICP-MS TA ICV A

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
As	20.000	0.0400
Ba	20.000	0.0400
Be	20.000	0.0400
Cd	20.000	0.0400
Co	20.000	0.0400
Cr	20.000	0.0400
Cu	20.000	0.0400
Mn	20.000	0.0400
Ni	20.000	0.0400
Pb	20.000	0.0400
Se	20.000	0.0400
Th	20.000	0.0400
Tl	20.000	0.0400
U	20.000	0.0400
V	20.000	0.0400
Zn	20.000	0.0400

Parent Std No.: STD3114-09, ICP-MS TA ICV B

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0400
Mo	20.000	0.0400
Sb	20.000	0.0400
Sn	20.000	0.0400



Parent Std No.: STD3115-09, ICP-MS TA ICV Alt

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	4.0000
Ca	2,000.0	4.0000
Fe	2,000.0	4.0000
K	2,000.0	4.0000
Mg	2,000.0	4.0000
Na	2,000.0	4.0000

STD3851-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

STD3852-09, LLCCV/RLICV

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Date Expires(2): 05-01-2010 (None)

pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000
Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000

Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2

Aliquot Amount (ml): 1.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By: \_\_\_\_\_

*R. Hill* 6/26/09

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/26/09 15:07:10
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File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
2	Cal Blank				1.0 06/25/09 17:43		<input type="checkbox"/>
3	Cal Blank				1.0 06/25/09 17:47		<input type="checkbox"/>
4	Cal Blank				1.0 06/25/09 17:50		<input type="checkbox"/>
5	100 ppb				1.0 06/25/09 17:54		<input type="checkbox"/>
6	ICV				1.0 06/25/09 17:57		<input type="checkbox"/>
7	RLIV				1.0 06/25/09 18:01		<input type="checkbox"/>
8	ICB				1.0 06/25/09 18:04		<input type="checkbox"/>
9	RL STD				1.0 06/25/09 18:08		<input type="checkbox"/>
10	AFCEE RL				1.0 06/25/09 18:11		<input type="checkbox"/>
11	ALTSe				1.0 06/25/09 18:15		<input type="checkbox"/>
12	ICSA				1.0 06/25/09 18:18		<input type="checkbox"/>
13	ICSAB				1.0 06/25/09 18:21		<input type="checkbox"/>
14	RINSE				1.0 06/25/09 18:25		<input type="checkbox"/>
15	LR				1.0 06/25/09 18:28		<input type="checkbox"/>
16	RINSE				1.0 06/25/09 18:32		<input type="checkbox"/>
17	ALTLR				1.0 06/25/09 18:35		<input type="checkbox"/>
18	RINSE				1.0 06/25/09 18:39		<input type="checkbox"/>
19	CCV				1.0 06/25/09 18:42		<input type="checkbox"/>
20	CCB				1.0 06/25/09 18:46		<input type="checkbox"/>
21	RLCV				1.0 06/25/09 18:49		<input type="checkbox"/>
22	<del>LE3WPB</del>	<del>D9F170000</del>	<del>9168244</del>	<del>04</del>	<del>1.0 06/25/09 18:53</del>		<input type="checkbox"/>
23	LE3WPC	D9F170000	9168244	04	1.0 06/25/09 18:56		<input type="checkbox"/>
24	LE3WPL	D9F170000	9168244	04	1.0 06/25/09 19:00		<input type="checkbox"/>
25	LEPAF	D9F110137-1	9168244	04	1.0 06/25/09 19:03		<input type="checkbox"/>
26	LEPAFP5	D9F110137	9168244	5.0	06/25/09 19:07		<input type="checkbox"/>
27	LEPAFZ	D9F110137-1	9168244	1.0	06/25/09 19:10		<input type="checkbox"/>
28	LEPCC	D9F110137-3	9168257	1.0	06/25/09 19:13		<input type="checkbox"/>
29	LEPCK	D9F110137-4	9168257	1.0	06/25/09 19:17		<input type="checkbox"/>
30	CCV				1.0 06/25/09 19:21		<input type="checkbox"/>
31	CCB				1.0 06/25/09 19:24		<input type="checkbox"/>
32	RLCV				1.0 06/25/09 19:28		<input type="checkbox"/>
33	LE35QB	D9F170000	9168263	04	1.0 06/25/09 19:31		<input type="checkbox"/>
34	LE35QC	D9F170000	9168263	04	1.0 06/25/09 19:35		<input type="checkbox"/>
35	LE35QL	D9F170000	9168263	04	1.0 06/25/09 19:38		<input type="checkbox"/>
36	LEPC5	D9F110137-7	9168263	04	1.0 06/25/09 19:42		<input type="checkbox"/>
37	LEPC5P5	D9F110137	9168263	5.0	06/25/09 19:45		<input type="checkbox"/>
38	<del>LEPC5Z</del>	<del>D9F110137-7</del>	<del>9168263</del>	<del>1.0</del>	<del>06/25/09 19:49</del>	<i>At 6/26/09 did not use.</i>	<input type="checkbox"/>
39	CCV				1.0 06/25/09 19:52		<input type="checkbox"/>
40	CCB				1.0 06/25/09 19:55		<input type="checkbox"/>
41	RLCV				1.0 06/25/09 19:59		<input type="checkbox"/>
42	LFFFXB	D9F230000	9174190	MS	1.0 06/25/09 20:02		<input type="checkbox"/>
43	LFFFXC	D9F230000	9174190	MS	1.0 06/25/09 20:06		<input type="checkbox"/>
44	LE709 10X	D9F180314-1	9174190	MS	10.0 06/25/09 20:09		<input type="checkbox"/>
45	LE7CT 5X	D9F180266-1	9174190	MS	5.0 06/25/09 20:13		<input type="checkbox"/>
46	LE7CTP25	D9F180266	9174190		25.0 06/25/09 20:16		<input type="checkbox"/>
47	LE7CTZ	D9F180266-1	9174190		1.0 06/25/09 20:20		<input type="checkbox"/>

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/26/09 15:07:10
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File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
48	LE7CTS 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:23	<input type="checkbox"/>
49	CCV				1.0	06/25/09 20:27	<input type="checkbox"/>
50	CCB				1.0	06/25/09 20:30	<input type="checkbox"/>
51	RLCV				1.0	06/25/09 20:34	<input type="checkbox"/>
52	LE7CTD 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:37	<input type="checkbox"/>
53	LE9PT 5X	D9F190216-1	9174190	MS	5.0	06/25/09 20:41	<input type="checkbox"/>
54	LFC4A 5X	D9F200196-1	9174190	MS	5.0	06/25/09 20:44	<input type="checkbox"/>
55	LFC4D 5X	D9F200196-3	9174190	MS	5.0	06/25/09 20:48	<input type="checkbox"/>
56	LFC4P 5X	D9F200199-1	9174190	MS	5.0	06/25/09 20:51	<input type="checkbox"/>
57	LFC4Q 5X	D9F200199-2	9174190	MS	5.0	06/25/09 20:55	<input type="checkbox"/>
58	CCV				1.0	06/25/09 20:58	<input type="checkbox"/>
59	CCB				1.0	06/25/09 21:02	<input type="checkbox"/>
60	RLCV				1.0	06/25/09 21:05	<input type="checkbox"/>
61	<del>LF1T1BF</del>	<del>D9F230000</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 21:09</del>	<input type="checkbox"/>
62	LF1T1CF	D9F230000	9174270	MD	1.0	06/25/09 21:12	<input type="checkbox"/>
63	RINSE				1.0	06/25/09 21:16	<input type="checkbox"/>
64	RINSE				1.0	06/25/09 21:19	<input type="checkbox"/>
65	RINSE				1.0	06/25/09 21:23	<input type="checkbox"/>
66	RINSE				1.0	06/25/09 21:26	<input type="checkbox"/>
67	RINSE				1.0	06/25/09 21:30	<input type="checkbox"/>
68	RINSE				1.0	06/25/09 21:33	<input type="checkbox"/>
69	Cal Blank				1.0	06/25/09 21:37	<input type="checkbox"/>
70	Cal Blank				1.0	06/25/09 21:40	<input type="checkbox"/>
71	100 ppb				1.0	06/25/09 21:43	<input type="checkbox"/>
72	CCV				1.0	06/25/09 21:47	<input type="checkbox"/>
73	CCB				1.0	06/25/09 21:50	<input type="checkbox"/>
74	RLCV				1.0	06/25/09 21:54	<input type="checkbox"/>
75	ICSA				1.0	06/25/09 21:57	<input type="checkbox"/>
76	ICSAB				1.0	06/25/09 22:01	<input type="checkbox"/>
77	WASH				1.0	06/25/09 22:04	<input type="checkbox"/>
78	CCV				1.0	06/25/09 22:08	<input type="checkbox"/>
79	CCB				1.0	06/25/09 22:11	<input type="checkbox"/>
80	RLCV				1.0	06/25/09 22:15	<input type="checkbox"/>
81	LF1T1BF	D9F230000	9174270	MD	1.0	06/25/09 22:18	<input type="checkbox"/>
82	LF1T1CF	D9F230000	9174270	MD	1.0	06/25/09 22:22	<input type="checkbox"/>
83	LE6C3F	D9F180143-1	9174270	MD	1.0	06/25/09 22:25	<input type="checkbox"/>
84	LE6C7F	D9F180143-2	9174270	MD	1.0	06/25/09 22:29	<input type="checkbox"/>
85	LE6C8F	D9F180143-3	9174270	MD	1.0	06/25/09 22:32	<input type="checkbox"/>
86	LE6C9F	D9F180143-4	9174270	MD	1.0	06/25/09 22:36	<input type="checkbox"/>
87	LE6DAF	D9F180143-5	9174270	MD	1.0	06/25/09 22:39	<input type="checkbox"/>
88	LE6DCF	D9F180143-6	9174270	MD	1.0	06/25/09 22:43	<input type="checkbox"/>
89	LE6DCP5F	D9F180143	9174270		5.0	06/25/09 22:46	<input type="checkbox"/>
90	<del>LE6DCZF</del>	<del>D9F180143-6</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 22:50</del>	<input type="checkbox"/>
91	CCV				1.0	06/25/09 22:53	<input type="checkbox"/>
92	CCB				1.0	06/25/09 22:57	<input type="checkbox"/>
93	RLCV				1.0	06/25/09 23:00	<input type="checkbox"/>

*6/26/09 did not use.*

*6/26/09 did not use.*

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
94	LE6DCSF	D9F180143-6	9174270	MD	1.0	06/25/09 23:04	<input type="checkbox"/>
95	LE6DCDF	D9F180143-6	9174270	MD	1.0	06/25/09 23:07	<input type="checkbox"/>
96	LE9GLF	D9F190197-1	9174270	MD	1.0	06/25/09 23:11	<input type="checkbox"/>
97	LFCECF	D9F200122-1	9174270	MD	1.0	06/25/09 23:14	<input type="checkbox"/>
98	LFCEMF	D9F200122-2	9174270	MD	1.0	06/25/09 23:18	<input type="checkbox"/>
99	LFCENF	D9F200122-3	9174270	MD	1.0	06/25/09 23:21	<input type="checkbox"/>
100	LFCEQF	D9F200122-4	9174270	MD	1.0	06/25/09 23:25	<input type="checkbox"/>
101	LFCERF	D9F200122-5	9174270	MD	1.0	06/25/09 23:28	<input type="checkbox"/>
102	LFCEWF	D9F200122-6	9174270	MD	1.0	06/25/09 23:32	<input type="checkbox"/>
103	LFCEXF	D9F200122-7	9174270	MD	1.0	06/25/09 23:35	<input type="checkbox"/>
104	CCV				1.0	06/25/09 23:39	<input type="checkbox"/>
105	CCB				1.0	06/25/09 23:42	<input type="checkbox"/>
106	RLCV				1.0	06/25/09 23:46	<input type="checkbox"/>
107	<del>LE6DCZF</del>	<del>D9F180143-6</del>	<del>9174270</del>		<del>1.0</del>	<del>06/25/09 23:49</del>	<input type="checkbox"/>
108	LFC4W 2X	D9F200200-1	9174178	MS	2.0	06/25/09 23:53	<input type="checkbox"/>
109	LFC4X 2X	D9F200200-2	9174178	MS	2.0	06/25/09 23:56	<input type="checkbox"/>
110	LFC40 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:00	<input type="checkbox"/>
111	LFC40P10	D9F200200	9174178		10.0	06/26/09 00:03	<input type="checkbox"/>
112	LFC40Z	D9F200200-3	9174178		1.0	06/26/09 00:07	<input type="checkbox"/>
113	LFC40S 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:10	<input type="checkbox"/>
114	LFC40D 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:14	<input type="checkbox"/>
115	CCV				1.0	06/26/09 00:17	<input type="checkbox"/>
116	CCB				1.0	06/26/09 00:21	<input type="checkbox"/>
117	RLCV				1.0	06/26/09 00:24	<input type="checkbox"/>
118	LFFC2B	D9F230000	9174162	MS	1.0	06/26/09 00:28	<input type="checkbox"/>
119	LFFC2C	D9F230000	9174162	MS	1.0	06/26/09 00:31	<input type="checkbox"/>
120	LE6AW 2X	D9F180141-1	9174162	MS	2.0	06/26/09 00:35	<input type="checkbox"/>
121	LE6A1 2X	D9F180141-2	9174162	MS	2.0	06/26/09 00:38	<input type="checkbox"/>
122	LE6A2 2X	D9F180141-3	9174162	MS	2.0	06/26/09 00:42	<input type="checkbox"/>
123	LE81M	D9F190156-1	9174162	MS	1.0	06/26/09 00:45	<input type="checkbox"/>
124	CCV				1.0	06/26/09 00:49	<input type="checkbox"/>
125	CCB				1.0	06/26/09 00:52	<input type="checkbox"/>
126	RLCV				1.0	06/26/09 00:56	<input type="checkbox"/>
127	LE81MP5	D9F190156	9174162		5.0	06/26/09 01:00	<input type="checkbox"/>
128	LE81MZ	D9F190156-1	9174162		1.0	06/26/09 01:03	<input type="checkbox"/>
129	LE81MS	D9F190156-1	9174162	MS	1.0	06/26/09 01:07	<input type="checkbox"/>
130	LE81MD	D9F190156-1	9174162	MS	1.0	06/26/09 01:10	<input type="checkbox"/>
131	LE82G	D9F190156-2	9174162	MS	1.0	06/26/09 01:14	<input type="checkbox"/>
132	CCV				1.0	06/26/09 01:17	<input type="checkbox"/>
133	CCB				1.0	06/26/09 01:21	<input type="checkbox"/>
134	RLCV				1.0	06/26/09 01:24	<input type="checkbox"/>
135	RINSE				1.0	06/26/09 01:28	<input type="checkbox"/>
136	RINSE				1.0	06/26/09 01:31	<input type="checkbox"/>
137	RINSE				1.0	06/26/09 01:35	<input type="checkbox"/>
138	RINSE				1.0	06/26/09 01:38	<input type="checkbox"/>
139	RINSE				1.0	06/26/09 01:41	<input type="checkbox"/>

*not done did not use.*

Denver

RUN SUMMARY

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
140	<del>RINSE</del>				<del>1.0 06/26/09 01:45</del>		<input type="checkbox"/>
141	Cal Blank				1.0 06/26/09 01:49		<input type="checkbox"/>
142	Cal Blank				1.0 06/26/09 01:52		<input type="checkbox"/>
143	100 ppb				1.0 06/26/09 01:56		<input type="checkbox"/>
144	CCV				1.0 06/26/09 01:59		<input type="checkbox"/>
145	CCB				1.0 06/26/09 02:03		<input type="checkbox"/>
146	RLCV				1.0 06/26/09 02:06		<input type="checkbox"/>
147	LFE9NBF	D9F230000	9174124	MD	1.0 06/26/09 02:10		<input type="checkbox"/>
148	LFE9NCF	D9F230000	9174124	MD	1.0 06/26/09 02:13		<input type="checkbox"/>
149	LE9ANF	D9F190184-1	9174124	MD	1.0 06/26/09 02:17		<input type="checkbox"/>
150	LE9CVF	D9F190184-2	9174124	MD	1.0 06/26/09 02:20		<input type="checkbox"/>
151	LE9CWF	D9F190184-3	9174124	MD	1.0 06/26/09 02:24		<input type="checkbox"/>
152	LE9CXF	D9F190184-4	9174124	MD	1.0 06/26/09 02:27		<input type="checkbox"/>
153	LE9C0F	D9F190184-5	9174124	MD	1.0 06/26/09 02:31		<input type="checkbox"/>
154	LE9C1F	D9F190184-6	9174124	MD	1.0 06/26/09 02:34		<input type="checkbox"/>
155	CCV				1.0 06/26/09 02:38		<input type="checkbox"/>
156	CCB				1.0 06/26/09 02:41		<input type="checkbox"/>
157	RLCV				1.0 06/26/09 02:45		<input type="checkbox"/>
158	LE9H7F	D9F190204-1	9174124	MD	1.0 06/26/09 02:48		<input type="checkbox"/>
159	LE9JMF	D9F190204-2	9174124	MD	1.0 06/26/09 02:52		<input type="checkbox"/>
160	LE9JNF	D9F190204-3	9174124	MD	1.0 06/26/09 02:55		<input type="checkbox"/>
161	LE9JPF	D9F190204-4	9174124	MD	1.0 06/26/09 02:59		<input type="checkbox"/>
162	LE9JQF	D9F190204-5	9174124	MD	1.0 06/26/09 03:03		<input type="checkbox"/>
163	LE9JQP5F	D9F190204	9174124		5.0 06/26/09 03:06		<input type="checkbox"/>
164	LE9JQZF	D9F190204-5	9174124		1.0 06/26/09 03:10		<input type="checkbox"/>
165	LE9JQSF	D9F190204-5	9174124	MD	1.0 06/26/09 03:13		<input type="checkbox"/>
166	CCV				1.0 06/26/09 03:17		<input type="checkbox"/>
167	CCB				1.0 06/26/09 03:20		<input type="checkbox"/>
168	RLCV				1.0 06/26/09 03:24		<input type="checkbox"/>
169	LE9JQDF	D9F190204-5	9174124	MD	1.0 06/26/09 03:27		<input type="checkbox"/>
170	LE9KJF	D9F190204-6	9174124	MD	1.0 06/26/09 03:31		<input type="checkbox"/>
171	LE9KMF	D9F190204-7	9174124	MD	1.0 06/26/09 03:34		<input type="checkbox"/>
172	LE9KPF	D9F190204-8	9174124	MD	1.0 06/26/09 03:38		<input type="checkbox"/>
173	LE9KRF	D9F190204-9	9174124	MD	1.0 06/26/09 03:41		<input type="checkbox"/>
174	LE9KXF	D9F190204-10	9174124	MD	1.0 06/26/09 03:45		<input type="checkbox"/>
175	LE9K1F	D9F190204-11	9174124	MD	1.0 06/26/09 03:48		<input type="checkbox"/>
176	CCV				1.0 06/26/09 03:52		<input type="checkbox"/>
177	CCB				1.0 06/26/09 03:55		<input type="checkbox"/>
178	RLCV				1.0 06/26/09 03:59		<input type="checkbox"/>
179	LFE9JB	D9F230000	9174123	MS	1.0 06/26/09 04:02		<input type="checkbox"/>
180	LFE9JC	D9F230000	9174123	MS	1.0 06/26/09 04:06		<input type="checkbox"/>
181	LE9AN	D9F190184-1	9174123	MS	1.0 06/26/09 04:09		<input type="checkbox"/>
182	LE9CV	D9F190184-2	9174123	MS	1.0 06/26/09 04:13		<input type="checkbox"/>
183	LE9CW	D9F190184-3	9174123	MS	1.0 06/26/09 04:16		<input type="checkbox"/>
184	LE9CX	D9F190184-4	9174123	MS	1.0 06/26/09 04:20		<input type="checkbox"/>
185	<del>LE9C0</del>	<del>D9F190184-5</del>	<del>9174123</del>	<del>MS</del>	<del>1.0 06/26/09 04:24</del>	<i>Not used</i>	<input type="checkbox"/>

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
186	<del>LE9G1</del>	<del>D9F190184-6</del>	<del>9174123</del>	<del>MS</del>	<del>1.0</del>	<del>06/26/09 04:27</del>	<input type="checkbox"/>
187	CCV				1.0	06/26/09 04:31	<input type="checkbox"/>
188	CCB				1.0	06/26/09 04:34	<input type="checkbox"/>
189	RLCV				1.0	06/26/09 04:38	<input type="checkbox"/>
190	LE9H7	D9F190204-1	9174123	MS	1.0	06/26/09 04:41	<input type="checkbox"/>
191	LE9H7P5	D9F190204	9174123		5.0	06/26/09 04:45	<input type="checkbox"/>
192	LE9H7Z	D9F190204-1	9174123		1.0	06/26/09 04:48	<input type="checkbox"/>
193	LE9H7S	D9F190204-1	9174123	MS	1.0	06/26/09 04:52	<input type="checkbox"/>
194	LE9H7D	D9F190204-1	9174123	MS	1.0	06/26/09 04:55	<input type="checkbox"/>
195	LE9JM	D9F190204-2	9174123	MS	1.0	06/26/09 04:59	<input type="checkbox"/>
196	LE9JN	D9F190204-3	9174123	MS	1.0	06/26/09 05:02	<input type="checkbox"/>
197	LE9JP	D9F190204-4	9174123	MS	1.0	06/26/09 05:06	<input type="checkbox"/>
198	CCV				1.0	06/26/09 05:09	<input type="checkbox"/>
199	CCB				1.0	06/26/09 05:13	<input type="checkbox"/>
200	RLCV				1.0	06/26/09 05:16	<input type="checkbox"/>
201	LE9JQ	D9F190204-5	9174123	MS	1.0	06/26/09 05:20	<input type="checkbox"/>
202	LE9KJ	D9F190204-6	9174123	MS	1.0	06/26/09 05:23	<input type="checkbox"/>
203	LE9KM	D9F190204-7	9174123	MS	1.0	06/26/09 05:27	<input type="checkbox"/>
204	LE9KP	D9F190204-8	9174123	MS	1.0	06/26/09 05:31	<input type="checkbox"/>
205	LE9KR	D9F190204-9	9174123	MS	1.0	06/26/09 05:34	<input type="checkbox"/>
206	LE9KX	D9F190204-10	9174123	MS	1.0	06/26/09 05:38	<input type="checkbox"/>
207	LE9K1	D9F190204-11	9174123	MS	1.0	06/26/09 05:41	<input type="checkbox"/>
208	CCV				1.0	06/26/09 05:45	<input type="checkbox"/>
209	CCB				1.0	06/26/09 05:48	<input type="checkbox"/>
210	RLCV				1.0	06/26/09 05:52	<input type="checkbox"/>
211	RINSE				1.0	06/26/09 05:55	<input type="checkbox"/>
212	RINSE				1.0	06/26/09 05:59	<input type="checkbox"/>
213	RINSE				1.0	06/26/09 06:02	<input type="checkbox"/>
214	RINSE				1.0	06/26/09 06:06	<input type="checkbox"/>
215	RINSE				1.0	06/26/09 06:09	<input type="checkbox"/>
216	RINSE				1.0	06/26/09 06:13	<input type="checkbox"/>
217	<del>Cal Blank</del>				<del>1.0</del>	<del>06/26/09 06:16</del> <i>did not use.</i>	<input type="checkbox"/>
218	Cal Blank				1.0	06/26/09 06:20	<input type="checkbox"/>
219	100 ppb				1.0	06/26/09 06:23	<input type="checkbox"/>
220	CCV				1.0	06/26/09 06:27	<input type="checkbox"/>
221	CCB				1.0	06/26/09 06:30	<input type="checkbox"/>
222	RLCV				1.0	06/26/09 06:34	<input type="checkbox"/>
223	LFHREBF	D9F240000	9175213	MD	1.0	06/26/09 06:37	<input type="checkbox"/>
224	LFHRECF	D9F240000	9175213	MD	1.0	06/26/09 06:41	<input type="checkbox"/>
225	LFFPKF	D9F230156-1	9175213	MD	1.0	06/26/09 06:44	<input type="checkbox"/>
226	LFFPTF	D9F230156-2	9175213	MD	1.0	06/26/09 06:48	<input type="checkbox"/>
227	LFFP0F	D9F230156-3	9175213	MD	1.0	06/26/09 06:51	<input type="checkbox"/>
228	LFFP2F	D9F230156-4	9175213	MD	1.0	06/26/09 06:55	<input type="checkbox"/>
229	LFFP4F	D9F230156-5	9175213	MD	1.0	06/26/09 06:58	<input type="checkbox"/>
230	LFFP5F	D9F230156-6	9175213	MD	1.0	06/26/09 07:02	<input type="checkbox"/>
231	CCV				1.0	06/26/09 07:05	<input type="checkbox"/>

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
232	CCB				1.0 06/26/09 07:09		<input type="checkbox"/>
233	RLCV				1.0 06/26/09 07:12		<input type="checkbox"/>
234	LFFP5P5F	D9F230156	9175213		5.0 06/26/09 07:16		<input type="checkbox"/>
235	LFFP5ZF	D9F230156-6	9175213		1.0 06/26/09 07:20		<input type="checkbox"/>
236	LFFP5SF	D9F230156-6	9175213	MD	1.0 06/26/09 07:23		<input type="checkbox"/>
237	LFFP5DF	D9F230156-6	9175213	MD	1.0 06/26/09 07:27		<input type="checkbox"/>
238	LFFP6F	D9F230156-7	9175213	MD	1.0 06/26/09 07:30		<input type="checkbox"/>
239	LFFQAF	D9F230156-8	9175213	MD	1.0 06/26/09 07:34		<input type="checkbox"/>
240	LFFQEF	D9F230156-9	9175213	MD	1.0 06/26/09 07:37		<input type="checkbox"/>
241	LFFQGF	D9F230156-10	9175213	MD	1.0 06/26/09 07:41		<input type="checkbox"/>
242	CCV				1.0 06/26/09 07:44		<input type="checkbox"/>
243	CCB				1.0 06/26/09 07:48		<input type="checkbox"/>
244	RLCV				1.0 06/26/09 07:51		<input type="checkbox"/>
245	LFHP2B	D9F240000	9175194	04	1.0 06/26/09 07:55		<input type="checkbox"/>
246	LFHP2C	D9F240000	9175194	04	1.0 06/26/09 07:58		<input type="checkbox"/>
247	LFFPK	D9F230156-1	9175194	04	1.0 06/26/09 08:02		<input type="checkbox"/>
248	LFFPT	D9F230156-2	9175194	04	1.0 06/26/09 08:06		<input type="checkbox"/>
249	LFFPTP5	D9F230156	9175194		5.0 06/26/09 08:09		<input type="checkbox"/>
250	LFFPTZ	D9F230156-2	9175194		1.0 06/26/09 08:13		<input type="checkbox"/>
251	LFFPTS	D9F230156-2	9175194	04	1.0 06/26/09 08:16		<input type="checkbox"/>
252	LFFPTD	D9F230156-2	9175194	04	1.0 06/26/09 08:20		<input type="checkbox"/>
253	CCV				1.0 06/26/09 08:23		<input type="checkbox"/>
254	CCB				1.0 06/26/09 08:27		<input type="checkbox"/>
255	RLCV				1.0 06/26/09 08:30		<input type="checkbox"/>
256	LFFP0	D9F230156-3	9175194	04	1.0 06/26/09 08:34		<input type="checkbox"/>
257	LFFP2	D9F230156-4	9175194	04	1.0 06/26/09 08:37		<input type="checkbox"/>
258	LFFP4	D9F230156-5	9175194	04	1.0 06/26/09 08:41		<input type="checkbox"/>
259	LFFP5	D9F230156-6	9175194	04	1.0 06/26/09 08:44		<input type="checkbox"/>
260	LFFP6	D9F230156-7	9175194	04	1.0 06/26/09 08:48		<input type="checkbox"/>
261	LFFQA	D9F230156-8	9175194	04	1.0 06/26/09 08:52		<input type="checkbox"/>
262	LFFQE	D9F230156-9	9175194	04	1.0 06/26/09 08:55		<input type="checkbox"/>
263	LFFQG	D9F230156-10	9175194	04	1.0 06/26/09 08:59		<input type="checkbox"/>
264	CCV				1.0 06/26/09 09:02		<input type="checkbox"/>
265	CCB				1.0 06/26/09 09:06		<input type="checkbox"/>
266	RLCV				1.0 06/26/09 09:09		<input type="checkbox"/>
267	<del>RINSE</del>				<del>1.0 06/26/09 09:13</del>		<input type="checkbox"/>
268	RINSE				1.0 06/26/09 09:16		<input type="checkbox"/>
269	RINSE				1.0 06/26/09 09:20		<input type="checkbox"/>
270	RINSE				1.0 06/26/09 09:23		<input type="checkbox"/>
271	RINSE				1.0 06/26/09 09:27		<input type="checkbox"/>
272	RINSE				1.0 06/26/09 09:30		<input type="checkbox"/>
273	Cal Blank				1.0 06/26/09 09:34		<input type="checkbox"/>
274	Cal Blank				1.0 06/26/09 09:37		<input type="checkbox"/>
275	100 ppb				1.0 06/26/09 09:41		<input type="checkbox"/>
276	CCV				1.0 06/26/09 09:44		<input type="checkbox"/>
277	<del>OCB</del>				<del>1.0 06/26/09 09:48</del>	<i>AL c/26/09 did not use.</i>	<input type="checkbox"/>



Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/26/09 15:07:10

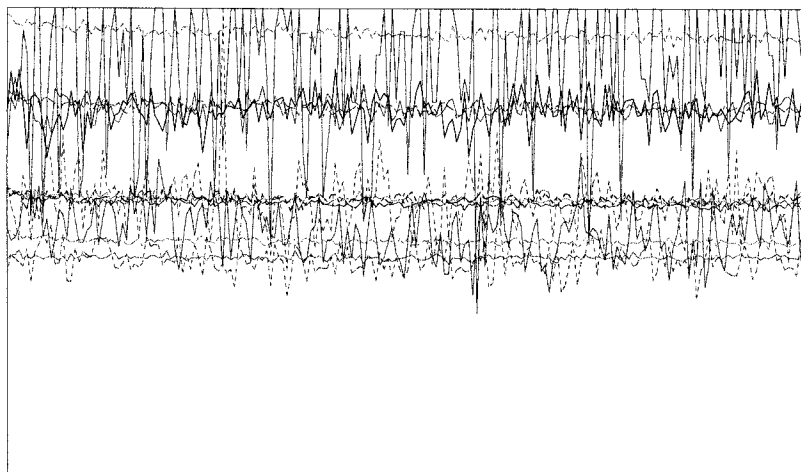
File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
278	<del>RLCV</del>			1.0	<del>06/26/09 09:51</del>		<input type="checkbox"/>
279	RINSE			1.0	06/26/09 09:55		<input type="checkbox"/>
280	RINSE			1.0	06/26/09 09:58		<input type="checkbox"/>
281	RINSE			1.0	06/26/09 10:02		<input type="checkbox"/>
282	RINSE			1.0	06/26/09 10:05		<input type="checkbox"/>
283	RINSE			1.0	06/26/09 10:09		<input type="checkbox"/>
284	RINSE			1.0	06/26/09 10:12		<input type="checkbox"/>
285	<del>Cal Blank</del>			1.0	<del>06/26/09 10:16</del>	<i>Cal blank did not use.</i>	<input type="checkbox"/>
286	Cal Blank			1.0	06/26/09 10:19		<input type="checkbox"/>
287	100 ppb			1.0	06/26/09 10:22		<input type="checkbox"/>
288	CCV			1.0	06/26/09 10:26		<input type="checkbox"/>
289	CCB			1.0	06/26/09 10:30		<input type="checkbox"/>
290	RLCV			1.0	06/26/09 10:33		<input type="checkbox"/>
291	SOLUTION 1			1.0	06/26/09 10:37		<input type="checkbox"/>
292	SOLUTION 2			1.0	06/26/09 10:40		<input type="checkbox"/>
293	CCV			1.0	06/26/09 10:44		<input type="checkbox"/>
294	CCB			1.0	06/26/09 10:47		<input type="checkbox"/>
295	RLCV			1.0	06/26/09 10:51		<input type="checkbox"/>

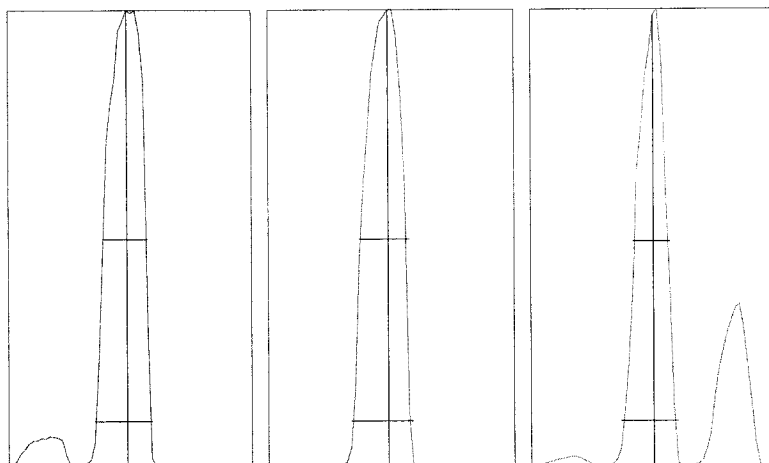
Tune Report

Tune File : NORM.U  
 Comment :



Integration Time: 0.1000 sec  
 Sampling Period: 1.5300 sec  
 n: 200  
 Oxide: 156/140 2.141%  
 Doubly Charged: 70/140 1.504%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1567.0	1571.1	2.71	0.50
7	50,000	23737.0	23564.8	1.07	1.00
59	50,000	29124.0	29753.3	1.34	0.40
63	200	101.0	106.3	10.73	1.00
70	1,000	813.0	782.6	4.46	1.00
75	20	27.0	18.5	23.81	0.50
78	500	209.0	233.2	6.87	1.00
89	50,000	46745.0	47248.3	1.21	0.50
115	100,000	50611.0	50646.2	1.25	1.10
118	200	116.0	119.4	14.11	1.20
137	10,000	5876.0	5968.3	1.81	1.30
205	50,000	38277.0	39401.7	1.44	1.70
238	100,000	57456.0	58700.9	1.39	1.90
156/140	5	2.093%	2.176%	4.33	
70/140	2	1.583%	1.498%	4.63	



m/z:	7	89	205
Height:	23,730	47,034	42,849
Axis:	7.00	89.00	205.05
W-50%:	0.55	0.60	0.45
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : NORM.U  
Comment :

Tuning Parameters

===Plasma Condition===

RF Power : 1550 W  
RF Matching : 1.7 V  
Smpl Depth : 7 mm  
Torch-H : -0.8 mm  
Torch-V : -0.3 mm  
Carrier Gas : 0.83 L/min  
Makeup Gas : 0.2 L/min  
Optional Gas : --- %  
Nebulizer Pump : 0.1 rps  
Sample Pump : --- rps  
S/C Temp : 2 degC

===Ion Lenses===

Extract 1 : 0 V  
Extract 2 : -175 V  
Omega Bias-ce : -30 V  
Omega Lens-ce : -0.2 V  
Cell Entrance : -30 V  
QP Focus : 5 V  
Cell Exit : -30 V

===Q-Pole Parameters===

AMU Gain : 134  
AMU Offset : 123  
Axis Gain : 1.001  
Axis Offset : -0.05  
QP Bias : -10 V

===Detector Parameters===

Discriminator : 8 mV  
Analog HV : 1720 V  
Pulse HV : 1390 V

===Octopole Parameters===

OctP RF : 180 V  
OctP Bias : -18 V

===Reaction Cell===

Reaction Mode : OFF  
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : --- %

P/A Factor Tuning Report

Acquired: Jun 25 2009 05:11 pm

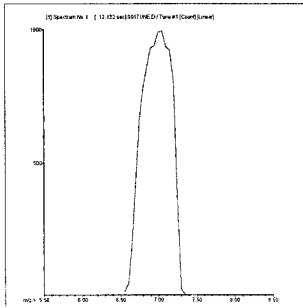
Mass[amu]	Element	P/A Factor
6	Li	0.060527
7	(Li)	Sensitivity too low
9	Be	0.068096
23	Na	0.076001
24	Mg	0.079086
27	Al	0.081496
39	K	0.080983
43	Ca	Sensitivity too low
45	Sc	0.081632
51	V	0.083426
52	Cr	0.086119
53	(Cr)	Sensitivity too low
55	Mn	0.088056
57	Fe	Sensitivity too low
59	Co	0.091535
60	Ni	0.092666
63	Cu	0.094952
66	Zn	0.094596
72	Ge	0.093381
75	As	0.092696
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
93	Nb	Sensitivity too low
95	Mo	0.094000
98	(Mo)	0.093591
99	(Mo)	0.095200
105	Pd	0.098595
106	(Cd)	0.098492
107	Ag	Sensitivity too low
108	(Cd)	0.099270
111	Cd	0.099751
114	Cd	0.099467
115	In	0.098711
118	Sn	0.098622
121	Sb	0.098489
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
182	W	Sensitivity too low
195	Pt	Sensitivity too low
205	Tl	0.108051
206	(Pb)	0.106587
207	(Pb)	0.106712
208	Pb	0.106080
232	Th	0.104987
238	U	0.105110

===Detector Parameters===  
Discriminator: 8.0 mV  
Analog HV: 1720 V  
Pulse HV: 1390 V

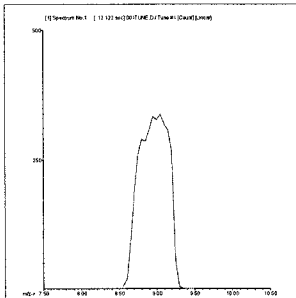
## 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\001TUNE.D  
 Date Acquired: Jun 25 2009 05:39 pm  
 Acq. Method: tun\_isis.M  
 Operator: TEL  
 Sample Name: 200.8 TUNE  
 Misc Info:  
 Vial Number: 4  
 Current Method: C:\ICPCHEM\1\METHODS\tun\_isis.M

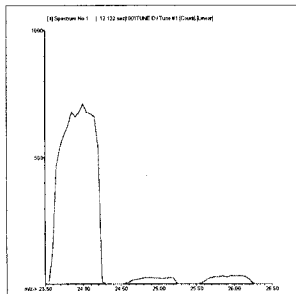
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	19878	20379	19597	20102	19795	19515	4.04	5.00	
9 Be	2433	2425	2477	2473	2415	2369	4.86	5.00	
24 Mg	9547	9717	9719	9432	9511	9352	1.95	5.00	
59 Co	66184	67525	66235	66635	65306	65215	2.98	5.00	
115 In	801383	798461	799262	802155	805195	801843	0.56	5.00	
208 Pb	66140	67999	66838	66447	65254	64161	2.50	5.00	
238 U	133648	138099	133760	136158	133050	127171	2.46	5.00	



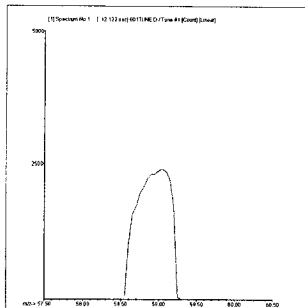
**7 Li**  
**Mass Calib.**  
 Actual: 7.00  
 Required: 6.90 - 7.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



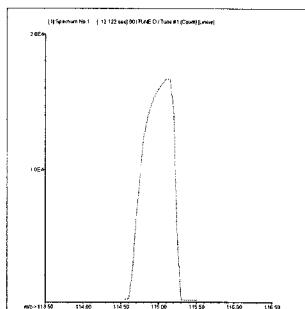
**9 Be**  
**Mass Calib.**  
 Actual: 9.00  
 Required: 8.90 - 9.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



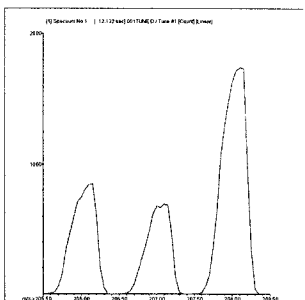
**24 Mg**  
**Mass Calib.**  
 Actual: 23.95  
 Required: 23.90 - 24.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



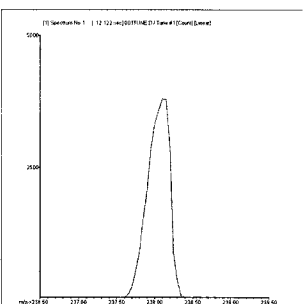
**59 Co**  
**Mass Calib.**  
 Actual: 59.00  
 Required: 58.90 - 59.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**115 In**  
**Mass Calib.**  
 Actual: 115.05  
 Required: 114.90 - 115.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**208 Pb**  
**Mass Calib.**  
 Actual: 208.05  
 Required: 207.90 - 208.10  
 Flag:  
**Peak Width**  
 Actual: 0.50  
 Required: 0.90  
 Flag:



**238 U**  
**Mass Calib.**  
 Actual: 238.10  
 Required: 237.90 - 238.10  
 Flag:  
**Peak Width**  
 Actual: 0.50  
 Required: 0.90  
 Flag:

**Tune Result:** Pass



**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\002CALB.D\002CALB.D#  
 Date Acquired: Jun 25 2009 05:43 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:44 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	187490	1.26
24	Mg	6	1	1467	3.76
27	Al	45	1	933	3.44
39	K	45	1	56573	1.73
43	Ca	45	1	7	86.60
51	V	72	1	175	130.46
52	Cr	72	1	1967	2.29
55	Mn	72	1	253	8.22
57	Fe	72	1	153	42.43
59	Co	72	1	110	39.63
60	Ni	72	1	60	28.87
63	Cu	72	1	283	23.50
66	Zn	72	1	121	8.18
75	As	72	1	26	27.74
78	Se	72	1	40	43.30
93	Nb	72	1	13	114.56
95	Mo	72	1	80	25.00
105	Pd	115	1	7	86.60
107	Ag	115	1	10	100.00
111	Cd	115	1	13	85.41
114	Cd	115	1	23	49.49
118	Sn	115	1	287	12.25
121	Sb	115	1	24	28.39
137	Ba	115	1	13	43.30
182	W	165	1	583	5.51
195	Pt	165	1	197	7.77
205	Tl	165	1	124	10.83
208	Pb	165	1	186	14.41
232	Th	165	1	303	26.65
238	U	165	1	70	37.80

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	363732	0.54
45	Sc	1	866037	0.98
72	Ge	1	481465	0.71
115	In	1	1530349	0.76
165	Ho	1	3426604	0.46

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Test Acquired 6/25/09 5:44 PM

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\003CALB.D\003CALB.D#  
 Date Acquired: Jun 25 2009 05:47 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 2101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:44 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	189918	0.74
24	Mg	6	1	1133	11.24
27	Al	45	1	913	20.38
39	K	45	1	58259	0.95
43	Ca	45	1	10	0.00
51	V	72	1	-84	139.39
52	Cr	72	1	1820	7.39
55	Mn	72	1	237	19.97
57	Fe	72	1	137	27.70
59	Co	72	1	150	23.09
60	Ni	72	1	47	24.74
63	Cu	72	1	253	23.79
66	Zn	72	1	183	12.02
75	As	72	1	23	20.38
78	Se	72	1	47	61.86
93	Nb	72	1	30	33.33
95	Mo	72	1	43	13.32
105	Pd	115	1	7	86.60
107	Ag	115	1	10	100.00
111	Cd	115	1	13	41.66
114	Cd	115	1	20	50.00
118	Sn	115	1	290	24.14
121	Sb	115	1	20	60.09
137	Ba	115	1	18	28.64
182	W	165	1	633	2.41
195	Pt	165	1	130	13.32
205	Tl	165	1	116	4.41
208	Pb	165	1	160	10.42
232	Th	165	1	227	34.27
238	U	165	1	39	40.51

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	363199	0.55
45	Sc	1	874110	1.41
72	Ge	1	487846	0.60
115	In	1	1544466	0.77
165	Ho	1	3433480	0.31

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\



**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#  
 Date Acquired: Jun 25 2009 05:50 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:48 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	191865	0.94
24	Mg	6	1	1784	7.57
27	Al	45	1	1073	3.77
39	K	45	1	58125	1.03
43	Ca	45	1	27	94.37
51	V	72	1	-38	239.76
52	Cr	72	1	1850	4.71
55	Mn	72	1	257	23.48
57	Fe	72	1	160	6.25
59	Co	72	1	133	37.75
60	Ni	72	1	23	49.49
63	Cu	72	1	237	25.47
66	Zn	72	1	114	10.96
75	As	72	1	25	25.38
78	Se	72	1	37	78.73
93	Nb	72	1	23	24.74
95	Mo	72	1	53	54.13
105	Pd	115	1	3	173.21
107	Ag	115	1	10	0.00
111	Cd	115	1	7	214.83
114	Cd	115	1	20	100.00
118	Sn	115	1	183	13.73
121	Sb	115	1	13	0.00
137	Ba	115	1	12	15.75
182	W	165	1	607	8.13
195	Pt	165	1	167	6.93
205	Tl	165	1	98	32.22
208	Pb	165	1	150	12.37
232	Th	165	1	253	8.22
238	U	165	1	31	32.73

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	357213	0.40
45	Sc	1	874931	1.37
72	Ge	1	488215	0.57
115	In	1	1536240	0.42
165	Ho	1	3429199	0.67

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\005ICAL.D\005ICAL.D#  
 Date Acquired: Jun 25 2009 05:54 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:51 pm  
 Sample Type: ICAL

## QC Elements

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	42650	2.23
23	Na	6	22137830	1.26
24	Mg	6	13459580	1.82
27	Al	45	9369846	1.21
39	K	45	13259470	1.08
43	Ca	45	38262	2.23
51	V	72	598158	1.83
52	Cr	72	689748	2.55
55	Mn	72	638890	2.13
57	Fe	72	1807362	0.63
59	Co	72	1008589	1.15
60	Ni	72	234051	1.72
63	Cu	72	572259	1.72
66	Zn	72	105421	1.99
75	As	72	65236	1.81
78	Se	72	9877	1.90
93	Nb	72	27	78.06
95	Mo	72	279637	1.61
105	Pd	115	0	0.00
107	Ag	115	893174	0.92
111	Cd	115	152087	1.51
114	Cd	115	378939	1.78
118	Sn	115	376011	1.54
121	Sb	115	395949	1.95
137	Ba	115	162196	1.45
182	W	165	710	25.86
195	Pt	165	133	31.23
205	Tl	165	1868558	0.59
208	Pb	165	2558274	1.39
232	Th	165	2293497	2.15
238	U	165	2787945	1.82

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	320724	0.42	357213	89.8	30 - 120
45	Sc	1	770897	0.81	874931	88.1	30 - 120
72	Ge	1	429302	0.56	488215	87.9	30 - 120
115	In	1	1391234	0.81	1536240	90.6	30 - 120
165	Ho	1	3180719	0.71	3429199	92.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

**Initial Calibration Verification (ICV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\006\_ICV.D\006\_ICV.D#  
 Date Acquired: Jun 25 2009 05:57 pm  
 Operator: TEL  
 Sample Name: ICV  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: ICV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	39.75 ppb	2.80	40	99.4	90 - 110	
23	Na	6	1	4085.00 ppb	0.24	4000	102.1	90 - 110	
24	Mg	6	1	4111.00 ppb	0.68	4000	102.8	90 - 110	
27	Al	45	1	4073.00 ppb	2.77	4000	101.8	90 - 110	
39	K	45	1	4042.00 ppb	0.14	4000	101.1	90 - 110	
43	Ca	45	1	4148.00 ppb	2.36	4000	103.7	90 - 110	
51	V	72	1	40.09 ppb	1.19	40	100.2	90 - 110	
52	Cr	72	1	40.31 ppb	1.75	40	100.8	90 - 110	
55	Mn	72	1	40.51 ppb	1.75	40	101.3	90 - 110	
57	Fe	72	1	3935.00 ppb	1.52	4000	98.4	90 - 110	
59	Co	72	1	39.44 ppb	1.35	40	98.6	90 - 110	
60	Ni	72	1	40.53 ppb	1.57	40	101.3	90 - 110	
63	Cu	72	1	40.58 ppb	2.44	40	101.5	90 - 110	
66	Zn	72	1	40.34 ppb	0.93	40	100.9	90 - 110	
75	As	72	1	39.60 ppb	1.65	40	99.0	90 - 110	
78	Se	72	1	43.02 ppb	5.00	40	107.6	90 - 110	
93	Nb	72	1	391.30 ppb	47.23	80	489.1	90 - 110	Fail
95	Mo	72	1	39.48 ppb	1.37	40	98.7	90 - 110	Fail
105	Pd	115	1	-333.30 ppb	112.60	40	-833.3	90 - 110	Fail
107	Ag	115	1	40.36 ppb	0.80	40	100.9	90 - 110	Fail
111	Cd	115	1	40.01 ppb	2.07	40	100.0	90 - 110	Fail
114	Cd	115	1	40.05 ppb	1.99	40	100.1	90 - 110	Fail
118	Sn	115	1	39.80 ppb	2.35	40	99.5	90 - 110	Fail
121	Sb	115	1	39.76 ppb	1.08	40	99.4	90 - 110	Fail
137	Ba	115	1	39.85 ppb	2.24	40	99.6	90 - 110	Fail
182	W	165	1	68.18 ppb	38.84	40	170.5	90 - 110	Fail
195	Pt	165	1	184.90 ppb	39.28	40	462.3	90 - 110	Fail
205	Tl	165	1	40.23 ppb	1.26	40	100.6	90 - 110	Fail
208	Pb	165	1	40.64 ppb	1.99	40	101.6	90 - 110	Fail
232	Th	165	1	43.42 ppb	2.47	40	108.6	90 - 110	Fail
238	U	165	1	40.14 ppb	3.18	40	100.4	90 - 110	Fail

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	323232	1.00	357213	90.5	30 - 120
45	Sc	1	774515	0.09	874931	88.5	30 - 120
72	Ge	1	437599	0.33	488215	89.6	30 - 120
115	In	1	1425273	0.39	1536240	92.8	30 - 120
165	Ho	1	3229420	0.55	3429199	94.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\007WASH.D\007WASH.D#  
 Date Acquired: Jun 25 2009 06:01 pm  
 Operator: TEL  
 Sample Name: RLIV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.977 ppb	4.24	1.30	
23 Na	6	1	53.510 ppb	2.95	65.00	
24 Mg	6	1	54.110 ppb	1.89	65.00	
27 Al	45	1	33.130 ppb	1.77	39.00	
39 K	45	1	108.400 ppb	1.67	130.00	
43 Ca	45	1	45.830 ppb	20.04	65.00	
51 V	72	1	4.957 ppb	2.39	6.50	
52 Cr	72	1	2.042 ppb	5.22	2.60	
55 Mn	72	1	1.027 ppb	2.14	1.30	
57 Fe	72	1	50.840 ppb	4.93	65.00	
59 Co	72	1	1.002 ppb	3.94	1.30	
60 Ni	72	1	2.068 ppb	8.40	2.60	
63 Cu	72	1	2.074 ppb	0.92	2.60	
66 Zn	72	1	10.100 ppb	2.93	13.00	
75 As	72	1	5.072 ppb	3.39	6.50	
78 Se	72	1	5.194 ppb	10.40	6.50	
93 Nb	72	1	336.500 ppb	222.08	52.00	
95 Mo	72	1	1.973 ppb	8.51	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.422 ppb	2.72	6.50	
111 Cd	115	1	0.969 ppb	6.76	1.30	
114 Cd	115	1	1.247 ppb	2.67	1.30	
118 Sn	115	1	10.200 ppb	3.75	13.00	
121 Sb	115	1	2.180 ppb	2.06	2.60	
137 Ba	115	1	1.043 ppb	5.61	1.30	
182 W	165	1	-74.470 ppb	68.07	6.50	
195 Pt	165	1	86.750 ppb	91.57	1.30	
205 Tl	165	1	1.195 ppb	3.14	1.30	
208 Pb	165	1	1.064 ppb	1.16	1.30	
232 Th	165	1	2.959 ppb	5.89	2.60	
238 U	165	1	1.057 ppb	2.95	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	331015	0.78	357213	92.7	30 - 120	
45 Sc	1	802941	1.50	874931	91.8	30 - 120	
72 Ge	1	460777	0.36	488215	94.4	30 - 120	
115 In	1	1472933	0.62	1536240	95.9	30 - 120	
165 Ho	1	3274766	0.20	3429199	95.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\008\_ICB.D\008\_ICB.D#  
 Date Acquired: Jun 25 2009 06:04 pm  
 Operator: TEL  
 Sample Name: ICB  
 Misc Info:  
 Vial Number: 2104  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: ICB  
 Total Dil Factor: 1.00

## QC Summary:

Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS	Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9	Be	6	1	0.00	ppb	0.00	1.00	
23	Na	6	1	1.71	ppb	14.06	20.00	
24	Mg	6	1	-0.27	ppb	34.31	20.00	
27	Al	45	1	1.89	ppb	6.01	20.00	
39	K	45	1	1.04	ppb	51.68	20.00	
43	Ca	45	1	1.08	ppb	229.99	20.00	
51	V	72	1	0.03	ppb	65.24	1.00	
52	Cr	72	1	0.00	ppb	1791.30	1.00	
55	Mn	72	1	0.02	ppb	24.11	1.00	
57	Fe	72	1	1.10	ppb	23.04	20.00	
59	Co	72	1	0.00	ppb	70.81	1.00	
60	Ni	72	1	0.03	ppb	25.62	1.00	
63	Cu	72	1	0.02	ppb	29.19	1.00	
66	Zn	72	1	0.42	ppb	3.86	10.00	
75	As	72	1	0.01	ppb	35.82	1.00	
78	Se	72	1	0.23	ppb	122.79	1.00	
93	Nb	72	1	-366.30	ppb	79.47	2.00	
95	Mo	72	1	0.01	ppb	35.90	1.00	
105	Pd	115	1	-104.90	ppb	169.30	1.00	
107	Ag	115	1	0.01	ppb	19.03	1.00	
111	Cd	115	1	0.00	ppb	109.19	1.00	
114	Cd	115	1	0.01	ppb	69.09	1.00	
118	Sn	115	1	0.15	ppb	10.76	10.00	
121	Sb	115	1	0.12	ppb	14.14	1.00	
137	Ba	115	1	0.00	ppb	436.17	1.00	
182	W	165	1	-0.24	ppb	13902.00	5.00	
195	Pt	165	1	53.50	ppb	224.30	1.00	Fail
205	Tl	165	1	0.07	ppb	9.22	1.00	
208	Pb	165	1	0.01	ppb	16.20	1.00	
232	Th	165	1	0.33	ppb	11.31	2.00	
238	U	165	1	0.01	ppb	7.92	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	336355	0.88	357213	94.2	30 - 120
45	Sc	1	844778	1.23	874931	96.6	30 - 120
72	Ge	1	472720	0.34	488215	96.8	30 - 120
115	In	1	1510792	1.49	1536240	98.3	30 - 120
165	Ho	1	3335348	0.98	3429199	97.3	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

1 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**RL STD QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\009RLST.D\009RLST.D#  
 Date Acquired: Jun 25 2009 06:08 pm  
 Operator: TEL  
 Sample Name: RL STD  
 Misc Info: 2105  
 Vial Number: C:\ICPCHEM\1\METHODS\6020isis.M  
 Current Method: C:\ICPCHEM\1\CALIB\6020isis.C  
 Calibration File: Jun 25 2009 05:54 pm  
 Last Cal Update: RLSTD  
 Sample Type: 1.00  
 Total Dil Factor:

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	1.21 ppb	4.23	1	121.2	50 - 150	
23 Na	6	1	110.70 ppb	1.38	100	110.7	50 - 150	
24 Mg	6	1	109.40 ppb	2.04	100	109.4	50 - 150	
27 Al	45	1	101.80 ppb	2.06	100	101.8	50 - 150	
39 K	45	1	104.90 ppb	2.43	100	104.9	50 - 150	
43 Ca	45	1	116.80 ppb	13.38	100	116.8	50 - 150	
51 V	72	1	0.94 ppb	9.10	1	94.3	50 - 150	
52 Cr	72	1	0.98 ppb	5.86	1	97.8	50 - 150	
55 Mn	72	1	1.01 ppb	1.74	1	100.8	50 - 150	
57 Fe	72	1	97.96 ppb	4.59	100	98.0	50 - 150	
59 Co	72	1	0.99 ppb	0.59	1	99.1	50 - 150	
60 Ni	72	1	0.95 ppb	3.90	1	94.6	50 - 150	
63 Cu	72	1	1.05 ppb	4.45	1	105.4	50 - 150	
66 Zn	72	1	10.09 ppb	1.64	10	100.9	50 - 150	
75 As	72	1	0.98 ppb	8.48	1	97.5	50 - 150	
78 Se	72	1	0.80 ppb	24.01	1	80.1	50 - 150	
93 Nb	72	1	-272.70 ppb	161.42	2	-13635.0	50 - 150	Fail
95 Mo	72	1	0.98 ppb	5.51	1	97.7	50 - 150	
105 Pd	115	1	-1.88 ppb	9378.30	1	-188.2	50 - 150	Fail
107 Ag	115	1	1.04 ppb	1.36	1	103.9	50 - 150	
111 Cd	115	1	1.05 ppb	2.12	1	105.0	50 - 150	
114 Cd	115	1	1.23 ppb	4.06	1	122.8	50 - 150	
118 Sn	115	1	10.02 ppb	3.19	10	100.2	50 - 150	
121 Sb	115	1	1.02 ppb	2.63	1	101.8	50 - 150	
137 Ba	115	1	1.01 ppb	2.94	1	100.7	50 - 150	
182 W	165	1	-41.51 ppb	182.32	1	-4151.0	50 - 150	Fail
195 Pt	165	1	39.80 ppb	171.68	1	3980.0	50 - 150	Fail
205 Tl	165	1	1.09 ppb	0.74	1	108.8	50 - 150	
208 Pb	165	1	1.04 ppb	4.08	1	103.9	50 - 150	
232 Th	165	1	1.11 ppb	4.83	1	111.2	50 - 150	
238 U	165	1	1.03 ppb	4.18	1	103.2	50 - 150	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	339022	0.49	357213	94.9	30 - 120	
45 Sc	1	852135	1.34	874931	97.4	30 - 120	
72 Ge	1	476660	0.24	488215	97.6	30 - 120	
115 In	1	1520028	0.32	1536240	98.9	30 - 120	
165 Ho	1	3339304	0.06	3429199	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## AFCEE RL QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\010AFCE.D\010AFCE.D#  
 Date Acquired: Jun 25 2009 06:11 pm  
 Operator: TEL  
 Sample Name: AFCEE RL  
 Misc Info:  
 Vial Number: 2106  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: AFCEERL  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	0.16 ppb	55.69	0	66.1	80 - 120
23	Na	6	1	21.12 ppb	7.64	22	95.4	80 - 120
24	Mg	6	1	21.04 ppb	2.07	22	96.2	80 - 120
27	Al	45	1	20.09 ppb	3.29	20	98.7	80 - 120
39	K	45	1	19.53 ppb	2.60	21	93.1	80 - 120
43	Ca	45	1	14.96 ppb	41.57	23	64.0	80 - 120
51	V	72	1	0.16 ppb	28.81	0	84.3	80 - 120
52	Cr	72	1	0.18 ppb	14.01	0	89.6	80 - 120
55	Mn	72	1	0.22 ppb	6.94	0	106.7	80 - 120
57	Fe	72	1	19.31 ppb	5.38	20	98.6	80 - 120
59	Co	72	1	0.20 ppb	2.85	0	99.2	80 - 120
60	Ni	72	1	0.19 ppb	14.26	0	101.5	80 - 120
63	Cu	72	1	0.21 ppb	13.15	0	99.3	80 - 120
66	Zn	72	1	2.00 ppb	2.14	2	99.3	80 - 120
75	As	72	1	0.19 ppb	9.98	0	98.2	80 - 120
78	Se	72	1	0.13 ppb	141.98	0	80.1	80 - 120
93	Nb	72	1	-465.60 ppb	35.61	-55	853.7	80 - 120
95	Mo	72	1	0.19 ppb	2.79	0	97.7	80 - 120
105	Pd	115	1	-0.41 ppb	#####	0	109.6	80 - 120
107	Ag	115	1	0.21 ppb	3.68	0	102.2	80 - 120
111	Cd	115	1	0.19 ppb	4.76	0	89.8	80 - 120
114	Cd	115	1	0.23 ppb	3.51	0	92.6	80 - 120
118	Sn	115	1	2.05 ppb	2.53	2	102.2	80 - 120
121	Sb	115	1	0.23 ppb	9.88	0	114.9	80 - 120
137	Ba	115	1	0.20 ppb	9.47	0	97.6	80 - 120
182	W	165	1	34.11 ppb	187.07	-8	-410.9	80 - 120
195	Pt	165	1	-103.40 ppb	490.33	8	-1299.0	80 - 120
205	Tl	165	1	0.24 ppb	3.62	0	109.9	80 - 120
208	Pb	165	1	0.21 ppb	7.52	0	99.3	80 - 120
232	Th	165	1	0.29 ppb	2.64	0	132.6	80 - 120
238	U	165	1	0.20 ppb	1.11	0	97.7	80 - 120

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	342755	1.03	357213	96.0	30 - 120
45	Sc	1	861526	0.65	874931	98.5	30 - 120
72	Ge	1	478472	0.23	488215	98.0	30 - 120
115	In	1	1533251	0.39	1536240	99.8	30 - 120
165	Ho	1	3354225	0.41	3429199	97.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed





**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\012ICSA.D\012ICSA.D#  
 Date Acquired: Jun 25 2009 06:18 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.03 ppb	43.08	1.00
23	Na	6	1	97230.00 ppb	0.72	100.00
24	Mg	6	1	93340.00 ppb	0.79	100.00
27	Al	45	1	97800.00 ppb	1.32	100.00
39	K	45	1	99100.00 ppb	0.76	100.00
43	Ca	45	1	104700.00 ppb	0.16	100.00
51	V	72	1	0.06 ppb	5.46	1.00
52	Cr	72	1	1.03 ppb	1.36	1.00
55	Mn	72	1	2.12 ppb	3.28	1.00
57	Fe	72	1	95700.00 ppb	1.69	100.00
59	Co	72	1	0.03 ppb	13.42	1.00
60	Ni	72	1	0.81 ppb	2.92	1.00
63	Cu	72	1	0.29 ppb	5.15	1.00
66	Zn	72	1	2.72 ppb	3.00	10.00
75	As	72	1	0.14 ppb	12.60	1.00
78	Se	72	1	0.18 ppb	133.62	1.00
93	Nb	72	1	2807.00 ppb	39.79	2.00
95	Mo	72	1	2033.00 ppb	0.43	2000.00
105	Pd	115	1	-2323.00 ppb	24.79	1.00
107	Ag	115	1	0.08 ppb	11.81	1.00
111	Cd	115	1	0.37 ppb	47.15	1.00
114	Cd	115	1	1.63 ppb	2.40	1.00
118	Sn	115	1	0.18 ppb	19.11	10.00
121	Sb	115	1	0.25 ppb	7.11	1.00
137	Ba	115	1	1.54 ppb	3.53	1.00
182	W	165	1	1072.00 ppb	2.44	5.00
195	Pt	165	1	-66.66 ppb	355.69	1.00
205	Tl	165	1	0.04 ppb	18.29	1.00
208	Pb	165	1	0.14 ppb	1.55	1.00
232	Th	165	1	0.09 ppb	20.92	2.00
238	U	165	1	0.02 ppb	5.32	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	303415	1.10	357213	84.9	30 - 120
45	Sc	1	684272	0.87	874931	78.2	30 - 120
72	Ge	1	370154	0.61	488215	75.8	30 - 120
115	In	1	1209203	0.34	1536240	78.7	30 - 120
165	Ho	1	2887854	0.72	3429199	84.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

**Interference Check Solution AB (ICS-AB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\013ICSB.D\013ICSB.D#  
 Date Acquired: Jun 25 2009 06:21 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	91.16	2.22	100	91.2	80 - 120	
23 Na	6	1	92920.00	1.17	110000	84.5	80 - 120	
24 Mg	6	1	89260.00	0.64	110000	81.1	80 - 120	
27 Al	45	1	96070.00	1.20	110000	87.3	80 - 120	
39 K	45	1	97200.00	0.15	110000	88.4	80 - 120	
43 Ca	45	1	101800.00	0.52	110000	92.5	80 - 120	
51 V	72	1	102.90	0.54	100	102.9	80 - 120	
52 Cr	72	1	101.40	1.69	100	101.4	80 - 120	
55 Mn	72	1	101.80	1.23	100	101.8	80 - 120	
57 Fe	72	1	95920.00	1.70	110000	87.2	80 - 120	
59 Co	72	1	96.01	1.02	100	96.0	80 - 120	
60 Ni	72	1	94.40	1.62	100	94.4	80 - 120	
63 Cu	72	1	91.91	1.58	100	91.9	80 - 120	
66 Zn	72	1	98.35	1.28	100	98.4	80 - 120	
75 As	72	1	98.91	0.32	100	98.9	80 - 120	
78 Se	72	1	106.20	2.22	100	106.2	80 - 120	
93 Nb	72	1	2529.00	16.76	200	1264.5	80 - 120	Fail
95 Mo	72	1	2131.00	0.55	2100	101.5	80 - 120	
105 Pd	115	1	-1182.00	37.04	100	-1182.0	80 - 120	Fail
107 Ag	115	1	85.93	1.82	100	85.9	80 - 120	
111 Cd	115	1	94.86	2.62	100	94.9	80 - 120	
114 Cd	115	1	96.58	2.43	100	96.6	80 - 120	
118 Sn	115	1	100.90	2.48	100	100.9	80 - 120	
121 Sb	115	1	101.00	2.28	100	101.0	80 - 120	
137 Ba	115	1	105.80	2.32	100	105.8	80 - 120	
182 W	165	1	983.20	13.21	100	983.2	80 - 120	Fail
195 Pt	165	1	42.84	198.95	100	42.8	80 - 120	Fail
205 Tl	165	1	95.91	1.96	100	95.9	80 - 120	
208 Pb	165	1	95.76	3.19	100	95.8	80 - 120	
232 Th	165	1	104.60	3.31	100	104.6	80 - 120	
238 U	165	1	100.80	2.04	100	100.8	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	307006	0.95	357213	85.9	30 - 120	
45 Sc	1	670438	0.67	874931	76.6	30 - 120	
72 Ge	1	359634	0.80	488215	73.7	30 - 120	
115 In	1	1201588	1.19	1536240	78.2	30 - 120	
165 Ho	1	2919411	1.34	3429199	85.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 4 :Element Failures  
 0 :ISTD Failures

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\014SMPL.D\014SMPL.D#  
 Date Acquired: Jun 25 2009 06:25 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.23	3600	
23 Na	6	1	-8.58	-8.58	ppb	7.89	100000	
24 Mg	6	1	4.37	4.37	ppb	30.17	100000	
27 Al	45	1	5.73	5.73	ppb	24.18	100000	
39 K	45	1	-0.43	-0.43	ppb	122.93	100000	
43 Ca	45	1	1.38	1.38	ppb	185.59	100000	
51 V	72	1	0.01	0.01	ppb	219.58	3600	
52 Cr	72	1	-0.01	-0.01	ppb	64.73	3600	
55 Mn	72	1	0.02	0.02	ppb	47.43	18000	
57 Fe	72	1	6.70	6.70	ppb	26.58	100000	
59 Co	72	1	0.00	0.00	ppb	144.50	3600	
60 Ni	72	1	0.00	0.00	ppb	212.11	3600	
63 Cu	72	1	0.02	0.02	ppb	43.54	3600	
66 Zn	72	1	-0.01	-0.01	ppb	135.79	3600	
75 As	72	1	-0.01	-0.01	ppb	108.15	3600	
78 Se	72	1	0.12	0.12	ppb	169.69	3600	
93 Nb	72	1	44.28	44.28	ppb	387.31	2000	
95 Mo	72	1	0.81	0.81	ppb	15.82	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	0.01	0.01	ppb	25.35	3600	
111 Cd	115	1	0.01	0.01	ppb	74.61	3600	
114 Cd	115	1	0.01	0.01	ppb	65.01	3600	
118 Sn	115	1	0.08	0.08	ppb	24.06	3600	
121 Sb	115	1	0.22	0.22	ppb	14.68	3600	
137 Ba	115	1	0.01	0.01	ppb	104.19	3600	
182 W	165	1	-57.75	-57.75	ppb	78.44	1000	
195 Pt	165	1	134.90	134.90	ppb	262.49	1000	
205 Tl	165	1	0.00	0.00	ppb	16.64	3600	
208 Pb	165	1	0.00	0.00	ppb	65.83	3600	
232 Th	165	1	0.64	0.64	ppb	16.36	1000	
238 U	165	1	0.01	0.01	ppb	20.54	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	357808	0.97	357213	100.2	30 - 120	
45 Sc	1	809505	1.74	874931	92.5	30 - 120	
72 Ge	1	457515	0.32	488215	93.7	30 - 120	
115 In	1	1476245	0.56	1536240	96.1	30 - 120	
165 Ho	1	3374873	0.57	3429199	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Linear Dynamic Range Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\015\_LR.D\015\_LR.D#  
 Date Acquired: Jun 25 2009 06:28 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LR  
 Misc Info:  
 Vial Number: 2110  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: LR  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	953.30 ppb	0.22	1000	95.3	90 - 110	
23 Na	6	1	98630.00 ppb	0.26	100000	98.6	90 - 110	
24 Mg	6	1	96030.00 ppb	0.17	100000	96.0	90 - 110	
27 Al	45	1	98370.00 ppb	1.10	100000	98.4	90 - 110	
39 K	45	1	98300.00 ppb	0.70	100000	98.3	90 - 110	
43 Ca	45	1	101000.00 ppb	1.07	100000	101.0	90 - 110	
51 V	72	1	998.30 ppb	0.99	1000	99.8	90 - 110	
52 Cr	72	1	978.80 ppb	0.23	1000	97.9	90 - 110	
55 Mn	72	1	957.00 ppb	0.35	1000	95.7	90 - 110	
57 Fe	72	1	94190.00 ppb	0.74	100000	94.2	90 - 110	
59 Co	72	1	924.80 ppb	0.80	1000	92.5	90 - 110	
60 Ni	72	1	946.10 ppb	0.17	1000	94.6	90 - 110	
63 Cu	72	1	885.80 ppb	0.34	1000	88.6	90 - 110	Fail
66 Zn	72	1	900.10 ppb	0.36	1000	90.0	90 - 110	
75 As	72	1	944.80 ppb	0.23	1000	94.5	90 - 110	
78 Se	72	1	952.60 ppb	0.74	1000	95.3	90 - 110	
93 Nb	72	1	1009.00 ppb	80.16	2000	50.5	90 - 110	Fail
95 Mo	72	1	1030.00 ppb	1.00	1000	103.0	90 - 110	
105 Pd	115	1	-435.80 ppb	212.96	1000	-43.6	90 - 110	Fail
107 Ag	115	1	854.10 ppb	0.64	1000	85.4	90 - 110	Fail
111 Cd	115	1	945.50 ppb	0.54	1000	94.6	90 - 110	
114 Cd	115	1	915.50 ppb	1.23	1000	91.6	90 - 110	
118 Sn	115	1	979.20 ppb	0.53	1000	97.9	90 - 110	
121 Sb	115	1	956.50 ppb	0.90	1000	95.7	90 - 110	
137 Ba	115	1	1031.00 ppb	1.12	1000	103.1	90 - 110	
182 W	165	1	427.60 ppb	30.57	1000	42.8	90 - 110	Fail
195 Pt	165	1	64.52 ppb	171.11	1000	6.5	90 - 110	Fail
205 Tl	165	1	918.90 ppb	0.78	1000	91.9	90 - 110	
208 Pb	165	1	904.20 ppb	1.29	1000	90.4	90 - 110	
232 Th	165	1	1008.00 ppb	0.97	1000	100.8	90 - 110	
238 U	165	1	960.30 ppb	0.95	1000	96.0	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	273131	1.16	357213	76.5	30 - 120	
45 Sc	1	662136	0.98	874931	75.7	30 - 120	
72 Ge	1	359007	1.26	488215	73.5	30 - 120	
115 In	1	1161475	0.75	1536240	75.6	30 - 120	
165 Ho	1	2712036	0.16	3429199	79.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

6 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\016SMPL.D\016SMPL.D#  
 Date Acquired: Jun 25 2009 06:32 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.09	0.09	ppb	66.20	3600	
23 Na	6	1	-8.50	-8.50	ppb	13.36	100000	
24 Mg	6	1	5.46	5.46	ppb	25.68	100000	
27 Al	45	1	6.62	6.62	ppb	19.82	100000	
39 K	45	1	3.69	3.69	ppb	48.73	100000	
43 Ca	45	1	2.13	2.13	ppb	69.09	100000	
51 V	72	1	0.05	0.05	ppb	84.99	3600	
52 Cr	72	1	0.04	0.04	ppb	80.39	3600	
55 Mn	72	1	0.07	0.07	ppb	17.95	18000	
57 Fe	72	1	6.43	6.43	ppb	16.34	100000	
59 Co	72	1	0.05	0.05	ppb	40.82	3600	
60 Ni	72	1	0.07	0.07	ppb	57.75	3600	
63 Cu	72	1	0.07	0.07	ppb	39.17	3600	
66 Zn	72	1	0.07	0.07	ppb	38.37	3600	
75 As	72	1	0.09	0.09	ppb	26.24	3600	
78 Se	72	1	0.24	0.24	ppb	104.69	3600	
93 Nb	72	1	-657.00	-657.00	ppb	0.00	2000	
95 Mo	72	1	0.52	0.52	ppb	19.40	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	0.21	0.21	ppb	14.70	3600	
111 Cd	115	1	0.05	0.05	ppb	26.97	3600	
114 Cd	115	1	0.07	0.07	ppb	19.92	3600	
118 Sn	115	1	1.60	1.60	ppb	1.04	3600	
121 Sb	115	1	1.68	1.68	ppb	0.28	3600	
137 Ba	115	1	0.05	0.05	ppb	27.11	3600	
182 W	165	1	-5.77	-5.77	ppb	633.86	1000	
195 Pt	165	1	123.40	123.40	ppb	79.53	1000	
205 Tl	165	1	0.06	0.06	ppb	12.35	3600	
208 Pb	165	1	0.05	0.05	ppb	26.05	3600	
232 Th	165	1	3.33	3.33	ppb	18.24	1000	
238 U	165	1	0.10	0.10	ppb	18.51	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	340395	1.02	357213	95.3	30 - 120	
45 Sc	1	816743	1.50	874931	93.3	30 - 120	
72 Ge	1	460813	0.55	488215	94.4	30 - 120	
115 In	1	1470258	0.55	1536240	95.7	30 - 120	
165 Ho	1	3230684	1.43	3429199	94.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\017SMPL.D\017SMPL.D#  
 Date Acquired: Jun 25 2009 06:35 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ALTLR  
 Misc Info: Cu/Ag  
 Vial Number: 2112  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	-10.40	-10.40	ppb	13.28	100000	
24 Mg	6	1	0.26	0.26	ppb	14.72	100000	
27 Al	45	1	0.79	0.79	ppb	10.38	100000	
39 K	45	1	0.36	0.36	ppb	574.75	100000	
43 Ca	45	1	-0.61	-0.61	ppb	905.75	100000	
51 V	72	1	0.02	0.02	ppb	94.18	3600	
52 Cr	72	1	0.00	0.00	ppb	819.92	3600	
55 Mn	72	1	0.01	0.01	ppb	59.46	18000	
57 Fe	72	1	0.82	0.82	ppb	33.30	100000	
59 Co	72	1	0.00	0.00	ppb	34.40	3600	
60 Ni	72	1	0.02	0.02	ppb	76.27	3600	
63 Cu	72	1	996.30	996.30	ppb	1.52	3600	
66 Zn	72	1	0.63	0.63	ppb	9.90	3600	
75 As	72	1	0.02	0.02	ppb	51.68	3600	
78 Se	72	1	0.07	0.07	ppb	79.35	3600	
93 Nb	72	1	-370.60	-370.60	ppb	133.86	2000	
95 Mo	72	1	0.16	0.16	ppb	12.92	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	975.90	975.90	ppb	0.71	3600	
111 Cd	115	1	0.00	0.00	ppb	1105.30	3600	
114 Cd	115	1	0.03	0.03	ppb	46.03	3600	
118 Sn	115	1	0.56	0.56	ppb	2.47	3600	
121 Sb	115	1	0.50	0.50	ppb	3.79	3600	
137 Ba	115	1	0.00	0.00	ppb	113.29	3600	
182 W	165	1	-63.64	-63.64	ppb	19.36	1000	
195 Pt	165	1	307.40	307.40	ppb	7.19	1000	
205 Tl	165	1	0.03	0.03	ppb	5.64	3600	
208 Pb	165	1	0.01	0.01	ppb	21.53	3600	
232 Th	165	1	0.72	0.72	ppb	9.80	1000	
238 U	165	1	0.01	0.01	ppb	10.70	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	354196	0.62	357213	99.2	30 - 120	
45 Sc	1	862724	1.88	874931	98.6	30 - 120	
72 Ge	1	479843	0.09	488215	98.3	30 - 120	
115 In	1	1531712	0.37	1536240	99.7	30 - 120	
165 Ho	1	3344703	0.85	3429199	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\018SMPL.D\018SMPL.D#  
 Date Acquired: Jun 25 2009 06:39 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS	Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6		1	0.01	0.01	ppb	173.22	3600	
23 Na	6		1	-10.39	-10.39	ppb	3.61	100000	
24 Mg	6		1	1.17	1.17	ppb	3.69	100000	
27 Al	45		1	1.11	1.11	ppb	10.45	100000	
39 K	45		1	1.24	1.24	ppb	31.26	100000	
43 Ca	45		1	0.03	0.03	ppb	12568.00	100000	
51 V	72		1	0.00	0.00	ppb	5400.60	3600	
52 Cr	72		1	0.00	0.00	ppb	253.53	3600	
55 Mn	72		1	0.01	0.01	ppb	99.44	18000	
57 Fe	72		1	1.12	1.12	ppb	16.65	100000	
59 Co	72		1	0.00	0.00	ppb	76.82	3600	
60 Ni	72		1	0.01	0.01	ppb	130.49	3600	
63 Cu	72		1	0.06	0.06	ppb	67.02	3600	
66 Zn	72		1	0.00	0.00	ppb	508.31	3600	
75 As	72		1	0.02	0.02	ppb	23.95	3600	
78 Se	72		1	0.18	0.18	ppb	30.38	3600	
93 Nb	72		1	-283.10	-283.10	ppb	151.82	2000	
95 Mo	72		1	0.10	0.10	ppb	2.68	3600	
105 Pd	115		1	100.00	100.00	ppb	0.00	1000	
107 Ag	115		1	0.24	0.24	ppb	8.63	3600	
111 Cd	115		1	0.01	0.01	ppb	76.94	3600	
114 Cd	115		1	0.01	0.01	ppb	109.12	3600	
118 Sn	115		1	0.23	0.23	ppb	12.19	3600	
121 Sb	115		1	0.25	0.25	ppb	6.97	3600	
137 Ba	115		1	0.01	0.01	ppb	34.84	3600	
182 W	165		1	-67.79	-67.79	ppb	62.44	1000	
195 Pt	165		1	301.50	301.50	ppb	28.67	1000	
205 Tl	165		1	0.02	0.02	ppb	7.48	3600	
208 Pb	165		1	0.01	0.01	ppb	18.53	3600	
232 Th	165		1	0.19	0.19	ppb	3.15	1000	
238 U	165		1	0.01	0.01	ppb	6.76	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	362228	0.42	357213	101.4	30 - 120	
45 Sc	1	876024	0.49	874931	100.1	30 - 120	
72 Ge	1	491767	0.49	488215	100.7	30 - 120	
115 In	1	1554411	0.14	1536240	101.2	30 - 120	
165 Ho	1	3412353	1.00	3429199	99.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\019\_ccv.D\019\_ccv.D#  
 Date Acquired: Jun 25 2009 06:42 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	48.58	ppb 2.20	50	97.2	90 - 110	
23	Na	6	5001.00	ppb 0.59	5000	100.0	90 - 110	
24	Mg	6	5011.00	ppb 0.56	5000	100.2	90 - 110	
27	Al	45	4937.00	ppb 2.02	5000	98.7	90 - 110	
39	K	45	4984.00	ppb 1.24	5000	99.7	90 - 110	
43	Ca	45	4970.00	ppb 1.82	5000	99.4	90 - 110	
51	V	72	49.44	ppb 1.06	50	98.9	90 - 110	
52	Cr	72	49.74	ppb 2.48	50	99.5	90 - 110	
55	Mn	72	49.52	ppb 0.83	50	99.0	90 - 110	
57	Fe	72	4995.00	ppb 1.86	5000	99.9	90 - 110	
59	Co	72	49.00	ppb 1.67	50	98.0	90 - 110	
60	Ni	72	50.51	ppb 1.39	50	101.0	90 - 110	
63	Cu	72	50.24	ppb 1.17	50	100.5	90 - 110	
66	Zn	72	48.96	ppb 2.02	50	97.9	90 - 110	
75	As	72	49.45	ppb 2.04	50	98.9	90 - 110	
78	Se	72	49.79	ppb 10.19	50	99.6	90 - 110	
93	Nb	72	35.06	ppb 1941.80	100	35.1	90 - 110	Fail
95	Mo	72	48.76	ppb 0.79	50	97.5	90 - 110	
105	Pd	115	-4.58	ppb 3958.50	50	-9.2	90 - 110	Fail
107	Ag	115	50.76	ppb 1.84	50	101.5	90 - 110	
111	Cd	115	50.03	ppb 2.59	50	100.1	90 - 110	
114	Cd	115	50.35	ppb 3.13	50	100.7	90 - 110	
118	Sn	115	50.06	ppb 2.76	50	100.1	90 - 110	
121	Sb	115	49.62	ppb 2.41	50	99.2	90 - 110	
137	Ba	115	50.23	ppb 2.69	50	100.5	90 - 110	
182	W	165	18.42	ppb 393.27	50	36.8	90 - 110	Fail
195	Pt	165	210.80	ppb 30.63	50	421.6	90 - 110	Fail
205	Tl	165	51.19	ppb 0.47	50	102.4	90 - 110	
208	Pb	165	50.67	ppb 1.48	50	101.3	90 - 110	
232	Th	165	49.85	ppb 2.04	50	99.7	90 - 110	
238	U	165	50.88	ppb 1.59	50	101.8	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	340882	1.15	357213	95.4	30 - 120
45	Sc	1	840133	1.14	874931	96.0	30 - 120
72	Ge	1	461797	0.67	488215	94.6	30 - 120
115	In	1	1479459	0.67	1536240	96.3	30 - 120
165	Ho	1	3292289	0.82	3429199	96.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\020\_CCB.D\020\_CCB.D#  
 Date Acquired: Jun 25 2009 06:46 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9	Be	6	1	0.000	ppb	0.00	1.00
23	Na	6	1	-9.712	ppb	11.08	20.00
24	Mg	6	1	0.032	ppb	282.86	20.00
27	Al	45	1	0.481	ppb	14.31	20.00
39	K	45	1	1.447	ppb	38.74	20.00
43	Ca	45	1	0.079	ppb	4470.80	20.00
51	V	72	1	-0.021	ppb	102.29	1.00
52	Cr	72	1	-0.017	ppb	131.43	1.00
55	Mn	72	1	0.005	ppb	157.12	1.00
57	Fe	72	1	0.806	ppb	40.67	20.00
59	Co	72	1	-0.002	ppb	122.24	1.00
60	Ni	72	1	0.009	ppb	130.87	1.00
63	Cu	72	1	0.010	ppb	73.11	1.00
66	Zn	72	1	0.078	ppb	15.01	10.00
75	As	72	1	0.022	ppb	42.84	1.00
78	Se	72	1	0.088	ppb	210.00	1.00
93	Nb	72	1	184.700	ppb	150.79	2.00
95	Mo	72	1	0.059	ppb	16.78	1.00
105	Pd	115	1	100.000	ppb	0.00	1.00
107	Ag	115	1	0.085	ppb	8.72	1.00
111	Cd	115	1	0.008	ppb	68.72	1.00
114	Cd	115	1	0.009	ppb	88.24	1.00
118	Sn	115	1	0.379	ppb	9.21	10.00
121	Sb	115	1	0.306	ppb	3.89	1.00
137	Ba	115	1	0.006	ppb	51.20	1.00
182	W	165	1	-31.270	ppb	258.43	5.00
195	Pt	165	1	194.000	ppb	63.14	1.00
205	Tl	165	1	0.028	ppb	10.97	1.00
208	Pb	165	1	0.006	ppb	61.36	1.00
232	Th	165	1	0.942	ppb	12.21	2.00
238	U	165	1	0.007	ppb	17.32	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	351044	0.31	357213	98.3	30 - 120
45	Sc	1	870719	0.52	874931	99.5	30 - 120
72	Ge	1	489985	0.29	488215	100.4	30 - 120
115	In	1	1542513	0.43	1536240	100.4	30 - 120
165	Ho	1	3382584	1.10	3429199	98.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\021WASH.D\021WASH.D#  
 Date Acquired: Jun 25 2009 06:49 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.987 ppb	7.94	1.30	
23 Na	6	1	48.090 ppb	0.41	65.00	
24 Mg	6	1	55.170 ppb	0.72	65.00	
27 Al	45	1	32.880 ppb	2.12	39.00	
39 K	45	1	109.000 ppb	0.31	130.00	
43 Ca	45	1	41.610 ppb	19.24	65.00	
51 V	72	1	4.981 ppb	0.96	6.50	
52 Cr	72	1	2.047 ppb	1.06	2.60	
55 Mn	72	1	1.018 ppb	5.61	1.30	
57 Fe	72	1	50.580 ppb	3.06	65.00	
59 Co	72	1	1.013 ppb	0.70	1.30	
60 Ni	72	1	2.131 ppb	2.18	2.60	
63 Cu	72	1	2.131 ppb	0.79	2.60	
66 Zn	72	1	10.090 ppb	1.76	13.00	
75 As	72	1	5.116 ppb	0.62	6.50	
78 Se	72	1	5.418 ppb	10.91	6.50	
93 Nb	72	1	-376.200 ppb	74.40	52.00	
95 Mo	72	1	2.020 ppb	2.50	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.478 ppb	3.31	6.50	
111 Cd	115	1	1.035 ppb	3.59	1.30	
114 Cd	115	1	1.235 ppb	4.10	1.30	
118 Sn	115	1	10.680 ppb	4.31	13.00	
121 Sb	115	1	2.091 ppb	2.57	2.60	
137 Ba	115	1	1.062 ppb	5.70	1.30	
182 W	165	1	16.610 ppb	312.04	6.50	
195 Pt	165	1	62.090 ppb	366.08	1.30	
205 Tl	165	1	1.091 ppb	1.71	1.30	
208 Pb	165	1	1.075 ppb	0.94	1.30	
232 Th	165	1	2.390 ppb	1.59	2.60	
238 U	165	1	1.067 ppb	1.95	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	348321	0.99	357213	97.5	30 - 120	
45 Sc	1	873127	0.27	874931	99.8	30 - 120	
72 Ge	1	488285	0.57	488215	100.0	30 - 120	
115 In	1	1545065	1.13	1536240	100.6	30 - 120	
165 Ho	1	3375135	0.62	3429199	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

### Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\039\_CCV.D\039\_CCV.D#  
 Date Acquired: Jun 25 2009 07:52 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

QC Elements									
Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	48.74	ppb	4.12	50	97.5	90 - 110
23	Na	6	1	5153.00	ppb	0.86	5000	103.1	90 - 110
24	Mg	6	1	5072.00	ppb	1.94	5000	101.4	90 - 110
27	Al	45	1	4915.00	ppb	2.34	5000	98.3	90 - 110
39	K	45	1	4996.00	ppb	1.58	5000	99.9	90 - 110
43	Ca	45	1	4810.00	ppb	0.73	5000	96.2	90 - 110
51	V	72	1	48.92	ppb	1.25	50	97.8	90 - 110
52	Cr	72	1	49.33	ppb	1.69	50	98.7	90 - 110
55	Mn	72	1	49.68	ppb	1.09	50	99.4	90 - 110
57	Fe	72	1	5031.00	ppb	0.66	5000	100.6	90 - 110
59	Co	72	1	48.40	ppb	1.58	50	96.8	90 - 110
60	Ni	72	1	49.73	ppb	1.30	50	99.5	90 - 110
63	Cu	72	1	49.94	ppb	1.47	50	99.9	90 - 110
66	Zn	72	1	48.82	ppb	1.93	50	97.6	90 - 110
75	As	72	1	50.37	ppb	0.68	50	100.7	90 - 110
78	Se	72	1	52.13	ppb	3.30	50	104.3	90 - 110
93	Nb	72	1	295800.00	ppb	5.56	100	295800.0	90 - 110 Fail
95	Mo	72	1	49.19	ppb	0.34	50	98.4	90 - 110 Fail
105	Pd	115	1	-211.50	ppb	147.47	50	-423.0	90 - 110 Fail
107	Ag	115	1	50.00	ppb	0.62	50	100.0	90 - 110
111	Cd	115	1	49.20	ppb	0.81	50	98.4	90 - 110
114	Cd	115	1	49.01	ppb	2.23	50	98.0	90 - 110
118	Sn	115	1	50.08	ppb	1.79	50	100.2	90 - 110
121	Sb	115	1	49.29	ppb	0.98	50	98.6	90 - 110
137	Ba	115	1	49.35	ppb	1.14	50	98.7	90 - 110 Fail
182	W	165	1	108.50	ppb	10.66	50	217.0	90 - 110 Fail
195	Pt	165	1	31.96	ppb	171.50	50	63.9	90 - 110
205	Tl	165	1	51.02	ppb	1.55	50	102.0	90 - 110
208	Pb	165	1	50.70	ppb	2.07	50	101.4	90 - 110
232	Th	165	1	50.71	ppb	2.43	50	101.4	90 - 110
238	U	165	1	51.28	ppb	3.53	50	102.6	90 - 110

ISTD Elements									
Element		Tune	CPS Mean		RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	332857		0.23	357213	93.2	30 - 120	
45	Sc	1	839245		1.10	874931	95.9	30 - 120	
72	Ge	1	458159		0.61	488215	93.8	30 - 120	
115	In	1	1489019		0.31	1536240	96.9	30 - 120	
165	Ho	1	3302067		1.05	3429199	96.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 4 :Element Failures  
 0 :ISTD Failures

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\040\_CCB.D\040\_CCB.D#  
 Date Acquired: Jun 25 2009 07:55 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	10.720	ppb	12.16	20.00	
24 Mg	6	1	-0.161	ppb	28.66	20.00	
27 Al	45	1	0.312	ppb	37.01	20.00	
39 K	45	1	4.319	ppb	17.62	20.00	
43 Ca	45	1	-3.018	ppb	43.61	20.00	
51 V	72	1	-0.014	ppb	211.30	1.00	
52 Cr	72	1	-0.002	ppb	504.97	1.00	
55 Mn	72	1	0.002	ppb	254.01	1.00	
57 Fe	72	1	0.537	ppb	24.58	20.00	
59 Co	72	1	-0.002	ppb	152.30	1.00	
60 Ni	72	1	0.005	ppb	43.20	1.00	
63 Cu	72	1	0.014	ppb	31.27	1.00	
66 Zn	72	1	0.074	ppb	29.04	10.00	
75 As	72	1	0.002	ppb	220.68	1.00	
78 Se	72	1	0.358	ppb	28.47	1.00	
93 Nb	72	1	200100.000	ppb	9.95	2.00	Fail
95 Mo	72	1	0.049	ppb	28.99	1.00	
105 Pd	115	1	-98.540	ppb	174.55	1.00	
107 Ag	115	1	0.566	ppb	15.16	1.00	
111 Cd	115	1	0.009	ppb	43.15	1.00	
114 Cd	115	1	0.012	ppb	18.99	1.00	
118 Sn	115	1	0.457	ppb	2.92	10.00	
121 Sb	115	1	0.229	ppb	3.57	1.00	
137 Ba	115	1	0.007	ppb	56.18	1.00	
182 W	165	1	16.890	ppb	120.07	5.00	Fail
195 Pt	165	1	191.000	ppb	114.71	1.00	Fail
205 Tl	165	1	0.041	ppb	3.35	1.00	
208 Pb	165	1	0.010	ppb	17.05	1.00	
232 Th	165	1	0.843	ppb	14.20	2.00	
238 U	165	1	0.009	ppb	8.50	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	342068	0.36	357213	95.8	30 - 120	
45 Sc	1	870331	1.04	874931	99.5	30 - 120	
72 Ge	1	487820	0.23	488215	99.9	30 - 120	
115 In	1	1552133	0.84	1536240	101.0	30 - 120	
165 Ho	1	3356175	0.82	3429199	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\041WASH.D\041WASH.D#  
 Date Acquired: Jun 25 2009 07:59 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.826 ppb	13.06	1.30	
23 Na	6	1	62.380 ppb	2.41	65.00	
24 Mg	6	1	54.380 ppb	2.62	65.00	
27 Al	45	1	31.990 ppb	0.56	39.00	
39 K	45	1	107.900 ppb	0.32	130.00	
43 Ca	45	1	43.640 ppb	18.66	65.00	
51 V	72	1	4.998 ppb	2.61	6.50	
52 Cr	72	1	1.932 ppb	3.77	2.60	
55 Mn	72	1	1.035 ppb	1.40	1.30	
57 Fe	72	1	50.580 ppb	1.61	65.00	
59 Co	72	1	1.014 ppb	3.12	1.30	
60 Ni	72	1	2.108 ppb	1.75	2.60	
63 Cu	72	1	2.068 ppb	0.35	2.60	
66 Zn	72	1	9.893 ppb	2.70	13.00	
75 As	72	1	5.025 ppb	2.69	6.50	
78 Se	72	1	5.913 ppb	10.41	6.50	
93 Nb	72	1	153600.000 ppb	9.09	52.00	
95 Mo	72	1	1.943 ppb	7.32	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.551 ppb	1.79	6.50	
111 Cd	115	1	0.983 ppb	4.98	1.30	
114 Cd	115	1	1.217 ppb	3.90	1.30	
118 Sn	115	1	10.280 ppb	1.85	13.00	
121 Sb	115	1	2.014 ppb	1.23	2.60	
137 Ba	115	1	1.031 ppb	3.47	1.30	
182 W	165	1	7.650 ppb	132.16	6.50	
195 Pt	165	1	51.680 ppb	213.43	1.30	
205 Tl	165	1	1.107 ppb	1.98	1.30	
208 Pb	165	1	1.054 ppb	3.41	1.30	
232 Th	165	1	2.297 ppb	2.11	2.60	
238 U	165	1	1.087 ppb	2.74	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	342745	1.04	357213	95.9	30 - 120	
45 Sc	1	878289	0.18	874931	100.4	30 - 120	
72 Ge	1	486801	0.25	488215	99.7	30 - 120	
115 In	1	1569368	0.39	1536240	102.2	30 - 120	
165 Ho	1	3398464	0.55	3429199	99.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\042\_BLK.D\042\_BLK.D#  
 Date Acquired: Jun 25 2009 08:02 pm  
 Operator: TEL  
 Sample Name: LFFFXB  
 Misc Info: BLANK 9174190 6020  
 Vial Number: 2201  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: BLK  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
23 Na	6	1	7.942 ppb	6.98	40.00	
24 Mg	6	1	-0.024 ppb	514.36	40.00	
27 Al	45	1	0.692 ppb	36.17	40.00	
39 K	45	1	1.278 ppb	17.27	40.00	
43 Ca	45	1	0.715 ppb	631.38	40.00	
51 V	72	1	0.008 ppb	168.52	2.00	
52 Cr	72	1	0.033 ppb	79.93	2.00	
55 Mn	72	1	0.025 ppb	20.91	2.00	
57 Fe	72	1	0.789 ppb	15.39	40.00	
59 Co	72	1	-0.008 ppb	56.98	2.00	
60 Ni	72	1	0.025 ppb	39.31	2.00	
63 Cu	72	1	0.033 ppb	24.37	2.00	
66 Zn	72	1	0.287 ppb	3.10	20.00	
75 As	72	1	0.005 ppb	213.46	2.00	
78 Se	72	1	0.093 ppb	203.92	2.00	
93 Nb	72	1	141200.000 ppb	11.37	4.00	Fail
95 Mo	72	1	0.006 ppb	111.04	2.00	
105 Pd	115	1	-192.400 ppb	150.88	2.00	
107 Ag	115	1	0.058 ppb	7.02	2.00	
111 Cd	115	1	0.007 ppb	180.74	2.00	
114 Cd	115	1	0.017 ppb	27.48	2.00	
118 Sn	115	1	0.402 ppb	6.81	20.00	
121 Sb	115	1	0.072 ppb	10.34	2.00	
137 Ba	115	1	0.014 ppb	54.61	2.00	
182 W	165	1	23.290 ppb	253.41	10.00	Fail
195 Pt	165	1	171.000 ppb	118.19	2.00	Fail
205 Tl	165	1	0.013 ppb	34.54	2.00	
208 Pb	165	1	0.012 ppb	11.64	2.00	
232 Th	165	1	0.191 ppb	12.10	4.00	
238 U	165	1	0.002 ppb	12.09	2.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	344167	0.94	357213	96.3	30 - 120	
45 Sc	1	884330	0.77	874931	101.1	30 - 120	
72 Ge	1	484832	0.72	488215	99.3	30 - 120	
115 In	1	1573611	1.19	1536240	102.4	30 - 120	
165 Ho	1	3426259	1.24	3429199	99.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Laboratory Control Spike (LCS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\043\_LCS.D\043\_LCS.D#  
 Date Acquired: Jun 25 2009 08:06 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LFFFXC  
 Misc Info: LCS  
 Vial Number: 2202  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: LCS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	39.77	1.53	40	99.4	80 - 120	
23 Na	6	1	12.94	6.33	4000	0.3	80 - 120	
24 Mg	6	1	0.20	13.52	4000	0.0	80 - 120	
27 Al	45	1	45.13	1.04	4000	1.1	80 - 120	
39 K	45	1	4.48	36.17	4000	0.1	80 - 120	
43 Ca	45	1	0.16	#####	4000	0.0	80 - 120	
51 V	72	1	40.53	0.89	40	101.3	80 - 120	
52 Cr	72	1	41.13	1.04	40	102.8	80 - 120	
55 Mn	72	1	41.09	0.97	40	102.7	80 - 120	
57 Fe	72	1	0.60	62.76	4000	0.0	80 - 120	
59 Co	72	1	40.36	0.57	40	100.9	80 - 120	
60 Ni	72	1	41.39	1.35	40	103.5	80 - 120	
63 Cu	72	1	42.61	0.81	40	106.5	80 - 120	
66 Zn	72	1	39.66	1.04	40	99.2	80 - 120	
75 As	72	1	39.61	0.74	40	99.0	80 - 120	
78 Se	72	1	42.53	5.78	40	106.3	80 - 120	
93 Nb	72	1	112100.00	10.70	80	140125.0	80 - 120	
95 Mo	72	1	39.82	0.81	40	99.6	80 - 120	
105 Pd	115	1	-105.00	169.14	40	-262.5	80 - 120	
107 Ag	115	1	41.84	0.59	40	104.6	80 - 120	
111 Cd	115	1	40.03	0.80	40	100.1	80 - 120	
114 Cd	115	1	38.89	1.19	40	97.2	80 - 120	
118 Sn	115	1	0.13	14.91	40	0.3	80 - 120	
121 Sb	115	1	40.17	1.14	40	100.4	80 - 120	
137 Ba	115	1	41.28	1.04	40	103.2	80 - 120	
182 W	165	1	46.31	58.80	40	115.8	80 - 120	
195 Pt	165	1	-226.10	65.90	40	-565.3	80 - 120	
205 Tl	165	1	42.48	0.49	40	106.2	80 - 120	
208 Pb	165	1	42.34	0.96	40	105.9	80 - 120	
232 Th	165	1	44.02	1.58	40	110.1	80 - 120	
238 U	165	1	41.40	1.08	40	103.5	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	334934	1.49	357213	93.8	30 - 120	
45 Sc	1	857273	1.95	874931	98.0	30 - 120	
72 Ge	1	466043	1.48	488215	95.5	30 - 120	
115 In	1	1511830	1.47	1536240	98.4	30 - 120	
165 Ho	1	3344089	0.94	3429199	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\044SMPL.D\044SMPL.D#  
 Date Acquired: Jun 25 2009 08:09 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE709 10X  
 Misc Info: D9F180314  
 Vial Number: 2203  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 10.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 10.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.15	0.01	ppb	86.56	3600	
23 Na	6	1	1,173,000.00	117300.00	ppb	0.72	100000	>LDR
24 Mg	6	1	253,500.00	25350.00	ppb	0.72	100000	
27 Al	45	1	1,034.00	103.40	ppb	2.53	100000	
39 K	45	1	24,450.00	2445.00	ppb	3.05	100000	
43 Ca	45	1	459,700.00	45970.00	ppb	3.07	100000	
51 V	72	1	15.94	1.59	ppb	6.55	3600	
52 Cr	72	1	825.90	82.59	ppb	1.14	3600	
55 Mn	72	1	173.50	17.35	ppb	2.04	18000	
57 Fe	72	1	1,659.00	165.90	ppb	2.29	100000	
59 Co	72	1	0.81	0.08	ppb	11.83	3600	
60 Ni	72	1	5.28	0.53	ppb	9.91	3600	
63 Cu	72	1	2.04	0.20	ppb	14.72	3600	
66 Zn	72	1	4.58	0.46	ppb	8.59	3600	
75 As	72	1	111.90	11.19	ppb	0.44	3600	
78 Se	72	1	6.75	0.67	ppb	92.84	3600	
93 Nb	72	1	1,021,000.00	102100.00	ppb	4.18	2000	>LDR
95 Mo	72	1	109.20	10.92	ppb	1.21	3600	
105 Pd	115	1	-427,200.00	-42720.00	ppb	1.89	1000	
107 Ag	115	1	0.49	0.05	ppb	1.88	3600	
111 Cd	115	1	0.17	0.02	ppb	99.41	3600	
114 Cd	115	1	0.24	0.02	ppb	89.21	3600	
118 Sn	115	1	2.10	0.21	ppb	11.20	3600	
121 Sb	115	1	0.85	0.08	ppb	1.17	3600	
137 Ba	115	1	31.01	3.10	ppb	3.75	3600	
182 W	165	1	880,600.00	88060.00	ppb	1.70	1000	>LDR
195 Pt	165	1	-5,452.00	-545.20	ppb	34.65	1000	
205 Tl	165	1	0.26	0.03	ppb	17.83	3600	
208 Pb	165	1	0.60	0.06	ppb	8.40	3600	
232 Th	165	1	7.87	0.79	ppb	16.35	1000	
238 U	165	1	27.94	2.79	ppb	2.79	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	336376	1.15	357213	94.2	30 - 120	
45 Sc	1	816474	3.44	874931	93.3	30 - 120	
72 Ge	1	435413	0.15	488215	89.2	30 - 120	
115 In	1	1412428	0.78	1536240	91.9	30 - 120	
165 Ho	1	3242351	1.05	3429199	94.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\045AREF.D\045AREF.D#  
 Date Acquired: Jun 25 2009 08:13 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CT 5X  
 Misc Info: D9F180266  
 Vial Number: 2204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: AllRef  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	3.74	0.75	ppb	21.68	3600
23	Na	6	1	125,650.00	25130.00	ppb	0.29	100000
24	Mg	6	1	368,700.00	73740.00	ppb	0.94	100000
27	Al	45	1	21,970.00	4394.00	ppb	1.27	100000
39	K	45	1	43,265.00	8653.00	ppb	1.15	100000
43	Ca	45	1	586,000.00	117200.00	ppb	1.52	100000 >LDR NR
51	V	72	1	92.10	18.42	ppb	1.84	3600
52	Cr	72	1	45.09	9.02	ppb	3.58	3600
55	Mn	72	1	217,150.00	43430.00	ppb	0.90	18000 >LDR NR
57	Fe	72	1	18,695.00	3739.00	ppb	1.33	100000
59	Co	72	1	24.33	4.87	ppb	2.79	3600
60	Ni	72	1	60.90	12.18	ppb	0.23	3600
63	Cu	72	1	218.35	43.67	ppb	1.02	3600
66	Zn	72	1	86.50	17.30	ppb	1.27	3600
75	As	72	1	63.90	12.78	ppb	2.51	3600
78	Se	72	1	13.62	2.72	ppb	17.64	3600
93	Nb	72	1	1,028,000.00	205600.00	ppb	4.14	2000 >LDR NR
95	Mo	72	1	3.63	0.73	ppb	8.20	3600
105	Pd	115	1	-329,600.00	-65920.00	ppb	9.60	1000
107	Ag	115	1	0.12	0.02	ppb	11.98	3600
111	Cd	115	1	1.11	0.22	ppb	1.75	3600
114	Cd	115	1	1.14	0.23	ppb	12.53	3600
118	Sn	115	1	2.18	0.44	ppb	2.42	3600
121	Sb	115	1	0.39	0.08	ppb	4.81	3600
137	Ba	115	1	107.25	21.45	ppb	2.83	3600
182	W	165	1	20,790.00	4158.00	ppb	1.92	1000 >LDR NR
195	Pt	165	1	-6,630.00	-1326.00	ppb	38.91	1000
205	Tl	165	1	0.52	0.10	ppb	3.36	3600
208	Pb	165	1	15.46	3.09	ppb	1.85	3600
232	Th	165	1	9.64	1.93	ppb	3.08	1000
238	U	165	1	15.12	3.02	ppb	2.38	3600

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	345442	0.63	357213	96.7	30 - 120
45	Sc	1	796186	0.82	874931	91.0	30 - 120
72	Ge	1	418901	1.00	488215	85.8	30 - 120
115	In	1	1390221	0.99	1536240	90.5	30 - 120
165	Ho	1	3262596	0.18	3429199	95.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Dilution Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\046SDIL.D\046SDIL.D#  
 Date Acquired: Jun 25 2009 08:16 pm **QC Summary:**  
 Acq. Method: 6020isis.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE7CTP25  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2205  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SDIL  
 Dilution Factor: 5.00

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062509.B\045AREF.D\045AREF.D#

**QC elements**

Element	IS	Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9	Be	6	1	0.13 ppb	29.18	0.15	89.6	90 - 110	
23	Na	6	1	5261.00 ppb	1.27	5026.00	104.7	90 - 110	
24	Mg	6	1	15770.00 ppb	1.35	14748.00	106.9	90 - 110	
27	Al	45	1	986.60 ppb	2.42	878.80	112.3	90 - 110	
39	K	45	1	1828.00 ppb	0.72	1730.60	105.6	90 - 110	
43	Ca	45	1	24320.00 ppb	1.81	23440.00	103.8	90 - 110	
51	V	72	1	3.55 ppb	4.99	3.68	96.4	90 - 110	
52	Cr	72	1	1.77 ppb	1.31	1.80	98.3	90 - 110	
55	Mn	72	1	8697.00 ppb	0.64	8686.00	100.1	90 - 110	
57	Fe	72	1	761.60 ppb	2.50	747.80	101.8	90 - 110	
59	Co	72	1	0.95 ppb	4.14	0.97	97.8	90 - 110	
60	Ni	72	1	2.64 ppb	4.25	2.44	108.5	90 - 110	
63	Cu	72	1	9.14 ppb	0.88	8.73	104.6	90 - 110	
66	Zn	72	1	4.59 ppb	1.91	3.46	132.8	90 - 110	
75	As	72	1	2.57 ppb	2.32	2.56	100.4	90 - 110	
78	Se	72	1	0.73 ppb	41.81	0.54	133.4	90 - 110	
93	Nb	72	1	85150.00 ppb	6.21	41120.00	207.1	90 - 110	
95	Mo	72	1	0.17 ppb	3.04	0.15	117.1	90 - 110	
105	Pd	115	1	-14520.00 ppb	9.41	-13184.00	110.1	90 - 110	
107	Ag	115	1	0.01 ppb	57.12	0.00	192.2	90 - 110	
111	Cd	115	1	0.06 ppb	21.46	0.04	145.7	90 - 110	
114	Cd	115	1	0.05 ppb	24.77	0.05	101.4	90 - 110	
118	Sn	115	1	0.26 ppb	6.83	0.09	293.0	90 - 110	
121	Sb	115	1	0.04 ppb	6.43	0.02	272.7	90 - 110	
137	Ba	115	1	4.62 ppb	3.56	4.29	107.6	90 - 110	
182	W	165	1	979.60 ppb	12.33	831.60	117.8	90 - 110	
195	Pt	165	1	-1261.00 ppb	10.79	-265.20	475.5	90 - 110	
205	Tl	165	1	0.02 ppb	5.31	0.02	116.5	90 - 110	
208	Pb	165	1	0.70 ppb	1.63	0.62	113.6	90 - 110	
232	Th	165	1	0.39 ppb	8.58	0.39	102.3	90 - 110	
238	U	165	1	0.65 ppb	2.08	0.60	106.8	90 - 110	

**ISTD elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	337113	1.06	357213	94.4	30 - 120
45	Sc	1	793164	0.71	874931	90.7	30 - 120
72	Ge	1	441487	0.63	488215	90.4	30 - 120
115	In	1	1434933	1.08	1536240	93.4	30 - 120
165	Ho	1	3268288	0.61	3429199	95.3	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) ICPMS\_024 Reported: 06/26/09 15:10:48

Department: 090 (Metals) Source: Spreadsheet

Sample: LE7CTP25 Serial Dilution: 25.00 Sample Dilution: 5.00

Instrument: Agilent7500 Channel 272
File: AG062509 # 46 Method 6020\_
Acquired: 06/25/2009 20:16:00 ICPMS\_024 Matrix: AQUEOUS
Calibrated: 06/25/2009 17:50:00 Units: ug/L

Table with columns: CASN, Analyte Name, M/S, Area, Dilution, Sample, %Diff., MDL, Flag, Q. Lists various elements like Beryllium, Vanadium, Chromium, etc., with their respective values and flags.

AS only
6/29/09

\* Analyte not requested for this batch, no MDL
NC : Serial dilution concentration < 100 X MDL
E : Difference greater than Limit (10%)

Reviewed by: [Signature] Date: 6/29/09



Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/26/09 15:10:55

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTZ

Spike Dilution: 1.00

Sample Dilution: 5.00

Instrument: Agilent7500

Channel 272

File: AG062509 # 47

Method 6020\_

Acquired: 06/25/2009 20:20:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/25/2009 17:50:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	76738	177.30	0.74760	88.3	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	1230350	224.30	18.424	103	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	1344140	212.70	9.0160	102	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	54232000	43400	43420	0.00	200	*	<input type="checkbox"/>
7440-48-4	Cobalt	59	1797210	194.30	4.8660	94.7	200		<input checked="" type="checkbox"/>
7440-02-0	Nickel	60	428374	199.60	12.182	93.7	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1216920	231.90	43.660	94.1	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	196464	203.30	17.298	93.0	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	126586	211.60	12.776	99.4	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	19985	220.90	2.7220	109	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	519946	202.70	0.72540	101	200		<input checked="" type="checkbox"/>
7440-22-4	Silver	107	383551	45.210	0.02476	90.4	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	271982	188.30	0.22160	94.0	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	640204	179.30	0.43520	89.4	200		<input checked="" type="checkbox"/>
7440-36-0	Antimony	121	738908	196.50	0.07870	98.2	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	342571	222.40	21.440	100	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	3451230	189.30	0.10432	94.6	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	4771140	191.10	3.0920	94.0	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	5382990	197.90	3.0240	97.4	200		<input checked="" type="checkbox"/>
7440-23-5	Sodium	23	54755500	24490	25120				
7439-95-4	Magnesium	24	98863900	72400	73740				
7429-90-5	Aluminum	27	3945430	4388.0	4394.0				
7440-09-7	Potassium	39	10801400	8484.0	8652.0				
7440-70-2	Calcium	43	425172	115900	117240				
7439-89-6	Iron	57	608947	3673.0	3740.0				
7440-03-1	Niobium	93	5118	178100	205600				
7440-05-3	Palladium	105	2014	-70340	-65920				
7440-43-9	Cadmium	114	677452	188.20	0.22860				
7440-33-7	Tungsten	182	6408	4078.0	4158.0				
7440-06-4	Platinum	195	213	-301.40	-1326.6				
7440-29-1	Thorium	232	39034	1.7350	1.9278				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

AS only  
Z  
6/26/09

Reviewed by:

Date:

6/26/09

**Spiked Sample (MS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\048\_MS.D\048\_MS.D#  
 Date Acquired: Jun 25 2009 08:23 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CTS 5X  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2207  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: MS  
 Prep Dil. Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	7.97	0.75	ppb	3.99	40	19.6	50 - 150	
23 Na	6	1	25030.00	25130.00	ppb	0.83	4000	85.9	50 - 150	
24 Mg	6	1	73470.00	73740.00	ppb	0.54	4000	94.5	50 - 150	
27 Al	45	1	4311.00	4394.00	ppb	0.64	4000	51.4	50 - 150	
39 K	45	1	8675.00	8653.00	ppb	0.53	4000	68.6	50 - 150	
43 Ca	45	1	118500.00	117200.00	ppb	1.70	4000	97.8	50 - 150	
51 V	72	1	26.52	18.42	ppb	2.45	40	45.4	50 - 150	
52 Cr	72	1	17.10	9.02	ppb	2.28	40	34.9	50 - 150	
55 Mn	72	1	44050.00	43430.00	ppb	1.14	40	101.3	50 - 150	
57 Fe	72	1	3646.00	3739.00	ppb	1.97	4000	47.1	50 - 150	
59 Co	72	1	12.68	4.86	ppb	2.27	40	28.3	50 - 150	
60 Ni	72	1	20.55	12.18	ppb	2.00	40	39.4	50 - 150	
63 Cu	72	1	51.57	43.67	ppb	2.01	40	61.6	50 - 150	
66 Zn	72	1	24.36	17.30	ppb	1.63	40	42.5	50 - 150	
75 As	72	1	21.28	12.78	ppb	1.81	40	40.3	50 - 150	
78 Se	72	1	10.86	2.72	ppb	2.35	40	25.4	50 - 150	
93 Nb	72	1	161600.00	205600.00	ppb	10.07	80	78.6	50 - 150	
95 Mo	72	1	8.46	0.73	ppb	2.87	40	20.8	50 - 150	
105 Pd	115	1	-68210.00	-65920.00	ppb	3.76	40	103.5	50 - 150	
107 Ag	115	1	7.51	0.02	ppb	2.32	40	18.8	50 - 150	
111 Cd	115	1	7.95	0.22	ppb	3.58	40	19.8	50 - 150	
114 Cd	115	1	7.96	0.23	ppb	4.85	40	19.8	50 - 150	
118 Sn	115	1	0.63	0.44	ppb	1.13	40	1.6	50 - 150	
121 Sb	115	1	5.15	0.08	ppb	3.28	40	12.8	50 - 150	
137 Ba	115	1	29.40	21.45	ppb	1.66	40	47.8	50 - 150	
182 W	165	1	4791.00	4158.00	ppb	4.03	40	114.1	50 - 150	
195 Pt	165	1	-69.05	-1326.00	ppb	308.47	40	5.4	50 - 150	
205 Tl	165	1	8.06	0.10	ppb	1.13	40	20.1	50 - 150	
208 Pb	165	1	11.07	3.09	ppb	0.91	40	25.7	50 - 150	
232 Th	165	1	10.80	1.93	ppb	0.11	40	25.8	50 - 150	
238 U	165	1	11.75	3.02	ppb	2.01	40	27.3	50 - 150	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	323919	0.57	357213	90.7	30 - 120	
45 Sc	1	736519	0.41	874931	84.2	30 - 120	
72 Ge	1	389833	0.42	488215	79.8	30 - 120	
115 In	1	1316916	0.66	1536240	85.7	30 - 120	
165 Ho	1	3129832	0.72	3429199	91.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ---

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\050\_CCB.D\050\_CCB.D#  
 Date Acquired: Jun 25 2009 08:30 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
23 Na	6	1	2.259 ppb	79.28	20.00	
24 Mg	6	1	0.333 ppb	44.49	20.00	
27 Al	45	1	0.355 ppb	20.80	20.00	
39 K	45	1	-1.224 ppb	43.93	20.00	
43 Ca	45	1	-2.622 ppb	153.32	20.00	
51 V	72	1	0.010 ppb	279.56	1.00	
52 Cr	72	1	0.002 ppb	1526.30	1.00	
55 Mn	72	1	0.213 ppb	8.90	1.00	
57 Fe	72	1	0.625 ppb	32.17	20.00	
59 Co	72	1	-0.001 ppb	150.25	1.00	
60 Ni	72	1	0.009 ppb	66.92	1.00	
63 Cu	72	1	0.013 ppb	36.81	1.00	
66 Zn	72	1	0.077 ppb	36.59	10.00	
75 As	72	1	0.013 ppb	176.36	1.00	
78 Se	72	1	0.389 ppb	94.30	1.00	
93 Nb	72	1	37730.000 ppb	8.04	2.00	Fail
95 Mo	72	1	0.047 ppb	49.00	1.00	
105 Pd	115	1	-6.045 ppb	3038.90	1.00	
107 Ag	115	1	0.025 ppb	12.20	1.00	
111 Cd	115	1	0.010 ppb	64.21	1.00	
114 Cd	115	1	0.011 ppb	14.30	1.00	
118 Sn	115	1	0.354 ppb	4.10	10.00	
121 Sb	115	1	0.204 ppb	5.95	1.00	
137 Ba	115	1	0.005 ppb	2.62	1.00	
182 W	165	1	29.380 ppb	321.14	5.00	Fail
195 Pt	165	1	29.030 ppb	1396.80	1.00	Fail
205 Tl	165	1	0.025 ppb	10.38	1.00	
208 Pb	165	1	0.008 ppb	20.25	1.00	
232 Th	165	1	0.725 ppb	16.47	2.00	
238 U	165	1	0.010 ppb	8.79	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	314692	0.96	357213	88.1	30 - 120	
45 Sc	1	774211	1.50	874931	88.5	30 - 120	
72 Ge	1	445434	1.20	488215	91.2	30 - 120	
115 In	1	1458822	1.10	1536240	95.0	30 - 120	
165 Ho	1	3220969	0.39	3429199	93.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\051WASH.D\051WASH.D#  
 Date Acquired: Jun 25 2009 08:34 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.968 ppb	20.57	1.30	
23 Na	6	1	74.820 ppb	1.20	65.00	
24 Mg	6	1	54.680 ppb	1.88	65.00	
27 Al	45	1	32.120 ppb	4.18	39.00	
39 K	45	1	107.900 ppb	6.65	130.00	
43 Ca	45	1	47.630 ppb	11.17	65.00	
51 V	72	1	4.824 ppb	3.33	6.50	
52 Cr	72	1	1.943 ppb	5.37	2.60	
55 Mn	72	1	1.160 ppb	2.99	1.30	
57 Fe	72	1	48.730 ppb	5.04	65.00	
59 Co	72	1	0.934 ppb	3.48	1.30	
60 Ni	72	1	2.093 ppb	5.93	2.60	
63 Cu	72	1	2.039 ppb	2.01	2.60	
66 Zn	72	1	10.090 ppb	1.80	13.00	
75 As	72	1	5.097 ppb	1.59	6.50	
78 Se	72	1	5.262 ppb	16.62	6.50	
93 Nb	72	1	31530.000 ppb	5.93	52.00	
95 Mo	72	1	1.930 ppb	3.14	2.60	
105 Pd	115	1	1.546 ppb	11028.00	1.30	
107 Ag	115	1	5.128 ppb	1.68	6.50	
111 Cd	115	1	1.054 ppb	6.59	1.30	
114 Cd	115	1	1.238 ppb	3.21	1.30	
118 Sn	115	1	10.090 ppb	2.87	13.00	
121 Sb	115	1	2.001 ppb	2.65	2.60	
137 Ba	115	1	1.078 ppb	7.43	1.30	
182 W	165	1	54.400 ppb	118.68	6.50	
195 Pt	165	1	103.500 ppb	226.57	1.30	
205 Tl	165	1	1.111 ppb	2.11	1.30	
208 Pb	165	1	1.085 ppb	2.00	1.30	
232 Th	165	1	2.323 ppb	2.05	2.60	
238 U	165	1	1.079 ppb	2.97	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	329086	0.64	357213	92.1	30 - 120	
45 Sc	1	836283	3.25	874931	95.6	30 - 120	
72 Ge	1	478794	0.67	488215	98.1	30 - 120	
115 In	1	1553843	0.98	1536240	101.1	30 - 120	
165 Ho	1	3364785	0.21	3429199	98.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\052\_MSD.D\052\_MSD.D#  
 Date Acquired: Jun 25 2009 08:37 pm **QC Summary:**  
 Acq. Method: 6020isis.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE7CTD 5X  
 Misc Info: MATRIX SPIKE DUPLICATE  
 Vial Number: 2208  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: MSD  
 Dilution Factor: 5.00

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG062509.B\048\_MS.D\048\_MS.D#

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	8.56 ppb	4.89	7.97	7.15	20	
23 Na	6	1	26090.00 ppb	0.85	25030.00	4.15	20	
24 Mg	6	1	77520.00 ppb	1.80	73470.00	5.36	20	
27 Al	45	1	4321.00 ppb	1.81	4311.00	0.23	20	
39 K	45	1	8935.00 ppb	0.29	8675.00	2.95	20	
43 Ca	45	1	123000.00 ppb	1.45	118500.00	3.73	20	
51 V	72	1	26.80 ppb	0.58	26.52	1.05	20	
52 Cr	72	1	17.03 ppb	2.62	17.10	0.41	20	
55 Mn	72	1	44420.00 ppb	1.38	44050.00	0.84	20	
57 Fe	72	1	3582.00 ppb	1.80	3646.00	1.77	20	
59 Co	72	1	12.57 ppb	1.45	12.68	0.87	20	
60 Ni	72	1	20.33 ppb	2.91	20.55	1.08	20	
63 Cu	72	1	52.05 ppb	2.86	51.57	0.93	20	
66 Zn	72	1	24.82 ppb	0.71	24.36	1.87	20	
75 As	72	1	21.94 ppb	1.03	21.28	3.05	20	
78 Se	72	1	10.89 ppb	5.14	10.86	0.28	20	
93 Nb	72	1	133500.00 ppb	8.67	161600.00	19.04	20	
95 Mo	72	1	8.61 ppb	3.58	8.46	1.76	20	
105 Pd	115	1	-71220.00 ppb	9.57	-68210.00	-4.32	20	
107 Ag	115	1	7.74 ppb	0.66	7.51	3.03	20	
111 Cd	115	1	8.48 ppb	1.14	7.95	6.48	20	
114 Cd	115	1	8.04 ppb	1.83	7.95	1.06	20	
118 Sn	115	1	0.48 ppb	7.14	0.63	27.82	20	
121 Sb	115	1	5.41 ppb	1.57	5.15	4.87	20	
137 Ba	115	1	29.73 ppb	1.75	29.40	1.12	20	
182 W	165	1	4763.00 ppb	4.36	4791.00	0.59	20	
195 Pt	165	1	-145.30 ppb	148.80	-69.05	-71.15	20	
205 Tl	165	1	8.33 ppb	2.26	8.06	3.27	20	
208 Pb	165	1	11.24 ppb	2.15	11.07	1.52	20	
232 Th	165	1	11.25 ppb	2.31	10.80	4.08	20	
238 U	165	1	11.84 ppb	3.05	11.75	0.76	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	324438	1.16	357213	90.8	30 - 120	
45 Sc	1	761049	0.04	874931	87.0	30 - 120	
72 Ge	1	409345	0.59	488215	83.8	30 - 120	
115 In	1	1343378	0.37	1536240	87.4	30 - 120	
165 Ho	1	3141154	0.75	3429199	91.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\053SMPL.D\053SMPL.D#  
 Date Acquired: Jun 25 2009 08:41 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE9PT 5X  
 Misc Info: D9F190216  
 Vial Number: 2209  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.04	0.01	ppb	173.16	3600	
23 Na	6	1	1,565,000.00	313000.00	ppb	0.95	100000	>LDR
24 Mg	6	1	318,700.00	63740.00	ppb	1.22	100000	
27 Al	45	1	135.35	27.07	ppb	2.77	100000	
39 K	45	1	40,080.00	8016.00	ppb	0.35	100000	
43 Ca	45	1	694,000.00	138800.00	ppb	1.62	100000	>LDR
51 V	72	1	-529.50	-105.90	ppb	5.98	3600	
52 Cr	72	1	12,865.00	2573.00	ppb	1.13	3600	
55 Mn	72	1	137.40	27.48	ppb	2.67	18000	
57 Fe	72	1	834.50	166.90	ppb	1.28	100000	
59 Co	72	1	0.77	0.15	ppb	2.29	3600	
60 Ni	72	1	4.20	0.84	ppb	7.58	3600	
63 Cu	72	1	1.14	0.23	ppb	5.43	3600	
66 Zn	72	1	6.43	1.29	ppb	6.51	3600	
75 As	72	1	92.35	18.47	ppb	2.41	3600	
78 Se	72	1	6.20	1.24	ppb	29.25	3600	
93 Nb	72	1	240,400.00	48080.00	ppb	10.26	2000	>LDR
95 Mo	72	1	12.75	2.55	ppb	4.20	3600	
105 Pd	115	1	-703,500.00	-140700.00	ppb	3.80	1000	
107 Ag	115	1	0.97	0.19	ppb	3.09	3600	
111 Cd	115	1	0.44	0.09	ppb	33.06	3600	
114 Cd	115	1	0.50	0.10	ppb	14.54	3600	
118 Sn	115	1	2.06	0.41	ppb	9.53	3600	
121 Sb	115	1	0.47	0.09	ppb	9.81	3600	
137 Ba	115	1	47.03	9.41	ppb	0.76	3600	
182 W	165	1	7,290.00	1458.00	ppb	8.94	1000	>LDR
195 Pt	165	1	-19,215.00	-3843.00	ppb	20.42	1000	
205 Tl	165	1	0.35	0.07	ppb	7.56	3600	
208 Pb	165	1	2.30	0.46	ppb	0.78	3600	
232 Th	165	1	0.62	0.12	ppb	20.51	1000	
238 U	165	1	49.48	9.90	ppb	2.64	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	294713	0.96	357213	82.5	30 - 120	
45 Sc	1	705797	0.90	874931	80.7	30 - 120	
72 Ge	1	371019	1.02	488215	76.0	30 - 120	
115 In	1	1204244	0.79	1536240	78.4	30 - 120	
165 Ho	1	2851906	0.77	3429199	83.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 27 June 2009 11:01 AM

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\054SMPL.D\054SMPL.D#  
 Date Acquired: Jun 25 2009 08:44 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4A 5X  
 Misc Info: D9F200196  
 Vial Number: 2210  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.08	0.02	ppb	86.58	3600	
23 Na	6	1	366,900.00	73380.00	ppb	1.20	100000	
24 Mg	6	1	117,400.00	23480.00	ppb	2.00	100000	
27 Al	45	1	2,350.50	470.10	ppb	1.65	100000	
39 K	45	1	13,685.00	2737.00	ppb	0.95	100000	
43 Ca	45	1	257,200.00	51440.00	ppb	0.37	100000	
51 V	72	1	30.92	6.18	ppb	1.51	3600	
52 Cr	72	1	45.38	9.08	ppb	3.05	3600	
55 Mn	72	1	40.35	8.07	ppb	3.81	18000	
57 Fe	72	1	1,896.50	379.30	ppb	2.65	100000	
59 Co	72	1	0.74	0.15	ppb	13.15	3600	
60 Ni	72	1	3.29	0.66	ppb	8.25	3600	
63 Cu	72	1	2.02	0.40	ppb	3.61	3600	
66 Zn	72	1	7.95	1.59	ppb	1.53	3600	
75 As	72	1	89.15	17.83	ppb	1.67	3600	
78 Se	72	1	4.50	0.90	ppb	41.40	3600	
93 Nb	72	1	253,700.00	50740.00	ppb	5.41	2000	>LDR
95 Mo	72	1	22.84	4.57	ppb	2.99	3600	
105 Pd	115	1	-261,850.00	-52370.00	ppb	14.61	1000	
107 Ag	115	1	0.04	0.01	ppb	49.50	3600	
111 Cd	115	1	0.11	0.02	ppb	21.35	3600	
114 Cd	115	1	0.07	0.01	ppb	33.88	3600	
118 Sn	115	1	0.79	0.16	ppb	15.83	3600	
121 Sb	115	1	0.24	0.05	ppb	11.51	3600	
137 Ba	115	1	32.43	6.49	ppb	1.44	3600	
182 W	165	1	4,502.00	900.40	ppb	3.36	1000	
195 Pt	165	1	-130.75	-26.15	ppb	586.62	1000	
205 Tl	165	1	0.06	0.01	ppb	11.98	3600	
208 Pb	165	1	1.05	0.21	ppb	6.47	3600	
232 Th	165	1	1.07	0.21	ppb	2.39	1000	
238 U	165	1	20.72	4.14	ppb	2.85	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	313678	1.26	357213	87.8	30 - 120	
45 Sc	1	749905	0.67	874931	85.7	30 - 120	
72 Ge	1	414942	0.40	488215	85.0	30 - 120	
115 In	1	1323413	0.98	1536240	86.1	30 - 120	
165 Ho	1	3110668	0.67	3429199	90.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

1 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\055SMPL.D\055SMPL.D#  
 Date Acquired: Jun 25 2009 08:48 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4D 5X  
 Misc Info: D9F200196  
 Vial Number: 2211  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	2,868,000.00	573600.00	ppb	0.68	100000	>LDR
24 Mg	6	1	479,700.00	95940.00	ppb	0.98	100000	
27 Al	45	1	45.24	9.05	ppb	6.31	100000	
39 K	45	1	23,780.00	4756.00	ppb	0.24	100000	
43 Ca	45	1	695,000.00	139000.00	ppb	2.13	100000	>LDR
51 V	72	1	3.59	0.72	ppb	2.61	3600	
52 Cr	72	1	5.91	1.18	ppb	8.39	3600	
55 Mn	72	1	701.00	140.20	ppb	2.11	18000	
57 Fe	72	1	1,035.50	207.10	ppb	1.82	100000	
59 Co	72	1	0.69	0.14	ppb	5.27	3600	
60 Ni	72	1	8.88	1.78	ppb	0.56	3600	
63 Cu	72	1	1.76	0.35	ppb	2.60	3600	
66 Zn	72	1	2.04	0.41	ppb	5.59	3600	
75 As	72	1	138.05	27.61	ppb	1.78	3600	
78 Se	72	1	3.24	0.65	ppb	56.51	3600	
93 Nb	72	1	159,000.00	31800.00	ppb	11.87	2000	>LDR
95 Mo	72	1	44.34	8.87	ppb	0.97	3600	
105 Pd	115	1	-779,500.00	-155900.00	ppb	6.90	1000	
107 Ag	115	1	0.24	0.05	ppb	9.00	3600	
111 Cd	115	1	0.14	0.03	ppb	70.91	3600	
114 Cd	115	1	0.15	0.03	ppb	8.91	3600	
118 Sn	115	1	0.99	0.20	ppb	20.61	3600	
121 Sb	115	1	0.41	0.08	ppb	11.22	3600	
137 Ba	115	1	20.36	4.07	ppb	4.99	3600	
182 W	165	1	58,900.00	11780.00	ppb	2.51	1000	>LDR
195 Pt	165	1	-93.70	-18.74	ppb	831.38	1000	
205 Tl	165	1	0.07	0.01	ppb	13.14	3600	
208 Pb	165	1	0.30	0.06	ppb	9.54	3600	
232 Th	165	1	0.10	0.02	ppb	7.15	1000	
238 U	165	1	94.65	18.93	ppb	3.46	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	278841	0.87	357213	78.1	30 - 120	
45 Sc	1	691092	1.07	874931	79.0	30 - 120	
72 Ge	1	357390	0.11	488215	73.2	30 - 120	
115 In	1	1150906	1.54	1536240	74.9	30 - 120	
165 Ho	1	2740570	0.15	3429199	79.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\056SMPL.D\056SMPL.D#  
 Date Acquired: Jun 25 2009 08:51 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4P 5X  
 Misc Info: D9F200199  
 Vial Number: 2212  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.04	0.01	ppb	173.20	3600
23	Na	6	1	814,500.00	162900.00	ppb	0.97	100000 >LDR
24	Mg	6	1	108,900.00	21780.00	ppb	1.79	100000
27	Al	45	1	3.62	0.72	ppb	4.77	100000
39	K	45	1	7,935.00	1587.00	ppb	1.28	100000
43	Ca	45	1	262,850.00	52570.00	ppb	1.91	100000
51	V	72	1	51.80	10.36	ppb	7.76	3600
52	Cr	72	1	341.95	68.39	ppb	1.93	3600
55	Mn	72	1	7.91	1.58	ppb	2.86	18000
57	Fe	72	1	300.65	60.13	ppb	4.05	100000
59	Co	72	1	5.81	1.16	ppb	6.19	3600
60	Ni	72	1	11.05	2.21	ppb	5.48	3600
63	Cu	72	1	0.55	0.11	ppb	19.76	3600
66	Zn	72	1	0.81	0.16	ppb	12.52	3600
75	As	72	1	146.70	29.34	ppb	2.20	3600
78	Se	72	1	4.22	0.84	ppb	91.45	3600
93	Nb	72	1	141,800.00	28360.00	ppb	17.85	2000 >LDR
95	Mo	72	1	149.25	29.85	ppb	2.97	3600
105	Pd	115	1	-234,350.00	-46870.00	ppb	16.99	1000
107	Ag	115	1	0.41	0.08	ppb	1.61	3600
111	Cd	115	1	0.00	0.00	ppb	1735.60	3600
114	Cd	115	1	0.19	0.04	ppb	34.09	3600
118	Sn	115	1	0.73	0.15	ppb	18.63	3600
121	Sb	115	1	0.25	0.05	ppb	14.34	3600
137	Ba	115	1	28.90	5.78	ppb	1.29	3600
182	W	165	1	1,602,000.00	320400.00	ppb	2.91	1000 >LDR
195	Pt	165	1	-4,069.50	-813.90	ppb	36.65	1000
205	Tl	165	1	0.06	0.01	ppb	7.95	3600
208	Pb	165	1	0.09	0.02	ppb	7.64	3600
232	Th	165	1	0.05	0.01	ppb	35.00	1000
238	U	165	1	18.26	3.65	ppb	3.65	3600

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	291354	0.40	357213	81.6	30 - 120
45	Sc	1	721576	0.67	874931	82.5	30 - 120
72	Ge	1	396818	0.23	488215	81.3	30 - 120
115	In	1	1273603	0.82	1536240	82.9	30 - 120
165	Ho	1	2964594	0.72	3429199	86.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\057SMPL.D\057SMPL.D#  
 Date Acquired: Jun 25 2009 08:55 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4Q 5X  
 Misc Info: D9F200199  
 Vial Number: 2301  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.05	0.01	ppb	173.24	3600	
23 Na	6	1	1,590,500.00	318100.00	ppb	0.47	100000	>LDR
24 Mg	6	1	303,700.00	60740.00	ppb	1.06	100000	
27 Al	45	1	56.25	11.25	ppb	10.95	100000	
39 K	45	1	37,510.00	7502.00	ppb	1.53	100000	
43 Ca	45	1	667,500.00	133500.00	ppb	2.40	100000	>LDR
51 V	72	1	-703.00	-140.60	ppb	12.99	3600	
52 Cr	72	1	14,700.00	2940.00	ppb	0.51	3600	
55 Mn	72	1	107.30	21.46	ppb	1.15	18000	
57 Fe	72	1	701.00	140.20	ppb	3.77	100000	
59 Co	72	1	0.66	0.13	ppb	6.32	3600	
60 Ni	72	1	5.47	1.09	ppb	1.47	3600	
63 Cu	72	1	0.61	0.12	ppb	17.73	3600	
66 Zn	72	1	2.73	0.55	ppb	9.59	3600	
75 As	72	1	90.70	18.14	ppb	0.89	3600	
78 Se	72	1	8.45	1.69	ppb	51.42	3600	
93 Nb	72	1	127,550.00	25510.00	ppb	19.88	2000	>LDR
95 Mo	72	1	16.10	3.22	ppb	3.46	3600	
105 Pd	115	1	-630,500.00	-126100.00	ppb	1.47	1000	
107 Ag	115	1	0.09	0.02	ppb	19.62	3600	
111 Cd	115	1	-0.05	-0.01	ppb	230.16	3600	
114 Cd	115	1	0.02	0.00	ppb	137.56	3600	
118 Sn	115	1	0.69	0.14	ppb	3.96	3600	
121 Sb	115	1	0.32	0.06	ppb	13.16	3600	
137 Ba	115	1	37.89	7.58	ppb	4.70	3600	
182 W	165	1	10,335.00	2067.00	ppb	8.25	1000	>LDR
195 Pt	165	1	-10,095.00	-2019.00	ppb	18.26	1000	
205 Tl	165	1	0.17	0.03	ppb	17.92	3600	
208 Pb	165	1	0.12	0.02	ppb	23.68	3600	
232 Th	165	1	0.01	0.00	ppb	168.83	1000	
238 U	165	1	22.29	4.46	ppb	3.50	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	274896	0.70	357213	77.0	30 - 120	
45 Sc	1	691626	1.11	874931	79.0	30 - 120	
72 Ge	1	368140	0.68	488215	75.4	30 - 120	
115 In	1	1193874	1.54	1536240	77.7	30 - 120	
165 Ho	1	2764719	1.17	3429199	80.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed





**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\059\_CCB.D\059\_CCB.D#  
 Date Acquired: Jun 25 2009 09:02 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
23 Na	6	1	81.710 ppb	1.43	20.00	Fail
24 Mg	6	1	1.502 ppb	4.94	20.00	
27 Al	45	1	0.588 ppb	36.53	20.00	
39 K	45	1	12.860 ppb	6.53	20.00	
43 Ca	45	1	1.168 ppb	481.25	20.00	
51 V	72	1	0.013 ppb	154.99	1.00	
52 Cr	72	1	0.041 ppb	12.59	1.00	
55 Mn	72	1	0.285 ppb	8.11	1.00	
57 Fe	72	1	0.653 ppb	57.75	20.00	
59 Co	72	1	-0.005 ppb	23.06	1.00	
60 Ni	72	1	0.013 ppb	68.36	1.00	
63 Cu	72	1	0.009 ppb	72.12	1.00	
66 Zn	72	1	0.073 ppb	15.38	10.00	
75 As	72	1	0.011 ppb	85.14	1.00	
78 Se	72	1	0.446 ppb	103.23	1.00	
93 Nb	72	1	14650.000 ppb	8.77	2.00	Fail
95 Mo	72	1	0.031 ppb	29.87	1.00	
105 Pd	115	1	-13.020 ppb	1503.80	1.00	
107 Ag	115	1	0.021 ppb	25.03	1.00	
111 Cd	115	1	0.002 ppb	755.78	1.00	
114 Cd	115	1	0.012 ppb	14.27	1.00	
118 Sn	115	1	0.326 ppb	8.80	10.00	
121 Sb	115	1	0.177 ppb	0.87	1.00	
137 Ba	115	1	0.006 ppb	97.17	1.00	
182 W	165	1	128.200 ppb	42.67	5.00	Fail
195 Pt	165	1	94.370 ppb	299.46	1.00	Fail
205 Tl	165	1	0.020 ppb	12.98	1.00	
208 Pb	165	1	0.010 ppb	3.71	1.00	
232 Th	165	1	0.701 ppb	20.66	2.00	
238 U	165	1	0.008 ppb	14.11	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	287197	0.27	357213	80.4	30 - 120	
45 Sc	1	735910	1.07	874931	84.1	30 - 120	
72 Ge	1	431276	0.66	488215	88.3	30 - 120	
115 In	1	1381851	1.05	1536240	90.0	30 - 120	
165 Ho	1	3064484	1.48	3429199	89.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\060WASH.D\060WASH.D#  
 Date Acquired: Jun 25 2009 09:05 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.940 ppb	14.16	1.30	
23 Na	6	1	123.200 ppb	2.27	65.00	
24 Mg	6	1	56.030 ppb	1.02	65.00	
27 Al	45	1	32.480 ppb	0.93	39.00	
39 K	45	1	116.500 ppb	1.30	130.00	
43 Ca	45	1	48.640 ppb	16.92	65.00	
51 V	72	1	4.965 ppb	3.94	6.50	
52 Cr	72	1	2.002 ppb	3.01	2.60	
55 Mn	72	1	1.240 ppb	2.14	1.30	
57 Fe	72	1	47.620 ppb	3.41	65.00	
59 Co	72	1	0.956 ppb	1.25	1.30	
60 Ni	72	1	1.982 ppb	2.59	2.60	
63 Cu	72	1	1.999 ppb	2.25	2.60	
66 Zn	72	1	9.950 ppb	1.60	13.00	
75 As	72	1	4.942 ppb	2.31	6.50	
78 Se	72	1	4.864 ppb	18.14	6.50	
93 Nb	72	1	17410.000 ppb	15.71	52.00	
95 Mo	72	1	1.946 ppb	5.02	2.60	
105 Pd	115	1	-8.990 ppb	2100.10	1.30	
107 Ag	115	1	5.029 ppb	3.29	6.50	
111 Cd	115	1	1.044 ppb	2.01	1.30	
114 Cd	115	1	1.215 ppb	2.12	1.30	
118 Sn	115	1	10.030 ppb	3.73	13.00	
121 Sb	115	1	2.068 ppb	3.51	2.60	
137 Ba	115	1	1.080 ppb	4.55	1.30	
182 W	165	1	81.170 ppb	89.69	6.50	
195 Pt	165	1	174.300 ppb	71.08	1.30	
205 Tl	165	1	1.098 ppb	0.91	1.30	
208 Pb	165	1	1.083 ppb	3.24	1.30	
232 Th	165	1	2.294 ppb	2.95	2.60	
238 U	165	1	1.070 ppb	1.06	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	287559	1.38	357213	80.5	30 - 120	
45 Sc	1	748913	0.52	874931	85.6	30 - 120	
72 Ge	1	434028	0.21	488215	88.9	30 - 120	
115 In	1	1413851	1.58	1536240	92.0	30 - 120	
165 Ho	1	3076772	0.46	3429199	89.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Semivolatile GC

Supporting Documentation

Sample Sequence, Chromatograms

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9F190216

Client: Northgate

Method: 8141

Associated Samples: 2, 3

Batch #(s): 9173103

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date: N. [Signature] 07.01.09

**GC SEMIVOLATILE  
ORGANIC EXTRACTION  
LOG SHEETS**

**TestAmerica**  
  
THE LEADER IN ENVIRONMENTAL TESTING

RQC058

TestAmerica Laboratories, Inc.  
EXTRACTION BENCH WORKSHEET

Run Date: 6/23/09  
Time: 23:48:00

LEV	LEV	LEV	LEV
1	2	1	2
Y	Y	Y	Y
Y	Y	Y	Y
Y	Y	Y	Y
-	-	Y	Y
		Y	Y

Blank Check MS/MSD  
Weights/Volumes  
Spike & Surrogate Worksheet  
Vial contains correct volume  
Labels, greenbars, worksheets  
computer batch: correct & all match  
Anomalies to Extraction Method

Extractionist: 008268 Katie Stoltz  
Concentrationist: 000906 Sarah Otis

\*\*\*\*\*  
\* QC BATCH: 9173103 \*  
\* PREP DATE: 6/22/09 12:00  
\* COMP DATE: 6/23/09 23:20  
\*\*\*\*\*

Expanded Deliverable  
COC Completed  
Bench Sheet Copied  
Package Submitted to Analytical Group  
Bench Sheet Copied per COC

Reviewer/Date: OTISS / 6/23/09

Compounds, Organophosphorus (8141A)  
LiQ/LiQ, SEP FUNNEL (PAH, P/P, TPH, Dioxin) - Nominal

EXTR EXPR	ANL DUE	LOT# MSRPN# / WORK ORDER	TEST FIGS	EXT MTH	MATRIX	INIT/FIN WT/VOL	INIT ADJ1	PH'S ADJ2	EXTRACTION VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD / SURROGATE ID	
6/23/09	6/30/09	D9F180266-002 LE7EE-1-AA	DR 09 P2	WATER	1064mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6.4.09

6/24/09	7/01/09	D9F190216-002 IR9Q6-1-AA	DR 09 P2	WATER	1066mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6.4.09
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6/24/09	7/01/09	D9F190216-003 IR9RA-1-AA	DR 09 P2	WATER	1066mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6.4.09
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6/26/09	7/02/09	D9F200199-002 IFC4Q-1-AD	DR 09 P2	WATER	1054mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6.4.09
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6/23/09	0/00/00	D9F220000-103 IFD4W-1-AAB	09 P2	WATER	1000mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6.4.09
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6/23/09	0/00/00	D9F220000-103 IFD4W-1-ACC	09 P2	WATER	1000mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0682 6.4.09
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6/23/09	0/00/00	D9F220000-103 IFD4W-1-ADL	R 09 P2	WATER	1000mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0682 6.4.09
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DV-OP-0006/7 BAL:M27995 H2O:ELGA+NACL:G47616 NA2S04:G45627 MECL2:H10J07  
S/S:KS-F W:KA SHARE MB LCS/D 9173102 TOROVAP:A@40C HEX:H11E04 PIP:CON-6

R = RUSH C = CLP  
E = EPA 600 D = EXP. DEL) NUMBER OF WORK ORDERS IN BATCH: 7

**GC SEMIVOLATILE  
INSTRUMENT  
LOG SHEETS**

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L5 GSV0635				
4	Vial 4	LE5PX1AA,MB				
5	Vial 5	LE5PX1AC,LCS				
6	Vial 6	LE5PX1AD,LCS				
7	Vial 7	LE39F1AA,179-1				
8	Vial 8	LE3PF1AA,179-2				
9	Vial 9	LE39L1AA,179-3				
10	Vial 10	LFARL1AA,MB				
11	Vial 11	LFARL1AC,LCS				
12	Vial 12	LFARL1AD,LCS				
13	Vial 13	LEKLE2AE,180-2				
14	Vial 14	LEKLF2AE,180-3				
15	Vial 15	LEKLL2AE,180-4				
16	Vial 16	LEKLO2AE,180-5				
17	Vial 17	LENR72AD,322-1				
18	Vial 18	LEPG32AJ,161-1				
19	Vial 19	OPP L5 GSV0635				
20	Vial 20	LFD4N1AA,MB				
21	Vial 21	LFD4N1AC,LCS				
22	Vial 22	LFD4N1AD,LCS				
23	Vial 23	LE3041AJ,158-1				
24	Vial 24	LFD4W1AA,MB				
25	Vial 25	LFD4W1AC,LCS				
26	Vial 26	LFD4W1AD,LCS				
27	Vial 27	LE7EE1AA,266-2				
28	Vial 28	LE9Q61AA,216-2				
29	Vial 29	LE9RA1AA,216-3				
30	Vial 30	LFC4Q1AD,199-2				
31	Vial 31	OPP L5 GSV0635				
32	Vial 32	LFAN01AA,MB				
33	Vial 33	LFAN01AC,LCS				
34	Vial 34	LFAN01AD,LCS				
35	Vial 35	LE4291AA,273-1				
36	Vial 36	LE4291AD,273-1S				
37	Vial 37	LE4291AE,273-1D				
38	Vial 38	LE9PJ1AA,215-1				
39	Vial 39	OPP L5 GSV0635				
40	Vial 40	OPP L1 GSV0641				
41	Vial 100	HEXANE/ACETONE				

*— bad injection; ccv not needed, only 9 samples*

Sequence Table (Back Injector):

No entries - empty table!

**GC SEMIVOLATILE  
CONTINUING CALIBRATION DATA**





CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6816	10.6	15.0
2 Dichlorvos	3.0000	2.8457	5.1	15.0
3 Mevinphos	3.0000	2.6789	10.7	15.0
4 Chlormefos	3.0000	3.1969	6.6	15.0
5 Thionazin	3.0000	2.8724	4.3	15.0
6 Demeton-O	0.9750	0.9537	2.2	15.0
7 Ethoprop	3.0000	2.9060	3.1	15.0
8 Naled	3.0000	2.3519	21.6	15.0
9 Sulfotepp	3.0000	3.1051	3.5	15.0
10 Phorate	3.0000	3.0333	1.1	15.0
11 Dimethoate	3.0000	3.0797	2.7	15.0
12 Demeton-S	2.0400	2.1332	4.6	15.0
13 Simazine	3.0000	3.3112	10.4	15.0
14 Atrazine	3.0000	3.1680	5.6	15.0
15 propazine	3.0000	3.1813	6.0	15.0
17 Disulfoton	3.0000	2.9623	1.3	15.0
16 Diazinon	3.0000	3.1341	4.5	15.0
18 Methyl Parathion	3.0000	3.0020	0.1	15.0
19 Ronnel	3.0000	2.9298	2.3	15.0
20 Malathion	3.0000	2.9153	2.8	15.0
21 Fenthion	3.0000	2.9311	2.3	15.0
22 Parathion	3.0000	2.9803	0.7	15.0
23 Chlorpyrifos	3.0000	3.1137	3.8	15.0
24 Trichloronate	3.0000	3.1459	4.9	15.0
25 Anilazine	3.0000	1.5882	47.1	15.0
148 Merphos-A (Merphos)	3.0000	2.1991	26.7	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.6173	12.8	15.0
28 Tokuthion	3.0000	3.1710	5.7	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.9483	131.6	999.0
29 Carbophenothion-methyl	3.0000	3.0127	0.4	15.0
29 Fensulfothion	3.0000	2.8001	6.7	15.0
30 Bolstar / Famphur	6.0000	5.9498	0.8	15.0
32 Carbophenothion	3.0000	3.0373	1.2	15.0
31 Triphenyl phosphate	3.0000	2.9775	0.8	15.0
34 Phosmet	3.0000	2.8475	5.1	15.0
32 EPN	3.0000	3.0078	0.3	15.0
33 Azinphos-methyl	3.0000	2.8768	4.1	15.0
35 Azinphos-ethyl	3.0000	2.9631	1.2	15.0
36 Coumaphos	3.0000	3.0385	1.3	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.2247	7.5	15.0
40 Total Demeton	3.0000	3.0869	2.9	15.0

Average %D = 9.19

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 02:41  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 19 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.276	3.254	(0.184)	288332	3.00000	2.682
2 Dichlorvos	4.081	4.074	(0.229)	190001	3.00000	2.846
3 Mevinphos	5.740	5.739	(0.322)	98255	3.00000	2.679
\$ 4 Chlormefos	5.835	5.836	(0.327)	267292	3.00000	3.197
5 Thionazin	7.506	7.507	(0.421)	219177	3.00000	2.872
6 Demeton-O	7.646	7.649	(0.429)	69455	0.97500	0.9537
7 Ethoprop	7.848	7.852	(0.440)	194316	3.00000	2.906
8 Naled	8.055	8.057	(0.451)	39036	3.00000	2.352
* 9 Tributylphosphate	8.110	8.135	(1.000)	141606	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	295169	3.00000	3.105
11 Phorate	8.530	8.532	(0.478)	210053	3.00000	3.033
12 Dimethoate	8.656	8.659	(0.485)	247743	3.00000	3.080
13 Demeton-S	8.838	8.846	(0.495)	124437	2.04000	2.133
14 Simazine	8.921	8.924	(0.500)	90186	3.00000	3.311
15 Atrazine	9.090	9.094	(0.509)	98818	3.00000	3.168
16 propazine	9.236	9.241	(0.518)	91559	3.00000	3.181
17 Disulfoton	9.866	9.869	(0.553)	138461	3.00000	2.962
18 Diazinon	9.900	9.902	(0.555)	233134	3.00000	3.134
19 Methyl Parathion	10.715	10.717	(0.601)	141620	3.00000	3.002
20 Ronnel	11.240	11.241	(0.630)	142874	3.00000	2.930
21 Malathion	11.800	11.804	(0.661)	129106	3.00000	2.915
22 Fenthion	11.930	11.932	(0.669)	140561	3.00000	2.931
23 Parathion	12.018	12.019	(0.674)	152105	3.00000	2.980
24 Chlorpyrifos	12.066	12.067	(0.676)	192261	3.00000	3.114
25 Trichloronate	12.495	12.496	(0.700)	173613	3.00000	3.146
26 Anilazine	12.818	12.817	(0.718)	7053	3.00000	1.588
27 Merphos-A (Merphos)	13.198	13.199	(0.740)	101256	3.00000	2.199
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	80093	3.00000	2.617
29 Tokuthion	14.446	14.449	(0.810)	167753	3.00000	3.171
30 Merphos-B (Merphos Oxone)	14.648	14.651	(0.821)	86264	3.00000	6.948 (A)
31 Carbophenothion-methyl	15.236	15.239	(0.854)	121998	3.00000	3.013
32 Fensulfothion	15.360	15.361	(0.861)	122599	3.00000	2.800
33 Bolstar / Famphur	16.051	16.053	(0.900)	301122	6.00000	5.950

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.195	16.197	(0.908)	154215	3.00000	3.037
S 35 Triphenyl phosphate	16.710	16.712	(0.936)	114885	3.00000	2.977 (A)
36 Phosmet	16.963	16.963	(0.951)	123749	3.00000	2.848
37 EPN	17.150	17.151	(0.961)	125827	3.00000	3.008
38 Azinphos-methyl	17.480	17.480	(0.980)	133223	3.00000	2.877
* 39 TOCP	17.843	17.846	(1.000)	76317	2.00000	
40 Azinphos-ethyl	17.925	17.926	(1.005)	150049	3.00000	2.963
41 Coumaphos	18.365	18.366	(1.029)	113491	3.00000	3.038
S 42 Merphos				187520	3.00000	3.225
M 43 Total Demeton				193892	3.00000	3.087

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 019F1901.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 29-JUN-2009  
 Calibration Time: 21:41  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

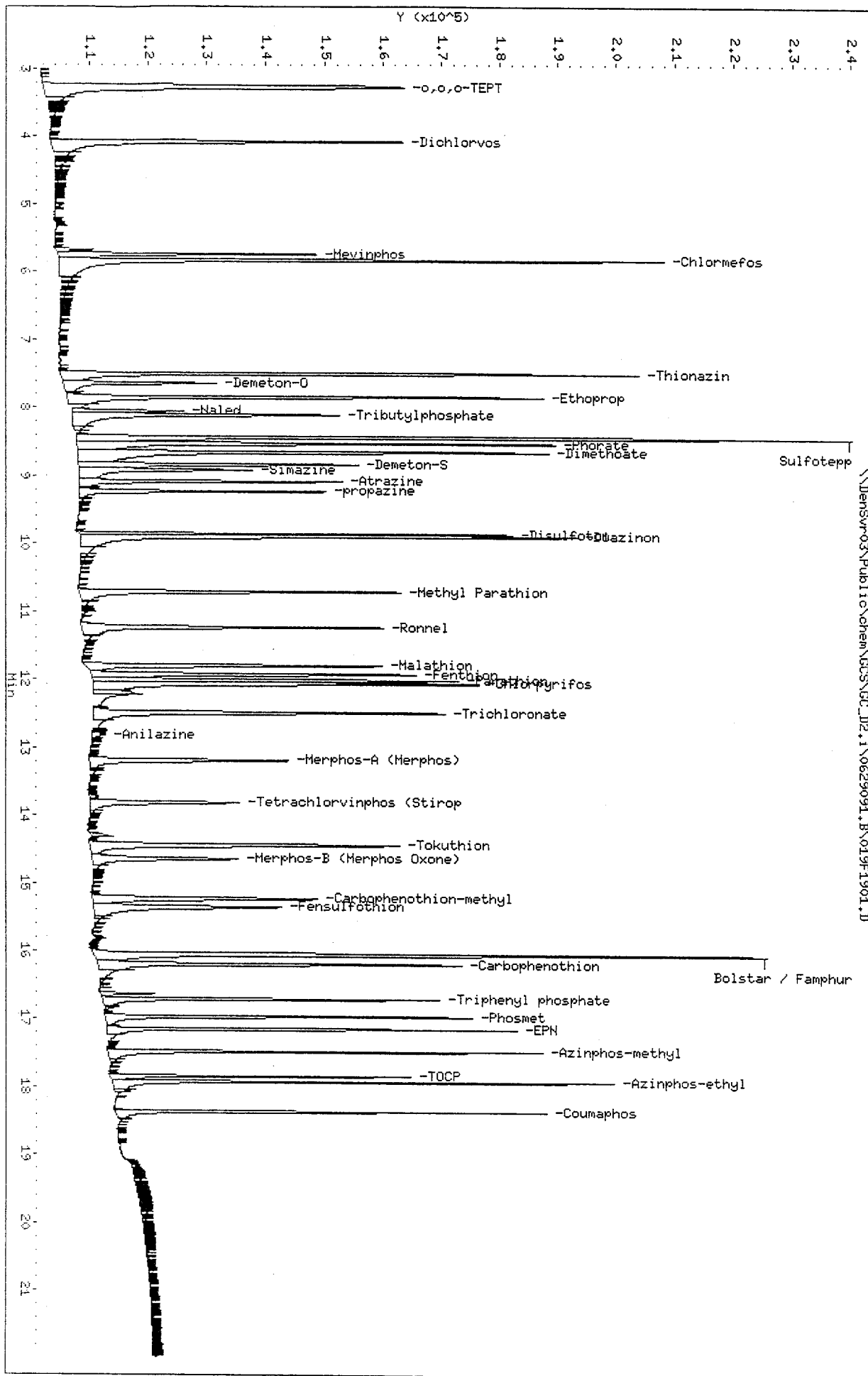
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	108848	54424	217696	141606	30.10
39 TOCP	76040	38020	152080	76317	0.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	-0.03
39 TOCP	17.85	17.35	18.35	17.84	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densysw03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D  
 Date: 30-JUN-2009 02:41  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTX-1HS

Instrument: GC\_D2.i  
 Operator: NPK/TLW  
 Column diameter: 0.32



CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6732	10.9	15.0
2 Dichlorvos	3.0000	2.7445	8.5	15.0
3 Chlormefos	3.0000	3.1434	4.8	15.0
4 Mevinphos	3.0000	2.7962	6.8	15.0
5 Demeton-O	0.9750	0.9905	1.6	15.0
6 Thionazin	3.0000	2.9759	0.8	15.0
7 Ethoprop	3.0000	2.8559	4.8	15.0
8 Phorate	3.0000	3.2113	7.0	15.0
10 Naled	3.0000	2.5980	13.4	15.0
146 Sulfotepp	3.0000	3.0720	2.4	15.0
10 Simazine	3.0000	2.9810	0.6	15.0
12 Diazinon	3.0000	3.0817	2.7	15.0
150 Atrazine	3.0000	3.4669	15.6	15.0 <-
13 Propazine	3.0000	3.2538	8.5	15.0
14 Disulfoton	3.0000	3.1235	4.1	15.0
15 Demeton-S	2.0400	1.8994	6.9	15.0
16 Dimethoate	3.0000	3.0065	0.2	15.0
17 Ronnel	3.0000	2.8752	4.2	15.0
148 Merphos-A (Merphos)	3.0000	2.2490	25.0	999.0
18 Chlorpyrifos	3.0000	3.1462	4.9	15.0
19 Fenthion	3.0000	3.0376	1.3	15.0
20 Trichloronate	3.0000	3.1893	6.3	15.0
21 Anilazine	3.0000	1.1314	62.3	15.0 <-
23 Methyl Parathion	3.0000	3.2271	7.6	15.0
24 Malathion	3.0000	3.2435	8.1	15.0
25 Tokuthion	3.0000	3.1034	3.4	15.0
26 Parathion	3.0000	2.8711	4.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.4788	116.0	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.9194	2.7	15.0
28 Carbophenothion methyl	3.0000	3.1683	5.6	15.0
28 Bolstar	3.0000	3.2160	7.2	15.0
30 Carbophenothion	3.0000	3.1768	5.9	15.0
29 Triphenyl phosphate	3.0000	3.2806	9.4	15.0
30 Fensulfothion	3.0000	3.0927	3.1	15.0
35 Phosmet / EPN	6.0000	5.8461	2.6	15.0
33 Famphur	3.0000	2.7291	9.0	15.0
34 Azinphos-methyl	3.0000	2.8371	5.4	15.0
35 Azinphos-ethyl	3.0000	3.0920	3.1	15.0
36 Coumaphos	3.0000	3.1035	3.4	15.0

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	3.2640	8.8	15.0
40 Total Demeton	3.0000	2.8899	3.7	15.0

Average %D = 10.1



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\019F1901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 02:41  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 19 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.731	4.731	(0.251)	214900	3.00000	2.673
2 Dichlorvos	6.546	6.546	(0.348)	172280	3.00000	2.744
3 Chlormefos	7.383	7.384	(0.392)	198631	3.00000	3.143
4 Mevinphos	9.234	9.234	(0.491)	118236	3.00000	2.796
5 Demeton-O	9.733	9.734	(0.517)	39911	0.97500	0.9905
6 Thionazin	9.983	9.984	(0.531)	188173	3.00000	2.976
7 Ethoprop	10.498	10.499	(0.558)	134937	3.00000	2.856
8 Phorate	10.536	10.539	(0.560)	175954	3.00000	3.211
9 Naled	10.939	10.939	(0.581)	35526	3.00000	2.598
10 Sulfotepp	11.014	11.017	(0.585)	253863	3.00000	3.072(A)
11 Tributylphosphate	11.114	11.116	(1.000)	110664	2.00000	
12 Simazine	11.398	11.399	(0.606)	35282	3.00000	2.981(A)
13 Diazinon	11.539	11.541	(0.613)	137027	3.00000	3.082
14 Atrazine	11.581	11.584	(0.616)	83824	3.00000	3.467(A)
15 Propazine	11.744	11.747	(0.624)	67578	3.00000	3.254
16 Disulfoton	12.048	12.049	(0.640)	136123	3.00000	3.123
17 Demeton-S	12.123	12.124	(0.644)	97817	2.04000	1.899
18 Dimethoate	13.281	13.282	(0.706)	175607	3.00000	3.006
19 Ronnel	13.586	13.587	(0.722)	113037	3.00000	2.875
20 Merphos-A (Merphos)	13.688	13.689	(1.232)	90184	3.00000	2.249(A)
21 Chlorpyrifos	14.408	14.409	(0.766)	125458	3.00000	3.146
22 Fenthion	14.661	14.662	(0.779)	112346	3.00000	3.038
23 Trichloronate	14.706	14.711	(0.782)	166627	3.00000	3.189
24 Anilazine	15.209	15.216	(0.808)	3864	3.00000	1.131
25 Methyl Parathion	15.518	15.519	(0.825)	128855	3.00000	3.227(A)
26 Malathion	15.723	15.724	(0.836)	121327	3.00000	3.244
27 Tokuthion	16.344	16.344	(0.869)	135918	3.00000	3.103
28 Parathion	16.493	16.494	(0.877)	112964	3.00000	2.871(M)
29 Merphos-B (Merphos Oxone)	16.508	16.517	(1.485)	78883	3.00000	6.479(AM)
30 Tetrachlorvinphos (stirophos)	16.974	16.977	(0.902)	74305	3.00000	2.919
31 Carbophenothion methyl	17.081	17.082	(0.908)	115581	3.00000	3.168
32 Bolstar	17.439	17.440	(0.927)	123583	3.00000	3.216
33 Carbophenothion	17.523	17.524	(0.931)	120041	3.00000	3.177(A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	101723	3.00000	3.281
35 Fensulfothion	18.558	18.559	(0.986)	88051	3.00000	3.093
* 36 TOCP	18.814	18.816	(1.000)	62152	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	185278	6.00000	5.846 (A)
38 Famphur	19.008	19.011	(1.010)	111253	3.00000	2.729
39 Azinphos-methyl	19.143	19.147	(1.017)	105798	3.00000	2.837
40 Azinphos-ethyl	19.363	19.366	(1.029)	109814	3.00000	3.092
41 Coumaphos	20.344	20.347	(1.081)	84746	3.00000	3.103
S 42 Merphos				169067	3.00000	3.264 (A)
M 43 Total Demeton				137728	3.00000	2.890

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 019F1901.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 29-JUN-2009  
 Calibration Time: 21:41  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

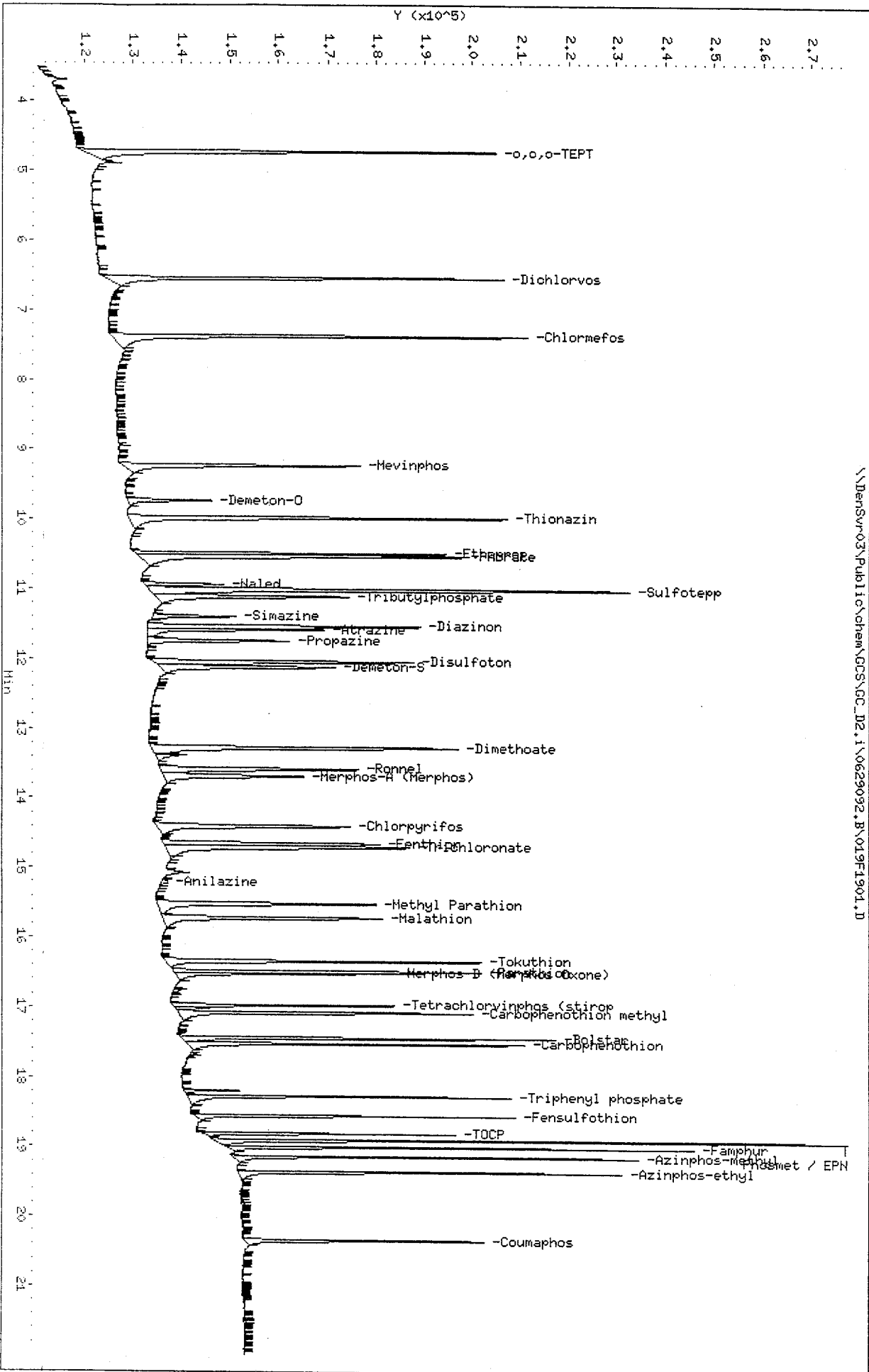
COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	77376	38688	154752	110664	43.02
36 TOCP	55298	27649	110596	62152	12.39

COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	11.12	10.62	11.62	11.11	-0.02
36 TOCP	18.82	18.32	19.32	18.81	-0.00

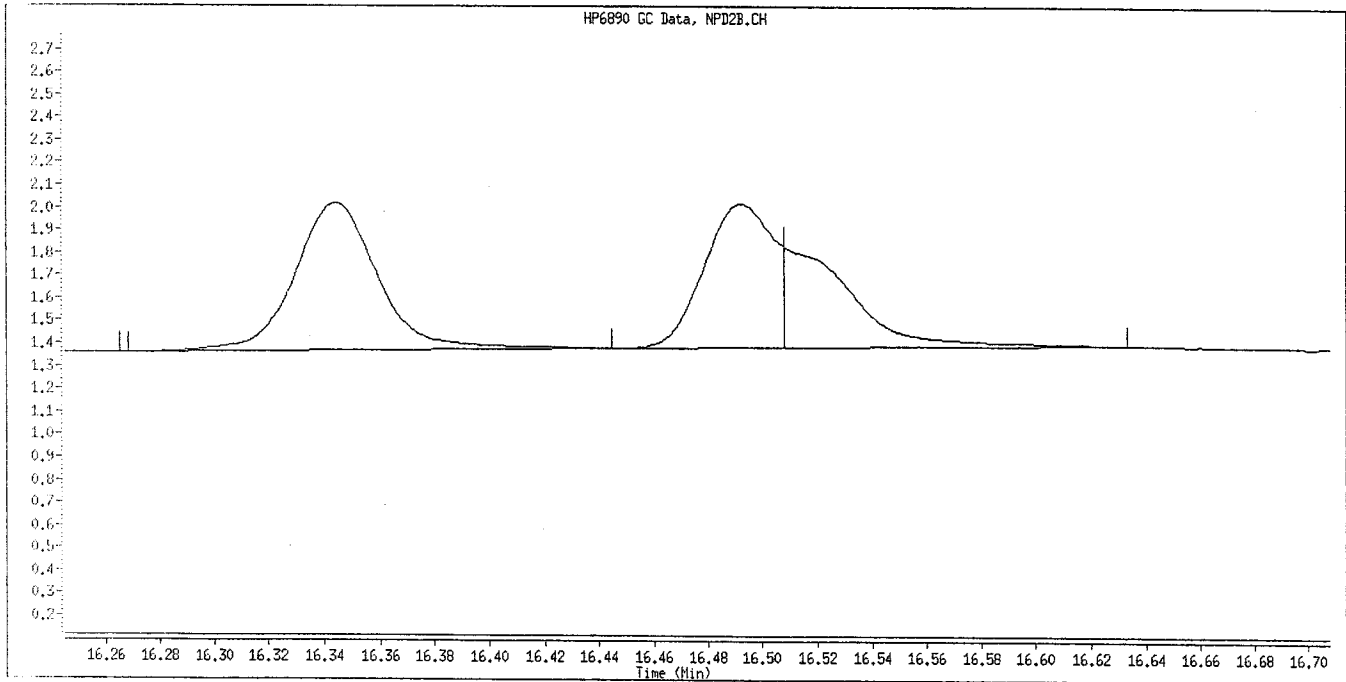
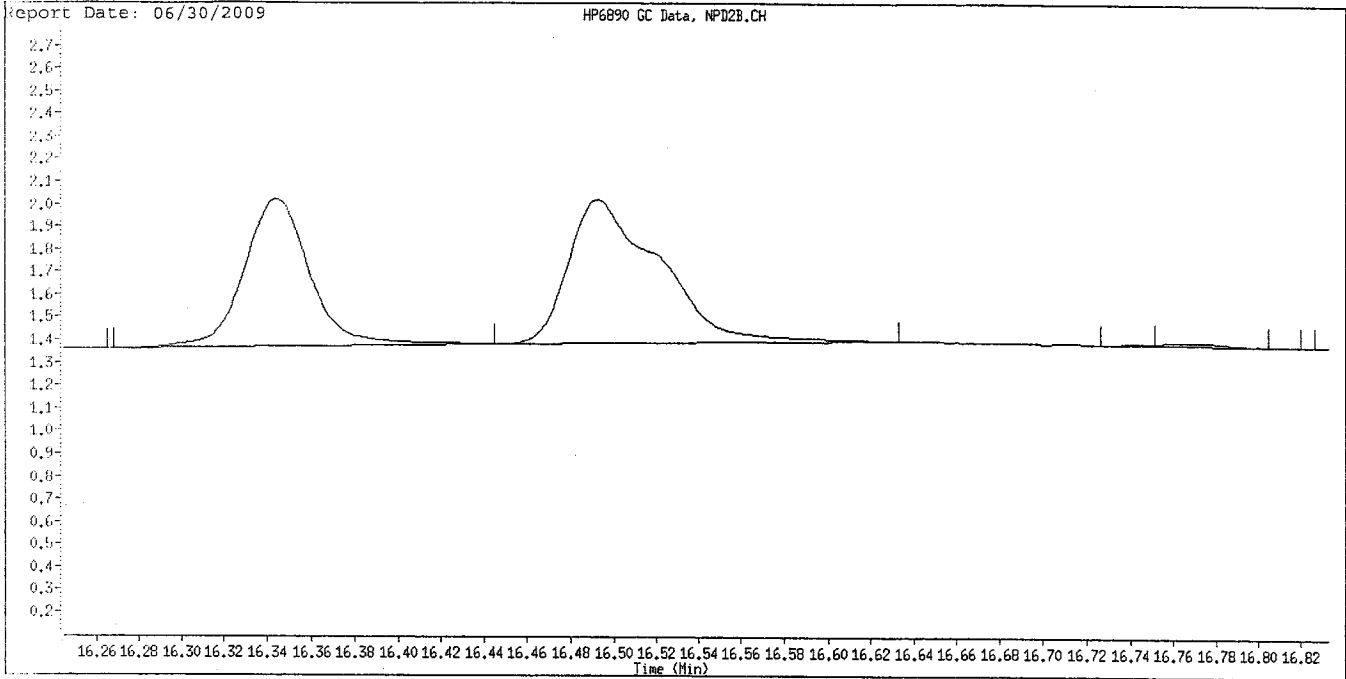
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvr03\Public\chem\GCS\GC\_D2.1\0629092.B\019F1901.D  
 Date: 30-JUN-2009 02:41  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTX-DPEst

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32



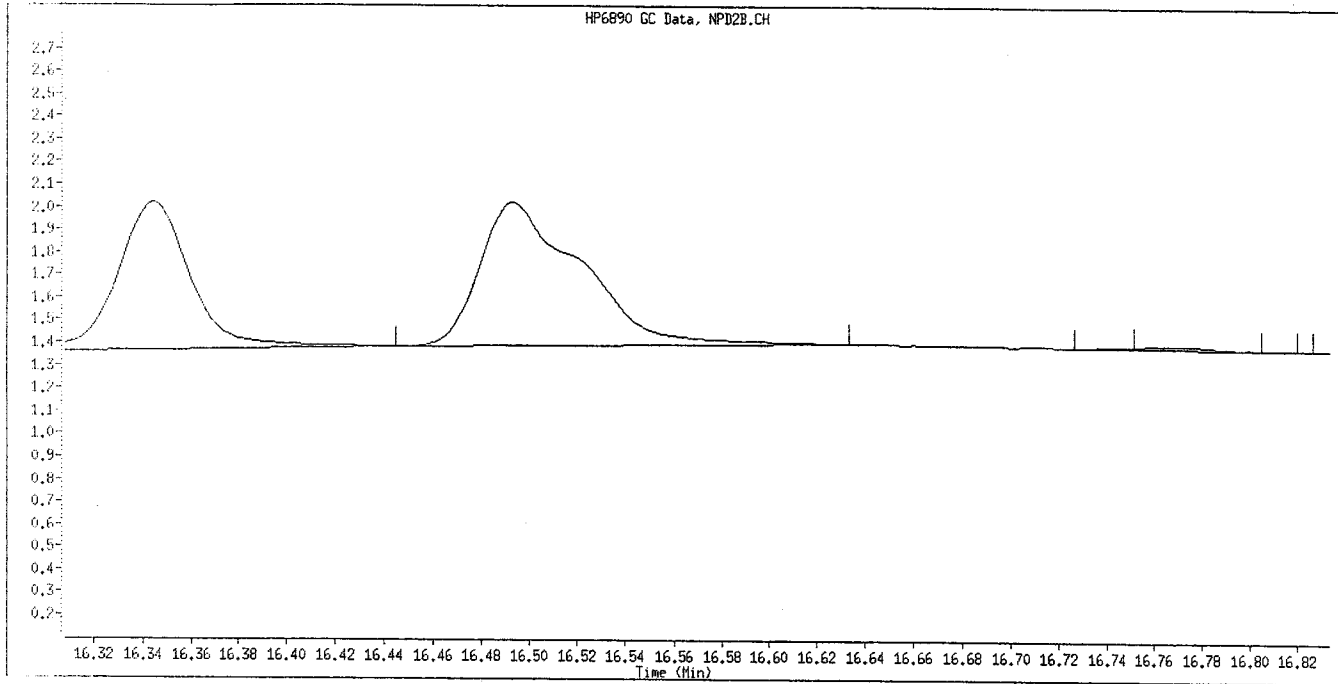
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Inj. Date and Time: 30-JUN-2009 02:41  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Parathion  
CAS #:



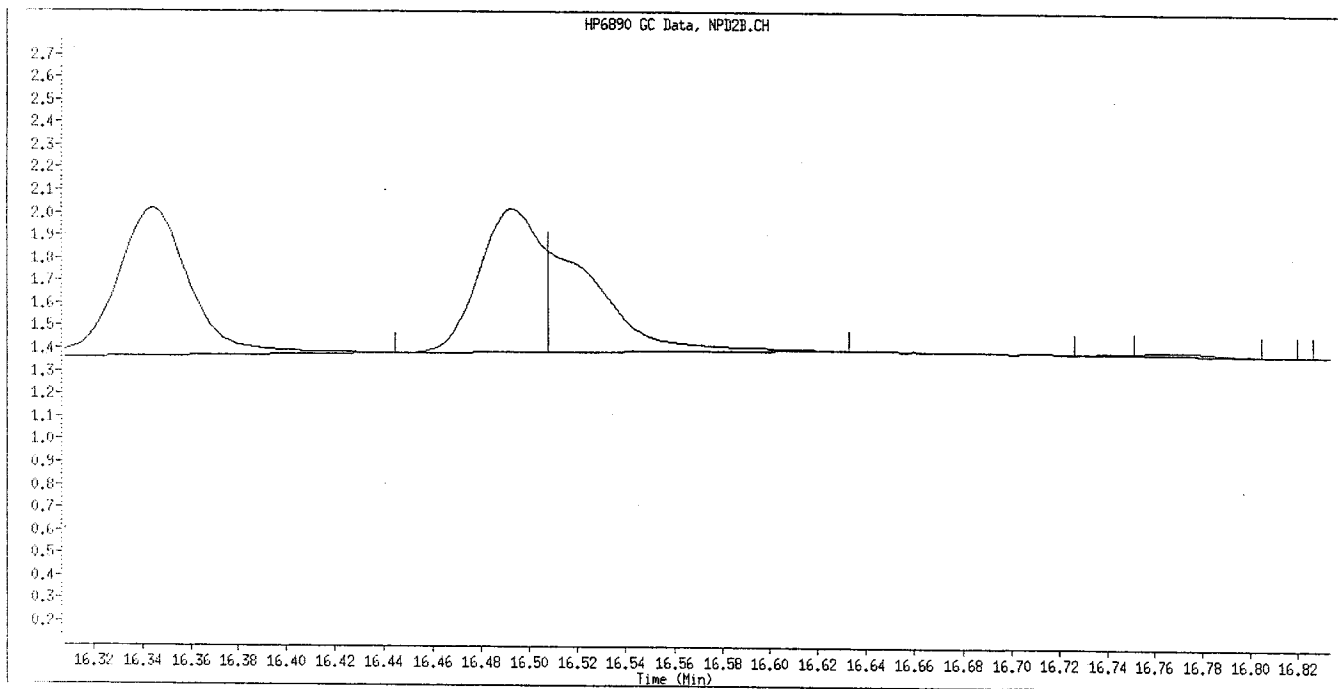
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature:* Jle  
6/30/09

Data File Name: 019F1901.D  
Inj. Date and Time: 30-JUN-2009 02:41  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
6/30/09

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED	MEASURED	%D	MAX
	CONC.	CONC.		%D
1 o,o,o-TEPT	3.0000	2.8218	5.9	15.0
2 Dichlorvos	3.0000	2.8304	5.7	15.0
3 Mevinphos	3.0000	2.6552	11.5	15.0
4 Chlormefos	3.0000	3.0356	1.2	15.0
5 Thionazin	3.0000	2.8846	3.8	15.0
6 Demeton-O	0.9750	1.1089	13.7	15.0
7 Ethoprop	3.0000	3.2239	7.5	15.0
8 Naled	3.0000	1.8139	39.5	15.0
9 Sulfotepp	3.0000	3.0130	0.4	15.0
10 Phorate	3.0000	3.0193	0.6	15.0
11 Dimethoate	3.0000	2.9893	0.4	15.0
12 Demeton-S	2.0400	2.1060	3.2	15.0
13 Simazine	3.0000	3.4001	13.3	15.0
14 Atrazine	3.0000	3.2309	7.7	15.0
15 propazine	3.0000	3.0091	0.3	15.0
17 Disulfoton	3.0000	2.7422	8.6	15.0
16 Diazinon	3.0000	3.1584	5.3	15.0
18 Methyl Parathion	3.0000	3.0137	0.5	15.0
19 Ronnel	3.0000	2.9565	1.4	15.0
20 Malathion	3.0000	2.8366	5.4	15.0
21 Fenthion	3.0000	2.8471	5.1	15.0
22 Parathion	3.0000	2.9564	1.5	15.0
23 Chlorpyrifos	3.0000	3.0022	0.1	15.0
24 Trichloronate	3.0000	3.1508	5.0	15.0
25 Anilazine	3.0000	2.1130	29.6	15.0
148 Merphos-A (Merphos)	3.0000	2.6447	11.8	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.4443	18.5	15.0
28 Tokuthion	3.0000	3.1390	4.6	15.0
149 Merphos-B (Merphos Oxone)	3.0000	4.6954	56.5	999.0
29 Carbophenothion-methyl	3.0000	2.9046	3.2	15.0
29 Fensulfothion	3.0000	2.8499	5.0	15.0
30 Bolstar / Famphur	6.0000	5.6912	5.1	15.0
32 Carbophenothion	3.0000	2.8072	6.4	15.0
31 Triphenyl phosphate	3.0000	3.0801	2.7	15.0
34 Phosmet	3.0000	2.6152	12.8	15.0
32 EPN	3.0000	2.8279	5.7	15.0
33 Azinphos-methyl	3.0000	2.6249	12.5	15.0
35 Azinphos-ethyl	3.0000	2.8450	5.2	15.0
36 Coumaphos	3.0000	2.8862	3.8	15.0

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.0951	3.2	15.0
40 Total Demeton	3.0000	3.2150	7.2	15.0

Average %D = 8.33



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\039F3901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 11:49  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 39 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.281	3.254	(0.184)	303682	3.00000	2.822
2 Dichlorvos	4.083	4.074	(0.229)	189151	3.00000	2.830
3 Mevinphos	5.736	5.739	(0.322)	97473	3.00000	2.655
S 4 Chlormefos	5.838	5.836	(0.327)	254040	3.00000	3.036
5 Thionazin	7.506	7.507	(0.421)	220309	3.00000	2.885
6 Demeton-O	7.646	7.649	(0.429)	80536	0.97500	1.109
7 Ethoprop	7.845	7.852	(0.440)	215766	3.00000	3.224
8 Naled	8.055	8.057	(0.451)	29336	3.00000	1.814
* 9 Tributylphosphate	8.093	8.135	(1.000)	150474	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	286869	3.00000	3.013
11 Phorate	8.531	8.532	(0.478)	209273	3.00000	3.019
12 Dimethoate	8.653	8.659	(0.485)	240687	3.00000	2.989
13 Demeton-S	8.833	8.846	(0.495)	122960	2.04000	2.106
14 Simazine	8.918	8.924	(0.500)	92753	3.00000	3.400
15 Atrazine	9.086	9.094	(0.509)	100869	3.00000	3.231
16 propazine	9.231	9.241	(0.517)	86681	3.00000	3.009
17 Disulfoton	9.868	9.869	(0.553)	128421	3.00000	2.742
18 Diazinon	9.898	9.902	(0.555)	235156	3.00000	3.158
19 Methyl Parathion	10.715	10.717	(0.601)	142302	3.00000	3.014
20 Ronnel	11.240	11.241	(0.630)	144306	3.00000	2.956
21 Malathion	11.798	11.804	(0.661)	125783	3.00000	2.836
22 Fenthion	11.930	11.932	(0.669)	136656	3.00000	2.847
23 Parathion	12.018	12.019	(0.674)	151023	3.00000	2.956
24 Chlorpyrifos	12.065	12.067	(0.676)	185547	3.00000	3.002
25 Trichloronate	12.495	12.496	(0.700)	174037	3.00000	3.151
26 Anilazine	12.816	12.817	(0.718)	9824	3.00000	2.113
27 Merphos-A (Merphos)	13.195	13.199	(0.739)	121883	3.00000	2.645
28 Tetrachlorvinphos (Stirophos)	13.815	13.824	(0.774)	74867	3.00000	2.444
29 Tokuthion	14.446	14.449	(0.810)	166210	3.00000	3.139
30 Merphos-B (Merphos Oxone)	14.643	14.651	(0.821)	58263	3.00000	4.695
31 Carbophenothion-methyl	15.235	15.239	(0.854)	117822	3.00000	2.905
32 Fensulfothion	15.358	15.361	(0.861)	124967	3.00000	2.850
33 Bolstar / Famphur	16.050	16.053	(0.899)	288294	6.00000	5.691

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.195	16.197	(0.908)	142661	3.00000	2.807
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	118951	3.00000	3.080 (A)
36 Phosmet	16.963	16.963	(0.951)	113755	3.00000	2.615
37 EPN	17.150	17.151	(0.961)	118279	3.00000	2.828
38 Azinphos-methyl	17.480	17.480	(0.980)	121668	3.00000	2.625
* 39 TOCP	17.843	17.846	(1.000)	76386	2.00000	
40 Azinphos-ethyl	17.925	17.926	(1.005)	144486	3.00000	2.845
41 Coumaphos	18.365	18.366	(1.029)	107900	3.00000	2.886
S 42 Merphos				180146	3.00000	3.095
M 43 Total Demeton				203496	3.00000	3.215

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC_D2.i	Calibration Date: 30-JUN-2009
Lab File ID: 039F3901.D	Calibration Time: 02:41
Lab Smp Id: OPP L5 GSV0635	Client Smp ID: OPP L5 GSV0635
Analysis Type: SV	Level:
Quant Type: ISTD	Sample Type:
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0629091.B\8141A-1.m	
Misc Info: IS - GSV0633-09	

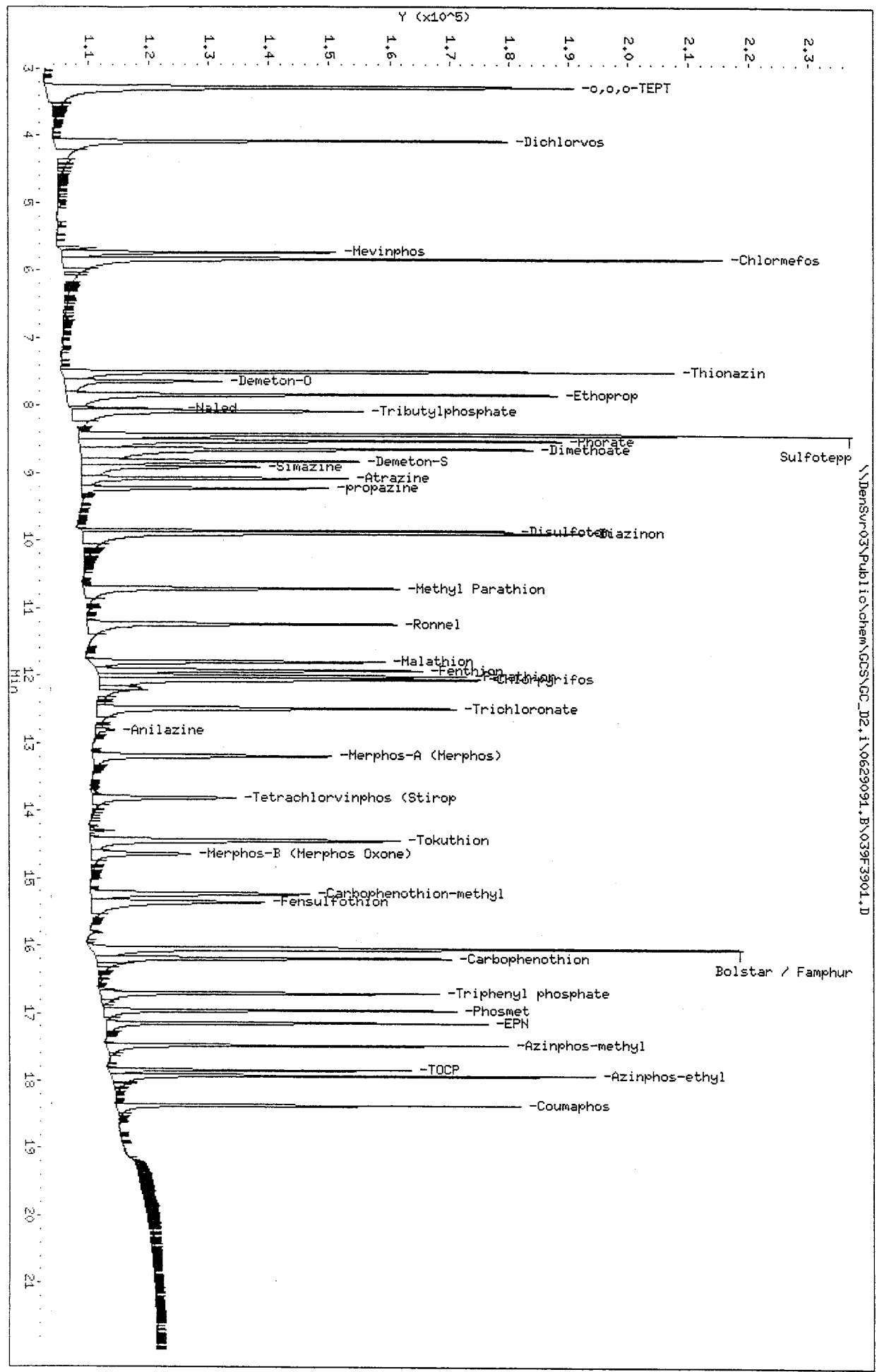
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	150474	6.26
39 TOCP	76317	38159	152634	76386	0.09

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.09	-0.21
39 TOCP	17.84	17.34	18.34	17.84	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densur-03\Public\chem\GCS\GC\_D2.1\0629091.B\039F3901.D  
 Date : 30-JUN-2009 11:49  
 Client ID: OPP L5 GSW0635  
 Sample Info: OPP L5 GSW0635  
 Column phase: RTX-1HS

Instrument: GC\_D2.1  
 Operator: HPK/TLM  
 Column diameter: 0.32



CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.8166	6.1	15.0
2 Dichlorvos	3.0000	2.8245	5.8	15.0
3 Chlormefos	3.0000	3.2183	7.3	15.0
4 Mevinphos	3.0000	2.9838	0.5	15.0
5 Demeton-O	0.9750	0.9758	0.1	15.0
6 Thionazin	3.0000	2.8054	6.5	15.0
7 Ethoprop	3.0000	2.8590	4.7	15.0
8 Phorate	3.0000	3.1654	5.5	15.0
10 Naled	3.0000	2.2828	23.9	15.0 <-
146 Sulfotepp	3.0000	2.8627	4.6	15.0
10 Simazine	3.0000	2.9076	3.1	15.0
12 Diazinon	3.0000	2.8253	5.8	15.0
150 Atrazine	3.0000	2.9267	2.4	15.0
13 Propazine	3.0000	2.8284	5.7	15.0
14 Disulfoton	3.0000	2.9455	1.8	15.0
15 Demeton-S	2.0400	1.8853	7.6	15.0
16 Dimethoate	3.0000	2.8716	4.3	15.0
17 Ronnel	3.0000	2.7428	8.6	15.0
148 Merphos-A (Merphos)	3.0000	2.4110	19.6	999.0
18 Chlorpyrifos	3.0000	3.1163	3.9	15.0
19 Fenthion	3.0000	2.9120	2.9	15.0
20 Trichloronate	3.0000	3.3902	13.0	15.0
21 Anilazine	3.0000	1.7240	42.5	15.0 <-
23 Methyl Parathion	3.0000	2.8664	4.5	15.0
24 Malathion	3.0000	2.7318	8.9	15.0
25 Tokuthion	3.0000	2.9114	3.0	15.0
26 Parathion	3.0000	2.9008	3.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	3.5874	19.6	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.6695	11.0	15.0
28 Carbophenothion methyl	3.0000	3.0681	2.3	15.0
28 Bolstar	3.0000	3.0614	2.0	15.0
30 Carbophenothion	3.0000	3.3384	11.3	15.0
29 Triphenyl phosphate	3.0000	2.8735	4.2	15.0
30 Fensulfothion	3.0000	2.9476	1.7	15.0
35 Phosmet / EPN	6.0000	5.6693	5.5	15.0
33 Pamphur	3.0000	3.0504	1.7	15.0
34 Azinphos-methyl	3.0000	2.9582	1.4	15.0
35 Azinphos-ethyl	3.0000	2.9123	2.9	15.0
36 Coumaphos	3.0000	2.9494	1.7	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\039F3901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	2.8269	5.8	15.0
40 Total Demeton	3.0000	2.8612	4.6	15.0

Average %D = 6.87

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\039F3901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 11:49  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:05 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 39 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.736	4.731	(0.252)	245165	3.00000	2.817
2 Dichlorvos	6.546	6.546	(0.348)	191968	3.00000	2.824
\$ 3 Chlormefos	7.383	7.384	(0.392)	220191	3.00000	3.218
4 Mevinphos	9.231	9.234	(0.491)	136606	3.00000	2.984
5 Demeton-O	9.731	9.734	(0.517)	42571	0.97500	0.9758
6 Thionazin	9.981	9.984	(0.530)	192069	3.00000	2.805
7 Ethoprop	10.493	10.499	(0.558)	146259	3.00000	2.859
8 Phorate	10.536	10.539	(0.560)	187787	3.00000	3.165
9 Naled	10.936	10.939	(0.581)	33261	3.00000	2.283
10 Sulfotepp	11.014	11.017	(0.585)	256144	3.00000	2.863 (A)
* 11 Tributylphosphate	11.106	11.116	(1.000)	124508	2.00000	
12 Simazine	11.396	11.399	(0.606)	37261	3.00000	2.908 (A)
13 Diazinon	11.538	11.541	(0.613)	135902	3.00000	2.825
14 Atrazine	11.578	11.584	(0.615)	75601	3.00000	2.927 (A)
15 Propazine	11.743	11.747	(0.624)	63428	3.00000	2.828
16 Disulfoton	12.046	12.049	(0.640)	138988	3.00000	2.946
17 Demeton-S	12.119	12.124	(0.644)	105075	2.04000	1.885
18 Dimethoate	13.278	13.282	(0.706)	181606	3.00000	2.872
19 Ronnel	13.584	13.587	(0.722)	116755	3.00000	2.743
20 Merphos-A (Merphos)	13.684	13.689	(1.232)	108777	3.00000	2.411 (A)
21 Chlorpyrifos	14.406	14.409	(0.766)	134546	3.00000	3.116
22 Fenthion	14.658	14.662	(0.779)	116611	3.00000	2.912
23 Trichloronate	14.706	14.711	(0.782)	192170	3.00000	3.390
24 Anilazine	15.211	15.216	(0.808)	6373	3.00000	1.724
25 Methyl Parathion	15.516	15.519	(0.825)	123922	3.00000	2.866 (A)
26 Malathion	15.721	15.724	(0.836)	110638	3.00000	2.732
27 Tokuthion	16.343	16.344	(0.869)	138056	3.00000	2.911
28 Parathion	16.491	16.494	(0.876)	123577	3.00000	2.901 (M)
29 Merphos-B (Merphos Oxone)	16.511	16.517	(1.487)	49765	3.00000	3.587 (AM)
30 Tetrachlorvinphos (stirophos)	16.974	16.977	(0.902)	73565	3.00000	2.670
31 Carbophenothion methyl	17.079	17.082	(0.908)	121188	3.00000	3.068
32 Bolstar	17.439	17.440	(0.927)	127373	3.00000	3.061
33 Carbophenothion	17.523	17.524	(0.931)	136582	3.00000	3.338 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
S 34 Triphenyl phosphate	18.278	18.281	(0.971)	96470	3.00000	2.873
35 Pansulfothion	18.558	18.559	(0.986)	90861	3.00000	2.948
* 36 TOCP	18.816	18.816	(1.000)	67294	2.00000	
37 Phosmet / EPN	18.911	18.909	(1.005)	194625	6.00000	5.669 (A)
38 Famphur	19.014	19.011	(1.011)	134637	3.00000	3.050
39 Azinphos-methyl	19.153	19.147	(1.018)	119439	3.00000	2.958
40 Azinphos-ethyl	19.371	19.366	(1.029)	111990	3.00000	2.912
41 Coumaphos	20.354	20.347	(1.082)	87203	3.00000	2.949
S 42 Merphos				158542	3.00000	2.827 (A)
M 43 Total Demeton				147646	3.00000	2.861

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.



TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 039F3901.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	124508	12.51
36 TOCP	62152	31076	124304	67294	8.27

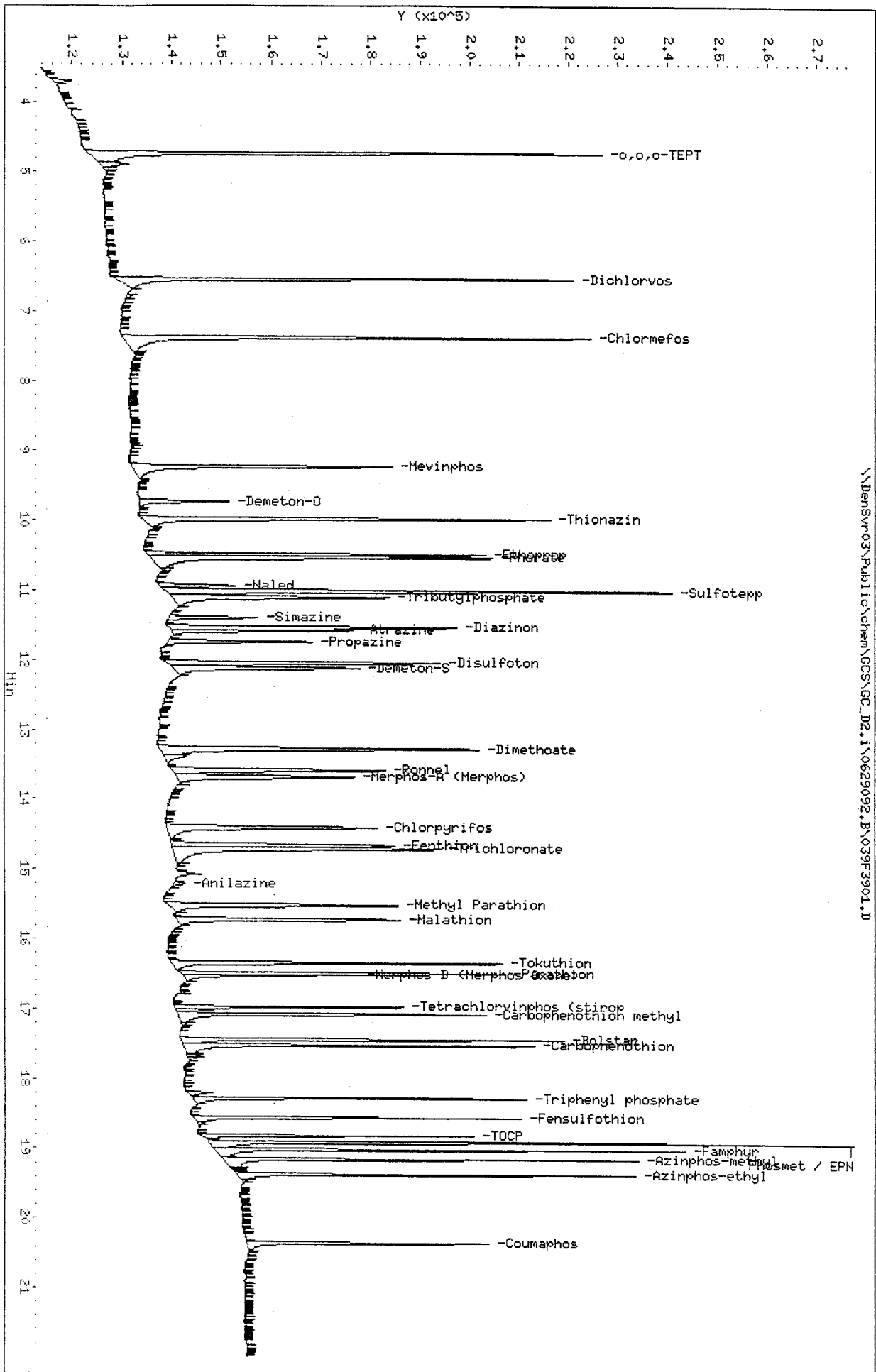
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.11	-0.08
36 TOCP	18.81	18.31	19.31	18.82	0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

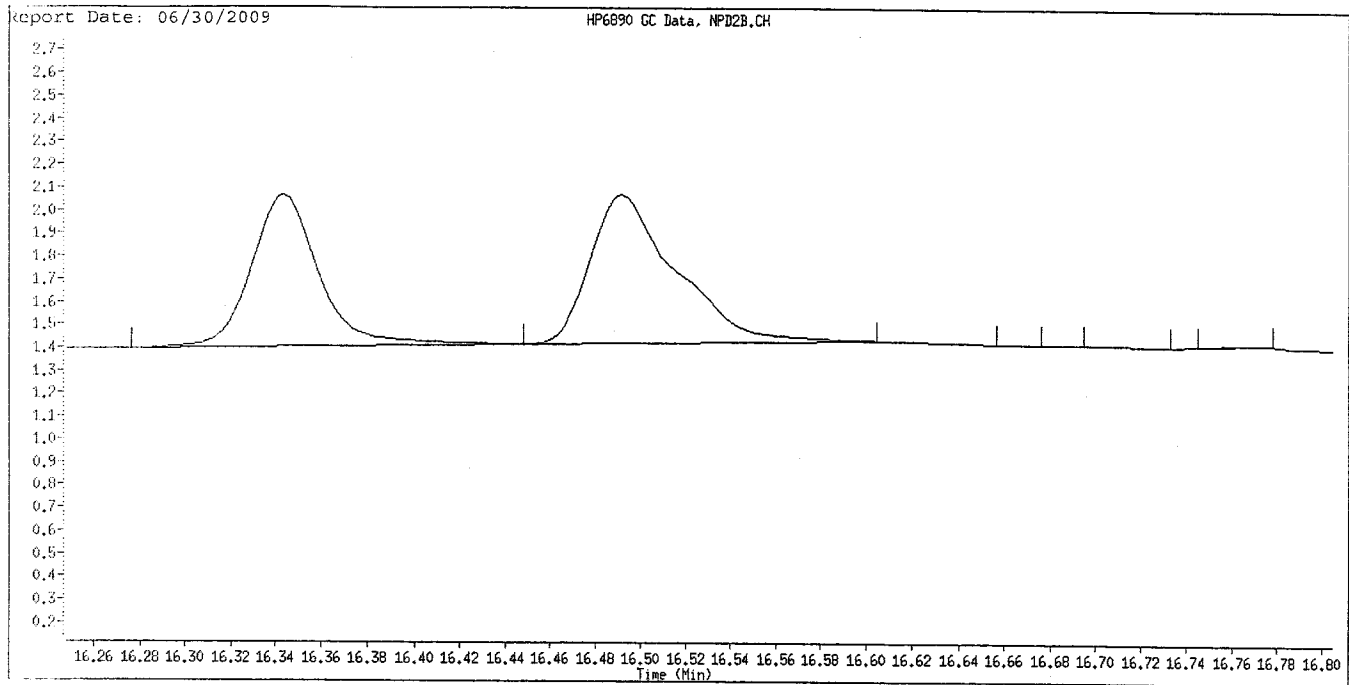
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 Date : 30-JUN-2009 11:49  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32

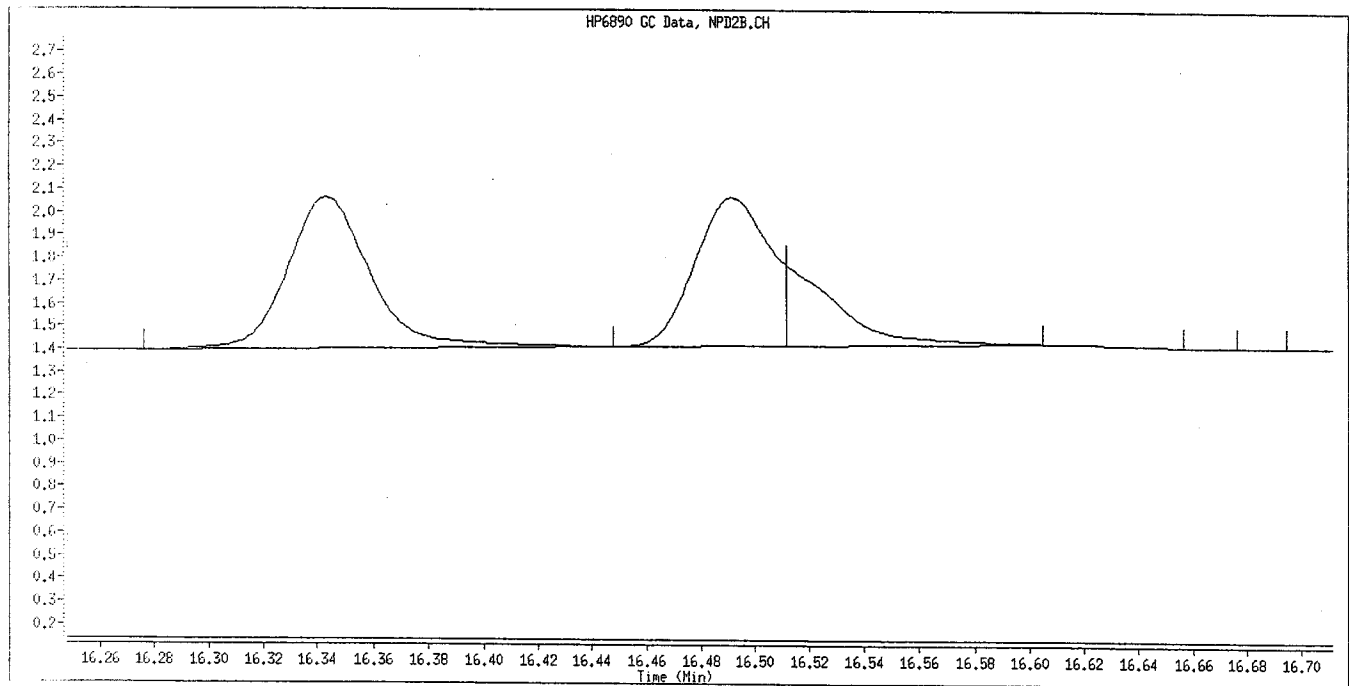
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Data File Name: 039F3901.D  
Inj. Date and Time: 30-JUN-2009 11:49  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Parathion  
CAS #:



Original Integration

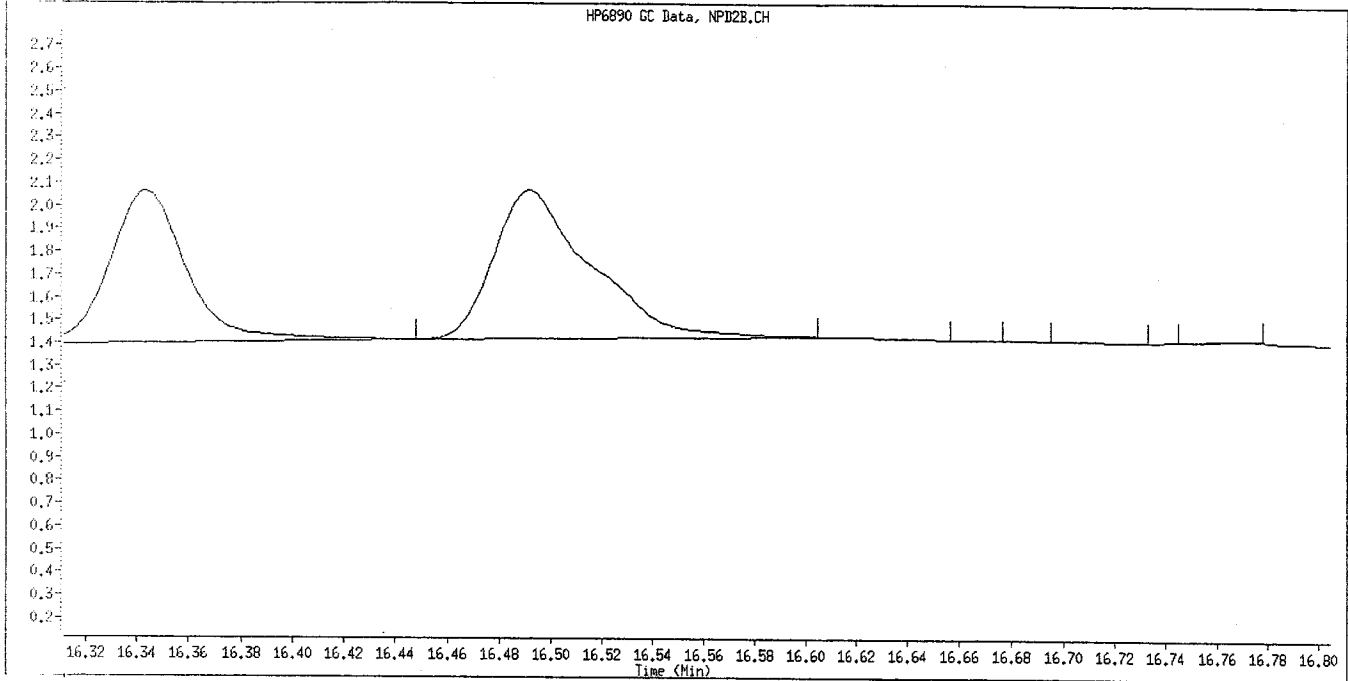


Manual Integration

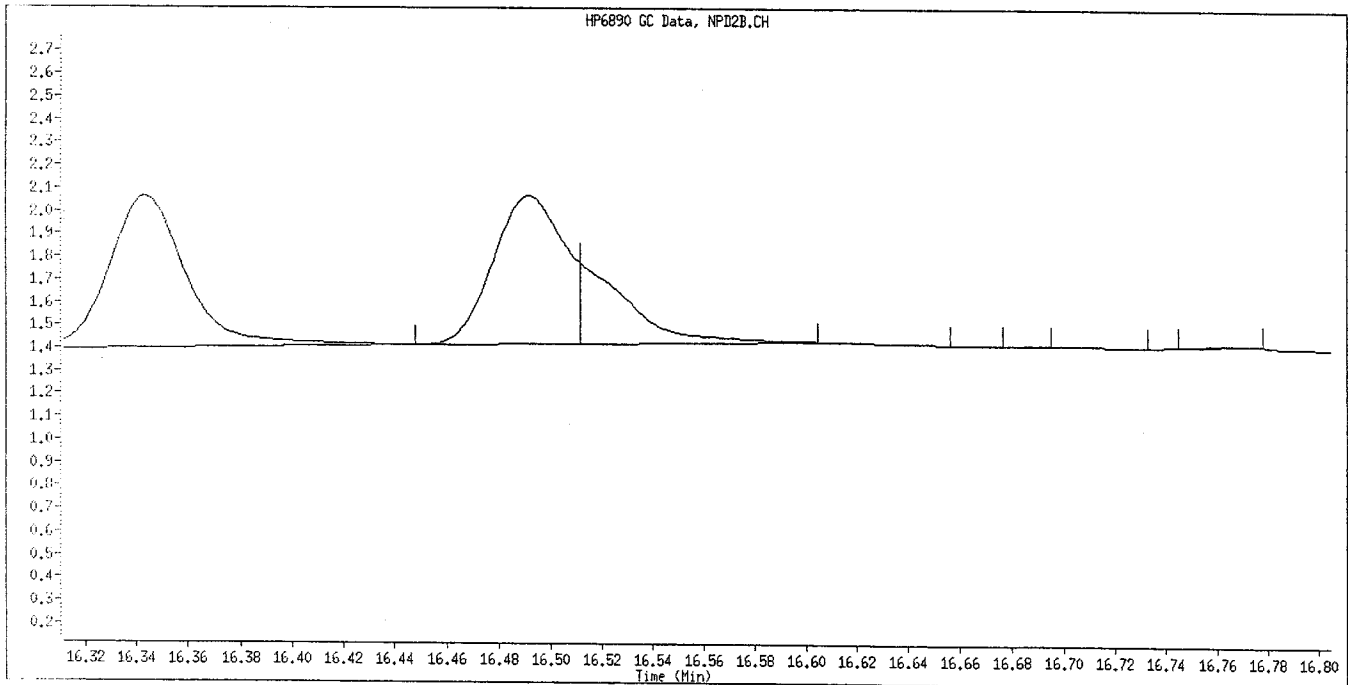
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*yl*  
6/30/09

Data File Name: 039F3901.D  
Inj. Date and Time: 30-JUN-2009 11:49  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Jb*  
6/30/09

**GC SEMIVOLATILE  
SAMPLE DATA**

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\024F2401.D  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Inj Date : 30-JUN-2009 04:58  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AA,MB  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 24 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
3 Mevinphos						
S 4 Chlormefos	5.838	5.836	(0.327)	48945	0.53028	1.060
5 Thionazin						
6 Demeton-O						
7 Ethoprop						
8 Naled	8.048	8.057	(0.451)	75	0.19641	0.3928 <i>not a peak</i>
* 9 Tributylphosphate	8.114	8.135	(1.000)	122925	2.00000	
10 Sulfotepp						
11 Phorate						
12 Dimethoate						
13 Demeton-S						
14 Simazine						
15 Atrazine						
16 propazine						
17 Disulfoton						
18 Diazinon						
19 Methyl Parathion						
20 Ronnel						
21 Malathion						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion						
24 Chlorpyrifos	12.064	12.067	(0.676)	95	0.00139	0.002787 (a)
25 Trichloronate						
26 Anilazine						
27 Merphos-A (Merphos)	13.236	13.199	(0.742)	75	0.00148	0.002951
28 Tetrachlorvinphos (Stirophos)	13.821	13.824	(0.775)	121	0.00358	0.007164
29 Tokuthion						
30 Merphos-B (Merphos Oxone)	14.651	14.651	(0.821)	122	0.02976	0.05952
31 Carbophenothion-methyl						
32 Fensulfothion						
33 Bolstar / Famphur						
34 Carbophenothion						
\$ 35 Triphenyl phosphate	16.713	16.712	(0.937)	33336	0.78264	1.565
36 Phosmet						
37 EPN						
38 Azinphos-methyl						
* 39 TOCP	17.844	17.846	(1.000)	84248	2.00000	
40 Azinphos-ethyl						
41 Coumaphos						
S 42 Merphos				197	0.00307	0.006138
M 43 Total Demeton						

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 024F2401.D  
 Lab Smp Id: LFD4W1AA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: BLANK  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	122925	-13.19
39 TOCP	76317	38159	152634	84248	10.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.06
39 TOCP	17.84	17.34	18.34	17.84	0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



TestAmerica

RECOVERY REPORT

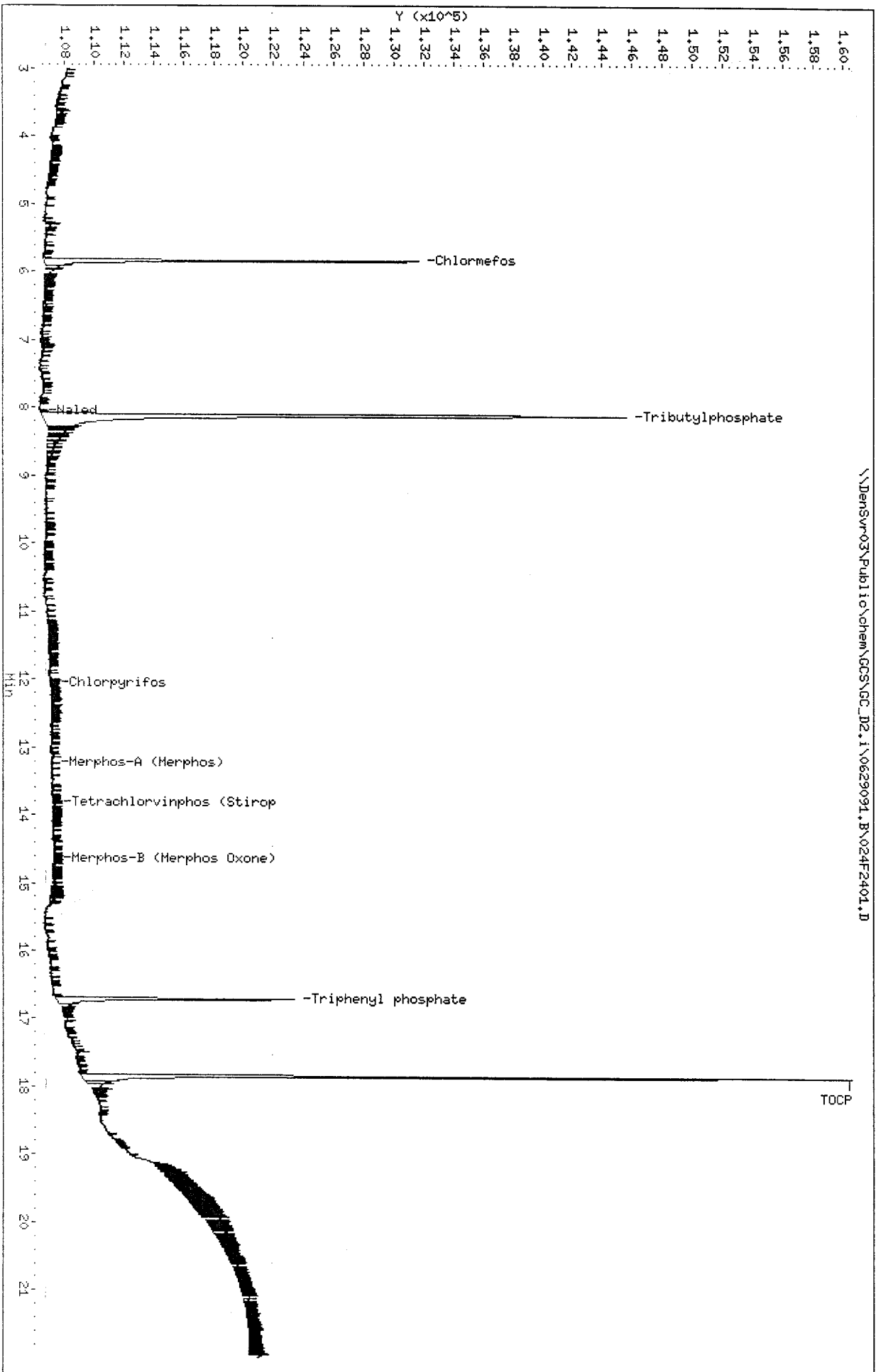
Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: BLANK  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	2.000	1.060	53.03	48-114
\$ 35 Triphenyl phosphat	2.000	1.565	78.26	50-150

Data File: \\DensSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\024F2401.D  
 Date: 30-JUN-2009 04:58  
 Client ID: BLANK  
 Sample Info: LFD4M1A9.MB  
 Column phase: RTX-1HS

Instrument: GC\_D2.i  
 Operator: HFK/TLM  
 Column diameter: 0.32

\\DensSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\024F2401.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\024F2401.D  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Inj Date : 30-JUN-2009 04:58  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AA,MB  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 24 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
S 3 Chlormefos	7.384	7.384	(0.392)	42280	0.59193	1.184
4 Mevinphos						
5 Demeton-O						
6 Thionazin						
7 Ethoprop						
8 Phorate						
9 Naled	10.936	10.939	(0.581)	150	0.27743	0.5549
10 Sulfotepp	11.019	11.017	(0.586)	120	0.00128	0.002569 (aA)
* 11 Tributylphosphate	11.116	11.116	(1.000)	102153	2.00000	
12 Simazine	11.352	11.399	(0.603)	77	0.00576	0.01151 (aA)
13 Diazinon						
14 Atrazine	11.581	11.584	(0.616)	118	0.23644	0.4729 (aA)
15 Propazine						
16 Disulfoton						
17 Demeton-S	12.104	12.124	(0.643)	108	0.12082	0.2416
18 Dimethoate						
19 Ronnel						
20 Merphos-A (Merphos)	13.692	13.689	(1.232)	51	0.00138	0.002756 (aA)
21 Chlorpyrifos						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.681	14.711	(0.780)	96	0.10683	0.2137
24 Anilazine	Compound Not Detected.					
25 Methyl Parathion	Compound Not Detected.					
26 Malathion	15.751	15.724	(0.837)	70	0.00166	0.003311 (a)
27 Tokuthion	Compound Not Detected.					
28 Parathion	16.499	16.494	(0.877)	124	0.00279	0.005576 (a)
29 Merphos-B (Merphos Oxone)	Compound Not Detected.					
30 Tetrachlorvinphos (stirophos)	Compound Not Detected.					
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	Compound Not Detected.					
33 Carbophenothion	Compound Not Detected.					
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	26301	0.75040	1.501
35 Pensulfothion	Compound Not Detected.					
* 36 TOCP	18.814	18.816	(1.000)	70254	2.00000	
37 Phosmet / EPN	Compound Not Detected.					
38 Famphur	Compound Not Detected.					
39 Azinphos-methyl	Compound Not Detected.					
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	Compound Not Detected.					
S 42 Merphos	Compound Not Detected.					
M 43 Total Demeton				108	0.12082	0.2416

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 024F2401.D  
 Lab Smp Id: LFD4W1AA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: BLANK  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	102153	-7.69
36 TOCP	62152	31076	124304	70254	13.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.12	0.01
36 TOCP	18.81	18.31	19.31	18.81	-0.00

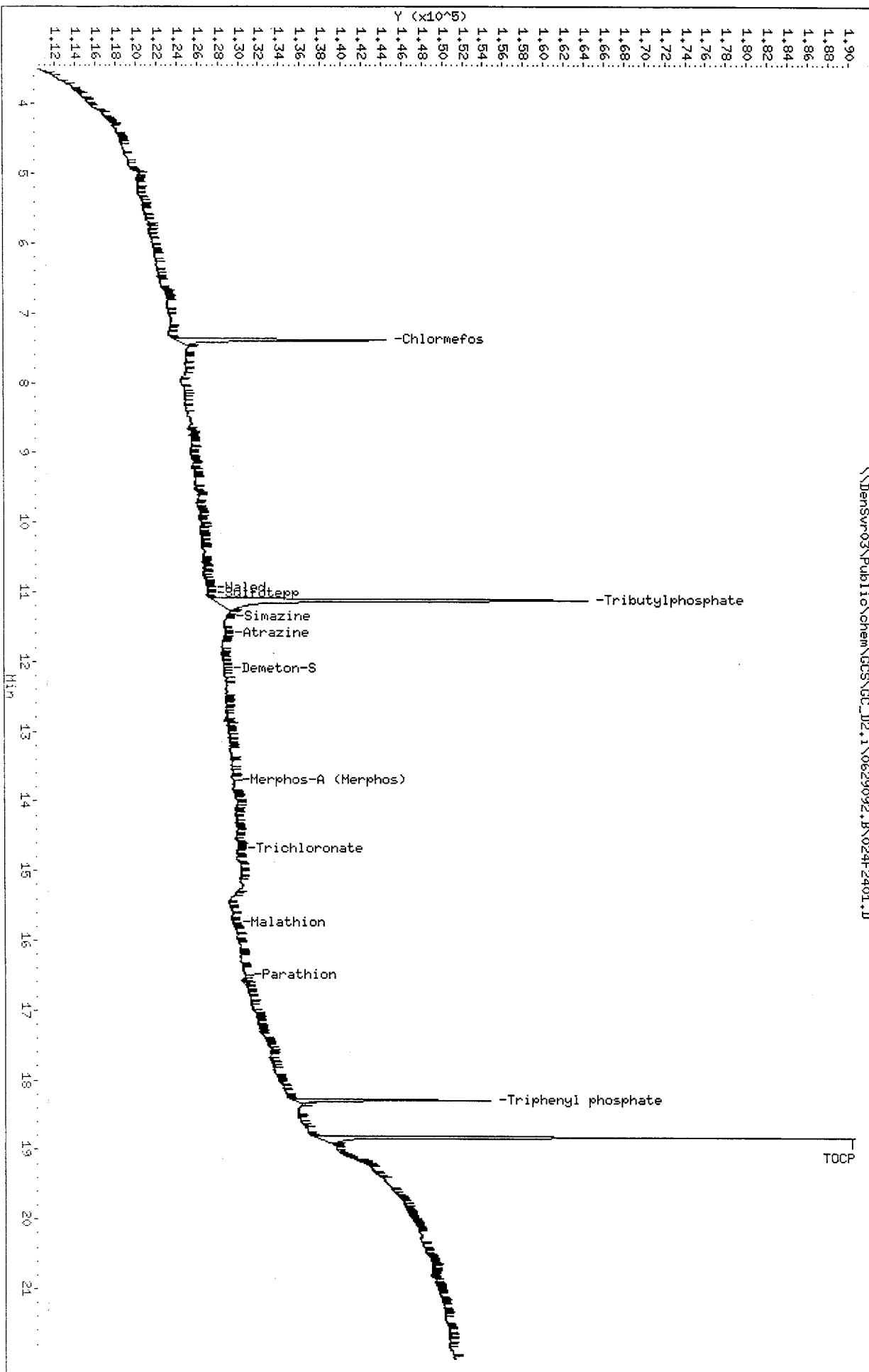
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: BLANK  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	2.000	1.184	59.19	48-114
\$ 34 Triphenyl phosphat	2.000	1.501	75.04	50-150



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\025F2501.D  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Inj Date : 30-JUN-2009 05:26  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AC,LCS  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 25 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT	3.283	3.254 (0.184)		138523	1.15632	2.313
2 Dichlorvos	4.090	4.074 (0.229)		116083	1.56046	3.121
3 Mevinphos	5.747	5.739 (0.322)		54068	1.32312	2.646
\$ 4 Chlormefos	5.837	5.836 (0.327)		67783	0.72763	1.455
5 Thionazin	7.508	7.507 (0.421)		140540	1.65313	3.306
6 Demeton-O	7.648	7.649 (0.429)		36990	0.44243	0.8849 (R)
7 Ethoprop	7.852	7.852 (0.440)		128464	1.72434	3.449
8 Naled	8.058	8.057 (0.452)		13245	0.85021	1.700
* 9 Tributylphosphate	8.110	8.135 (1.000)		139396	2.00000	
10 Sulfotepp	8.440	8.442 (0.473)		158318	1.45884	2.918
11 Phorate	8.530	8.532 (0.478)		119956	1.55476	3.110
12 Dimethoate	8.657	8.659 (0.485)		142057	1.58498	3.170
13 Demeton-S	8.840	8.846 (0.495)		13483	0.20746	0.4149 (R)
14 Simazine	8.920	8.924 (0.500)		49547	1.67315	3.346
15 Atrazine	9.088	9.094 (0.509)		54035	1.55484	3.110
16 propazine	9.235	9.241 (0.518)		50946	1.58878	3.178
17 Disulfoton	9.867	9.869 (0.553)		61203	1.15200	2.304
18 Diazinon	9.902	9.902 (0.555)		145502	1.75560	3.511
19 Methyl Parathion	10.715	10.717 (0.601)		86433	1.64444	3.289
20 Ronnel	11.240	11.241 (0.630)		80696	1.48524	2.970
21 Malathion	11.800	11.804 (0.661)		68038	1.35714	2.714
22 Fenthion	11.930	11.932 (0.669)		84464	1.58085	3.162



Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion	12.017	12.019	(0.673)	99182	1.74423	3.488
24 Chlorpyrifos	12.067	12.067	(0.676)	109317	1.58900	3.178
25 Trichloronate	12.493	12.496	(0.700)	81279	1.32190	2.644
26 Anilazine	12.815	12.817	(0.718)	9566	1.88507	3.770
27 Merphos-A (Merphos)	13.192	13.199	(0.739)	53	0.00103	0.002066
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	52138	1.52922	3.058
29 Tokuthion	14.448	14.449	(0.810)	95769	1.62481	3.250
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	102981	7.44341	14.89 (A)
31 Carbophenothion-methyl	Compound Not Detected.					
32 Fensulfothion	15.362	15.361	(0.861)	71787	1.51647	3.033
33 Bolstar / Famphur	16.050	16.053	(0.899)	181269	3.21468	6.429
34 Carbophenothion	16.193	16.197	(0.908)	88279	1.56054	3.121
S 35 Triphenyl phosphate	16.710	16.712	(0.936)	32919	0.76575	1.531
36 Phosmet	16.962	16.963	(0.951)	63736	1.31632	2.633
37 EPN	17.148	17.151	(0.961)	73272	1.59553	3.191
38 Azinphos-methyl	17.478	17.480	(0.980)	81177	1.57333	3.147
* 39 TOCP	17.843	17.846	(1.000)	85029	2.00000	
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	18.365	18.366	(1.029)	69555	1.67140	3.343
S 42 Merphos				103034	1.59029	3.180
M 43 Total Demeton				50473	0.64989	1.300 (R)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 025F2501.D  
 Lab Smp Id: LFD4W1AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: LCS  
 Level: LOW  
 Sample Type: WATER

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	141606	70803	283212	139396	-1.56
39 TOCP	76317	38159	152634	85029	11.42

COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.01
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCS  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

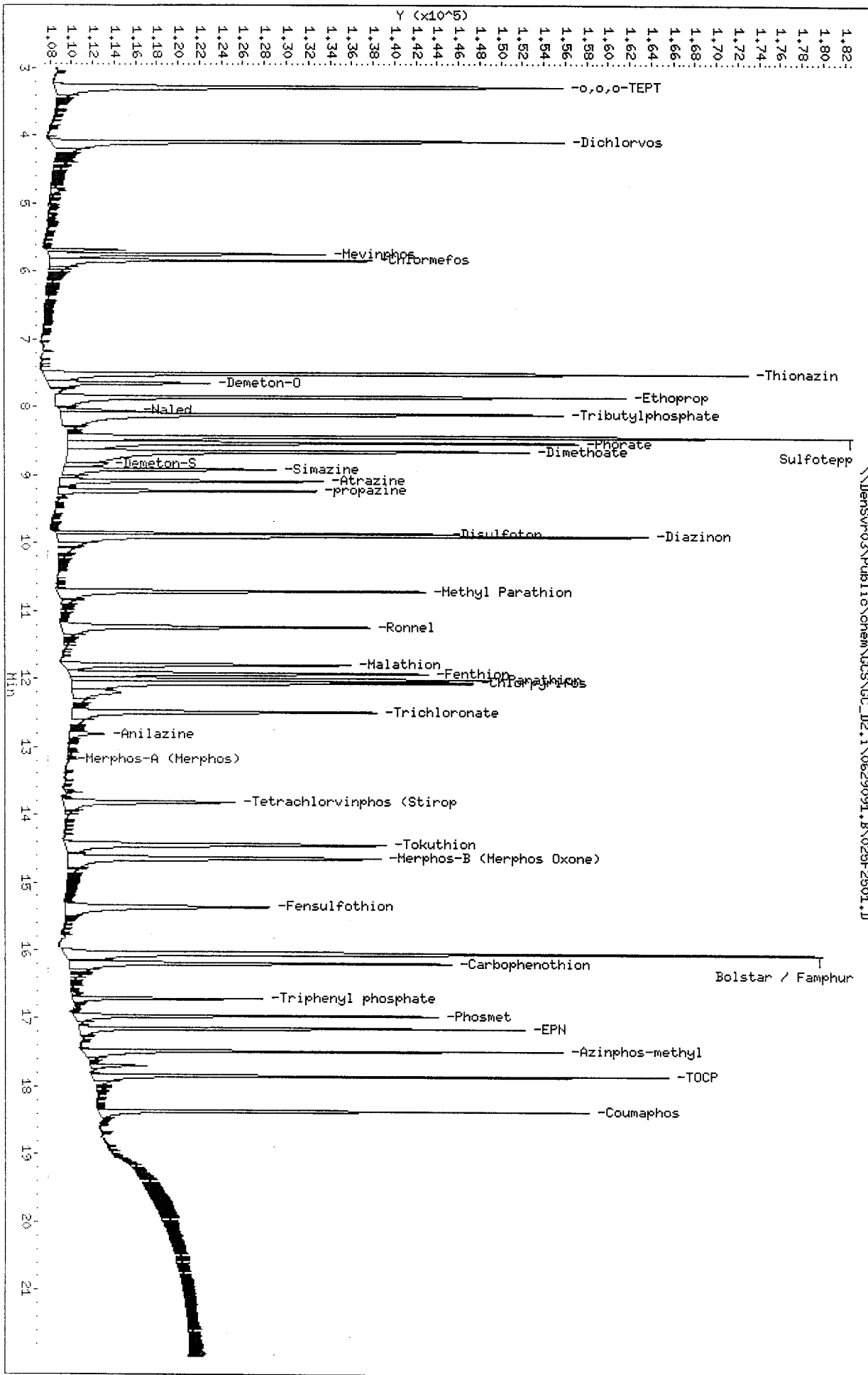
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 o,o,o-TEPT	4.000	2.313	57.82	36-119
2 Dichlorvos	4.000	3.121	78.02	50-120
3 Mevinphos	4.000	2.646	66.16	35-108
\$ 4 Chlormefos	2.000	1.455	72.76	48-114
5 Thionazin	4.000	3.306	82.66	65-116
6 Demeton-O	2.792	0.8849	31.69*	36-119
7 Ethoprop	4.000	3.449	86.22	65-108
8 Naled	4.000	1.700	42.51	36-119
10 Sulfotepp	4.000	2.918	72.94	69-103
11 Phorate	4.000	3.110	77.74	62-104
12 Dimethoate	4.000	3.170	79.25	28-115
13 Demeton-S	1.208	0.4149	34.35*	36-119
14 Simazine	4.000	3.346	83.66	47-109
15 Atrazine	4.000	3.110	77.74	36-119
16 propazine	4.000	3.178	79.44	36-119
18 Diazinon	4.000	3.511	87.78	36-119
17 Disulfoton	4.000	2.304	57.60	36-119
19 Methyl Parathion	4.000	3.289	82.22	68-119
20 Ronnel	4.000	2.970	74.26	62-115
21 Malathion	4.000	2.714	67.86	67-115
22 Fenthion	4.000	3.162	79.04	36-119
23 Parathion	4.000	3.488	87.21	36-119
24 Chlorpyrifos	4.000	3.178	79.45	36-119
25 Trichloronate	4.000	2.644	66.10	36-119
26 Anilazine	4.000	3.770	94.25	47-115
S 42 Merphos	4.000	3.180	79.51	36-119
28 Tetrachlorvinphos	4.000	3.058	76.46	36-119
29 Tokuthion	4.000	3.250	81.24	36-119
31 Carbophenothion-m	4.000	0.0000	*	36-119
32 Fensulfothion	4.000	3.033	75.82	61-115
33 Bolstar / Famphur	8.000	6.429	80.37	36-119
34 Carbophenothion	4.000	3.121	78.03	36-119
\$ 35 Triphenyl phosphat	2.000	1.531	76.57	50-150
36 Phosmet	4.000	2.633	65.82	36-119
37 EPN	4.000	3.191	79.78	36-119
38 Azinphos-methyl	4.000	3.147	78.67	55-115
40 Azinphos-ethyl	4.000	0.0000	*	36-119
41 Coumaphos	4.000	3.343	83.57	62-115
M 43 Total Demeton	4.000	1.300	32.49*	47-115

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: LCS  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	2.000	1.455	72.76	48-114
\$ 35 Triphenyl phosphat	2.000	1.531	76.57	50-150



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\025F2501.D  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Inj Date : 30-JUN-2009 05:26  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AC,LCS  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 25 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 O,o,o-TEPT	4.736	4.731 (0.252)		104457	1.19467	2.389
2 Dichlorvos	6.548	6.546 (0.348)		112676	1.65037	3.301
\$ 3 Chlormefos	7.383	7.384 (0.392)		46525	0.67694	1.354
4 Mevinphos	9.233	9.234 (0.491)		68670	1.49315	2.986
5 Demeton-O	9.733	9.734 (0.517)		21426	0.48891	0.9778 (R)
6 Thionazin	9.983	9.984 (0.531)		120494	1.75201	3.504
7 Ethoprop	10.498	10.499 (0.558)		88246	1.71718	3.434
8 Phorate	10.535	10.539 (0.560)		88901	1.49179	2.984
9 Naled	10.940	10.939 (0.581)		12202	1.00429	2.008
10 Sulfotepp	11.015	11.017 (0.585)		130898	1.45635	2.913 (A)
* 11 Tributylphosphate	11.113	11.116 (1.000)		118388	2.00000	
12 Simazine	11.398	11.399 (0.606)		28332	2.20088	4.402 (A)
13 Diazinon	11.538	11.541 (0.613)		91373	1.90066	3.801
14 Atrazine	11.580	11.584 (0.615)		45757	1.85573	3.711 (A)
15 Propazine	11.743	11.747 (0.624)		38062	1.71304	3.426
16 Disulfoton	12.048	12.049 (0.640)		64593	1.36272	2.725
17 Demeton-S	Compound Not Detected.					
18 Dimethoate	13.280	13.282 (0.706)		99039	1.55898	3.118
19 Ronnel	13.585	13.587 (0.722)		68431	1.60033	3.201
20 Merphos-A (Merphos)	13.720	13.689 (1.235)		187	0.00436	0.008718 (AA)
21 Chlorpyrifos	14.406	14.409 (0.766)		75604	1.74318	3.486
22 Fenthion	14.661	14.662 (0.779)		72514	1.80263	3.605

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.706	14.711	(0.782)	74495	1.37294	2.746
24 Anilazine	15.213	15.216	(0.809)	7337	1.97603	3.952
25 Methyl Parathion	15.516	15.519	(0.825)	76857	1.76973	3.539
26 Malathion	15.721	15.724	(0.836)	57870	1.42242	2.845
27 Tokuthion	16.343	16.344	(0.869)	73500	1.54299	3.086
28 Parathion	16.493	16.494	(0.877)	73320	1.71334	3.427
29 Merphos-B (Merphos Oxone)	16.520	16.517	(1.486)	83434	6.40430	12.81 (A)
30 Tetrachlorvinphos (stirophos)	16.975	16.977	(0.902)	48611	1.75603	3.512
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	17.440	17.440	(0.927)	73422	1.75672	3.513
33 Carbophenothion	17.521	17.524	(0.931)	71491	1.73953	3.479 (A)
S 34 Triphenyl phosphate	18.278	18.281	(0.971)	30050	0.89104	1.782
35 Fensulfothion	18.558	18.559	(0.986)	61930	1.99997	4.000
* 36 TOCP	18.815	18.816	(1.000)	67599	2.00000	
37 Phosmet / EPN	18.906	18.909	(1.005)	108511	3.10866	6.217
38 Famphur	19.008	19.011	(1.010)	69120	1.55895	3.118
39 Azinphos-methyl	19.143	19.147	(1.017)	62082	1.53066	3.061
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	20.343	20.347	(1.081)	54198	1.82485	3.650
S 42 Merphos				83621	1.48429	2.968
M 43 Total Demeton				21426	0.48891	0.9778 (R)

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 025F2501.D  
 Lab Smp Id: LFD4W1AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: LCS  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	118388	6.98
36 TOCP	62152	31076	124304	67599	8.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.11	-0.01
36 TOCP	18.81	18.31	19.31	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCS  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	1 o,o,o-TEPT	4.000	2.389	59.73	36-119
	2 Dichlorvos	4.000	3.301	82.52	50-120
\$	3 Chlormefos	2.000	1.354	67.69	58-114
	4 Mevinphos	4.000	2.986	74.66	35-108
	5 Demeton-O	2.800	0.9778	34.92*	36-119
	6 Thionazin	4.000	3.504	87.60	65-116
	7 Ethoprop	4.000	3.434	85.86	36-119
	8 Phorate	4.000	2.984	74.59	36-119
	9 Naled	4.000	2.008	50.21	36-119
	10 Sulfotepp	4.000	2.913	72.82	36-119
	12 Simazine	4.000	4.402	110.04	36-119
	13 Diazinon	4.000	3.801	95.03	36-119
	14 Atrazine	4.000	3.711	92.79	36-119
	15 Propazine	4.000	3.426	85.65	36-119
	16 Disulfoton	4.000	2.725	68.14	61-103
	17 Demeton-S	1.200	0.0000	*	36-119
	18 Dimethoate	4.000	3.118	77.95	28-82
	19 Ronnel	4.000	3.201	80.02	62-99
	21 Chlorpyrifos	4.000	3.486	87.16	66-101
	22 Fenthion	4.000	3.605	90.13	36-119
	23 Trichloronate	4.000	2.746	68.65	36-119
	24 Anilazine	4.000	3.952	98.80	36-119
	25 Methyl Parathion	4.000	3.539	88.49	36-119
	26 Malathion	4.000	2.845	71.12	36-119
	27 Tokuthion	4.000	3.086	77.15	36-119
	28 Parathion	4.000	3.427	85.67	36-119
	30 Tetrachlorvinphos	4.000	3.512	87.80	36-119
	31 Carbophenothion m	4.000	0.0000	*	36-119
	32 Bolstar	4.000	3.513	87.84	36-119
	33 Carbophenothion	4.000	3.479	86.98	36-119
\$	34 Triphenyl phosphat	2.000	1.782	89.10	36-119
	35 Fensulfothion	4.000	4.000	100.00	20-105
	37 Phosmet / EPN	8.000	6.217	77.72	36-119
	38 Famphur	4.000	3.118	77.95	61-108
	39 Azinphos-methyl	4.000	3.061	76.53	55-103
	40 Azinphos-ethyl	4.000	0.0000	*	36-119
S	41 Coumaphos	4.000	3.650	91.24	36-119
	42 Merphos	4.000	2.968	74.21	36-119
M	43 Total Demeton	4.000	0.9778	24.45*	47-100

TestAmerica

RECOVERY REPORT

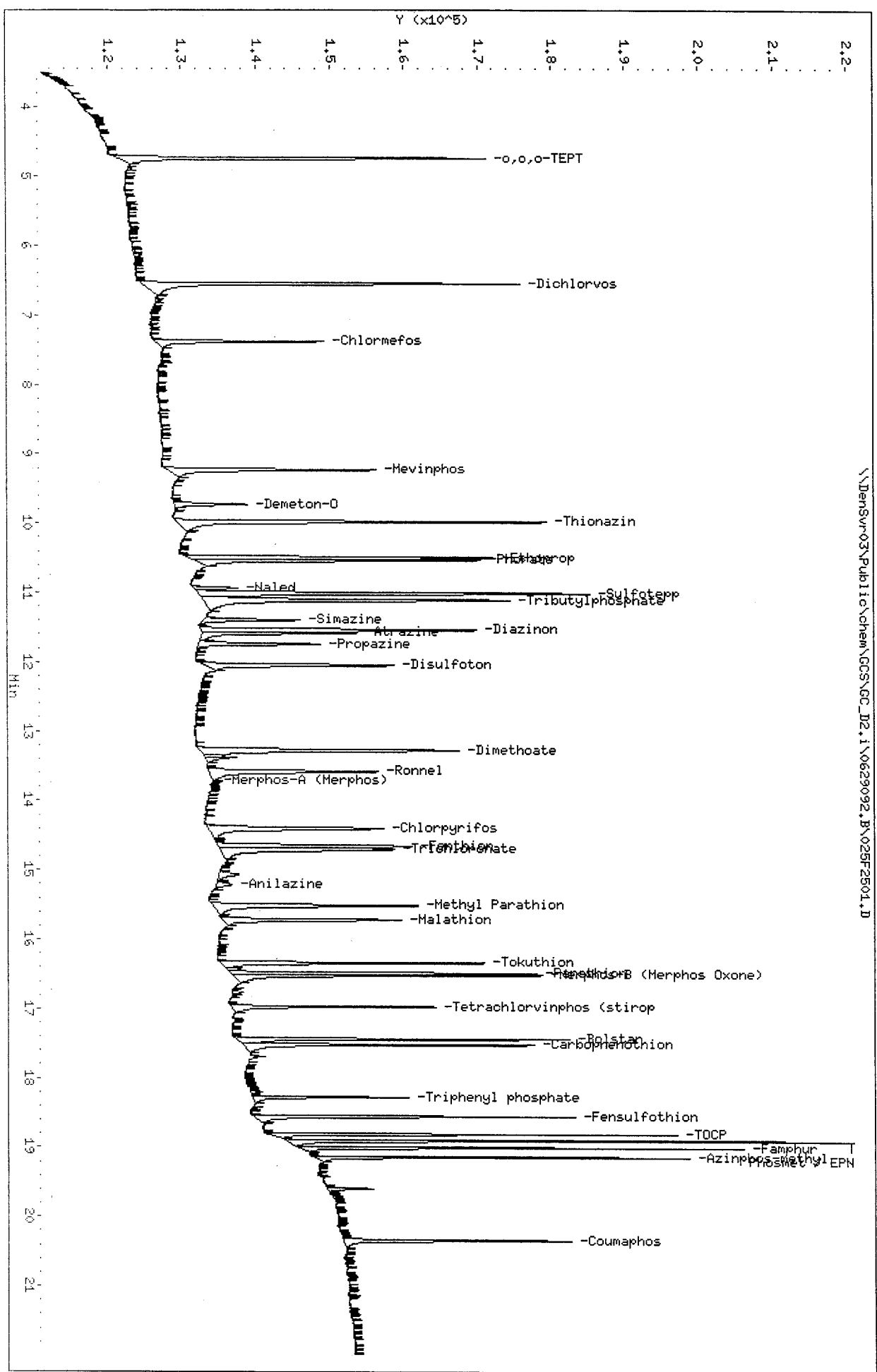
Client Name: Client SDG: D9F220000  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: LCS  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	2.000	1.354	67.69	48-114
\$ 34 Triphenyl phosphat	2.000	1.782	89.10	50-150

Data File: \\DensSurv-03\Public\chem\GC\GC\_D2.1\0629092.B\025F2501.D  
 Date : 30-JUN-2009 05:26  
 Client ID: LCS  
 Sample Info: LFD4M4AC,LCS  
 Column phase: RTX-QPpeast

Instrument: GC\_D2.1  
 Operator: HPK/TLM  
 Column diameter: 0.32

\\DensSurv-03\Public\chem\GC\GC\_D2.1\0629092.B\025F2501.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\026F2601.D  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Inj Date : 30-JUN-2009 05:53  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AD,LCSD  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 26 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT	3.286	3.254	(0.184)	141739	1.27499	2.550 -RPT 2°
2 Dichlorvos	4.091	4.074	(0.229)	116087	1.68162	3.363
3 Mevinphos	5.748	5.739	(0.322)	52159	1.37547	2.751
4 Chlormefos	5.838	5.836	(0.327)	63622	0.73597	1.472
5 Thionazin	7.508	7.507	(0.421)	141890	1.79854	3.597
6 Demeton-O	7.648	7.649	(0.429)	38070	0.49350	0.9870 (R)
7 Ethoprop	7.851	7.852	(0.440)	129460	1.87258	3.745
8 Naled	8.060	8.057	(0.452)	13470	0.91328	1.826
* 9 Tributylphosphate	8.111	8.135	(1.000)	127878	2.00000	
10 Sulfotepp	8.440	8.442	(0.473)	157329	1.56716	3.134
11 Phorate	8.531	8.532	(0.478)	117800	1.64532	3.291
12 Dimethoate	8.658	8.659	(0.485)	130746	1.57200	3.144
13 Demeton-S	8.838	8.846	(0.495)	9463	0.15690	0.3138 (R)
14 Simazine	8.920	8.924	(0.500)	45523	1.65737	3.315
15 Atrazine	9.090	9.094	(0.509)	51567	1.59898	3.198
16 propazine	9.235	9.241	(0.518)	50969	1.71286	3.426
17 Disulfoton	9.868	9.869	(0.553)	60048	1.22019	2.440
18 Diazinon	9.900	9.902	(0.555)	159268	2.07085	4.142
19 Methyl Parathion	10.715	10.717	(0.601)	89397	1.83283	3.666
20 Ronnel	11.238	11.241	(0.630)	85722	1.70020	3.400
21 Malathion	11.800	11.804	(0.661)	69385	1.49552	2.991
22 Fenthion	11.930	11.932	(0.669)	84971	1.71377	3.428

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion	12.018	12.019	(0.674)	99425	1.88421	3.768
24 Chlorpyrifos	12.066	12.067	(0.676)	111760	1.75059	3.501
25 Trichloronate	12.495	12.496	(0.700)	80135	1.40445	2.809
26 Anilazine	12.816	12.817	(0.718)	8534	1.82199	3.644
27 Merphos-A (Merphos)	13.185	13.199	(0.739)	106	0.00223	0.004453
28 Tetrachlorvinphos (Stirophos)	13.820	13.824	(0.775)	51677	1.63333	3.267
29 Tokuthion	14.448	14.449	(0.810)	91825	1.67881	3.358
30 Merphos-B (Merphos Oxone)	14.648	14.651	(0.821)	93586	7.28977	14.58 (A)
31 Carbophenothion-methyl	Compound Not Detected.					
32 Fensulfothion	15.363	15.361	(0.861)	65995	1.50320	3.006
33 Bolstar / Famphur	16.051	16.053	(0.900)	180350	3.44662	6.893
34 Carbophenothion	16.195	16.197	(0.908)	92463	1.76136	3.523
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	33822	0.84782	1.696
36 Phosmet	16.963	16.963	(0.951)	65375	1.45496	2.910
37 EPN	17.150	17.151	(0.961)	76811	1.79604	3.592
38 Azinphos-methyl	17.480	17.480	(0.980)	72586	1.51601	3.032
* 39 TOCP	17.843	17.846	(1.000)	78905	2.00000	
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	18.365	18.366	(1.029)	66344	1.71797	3.436
S 42 Merphos				93692	1.55834	3.117
M 43 Total Demeton				47533	0.65040	1.301 (R)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 026F2601.D  
 Lab Smp Id: LFD4W1AD  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: LCSD  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	127878	-9.69
39 TOCP	76317	38159	152634	78905	3.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.02
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCSD  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 o,o,o-TEPT	4.000	2.550	63.75	36-119
2 Dichlorvos	4.000	3.363	84.08	50-120
3 Mevinphos	4.000	2.751	68.77	35-108
\$ 4 Chlormefos	2.000	1.472	73.60	48-114
5 Thionazin	4.000	3.597	89.93	65-116
6 Demeton-O	2.792	0.9870	35.35*	36-119
7 Ethoprop	4.000	3.745	93.63	65-108
8 Naled	4.000	1.826	45.66	36-119
10 Sulfotepp	4.000	3.134	78.36	69-103
11 Phorate	4.000	3.291	82.27	62-104
12 Dimethoate	4.000	3.144	78.60	28-115
13 Demeton-S	1.208	0.3138	25.98*	36-119
14 Simazine	4.000	3.315	82.87	47-109
15 Atrazine	4.000	3.198	79.95	36-119
16 propazine	4.000	3.426	85.64	36-119
18 Diazinon	4.000	4.142	103.54	36-119
17 Disulfoton	4.000	2.440	61.01	36-119
19 Methyl Parathion	4.000	3.666	91.64	68-119
20 Ronnel	4.000	3.400	85.01	62-115
21 Malathion	4.000	2.991	74.78	67-115
22 Fenthion	4.000	3.428	85.69	36-119
23 Parathion	4.000	3.768	94.21	36-119
24 Chlorpyrifos	4.000	3.501	87.53	36-119
25 Trichloronate	4.000	2.809	70.22	36-119
26 Anilazine	4.000	3.644	91.10	47-115
S 42 Merphos	4.000	3.117	77.92	36-119
28 Tetrachlorvinphos	4.000	3.267	81.67	36-119
29 Tokuthion	4.000	3.358	83.94	36-119
31 Carbophenothion-m	4.000	0.0000	*	36-119
32 Fensulfothion	4.000	3.006	75.16	61-115
33 Bolstar / Famphur	8.000	6.893	86.17	36-119
34 Carbophenothion	4.000	3.523	88.07	36-119
\$ 35 Triphenyl phosphat	2.000	1.696	84.78	50-150
36 Phosmet	4.000	2.910	72.75	36-119
37 EPN	4.000	3.592	89.80	36-119
38 Azinphos-methyl	4.000	3.032	75.80	55-115
40 Azinphos-ethyl	4.000	0.0000	*	36-119
41 Coumaphos	4.000	3.436	85.90	62-115
M 43 Total Demeton	4.000	1.301	32.52*	47-115

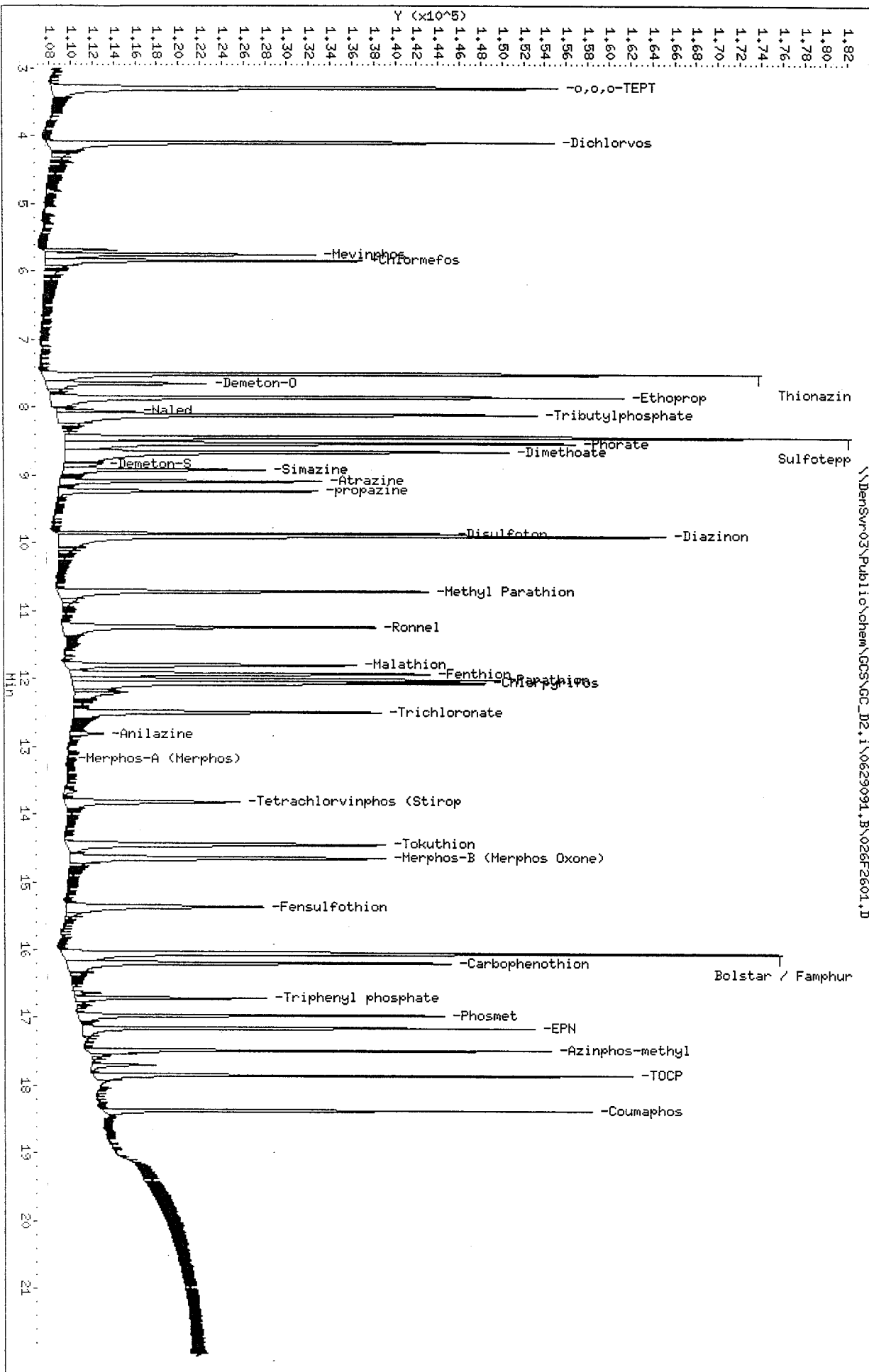
TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCSD  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	2.000	1.472	73.60	48-114
\$ 35 Triphenyl phosphat	2.000	1.696	84.78	50-150





TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\026F2601.D  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Inj Date : 30-JUN-2009 05:53  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AD,LCSD  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 26 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT	4.738	4.731	(0.252)	114192	1.33441	2.669
2 Dichlorvos	6.549	6.546	(0.348)	103656	1.55128	3.102
3 Chlormefos	7.384	7.384	(0.392)	42095	0.62581	1.252
4 Mevinphos	9.234	9.234	(0.491)	75490	1.67714	3.354
5 Demeton-O	9.733	9.734	(0.517)	21005	0.48973	0.9795 (R)
6 Thionazin	9.984	9.984	(0.531)	124413	1.84834	3.697
7 Ethoprop	10.499	10.499	(0.558)	85997	1.70981	3.420
8 Phorate	10.538	10.539	(0.560)	90461	1.55098	3.102
9 Naled	10.941	10.939	(0.582)	12103	1.01419	2.028
10 Sulfotepp	11.016	11.017	(0.586)	130888	1.48791	2.976 (A)
* 11 Tributylphosphate	11.114	11.116	(1.000)	107752	2.00000	
12 Simazine	11.399	11.399	(0.606)	26110	2.07238	4.145 (A)
13 Diazinon	11.539	11.541	(0.613)	91041	1.93442	3.869
14 Atrazine	11.579	11.584	(0.615)	44824	1.85722	3.714 (A)
15 Propazine	11.744	11.747	(0.624)	37540	1.72585	3.452
16 Disulfoton	12.048	12.049	(0.640)	61147	1.31808	2.636
17 Demeton-S	Compound Not Detected.					
18 Dimethoate	13.281	13.282	(0.706)	94783	1.52444	3.049
19 Ronnel	13.586	13.587	(0.722)	70586	1.68663	3.373
20 Merphos-A (Merphos)	13.713	13.689	(1.234)	855	0.02190	0.04380 (AA)
21 Chlorpyrifos	14.409	14.409	(0.766)	69729	1.64269	3.285
22 Penthion	14.659	14.662	(0.779)	70738	1.79673	3.593

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.706	14.711	(0.782)	68787	1.30127	2.602
24 Anilazine	15.213	15.216	(0.809)	5761	1.58509	3.170
25 Methyl Parathion	15.518	15.519	(0.825)	72480	1.70524	3.410
26 Malathion	15.723	15.724	(0.836)	57225	1.43716	2.874
27 Tokuthion	16.343	16.344	(0.869)	72375	1.55242	3.105
28 Parathion	16.493	16.494	(0.877)	70521	1.68378	3.368
29 Merphos-B (Merphos Oxone)	16.519	16.517	(1.486)	81996	6.92343	13.85 (A)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	48095	1.77518	3.550
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	17.439	17.440	(0.927)	68048	1.66355	3.327
33 Carbophenothion	17.521	17.524	(0.931)	63909	1.58887	3.178 (A)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	33221	1.00649	2.013
35 Fensulfothion	18.558	18.559	(0.986)	58752	1.93861	3.877
* 36 TOCP	18.814	18.816	(1.000)	66160	2.00000	
37 Phosmet / EPN	18.906	18.909	(1.005)	113369	3.32422	6.648
38 Famphur	19.008	19.011	(1.010)	73634	1.69689	3.394
39 Azinphos-methyl	19.144	19.147	(1.018)	62081	1.56392	3.128
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	20.344	20.347	(1.081)	50528	1.73828	3.476
S 42 Merphos				82851	1.50260	3.005
M 43 Total Demeton				21005	0.48973	0.9795 (R)

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 026F2601.D  
 Lab Smp Id: LFD4W1AD  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: LCSD  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	107752	-2.63
36 TOCP	62152	31076	124304	66160	6.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.11	0.00
36 TOCP	18.81	18.31	19.31	18.81	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCSD  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	1 o,o,o-TEPT	4.000	2.669	66.72	36-119
	2 Dichlorvos	4.000	3.102	77.56	50-120
\$	3 Chlormefos	2.000	1.252	62.58	58-114
	4 Mevinphos	4.000	3.354	83.86	35-108
	5 Demeton-O	2.800	0.9795	34.98*	36-119
	6 Thionazin	4.000	3.697	92.42	65-116
	7 Ethoprop	4.000	3.420	85.49	36-119
	8 Phorate	4.000	3.102	77.55	36-119
	9 Naled	4.000	2.028	50.71	36-119
	10 Sulfotepp	4.000	2.976	74.40	36-119
	12 Simazine	4.000	4.145	103.62	36-119
	13 Diazinon	4.000	3.869	96.72	36-119
	14 Atrazine	4.000	3.714	92.86	36-119
	15 Propazine	4.000	3.452	86.29	36-119
	16 Disulfoton	4.000	2.636	65.90	61-103
	17 Demeton-S	1.200	0.0000	*	36-119
	18 Dimethoate	4.000	3.049	76.22	28-82
	19 Ronnel	4.000	3.373	84.33	62-99
	21 Chlorpyrifos	4.000	3.285	82.13	66-101
	22 Fenthion	4.000	3.593	89.84	36-119
	23 Trichloronate	4.000	2.602	65.06	36-119
	24 Anilazine	4.000	3.170	79.25	36-119
	25 Methyl Parathion	4.000	3.410	85.26	36-119
	26 Malathion	4.000	2.874	71.86	36-119
	27 Tokuthion	4.000	3.105	77.62	36-119
	28 Parathion	4.000	3.368	84.19	36-119
	30 Tetrachlorvinphos	4.000	3.550	88.76	36-119
	31 Carbophenothion m	4.000	0.0000	*	36-119
	32 Bolstar	4.000	3.327	83.18	36-119
	33 Carbophenothion	4.000	3.178	79.44	36-119
\$	34 Triphenyl phosphat	2.000	2.013	100.65	36-119
	35 Fensulfothion	4.000	3.877	96.93	20-105
	37 Phosmet / EPN	8.000	6.648	83.11	36-119
	38 Famphur	4.000	3.394	84.84	61-108
	39 Azinphos-methyl	4.000	3.128	78.20	55-103
	40 Azinphos-ethyl	4.000	0.0000	*	36-119
S	41 Coumaphos	4.000	3.476	86.91	36-119
	42 Merphos	4.000	3.005	75.13	36-119
M	43 Total Demeton	4.000	0.9795	24.49*	47-100

TestAmerica

RECOVERY REPORT

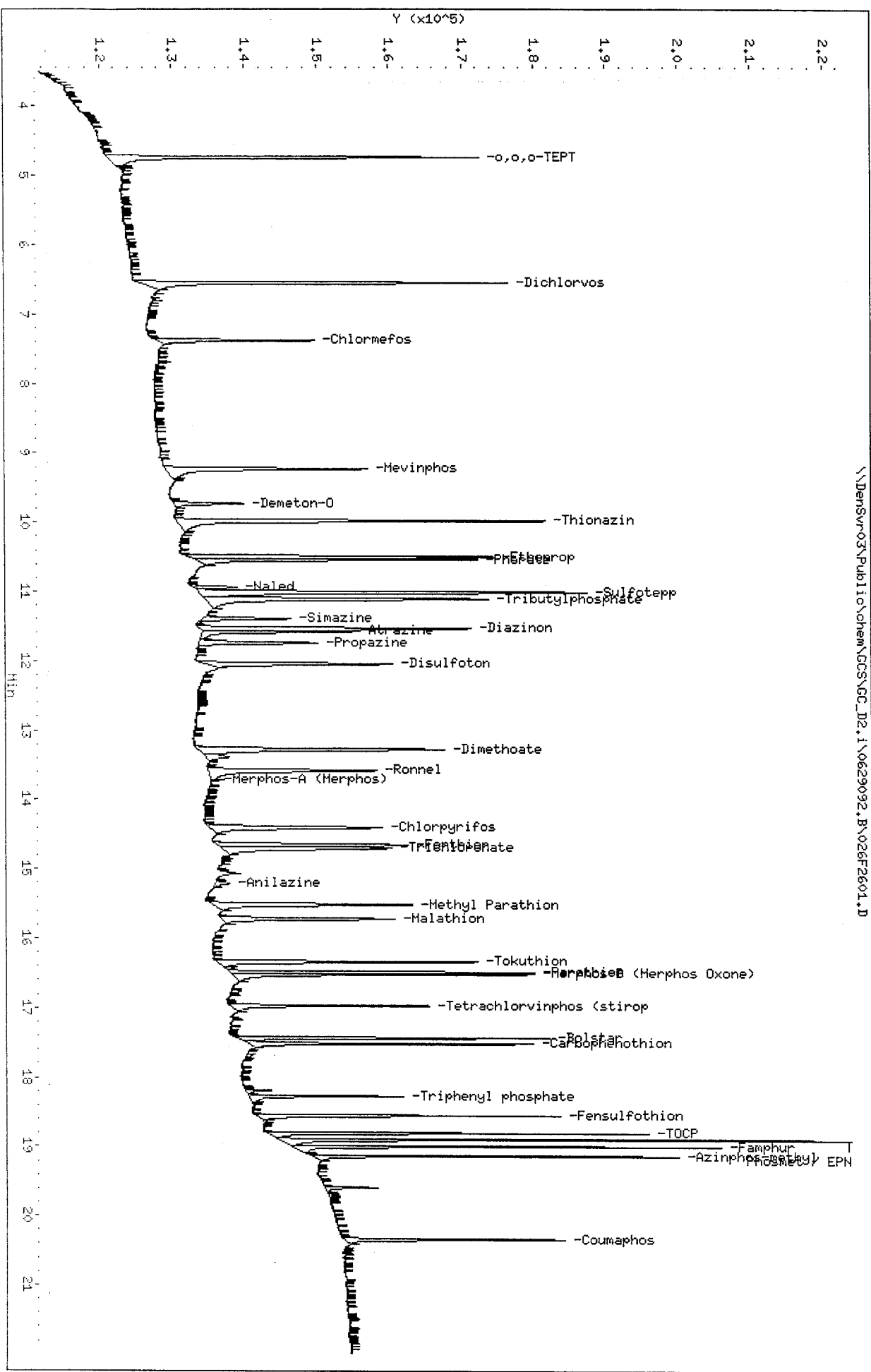
Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCSD  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	2.000	1.252	62.58	48-114
\$ 34 Triphenyl phosphat	2.000	2.013	100.65	50-150

Data File: \\DensSvr03\Public\chem\GCS\GC\_D2.1\0629092.B\026F2601.D  
 Date : 30-JUN-2009 05:53  
 Client ID: LCSD  
 Sample Info: LFD4MLAD,LCSD  
 Column phase: RTX-QPest

Instrument: GC\_D2.1  
 Operator: HFK/TLM  
 Column diameter: 0.32

\\DensSvr03\Public\chem\GCS\GC\_D2.1\0629092.B\026F2601.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\029F2901.D  
 Lab Smp Id: LE9RA1AA Client Smp ID: M-123009B  
 Inj Date : 30-JUN-2009 07:15  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LE9RA1AA,216-3  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 29  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1066.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
3 Mevinphos						
\$ 4 Chlormefos	5.838	5.836	(0.327)	40913	0.48007	0.9007 <i>-RPT 2°</i>
5 Thionazin						
6 Demeton-O						
7 Ethoprop						
8 Naled						
* 9 Tributylphosphate	8.113	8.135	(1.000)	114533	2.00000	
10 Sulfotepp						
11 Phorate						
12 Dimethoate						
13 Demeton-S						
14 Simazine						
15 Atrazine						
16 propazine						
17 Disulfoton						
18 Diazinon						
19 Methyl Parathion						
20 Ronnel						
21 Malathion						
22 Fenthion						



Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion						
24 Chlorpyrifos	12.068	12.067	(0.676)	170	0.00270	0.005068 (a)
25 Trichloronate						
26 Anilazine						
27 Merphos-A (Merphos)	13.185	13.199	(0.739)	297	0.00633	0.01187
28 Tetrachlorvinphos (Stirophos)	13.803	13.824	(0.774)	132	0.00423	0.007940
29 Tokuthion						
30 Merphos-B (Merphos Oxone)	14.657	14.651	(0.821)	367	0.04980	0.09344
31 Carbophenothion-methyl						
32 Fensulfothion						
33 Bolstar / Famphur						
34 Carbophenothion						
\$ 35 Triphenyl phosphate	16.712	16.712	(0.937)	34536	0.87815	1.648
36 Phosmet						
37 EPN						
38 Azinphos-methyl						
* 39 TOCP	17.843	17.846	(1.000)	77788	2.00000	
40 Azinphos-ethyl						
41 Coumaphos						
S 42 Merphos				664	0.01120	0.02102
M 43 Total Demeton						

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 029F2901.D  
 Lab Smp Id: LE9RA1AA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: M-123009B  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	114533	-19.12
39 TOCP	76317	38159	152634	77788	1.93

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.04
39 TOCP	17.84	17.34	18.34	17.84	0.00

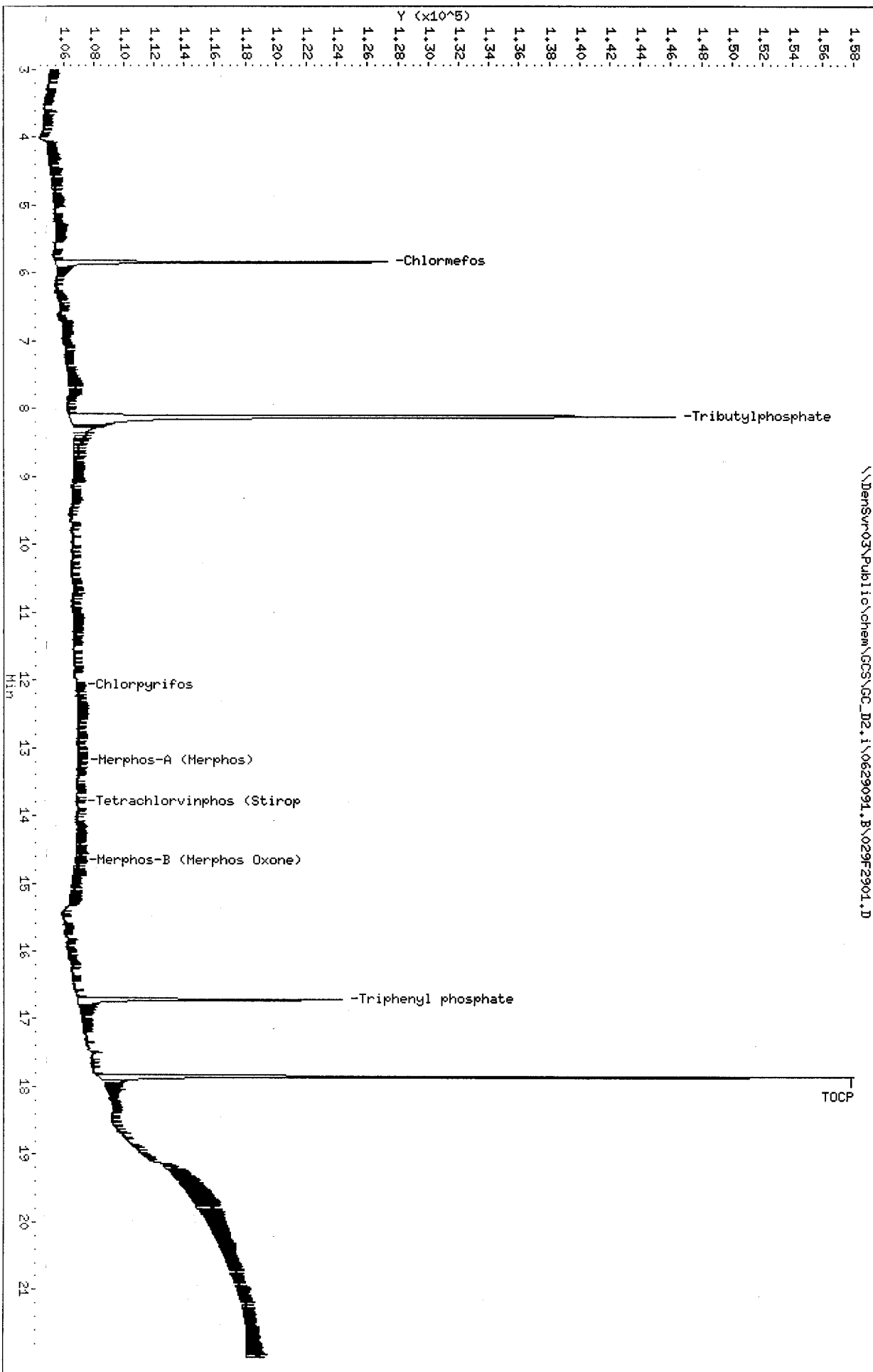
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Northgate Environmen19-JUN-2009 00:00 Client SDG: 8304607  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LE9RA1AA Client Smp ID: M-123009B  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: SAMPLE  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	1.876	0.9007	48.01	48-114
\$ 35 Triphenyl phosphat	1.876	1.648	87.81	50-150



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\029F2901.D  
 Lab Smp Id: LE9RA1AA Client Smp ID: M-123009B  
 Inj Date : 30-JUN-2009 07:15  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LE9RA1AA,216-3  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 29  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1066.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
\$ 3 Chlormefos	7.383	7.384	(0.392)	37295	0.56598	1.062
4 Mevinphos						
5 Demeton-O						
6 Thionazin						
7 Ethoprop						
8 Phorate						
9 Naled	10.903	10.939	(0.580)	69	0.27307	0.5123 <i>Not a peak</i>
10 Sulfotepp	11.053	11.017	(0.587)	60	7.e-004	0.001306 (aA)
* 11 Tributylphosphate	11.115	11.116	(1.000)	98207	2.00000	
12 Simazine	11.385	11.399	(0.605)	54	0.00438	0.008209 (aA)
13 Diazinon						
14 Atrazine	11.568	11.584	(0.615)	54	0.23441	0.4398 (aA)
15 Propazine						
16 Disulfoton						
17 Demeton-S	12.108	12.124	(0.644)	51	0.11997	0.2251
18 Dimethoate						
19 Ronnel						
20 Merphos-A (Merphos)	13.688	13.689	(1.232)	429	0.01206	0.02262 (aA)
21 Chlorpyrifos						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.705	14.711	(0.782)	94	0.10693	0.2006
24 Anilazine	Compound Not Detected.					
25 Methyl Parathion	Compound Not Detected.					
26 Malathion	15.725	15.724	(0.836)	58	0.00149	0.002790 (a)
27 Tokuthion	Compound Not Detected.					
28 Parathion	16.493	16.494	(0.877)	70	0.00171	0.003201 (a)
29 Merphos-B (Merphos Oxone)	Compound Not Detected.					
30 Tetrachlorvinphos (stirophos)	Compound Not Detected.					
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	Compound Not Detected.					
33 Carbophenothion	Compound Not Detected.					
\$ 34 Triphenyl phosphate	18.280	18.281	(0.972)	28286	0.87480	1.641
35 Fensulfothion	Compound Not Detected.					
* 36 TOCP	18.815	18.816	(1.000)	64812	2.00000	
37 Phosmet / EPN	Compound Not Detected.					
38 Famphur	Compound Not Detected.					
39 Azinphos-methyl	Compound Not Detected.					
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	Compound Not Detected.					
S 42 Merphos	Compound Not Detected.					
M 43 Total Demeton				51	0.11997	0.2251

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 029F2901.D  
 Lab Smp Id: LE9RA1AA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: M-123009B  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	98207	-11.26
36 TOCP	62152	31076	124304	64812	4.28

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.12	0.00
36 TOCP	18.81	18.31	19.31	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Northgate Environmen19-JUN-2009 00:00 Client SDG: 8304607  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LE9RA1AA Client Smp ID: M-123009B  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: SAMPLE  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	1.876	1.062	56.60	48-114
\$ 34 Triphenyl phosphat	1.876	1.641	87.48	50-150



Date: 30-JUN-2009 07:15

Client ID: M-123009B

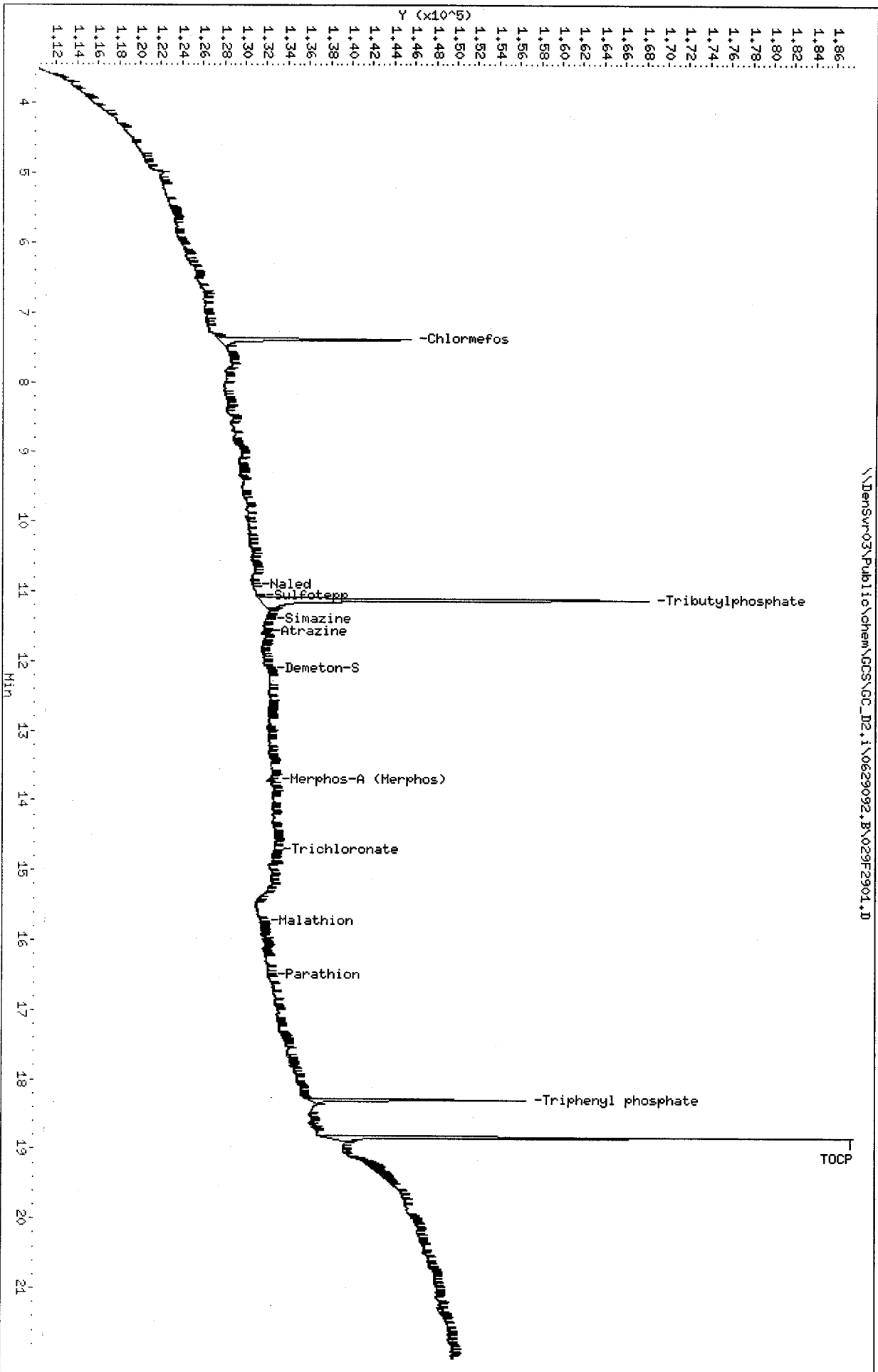
Sample Info: LE9R11A,216-3

Instrument: GC\_D2.1

Column phase: RTX-OPPest

Operator: HPK/TLM  
Column diameter: 0.32

\\DensSvr-03\Public\chem\GCS\GC\_D2.1\0629092.B\029F2901.D



**GC SEMIVOLATILE  
INITIAL CALIBRATION DATA**

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

GC and HPLC ICAL Review Checklist

608 8081 8082 8151 8141  
 TPH/DRO Other SV Lab  
 8310 8330 Other HPLC \_\_\_\_\_

601 602 8021 BTEX  
 TPH/GRO Other Volatile GC \_\_\_\_\_

Calibration Date: 6/26/09  
 Instrument ID: D2

Initial Calibration	Review Items	Level 1			Level 2	Comments
		Yes	No	N/A		
1.	Are correct data files used?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
2.	Is there a sufficient number of calibration points used?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
3.	Are reasons for removal of points documented?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Better linearity
4.	Is linearity acceptable, 8000 Series: linear least-squares regression with $r \geq 0.990$ , (DOD projects require $r \geq 0.995$ ) quadratic fit COD $r^2 > 0.990$ , or average response factors with RSD $\leq 20\%$ ?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
5.	600 Series: Are the correct RT windows applied to the ICAL integration? < 10% RSD or linear regression	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
6.	Are DDT & Endrin breakdown < 15%?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	NA	
7.	Is each manual integration completely documented, signed and appropriate?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
8.	Is traceability of standards properly documented?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
9.	Was second level hand calculation performed? (document analyte checked)	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
10.	Was second-source ICV performed & recovery 85-115%?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Primary Include %R Maled -40.1%, Simazine +31.1%, Disulfoton -20.6%, Malathion -18.8%, Atrazine -49.2%, Carbofenthiol-methyl -32.3%, Phosmet-17.6%, Secondary Include %R Maled -47.6%, Simazine +80.1%, Atrazine -39.9%, Malathion -23.2%, Carbofenthiol-methyl -39.7%, Megphos -19.3%

1st Level Reviewer: [Signature] Date: 6/30/09  
 2nd Level Reviewer: [Signature] Date: 6/30/09

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
====	=====	=====	=====	=====	=====	=====
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L7 GSV0634				
4	Vial 4	OPP L6 GSV0637				
5	Vial 5	OPP L5 GSV0635				
6	Vial 6	OPP L4 GSV0638				
7	Vial 7	OPP L3 GSV0639				
8	Vial 8	OPP L2 GSV0640				
9	Vial 9	OPP L1 GSV0641				
10	Vial 10	OPP SS GSV0633				
11	Vial 11	GSV075309 SPK				
12	Vial 12	LE2931AA,MB				
13	Vial 13	LE2931AC,LCS				
14	Vial 14	LE2931AD,LCSD				
15	Vial 15	LEQA91AC,222-15			10	
16	Vial 16	LEQA91AC,222-15			3	
17	Vial 17	LEQCQ1AC,222-18			2	
18	Vial 18	LERD61AD,377-1				
19	Vial 19	LERD81AH,377-3				
20	Vial 20	LERN71AF,115-1				
21	Vial 21	LERPQ1AF,115-2				
22	Vial 22	LERPX1AF,115-3				
23	Vial 23	LE1F91AJ,138-1				
24	Vial 24	OPP L5 GSV0635				
25	Vial 25	LE29M1AA,MB				
26	Vial 26	LE29M1AC,LCS				
27	Vial 27	LE29M1AD,LCSD				
28	Vial 28	LEQA91AA,222-15			10	
29	Vial 29	LEQA91AA,222-15			3	
30	Vial 30	LEQCQ1AA,222-18			2	
31	Vial 31	LFARC1AA,MB				
32	Vial 32	LFARC1AC,LCS				
33	Vial 33	LFARC1AD,LCSD				
34	Vial 34	LEKL02AA,185-1				
35	Vial 35	LE29L1AA,MB				
36	Vial 36	LE29L1AC,LCS				
37	Vial 37	LE29L1AD,LCSD				
38	Vial 38	LERCV1AA,370-1				
39	Vial 39	LEWJG1AA,143-1				
40	Vial 40	OPP L5 GSV0635				
41	Vial 41	LE5PX1AA,MB				
42	Vial 42	LE5PX1AC,LCS				
43	Vial 43	LE5PX1AD,LCSD				
44	Vial 44	LE39F1AA,179-1				
45	Vial 45	LE3PF1AA,179-2				
46	Vial 46	LE39L1AA,179-3				
47	Vial 47	LFARL1AA,MB				
48	Vial 48	LFARL1AC,LCS				
49	Vial 49	LFARL1AD,LCSD				
50	Vial 50	LEKLE2AE,180-2				
51	Vial 51	LEKLF2AE,180-3				
52	Vial 52	LEKLL2AE,180-4				
53	Vial 53	LEKLO2AE,180-5				
54	Vial 54	LENR72AD,322-1				
55	Vial 55	LEPG32AJ,161-1				
56	Vial 56	OPP L5 GSV0635				
57	Vial 57	LFD4N1AA,MB				
58	Vial 58	LFD4N1AC,LCS				

9168144

9168147

9170431

9168145

9168533

9170430

9173102

RR

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
59	Vial 59	LFD4N1AD, LCSD				
60	Vial 60	LE3041AJ, 158-1				
61	Vial 61	LFD4W1AA, MB				
62	Vial 62	LFD4W1AC, LCS				
63	Vial 63	LFD4W1AD, LCSD				
64	Vial 64	LE7EE1AA, 266-2				
65	Vial 65	LE9Q61AA, 216-2				
66	Vial 66	LE9RA1AA, 216-3				
67	Vial 67	LFC4Q1AD, 199-2				
68	Vial 68	OPP L5 GSV0635				
69	Vial 69	LFAN01AA, MB				
70	Vial 70	LFAN01AC, LCS				
71	Vial 71	LFAN01AD, LCSD				
72	Vial 72	LE4291AA, 273-1				
73	Vial 73	LE4291AD, 273-1S				
74	Vial 74	LE4291AE, 273-1D				
75	Vial 75	LE9PJ1AA, 215-1				
76	Vial 76	OPP L5 GSV0635				
77	Vial 77	OPP L1 GSV0641				
78	Vial 100	HEXANE/ACETONE				

11/23/03

11/20/09

Sequence Table (Back Injector):

No entries - empty table!

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Calibration File Names:

Level 1: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\009F0901.D  
 Level 2: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\008F0801.D  
 Level 3: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\007F0701.D  
 Level 4: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\006F0601.D  
 Level 5: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\005F0501.D  
 Level 6: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\004F0401.D  
 Level 7: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	Coefficients							Curve	b	ml	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7					
1 o,o'-TEPP	3.11591 2.77446	2.63737	2.67945	2.89676	2.71623	2.90430	AVRG		2.81778			5.91149
2 Dichlorvos	2.01706 1.79032	1.62225	1.58545	1.76366	1.71981	1.74982	AVRG		1.74977			7.99554
3 Mevinphos	1.01774 0.94429	0.91295	0.90158	1.01760	0.95159	0.98250	AVRG		0.96118			4.85992
5 Thiomazin	2.12707 1.93224	1.94606	1.94866	2.08214	1.96051	2.00095	AVRG		1.99966			3.79706



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	Coefficients							Curve	b	m1	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7					
14 Simazine	4819 190219	16248	29382	64611	115426	147784	WLINR	0.03988	0.73140			0.99336 <i>1/2</i>
15 Atrazine	0.70185 0.89508	0.76532	0.75073	0.84628	0.85434	0.90844	AVRG		0.81743			9.61085
16 propazine	0.73887 0.79462	0.70136	0.69239	0.78178	0.75651	0.81417	AVRG		0.75424			6.13423
17 Disulfoton	15404 290419	33208	61920	127893	193050	247845	WLINR	-0.01928	1.20917			0.99576 <i>1/2</i>
18 Diazinon	2.20234 1.92388	1.83553	1.83772	2.01856	1.98676	1.84115	AVRG		1.94942			6.88114
19 Methyl Parathion	1.22644 1.26213	1.10389	1.13741	1.32395	1.30344	1.29686	AVRG		1.23630			6.92144
20 Ronnel	1.42863 1.18584	1.23369	1.21320	1.29342	1.2446	1.34650	AVRG		1.27796			6.65504



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	Level							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
21 Malathion	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6						
	15443	30581	57103	119836	186013	228260	MLINR	-0.02066	1.14436			0.99783
	283462											
22 Fenthion	1.46442 Level 7	1.18458	1.16481	1.29096	1.25584	1.25506	AVRG		1.25674			8.19381
	1.18151											
23 Parathion	1.42438	1.25387	1.23322	1.38998	1.36308	1.38514	AVRG		1.33749			5.43501
	1.31279											
24 Chlorpyrifos	1.85614	1.56747	1.47379	1.62915	1.61527	1.62330	AVRG		1.61818			7.28314
	1.56216											
25 Trichloronate	1.44751	1.42551	1.34762	1.48171	1.46256	1.52450	AVRG		1.44624			3.78186
	1.43428											
26 Anilazine	1493	2095	5311	12790	19893	29375	QUAD	0.02107	9.16488	-8.66056		0.99476
	+++++											
27 Merphos-A (Merphos)	1.24844	1.15527	1.15966	1.23989	1.21263	1.24409	AVRG		1.20664			3.30523
	1.18648											

X

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Target Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients		%RSD or R <sup>2</sup>
									m1	m2	
28 Tetrachlorvinphos (Stirophos)	0.76814 0.82648	0.74606	0.73464	0.83451	0.85233	0.85150	AVRG		0.80195		6.32809
29 Tokuthion	1.50295 1.37817	1.28283	1.29501	1.44234	1.39452	1.40891	AVRG		1.38639		5.62055
30 Merphos-B (Merphos Oxone)	3884 79809	7933	11676	34113	50056	65974	WLNMR	0.01044	0.32634		0.98820
31 Carbophenothion-methyl	14924 266724	30542	55023	105577	167145	206137	WLNMR	-0.03349	1.03813		0.99979
32 Fensulfothion	8319 295978	23000	51304	104440	185778	229856	WLNMR	0.04728	1.18751		0.99821
33 Bolstar / Fampnur	1.54988 1.23307	1.27794	1.32328	1.33835	1.27633	1.28540	AVRG		1.32632		7.86825
34 Carbophenothion	1.57916 1.25966	1.19992	1.27687	1.32336	1.26122	1.41398	AVRG		1.33059		9.63398

NTC  
 See Merphos

1/2 X

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\Densv03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	Retention Times							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	m1			m2		
36 Phosmet	1.22087 1.13672	1.01385	1.11032	1.20586	1.12340	1.16129	AVRG		1.13890		6.04111	
37 EPN	9525 294020	23196	48705	111165	171283	220388	WLNMR	0.02456	1.11450		0.99317	
38 Azinphos-methyl	1.19565 1.21185	1.13516	1.16767	1.28235	1.23551	1.26700	AVRG		1.21360		4.33999	
40 Azinphos-ethyl	23154 318459	43578	74071	134607	209971	253982	WLNMR	-0.07409	1.26388		0.99928	
41 Coumaphos	1.00140 0.99015	0.89806	0.92250	1.01947	1.01017	1.01013	AVRG		0.97884		4.92558	
42 Merphos	1.61523 1.49925	1.45962	1.38820	1.59026	1.52873	1.58626	AVRG		1.52393		5.34513	
43 Total Demeton	1.94415 1.68503	1.66775	1.60440	1.71838	1.66174	1.66727	AVRG		1.70696		6.44185	

1/2  
1/2

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
	5.0000 Level 7										
\$ 4 Chloroformos	2.28223	2.03679	2.00000	2.26084	2.35620	2.24671	AVRG		2.19114		6.04132
	2.15521										
\$ 35 Triphenyl phosphate	1.09980	0.99217	0.96977	1.05450	0.99627	1.00900	AVRG		1.01117		4.94580
	0.95665										

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
Start Cal Date: 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Last Cal Level: 1  
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\003F0301.D

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\010F1001.D
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Calibration File Names:

Level 1: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Level 2: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Level 3: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\007F0701.D  
 Level 4: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Level 5: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0501.D  
 Level 6: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D  
 Level 7: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			ml	or R^2
1 o,o'-TEPT	2.92648 2.53900	2.44243	2.35582	2.65851	2.57132	2.61478	AVRG		2.58691	7.02274
2 Dichlorvos	1.96421 2.16332	1.82228	1.84036	2.17503	2.12732	2.04712	AVRG		2.01995	7.32345
4 Mevinphos	1.44354 1.43954	1.24995	1.21811	1.44363	1.32123	1.40873	AVRG		1.36067	7.12634
5 Demeton-O	1.19821 1.28370	1.29971	1.18493	1.34261	1.38930	1.37760	AVRG		1.29658	6.26552



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Level							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
6 Thionazin	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6						
	5.0000 Level 7											
	2.15838	1.84195	1.93751	1.98059	2.08762	2.20076	AVRG			2.03479		6.19054
7 Ethoprop	1.70034	1.41105	1.44674	1.51565	1.56615	1.54046	AVRG			1.52044		6.33190
	1.46268											
8 Phorate	1.89356	1.60276	1.58391	1.69691	1.82591	1.99241	AVRG			1.76315		8.53946
	1.74661											
9 Naled	94.00000	1666	10859	28010	46004	58330	WLINR	0.13436		0.49080		0.99248
	78857											
10 Sulfocepp	2.79835	2.53605	2.59328	2.75080	2.67397	2.68532	AVRG			2.65923		3.59851
	2.57687											
12 Salmazine	0.36415	0.34683	0.35351	0.38559	0.39087	0.41510	AVRG			0.38086		7.05346
	0.41001											
13 Diazinon	12067	15923	49407	98649	155648	181790	WLINR	0.01456		1.44446		0.99190
	228810											

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcom  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Coefficients							m1	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	b			
14 Atrazine	5427 128612	1231	21316	49088	85997	98759	LINR	0.11621	0.83396	0.99221
15 Propazine	4880 110050	8102	20907	43235	72628	85745	WLINR	0.02910	0.68050	0.99492
16 Disulfoton	1.39584 1.37843	1.32983	1.36835	1.41433	1.46581	1.46415	AVRG		1.40239	3.56764
17 Demeton-S	667 175573	15766	33785	70921	121463	157195	WLINR	0.05954	1.76807	0.99272
18 Dimethoate	1.93513 1.92489	1.88284	1.72920	1.81890	1.98388	1.88204	AVRG		1.87955	4.46888
19 Ronnel	1.49381 1.27410	1.09752	1.14631	1.23377	1.29336	1.31702	AVRG		1.26513	10.15653
20 Merphos-A (Merphos)	0.73714 0.62474	0.72841	0.76463	0.71117	0.75339	0.75359	AVRG		0.72472	6.56840

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\Densvrv03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Level							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
21 Chlorpyrifos	1.28253 1.37311	1.15885	1.24944	1.20702	1.32365	1.38773	AVRG		1.28319		6.60140	
22 Fenitrothion	1.20874 1.18668	1.15890	1.17283	1.16181	1.25398	1.18816	AVRG		1.19016		2.76871	
23 Trichloronate	6944 296442	26053	49357	106326	170976	208762	WLINR	0.05263	1.73863		0.99738	
24 Anilazine	1634 19108	2256	3581	6899	11039	13112	LINR	-0.00058	0.10979		0.99085	
25 Methyl Parathion	1.21391 1.41908	1.12059	1.22102	1.33829	1.35198	1.32937	AVRG		1.28489		8.00353	
26 Malathion	1.23986 1.27856	1.19694	1.15056	1.17724	1.17540	1.20726	AVRG		1.20369		3.60449	
27 Tokuthion	1.50291 1.40826	1.31056	1.35261	1.35076	1.45106	1.48916	AVRG		1.40933		5.28420	

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
28 Parathion	1.27111	1.15628	1.24872	1.23420	1.30817	1.35972	AVRG		1.26610		5.02432
	1.28450										
29 Merphos-B (Merphos Oxone)	3793	6271	15065	23458	40683	62127	MINR	-0.05169	0.21659		0.96366
	65080										
30 Tetrachlorvinphos (stirophos)	0.86036	0.73114	0.73243	0.80291	0.86664	0.87311	AVRG		0.81902		7.82425
	0.86651										
31 Carbophenothion methyl	1.16513	1.02032	1.04699	1.17159	1.27808	1.26831	AVRG		1.17392		9.08251
	1.26700										
32 Bolstar	1.33280	1.22387	1.19075	1.20601	1.27262	1.22830	AVRG		1.23655		4.05030
	1.20152										
33 Carbophenothion	1.18442	1.13595	1.15332	1.18001	1.34689	1.22912	AVRG		1.21593		6.21486
	1.28180										
35 Pemsulfotion	0.88346	0.80409	0.88036	0.97346	0.94597	1.00424	AVRG		0.91615		7.30438
	0.92148										

NTC,  
 see merphos

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	%RSD	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
37 Phosmet / EPN	1.9707 330448	35826	68186	146012	207459	263604	WLNLR	-0.04262	1.00518		0.99785
38 Fenphur	1.45536 1.32805	1.20800	1.18770	1.39816	1.20947	1.39569	AVRG		1.31178		8.35158
39 Azinphos-methyl	1.25589 1.19199	1.08970	1.07858	1.30240	1.20427	1.27709	AVRG		1.19999		7.33978
40 Azinphos-ethyl	1.14013 1.12699	1.11628	1.12015	1.18786	1.16269	1.14594	AVRG		1.14286		2.23350
41 Coumaphos	0.78930 0.93653	0.81655	0.85887	0.90448	0.89897	0.94628	AVRG		0.87871		6.77030
S 42 Merphos	1.56460 1.70275	1.43887	1.64263	1.66880	1.73437	1.91569	AVRG		1.66682		8.85773
M 43 Total Demeton	3533 244812	23328	47171	100663	168375	213468	WLNLR	0.06780	1.63923		0.99469

X

X

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
\$ 3 Chloroformos	5.0000 Level 7	2.19506 2.04016	1.83698 1.78322	2.03418 2.29040	2.05386	AVRG		2.03341			8.83890
\$ 34 Triiphenyl phosphate	1.10969 1.00703	0.86972	0.91132	1.07710 1.01080	0.99885	AVRG		0.99779			8.47904

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\Densvrv03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Resp/ml	Response
Linear	Amt = b + Resp/ml	Response
Wt Linear	Amt = b + Resp/ml	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Start Cal Date: 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Last Cal Level: 1  
 Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\003F0301.D

Continuing Calibration



Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\010F1001.D
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0577	2.9	15.0
2 Dichlorvos	2.0000	1.9061	4.7	15.0
3 Mevinphos	2.0000	1.6977	15.1	15.0
4 Chlorfepos	2.0000	1.7808	11.0	15.0
5 Thionazin	2.0000	1.9740	1.3	15.0
6 Demeton-O	0.6500	1.8707	187.8	15.0
7 Ethoprop	2.0000	2.0536	2.7	15.0
8 Naled	2.0000	1.1983	40.1	15.0
9 Sulfotepp	2.0000	1.7932	10.3	15.0
10 Phorate	2.0000	2.0180	0.9	15.0
11 Dimethoate	2.0000	2.0859	4.3	15.0
12 Demeton-S	1.3600	0.2313	83.0	15.0
13 Simazine	2.0000	2.6218	31.1	15.0
14 Atrazine	2.0000	1.9566	2.2	15.0
15 propazine	2.0000	1.9127	4.4	15.0
17 Disulfoton	2.0000	1.5890	20.6	15.0
16 Diazinon	2.0000	2.1583	7.9	15.0
18 Methyl Parathion	2.0000	2.0404	2.0	15.0
19 Ronnel	2.0000	2.1513	7.6	15.0
20 Malathion	2.0000	1.6248	18.8	15.0
21 Fenthion	2.0000	1.8840	5.8	15.0
22 Parathion	2.0000	1.9436	2.8	15.0
23 Chlorpyrifos	2.0000	1.9720	1.4	15.0
24 Trichloronate	2.0000	1.8619	6.9	15.0
25 Anilazine	2.0000	1.0151	49.2	15.0
148 Merphos-A (Merphos)	2.0000	0.4078	79.6	999.0
26 Tetrachlorvinphos (Stirophos)	2.0000	2.0880	4.4	15.0
28 Tokuthion	2.0000	2.0254	1.3	15.0
149 Merphos-B (Merphos Oxone)	2.0000	6.6232	231.2	999.0
29 Carbophenothion-methyl	2.0000	1.3536	32.3	15.0
29 Fensulfothion	2.0000	1.9235	3.8	15.0
30 Bolstar / Famphur	4.0000	4.0636	1.6	15.0
32 Carbophenothion	2.0000	1.8639	6.8	15.0
31 Triphenyl phosphate	2.0000	1.7170	14.2	15.0
34 Phosmet	2.0000	1.6471	17.6	15.0
32 EPN	2.0000	1.7931	10.3	15.0
33 Azinphos-methyl	2.0000	1.9226	3.9	15.0
35 Azinphos-ethyl	2.0000	1.8331	8.3	15.0
36 Coumaphos	2.0000	2.0063	0.3	15.0

*<-ok*

*<-ok, see total demeton*

*<-ok, see total demeton*

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	2.0000	1.7215	13.9	15.0
40 Total Demeton	2.0000	2.1021	5.1	15.0

Average %D = 23.4

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0069	0.3	15.0
2 Dichlorvos	2.0000	1.7707	11.5	15.0
3 Chlormefos	2.0000	1.6957	15.2	15.0
4 Mevinphos	2.0000	1.8364	8.2	15.0
5 Demeton-O	0.6500	2.0472	215.0	15.0
6 Thionazin	2.0000	1.8758	6.2	15.0
7 Ethoprop	2.0000	1.8962	5.2	15.0
8 Phorate	2.0000	1.9509	2.5	15.0
10 Naled	2.0000	1.0486	47.6	15.0
146 Sulfotepp	2.0000	1.7143	14.3	15.0
10 Simazine	2.0000	3.6013	80.1	15.0
12 Diazinon	2.0000	2.0803	4.0	15.0
150 Atrazine	2.0000	1.9693	1.5	15.0
13 Propazine	2.0000	1.8742	6.3	15.0
14 Disulfoton	2.0000	1.6970	15.1	15.0
15 Demeton-S	1.3600	0.2011	85.2	15.0
16 Dimethoate	2.0000	1.8701	6.5	15.0
17 Ronnel	2.0000	2.0112	0.6	15.0
148 Merphos-A (Merphos)	2.0000	0.5348	73.3	999.0
18 Chlorpyrifos	2.0000	2.1084	5.4	15.0
19 Fenthion	2.0000	2.0634	3.2	15.0
20 Trichloronate	2.0000	1.8617	6.9	15.0
21 Anilazine	2.0000	1.2425	37.9	15.0
23 Methyl Parathion	2.0000	2.0228	1.1	15.0
24 Malathion	2.0000	1.5362	23.2	15.0
25 Tokuthion	2.0000	1.8925	5.4	15.0
26 Parathion	2.0000	2.1337	6.7	15.0
149 Merphos-B (Merphos Oxone)	2.0000	5.0080	150.4	999.0
27 Tetrachlorvinphos (stirophos)	2.0000	2.0814	4.1	15.0
28 Carbophenothion methyl	2.0000	1.2466	37.7	15.0
28 Bolstar	2.0000	2.0778	3.9	15.0
30 Carbophenothion	2.0000	1.7496	12.5	15.0
29 Triphenyl phosphate	2.0000	1.7275	13.6	15.0
30 Fensulfothion	2.0000	2.0824	4.1	15.0
35 Phosmet / EPN	4.0000	3.4695	13.3	15.0
33 Famphur	2.0000	1.7579	12.1	15.0
34 Azinphos-methyl	2.0000	1.8108	9.5	15.0
35 Azinphos-ethyl	2.0000	1.7982	10.1	15.0
36 Coumaphos	2.0000	1.9588	2.1	15.0

*ok*

*ok, see total demeton*

*ok*

*ok, see total demeton*

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	2.0000	1.6146	19.3	15.0
40 Total Demeton	2.0000	2.2483	12.4	15.0

Average %D = 24.2

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\003F0301.D  
 Lab Smp Id: OPP L7 GSV0634 Client Smp ID: OPP L7 GSV0634  
 Inj Date : 26-JUN-2009 18:28  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L7 GSV0634  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:18 Cal File: 007F0701.D  
 Als bottle: 3 Calibration Sample, Level: 7  
 Dil Factor: 1.00000 Compound Sublist: 8141A.sub  
 Integrator: Falcon  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.256	3.254	(0.183)	707938	5.00000	4.923
2 Dichlorvos	4.075	4.074	(0.228)	456822	5.00000	5.116 (A)
3 Mevinphos	5.736	5.739	(0.322)	240948	5.00000	4.912
§ 4 Chlormefos	5.835	5.836	(0.327)	549929	5.00000	4.918
5 Thionazin	7.505	7.507	(0.421)	493034	5.00000	4.831
6 Demeton-O	7.645	7.649	(0.428)	165003	1.62500	1.714
7 Ethoprop	7.846	7.852	(0.440)	445084	5.00000	4.977
8 Naled	8.053	8.057	(0.451)	121152	5.00000	5.203 (A)
* 9 Tributylphosphate	8.110	8.135	(1.000)	206876	2.00000	
10 Sulfotepp	8.440	8.442	(0.473)	609341	5.00000	4.831
11 Phorate	8.530	8.532	(0.478)	441181	5.00000	4.764
12 Dimethoate	8.655	8.659	(0.485)	565436	5.00000	5.256 (A)
13 Demeton-S	8.838	8.846	(0.495)	264954	3.40000	3.396
14 Simazine	8.921	8.924	(0.500)	190219	5.00000	5.176 (A)
15 Atrazine	9.091	9.094	(0.510)	228392	5.00000	5.475 (A)
16 propazine	9.236	9.241	(0.518)	202756	5.00000	5.268 (A)
17 Disulfoton	9.866	9.869	(0.553)	290419	5.00000	4.668
18 Diazinon	9.900	9.902	(0.555)	490902	5.00000	4.934
19 Methyl Parathion	10.715	10.717	(0.601)	322048	5.00000	5.104 (A)
20 Ronnel	11.238	11.241	(0.630)	302582	5.00000	4.640
21 Malathion	11.801	11.804	(0.661)	283462	5.00000	4.812
22 Fenthion	11.930	11.932	(0.669)	301476	5.00000	4.701
23 Parathion	12.020	12.019	(0.674)	334974	5.00000	4.908
24 Chlorpyrifos	12.068	12.067	(0.676)	398604	5.00000	4.827
25 Trichloronate	12.493	12.496	(0.700)	365975	5.00000	4.959
26 Anilazine	12.815	12.817	(0.718)	34322	5.00000	4.247
27 Merphos-A (Merphos)	13.196	13.199	(0.740)	302744	5.00000	4.916
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	210886	5.00000	5.153 (A)
29 Tokuthion	14.448	14.449	(0.810)	351657	5.00000	4.970
30 Merphos-B (Merphos Oxone)	14.646	14.651	(0.821)	79809	5.00000	4.813
31 Carbophenothion-methyl	15.235	15.239	(0.854)	266724	5.00000	4.968
32 Fensulfothion	15.356	15.361	(0.861)	295978	5.00000	4.978
33 Bolstar / Famphur	16.053	16.053	(0.900)	629265	10.0000	9.297

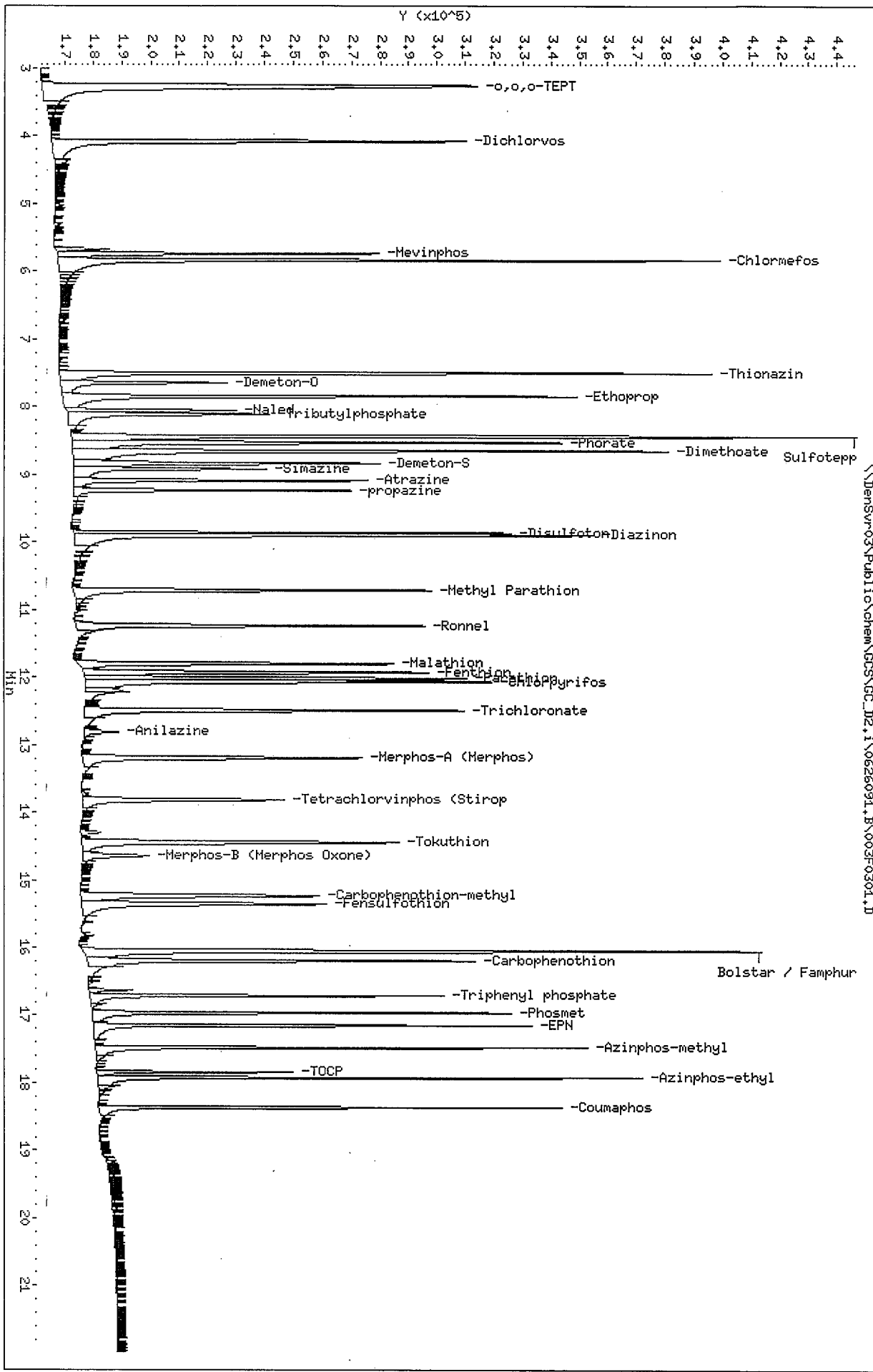
Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.196	16.197	(0.908)	321417	5.00000	4.733
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	244102	5.00000	4.730 (A)
36 Phosmet	16.963	16.963	(0.951)	290049	5.00000	4.990
37 EPN	17.150	17.151	(0.961)	294020	5.00000	5.219 (A)
38 Azinphos-methyl	17.478	17.480	(0.980)	309219	5.00000	4.993
* 39 TOCP	17.843	17.846	(1.000)	102065	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	318459	5.00000	4.789
41 Coumaphos	18.363	18.366	(1.029)	252650	5.00000	5.058 (A)
S 42 Merphos				382553	5.00000	4.876
M 43 Total Demeton				429957	5.00000	5.110

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.







TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\004F0401.D  
 Lab Smp Id: OPP L6 GSV0637 Client Smp ID: OPP L6 GSV0637  
 Inj Date : 26-JUN-2009 18:55  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L6 GSV0637  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:28 Cal File: 003F0301.D  
 Als bottle: 4 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.254	3.254	(0.182)	559984	4.00000	4.123
2 Dichlorvos	4.074	4.074	(0.228)	337386	4.00000	4.000
3 Mevinphos	5.736	5.739	(0.321)	189437	4.00000	4.089
4 Chlorfepos	5.834	5.836	(0.327)	433193	4.00000	4.101
5 Thionazin	7.504	7.507	(0.421)	385808	4.00000	4.002
6 Demeton-O	7.646	7.649	(0.429)	113108	1.30000	1.237
7 Ethoprop	7.848	7.852	(0.440)	343730	4.00000	4.069
8 Naled	8.054	8.057	(0.451)	90892	4.00000	4.172
* 9 Tributylphosphate	8.111	8.135	(1.000)	190710	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	486417	4.00000	4.072
11 Phorate	8.531	8.532	(0.478)	345415	4.00000	3.949
12 Dimethoate	8.654	8.659	(0.485)	445385	4.00000	4.383
13 Demeton-S	8.838	8.846	(0.495)	208362	2.72000	2.828
14 Simazine	8.919	8.924	(0.500)	147784	4.00000	4.272
15 Atrazine	9.089	9.094	(0.509)	175159	4.00000	4.445
16 propazine	9.236	9.241	(0.518)	156982	4.00000	4.318
17 Disulfoton	9.868	9.869	(0.553)	247845	4.00000	4.214
18 Diazinon	9.901	9.902	(0.555)	354996	4.00000	3.778
19 Methyl Parathion	10.714	10.717	(0.601)	250051	4.00000	4.196
20 Ronnel	11.239	11.241	(0.630)	259621	4.00000	4.214
21 Malathion	11.799	11.804	(0.661)	228260	4.00000	4.097
22 Fenthion	11.931	11.932	(0.669)	241990	4.00000	3.995
23 Parathion	12.018	12.019	(0.674)	267071	4.00000	4.142
24 Chlorpyrifos	12.066	12.067	(0.676)	312992	4.00000	4.013
25 Trichloronate	12.493	12.496	(0.700)	293942	4.00000	4.216
26 Anilazine	12.814	12.817	(0.718)	29375	4.00000	4.019
27 Merphos-A (Merphos)	13.196	13.199	(0.740)	239875	4.00000	4.124
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	164180	4.00000	4.247
29 Tokuthion	14.446	14.449	(0.810)	271654	4.00000	4.065
30 Merphos-B (Merphos Oxone)	14.648	14.651	(0.821)	65974	4.00000	4.215
31 Carbophenothion-methyl	15.234	15.239	(0.854)	206137	4.00000	4.052
32 Fensulfotion	15.358	15.361	(0.861)	229856	4.00000	4.110
33 Bolstar / Famphur	16.053	16.053	(0.900)	495681	8.00000	7.753

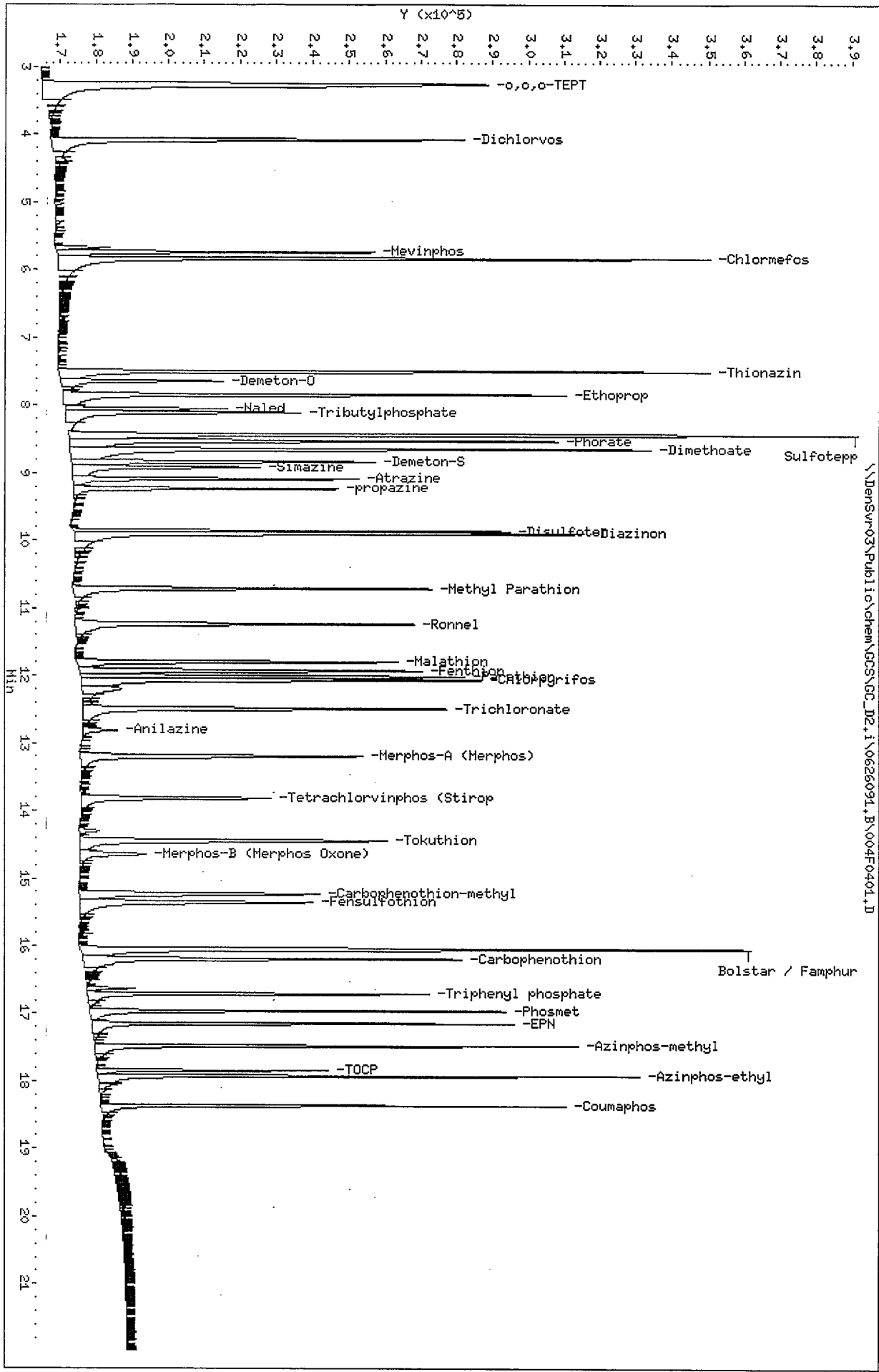
AMOUNTS

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.194	16.197	(0.908)	272632	4.00000	4.251
\$ 35 Triphenyl phosphate	16.711	16.712	(0.937)	194548	4.00000	3.991 (A)
36 Phosmet	16.963	16.963	(0.951)	223910	4.00000	4.079
37 EPN	17.148	17.151	(0.961)	220388	4.00000	4.152
38 Azinphos-methyl	17.478	17.480	(0.980)	244293	4.00000	4.176
* 39 TOCP	17.843	17.846	(1.000)	96406	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	253982	4.00000	4.021
41 Coumaphos	18.363	18.366	(1.029)	194765	4.00000	4.128
S 42 Merphos				305849	4.00000	4.161
M 43 Total Demeton				321470	4.00000	4.064

QC Flag Legend

A - Target compound detected but, quantitated amount  
 exceeded maximum amount.





TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\005F0501.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 26-JUN-2009 19:23  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:55 Cal File: 004F0401.D  
 Als bottle: 5 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.254	3.254	(0.182)	430120	3.00000	2.892
2 Dichlorvos	4.074	4.074	(0.228)	272336	3.00000	2.949
3 Mevinphos	5.737	5.739	(0.322)	150686	3.00000	2.970
\$ 4 Chlorfepos	5.834	5.836	(0.327)	373109	3.00000	3.226
5 Thionazin	7.504	7.507	(0.421)	310451	3.00000	2.941
6 Demeton-O	7.646	7.649	(0.429)	96004	0.97500	0.9530
7 Ethoprop	7.847	7.852	(0.440)	275706	3.00000	2.981
8 Naled	8.054	8.057	(0.451)	67594	3.00000	2.896
* 9 Tributylphosphate	8.111	8.135	(1.000)	190357	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	393078	3.00000	2.987
11 Phorate	8.531	8.532	(0.478)	279291	3.00000	2.916
12 Dimethoate	8.654	8.659	(0.485)	354003	3.00000	3.181
13 Demeton-S	8.837	8.846	(0.495)	167136	2.04000	2.071
14 Simazine	8.919	8.924	(0.500)	115426	3.00000	3.070
15 Atrazine	9.089	9.094	(0.509)	135287	3.00000	3.135
16 propazine	9.236	9.241	(0.518)	119795	3.00000	3.009
17 Disulfoton	9.867	9.869	(0.553)	193050	3.00000	2.986
18 Diazinon	9.901	9.902	(0.555)	314608	3.00000	3.057
19 Methyl Parathion	10.714	10.717	(0.600)	206402	3.00000	3.163
20 Ronnel	11.239	11.241	(0.630)	197062	3.00000	2.921
21 Malathion	11.799	11.804	(0.661)	186013	3.00000	3.038
22 Fenthion	11.931	11.932	(0.669)	198864	3.00000	2.998
23 Parathion	12.017	12.019	(0.674)	215846	3.00000	3.057
24 Chlorpyrifos	12.066	12.067	(0.676)	255782	3.00000	2.995
25 Trichloronate	12.494	12.496	(0.700)	231599	3.00000	3.034
26 Anilazine	12.812	12.817	(0.718)	19893	3.00000	2.881
27 Merphos-A (Merphos)	13.196	13.199	(0.740)	192022	3.00000	3.015
28 Tetrachlorvinphos (Stirophos)	13.816	13.824	(0.774)	134968	3.00000	3.188
29 Tokuthion	14.447	14.449	(0.810)	220825	3.00000	3.018
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	50056	3.00000	2.927
31 Carbophenothion-methyl	15.236	15.239	(0.854)	167145	3.00000	2.983
32 Fensulfothion	15.356	15.361	(0.861)	185778	3.00000	3.058
33 Bolstar / Famphur	16.051	16.053	(0.900)	404218	6.00000	5.774

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.194	16.197	(0.908)	199717	3.00000	2.844
\$ 35 Triphenyl phosphate	16.711	16.712	(0.937)	157761	3.00000	2.956 (A)
36 Phosmet	16.962	16.963	(0.951)	177892	3.00000	2.959
37 EPN	17.149	17.151	(0.961)	171283	3.00000	2.961
38 Azinphos-methyl	17.476	17.480	(0.979)	195645	3.00000	3.054
* 39 TOCP	17.842	17.846	(1.000)	105568	2.00000	
40 Azinphos-ethyl	17.922	17.926	(1.004)	209971	3.00000	2.999
41 Coumaphos	18.364	18.366	(1.029)	159962	3.00000	3.096
S 42 Merphos				242078	3.00000	2.978
M 43 Total Demeton				263140	3.00000	3.024

QC Flag Legend

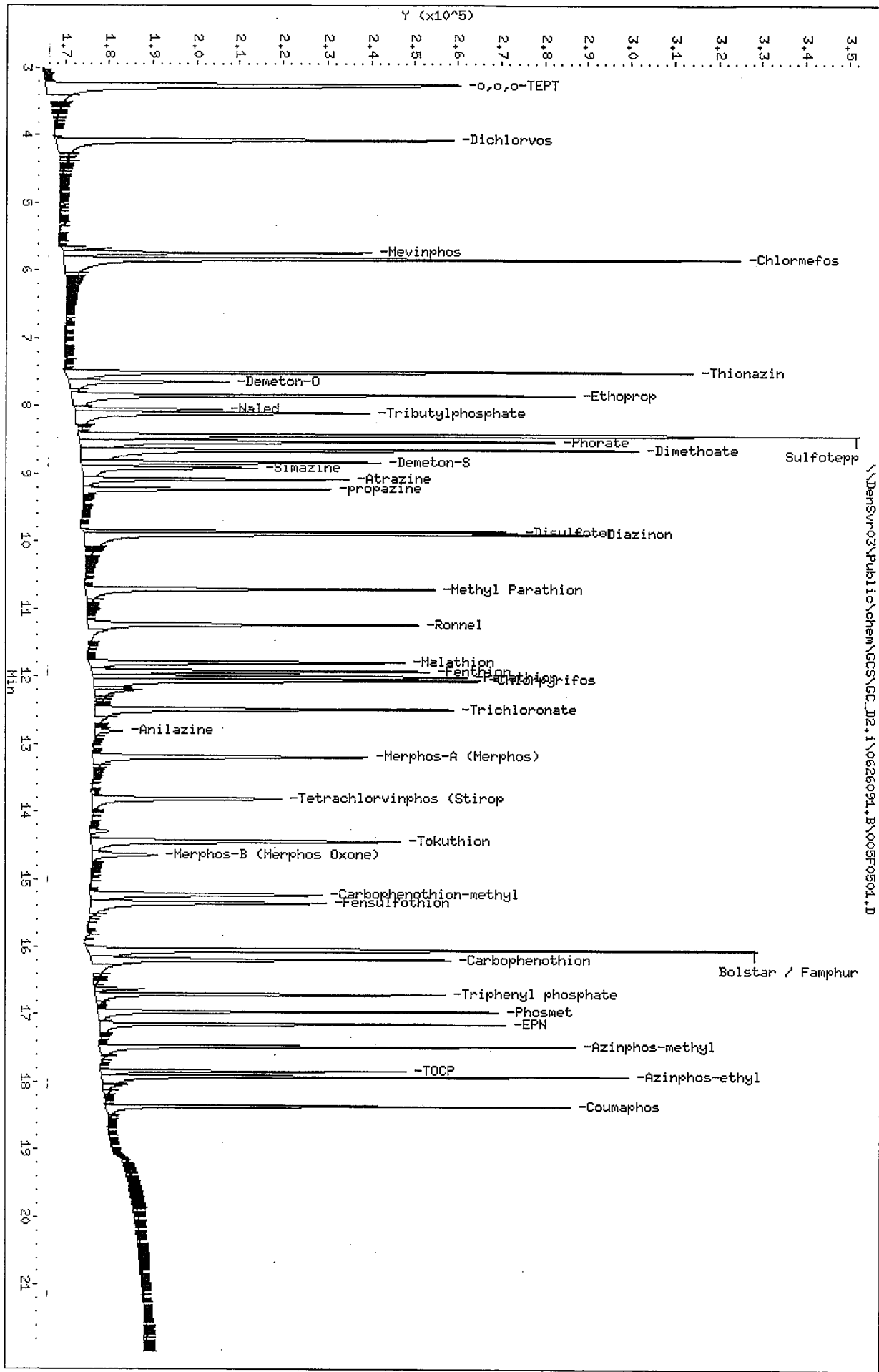
A - Target compound detected but, quantitated amount exceeded maximum amount.





Data File: \\Densw03\Public\chem\GCS\GC\_D2+1\0626094\_B\005F0504.D  
 Date: 26-JUN-2009 19:23  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTX-1MS

Instrument: GC\_D2+1  
 Operator: HPK/TLN  
 Column diameter: 0.32



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\006F0601.D  
 Lab Smp Id: OPP L4 GSV0638 Client Smp ID: OPP L4 GSV0638  
 Inj. Date : 26-JUN-2009 19:50  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L4 GSV0638  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:23 Cal File: 005F0501.D  
 Als bottle: 6 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.255	3.254	(0.182)	282037	2.00000	2.056
2 Dichlorvos	4.075	4.074	(0.228)	171715	2.00000	2.016
3 Mevinphos	5.737	5.739	(0.322)	99077	2.00000	2.117
\$ 4 Chlormefos	5.834	5.836	(0.327)	220122	2.00000	2.064
5 Thionazin	7.504	7.507	(0.421)	202723	2.00000	2.082
6 Demeton-O	7.647	7.649	(0.429)	62341	0.65000	0.6633
7 Ethoprop	7.849	7.852	(0.440)	168636	2.00000	1.977
8 Naled	8.055	8.057	(0.451)	36940	2.00000	1.794
* 9 Tributylphosphate	8.112	8.135	(1.000)	160310	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	259970	2.00000	2.122
11 Phorate	8.530	8.532	(0.478)	177561	2.00000	2.010
12 Dimethoate	8.655	8.659	(0.485)	219744	2.00000	2.141
13 Demeton-S	8.840	8.846	(0.495)	104966	1.36000	1.410
14 Simazine	8.919	8.924	(0.500)	64611	2.00000	1.894
15 Atrazine	9.089	9.094	(0.509)	82396	2.00000	2.070
16 propazine	9.235	9.241	(0.518)	76116	2.00000	2.073
17 Disulfoton	9.867	9.869	(0.553)	127893	2.00000	2.134
18 Diazinon	9.902	9.902	(0.555)	196533	2.00000	2.071
19 Methyl Parathion	10.714	10.717	(0.600)	128904	2.00000	2.142
20 Ronnel	11.239	11.241	(0.630)	125931	2.00000	2.024
21 Malathion	11.799	11.804	(0.661)	119836	2.00000	2.110
22 Fenthion	11.930	11.932	(0.669)	125692	2.00000	2.054
23 Parathion	12.017	12.019	(0.673)	135333	2.00000	2.078
24 Chlorpyrifos	12.067	12.067	(0.676)	158619	2.00000	2.014
25 Trichloronate	12.494	12.496	(0.700)	144264	2.00000	2.049
26 Anilazine	12.815	12.817	(0.718)	12790	2.00000	2.151
27 Merphos-A (Merphos)	13.197	13.199	(0.740)	120719	2.00000	2.055
28 Tetrachlorvinphos (Stirophos)	13.817	13.824	(0.774)	81250	2.00000	2.081
29 Tokuthion	14.447	14.449	(0.810)	140431	2.00000	2.081
30 Merphos-B (Merphos Oxone)	14.649	14.651	(0.821)	34113	2.00000	2.168
31 Carbofenothion-methyl	15.235	15.239	(0.854)	105577	2.00000	2.022
32 Fensulfothion	15.357	15.361	(0.861)	104440	2.00000	1.901
33 Bolstar / Famphur	16.052	16.053	(0.900)	260611	4.00000	4.036

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.195	16.197	(0.908)	128846	2.00000	1.989
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	102669	2.00000	2.086 (A)
36 Phosmet	16.962	16.963	(0.951)	117406	2.00000	2.118
37 EPN	17.149	17.151	(0.961)	111165	2.00000	2.098
38 Azinphos-methyl	17.477	17.480	(0.979)	124853	2.00000	2.113
* 39 TOCP	17.844	17.846	(1.000)	97363	2.00000	
40 Azinphos-ethyl	17.924	17.926	(1.004)	134607	2.00000	2.040
41 Coumaphos	18.364	18.366	(1.029)	99259	2.00000	2.083
S 42 Merphos				154832	2.00000	2.068
M 43 Total Demeton				167307	2.00000	2.074

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 006F0601.D  
 Lab Smp Id: OPP L4 GSV0638  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L4 GSV0638  
 Level:  
 Sample Type:

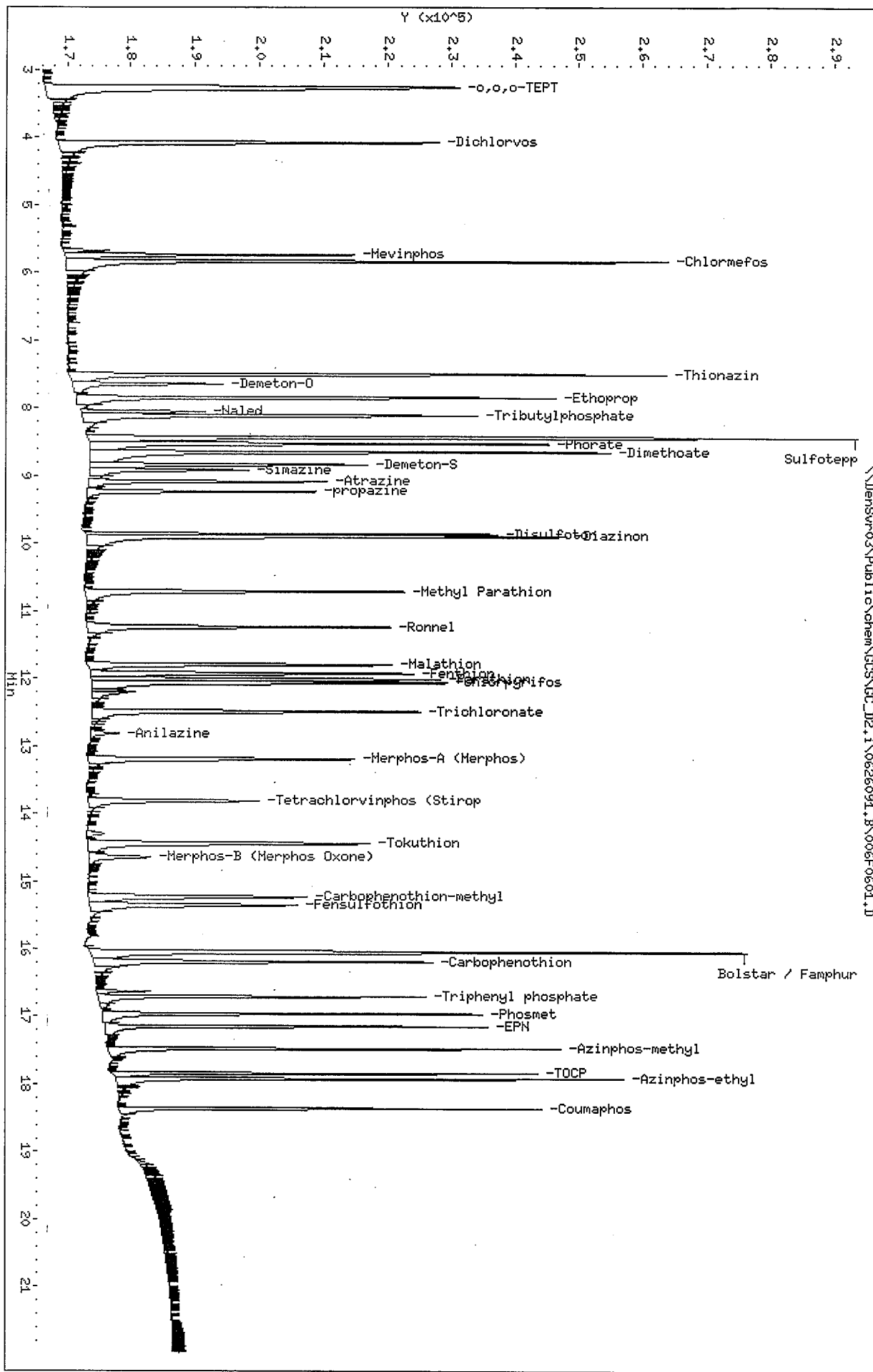
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	160310	0.00
39 TOCP	97363	48682	194726	97363	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.00
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densv03\Public\chem\GCS\GC\_D2.i\0626091.B\006F0604.D  
 Date: 26-JUN-2009 19:50  
 Client ID: OPP L4 GSV0638  
 Sample Info: OPP L4 GSV0638  
 Column phase: RTX-IMS

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\007F0701.D  
 Lab Smp Id: OPP L3 GSV0639 Client Smp ID: OPP L3 GSV0639  
 Inj Date : 26-JUN-2009 20:18  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L3 GSV0639  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:50 Cal File: 006F0601.D  
 Als bottle: 7 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.253	3.254	(0.182)	136897	1.00000	0.9509
2 Dichlorvos	4.075	4.074	(0.228)	81003	1.00000	0.9061
3 Mevinphos	5.738	5.739	(0.322)	46063	1.00000	0.9380
\$ 4 Chlormefos	5.833	5.836	(0.327)	102183	1.00000	0.9128
5 Thionazin	7.503	7.507	(0.421)	99560	1.00000	0.9745
6 Demeton-O	7.645	7.649	(0.429)	30145	0.32500	0.2917
7 Ethoprop	7.850	7.852	(0.440)	82934	1.00000	0.9263
8 Naled	8.055	8.057	(0.451)	15042	1.00000	0.8141
* 9 Tributylphosphate	8.113	8.135	(1.000)	156624	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	131347	1.00000	0.9856
11 Phorate	8.530	8.532	(0.478)	88795	1.00000	0.9577
12 Dimethoate	8.657	8.659	(0.485)	105981	1.00000	0.9840
13 Demeton-S	8.840	8.846	(0.495)	51826	0.68000	0.6636
14 Simazine	8.918	8.924	(0.500)	29382	1.00000	0.8660
15 Atrazine	9.088	9.094	(0.509)	38356	1.00000	0.9184
16 propazine	9.235	9.241	(0.518)	35375	1.00000	0.9180
17 Disulfoton	9.867	9.869	(0.553)	61920	1.00000	0.9637
18 Diazinon	9.902	9.902	(0.555)	93892	1.00000	0.9427
19 Methyl Parathion	10.715	10.717	(0.601)	58112	1.00000	0.9200
20 Ronnel	11.240	11.241	(0.630)	61984	1.00000	0.9493
21 Malathion	11.800	11.804	(0.661)	57103	1.00000	0.9353
22 Fenthion	11.930	11.932	(0.669)	59512	1.00000	0.9268
23 Parathion	12.017	12.019	(0.674)	63007	1.00000	0.9220
24 Chlorpyrifos	12.067	12.067	(0.676)	75298	1.00000	0.9108
25 Trichloronate	12.493	12.496	(0.700)	68852	1.00000	0.9318
26 Anilazine	12.817	12.817	(0.718)	5311	1.00000	0.9480
27 Merphos-A (Merphos)	13.198	13.199	(0.740)	59249	1.00000	0.9611
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.775)	37534	1.00000	0.9161
29 Tokuthion	14.448	14.449	(0.810)	66164	1.00000	0.9341
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	11676	1.00000	0.7212
31 Carbophenothion-methyl	15.235	15.239	(0.854)	55023	1.00000	0.9704
32 Fensulfothion	15.360	15.361	(0.861)	51304	1.00000	0.9402
33 Bolstar / Famphur	16.050	16.053	(0.900)	135217	2.00000	1.995

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
===== 34 Carbophenothion	16.193	16.197	(0.908)	65237	1.00000	0.9596
\$ 35 Triphenyl phosphate	16.708	16.712	(0.936)	49547	1.00000	0.9591
36 Phosmet	16.962	16.963	(0.951)	56728	1.00000	0.9749
37 EPN	17.148	17.151	(0.961)	48705	1.00000	0.9045
38 Azinphos-methyl	17.478	17.480	(0.980)	59658	1.00000	0.9622
* 39 TOCP	17.842	17.846	(1.000)	102183	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.005)	74071	1.00000	0.9989
41 Coumaphos	18.363	18.366	(1.029)	47132	1.00000	0.9424
S 42 Merphos				70925	1.00000	0.8976
M 43 Total Demeton				81971	1.00000	0.9553

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 007F0701.D  
 Lab Smp Id: OPP L3 GSV0639  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L3 GSV0639  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	156624	-2.30
39 TOCP	97363	48682	194726	102183	4.95

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.02
39 TOCP	17.84	17.34	18.34	17.84	-0.01

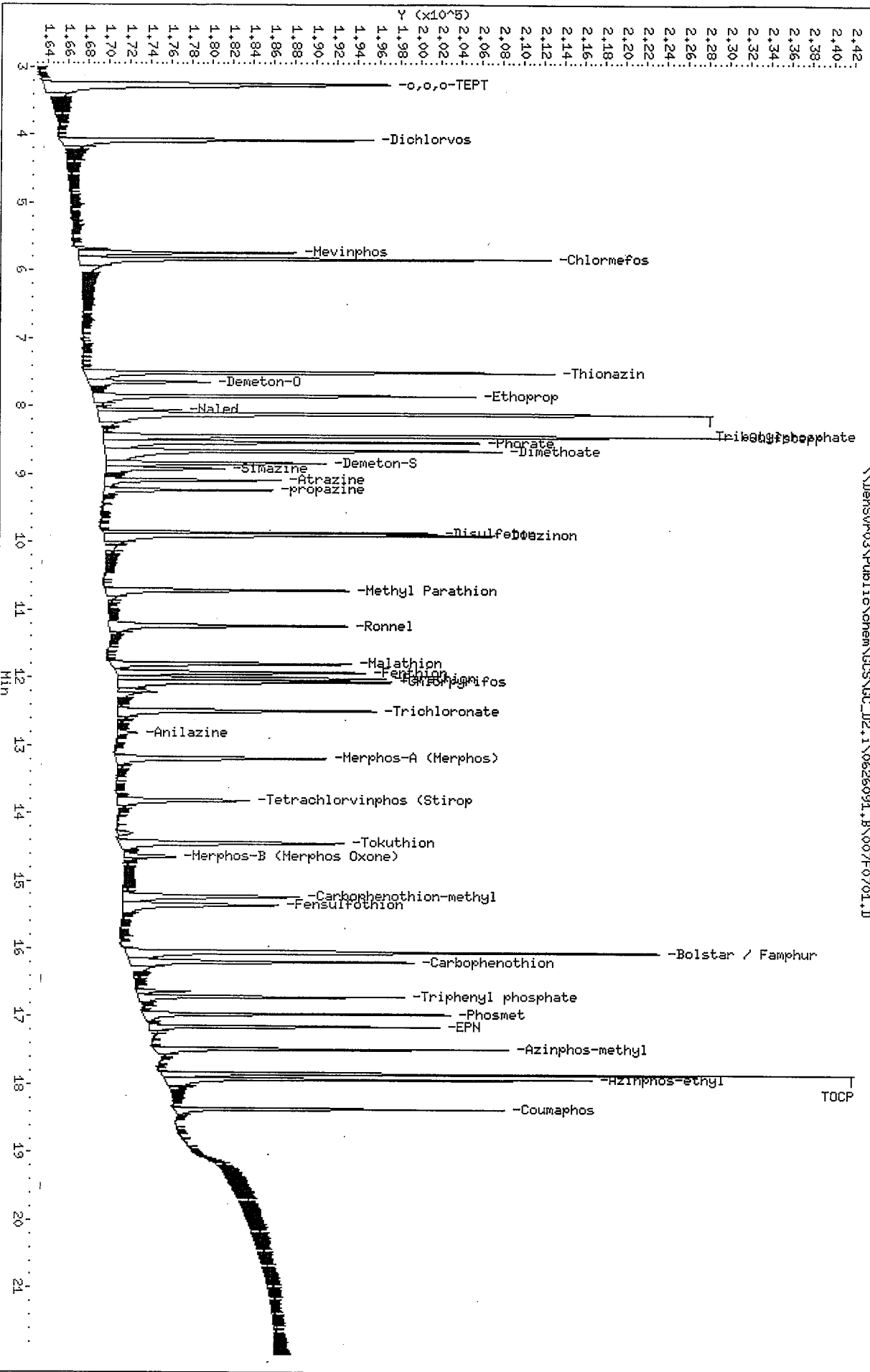
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: NPK/TLW  
 Column diameter: 0.32

\\Densvr-03\Public\chem\GCS\GC\_D2.1\0626091.B\007F0701.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\008F0801.D  
 Lab Smp Id: OPP L2 GSV0640 Client Smp ID: OPP L2 GSV0640  
 Inj Date : 26-JUN-2009 20:45  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L2 GSV0640  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:18 Cal File: 007F0701.D  
 Als bottle: 8 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.255	3.254	(0.182)	68743	0.50000	0.4680
2 Dichlorvos	4.076	4.074	(0.228)	42284	0.50000	0.4636
3 Mevinphos	5.738	5.739	(0.322)	23796	0.50000	0.4749
4 Chlormefos	5.833	5.836	(0.327)	53089	0.50000	0.4648
5 Thionazin	7.505	7.507	(0.421)	50724	0.50000	0.4866
6 Demeton-O	7.646	7.649	(0.429)	17553	0.16250	0.1554
7 Ethoprop	7.851	7.852	(0.440)	44525	0.50000	0.4874
8 Naled	8.056	8.057	(0.452)	6103	0.50000	0.4398
* 9 Tributylphosphate	8.113	8.135	(1.000)	165852	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	70885	0.50000	0.4886
11 Phorate	8.530	8.532	(0.478)	47685	0.50000	0.5040
12 Dimethoate	8.660	8.659	(0.485)	46100	0.50000	0.4195
13 Demeton-S	8.843	8.846	(0.496)	25917	0.34000	0.3252
14 Simazine	8.920	8.924	(0.500)	16248	0.50000	0.5059
15 Atrazine	9.091	9.094	(0.510)	19948	0.50000	0.4681
16 propazine	9.236	9.241	(0.518)	18281	0.50000	0.4649
17 Disulfoton	9.866	9.869	(0.553)	33208	0.50000	0.4883
18 Diazinon	9.903	9.902	(0.555)	47843	0.50000	0.4708
19 Methyl Parathion	10.715	10.717	(0.601)	28773	0.50000	0.4464
20 Ronnel	11.240	11.241	(0.630)	32156	0.50000	0.4827
21 Malathion	11.800	11.804	(0.661)	30581	0.50000	0.4713
22 Fenthion	11.931	11.932	(0.669)	30876	0.50000	0.4713
23 Parathion	12.016	12.019	(0.673)	32682	0.50000	0.4687
24 Chlorpyrifos	12.066	12.067	(0.676)	40856	0.50000	0.4843
25 Trichloronate	12.493	12.496	(0.700)	37156	0.50000	0.4928
26 Anilazine	12.820	12.817	(0.718)	2095	0.50000	0.4035 (M)
27 Merphos-A (Merphos)	13.200	13.199	(0.740)	30112	0.50000	0.4787
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	19446	0.50000	0.4652
29 Tokuthion	14.448	14.449	(0.810)	33437	0.50000	0.4626
30 Merphos-B (Merphos Oxone)	14.651	14.651	(0.821)	7933	0.50000	0.4872 (M)
31 Carbophenothion-methyl	15.235	15.239	(0.854)	30542	0.50000	0.4974
32 Fensulfothion	15.360	15.361	(0.861)	23000	0.50000	0.4661
33 Bolstar / Famphur	16.050	16.053	(0.899)	66619	1.00000	0.9635

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.193	16.197	(0.908)	31276	0.50000	0.4509
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	25861	0.50000	0.4906
36 Phosmet	16.961	16.963	(0.951)	26426	0.50000	0.4451
37 EPN	17.148	17.151	(0.961)	23196	0.50000	0.4484
38 Azinphos-methyl	17.478	17.480	(0.980)	29588	0.50000	0.4677
* 39 TOCP	17.843	17.846	(1.000)	104260	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	43578	0.50000	0.5132
41 Coumaphos	18.363	18.366	(1.029)	23408	0.50000	0.4587
S 42 Merphos				38045	0.50000	0.4789
M 43 Total Demeton				43470	0.50000	0.4806

QC Flag Legend

M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 008F0801.D Calibration Time: 19:50  
 Lab Smp Id: OPP L2 GSV0640 Client Smp ID: OPP L2 GSV0640  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

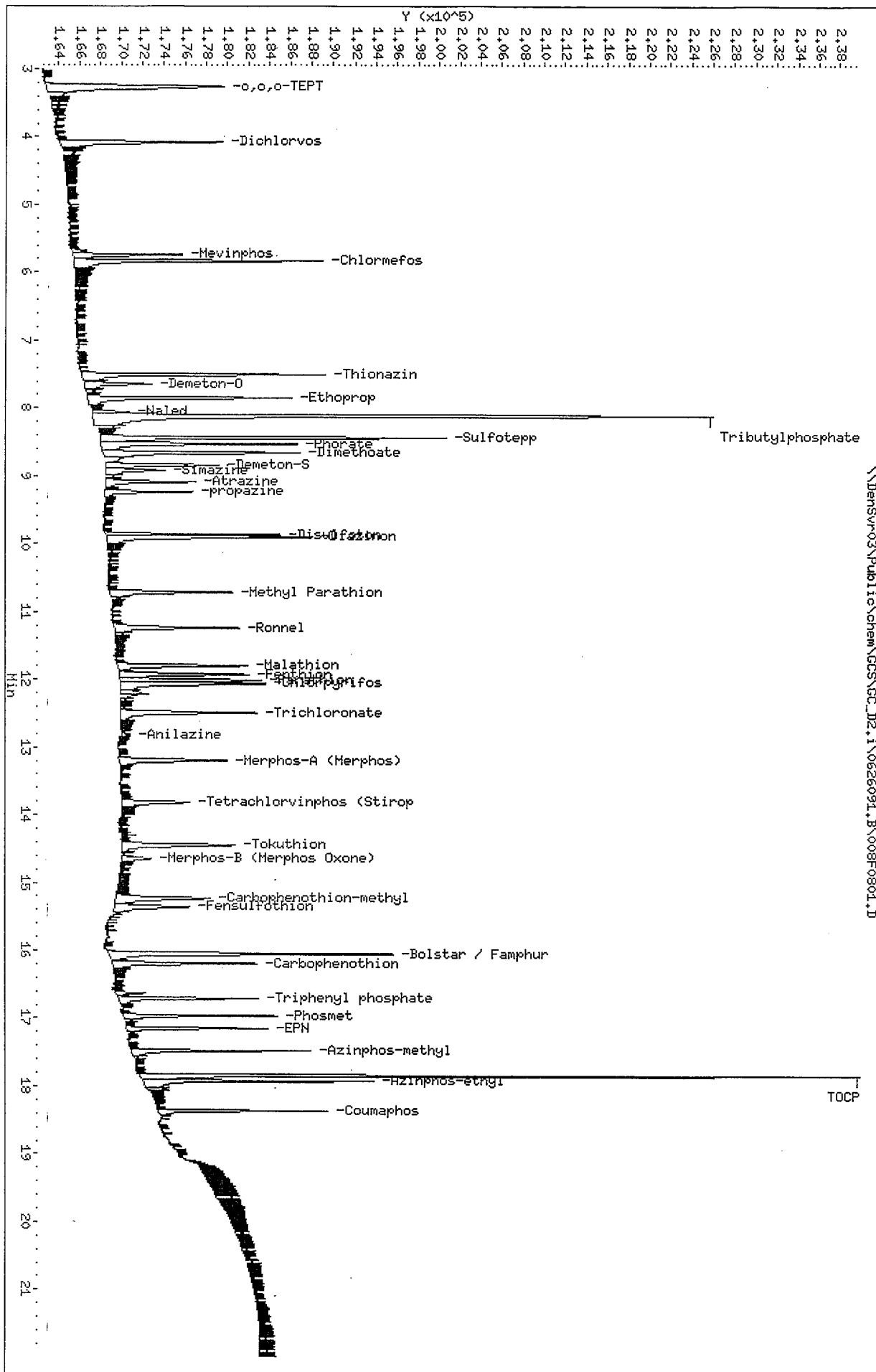
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	165852	3.46
39 TOCP	97363	48682	194726	104260	7.08

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.01
39 TOCP	17.84	17.34	18.34	17.84	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvyr03\Public\chem\GCS\GC\_D2.1\0626091.B\008F0801.D  
 Date: 26-JUN-2009 20:45  
 Client ID: OPP L2 GSV0640  
 Sample Info: OPP L2 GSV0640  
 Column phase: RTX-1MS

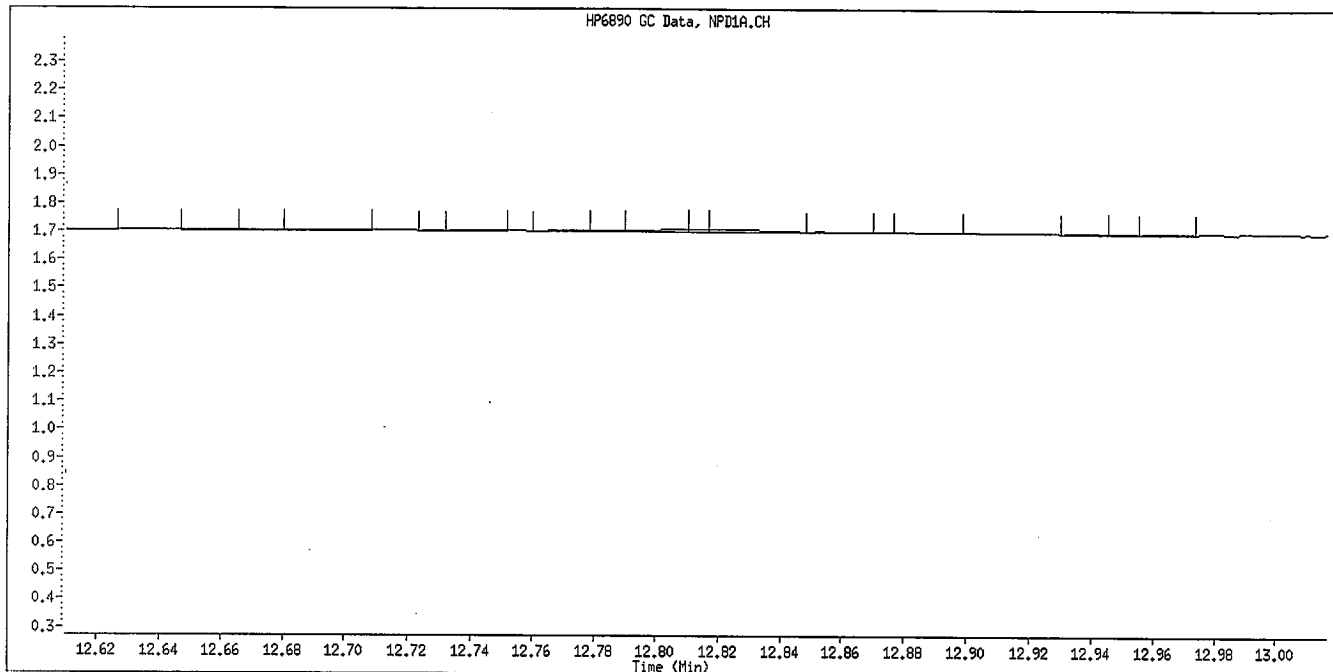
Instrument: GC\_D2.i  
 Operator: MPK/TLM  
 Column diameter: 0.32



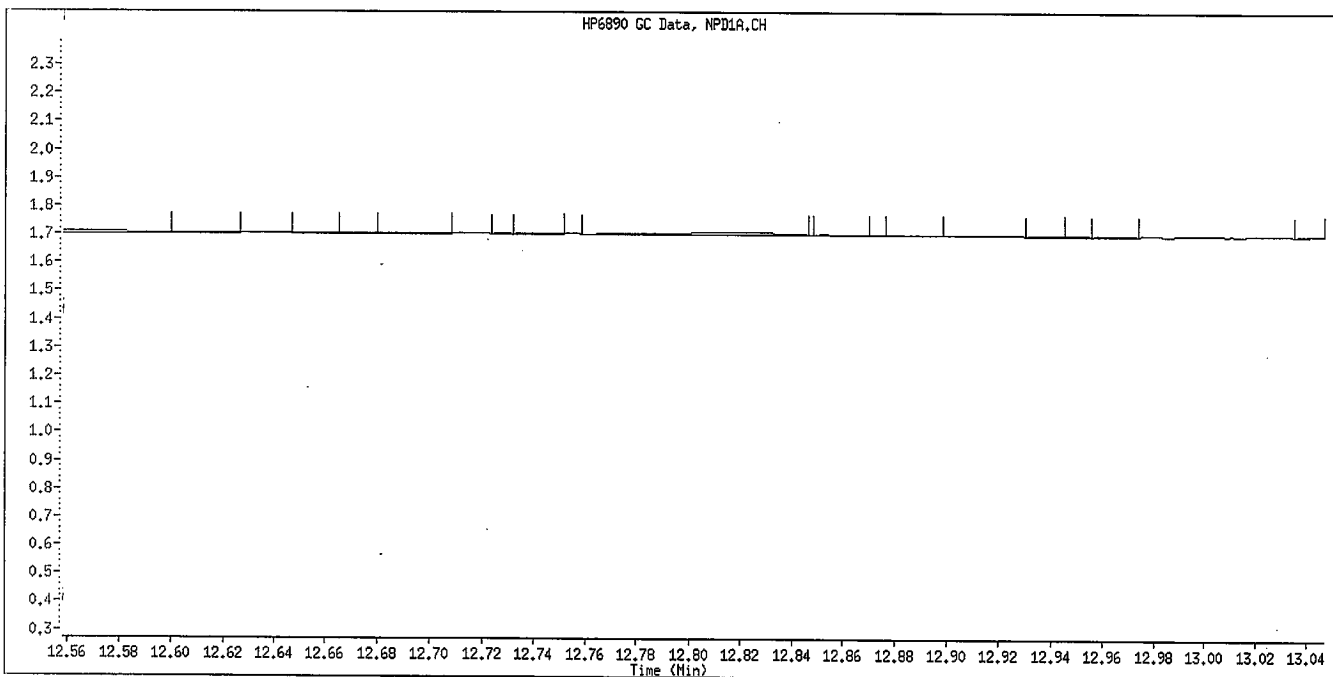
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TOCP

Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

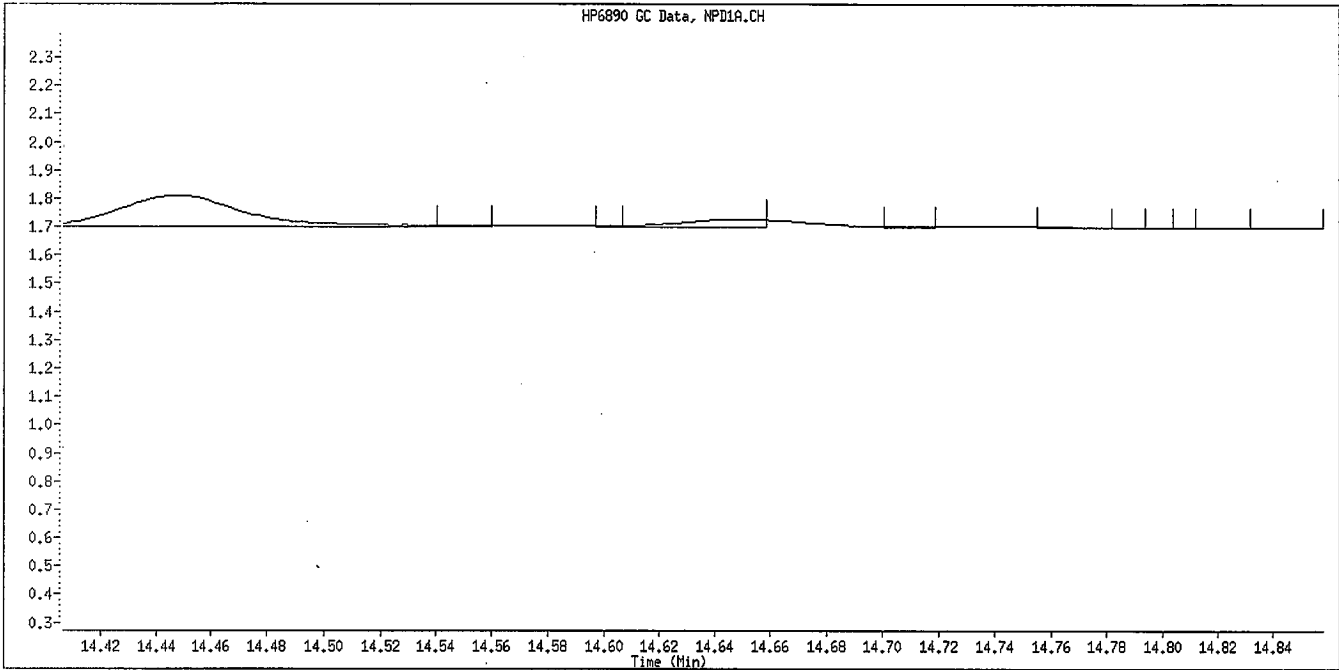


Manual Integration

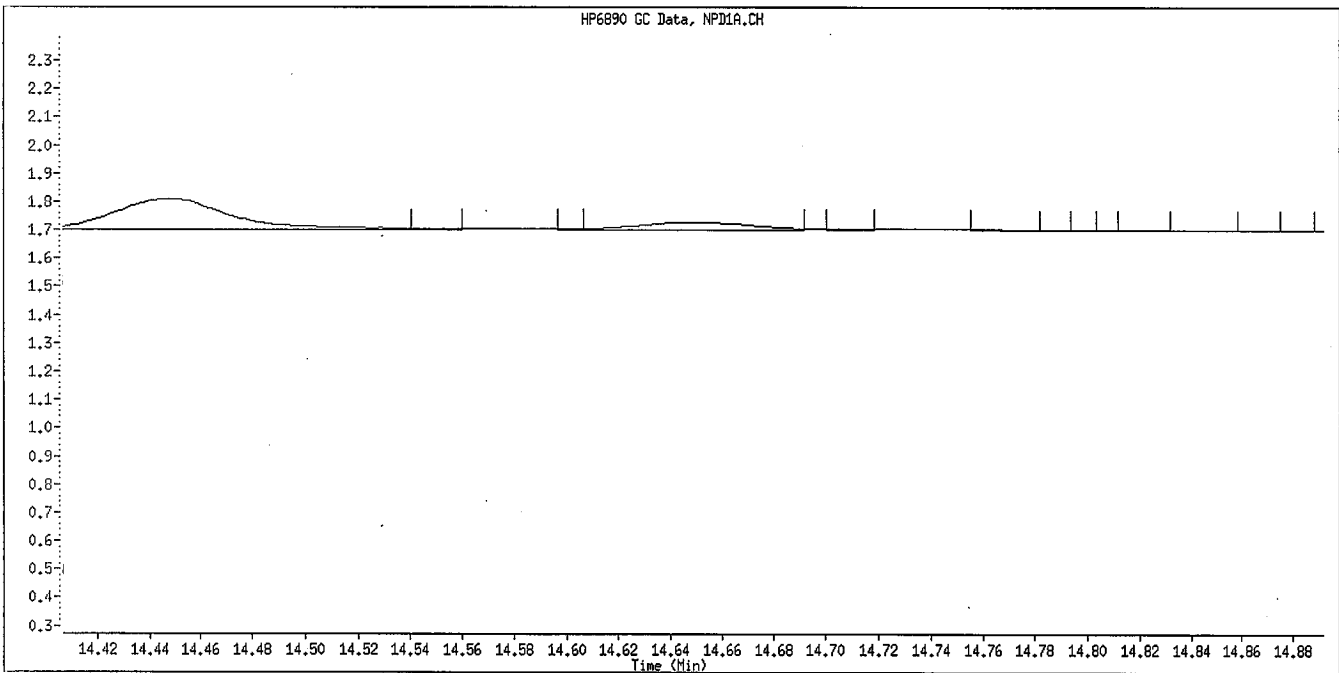
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*je*  
*6/30/09*

Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Je*  
*6/30/09*

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\009F0901.D  
 Lab Smp Id: OPP L1 GSV0641 Client Smp ID: OPP L1 GSV0641  
 Inj Date : 26-JUN-2009 21:13  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L1 GSV0641  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:45 Cal File: 008F0801.D  
 Als bottle: 9 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.258	3.254	(0.183)	32995	0.20000	0.2212
2 Dichlorvos	4.081	4.074	(0.229)	21359	0.20000	0.2306
3 Mevinphos	5.743	5.739	(0.322)	10777	0.20000	0.2118
\$ 4 Chlormefos	5.834	5.836	(0.327)	24167	0.20000	0.2083
5 Thionazin	7.506	7.507	(0.421)	22524	0.20000	0.2127
6 Demeton-O	7.646	7.649	(0.429)	9836	0.06500	0.07420
7 Ethoprop	7.854	7.852	(0.440)	20488	0.20000	0.2208
8 Naled	8.063	8.057	(0.452)	1992	0.20000	0.2720 (M)
* 9 Tributylphosphate	8.114	8.135	(1.000)	165799	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	34658	0.20000	0.1992
11 Phorate	8.531	8.532	(0.478)	21475	0.20000	0.2235
12 Dimethoate	8.664	8.659	(0.486)	20073	0.20000	0.1798
13 Demeton-S	8.846	8.846	(0.496)	10751	0.13600	0.1328
14 Simazine	8.926	8.924	(0.500)	4819	0.20000	0.2042 (M)
15 Atrazine	9.093	9.094	(0.510)	7432	0.20000	0.1717
16 propazine	9.238	9.241	(0.518)	7824	0.20000	0.1959
17 Disulfoton	9.868	9.869	(0.553)	15404	0.20000	0.2020
18 Diazinon	9.904	9.902	(0.555)	23321	0.20000	0.2259
19 Methyl Parathion	10.716	10.717	(0.601)	12987	0.20000	0.1984
20 Ronnel	11.239	11.241	(0.630)	15128	0.20000	0.2236
21 Malathion	11.801	11.804	(0.661)	15443	0.20000	0.2136
22 Fenthion	11.931	11.932	(0.669)	15507	0.20000	0.2330
23 Parathion	12.019	12.019	(0.674)	15083	0.20000	0.2130
24 Chlorpyrifos	12.069	12.067	(0.676)	19655	0.20000	0.2294
25 Trichloronate	12.494	12.496	(0.700)	15328	0.20000	0.2002
26 Anilazine	12.824	12.817	(0.719)	1493	0.20000	0.2971 (M)
27 Merphos-A (Merphos)	13.199	13.199	(0.740)	13220	0.20000	0.2069
28 Tetrachlorvinphos (Stirophos)	13.823	13.824	(0.775)	8134	0.20000	0.1916
29 Tokuthion	14.448	14.449	(0.810)	15915	0.20000	0.2168
30 Merphos-B (Merphos Oxone)	14.656	14.651	(0.821)	3884	0.20000	0.2457 (M)
31 Carbophenothion-methyl	15.238	15.239	(0.854)	14924	0.20000	0.2045
32 Fensulfothion	15.364	15.361	(0.861)	8319	0.20000	0.2269
33 Bolstar / Famphur	16.049	16.053	(0.899)	32824	0.40000	0.4674



Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
===== 34 Carbophenothion	16.193	16.197	(0.908)	16722	0.20000	0.2374
\$ 35 Triphenyl phosphate	16.709	16.712	(0.936)	11646	0.20000	0.2175
36 Phosmet	16.963	16.963	(0.951)	12928	0.20000	0.2144
37 EPN	17.148	17.151	(0.961)	9525	0.20000	0.2105
38 Azinphos-methyl	17.478	17.480	(0.980)	12661	0.20000	0.1970
* 39 TOCP	17.843	17.846	(1.000)	105892	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	23154	0.20000	0.1978
41 Coumaphos	18.364	18.366	(1.029)	10604	0.20000	0.2046
S 42 Merphos				17104	0.20000	0.2120
M 43 Total Demeton				20587	0.20000	0.2070

QC Flag Legend

M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 009F0901.D Calibration Time: 19:50  
 Lab Smp Id: OPP L1 GSV0641 Client Smp ID: OPP L1 GSV0641  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

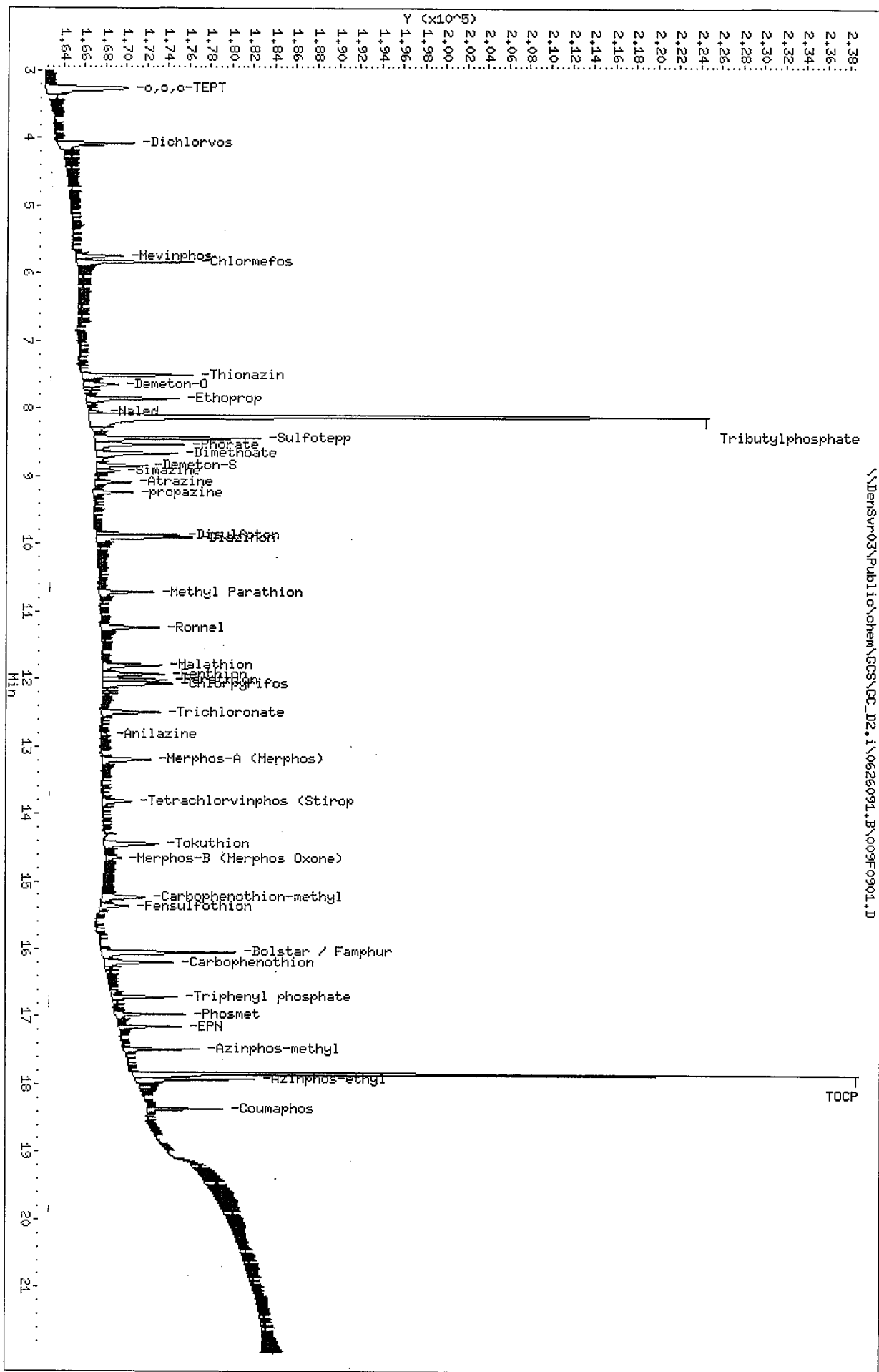
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	165799	3.42
39 TOCP	97363	48682	194726	105892	8.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.03
39 TOCP	17.84	17.34	18.34	17.84	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

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 Date: 26-JUN-2009 21:13  
 Client ID: OPP L1 GSV0641  
 Sample Info: OPP L1 GSV0641  
 Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: HPK/TLW  
 Column diameter: 0.32



Data File Name: 009F0901.D

Inj. Date and Time: 26-JUN-2009 21:13

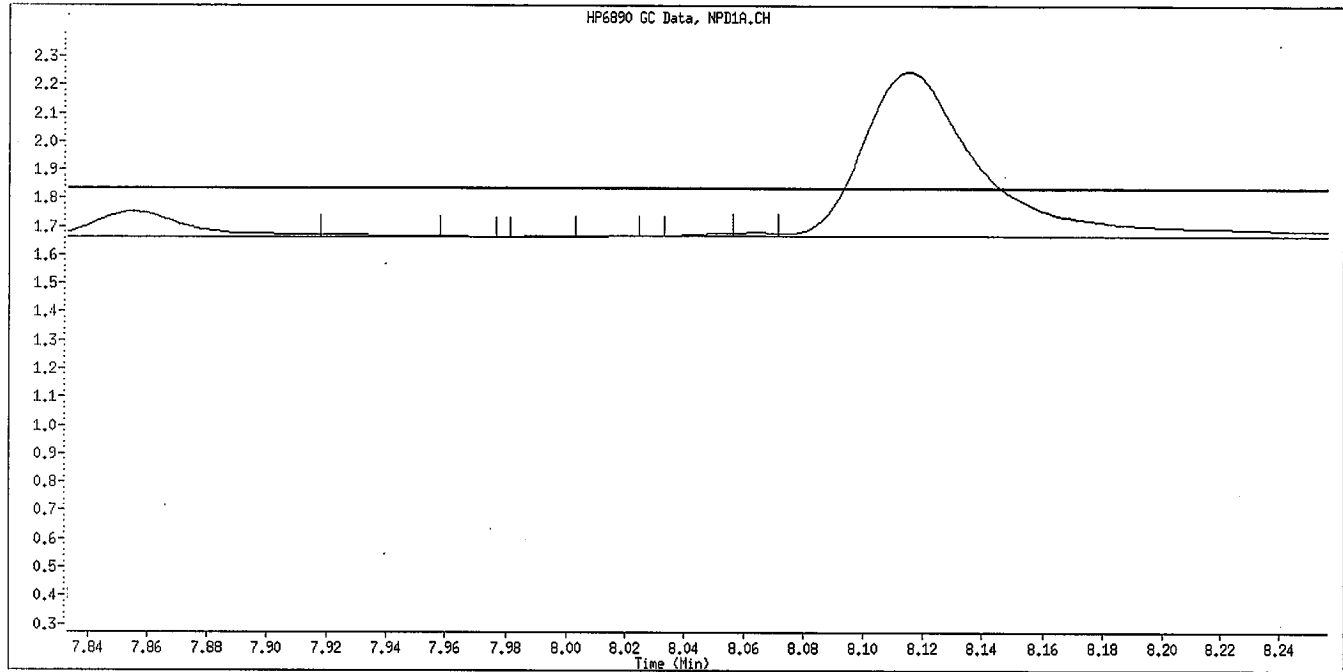
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Client ID: OPP L1 GSV0641

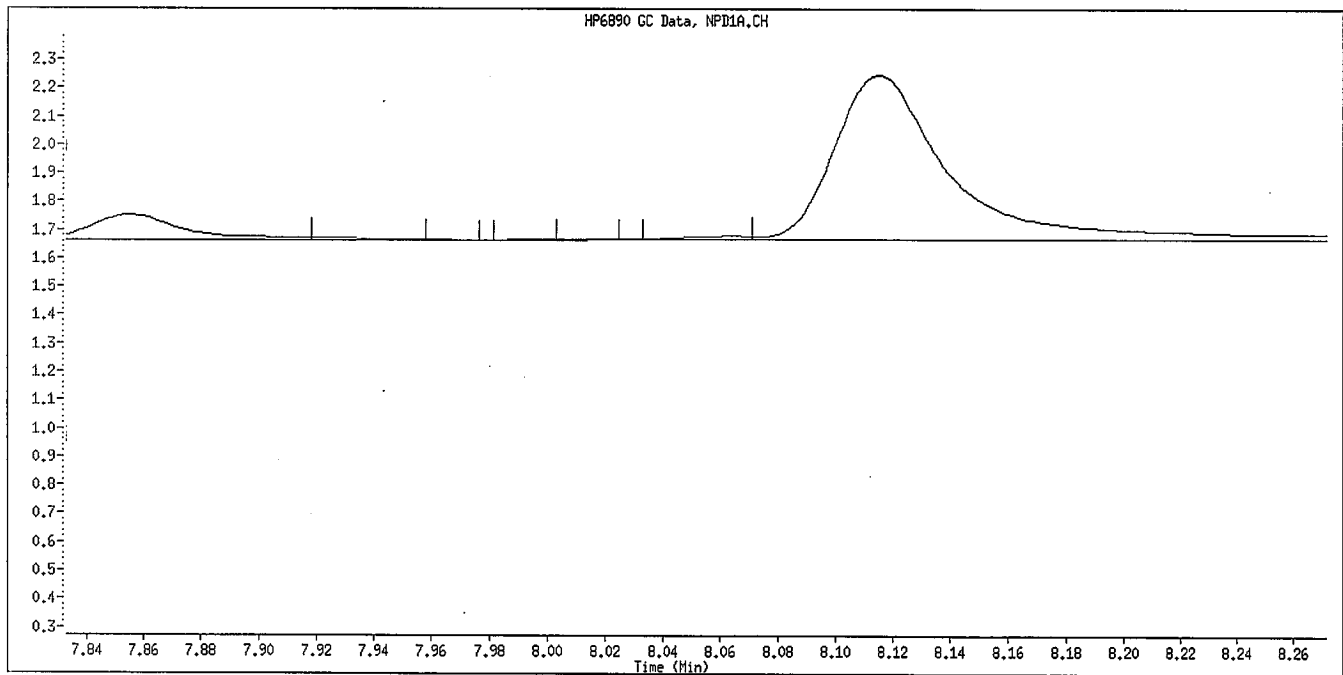
Compound Name: Naled

CAS #:

Report Date: 06/30/2009



Original Integration



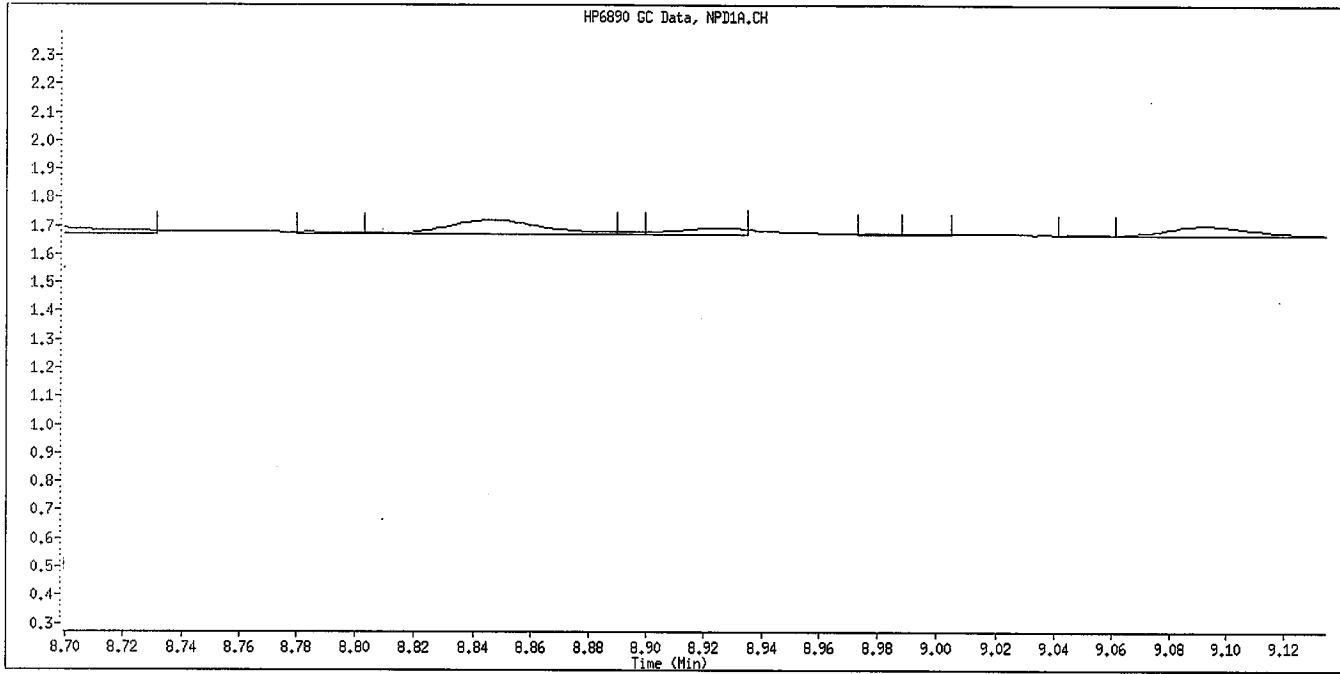
Manual Integration

Manually Integrated By: williamst

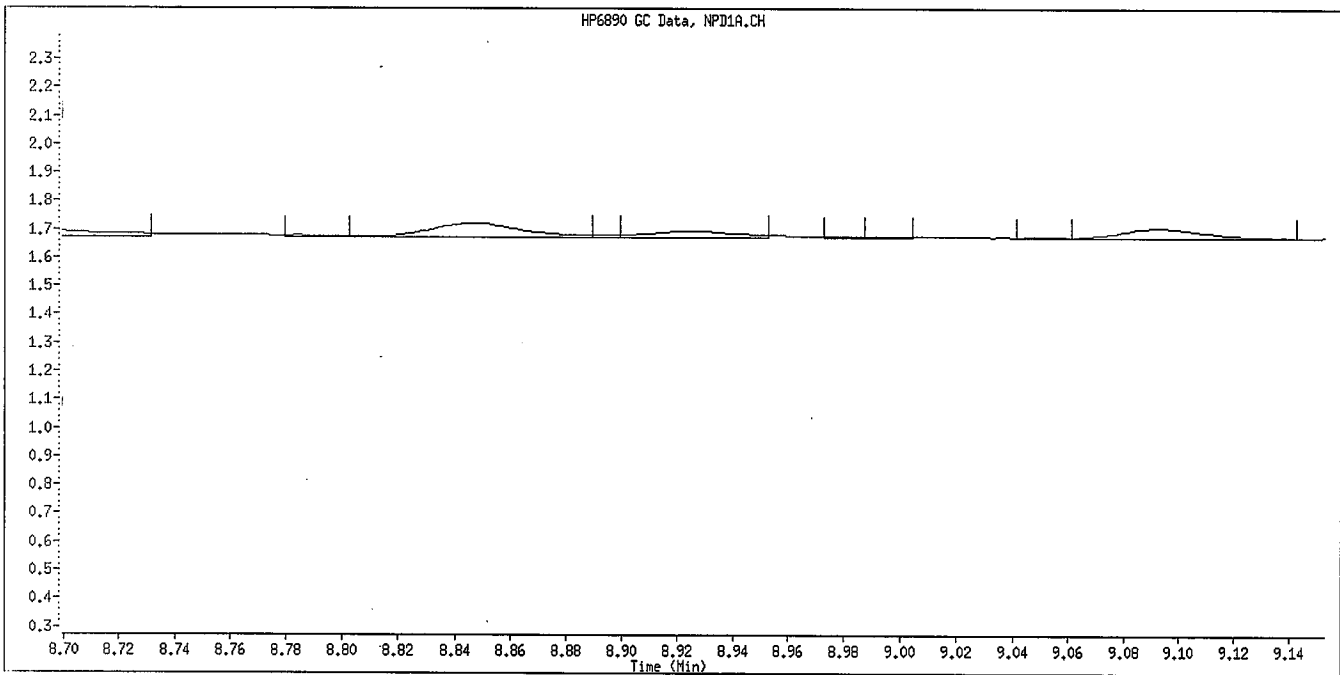
Manual Integration Reason: Baseline Event

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Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Simazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

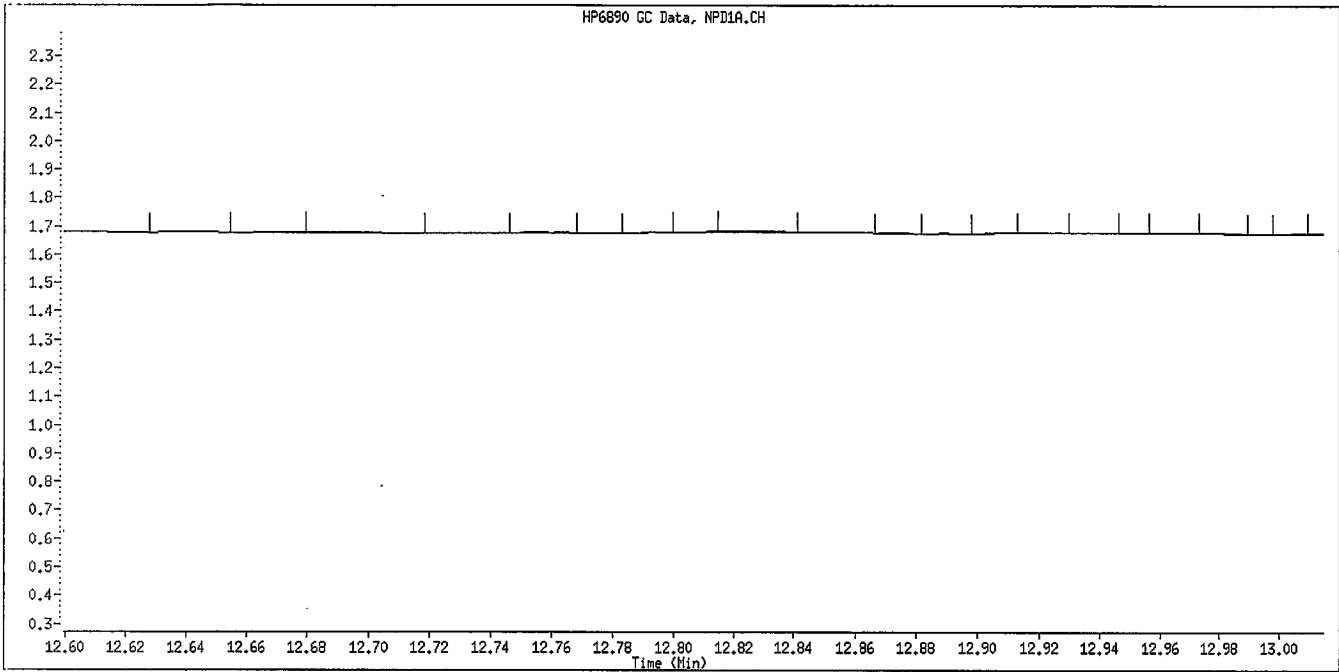


Manual Integration

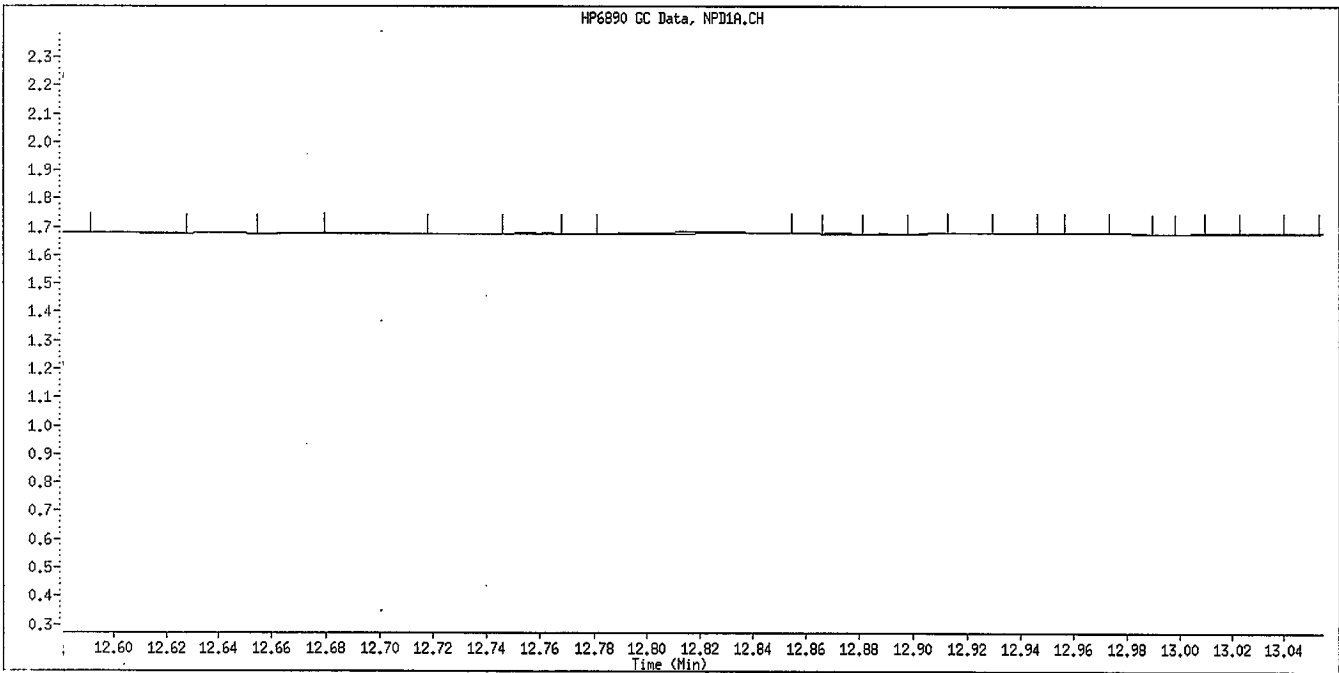
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

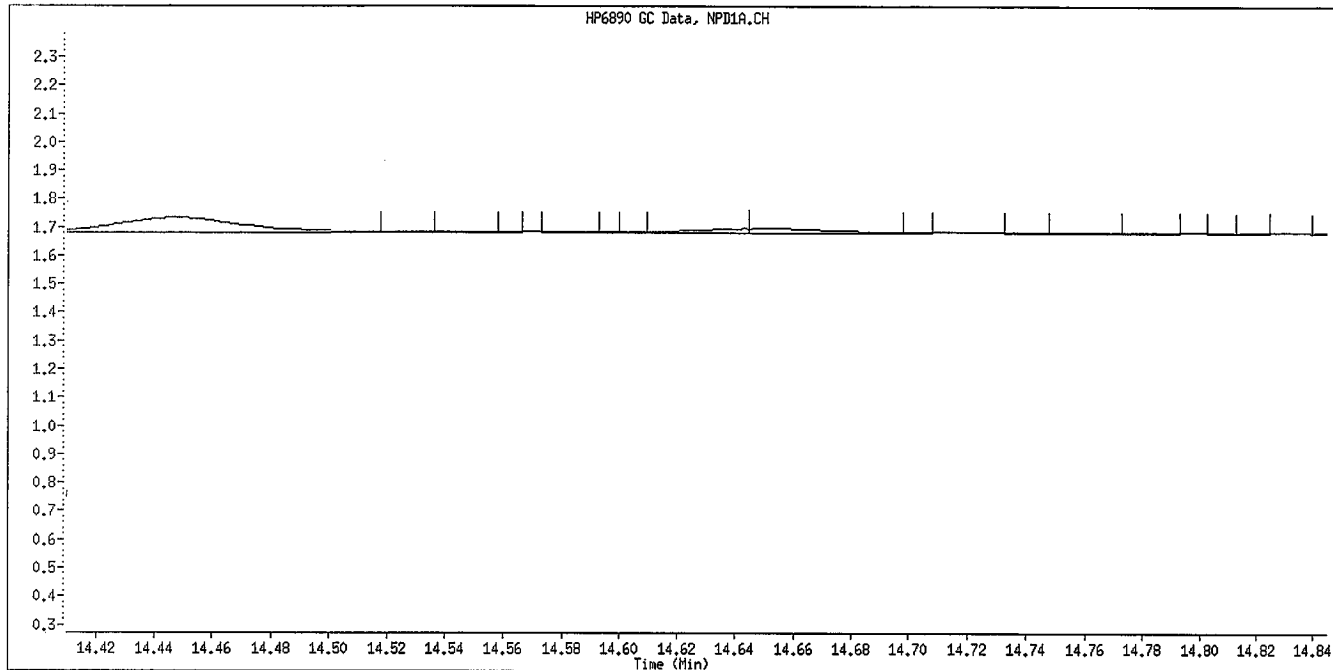


Manual Integration

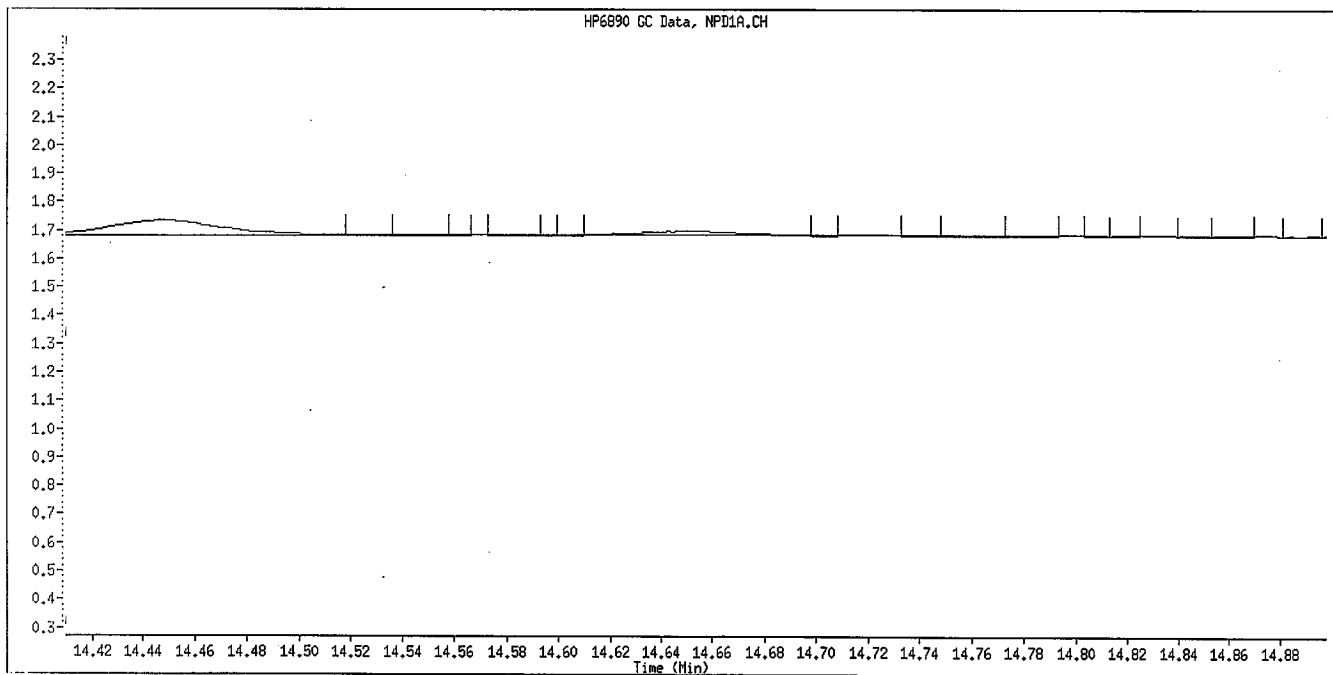
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten:* Jk  
6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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7/6  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\010F1001.D  
 Lab Smp Id: OPP SS GSV0633 Client Smp ID: OPP SS GSV0633  
 Inj Date : 26-JUN-2009 21:40  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP SS GSV0633  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 10 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.252	3.254	(0.182)	288886	2.00000	2.058
2 Dichlorvos	4.074	4.074	(0.228)	166172	2.00000	1.906
3 Mevinphos	5.737	5.739	(0.322)	81302	2.00000	1.698
4 Chlormefos	5.834	5.836	(0.327)	194413	2.00000	1.781
5 Thionazin	7.504	7.507	(0.421)	196672	2.00000	1.974
6 Demeton-O	7.645	7.649	(0.429)	175593	0.65000	1.871
7 Ethoprop	7.849	7.852	(0.440)	179292	2.00000	2.054
8 Naled	8.054	8.057	(0.451)	23739	2.00000	1.198
9 Tributylphosphate	8.112	8.135	(1.000)	166572	2.00000	
10 Sulfotepp	8.437	8.442	(0.473)	226133	2.00000	1.793
11 Phorate	8.529	8.532	(0.478)	182466	2.00000	2.018
12 Dimethoate	8.654	8.659	(0.485)	219089	2.00000	2.086
13 Demeton-S	8.842	8.846	(0.496)	17618	1.36000	0.2313
14 Simazine	8.919	8.924	(0.500)	92634	2.00000	2.622
15 Atrazine	9.089	9.094	(0.509)	79689	2.00000	1.957
16 propazine	9.235	9.241	(0.518)	71876	2.00000	1.913
17 Disulfoton	9.865	9.869	(0.553)	98052	2.00000	1.589
18 Diazinon	9.900	9.902	(0.555)	209627	2.00000	2.158
19 Methyl Parathion	10.714	10.717	(0.600)	125682	2.00000	2.040
20 Ronnel	11.237	11.241	(0.630)	136977	2.00000	2.151
21 Malathion	11.799	11.804	(0.661)	94998	2.00000	1.625
22 Fenthion	11.929	11.932	(0.669)	117968	2.00000	1.884
23 Parathion	12.017	12.019	(0.674)	129518	2.00000	1.944
24 Chlorpyrifos	12.067	12.067	(0.676)	158990	2.00000	1.972
25 Trichloronate	12.492	12.496	(0.700)	134163	2.00000	1.862
26 Anilazine	12.817	12.817	(0.718)	5585	2.00000	1.015
27 Merphos-A (Merphos)	13.195	13.199	(0.740)	24516	2.00000	0.4078
28 Tetrachlorvinphos (Stirophos)	13.817	13.824	(0.774)	83430	2.00000	2.088
29 Tokuthion	14.444	14.449	(0.810)	139904	2.00000	2.025
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	107349	2.00000	6.623(A)
31 Carbophenothion-methyl	15.234	15.239	(0.854)	73477	2.00000	1.354
32 Fensulfothion	15.355	15.361	(0.861)	108213	2.00000	1.924
33 Bolstar / Famphur	16.047	16.053	(0.899)	268528	4.00000	4.064



Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
===== 34 Carbophenothion	16.194	16.197	(0.908)	123570	2.00000	1.864
\$ 35 Triphenyl phosphate	16.709	16.712	(0.936)	86501	2.00000	1.717
36 Phosmet	16.960	16.963	(0.951)	93465	2.00000	1.647
37 EPN	17.147	17.151	(0.961)	96842	2.00000	1.793
38 Azinphos-methyl	17.477	17.480	(0.980)	116249	2.00000	1.922
* 39 TOCP	17.842	17.846	(1.000)	99647	2.00000	
40 Azinphos-ethyl	17.922	17.926	(1.004)	124764	2.00000	1.833
41 Coumaphos	18.362	18.366	(1.029)	97846	2.00000	2.006
S 42 Merphos				131865	2.00000	1.737
M 43 Total Demeton				193211	2.00000	2.102

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 010F1001.D Calibration Time: 19:50  
 Lab Smp Id: OPP SS GSV0633 Client Smp ID: OPP SS GSV0633  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	166572	3.91
39 TOCP	97363	48682	194726	99647	2.35

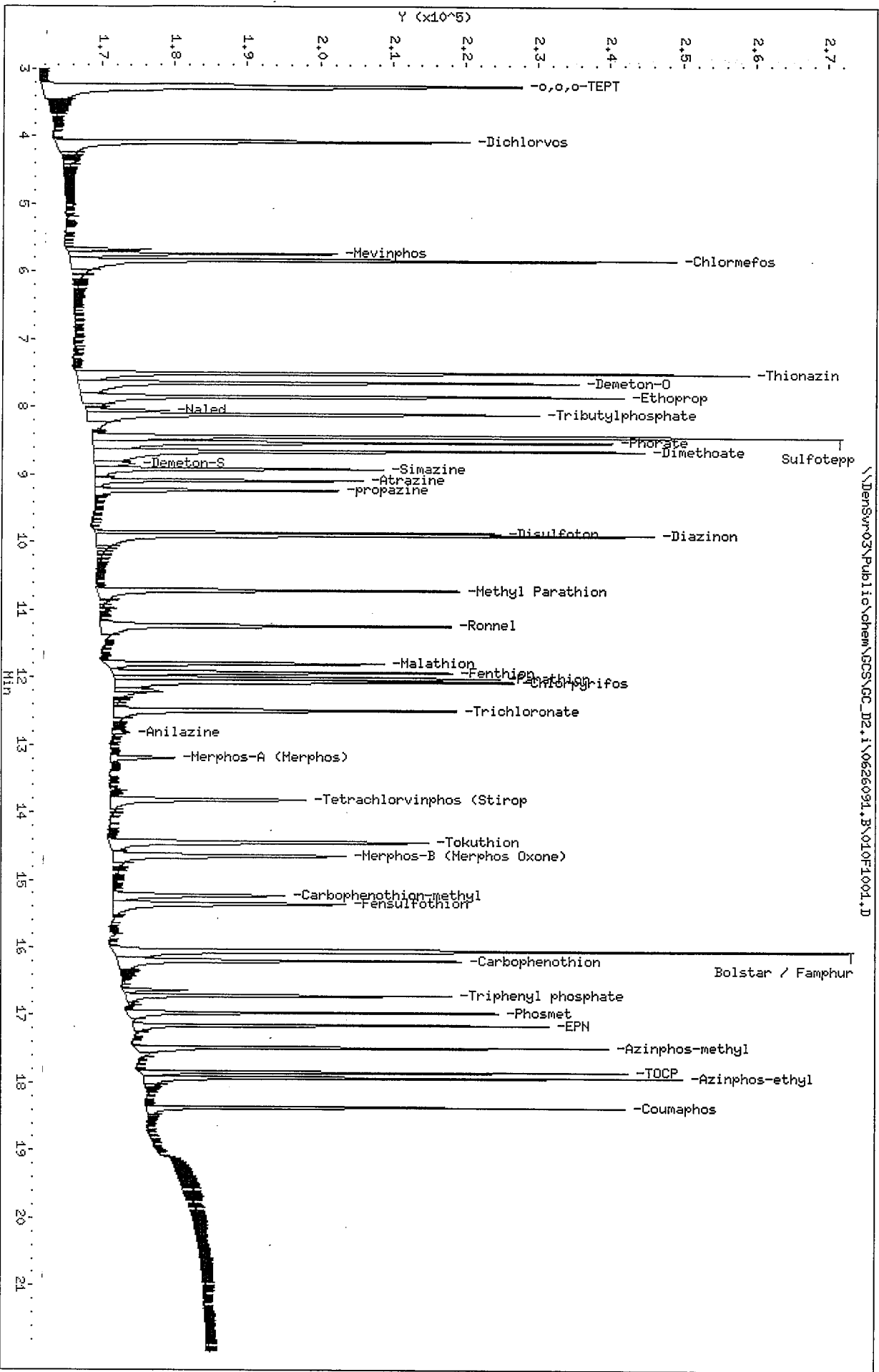
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.00
39 TOCP	17.84	17.34	18.34	17.84	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densv03\Public\chem\GCS\GC\_D2.1\0626091.B\010F1001.D  
 Date: 26-JUN-2009 21:40  
 Client ID: OPP SS GSV0633  
 Sample Info: OPP SS GSV0633  
 Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: HPK/TLW  
 Column diameter: 0.32

\\Densv03\Public\chem\GCS\GC\_D2.1\0626091.B\010F1001.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0301.D  
 Lab Smp Id: OPP L7 GSV0634 Client Smp ID: OPP L7 GSV0634  
 Inj Date : 26-JUN-2009 18:28  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L7 GSV0634  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 3 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.729	4.731	(0.251)	421372	5.00000	4.907
2 Dichlorvos	6.546	6.546	(0.348)	359024	5.00000	5.355 (A)
\$ 3 Chlormefos	7.383	7.384	(0.392)	338585	5.00000	5.016 (A)
4 Mevinphos	9.233	9.234	(0.491)	238906	5.00000	5.290 (A)
5 Demeton-O	9.733	9.734	(0.517)	69239	1.62500	1.609
6 Thionazin	9.984	9.984	(0.531)	338015	5.00000	5.005 (A)
7 Ethoprop	10.499	10.499	(0.558)	242747	5.00000	4.810
8 Phorate	10.538	10.539	(0.560)	289868	5.00000	4.953
9 Naled	10.939	10.939	(0.581)	78857	5.00000	5.109 (A)
10 Sulfotepp	11.018	11.017	(0.586)	427657	5.00000	4.845 (A)
* 11 Tributylphosphate	11.116	11.116	(1.000)	139264	2.00000	
12 Simazine	11.401	11.399	(0.606)	68046	5.00000	5.383 (A)
13 Diazinon	11.541	11.541	(0.613)	228810	5.00000	4.801
14 Atrazine	11.584	11.584	(0.616)	128612	5.00000	4.879 (A)
15 Propazine	11.746	11.747	(0.624)	110050	5.00000	4.930
16 Disulfoton	12.049	12.049	(0.640)	228764	5.00000	4.914
17 Demeton-S	12.124	12.124	(0.644)	175573	3.40000	3.111
18 Dimethoate	13.283	13.282	(0.706)	319454	5.00000	5.120 (A)
19 Ronnel	13.588	13.587	(0.722)	211449	5.00000	5.035 (A)
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	217509	5.00000	4.310 (A)
21 Chlorpyrifos	14.411	14.409	(0.766)	227882	5.00000	5.350 (A)
22 Fenthion	14.663	14.662	(0.779)	196942	5.00000	4.985
23 Trichloronate	14.711	14.711	(0.782)	296442	5.00000	5.242 (A)
24 Anilazine	15.214	15.216	(0.809)	19108	5.00000	5.242 (A)
25 Methyl Parathion	15.521	15.519	(0.825)	235511	5.00000	5.522 (A)
26 Malathion	15.724	15.724	(0.836)	212190	5.00000	5.311 (A)
27 Tokuthion	16.344	16.344	(0.869)	233715	5.00000	4.996
28 Parathion	16.493	16.494	(0.877)	213175	5.00000	5.073 (AM)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.486)	65080	5.00000	4.212 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	143806	5.00000	5.290 (A)
31 Carbophenothion methyl	17.081	17.082	(0.908)	210272	5.00000	5.396 (A)
32 Bolstar	17.441	17.440	(0.927)	199405	5.00000	4.858
33 Carbophenothion	17.523	17.524	(0.931)	212727	5.00000	5.271 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	====	=====	=====	=====	=====	=====
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	167127	5.00000	5.046 (A)
35 Fensulfothion	18.558	18.559	(0.986)	152929	5.00000	5.029 (A)
* 36 TOCP	18.814	18.816	(1.000)	66384	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	330448	10.0000	9.819 (A)
38 Famphur	19.011	19.011	(1.010)	220404	5.00000	5.062 (A)
39 Azinphos-methyl	19.146	19.147	(1.018)	197822	5.00000	4.967
40 Azinphos-ethyl	19.364	19.366	(1.029)	187035	5.00000	4.930
41 Coumaphos	20.348	20.347	(1.081)	155426	5.00000	5.329 (A)
S 42 Merphos				282589	5.00000	5.108 (A)
M 43 Total Demeton				244812	5.00000	4.720

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 003F0301.D  
 Lab Smp Id: OPP L7 GSV0634  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 21:40  
 Client Smp ID: OPP L7 GSV0634  
 Level:  
 Sample Type:

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	123933	61967	247866	139264	12.37
36 TOCP	68831	34416	137662	66384	-3.56

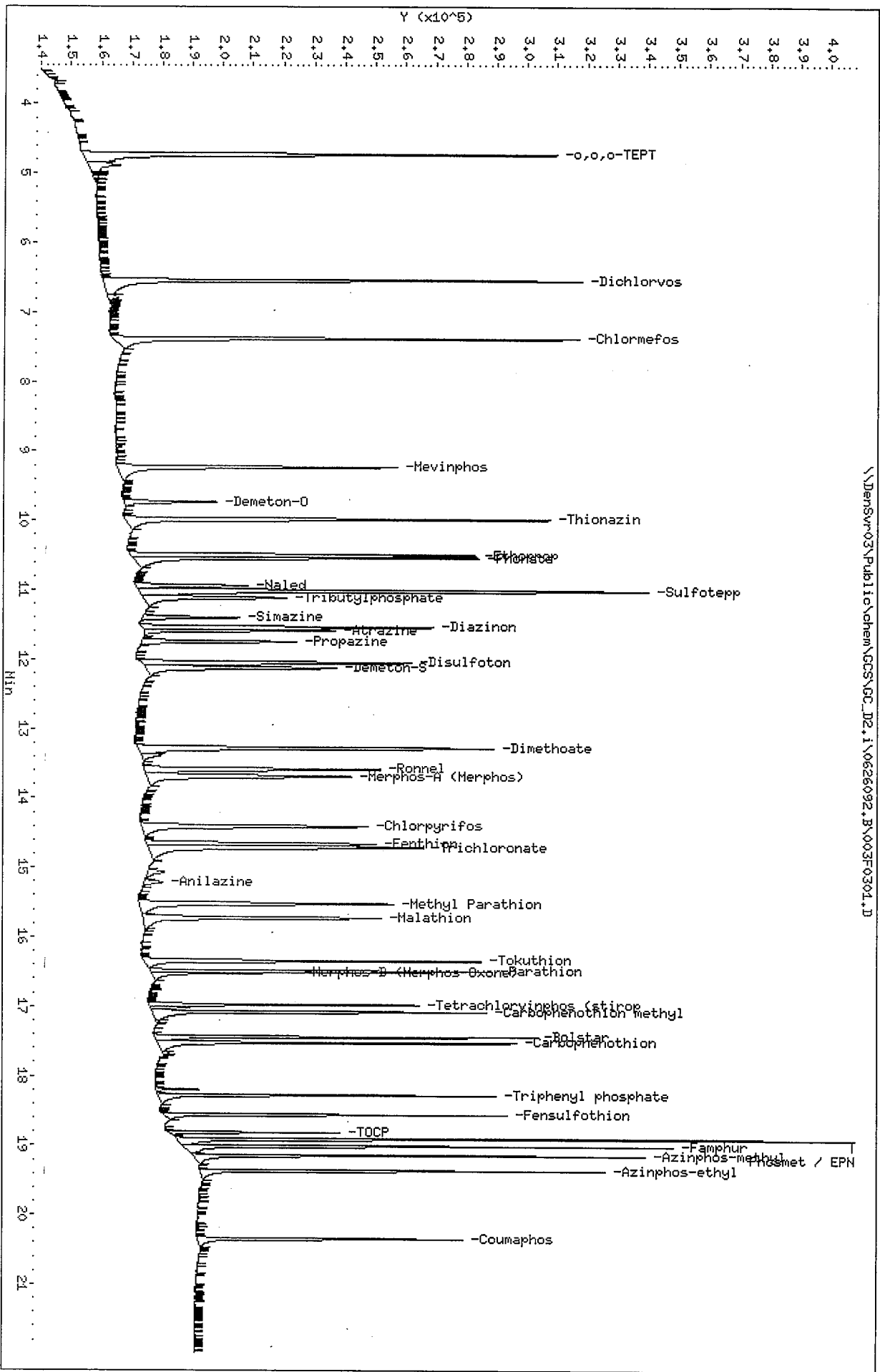
COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.01
36 TOCP	18.82	18.32	19.32	18.81	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

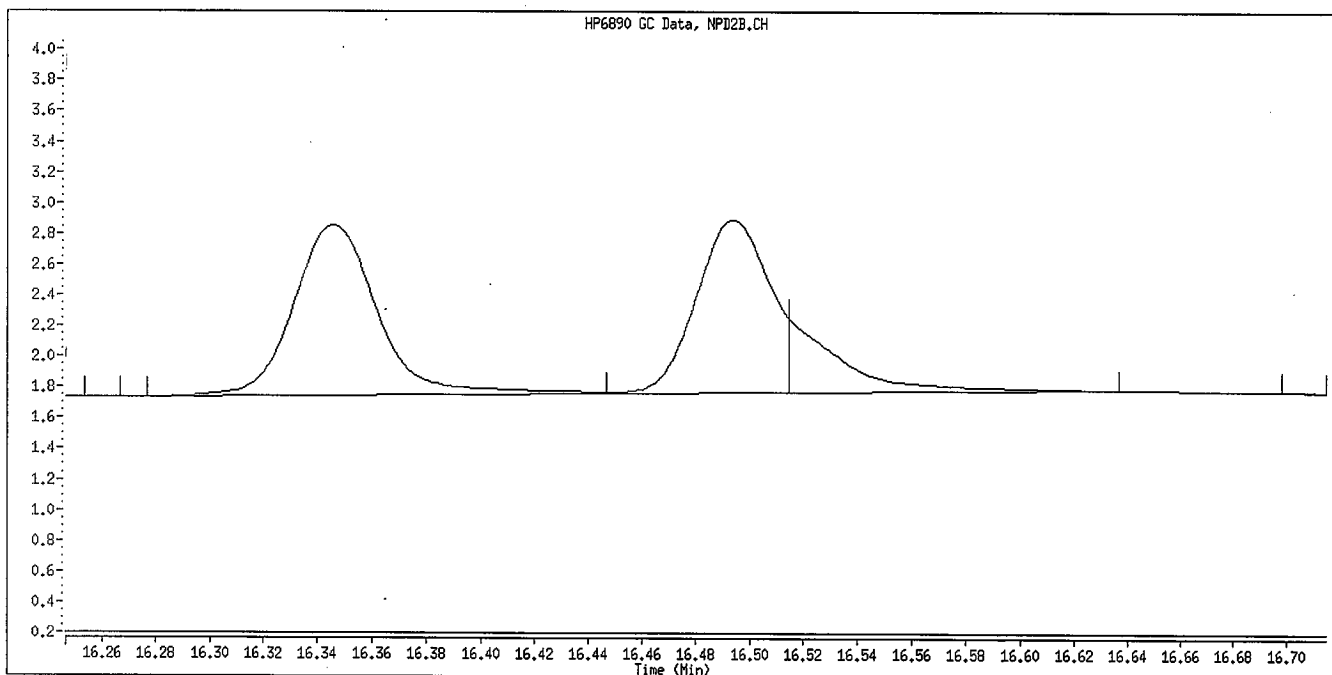
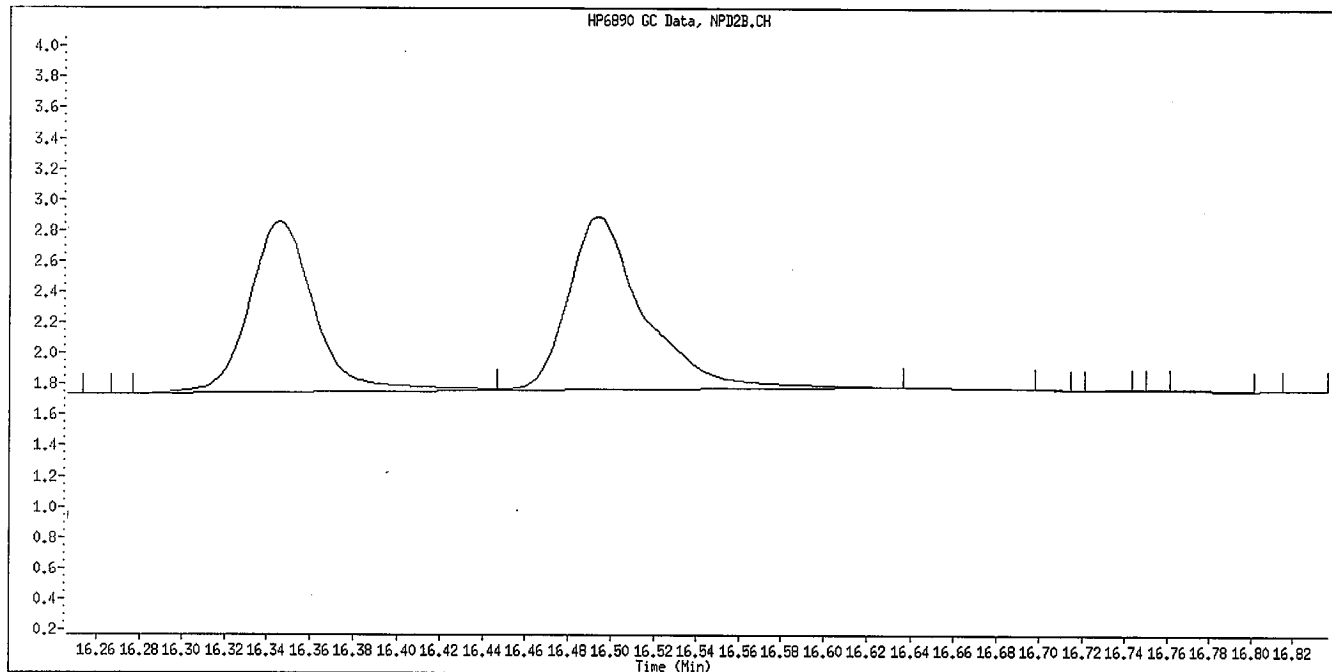
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 Date: 26-JUN-2009 18:28  
 Client ID: OPP L7 GSV0634  
 Sample Info: OPP L7 GSV0634  
 Column phase: RTX-DPEst

Instrument: GC\_D2.i  
 Operator: HPK/TLN  
 Column diameter: 0.32

\\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0304.D



Data File Name: 003F0301.D  
Inj. Date and Time: 26-JUN-2009 18:28  
Instrument ID: GC\_D2.i  
Client ID: OPP L7 GSV0634  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009

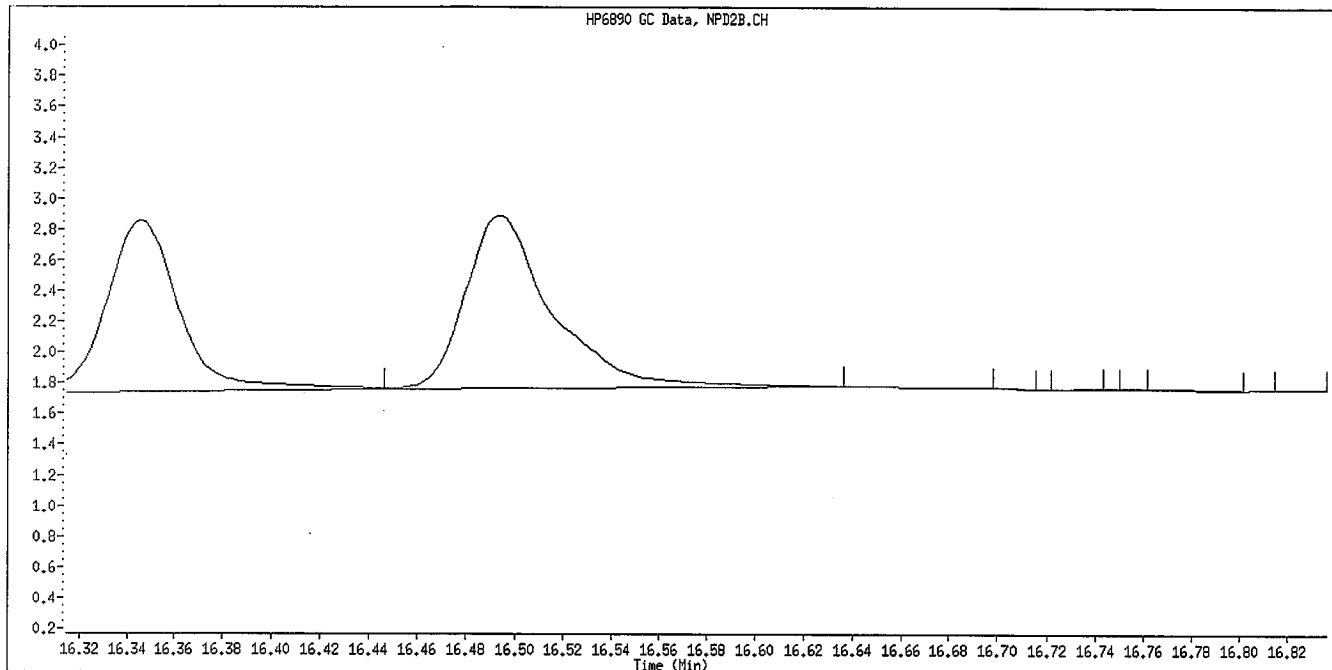


Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

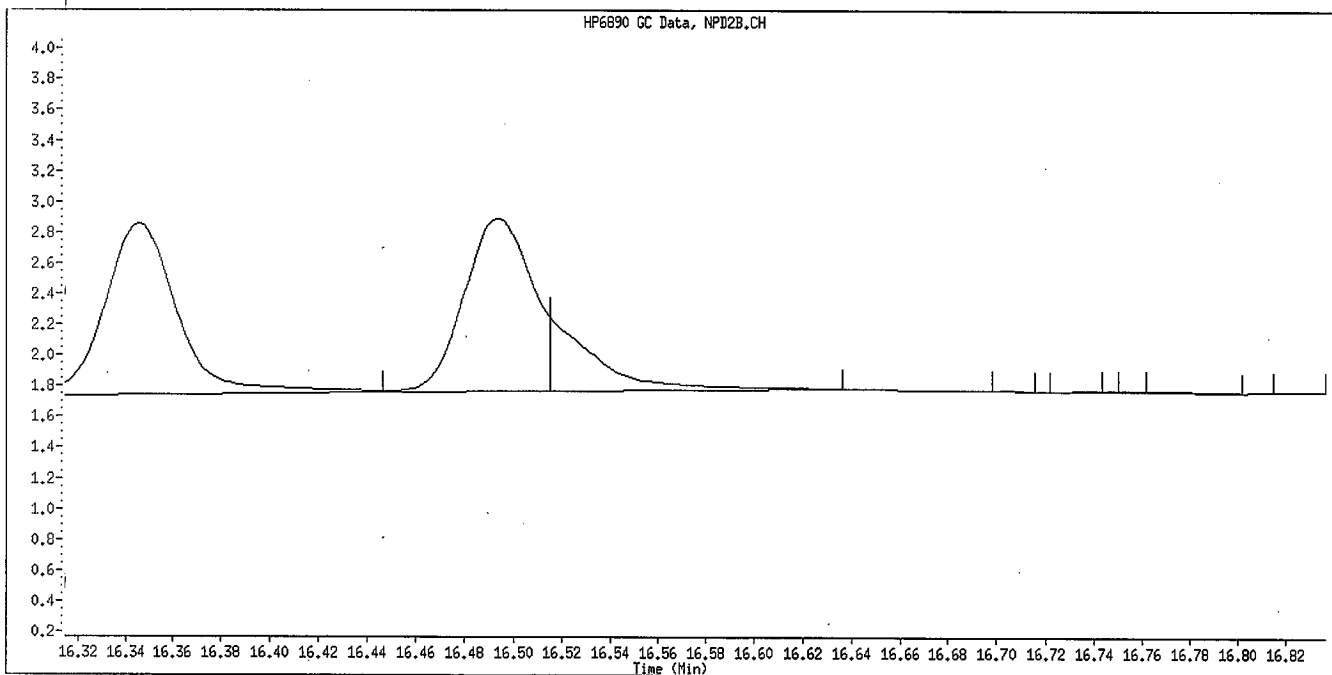
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6/30/09



Data File Name: 003F0301.D  
Inj. Date and Time: 26-JUN-2009 18:28  
Instrument ID: GC\_D2.i  
Client ID: OPP L7 GSV0634  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D  
 Lab Smp Id: OPP L6 GSV0637 Client Smp ID: OPP L6 GSV0637  
 Inj Date : 26-JUN-2009 18:55  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L6 GSV0637  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:28 Cal File: 003F0301.D  
 Als bottle: 4 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.729	4.731	(0.251)	328646	4.00000	4.043
2 Dichlorvos	6.546	6.546	(0.348)	257298	4.00000	4.054
\$ 3 Chlormefos	7.384	7.384	(0.392)	258146	4.00000	4.040
4 Mevinphos	9.234	9.234	(0.491)	177060	4.00000	4.141
5 Demeton-O	9.734	9.734	(0.517)	56273	1.30000	1.381
6 Thionazin	9.984	9.984	(0.531)	276609	4.00000	4.326
7 Ethoprop	10.499	10.499	(0.558)	193617	4.00000	4.053
8 Phorate	10.537	10.539	(0.560)	250422	4.00000	4.520
9 Naled	10.941	10.939	(0.582)	58330	4.00000	4.051
10 Sulfotepp	11.017	11.017	(0.586)	337512	4.00000	4.039 (A)
* 11 Tributylphosphate	11.116	11.116	(1.000)	118534	2.00000	
12 Simazine	11.401	11.399	(0.606)	52173	4.00000	4.360 (A)
13 Diazinon	11.541	11.541	(0.613)	181790	4.00000	4.034
14 Atrazine	11.582	11.584	(0.616)	98759	4.00000	4.001 (A)
15 Propazine	11.746	11.747	(0.624)	85745	4.00000	4.068
16 Disulfoton	12.049	12.049	(0.640)	184026	4.00000	4.176
17 Demeton-S	12.124	12.124	(0.644)	157195	2.72000	2.948
18 Dimethoate	13.282	13.282	(0.706)	236550	4.00000	4.005
19 Ronnel	13.589	13.587	(0.722)	165534	4.00000	4.164
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	178652	4.00000	4.159 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	174421	4.00000	4.326
22 Fenthion	14.662	14.662	(0.779)	149338	4.00000	3.993
23 Trichloronate	14.709	14.711	(0.782)	208762	4.00000	3.926
24 Anilazine	15.216	15.216	(0.809)	13112	4.00000	3.800 (M)
25 Methyl Parathion	15.519	15.519	(0.825)	167086	4.00000	4.138 (A)
26 Malathion	15.724	15.724	(0.836)	151738	4.00000	4.012
27 Tokuthion	16.346	16.344	(0.869)	187169	4.00000	4.226
28 Parathion	16.492	16.494	(0.877)	170901	4.00000	4.296 (M)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.486)	62127	4.00000	4.736 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	109740	4.00000	4.264
31 Carbophenothion methyl	17.081	17.082	(0.908)	159411	4.00000	4.322
32 Bolstar	17.441	17.440	(0.927)	154382	4.00000	3.973
33 Carbophenothion	17.522	17.524	(0.931)	154486	4.00000	4.043 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	125543	4.00000	4.004
35 Fensulfothion	18.557	18.559	(0.986)	126221	4.00000	4.385
* 36 TOCP	18.814	18.816	(1.000)	62844	2.00000	
37 Phosmet / EPN	18.907	18.909	(1.005)	263604	8.00000	8.261 (A)
38 Famphur	19.009	19.011	(1.010)	175421	4.00000	4.256
39 Azinphos-methyl	19.144	19.147	(1.018)	160515	4.00000	4.257
40 Azinphos-ethyl	19.362	19.366	(1.029)	144031	4.00000	4.011
41 Coumaphos	20.346	20.347	(1.081)	118936	4.00000	4.308
S 42 Merphos				240779	4.00000	4.597 (A)
M 43 Total Demeton				213468	4.00000	4.330

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 004F0401.D Calibration Time: 21:40  
 Lab Smp Id: OPP L6 GSV0637 Client Smp ID: OPP L6 GSV0637  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	123933	61967	247866	118534	-4.36
36 TOCP	68831	34416	137662	62844	-8.70

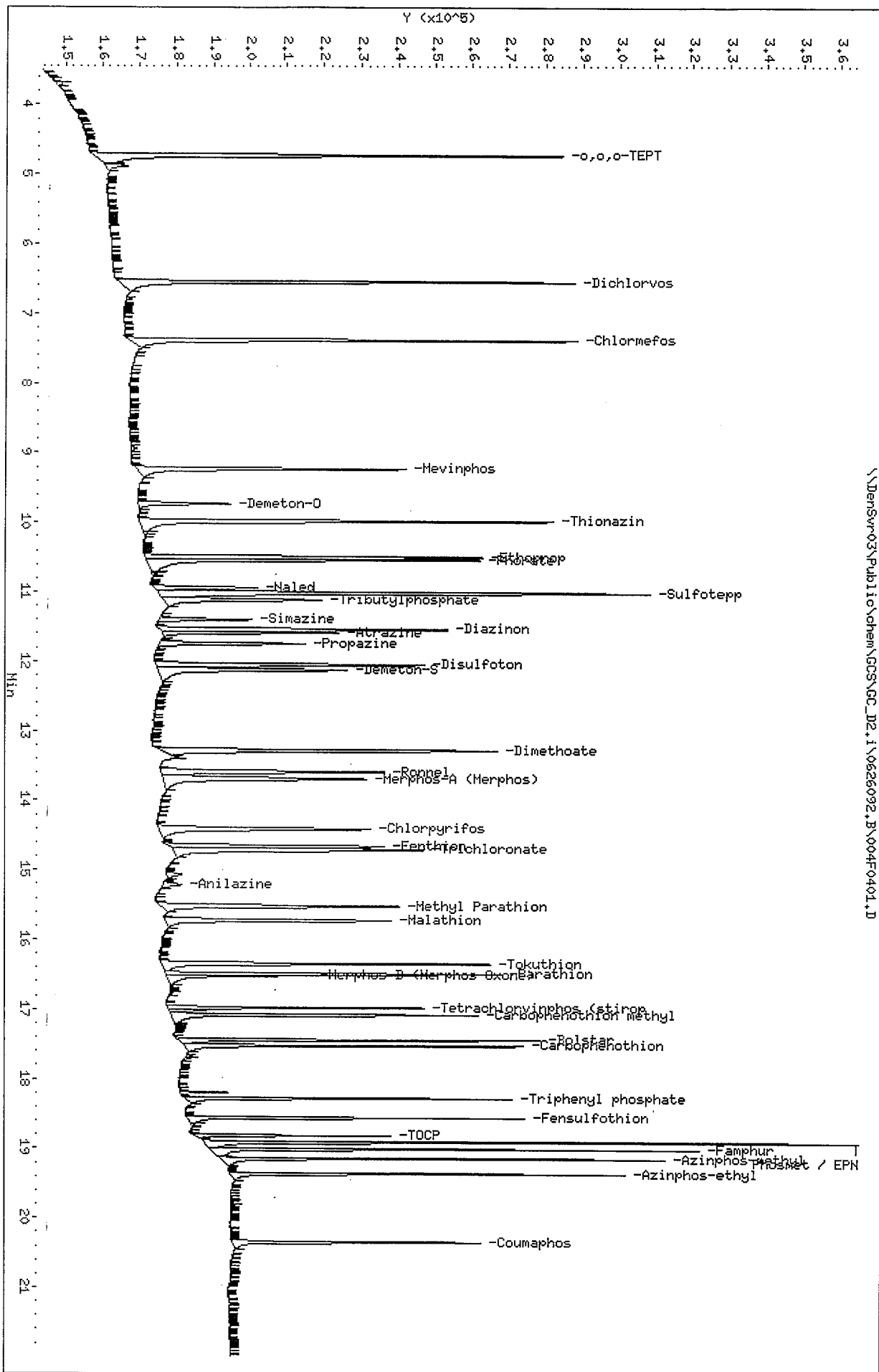
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.01
36 TOCP	18.82	18.32	19.32	18.81	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

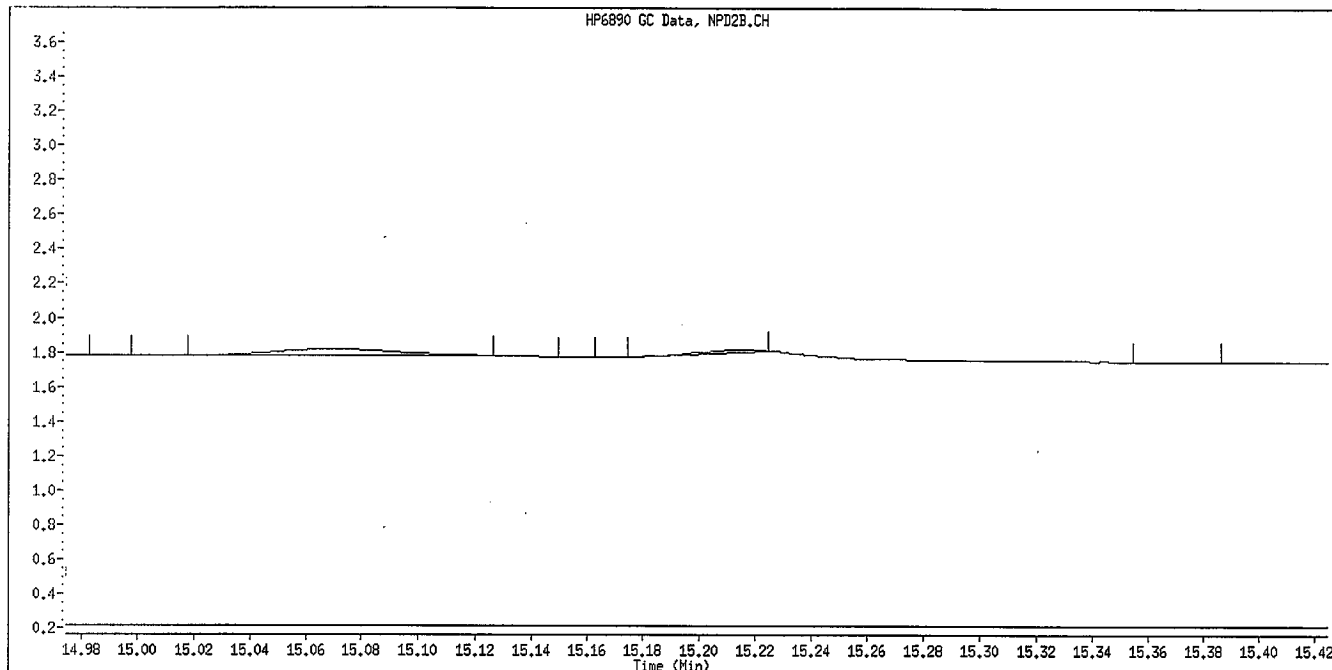
Data File: \\DensSvr-03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D  
 Date: 26-JUN-2009 18:55  
 Client ID: OPP L6 GSW0637  
 Sample Info: OPP L6 GSW0637  
 Column phase: RTX-OPPest

Instrument: GC\_D2.i  
 Operator: HPK/TLN  
 Column diameter: 0.32

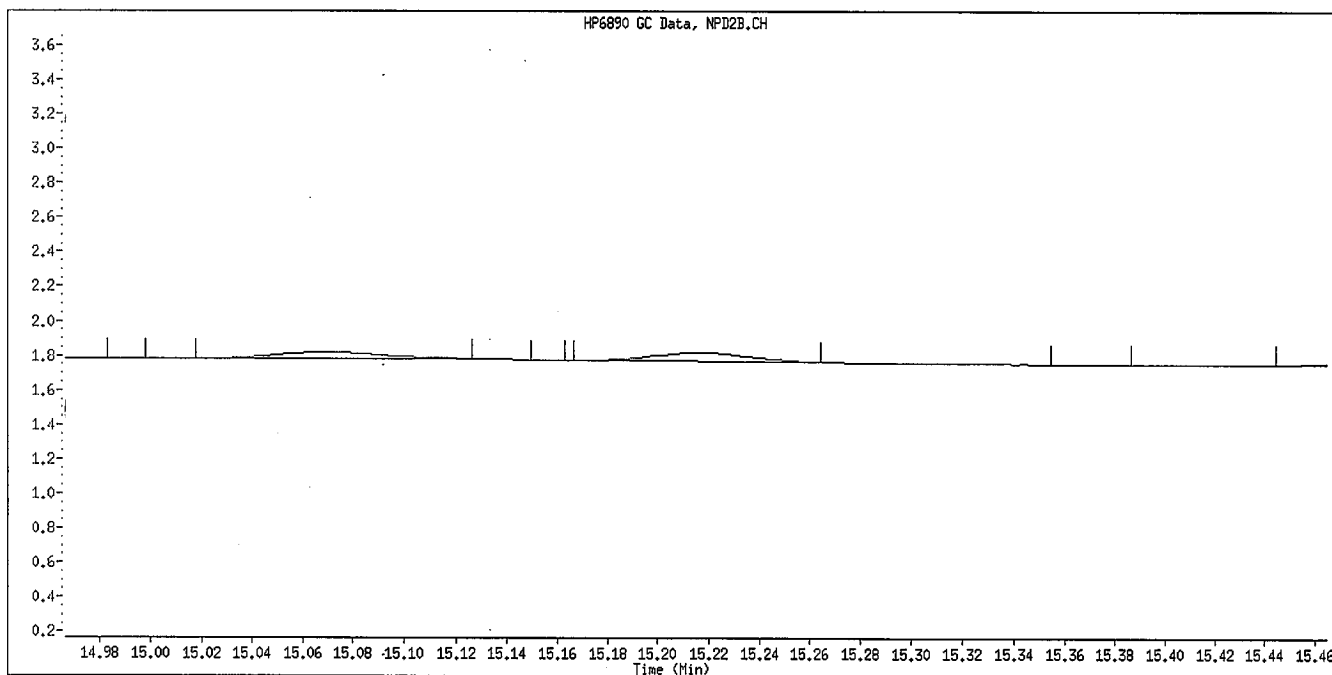
\\DensSvr-03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D



Data File Name: 004F0401.D  
Inj. Date and Time: 26-JUN-2009 18:55  
Instrument ID: GC\_D2.i  
Client ID: OPP L6 GSV0637  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

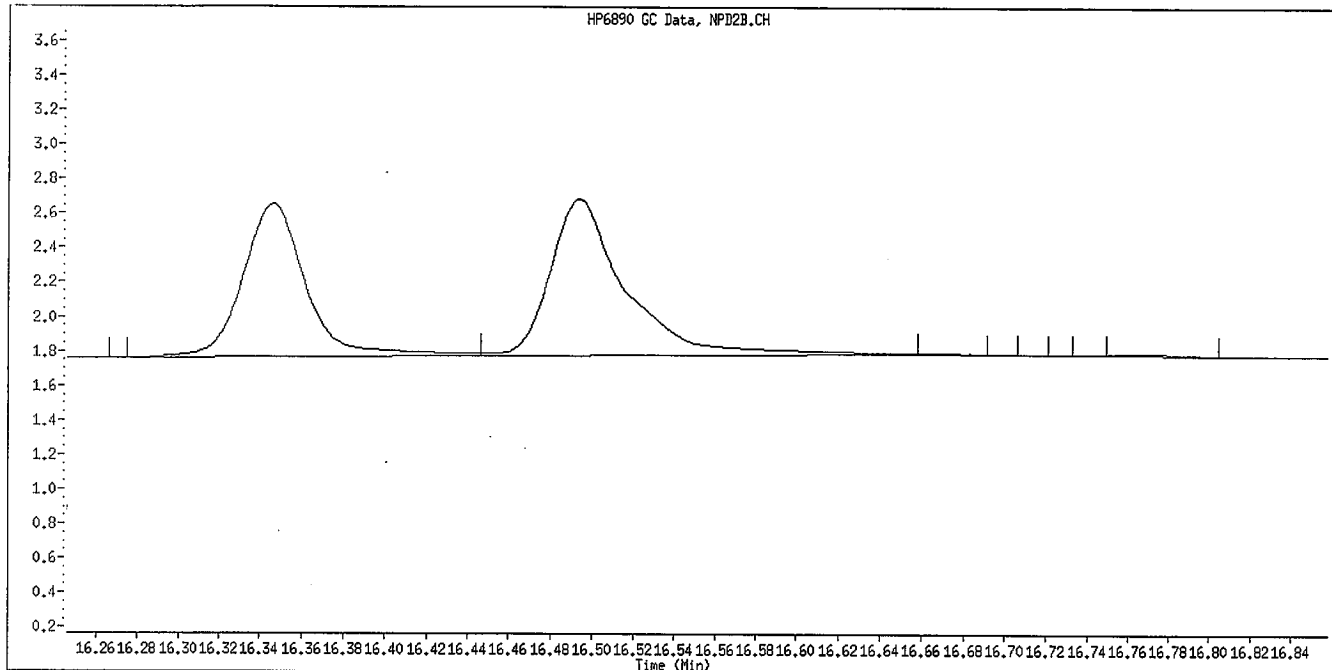


Manual Integration

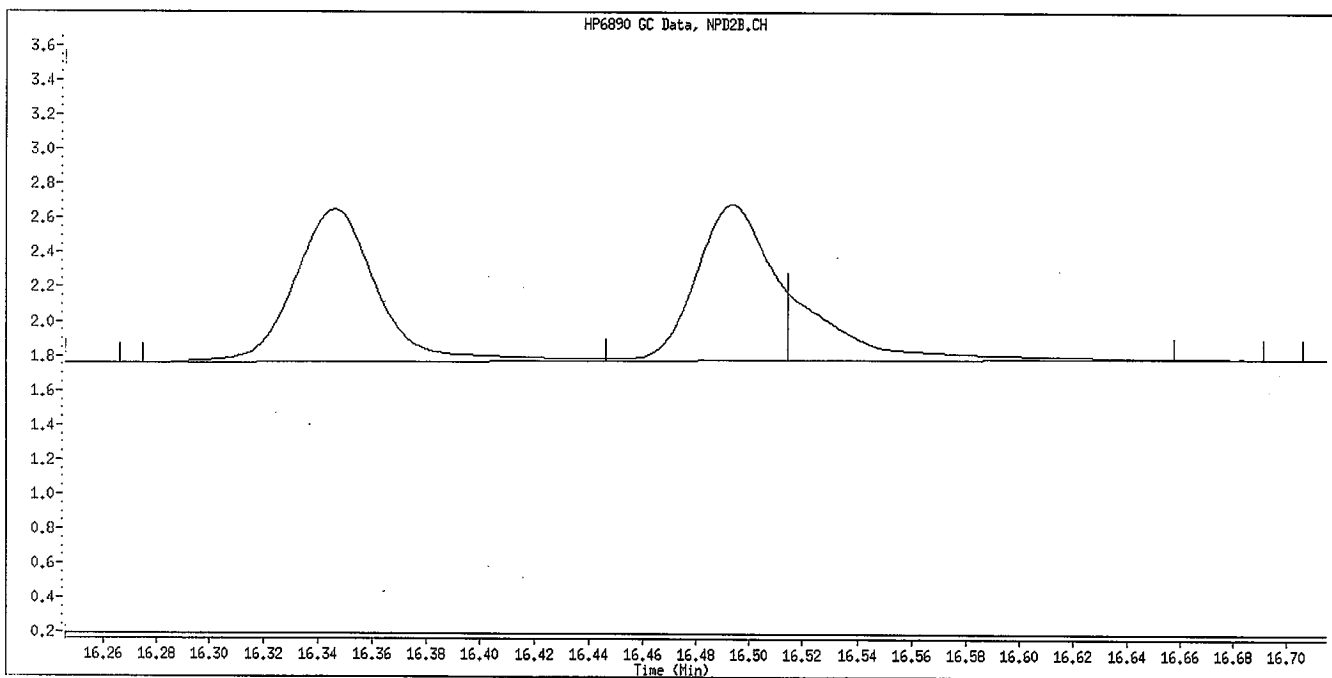
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature:*  
6/30/09

Data File Name: 004F0401.D  
Inj. Date and Time: 26-JUN-2009 18:55  
Instrument ID: GC\_D2.i  
Client ID: OPP L6 GSV0637  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

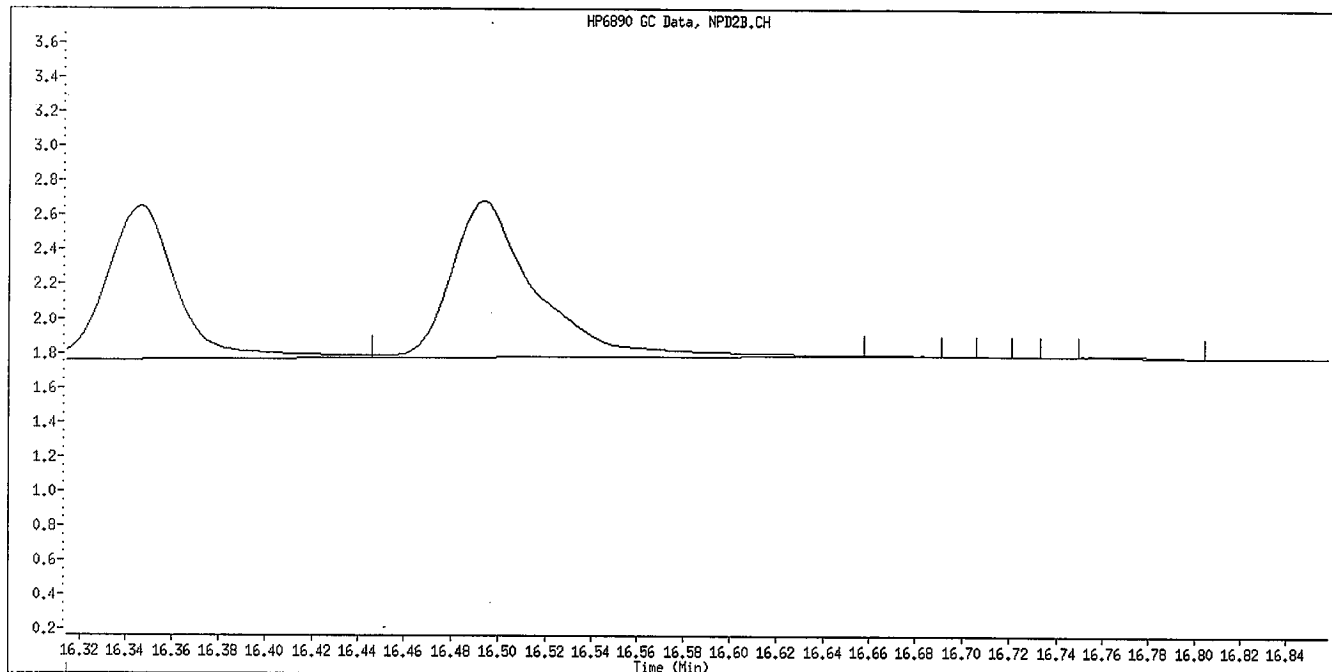


Manual Integration

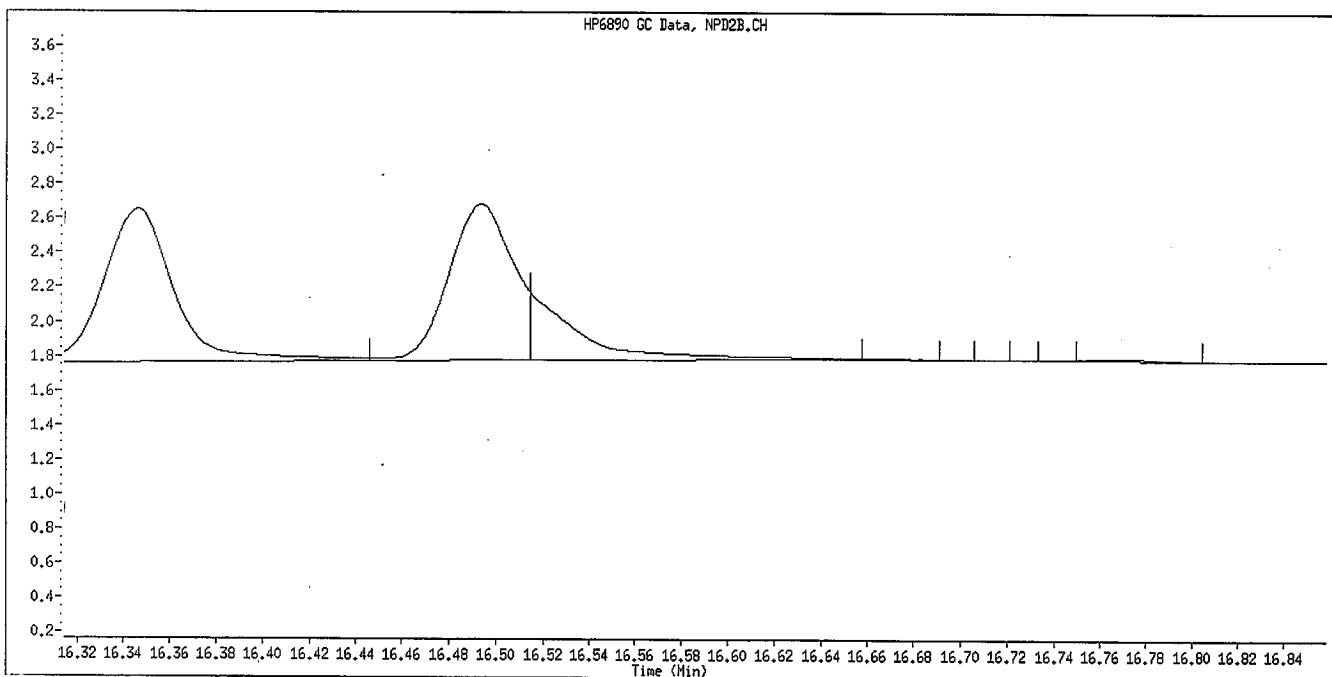
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*YJL*  
*6/30/09*

Data File Name: 004F0401.D  
Inj. Date and Time: 26-JUN-2009 18:55  
Instrument ID: GC\_D2.i  
Client ID: OPP L6 GSV0637  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0501.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 26-JUN-2009 19:23  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:55 Cal File: 004F0401.D  
 Als bottle: 5 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.730	4.731	(0.251)	267154	3.00000	2.982
2 Dichlorvos	6.545	6.546	(0.348)	221023	3.00000	3.159
\$ 3 Chlormefos	7.384	7.384	(0.392)	237967	3.00000	3.379
4 Mevinphos	9.234	9.234	(0.491)	137272	3.00000	2.913
5 Demeton-O	9.734	9.734	(0.517)	46912	0.97500	1.045
6 Thionazin	9.984	9.984	(0.531)	216898	3.00000	3.078
7 Ethoprop	10.499	10.499	(0.558)	162719	3.00000	3.090
8 Phorate	10.539	10.539	(0.560)	189707	3.00000	3.107
9 Naled	10.939	10.939	(0.581)	46004	3.00000	2.975
10 Sulfotepp	11.017	11.017	(0.586)	277819	3.00000	3.017 (A)
* 11 Tributylphosphate	11.115	11.116	(1.000)	123454	2.00000	
12 Simazine	11.399	11.399	(0.606)	40610	3.00000	3.079 (A)
13 Diazinon	11.540	11.541	(0.613)	155648	3.00000	3.140
14 Atrazine	11.584	11.584	(0.616)	85997	3.00000	3.210 (A)
15 Propazine	11.747	11.747	(0.624)	72628	3.00000	3.140
16 Disulfoton	12.049	12.049	(0.640)	152294	3.00000	3.136
17 Demeton-S	12.124	12.124	(0.644)	121463	2.04000	2.103
18 Dimethoate	13.282	13.282	(0.706)	206120	3.00000	3.166
19 Ronnel	13.587	13.587	(0.722)	134377	3.00000	3.067
20 Merphos-A (Merphos)	13.689	13.689	(1.232)	139514	3.00000	3.119 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	137524	3.00000	3.094
22 Fenthion	14.662	14.662	(0.779)	130285	3.00000	3.161
23 Trichloronate	14.710	14.711	(0.782)	170976	3.00000	2.945
24 Anilazine	15.215	15.216	(0.809)	11039	3.00000	2.902
25 Methyl Parathion	15.519	15.519	(0.825)	140467	3.00000	3.157 (A)
26 Malathion	15.724	15.724	(0.836)	122121	3.00000	2.929
27 Tokuthion	16.344	16.344	(0.869)	150762	3.00000	3.089
28 Parathion	16.494	16.494	(0.877)	135916	3.00000	3.100 (M)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.486)	40683	3.00000	2.940 (AM)
30 Tetrachlorvinphos (stirophos)	16.977	16.977	(0.902)	90042	3.00000	3.174
31 Carbophenothion methyl	17.082	17.082	(0.908)	132789	3.00000	3.266
32 Bolstar	17.440	17.440	(0.927)	132222	3.00000	3.088
33 Carbophenothion	17.524	17.524	(0.931)	139939	3.00000	3.323 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.280	18.281	(0.972)	105020	3.00000	3.039
35 Fensulfothion	18.559	18.559	(0.986)	98284	3.00000	3.098
* 36 TOCP	18.815	18.816	(1.000)	69265	2.00000	
37 Phosmet / EPN	18.909	18.909	(1.005)	207459	6.00000	5.874 (A)
38 Famphur	19.010	19.011	(1.010)	125661	3.00000	2.766
39 Azinphos-methyl	19.147	19.147	(1.018)	125121	3.00000	3.011
40 Azinphos-ethyl	19.365	19.366	(1.029)	120801	3.00000	3.052
41 Coumaphos	20.347	20.347	(1.081)	93401	3.00000	3.069
S 42 Merphos				180197	3.00000	3.122 (A)
M 43 Total Demeton				168375	3.00000	3.147

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M -, Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 005F0501.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 21:40  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	123933	61967	247866	123454	-0.39
36 TOCP	68831	34416	137662	69265	0.63

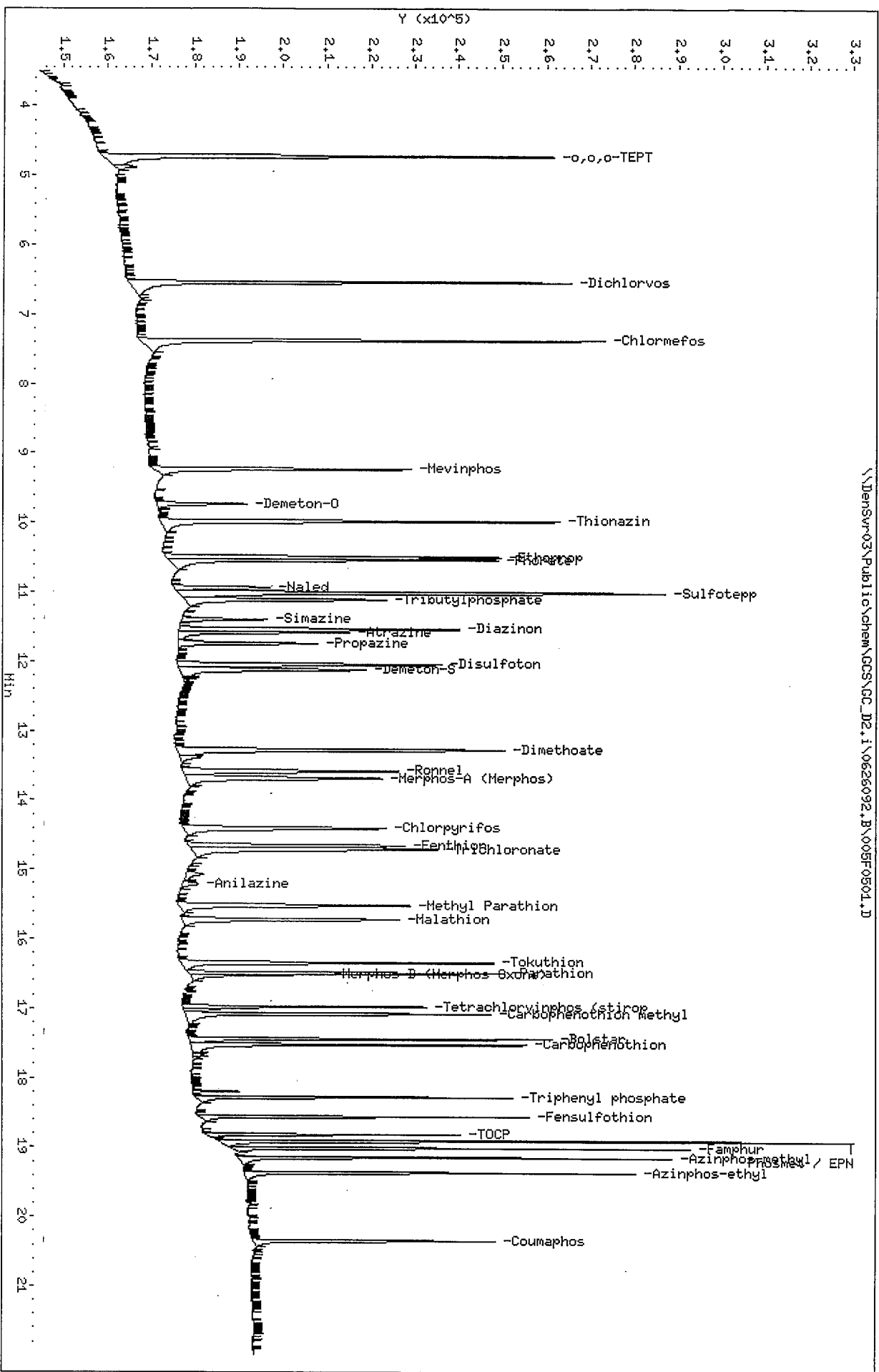
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.00
36 TOCP	18.82	18.32	19.32	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

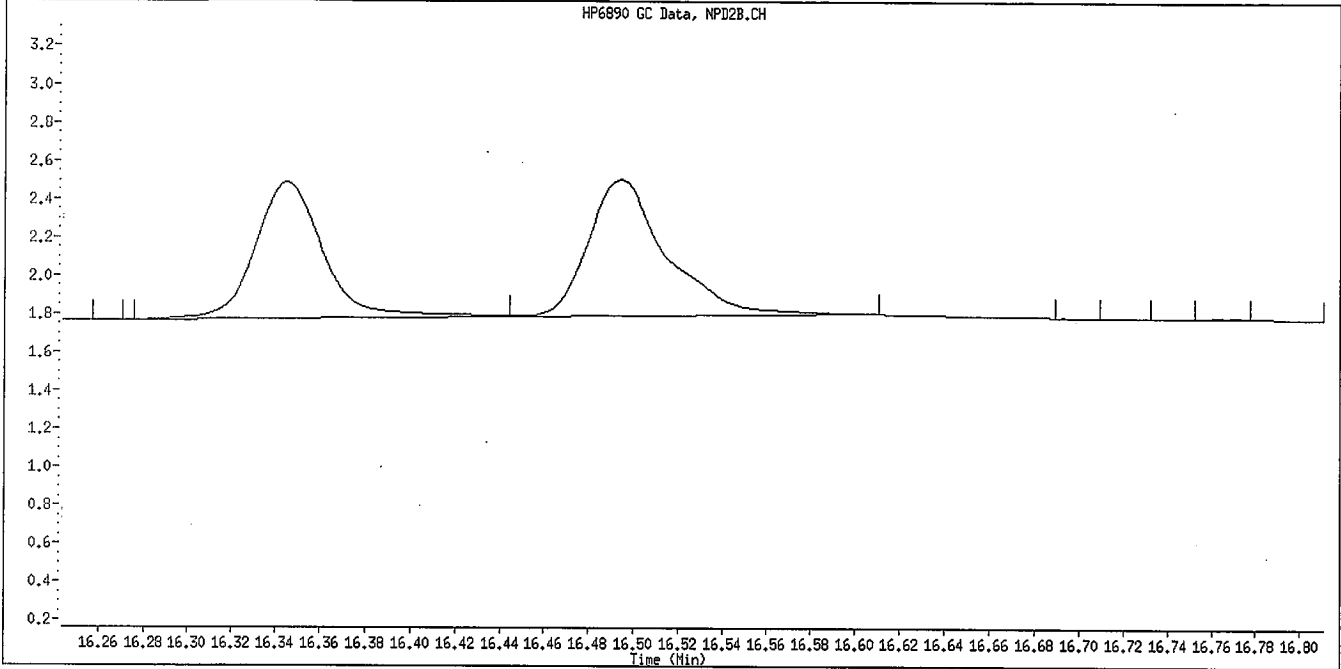
Data File: \\Densur-03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0504.D  
 Date: 26-JUN-2009 19:23  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTx-OPPest

Instrument: GC\_D2.i  
 Operator: MPK/TLM  
 Column diameter: 0.32

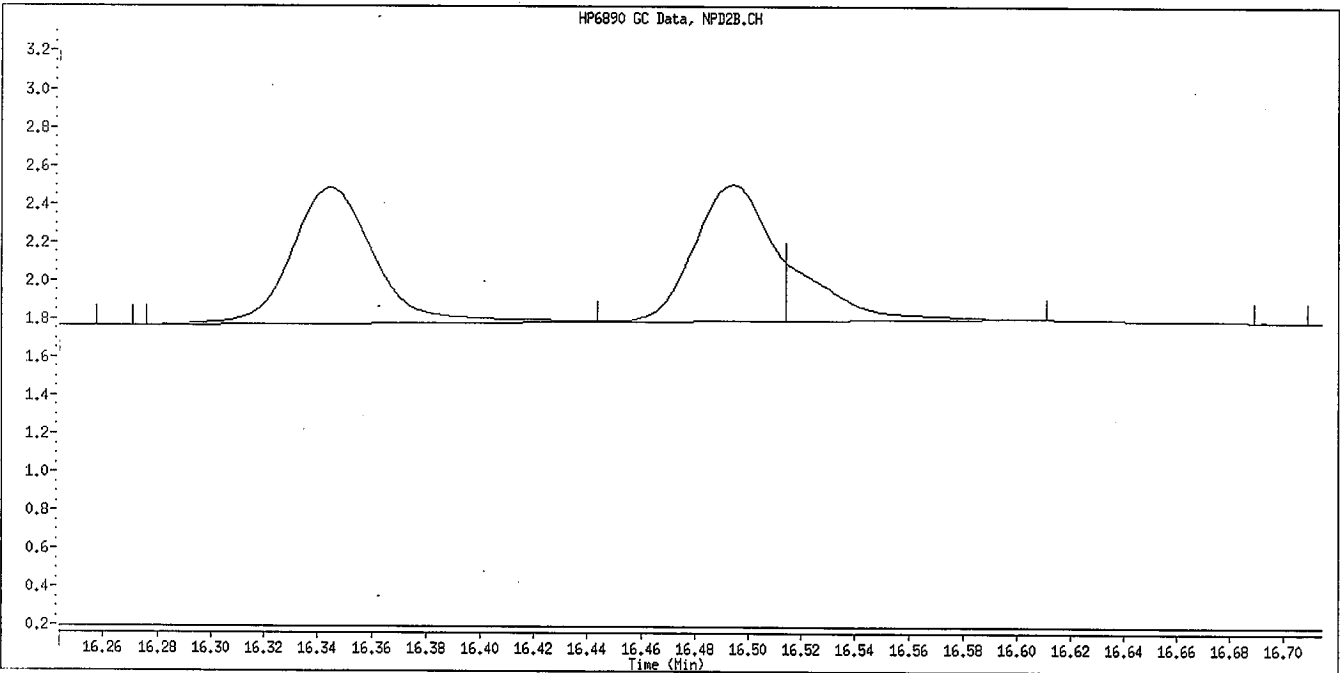
\\Densur-03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0504.D



Data File Name: 005F0501.D  
Inj. Date and Time: 26-JUN-2009 19:23  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

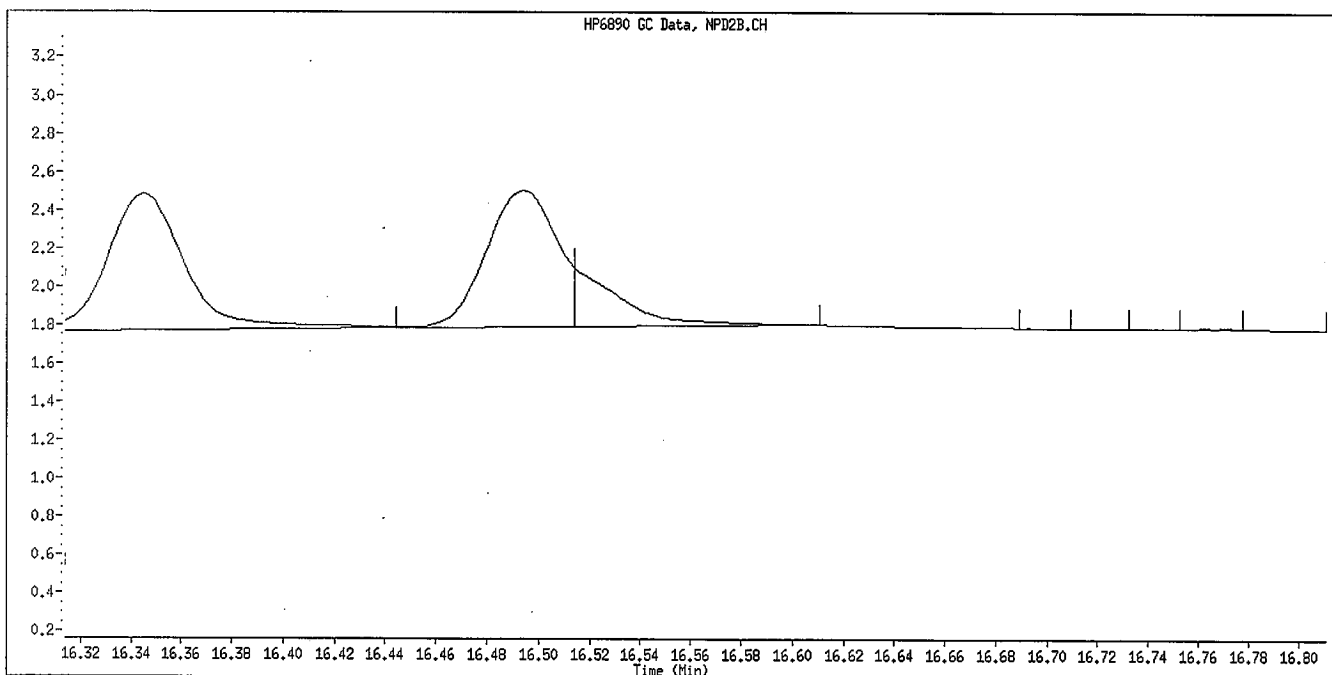
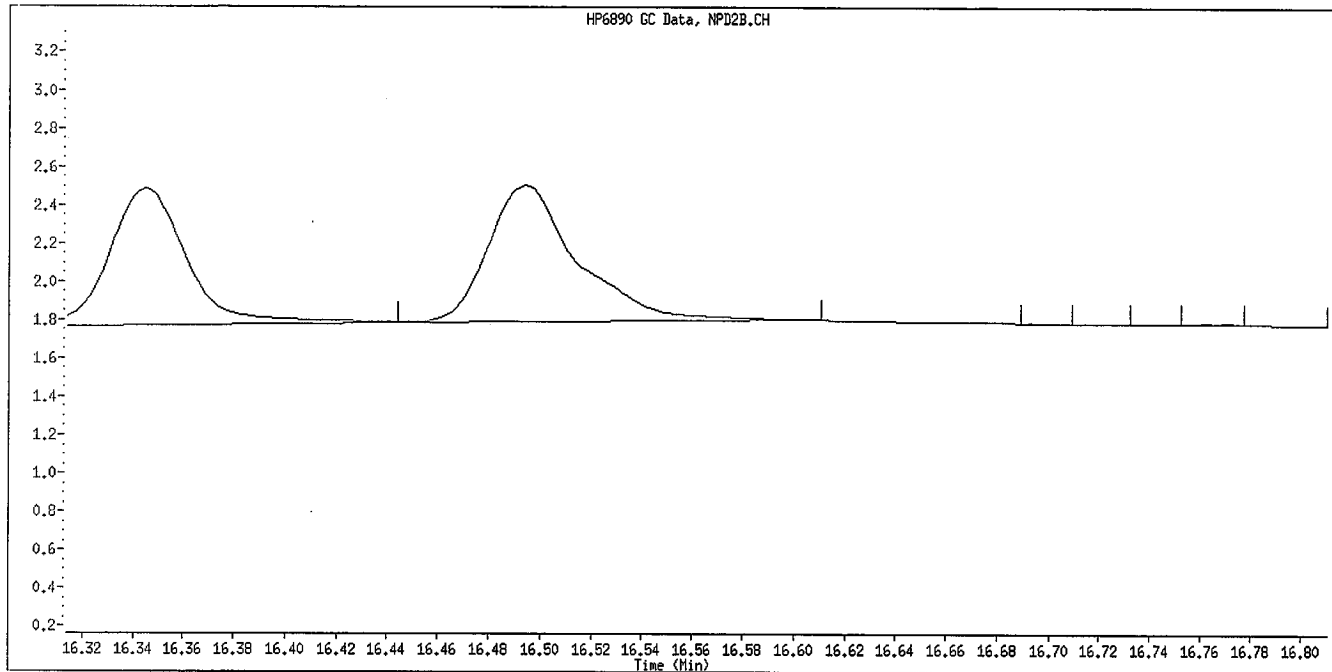


Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 005F0501.D  
Inj. Date and Time: 26-JUN-2009 19:23  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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*6/30/09*

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Lab Smp Id: OPP L4 GSV0638 Client Smp ID: OPP L4 GSV0638  
 Inj Date : 26-JUN-2009 19:50  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L4 GSV0638  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:23 Cal File: 005F0501.D  
 Als bottle: 6 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.730	4.731	(0.251)	181207	2.00000	2.055
2 Dichlorvos	6.545	6.546	(0.348)	148252	2.00000	2.154
\$ 3 Chlormefos	7.383	7.384	(0.392)	138652	2.00000	2.001
4 Mevinphos	9.233	9.234	(0.491)	98399	2.00000	2.122
5 Demeton-O	9.733	9.734	(0.517)	29742	0.65000	0.6731
6 Thionazin	9.983	9.984	(0.531)	134999	2.00000	1.947
7 Ethoprop	10.498	10.499	(0.558)	103308	2.00000	1.994
8 Phorate	10.537	10.539	(0.560)	115663	2.00000	1.925
9 Naled	10.940	10.939	(0.581)	28010	2.00000	1.943
10 <sup>l</sup> Sulfotepp	11.017	11.017	(0.586)	187497	2.00000	2.069 (A)
* 11 Tributylphosphate	11.115	11.116	(1.000)	126959	2.00000	
12 Simazine	11.398	11.399	(0.606)	26282	2.00000	2.025 (A)
13 Diazinon	11.540	11.541	(0.613)	98649	2.00000	2.033
14 Atrazine	11.582	11.584	(0.616)	49088	2.00000	1.960 (A)
15 Propazine	11.745	11.747	(0.624)	43235	2.00000	1.922
16 Disulfoton	12.050	12.049	(0.640)	96402	2.00000	2.017
17 Demeton-S	12.125	12.124	(0.644)	70921	1.36000	1.296
18 Dimethoate	13.280	13.282	(0.706)	123978	2.00000	1.935
19 Ronnel	13.588	13.587	(0.722)	84095	2.00000	1.950
20 <sup>l</sup> Merphos-A (Merphos)	13.690	13.689	(1.232)	90289	2.00000	1.962 (A)
21 Chlorpyrifos	14.408	14.409	(0.766)	82272	2.00000	1.881
22 Fenthion	14.660	14.662	(0.779)	79190	2.00000	1.952
23 Trichloronate	14.708	14.711	(0.782)	106326	2.00000	1.900
24 Anilazine	15.212	15.216	(0.808)	6899	2.00000	1.843
25 Methyl Parathion	15.520	15.519	(0.825)	91219	2.00000	2.083 (A)
26 Malathion	15.725	15.724	(0.836)	80242	2.00000	1.956
27 Tokuthion	16.345	16.344	(0.869)	92069	2.00000	1.917
28 Parathion	16.493	16.494	(0.877)	84124	2.00000	1.950 (M)
29 Merphos-B (Merphos Oxone)	16.513	16.517	(1.486)	23458	2.00000	1.603 (AM)
30 <sup>l</sup> Tetrachlorvinphos (stirophos)	16.977	16.977	(0.902)	54727	2.00000	1.961
31 Carbophenothion methyl	17.082	17.082	(0.908)	79857	2.00000	1.996
32 Bolstar	17.440	17.440	(0.927)	82203	2.00000	1.951
33 Carbophenothion	17.523	17.524	(0.931)	80431	2.00000	1.941 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.280	18.281	(0.972)	73416	2.00000	2.159
35 Fensulfothion	18.558	18.559	(0.986)	66352	2.00000	2.125
* 36 TOCP	18.815	18.816	(1.000)	68161	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	146012	4.00000	4.177
38 Famphur	19.012	19.011	(1.010)	95300	2.00000	2.132
39 Azinphos-methyl	19.147	19.147	(1.018)	88773	2.00000	2.171
40 Azinphos-ethyl	19.365	19.366	(1.029)	80966	2.00000	2.079
41 Coumaphos	20.347	20.347	(1.081)	61650	2.00000	2.059
S 42 Merphos				113747	2.00000	2.002 (A)
M 43 Total Demeton				100663	2.00000	1.969

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.



TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 006F0601.D  
 Lab Smp Id: OPP L4 GSV0638  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L4 GSV0638  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	126959	63480	253918	126959	0.00
36 TOCP	68161	34081	136322	68161	0.00

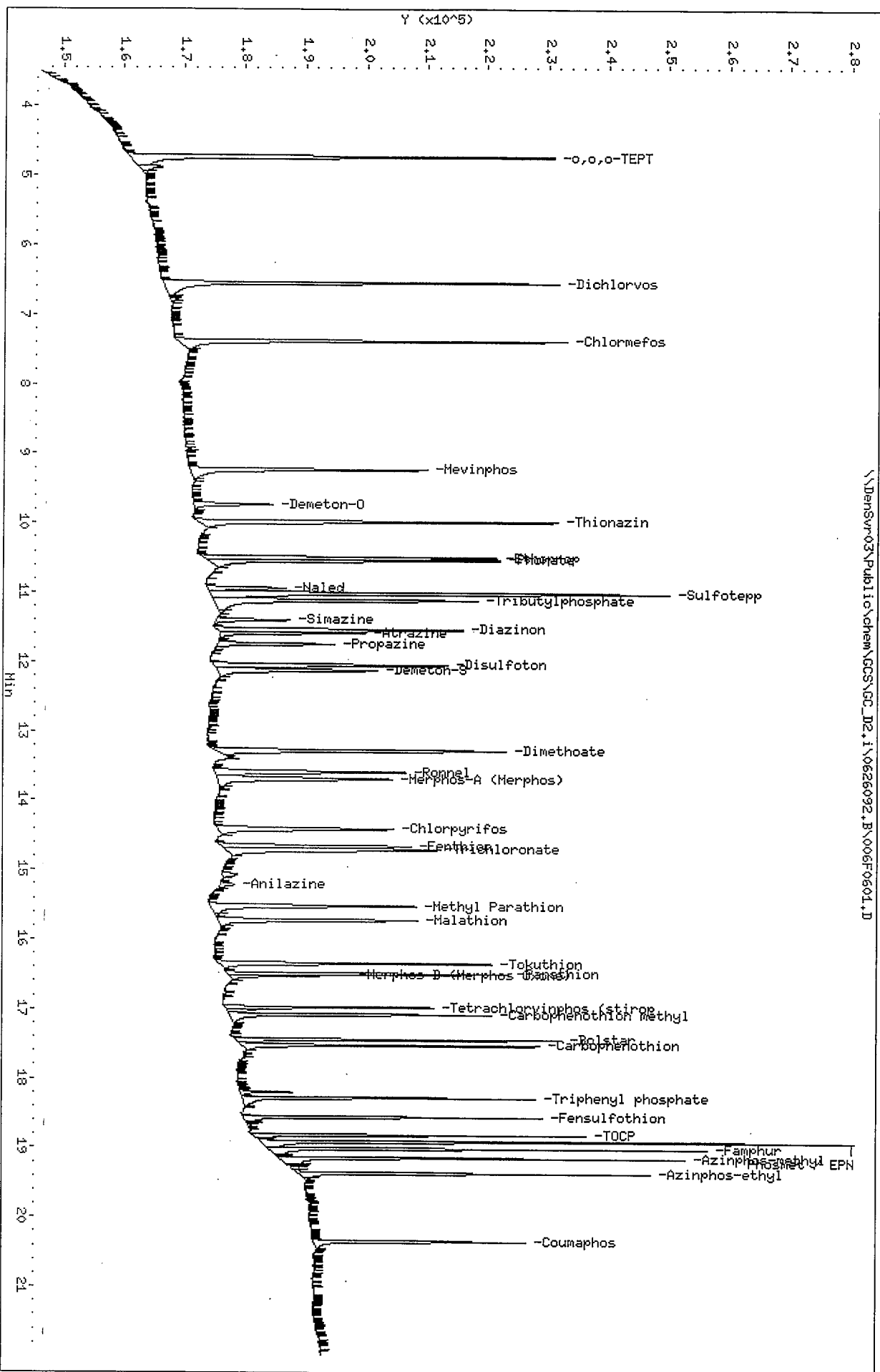
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.00
36 TOCP	18.82	18.32	19.32	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

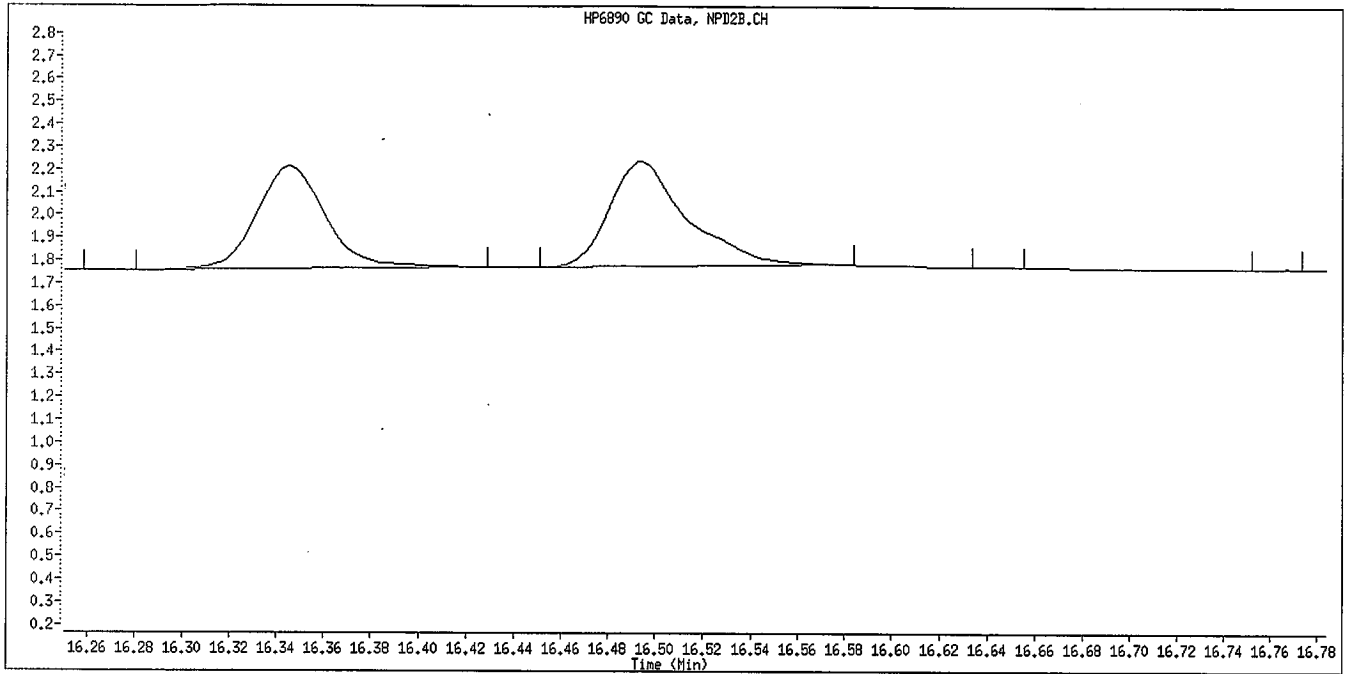
Data File: \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Date: 26-JUN-2009 19:50  
 Client ID: OPP L4 GSV0638  
 Sample Info: OPP L4 GSV0638  
 Column phase: RTX-OPpest

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32

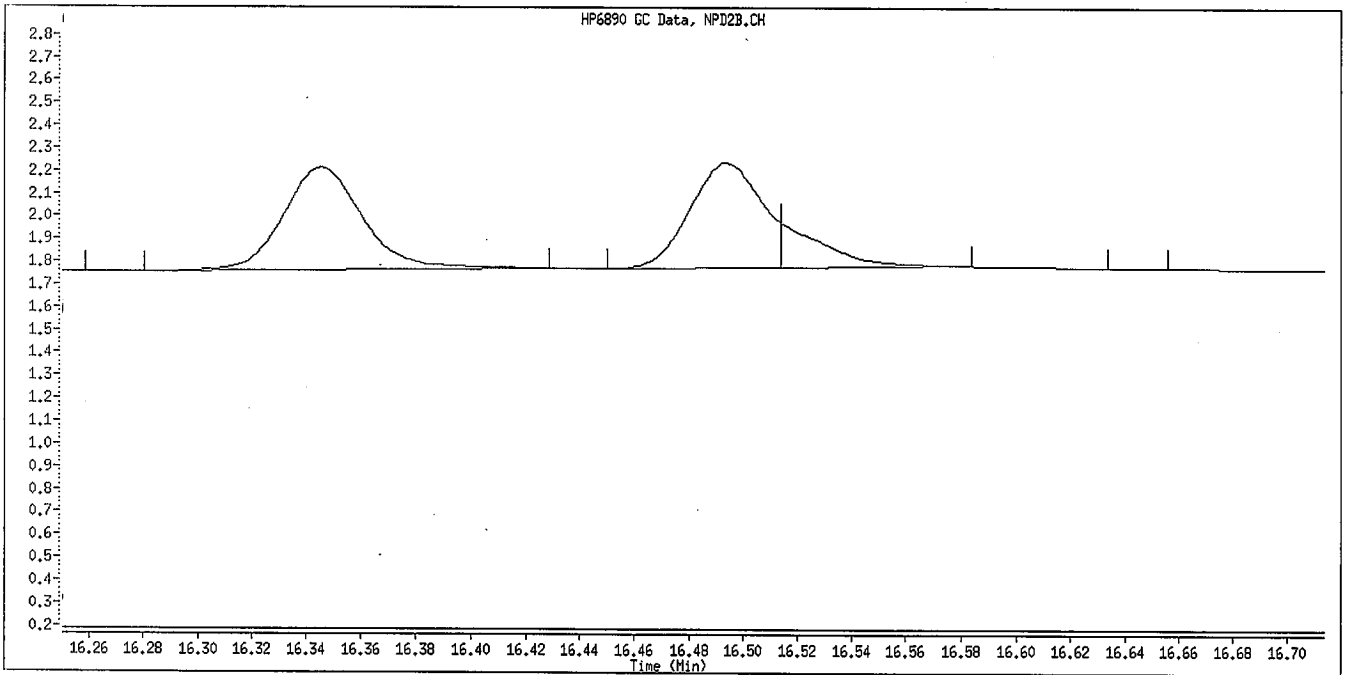
\\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D



Data File Name: 006F0601.D  
Inj. Date and Time: 26-JUN-2009 19:50  
Instrument ID: GC\_D2.i  
Client ID: OPP L4 GSV0638  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

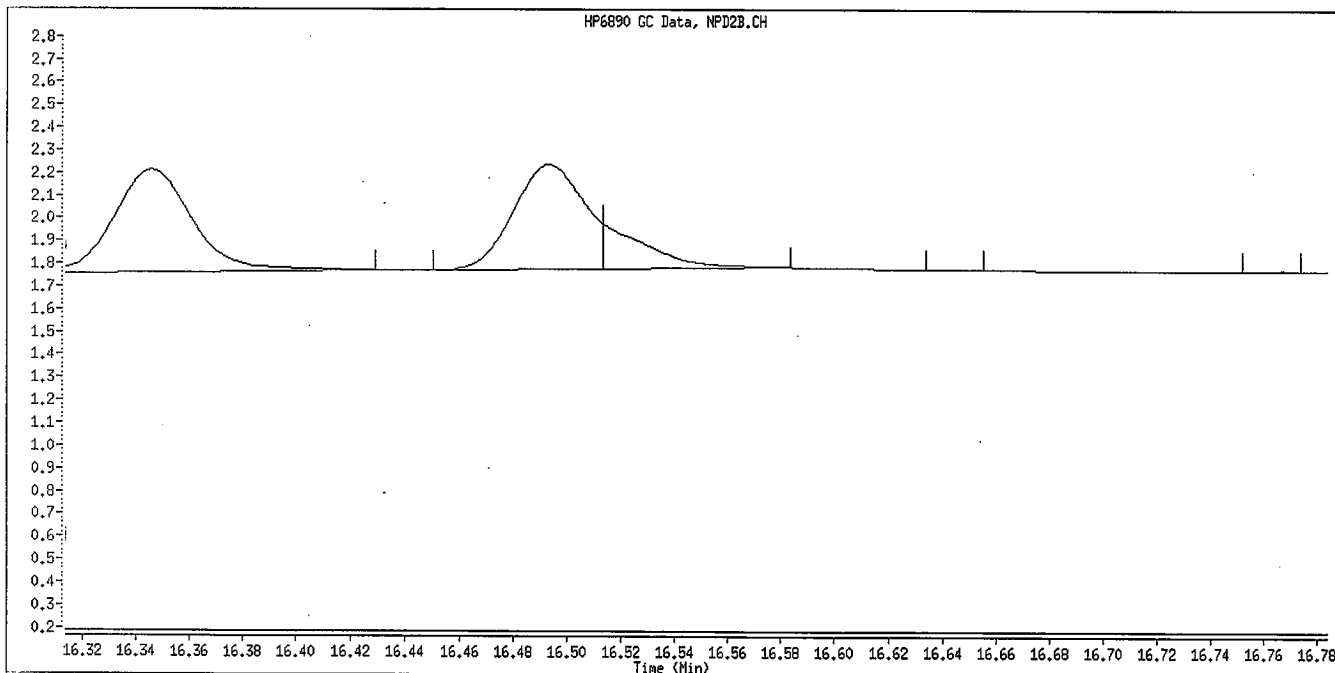
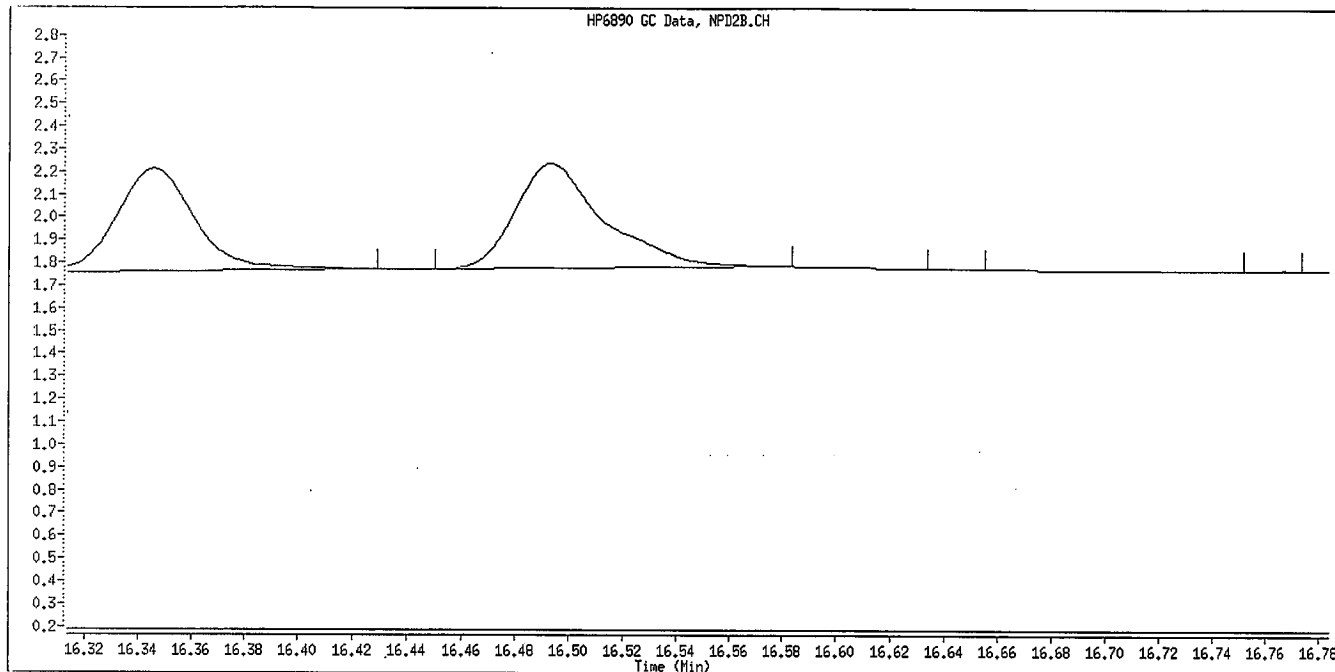


Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 006F0601.D  
Inj. Date and Time: 26-JUN-2009 19:50  
Instrument ID: GC\_D2.i  
Client ID: OPP L4 GSV0638  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\007F0701.D  
 Lab Smp Id: OPP L3 GSV0639 Client Smp ID: OPP L3 GSV0639  
 Inj Date : 26-JUN-2009 20:18  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L3 GSV0639  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:50 Cal File: 006F0601.D  
 Als bottle: 7 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.728	4.731	(0.251)	81887	1.00000	0.9107
2 Dichlorvos	6.546	6.546	(0.348)	63970	1.00000	0.9111
\$ 3 Chlormefos	7.383	7.384	(0.392)	61984	1.00000	0.8770
4 Mevinphos	9.235	9.234	(0.491)	42341	1.00000	0.8952
5 Demeton-O	9.733	9.734	(0.517)	13386	0.32500	0.2970
6 Thionazin	9.985	9.984	(0.531)	67347	1.00000	0.9522
7 Ethoprop	10.500	10.499	(0.558)	50288	1.00000	0.9515
8 Phorate	10.536	10.539	(0.560)	55056	1.00000	0.8983
9 Naled	10.941	10.939	(0.582)	10859	1.00000	0.9052
10 Sulfotepp	11.016	11.017	(0.586)	90141	1.00000	0.9752 (A)
* 11 Tributylphosphate	11.116	11.116	(1.000)	109941	2.00000	
12 Simazine	11.398	11.399	(0.606)	12288	1.00000	0.9282 (A)
13 Diazinon	11.541	11.541	(0.613)	49407	1.00000	1.013
14 Atrazine	11.581	11.584	(0.616)	21316	1.00000	0.9678 (A)
15 Propazine	11.746	11.747	(0.624)	20907	1.00000	0.9421
16 Disulfoton	12.050	12.049	(0.640)	47563	1.00000	0.9757
17 Demeton-S	12.126	12.124	(0.645)	33785	0.68000	0.6688
18 Dimethoate	13.283	13.282	(0.706)	60106	1.00000	0.9200
19 Ronnel	13.588	13.587	(0.722)	39845	1.00000	0.9061
20 Merphos-A (Merphos)	13.690	13.689	(1.231)	42032	1.00000	1.055 (A)
21 Chlorpyrifos	14.410	14.409	(0.766)	43430	1.00000	0.9737
22 Fenthion	14.663	14.662	(0.779)	40767	1.00000	0.9854
23 Trichloronate	14.710	14.711	(0.782)	49357	1.00000	0.9220
24 Anilazine	15.218	15.216	(0.809)	3581	1.00000	0.9372 (M)
25 Methyl Parathion	15.520	15.519	(0.825)	42442	1.00000	0.9503
26 Malathion	15.725	15.724	(0.836)	39993	1.00000	0.9559
27 Tokuthion	16.345	16.344	(0.869)	47016	1.00000	0.9598
28 Parathion	16.493	16.494	(0.877)	43405	1.00000	0.9863 (M)
29 Merphos-B (Merphos Oxone)	16.515	16.517	(1.486)	15065	1.00000	1.162 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	25459	1.00000	0.8943
31 Carbophenothion methyl	17.081	17.082	(0.908)	36393	1.00000	0.8919
32 Bolstar	17.441	17.440	(0.927)	41390	1.00000	0.9630
33 Carbophenothion	17.523	17.524	(0.931)	40089	1.00000	0.9485 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====	=====	=====	=====	=====	=====
\$ 34 Triphenyl phosphate	18.280	18.281	(0.972)	31677	1.00000	0.9133
35 Fensulfothion	18.558	18.559	(0.986)	30601	1.00000	0.9609
* 36 TOCP	18.815	18.816	(1.000)	69519	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	68186	2.00000	1.866
38 Famphur	19.010	19.011	(1.010)	41284	1.00000	0.9054
39 Azinphos-methyl	19.145	19.147	(1.018)	37491	1.00000	0.8988
40 Azinphos-ethyl	19.365	19.366	(1.029)	38936	1.00000	0.9801
41 Coumaphos	20.345	20.347	(1.081)	29854	1.00000	0.9774
S 42 Merphos				57097	1.00000	0.9855
M 43 Total Demeton				47171	1.00000	0.9658

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC_D2.i	Calibration Date: 26-JUN-2009
Lab File ID: 007F0701.D	Calibration Time: 19:50
Lab Smp Id: OPP L3 GSV0639	Client Smp ID: OPP L3 GSV0639
Analysis Type: SV	Level:
Quant Type: ISTD	Sample Type:
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\8141A-2.m	
Misc Info:	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	126959	63480	253918	109941	-13.40
36 TOCP	68161	34081	136322	69519	1.99

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.01
36 TOCP	18.82	18.32	19.32	18.82	-0.00

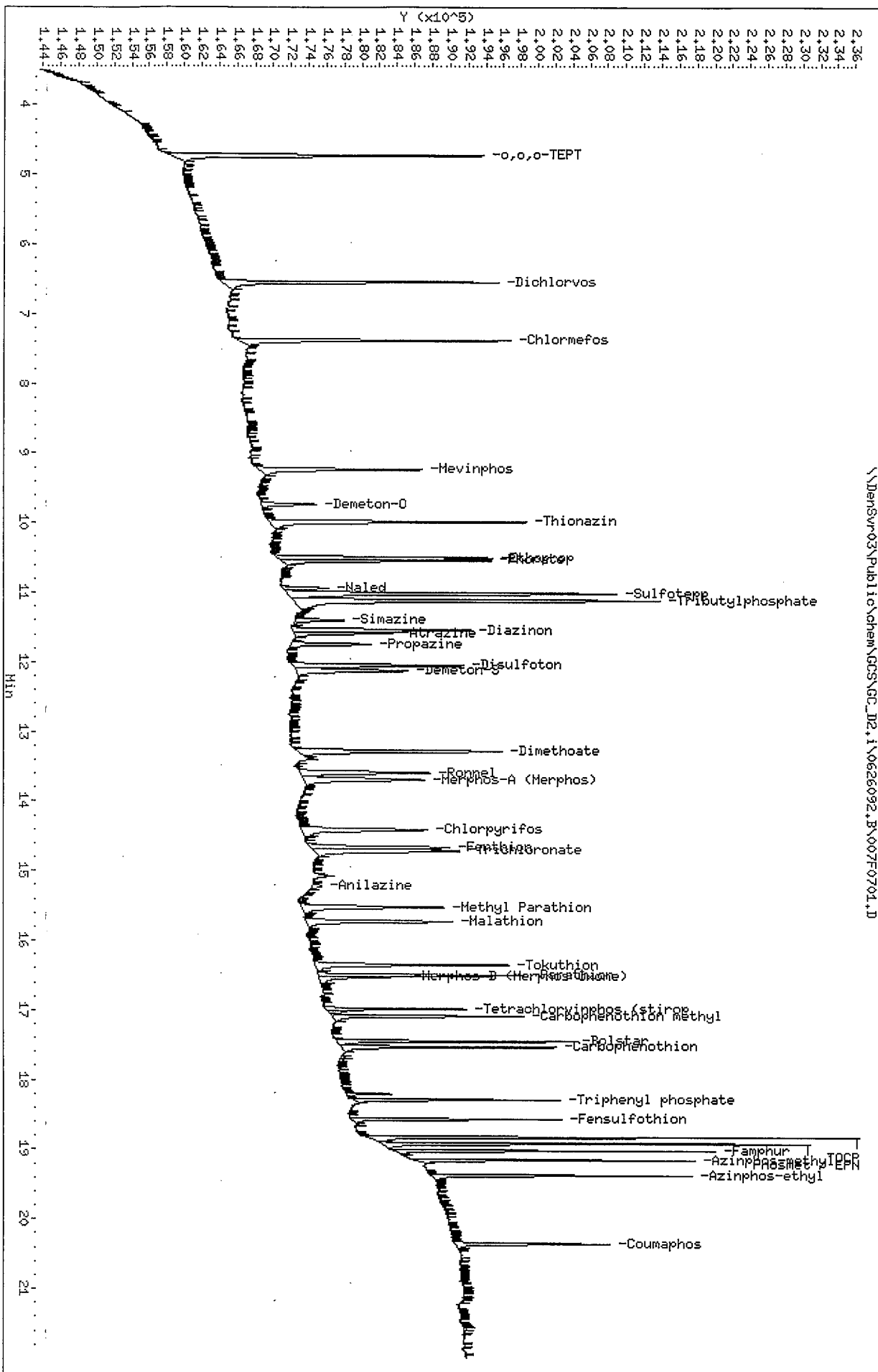
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densur-03\Public\chem\GCS\GC\_D2.1\0626092.B\007F0704.D  
 Date: 26-JUN-2009 20:18  
 Client ID: OPP L3 GSW0639  
 Sample Info: OPP L3 GSW0639

Column phase: RTX-OPPest

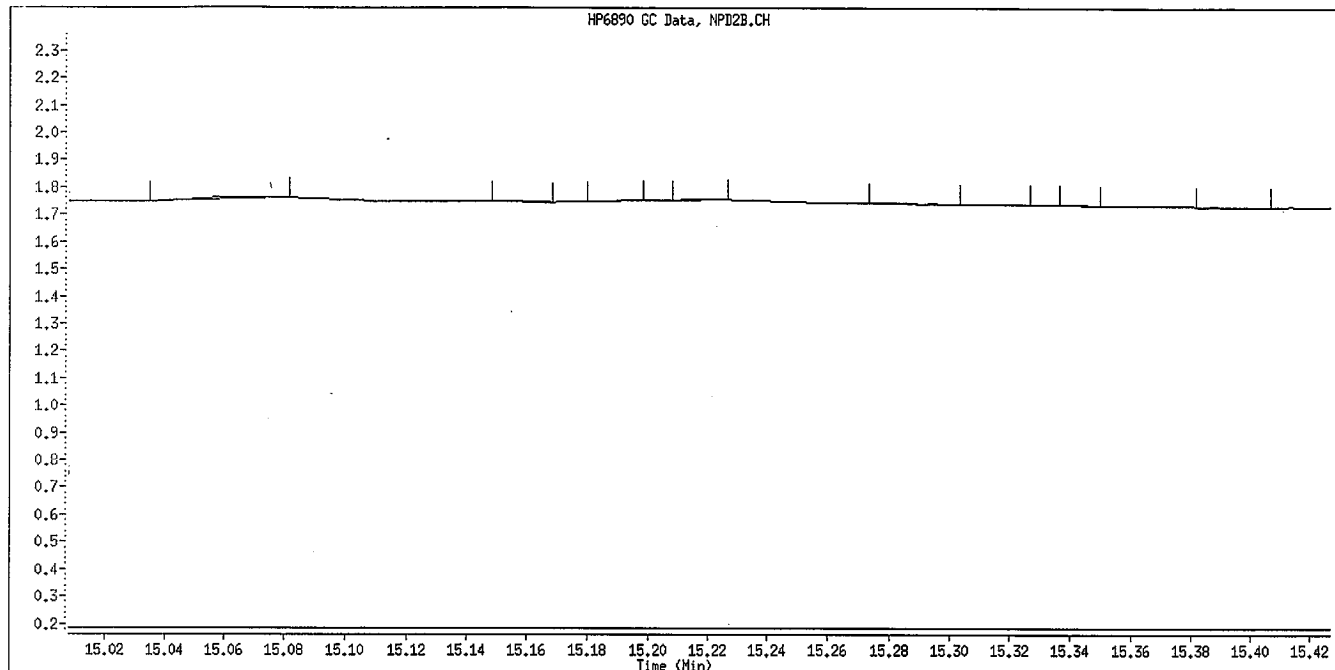
Instrument: GC\_D2.1  
 Operator: HPK/TLM  
 Column diameter: 0.32

\\Densur-03\Public\chem\GCS\GC\_D2.1\0626092.B\007F0704.D

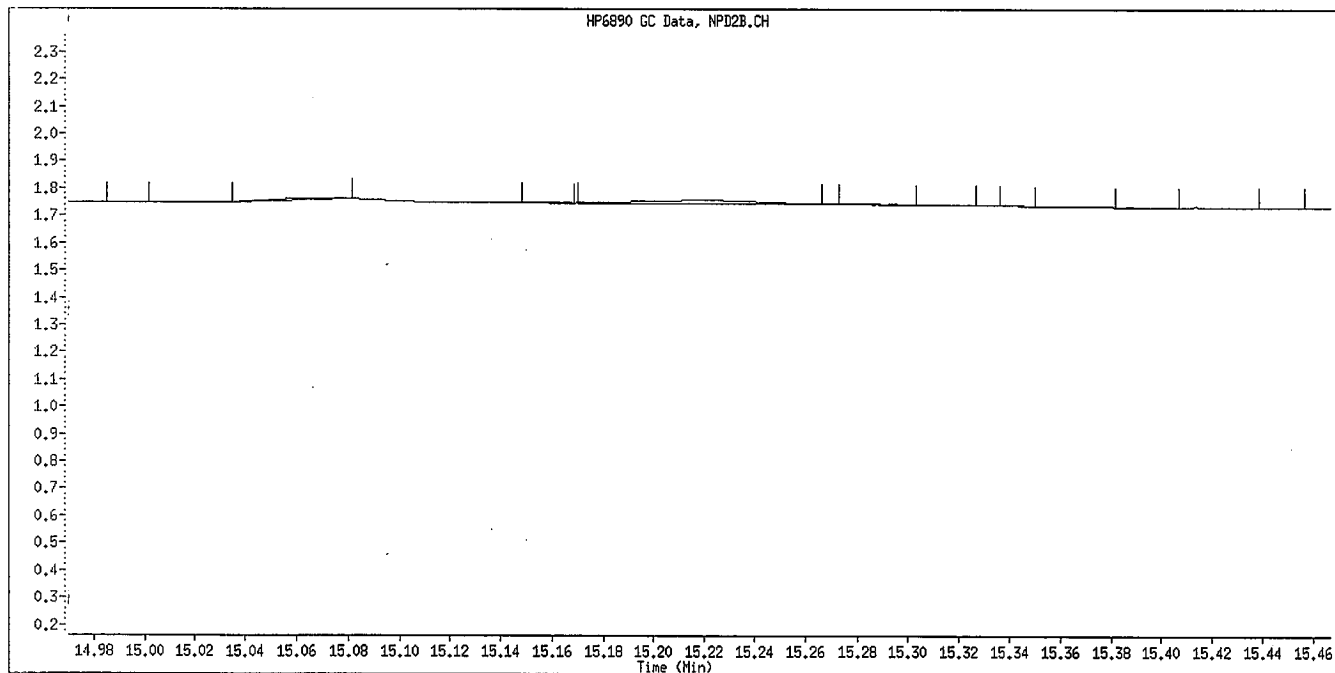




Data File Name: 007F0701.D  
Inj. Date and Time: 26-JUN-2009 20:18  
Instrument ID: GC\_D2.i  
Client ID: OPP L3 GSV0639  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

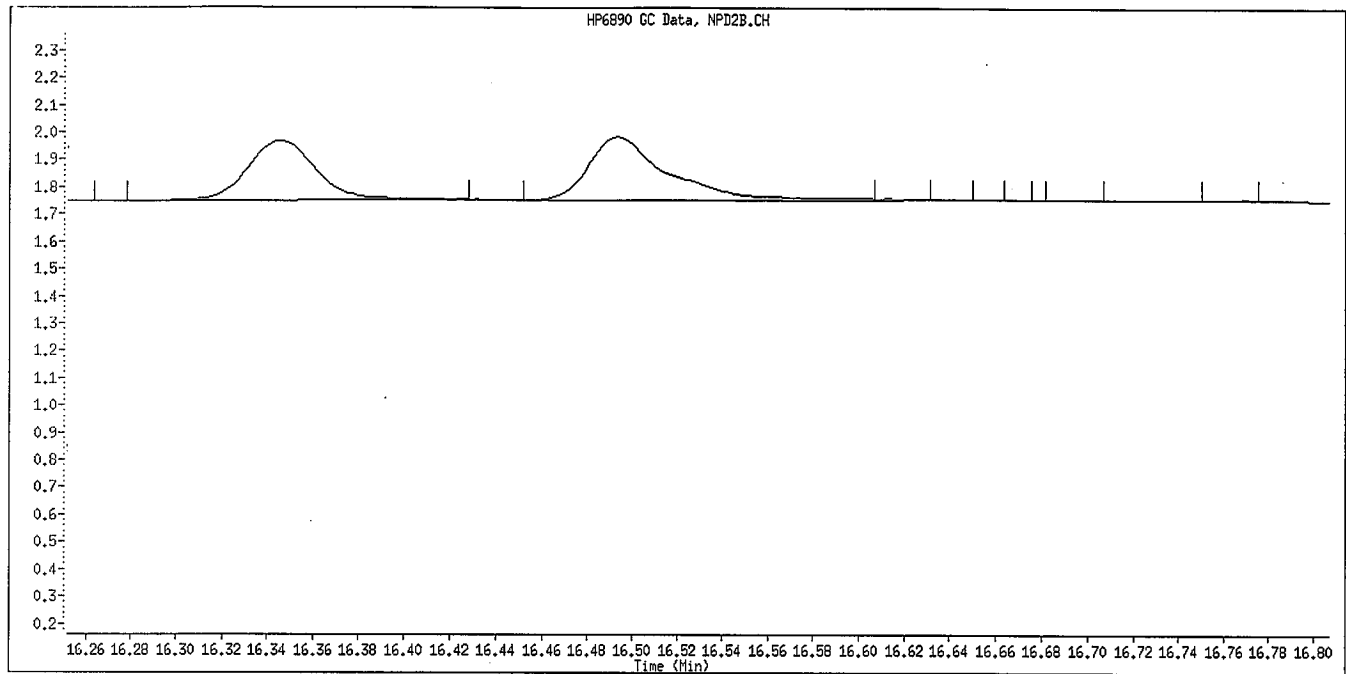


Manual Integration

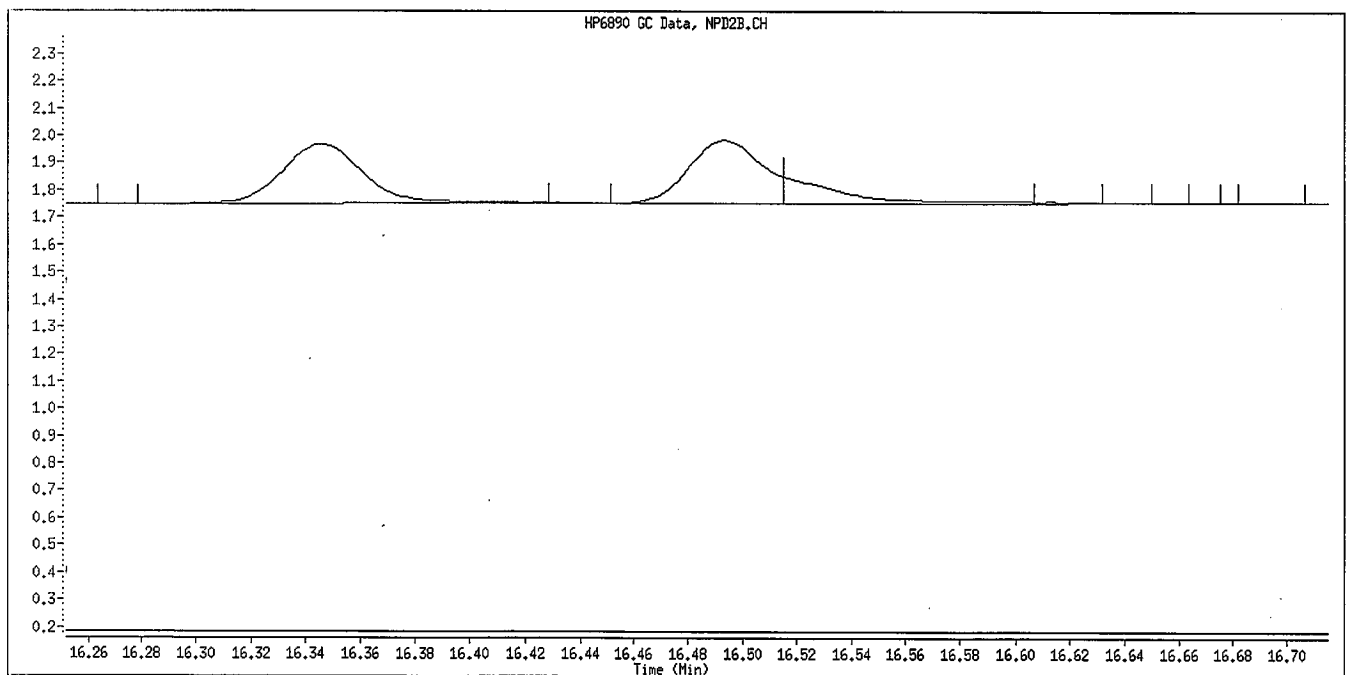
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*W*  
6/30/09

Data File Name: 007F0701.D  
Inj. Date and Time: 26-JUN-2009 20:18  
Instrument ID: GC\_D2.i  
Client ID: OPP L3 GSV0639  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

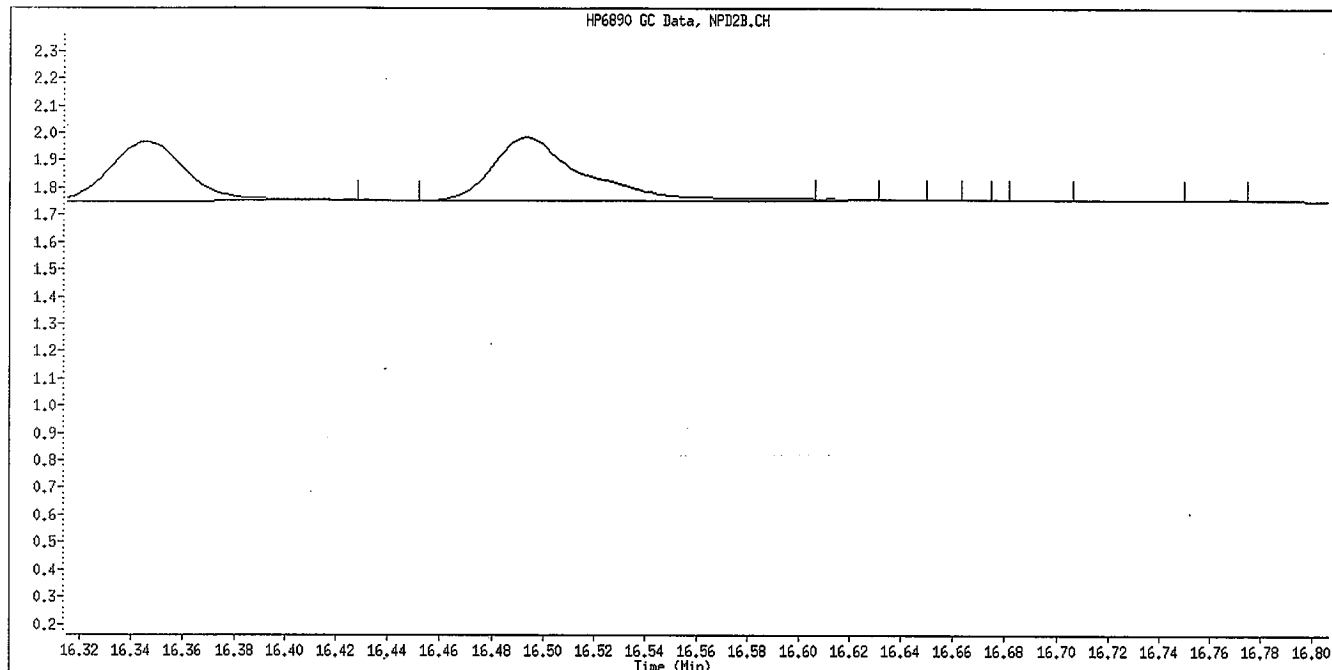


Manual Integration

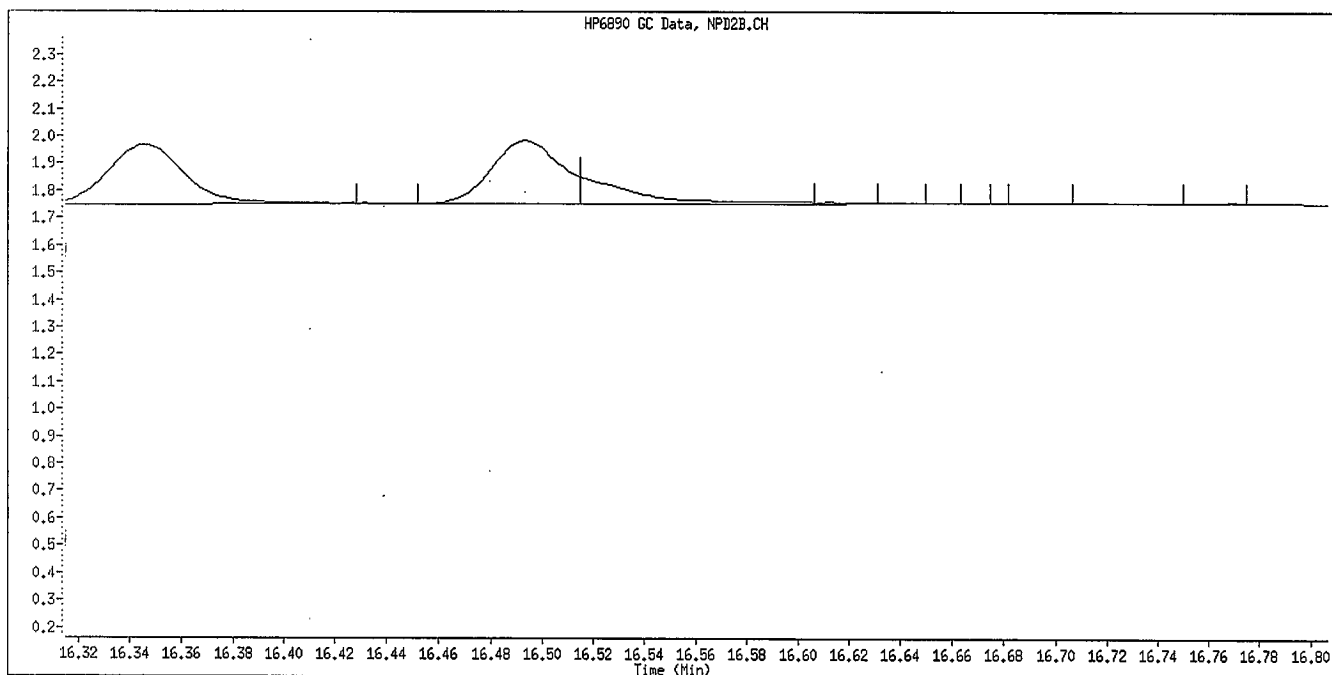
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 007F0701.D  
Inj. Date and Time: 26-JUN-2009 20:18  
Instrument ID: GC\_D2.i  
Client ID: OPP L3 GSV0639  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*WJ*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Lab Smp Id: OPP L2 GSV0640 Client Smp ID: OPP L2 GSV0640  
 Inj Date : 26-JUN-2009 20:45  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L2 GSV0640  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:18 Cal File: 007F0701.D  
 Als. bottle: 8 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.729	4.731	(0.251)	43725	0.50000	0.4721
2 Dichlorvos	6.546	6.546	(0.348)	32623	0.50000	0.4511
\$ 3 Chlormefos	7.383	7.384	(0.392)	32886	0.50000	0.4517
4 Mevinphos	9.233	9.234	(0.491)	22377	0.50000	0.4593
5 Demeton-O	9.734	9.734	(0.517)	7562	0.16250	0.1629
6 Thionazin	9.983	9.984	(0.531)	32975	0.50000	0.4526
7 Ethoprop	10.501	10.499	(0.558)	25261	0.50000	0.4640
8 Phorate	10.538	10.539	(0.560)	28693	0.50000	0.4545
9 Naled	10.934	10.939	(0.581)	1666	0.50000	0.3635
10 Sulfotepp	11.018	11.017	(0.586)	45401	0.50000	0.4768 (A)
* 11 Tributylphosphate	11.118	11.116	(1.000)	107017	2.00000	
12 Simazine	11.401	11.399	(0.606)	6209	0.50000	0.4553 (A)
13 Diazinon	11.541	11.541	(0.613)	15923	0.50000	0.3370
14 Atrazine	11.579	11.584	(0.615)	1231	0.50000	0.2736 (A)
15 Propazine	11.746	11.747	(0.624)	8102	0.50000	0.3907
16 Disulfoton	12.049	12.049	(0.640)	23807	0.50000	0.4741
17 Demeton-S	12.124	12.124	(0.644)	15766	0.34000	0.3681
18 Dimethoate	13.281	13.282	(0.706)	33707	0.50000	0.5009
19 Ronnel	13.588	13.587	(0.722)	19648	0.50000	0.4338
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	19488	0.50000	0.5025 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	20746	0.50000	0.4515
22 Fenthion	14.661	14.662	(0.779)	20747	0.50000	0.4869
23 Trichloronate	14.709	14.711	(0.782)	26053	0.50000	0.5238
24 Anilazine	15.213	15.216	(0.809)	2256	0.50000	0.5727 (M)
25 Methyl Parathion	15.519	15.519	(0.825)	20061	0.50000	0.4361
26 Malathion	15.724	15.724	(0.836)	21428	0.50000	0.4972
27 Tokuthion	16.346	16.344	(0.869)	23462	0.50000	0.4650
28 Parathion	16.493	16.494	(0.877)	20700	0.50000	0.4566 (M)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.485)	6271	0.50000	0.4377 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	13089	0.50000	0.4464
31 Carbophenothion methyl	17.081	17.082	(0.908)	18266	0.50000	0.4346
32 Bolstar	17.441	17.440	(0.927)	21910	0.50000	0.4949
33 Carbophenothion	17.521	17.524	(0.931)	20336	0.50000	0.4671 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	15570	0.50000	0.4358
35 Fensulfothion	18.558	18.559	(0.986)	14395	0.50000	0.4388
* 36 TOCP	18.814	18.816	(1.000)	71609	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	35826	1.00000	0.9102
38 Famphur	19.009	19.011	(1.010)	21626	0.50000	0.4604
39 Azinphos-methyl	19.146	19.147	(1.018)	19508	0.50000	0.4540
40 Azinphos-ethyl	19.364	19.366	(1.029)	19984	0.50000	0.4884
41 Coumaphos	20.348	20.347	(1.081)	14618	0.50000	0.4646
S 42 Merphos				25759	0.50000	0.4316
M 43. Total Demeton				23328	0.50000	0.5310

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 008F0801.D  
 Lab Smp Id: OPP L2 GSV0640  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L2 GSV0640  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	126959	63480	253918	107017	-15.71
36 TOCP	68161	34081	136322	71609	5.06

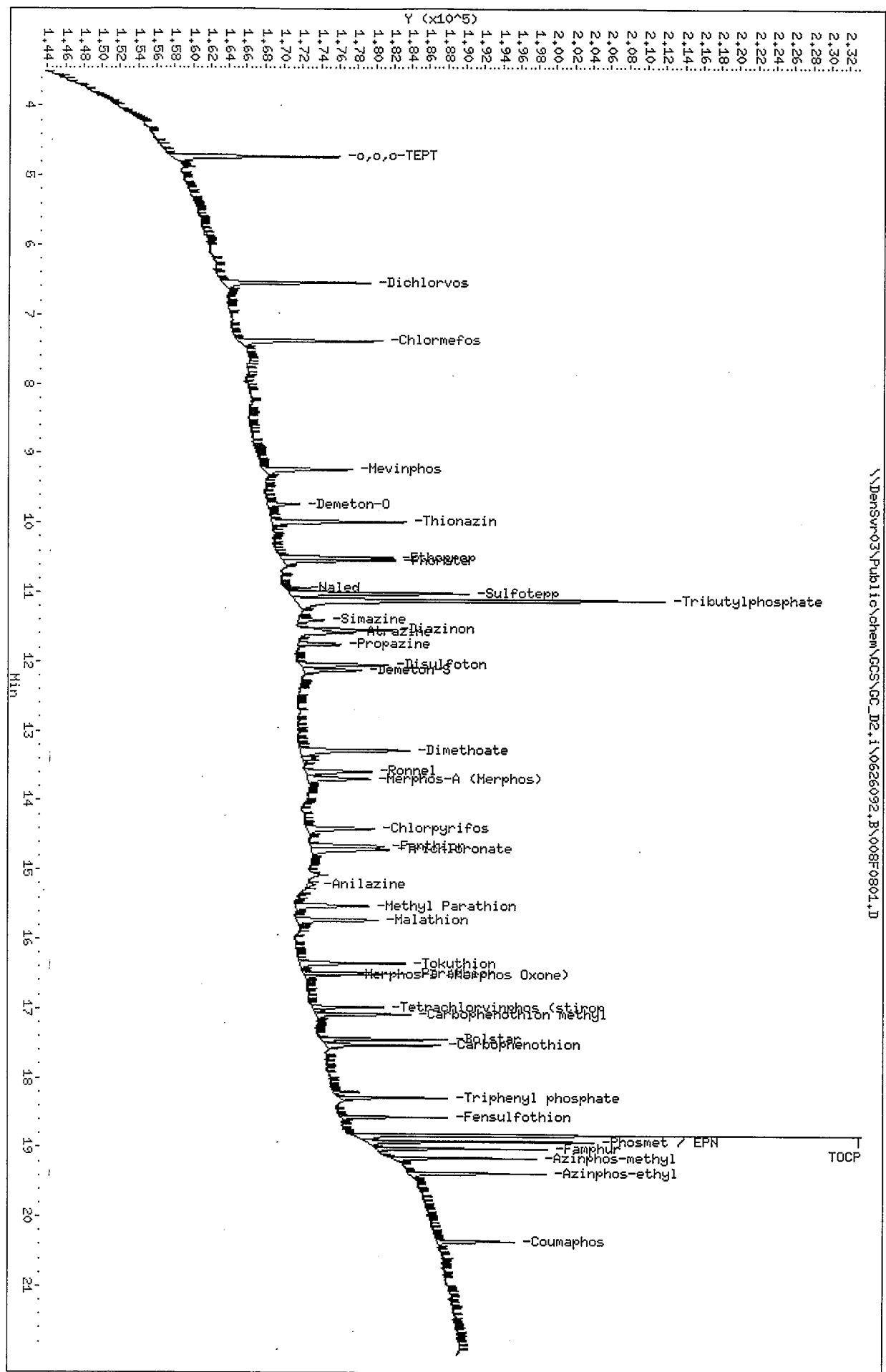
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.02
36 TOCP	18.82	18.32	19.32	18.81	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

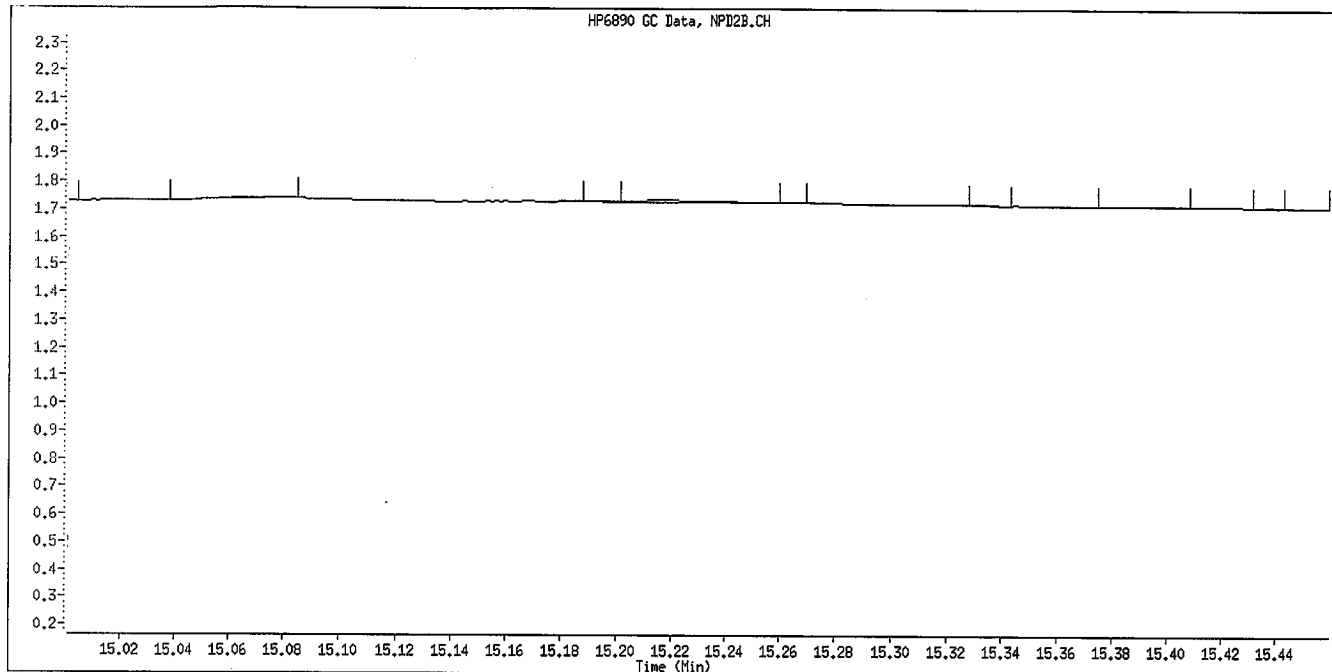
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 Date: 26-JUN-2009 20:45  
 Client ID: OPP L2 GSV0640  
 Sample Info: OPP L2 GSV0640

Instrument: GC\_D2.i  
 Operator: MPK/TLW  
 Column diameter: 0.32  
 Column phase: RTX-OPPest

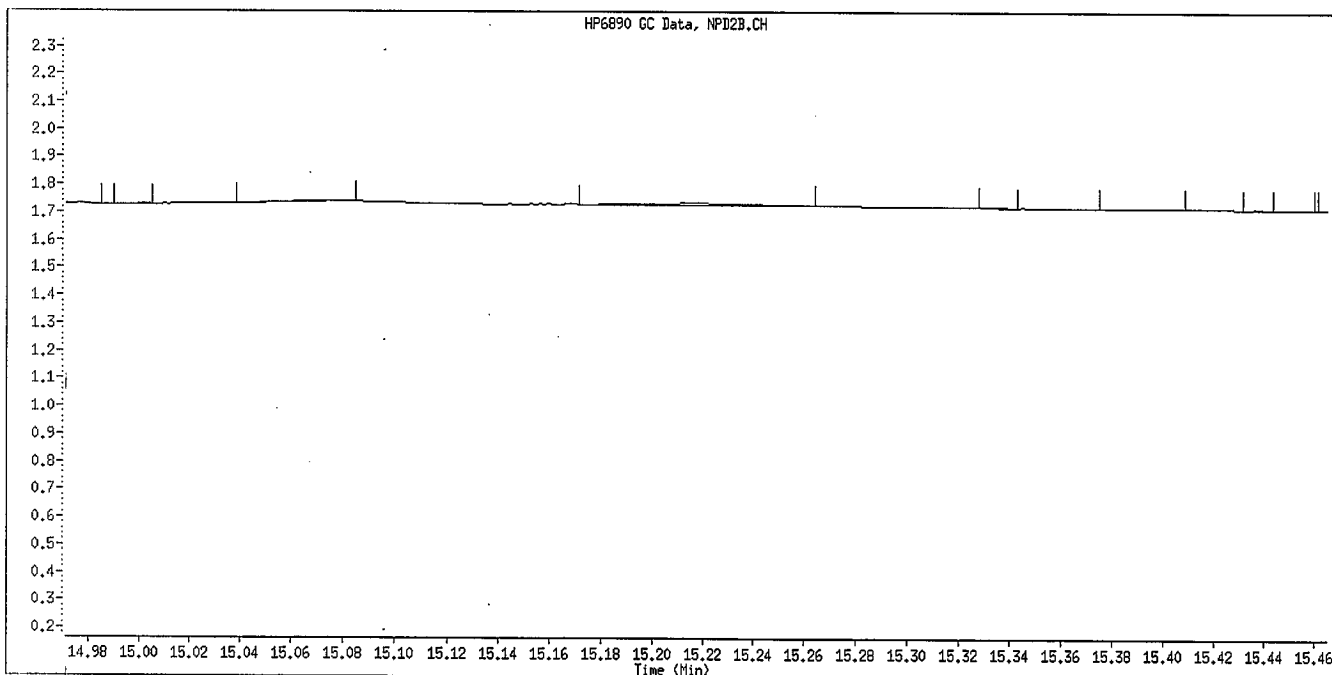
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Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration



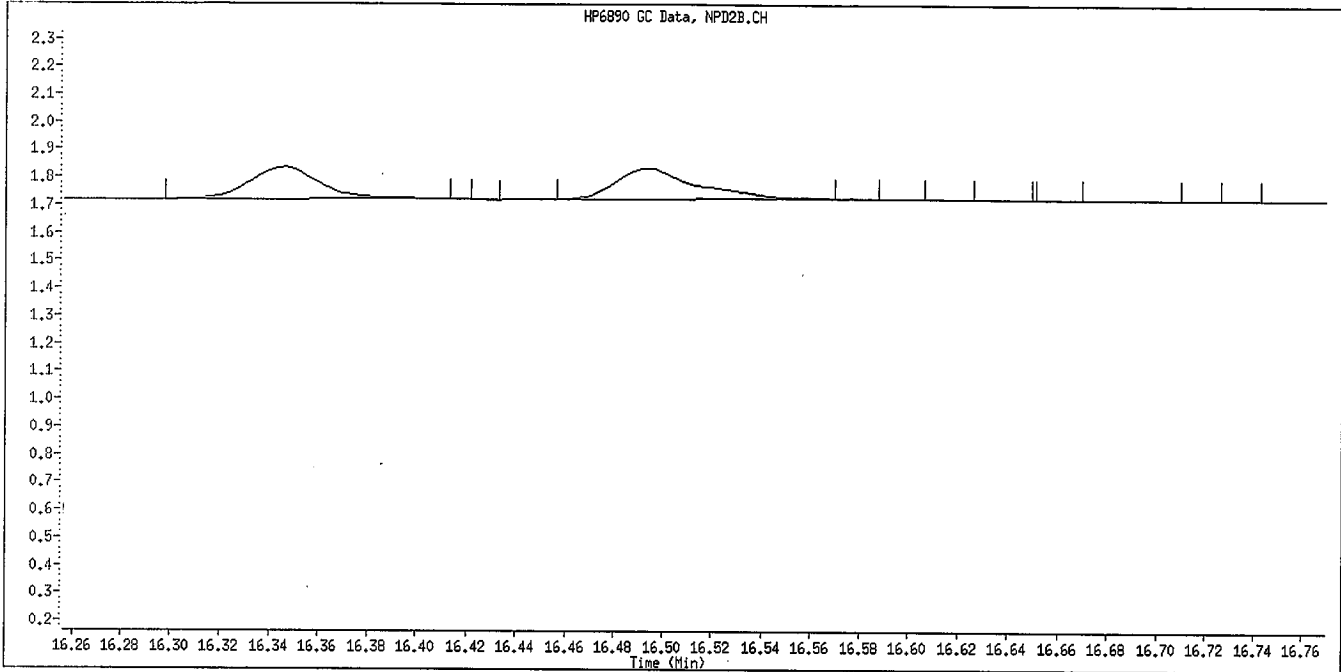
Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

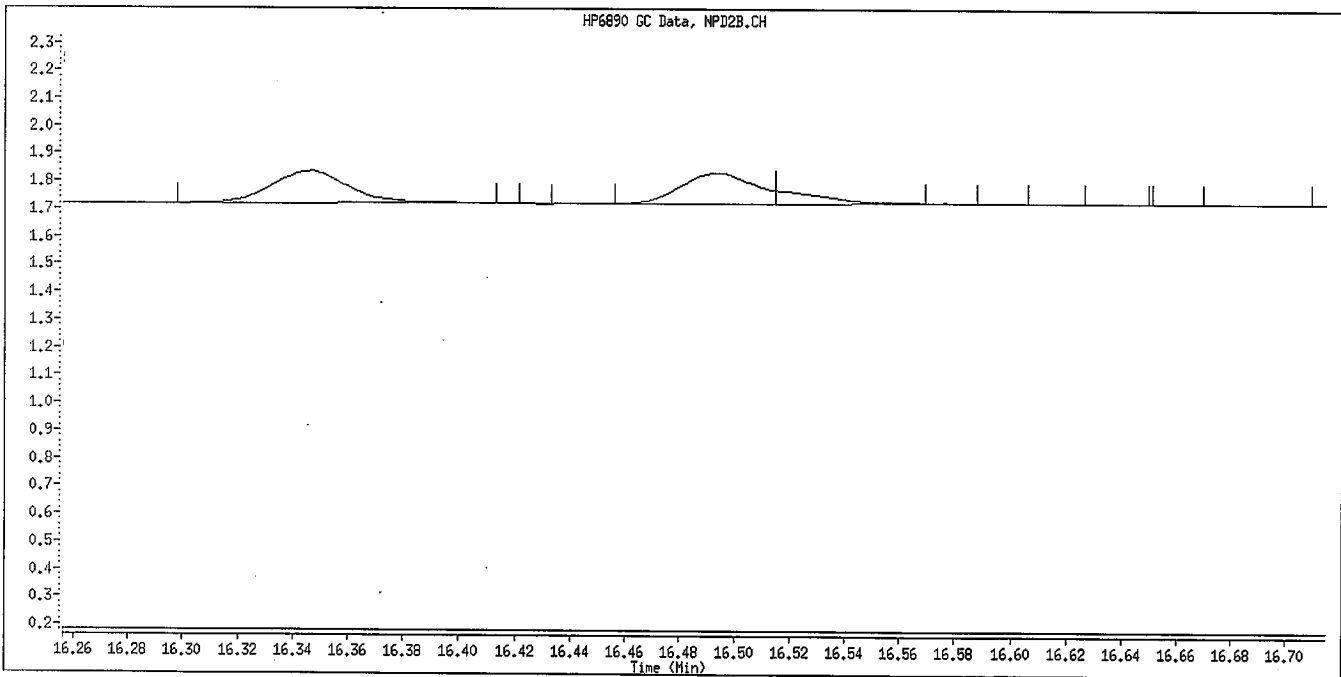
*Handwritten signature*  
6/30/09



Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

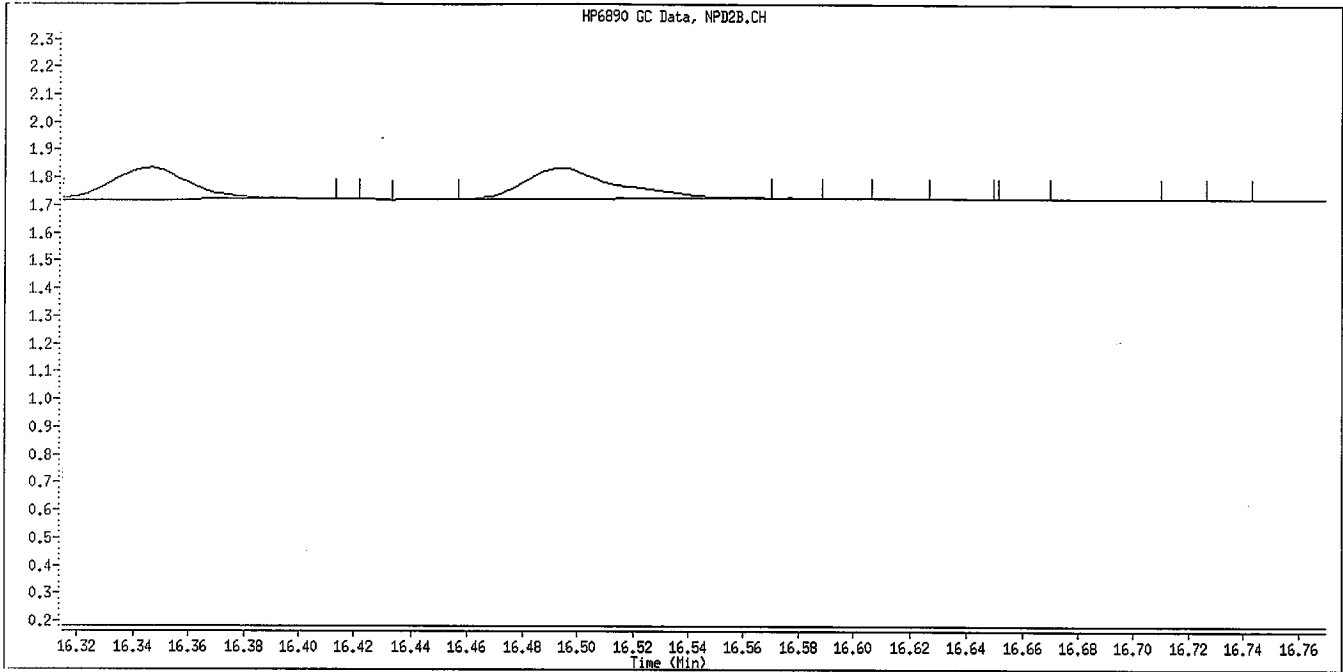


Manual Integration

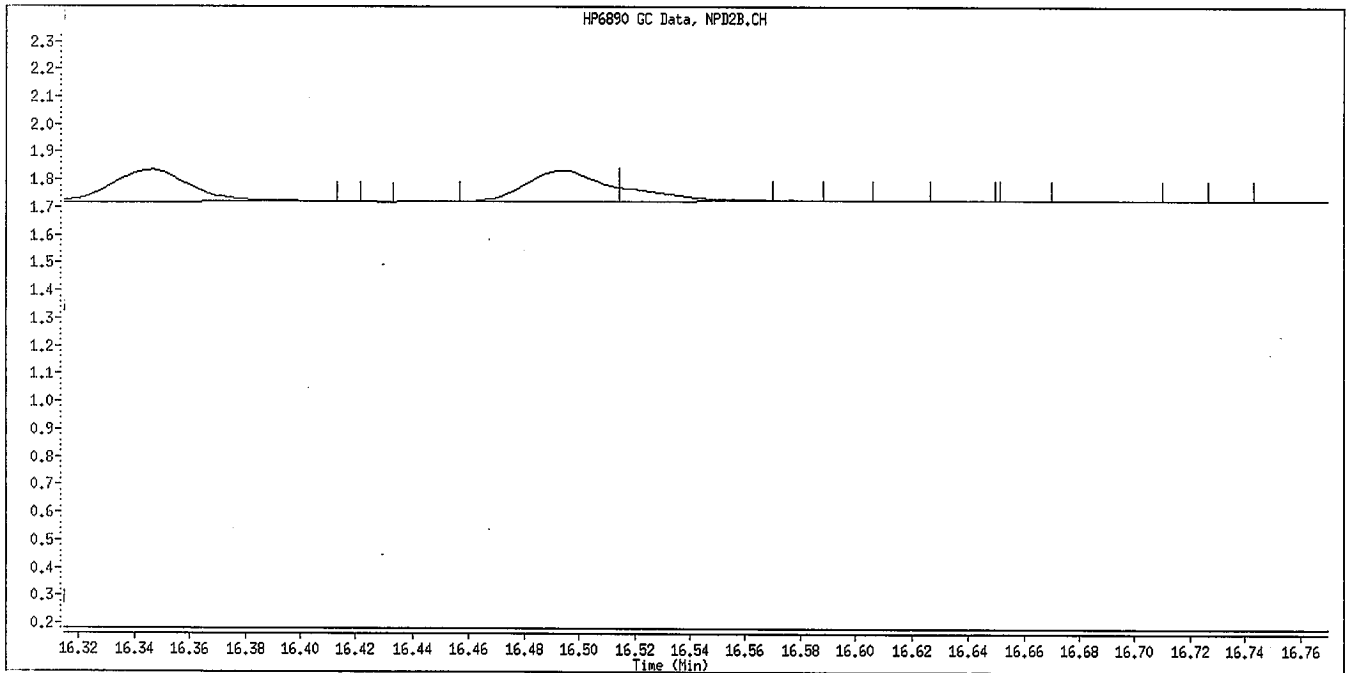
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*WJL*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Lab Smp Id: OPP L1 GSV0641 Client Smp ID: OPP L1 GSV0641  
 Inj Date : 26-JUN-2009 21:13  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L1 GSV0641  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:45 Cal File: 008F0801.D  
 Als bottle: 9 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.731	4.731	(0.251)	21538	0.20000	0.2262
2 Dichlorvos	6.546	6.546	(0.348)	14456	0.20000	0.1945
3 Chlormefos	7.382	7.384	(0.392)	16155	0.20000	0.2159
4 Mevinphos	9.236	9.234	(0.491)	10624	0.20000	0.2122
5 Demeton-O	9.737	9.734	(0.518)	2866	0.06500	0.06007
6 Thionazin	9.986	9.984	(0.531)	15885	0.20000	0.2121
7 Ethoprop	10.502	10.499	(0.558)	12514	0.20000	0.2237
8 Phorate	10.537	10.539	(0.560)	13936	0.20000	0.2148
9 Naled	10.939	10.939	(0.581)	94	0.20000	0.2739
10 Sulfotepp	11.016	11.017	(0.585)	20595	0.20000	0.2105 (A)
* 11 Tributylphosphate	11.117	11.116	(1.000)	104756	2.00000	
12 Simazine	11.399	11.399	(0.606)	2680	0.20000	0.1912 (A)
13 Diazinon	11.541	11.541	(0.613)	12067	0.20000	0.2561
14 Atrazine	11.581	11.584	(0.615)	5427	0.20000	0.4092 (A)
15 Propazine	11.746	11.747	(0.624)	4880	0.20000	0.2531
16 Disulfoton	12.052	12.049	(0.641)	10273	0.20000	0.1991
17 Demeton-S	12.121	12.124	(0.644)	667	0.13600	0.1293
18 Dimethoate	13.282	13.282	(0.706)	14242	0.20000	0.2059
19 Ronnel	13.587	13.587	(0.722)	10994	0.20000	0.2362
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	7722	0.20000	0.2034 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	9439	0.20000	0.1999
22 Fenthion	14.661	14.662	(0.779)	8896	0.20000	0.2031
23 Trichloronate	14.709	14.711	(0.782)	6944	0.20000	0.2138
24 Anilazine	15.217	15.216	(0.809)	1634	0.20000	0.4033 (M)
25 Methyl Parathion	15.519	15.519	(0.825)	8934	0.20000	0.1890
26 Malathion	15.724	15.724	(0.836)	9125	0.20000	0.2060
27 Tokuthion	16.344	16.344	(0.869)	11061	0.20000	0.2133
28 Parathion	16.494	16.494	(0.877)	9355	0.20000	0.2008 (M)
29 Merphos-B (Merphos Oxone)	16.512	16.517	(1.485)	3793	0.20000	0.2310 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	6332	0.20000	0.2101
31 Carbophenothion methyl	17.081	17.082	(0.908)	8575	0.20000	0.1985
32 Bolstar	17.441	17.440	(0.927)	9809	0.20000	0.2156
33 Carbophenothion	17.522	17.524	(0.931)	8717	0.20000	0.1948 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34. Triphenyl phosphate	18.281	18.281	(0.972)	8167	0.20000	0.2224
35 Fensulfothion	18.559	18.559	(0.986)	6502	0.20000	0.1929
* 36 TOCP	18.816	18.816	(1.000)	73597	2.00000	
37 Phosmet / EPN	18.909	18.909	(1.005)	19707	0.40000	0.4475
38 Famphur	19.012	19.011	(1.010)	10711	0.20000	0.2219
39 Azinphos-methyl	19.149	19.147	(1.018)	9243	0.20000	0.2093
40 Azinphos-ethyl	19.367	19.366	(1.029)	8391	0.20000	0.1995
41 Coumaphos	20.349	20.347	(1.081)	5809	0.20000	0.1796
S 42 Merphos				11515	0.20000	0.1877
M 43 Total Demeton				3533	0.20000	0.1894

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 009F0901.D  
 Lab Smp Id: OPP L1 GSV0641  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L1 GSV0641  
 Level:  
 Sample Type:

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	126959	63480	253918	104756	-17.49
36 TOCP	68161	34081	136322	73597	7.98

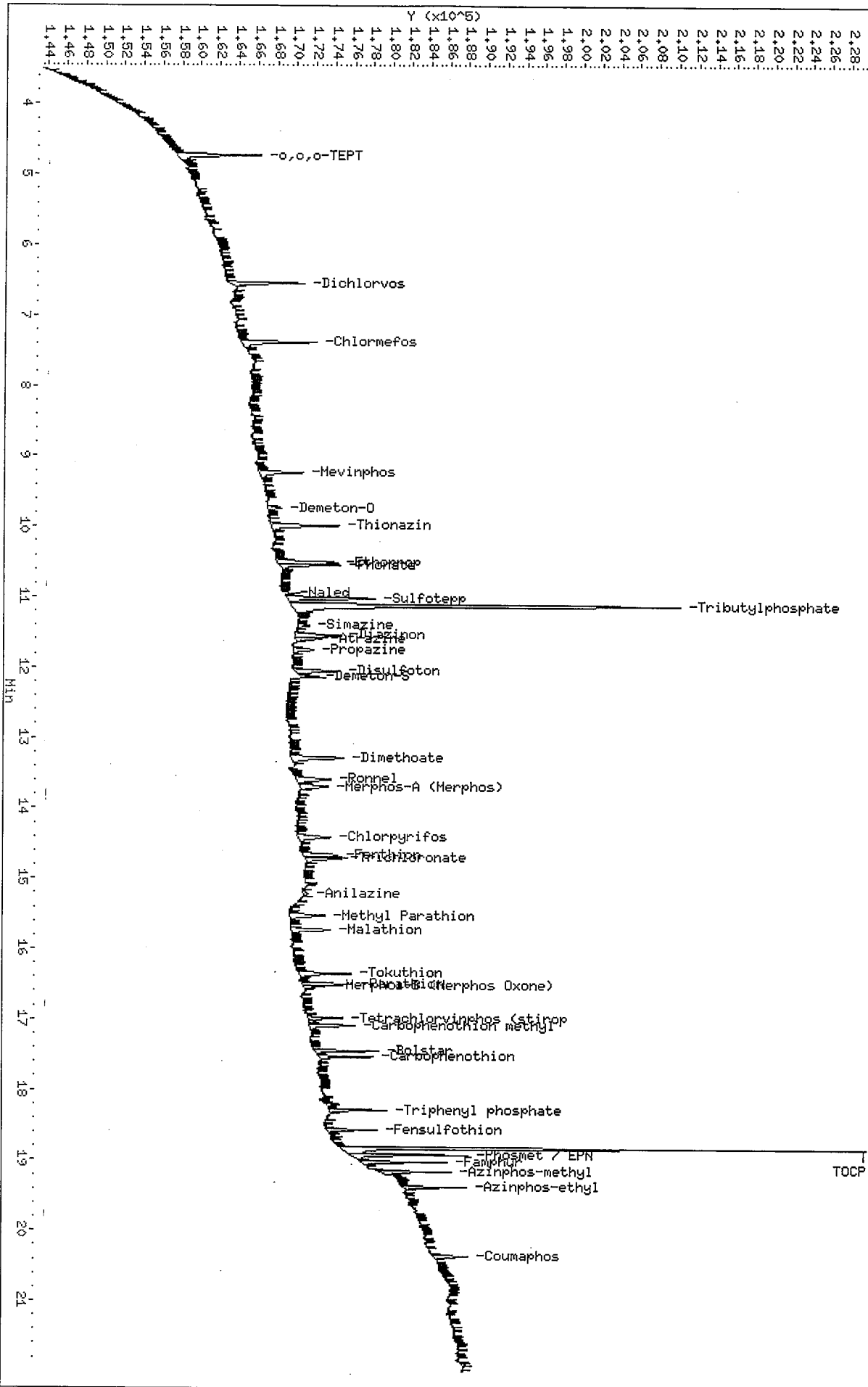
COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.02
36 TOCP	18.82	18.32	19.32	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

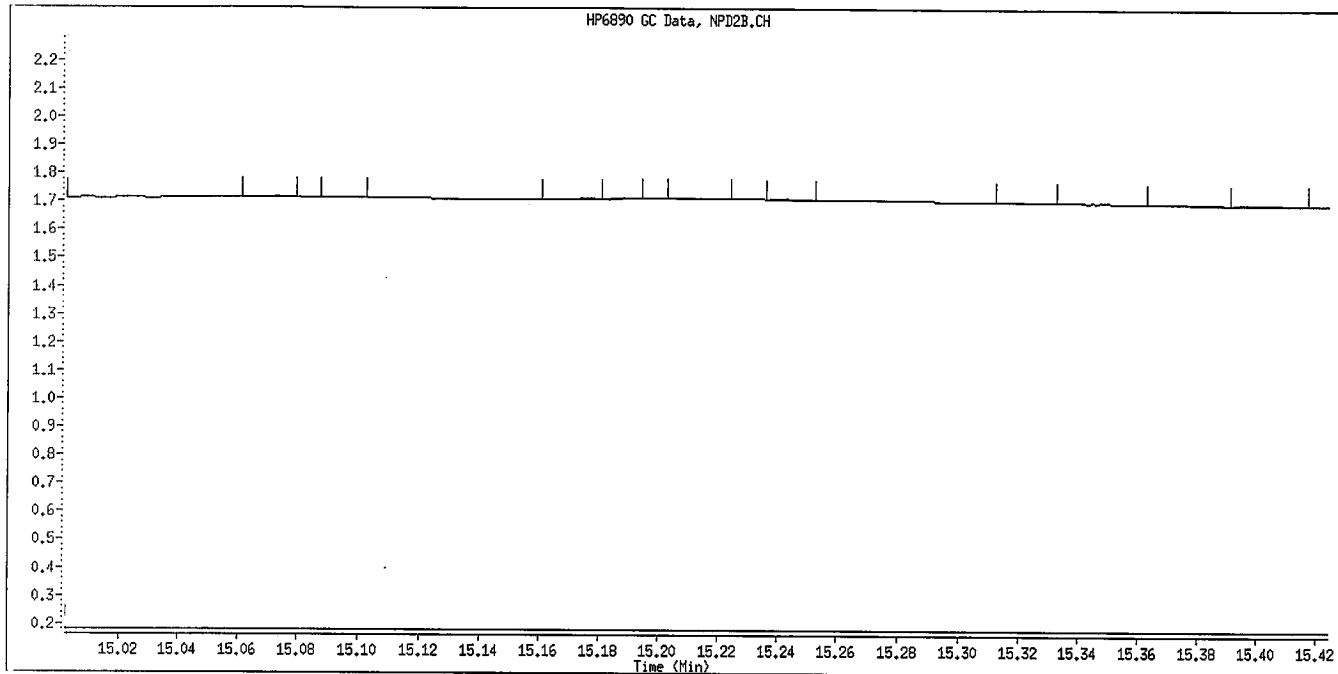
Data File: \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Date: 26-JUN-2009 21:13  
 Client ID: OPP L1 GSV0641  
 Sample Info: OPP L1 GSV0641  
 Column phase: RTX-OPpest

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32

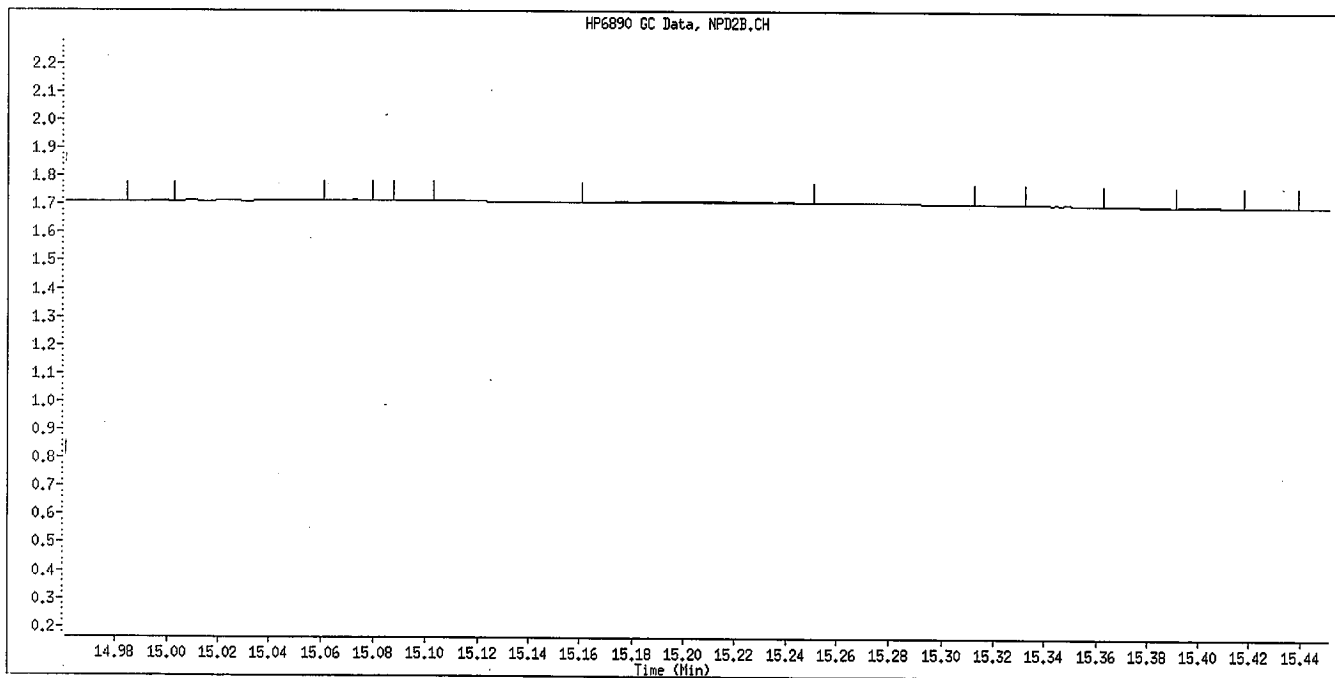
\\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D



Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

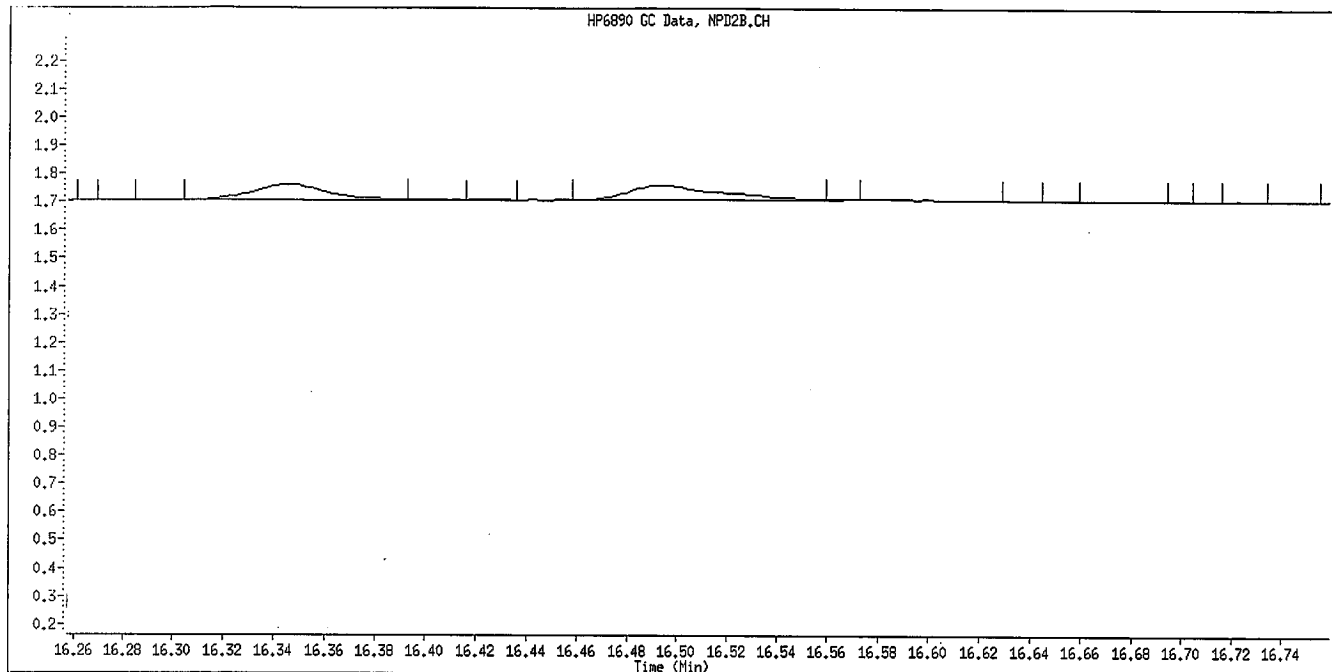


Manual Integration

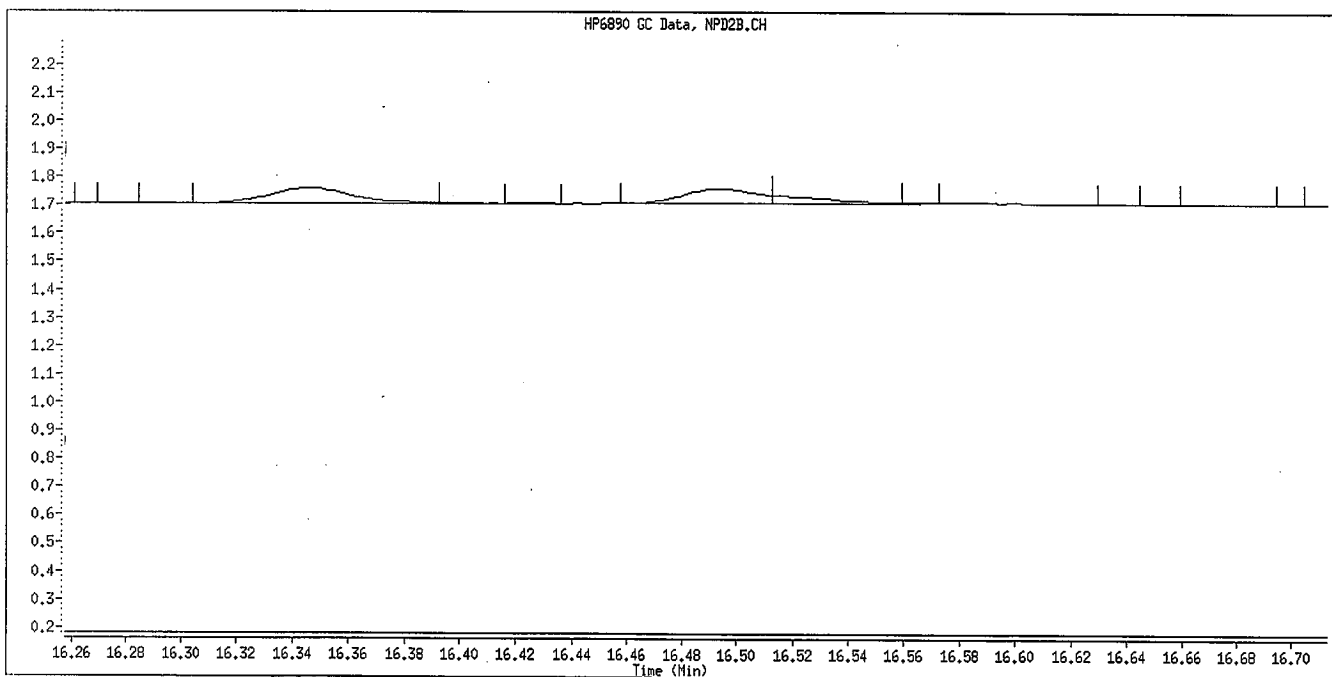
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*yl*  
6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration



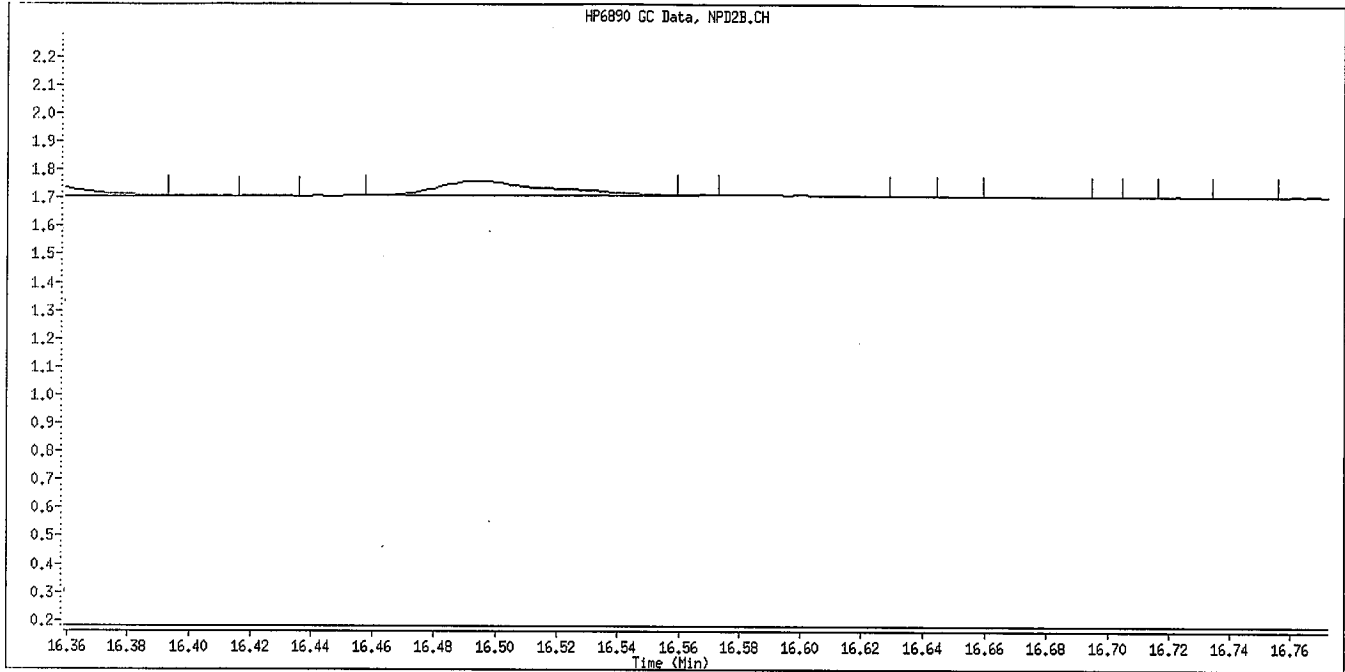
Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

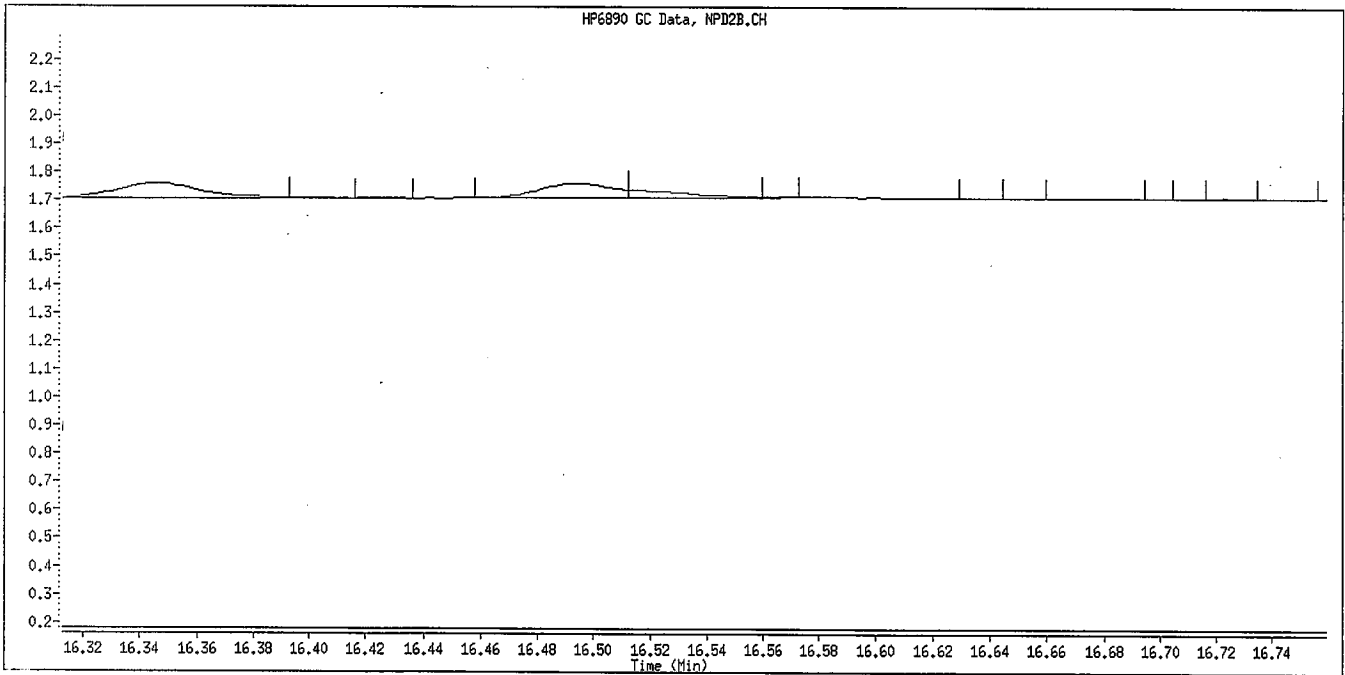
*Handwritten signature and date:*  
JL  
6/30/09



Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*WJL*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\010F1001.D  
 Lab Smp Id: OPP SS GSV0633 Client Smp ID: OPP SS GSV0633  
 Inj Date : 26-JUN-2009 21:40  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP SS GSV0633  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 13:09 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 10 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.728	4.731	(0.251)	178670	2.00000	2.007
2 Dichlorvos	6.545	6.546	(0.348)	123097	2.00000	1.771
3 Chlormefos	7.383	7.384	(0.392)	118669	2.00000	1.696
4 Mevinphos	9.232	9.234	(0.491)	85996	2.00000	1.836
5 Demeton-O	9.733	9.734	(0.517)	91352	0.65000	2.047
6 Thionazin	9.983	9.984	(0.531)	131360	2.00000	1.876
7 Ethoprop	10.498	10.499	(0.558)	99220	2.00000	1.896
8 Phorate	10.537	10.539	(0.560)	118380	2.00000	1.951
9 Naled	10.938	10.939	(0.581)	13173	2.00000	1.049
10 Sulfotepp	11.017	11.017	(0.586)	156890	2.00000	1.714 (A)
* 11 Tributylphosphate	11.115	11.116	(1.000)	123933	2.00000	
12 Simazine	11.398	11.399	(0.606)	47205	2.00000	3.601 (A)
13 Diazinon	11.540	11.541	(0.613)	101968	2.00000	2.080
14 Atrazine	11.580	11.584	(0.615)	49851	2.00000	1.969 (A)
15 Propazine	11.745	11.747	(0.624)	42529	2.00000	1.874
16 Disulfoton	12.048	12.049	(0.640)	81906	2.00000	1.697 (M)
17 Demeton-S	12.120	12.124	(0.644)	4990	1.36000	0.2011 (M)
18 Dimethoate	13.280	13.282	(0.706)	120970	2.00000	1.870
19 Ronnel	13.587	13.587	(0.722)	87569	2.00000	2.011
20 Merphos-A (Merphos)	13.687	13.689	(1.231)	24019	2.00000	0.5348 (A)
21 Chlorpyrifos	14.410	14.409	(0.766)	93110	2.00000	2.108
22 Fenthion	14.660	14.662	(0.779)	84515	2.00000	2.063
23 Trichloronate	14.708	14.711	(0.782)	105095	2.00000	1.862
24 Anilazine	15.215	15.216	(0.809)	4699	2.00000	1.242 (M)
25 Methyl Parathion	15.517	15.519	(0.825)	89448	2.00000	2.023 (A)
26 Malathion	15.723	15.724	(0.836)	63638	2.00000	1.536
27 Tokuthion	16.345	16.344	(0.869)	91793	2.00000	1.892
28 Parathion	16.493	16.494	(0.877)	92973	2.00000	2.134
29 Merphos-B (Merphos Oxone)	16.518	16.517	(1.486)	68602	2.00000	5.008 (A)
30 Tetrachlorvinphos (stirophos)	16.975	16.977	(0.902)	58667	2.00000	2.081
31 Carbophenothion methyl	17.080	17.082	(0.908)	50362	2.00000	1.246
32 Bolstar	17.440	17.440	(0.927)	88423	2.00000	2.078
33 Carbophenothion	17.522	17.524	(0.931)	73217	2.00000	1.750 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.278	18.281	(0.971)	59320	2.00000	1.727
35 Fensulfothion	18.558	18.559	(0.986)	65657	2.00000	2.082
* 36 TOCP	18.815	18.816	(1.000)	68831	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	122970	4.00000	3.469
38 Famphur	19.010	19.011	(1.010)	79361	2.00000	1.758
39 Azinphos-methyl	19.145	19.147	(1.018)	74782	2.00000	1.811
40 Azinphos-ethyl	19.363	19.366	(1.029)	70726	2.00000	1.798
41 Coumaphos	20.347	20.347	(1.081)	59237	2.00000	1.959
S 42 Merphos				92621	2.00000	1.615
M 43 Total Demeton				96342	2.00000	2.248

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC_D2.i	Calibration Date: 27-JUN-2009
Lab File ID: 010F1001.D	Calibration Time: 04:04
Lab Smp Id: OPP SS GSV0633	Client Smp ID: OPP SS GSV0633
Analysis Type: SV	Level:
Quant Type: ISTD	Sample Type:
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\8141A-2.m	
Misc Info:	

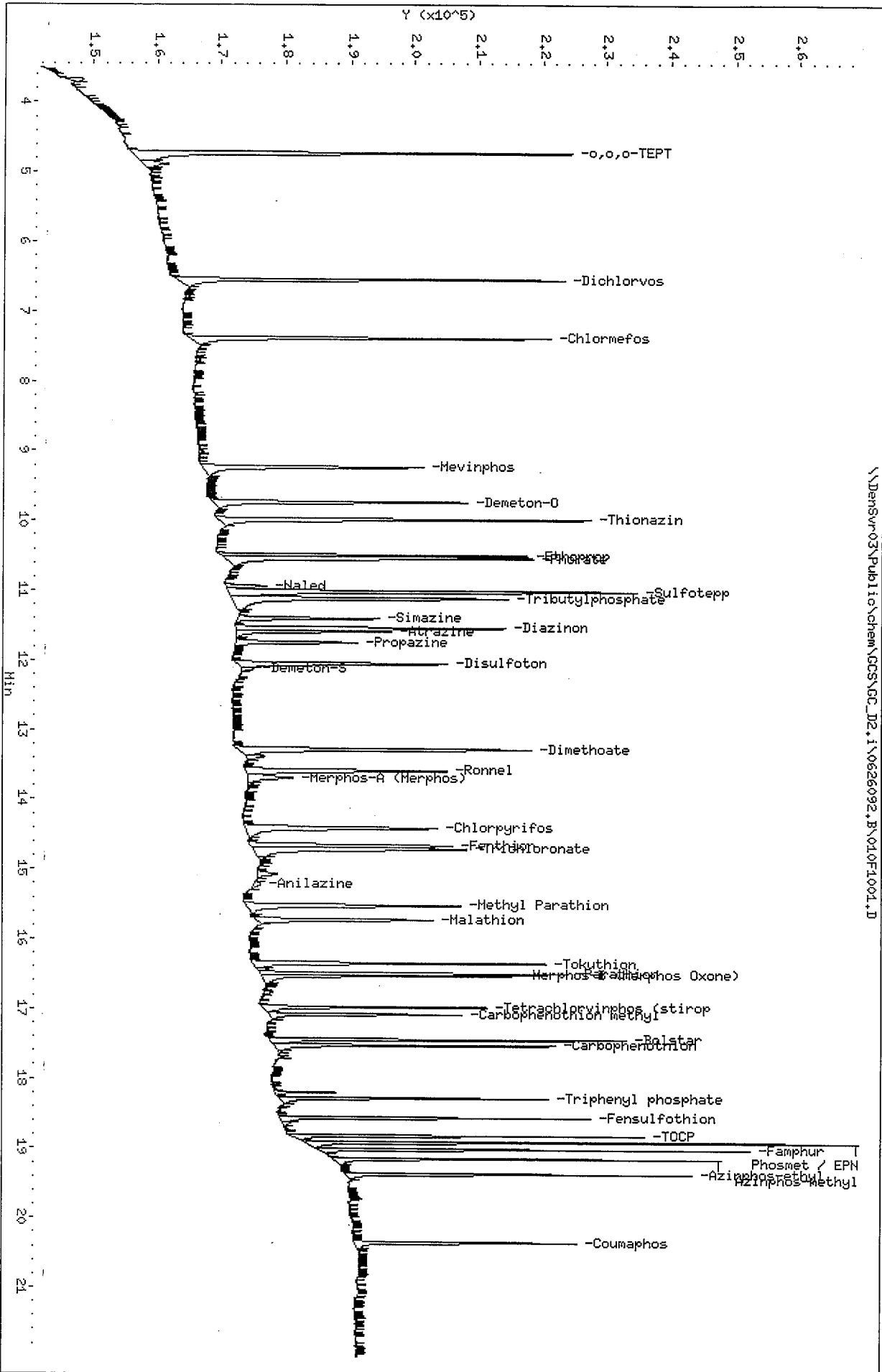
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	143401	71701	286802	123933	-13.58
36 TOCP	69335	34668	138670	68831	-0.73

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	-0.05
36 TOCP	18.82	18.32	19.32	18.82	-0.01

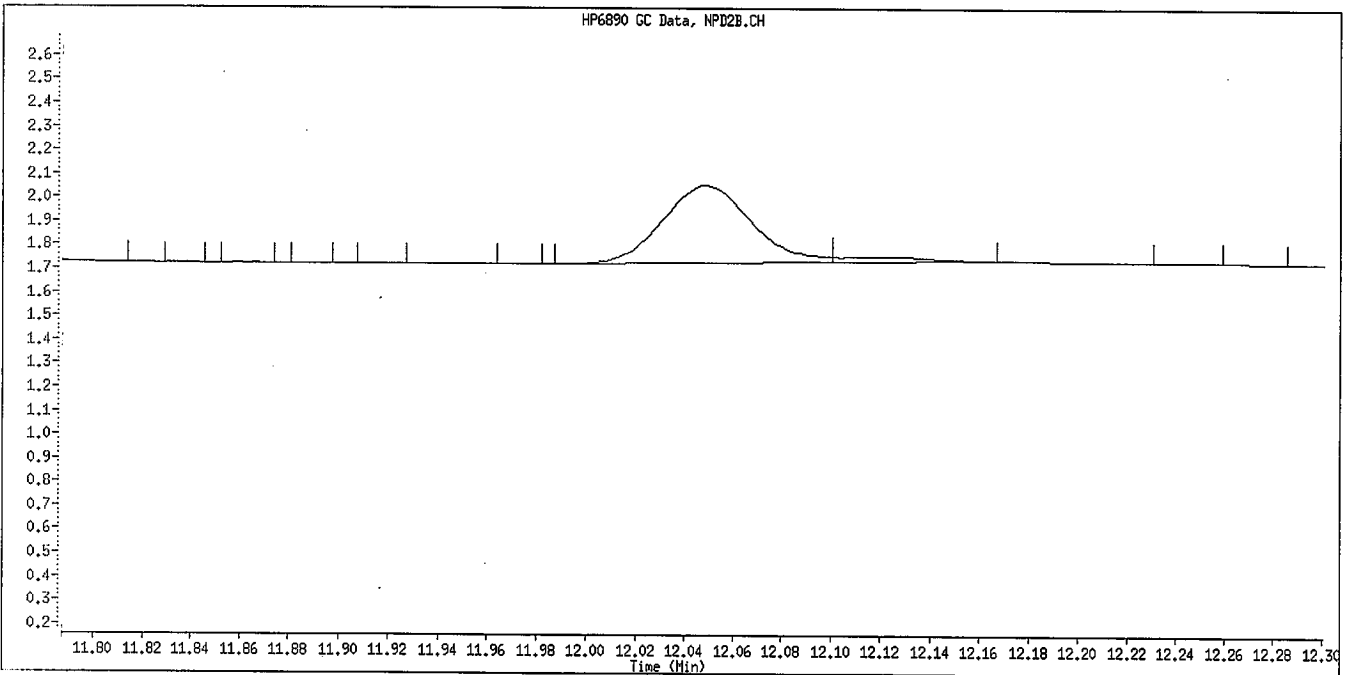
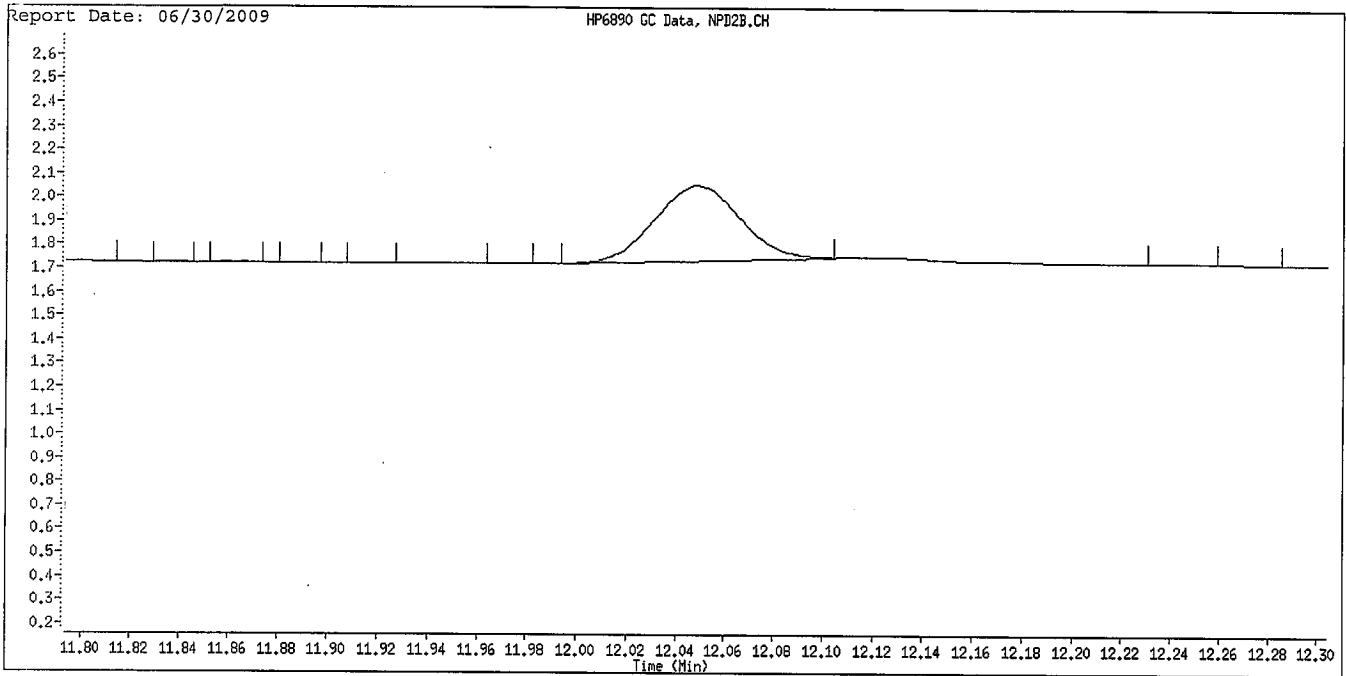
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\010F1001.D  
 Date: 26-JUN-2009 21:40  
 Client ID: OPP SS GSV0633  
 Sample Info: OPP SS GSV0633  
 Column phase: RTX-OPpeast

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32



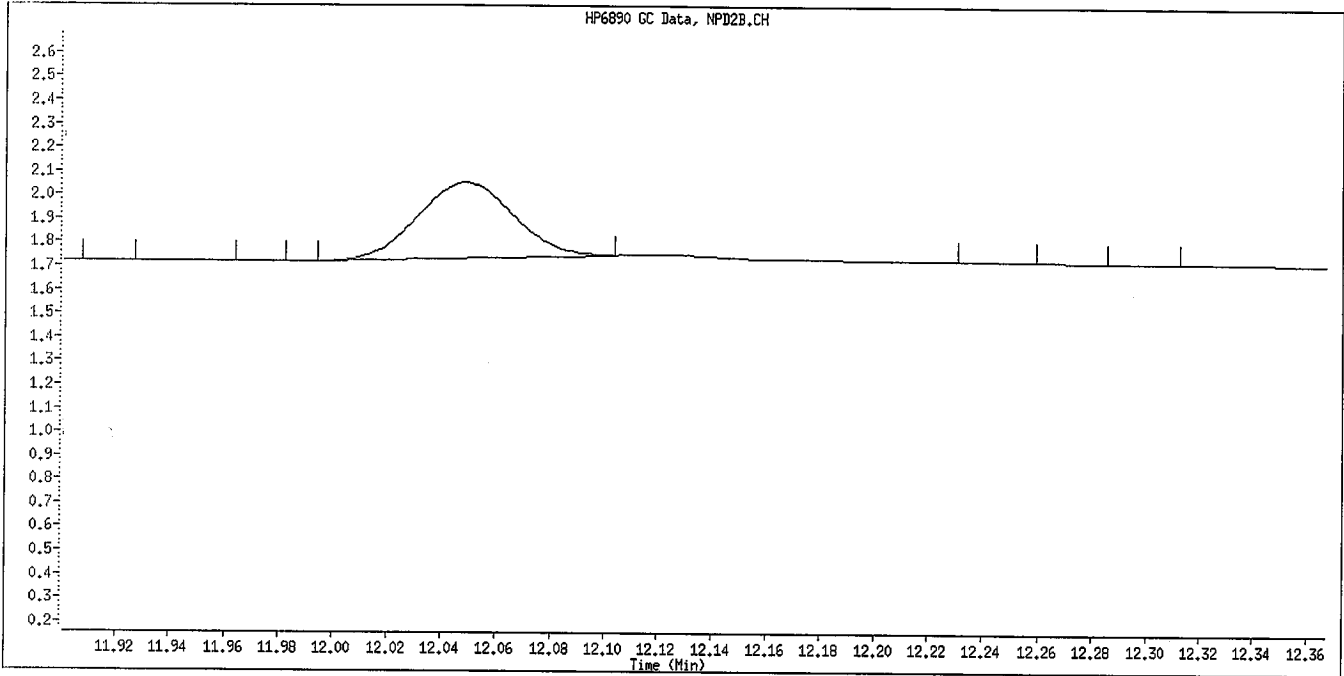
Data File Name: 010F1001.D  
Inj. Date and Time: 26-JUN-2009 21:40  
Instrument ID: GC\_D2.i  
Client ID: OPP SS GSV0633  
Compound Name: Disulfoton  
CAS #: 298-04-4



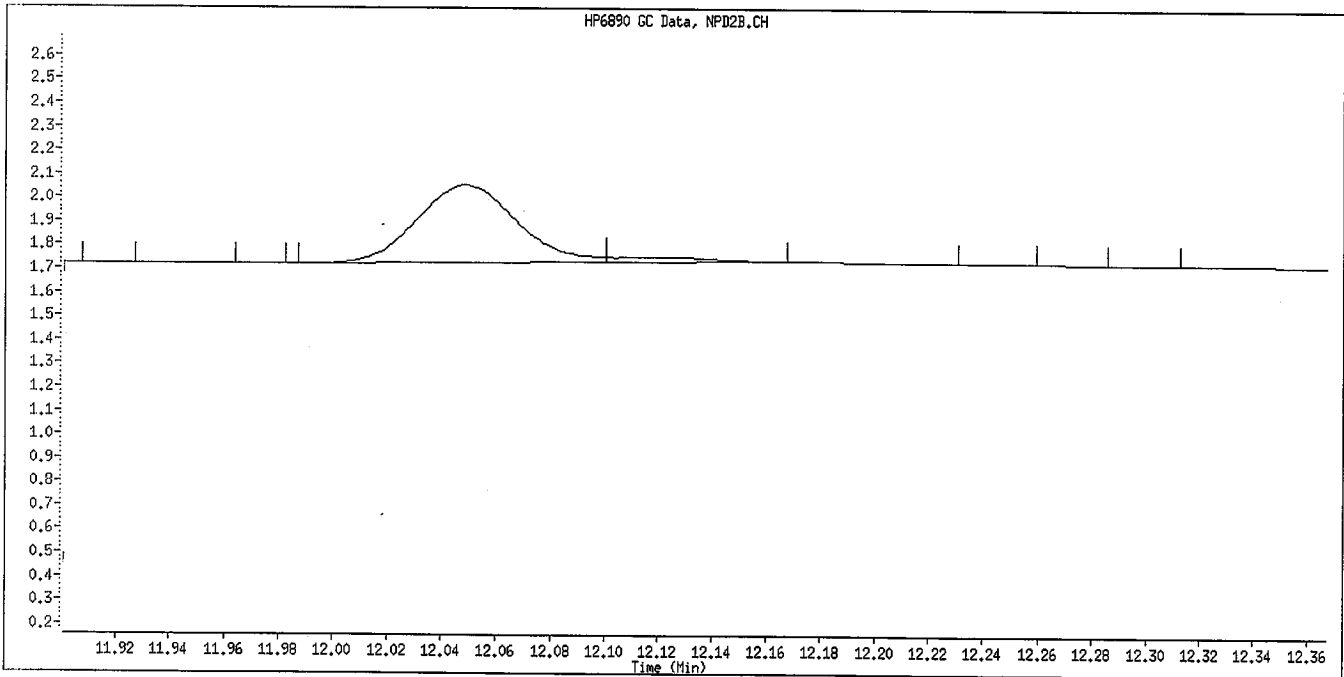
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
6/30/09

Data File Name: 010F1001.D  
Inj. Date and Time: 26-JUN-2009 21:40  
Instrument ID: GC\_D2.i  
Client ID: OPP SS GSV0633  
Compound Name: Demeton-S  
CAS #: 126-75-0  
Report Date: 06/30/2009



Original Integration

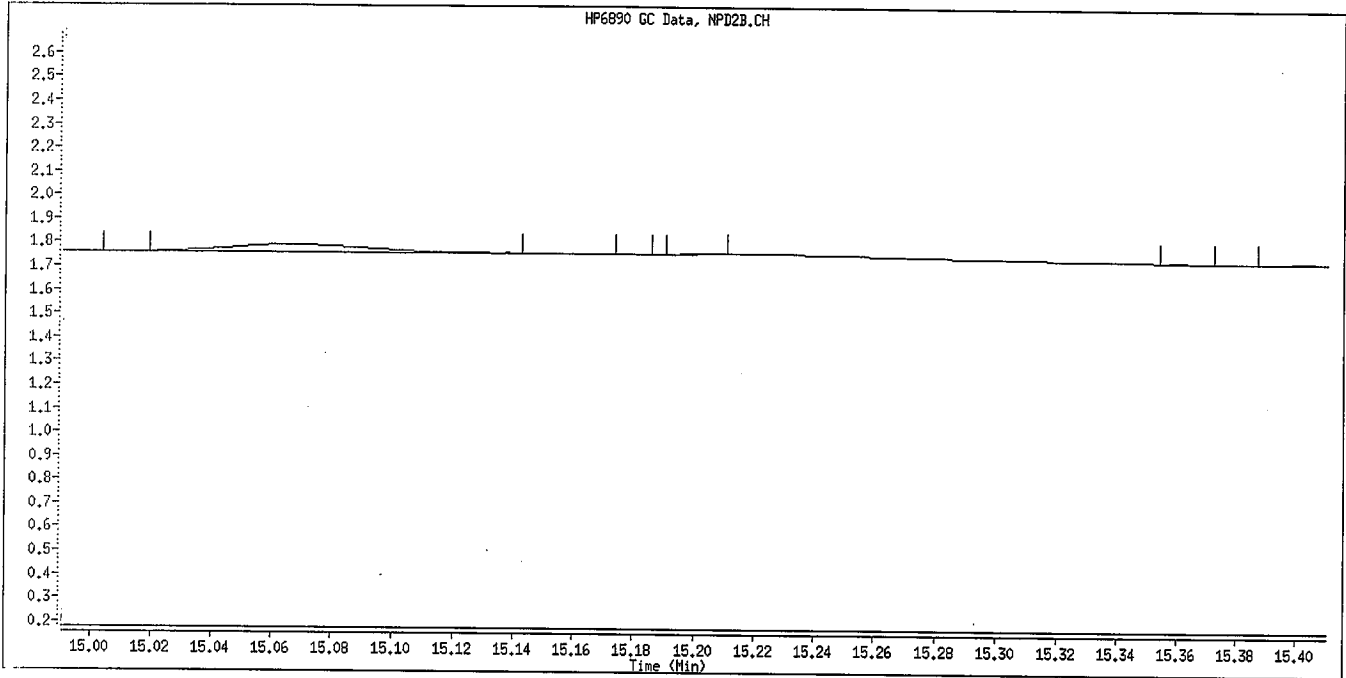


Manual Integration

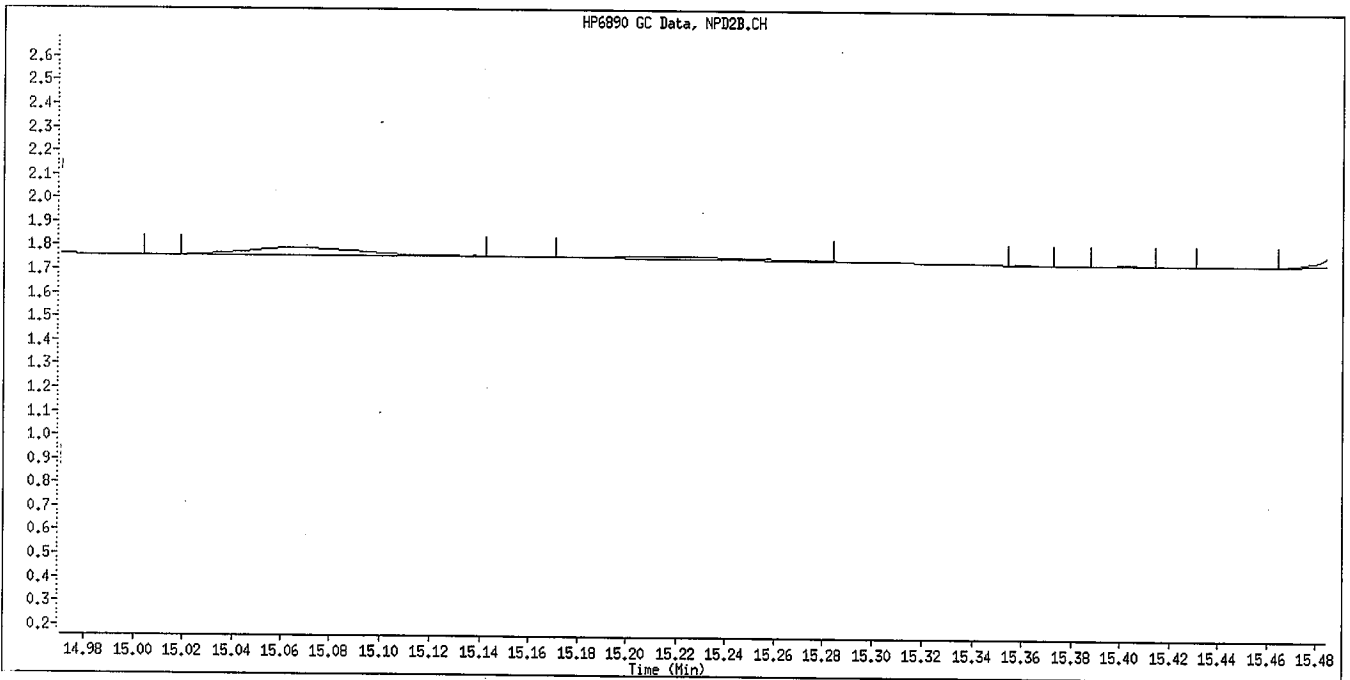
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*WJL*  
*6/30/09*

Data File Name: 010F1001.D  
Inj. Date and Time: 26-JUN-2009 21:40  
Instrument ID: GC\_D2.i  
Client ID: OPP SS GSV0633  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
yg  
6/30/09



# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

## TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9F190216

Client: Northgate Environmental

Batch(es) #: 9174190

Associated Samples: 1

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date:  6/25/09

# *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9F190216	1	SE	LE9PT1AD	20090625	6020TOTA	9174190	AG062409G	024

**METALS  
PREPARATION LOGS  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

Batch Number: 9174190

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:

JON HARRE

Prep Date: 06/24/09

Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	LFFFX	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	LFFFX	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	LE709 Total		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total		Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	S	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	D	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F190216 Water	LE9PT Total		Due Date: 07/01/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4A Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4D Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4P Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4Q Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*RT checked  
6/24/09*

*✓  
6/25/09*

**TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)**

BATCH # 9174190  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

**CONSUMABLES USED**

Digestion Cups: Manufacturer: Environmental Express Lot #: A901LS267  
One or more samples were filtered prior to analysis at the instrument.  Yes  No  
If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.  
Analyst(s) Initials:                     

**STANDARDS USED**

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

**REAGENTS USED**

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	3

**TEMPERATURE CYCLES**

Thermometer ID: 3311 Block & Cup #: 1, 11

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO <sub>3</sub>	<u>6:00</u>	<u>95</u>	<u>10:20</u>	<u>95</u>
HNO <sub>3</sub>	<u>10:30</u>	<u>94</u>	<u>11:00</u>	<u>93</u>
HNO <sub>3</sub>				

Samples and QC revolved to: 50 mL Analyst's Initials JKH

**COMMENTS:**

I certify that all information above is correct and complete.

Signature: *Kim Anne*

Date: 6/24/09

**METALS  
SAMPLE DATA  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

## ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L. Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

### Quality Control Standards

ICV = Initial Calibration Verification (Second Source)      ICB = Initial Calibration Blank  
 CCV = Continuing Calibration Verification                      CCB = Continuing Calibration Blank

# TestAmerica Denver

## Standards Preparation Logbook Record

Jun-24-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008  
Date Expires(1): 10-01-2009 (None)  
Date Expires(2): 10-01-2009 (None)  
(METALS)-Inventory ID: 779

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	1,000.0	1,000.0

### STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008  
Date Expires(1): 12-01-2009 (None)  
Date Expires(2): 12-01-2009 (None)  
(METALS)-Inventory ID: 803

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1,000.0

### STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010  
Solvent: 1% HNO3  
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009  
Date Expires(1): 03-01-2010 (None)  
Date Expires(2): 03-01-2010 (None)  
(METALS)-Inventory ID: 833

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

### STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H02026 Volume (ml): 100.00  
Date Prep./Opened: 04-01-2009  
Date Expires(1): 12-01-2009 (1 Year)  
pipette: Met 21



Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009  

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3432-09, ICP-MS (024) INT STD BRC

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-08-2009  
 Date Expires(1): 11-10-2009 (1 Year) ✓  
 Date Expires(2): 12-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Volume (ml): 250.00

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 0.7500  
 Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010  

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010  

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.2500  
 Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010  

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009  

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock Aliquot Amount (ml): 0.2500  
 Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009  

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,000.0

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year) ✓

Volume (ml): 10.000

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009  

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	10.000	1.0000

STD3753-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-22-2009

Date Expires(1): 02-01-2010 (1 Year) ✓

Date Expires(2): 02-01-2010 (None)

pipettes: Met 8

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard

Aliquot Amount (ml): 5.0000

Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20,000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20,000	2,000.0

STD3807-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-24-2009

Date Expires(1): 03-01-2010 (1 Year) ✓

Date Expires(2): 03-01-2010 (None)

Date Verified: 12-31--4714 by - (Verification ID: 0)

pipettes: Met 21 and Met 8

Parent Std No.: STD1198-09, 1000 mg/L Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	10.000

STD3808-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 07-24-2009 (1 Month)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 1,000.0

Parent Std No.: STD3806-09, NITRIC ACID

Aliquot Amount (ml): 50.000

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD3809-09, ICP-MS 100 ppb cal

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 06-25-2009 (1 Day)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Lot No.: H12022

Volume (ml): 50.000

Parent Std No.: STD0100-09, Iron Stock

Aliquot Amount (ml): 0.2500

Parent Date Expires(1): 08-01-2009 Parent Date Expires(2): 08-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Fe	1,000.0	5,000.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures

Aliquot Amount (ml): 0.2500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.5000  
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	100.00

STD3810-09, ICP-MS CCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
Date Prep./Opened: 06-24-2009  
Date Expires(1): 06-25-2009 (1 Day)  
Date Verified: 12-31--4714 by - (Verification ID: 0)  
pipettes: Met 20

Volume (ml): 100.00

Parent Std No.: STD0100-09, Iron Stock Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 08-01-2009 Parent Date Expires(2): 08-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Fe	1,000.0	2,500.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	50.000
Al	20.000	50.000
As	20.000	50.000
Ba	20.000	50.000
Be	20.000	50.000
Cd	20.000	50.000
Co	20.000	50.000
Cr	20.000	50.000
Cu	20.000	50.000
Mn	20.000	50.000
Ni	20.000	50.000
Pb	20.000	50.000
Se	20.000	50.000
Th	20.000	50.000
Tl	20.000	50.000
U	20.000	50.000
V	20.000	50.000
Zn	20.000	50.000

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	50.000

Sb 20.000 50.000  
 Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
<u>Sn</u>	<u>10.000</u>	<u>50.000</u>

STD3811-09, ICP-MS RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day) ✓  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
<u>Sn</u>	<u>1.0000</u>	<u>0.0090</u>
1000 Zn	1.0000	0.0090

Parent Std No.: STD3809-09, ICP-MS 100 ppb cal

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 06-25-2009 Parent Date Expires(2): 06-25-2009

Component	Initial Conc (ug/L)	Final Conc (mg/L)
<u>Fe</u>	<u>5,000.0</u>	<u>0.0500</u>
Ag	100.00	0.0010
Al	100.00	0.0010
As	100.00	0.0010
Ba	100.00	0.0010
Be	100.00	0.0010
Cd	100.00	0.0010
Co	100.00	0.0010
Cr	100.00	0.0010
Cu	100.00	0.0010
Mn	100.00	0.0010
Ni	100.00	0.0010
Pb	100.00	0.0010
Se	100.00	0.0010
Th	100.00	0.0010
Tl	100.00	0.0010
U	100.00	0.0010
V	100.00	0.0010
Zn	100.00	0.0010
Mo	100.00	0.0010
Sb	100.00	0.0010
<u>Sn</u>	<u>100.00</u>	<u>0.0010</u>

STD3812-09, ICP-MS AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (2 Days) ✓  
 pipettes: Met 20 and Met 8

Volume (ml): 10.000

Parent Std No.: STD3811-09, ICP-MS RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Fe	0.0500	0.0100
Ag	0.0010	0.0002
Al	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002

STD3813-09, ICP-MS ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Verified: 12-31--4714 by - (Verification ID: Q) ✓  
 pipettes: Met 21, Met 20, and Met 8

Volume (ml): 10.000

Parent Std No.: STD1978-09, ICPMS Interferent Check Standard

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000

Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20,000.	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20,000	2,000.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.0500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.0500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	100.00

STD3814-09, ICPMS LR STD 1000 ppb

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-24-2009

Date Expires(1): 06-25-2009 (1 Day)

Date Verified: 12-31--4714 by - (Verification ID: 0)

pipettes: Met 20 and Met 8

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	1,000.0
Al	20.000	1,000.0
As	20.000	1,000.0
Ba	20.000	1,000.0
Be	20.000	1,000.0
Cd	20.000	1,000.0
Co	20.000	1,000.0
Cr	20.000	1,000.0
Cu	20.000	1,000.0
Mn	20.000	1,000.0
Ni	20.000	1,000.0
Pb	20.000	1,000.0
Se	20.000	1,000.0
Th	20.000	1,000.0
Tl	20.000	1,000.0
U	20.000	1,000.0
V	20.000	1,000.0
Zn	20.000	1,000.0

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	1,000.0
Sb	20.000	1,000.0

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	1,000.0

STD3815-09, ICPMS ICV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 02-27-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD1213-09, ICPMS ICV SOLUTION A (High Purity) Aliquot Amount (ml): 0.0400  
 Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Al	10.000	40.000
As	10.000	40.000
Ba	10.000	40.000
Be	10.000	40.000
Cd	10.000	40.000



Co	10.000	40.000
Cr	10.000	40.000
Cu	10.000	40.000
Fe	250.00	1,000.0
Li	10.000	40.000
Mn	10.000	40.000
Ni	10.000	40.000
Pb	10.000	40.000
Se	10.000	40.000
Th	10.000	40.000
Tl	10.000	40.000
U	10.000	40.000
V	10.000	40.000
Zn	10.000	40.000

Parent Std No.: STD1214-09, ICPMS ICV SOLUTION B (High Purity) Aliquot Amount (ml): 0.0400  
 Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Ag	10.000	40.000
Mo	10.000	40.000
Sb	10.000	40.000
Sn	10.000	40.000
Zr	10.000	40.000

STD3816-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 pipettes: Met 21 and Met 8

Volume (ml): 50.000

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1.0000	0.0020

STD3817-09, LLCCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 05-01-2010 (None)  
 pipettes: Met 20

Volume (ml): 50.000

Parent Std No.: STD3106-09, ICP-MS LLCCV 1

Aliquot Amount (ml): 0.5000

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000

Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By: \_\_\_\_\_

LRD

06/24/2009

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/25/09 11:05:10
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File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
2	Cal Blank				1.0 06/24/09 19:07		<input type="checkbox"/>
3	100 ppb				1.0 06/24/09 19:10		<input type="checkbox"/>
4	ICV				1.0 06/24/09 19:13		<input type="checkbox"/>
5	RLIV				1.0 06/24/09 19:17		<input type="checkbox"/>
6	ICB				1.0 06/24/09 19:20		<input type="checkbox"/>
7	RL STD				1.0 06/24/09 19:24		<input type="checkbox"/>
8	AFCEE RL				1.0 06/24/09 19:27		<input type="checkbox"/>
9	ALTSe				1.0 06/24/09 19:30		<input type="checkbox"/>
10	ICSA				1.0 06/24/09 19:34		<input type="checkbox"/>
11	ICSAB				1.0 06/24/09 19:37		<input type="checkbox"/>
12	RINSE				1.0 06/24/09 19:40		<input type="checkbox"/>
13	LR				1.0 06/24/09 19:44		<input type="checkbox"/>
14	RINSE				1.0 06/24/09 19:47		<input type="checkbox"/>
15	CCV				1.0 06/24/09 19:52		<input type="checkbox"/>
16	CCB				1.0 06/24/09 19:55		<input type="checkbox"/>
17	RLCV				1.0 06/24/09 19:58		<input type="checkbox"/>
18	LE7RWB	D9F180000	9169492	MS	1.0 06/24/09 20:02		<input type="checkbox"/>
19	LE7RWC	D9F180000	9169492	MS	1.0 06/24/09 20:05		<input type="checkbox"/>
20	LERAH	D9F110358-9	9169492	MS	1.0 06/24/09 20:09		<input type="checkbox"/>
21	LERAX	D9F110358-20	9169492	MS	1.0 06/24/09 20:12		<input type="checkbox"/>
22	LERA0	D9F110358-21	9169492	MS	1.0 06/24/09 20:15		<input type="checkbox"/>
23	LERA4	D9F110358-24	9169492	MS	1.0 06/24/09 20:19		<input type="checkbox"/>
24	LERA4P5	D9F110358	9169492		5.0 06/24/09 20:22		<input type="checkbox"/>
25	LERA4Z	D9F110358-24	9169492		1.0 06/24/09 20:25		<input type="checkbox"/>
26	LERA4S	D9F110358-24	9169492	MS	1.0 06/24/09 20:29		<input type="checkbox"/>
27	LERA4D	D9F110358-24	9169492	MS	1.0 06/24/09 20:32		<input type="checkbox"/>
28	CCV				1.0 06/24/09 20:36		<input type="checkbox"/>
29	CCB				1.0 06/24/09 20:39		<input type="checkbox"/>
30	RLCV				1.0 06/24/09 20:42		<input type="checkbox"/>
31	ICSA				1.0 06/24/09 20:46		<input type="checkbox"/>
32	ICSAB				1.0 06/24/09 20:49		<input type="checkbox"/>
33	WASH				1.0 06/24/09 20:52		<input type="checkbox"/>
34	CCV				1.0 06/24/09 20:56		<input type="checkbox"/>
35	CCB				1.0 06/24/09 20:59		<input type="checkbox"/>
36	RLCV				1.0 06/24/09 21:03		<input type="checkbox"/>
37	LFFFBCF	D9F230000	9174183	MD	1.0 06/24/09 21:06	} Se only. R 6/25/09	<input type="checkbox"/>
38	LFFFCCF	D9F230000	9174183	MD	1.0 06/24/09 21:10		<input type="checkbox"/>
39	LE71EF	D9F180314-2	9174183	MD	1.0 06/24/09 21:13		<input type="checkbox"/>
40	LE71EP5F	D9F180314	9174183		5.0 06/24/09 21:16		<input type="checkbox"/>
41	LE71EZF	D9F180314-2	9174183		1.0 06/24/09 21:20		<input type="checkbox"/>
42	LE71ESF	D9F180314-2	9174183	MD	1.0 06/24/09 21:23		<input type="checkbox"/>
43	LE71EDF	D9F180314-2	9174183	MD	1.0 06/24/09 21:26		<input type="checkbox"/>
44	LFC4CF	D9F200196-2	9174183	MD	1.0 06/24/09 21:30	<input type="checkbox"/>	
45	CCV				1.0 06/24/09 21:33	<input type="checkbox"/>	
46	CCB				1.0 06/24/09 21:36	<input type="checkbox"/>	
47	RLCV				1.0 06/24/09 21:40	<input type="checkbox"/>	

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
48	RINSE				1.0 06/24/09 21:43		<input type="checkbox"/>
49	RINSE				1.0 06/24/09 21:47		<input type="checkbox"/>
50	RINSE				1.0 06/24/09 21:50		<input type="checkbox"/>
51	RINSE				1.0 06/24/09 21:53		<input type="checkbox"/>
52	RINSE				1.0 06/24/09 21:57		<input type="checkbox"/>
53	RINSE				1.0 06/24/09 22:00		<input type="checkbox"/>
54	CCV				1.0 06/24/09 22:04		<input type="checkbox"/>
55	CCB				1.0 06/24/09 22:07		<input type="checkbox"/>
56	RLCV				1.0 06/24/09 22:10		<input type="checkbox"/>
57	Cal Blank				1.0 06/24/09 22:14		<input type="checkbox"/>
58	Cal Blank				1.0 06/24/09 22:17		<input type="checkbox"/>
59	100 ppb				1.0 06/24/09 22:20		<input type="checkbox"/>
60	CCV				1.0 06/24/09 22:24		<input type="checkbox"/>
61	CCB				1.0 06/24/09 22:27		<input type="checkbox"/>
62	RLCV				1.0 06/24/09 22:31		<input type="checkbox"/>
63	LFFPJBF	D9F230000	9174251	MD	1.0 06/24/09 22:34		<input type="checkbox"/>
64	LFFPJCF	D9F230000	9174251	MD	1.0 06/24/09 22:37		<input type="checkbox"/>
65	LE7RXF	D9F180298-1	9174251	MD	1.0 06/24/09 22:41		<input type="checkbox"/>
66	LE7TDF	D9F180298-2	9174251	MD	1.0 06/24/09 22:44		<input type="checkbox"/>
67	LE7TDP5F	D9F180298	9174251		5.0 06/24/09 22:48		<input type="checkbox"/>
68	LE7TDZF	D9F180298-2	9174251		1.0 06/24/09 22:51		<input type="checkbox"/>
69	LE7TDSF	D9F180298-2	9174251	MD	1.0 06/24/09 22:54		<input type="checkbox"/>
70	CCV				1.0 06/24/09 22:58		<input type="checkbox"/>
71	CCB				1.0 06/24/09 23:01		<input type="checkbox"/>
72	RLCV				1.0 06/24/09 23:05		<input type="checkbox"/>
73	ICSA				1.0 06/24/09 23:08		<input type="checkbox"/>
74	ICSAB				1.0 06/24/09 23:11		<input type="checkbox"/>
75	WASH				1.0 06/24/09 23:15		<input type="checkbox"/>
76	CCV				1.0 06/24/09 23:18		<input type="checkbox"/>
77	CCB				1.0 06/24/09 23:21		<input type="checkbox"/>
78	RLCV				1.0 06/24/09 23:25		<input type="checkbox"/>
79	LE7TDDF	D9F180298-2	9174251	MD	1.0 06/24/09 23:28		<input type="checkbox"/>
80	LE7VVF	D9F180298-3	9174251	MD	1.0 06/24/09 23:32		<input type="checkbox"/>
81	LE7V3F	D9F180298-4	9174251	MD	1.0 06/24/09 23:35		<input type="checkbox"/>
82	LE7V5F	D9F180298-5	9174251	MD	1.0 06/24/09 23:38		<input type="checkbox"/>
83	LE7V8F	D9F180298-6	9174251	MD	1.0 06/24/09 23:42		<input type="checkbox"/>
84	LE7WAF	D9F180298-7	9174251	MD	1.0 06/24/09 23:45		<input type="checkbox"/>
85	LE88DF	D9F190179-1	9174251	MD	1.0 06/24/09 23:49		<input type="checkbox"/>
86	CCV				1.0 06/24/09 23:52		<input type="checkbox"/>
87	CCB				1.0 06/24/09 23:55		<input type="checkbox"/>
88	RLCV				1.0 06/24/09 23:59		<input type="checkbox"/>
89	LE88HF	D9F190179-2	9174251	MD	1.0 06/25/09 00:02		<input type="checkbox"/>
90	LE88JF	D9F190179-3	9174251	MD	1.0 06/25/09 00:06		<input type="checkbox"/>
91	LE88LF	D9F190179-4	9174251	MD	1.0 06/25/09 00:09		<input type="checkbox"/>
92	LE88NF	D9F190179-5	9174251	MD	1.0 06/25/09 00:12		<input type="checkbox"/>
93	LE88QF	D9F190179-6	9174251	MD	1.0 06/25/09 00:16		<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
94	LFEAEF	D9F220120-1	9174251	MD	1.0	06/25/09 00:19	<input type="checkbox"/>
95	LFEA6F	D9F220120-2	9174251	MD	1.0	06/25/09 00:23	<input type="checkbox"/>
96	CCV				1.0	06/25/09 00:26	<input type="checkbox"/>
97	CCB				1.0	06/25/09 00:29	<input type="checkbox"/>
98	RLCV				1.0	06/25/09 00:33	<input type="checkbox"/>
99	LFGFMB	D9F230000	9174418	04	1.0	06/25/09 00:36	<input type="checkbox"/>
100	LFGFMC	D9F230000	9174418	04	1.0	06/25/09 00:40	<input type="checkbox"/>
101	LE4PX	D9F170234-1	9174418	04	1.0	06/25/09 00:43	<input type="checkbox"/>
102	LE4QF	D9F170234-2	9174418	04	1.0	06/25/09 00:46	<input type="checkbox"/>
103	LE4QG	D9F170234-3	9174418	04	1.0	06/25/09 00:50	<input type="checkbox"/>
104	LE4QN	D9F170234-4	9174418	04	1.0	06/25/09 00:53	<input type="checkbox"/>
105	LE63X	D9F180238-1	9174418	04	1.0	06/25/09 00:57	<input type="checkbox"/>
106	LE859	D9F190169-1	9174418	04	1.0	06/25/09 01:00	<input type="checkbox"/>
107	LE862	D9F190169-2	9174418	04	1.0	06/25/09 01:03	<input type="checkbox"/>
108	CCV				1.0	06/25/09 01:07	<input type="checkbox"/>
109	CCB				1.0	06/25/09 01:10	<input type="checkbox"/>
110	RLCV				1.0	06/25/09 01:13	<input type="checkbox"/>
111	LFCHJ	D9F200140-1	9174418	04	1.0	06/25/09 01:17	<input type="checkbox"/>
112	LFCHJP5	D9F200140	9174418		5.0	06/25/09 01:20	<input type="checkbox"/>
113	LFCHJZ	D9F200140-1	9174418		1.0	06/25/09 01:24	<input type="checkbox"/>
114	LFCHJS	D9F200140-1	9174418	04	1.0	06/25/09 01:27	<input type="checkbox"/>
115	LFCHJD	D9F200140-1	9174418	04	1.0	06/25/09 01:30	<input type="checkbox"/>
116	LFCH5	D9F200140-2	9174418	04	1.0	06/25/09 01:34	<input type="checkbox"/>
117	LFCH6	D9F200140-3	9174418	04	1.0	06/25/09 01:37	<input type="checkbox"/>
118	LFCH7	D9F200140-4	9174418	04	1.0	06/25/09 01:41	<input type="checkbox"/>
119	CCV				1.0	06/25/09 01:44	<input type="checkbox"/>
120	CCB				1.0	06/25/09 01:47	<input type="checkbox"/>
121	RLCV				1.0	06/25/09 01:51	<input type="checkbox"/>
122	LFFFXB	D9F230000	9174190	MS	1.0	06/25/09 01:54	<input type="checkbox"/>
123	LFFFXC	D9F230000	9174190	MS	1.0	06/25/09 01:58	<input type="checkbox"/>
124	LE709	D9F180314-1	9174190	MS	1.0	06/25/09 02:01	<input type="checkbox"/>
125	LE7CT	D9F180266-1	9174190	MS	1.0	06/25/09 02:04	<input type="checkbox"/>
126	LE7CTP5	D9F180266	9174190		5.0	06/25/09 02:08	<input type="checkbox"/>
127	LE7CTZ	D9F180266-1	9174190		1.0	06/25/09 02:11	<input type="checkbox"/>
128	LE7CTS	D9F180266-1	9174190	MS	1.0	06/25/09 02:15	<input type="checkbox"/>
129	CCV				1.0	06/25/09 02:18	<input type="checkbox"/>
130	CCB				1.0	06/25/09 02:21	<input type="checkbox"/>
131	RLCV				1.0	06/25/09 02:25	<input type="checkbox"/>
132	LE7CTD	D9F180266-1	9174190	MS	1.0	06/25/09 02:28	<input type="checkbox"/>
133	LE9PT	D9F190216-1	9174190	MS	1.0	06/25/09 02:32	<input type="checkbox"/>
134	LFC4A	D9F200196-1	9174190	MS	1.0	06/25/09 02:35	<input type="checkbox"/>
135	LFC4D	D9F200196-3	9174190	MS	1.0	06/25/09 02:38	<input type="checkbox"/>
136	LFC4P	D9F200199-1	9174190	MS	1.0	06/25/09 02:42	<input type="checkbox"/>
137	LFC4Q	D9F200199-2	9174190	MS	1.0	06/25/09 02:45	<input type="checkbox"/>
138	CCV				1.0	06/25/09 02:48	<input type="checkbox"/>
139	CCB				1.0	06/25/09 02:52	<input type="checkbox"/>

*- See only. At 6/25/09*

Denver

RUN SUMMARY

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
140	RLCV				1.0	06/25/09 02:55	<input type="checkbox"/>
141	<del>LF11BF</del>	<del>D9F230000</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 02:59</del>	<input type="checkbox"/>
142	LF11CF	D9F230000	9174270	MD	1.0	06/25/09 03:02	<input type="checkbox"/>
143	LE6C3F	D9F180143-1	9174270	MD	1.0	06/25/09 03:05	<input type="checkbox"/>
144	LE6C7F	D9F180143-2	9174270	MD	1.0	06/25/09 03:09	<input type="checkbox"/>
145	LE6C8F	D9F180143-3	9174270	MD	1.0	06/25/09 03:12	<input type="checkbox"/>
146	LE6C9F	D9F180143-4	9174270	MD	1.0	06/25/09 03:16	<input type="checkbox"/>
147	LE6DAF	D9F180143-5	9174270	MD	1.0	06/25/09 03:19	<input type="checkbox"/>
148	LE6DCF	D9F180143-6	9174270	MD	1.0	06/25/09 03:22	<input type="checkbox"/>
149	LE6DCP5F	D9F180143	9174270		5.0	06/25/09 03:26	<input type="checkbox"/>
150	LE6DCZF	D9F180143-6	9174270		1.0	06/25/09 03:29	<input type="checkbox"/>
151	CCV				1.0	06/25/09 03:33	<input type="checkbox"/>
152	CCB				1.0	06/25/09 03:36	<input type="checkbox"/>
153	RLCV				1.0	06/25/09 03:39	<input type="checkbox"/>
154	LE6DCSF	D9F180143-6	9174270	MD	1.0	06/25/09 03:43	<input type="checkbox"/>
155	LE6DCDF	D9F180143-6	9174270	MD	1.0	06/25/09 03:46	<input type="checkbox"/>
156	LE9GLF	D9F190197-1	9174270	MD	1.0	06/25/09 03:50	<input type="checkbox"/>
157	LFCECF	D9F200122-1	9174270	MD	1.0	06/25/09 03:53	<input type="checkbox"/>
158	LFCEMF	D9F200122-2	9174270	MD	1.0	06/25/09 03:56	<input type="checkbox"/>
159	LFCEMF	D9F200122-3	9174270	MD	1.0	06/25/09 04:00	<input type="checkbox"/>
160	LFCEQF	D9F200122-4	9174270	MD	1.0	06/25/09 04:03	<input type="checkbox"/>
161	LFCERF	D9F200122-5	9174270	MD	1.0	06/25/09 04:07	<input type="checkbox"/>
162	LFCEWF	D9F200122-6	9174270	MD	1.0	06/25/09 04:10	<input type="checkbox"/>
163	LFCEXF	D9F200122-7	9174270	MD	1.0	06/25/09 04:13	<input type="checkbox"/>
164	CCV				1.0	06/25/09 04:17	<input type="checkbox"/>
165	CCB				1.0	06/25/09 04:20	<input type="checkbox"/>
166	RLCV				1.0	06/25/09 04:24	<input type="checkbox"/>
167	RINSE				1.0	06/25/09 04:27	<input type="checkbox"/>
168	RINSE				1.0	06/25/09 04:30	<input type="checkbox"/>
169	RINSE				1.0	06/25/09 04:34	<input type="checkbox"/>
170	RINSE				1.0	06/25/09 04:37	<input type="checkbox"/>
171	RINSE				1.0	06/25/09 04:41	<input type="checkbox"/>
172	RINSE				1.0	06/25/09 04:44	<input type="checkbox"/>
173	<del>Cal Blank</del>				<del>1.0</del>	<del>06/25/09 04:47</del> <i>Ref 6/25/09 did not use.</i>	<input type="checkbox"/>
174	Cal Blank				1.0	06/25/09 04:51	<input type="checkbox"/>
175	100 ppb				1.0	06/25/09 04:54	<input type="checkbox"/>
176	CCV				1.0	06/25/09 04:57	<input type="checkbox"/>
177	CCB				1.0	06/25/09 05:01	<input type="checkbox"/>
178	RLCV				1.0	06/25/09 05:04	<input type="checkbox"/>
179	MDLV BLANK				1.0	06/25/09 05:08	<input type="checkbox"/>
180	MDLV1				1.0	06/25/09 05:11	<input type="checkbox"/>
181	MDLV2				1.0	06/25/09 05:15	<input type="checkbox"/>
182	CCV				1.0	06/25/09 05:18	<input type="checkbox"/>
183	CCB				1.0	06/25/09 05:21	<input type="checkbox"/>
184	RLCV				1.0	06/25/09 05:25	<input type="checkbox"/>
185	LF11CBF	D9F230000	9174183	MD	1.0	06/25/09 05:28 <i>-As only, Ref 6/25/09</i>	<input type="checkbox"/>

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
186	LFFFCF	D9F230000	9174183	MD	1.0	06/25/09 05:32	<input type="checkbox"/>
187	LE71EF 10X	D9F180314-2	9174183	MD	10.0	06/25/09 05:35	<input type="checkbox"/>
188	LE71EP50F	D9F180314	9174183		50.0	06/25/09 05:38	<input type="checkbox"/>
189	LE71EZF	D9F180314-2	9174183		1.0	06/25/09 05:42	<input type="checkbox"/>
190	LE71ESF 10	D9F180314-2	9174183	MD	10.0	06/25/09 05:45	<input type="checkbox"/>
191	LE71EDF 10	D9F180314-2	9174183	MD	10.0	06/25/09 05:48	<input type="checkbox"/>
192	LFC4CF 10X	D9F200196-2	9174183	MD	10.0	06/25/09 05:52	<input type="checkbox"/>
193	CCV				1.0	06/25/09 05:55	<input type="checkbox"/>
194	CCB				1.0	06/25/09 05:59	<input type="checkbox"/>
195	RLCV				1.0	06/25/09 06:02	<input type="checkbox"/>
196	D9F120347-1				1.0	06/25/09 06:05	<input type="checkbox"/>
197	CCV				1.0	06/25/09 06:09	<input type="checkbox"/>
198	CCB				1.0	06/25/09 06:12	<input type="checkbox"/>
199	RLCV				1.0	06/25/09 06:16	<input type="checkbox"/>
200	LFFEFB	D9F230000	9174178	MS	1.0	06/25/09 06:19	<input type="checkbox"/>
201	LFFFCF	D9F230000	9174178	MS	1.0	06/25/09 06:22	<input type="checkbox"/>
202	LE9GL	D9F190197-1	9174178	MS	1.0	06/25/09 06:26	<input type="checkbox"/>
203	LE720	D9F180321-1	9174178	MS	1.0	06/25/09 06:29	<input type="checkbox"/>
204	LE721	D9F180321-2	9174178	MS	1.0	06/25/09 06:33	<input type="checkbox"/>
205	LE723	D9F180321-3	9174178	MS	1.0	06/25/09 06:36	<input type="checkbox"/>
206	LE724	D9F180321-4	9174178	MS	1.0	06/25/09 06:39	<input type="checkbox"/>
207	CCV				1.0	06/25/09 06:43	<input type="checkbox"/>
208	CCB				1.0	06/25/09 06:46	<input type="checkbox"/>
209	RLCV				1.0	06/25/09 06:50	<input type="checkbox"/>
210	LFCEC	D9F200122-1	9174178	MS	1.0	06/25/09 06:53	<input type="checkbox"/>
211	LFCEM	D9F200122-2	9174178	MS	1.0	06/25/09 06:56	<input type="checkbox"/>
212	LFCEN	D9F200122-3	9174178	MS	1.0	06/25/09 07:00	<input type="checkbox"/>
213	LFCEQ	D9F200122-4	9174178	MS	1.0	06/25/09 07:03	<input type="checkbox"/>
214	LFCER	D9F200122-5	9174178	MS	1.0	06/25/09 07:07	<input type="checkbox"/>
215	LFCEW	D9F200122-6	9174178	MS	1.0	06/25/09 07:10	<input type="checkbox"/>
216	LFCEX	D9F200122-7	9174178	MS	1.0	06/25/09 07:13	<input type="checkbox"/>
217	CCV				1.0	06/25/09 07:17	<input type="checkbox"/>
218	CCB				1.0	06/25/09 07:20	<input type="checkbox"/>
219	RLCV				1.0	06/25/09 07:24	<input type="checkbox"/>
220	<del>LFC4W</del>	<del>D9F200200-1</del>	<del>9174178</del>	<del>MS</del>	<del>1.0</del>	<del>06/25/09 07:27</del>	<input type="checkbox"/>
221	LFC4X	D9F200200-2	9174178	MS	1.0	06/25/09 07:31	<input type="checkbox"/>
222	LFC40	D9F200200-3	9174178	MS	1.0	06/25/09 07:34	<input type="checkbox"/>
223	LFC40P5	D9F200200	9174178		5.0	06/25/09 07:37	<input type="checkbox"/>
224	LFC40Z	<del>D9F200200-3</del>	9174178		1.0	06/25/09 07:41	<input type="checkbox"/>
225	LFC40S	D9F200200-3	9174178	MS	1.0	06/25/09 07:44	<input type="checkbox"/>
226	<del>LFC40D</del>	<del>D9F200200-3</del>	<del>9174178</del>	<del>MS</del>	<del>1.0</del>	<del>06/25/09 07:47</del>	<input type="checkbox"/>
227	CCV				1.0	06/25/09 07:51	<input type="checkbox"/>
228	CCB				1.0	06/25/09 07:54	<input type="checkbox"/>
229	RLCV				1.0	06/25/09 07:58	<input type="checkbox"/>
230	LFFV0BF	D9F230000	9174276	MD	1.0	06/25/09 08:01	<input type="checkbox"/>
231	LFFV0CF	D9F230000	9174276	MD	1.0	06/25/09 08:04	<input type="checkbox"/>

As only, 6/25/09

6/25/09 did not use.

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
232	LE98FF	D9F190267-1	9174276	MD	1.0	06/25/09 08:08	<input type="checkbox"/>
233	LE98FP5F	D9F190267	9174276		5.0	06/25/09 08:11	<input type="checkbox"/>
234	LE98FZF	D9F190267-1	9174276		1.0	06/25/09 08:15	<input type="checkbox"/>
235	LE98FSF	D9F190267-1	9174276	MD	1.0	06/25/09 08:18	<input type="checkbox"/>
236	LE98FDF	D9F190267-1	9174276	MD	1.0	06/25/09 08:22	<input type="checkbox"/>
237	LE99HF	D9F190267-2	9174276	MD	1.0	06/25/09 08:25	<input type="checkbox"/>
238	LE99RF	D9F190267-3	9174276	MD	1.0	06/25/09 08:28	<input type="checkbox"/>
239	CCV				1.0	06/25/09 08:32	<input type="checkbox"/>
240	CCB				1.0	06/25/09 08:35	<input type="checkbox"/>
241	RLCV				1.0	06/25/09 08:39	<input type="checkbox"/>
242	RINSE				1.0	06/25/09 08:42	<input type="checkbox"/>
243	RINSE				1.0	06/25/09 08:45	<input type="checkbox"/>
244	RINSE				1.0	06/25/09 08:49	<input type="checkbox"/>
245	RINSE				1.0	06/25/09 08:52	<input type="checkbox"/>
246	RINSE				1.0	06/25/09 08:56	<input type="checkbox"/>
247	RINSE				1.0	06/25/09 08:59	<input type="checkbox"/>
248	Cal-Blank				1.0	06/25/09 09:02	<input type="checkbox"/>
249	Cal-Blank				1.0	06/25/09 09:06	<input type="checkbox"/>
250	100 ppb				1.0	06/25/09 09:09	<input type="checkbox"/>
251	CCV				1.0	06/25/09 09:12	<input type="checkbox"/>
252	CCB				1.0	06/25/09 09:16	<input type="checkbox"/>
253	RLCV				1.0	06/25/09 09:19	<input type="checkbox"/>
254	LFFC2B	D9F230000	9174162	MS	1.0	06/25/09 09:23	<input type="checkbox"/>
255	LFFC2C	D9F230000	9174162	MS	1.0	06/25/09 09:26	<input type="checkbox"/>
256	LE6AW 2X	D9F180141-1	9174162	MS	2.0	06/25/09 09:29	<input type="checkbox"/>
257	LE6A1 2X	D9F180141-2	9174162	MS	2.0	06/25/09 09:33	<input type="checkbox"/>
258	LE6A2 2X	D9F180141-3	9174162	MS	2.0	06/25/09 09:36	<input type="checkbox"/>
259	LE81M	D9F190156-1	9174162	MS	1.0	06/25/09 09:40	<input type="checkbox"/>
260	CCV				1.0	06/25/09 09:43	<input type="checkbox"/>
261	CCB				1.0	06/25/09 09:47	<input type="checkbox"/>
262	RLCV				1.0	06/25/09 09:50	<input type="checkbox"/>
263	LE81MP5	D9F190156	9174162		5.0	06/25/09 09:53	<input type="checkbox"/>
264	LE81MZ	D9F190156-1	9174162		1.0	06/25/09 09:57	<input type="checkbox"/>
265	LE81MS	D9F190156-1	9174162	MS	1.0	06/25/09 10:00	<input type="checkbox"/>
266	LE81MD	D9F190156-1	9174162	MS	1.0	06/25/09 10:04	<input type="checkbox"/>
267	LE82G	D9F190156-2	9174162	MS	1.0	06/25/09 10:07	<input type="checkbox"/>
268	CCV				1.0	06/25/09 10:10	<input type="checkbox"/>
269	CCB				1.0	06/25/09 10:14	<input type="checkbox"/>
270	RLCV				1.0	06/25/09 10:17	<input type="checkbox"/>
271	LE6A1	D9F180141-2	9174162	MS	1.0	06/25/09 10:21	<input type="checkbox"/>
272	LE6A2	D9F180141-3	9174162	MS	1.0	06/25/09 10:24	<input type="checkbox"/>
273	LE81M	D9F190156-1	9174162	MS	1.0	06/25/09 10:27	<input type="checkbox"/>
274	CCV				1.0	06/25/09 10:31	<input type="checkbox"/>
275	CCB				1.0	06/25/09 10:34	<input type="checkbox"/>
276	RLCV				1.0	06/25/09 10:38	<input type="checkbox"/>

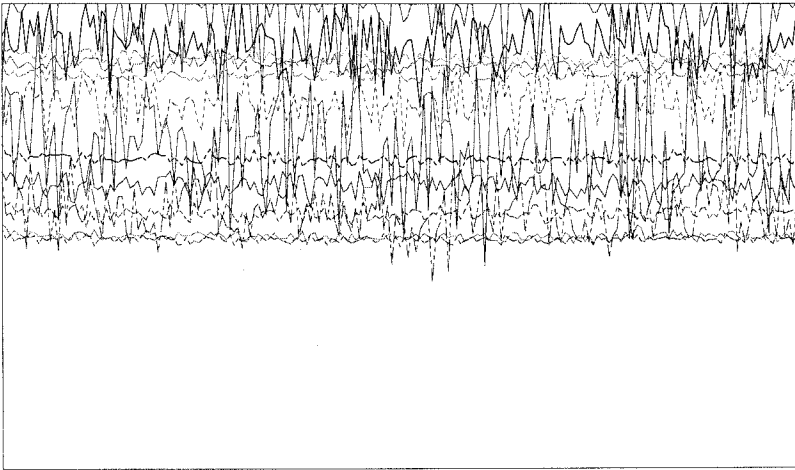
*Not 6/25/09*

*Not 6/25/09 did not use.*



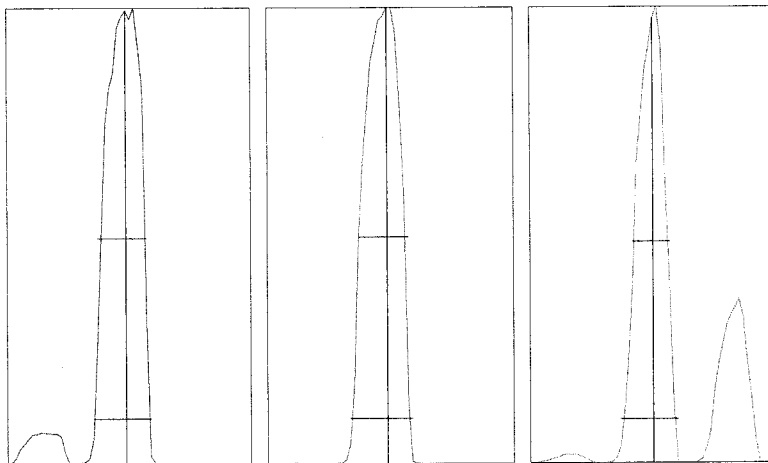
Tune Report

Tune File : NORM.U  
 Comment :



Integration Time: 0.1000 sec  
 Sampling Period: 1.5300 sec  
 n: 200  
 Oxide: 156/140 1.895%  
 Doubly Charged: 70/140 0.993%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1252.0	1210.7	3.15	0.50
7	20,000	17471.0	17359.0	1.29	0.50
59	50,000	24615.0	24727.2	1.47	0.70
63	100	89.0	103.1	10.52	0.60
70	500	416.0	457.8	5.82	1.10
75	100	58.0	68.5	14.27	1.10
78	500	424.0	392.8	5.32	1.10
89	50,000	42041.0	42147.0	1.21	0.80
115	50,000	42683.0	44143.0	1.25	1.10
137	10,000	5345.0	5438.1	2.07	1.50
205	50,000	32275.0	33040.5	1.41	2.80
238	100,000	49874.0	48834.3	1.31	3.20
156/140	5	1.895%	1.914%	4.40	
70/140	2	0.897%	0.986%	5.95	
118	200	104.0	109.9	12.05	1.30



m/z:	7	89	205
Height:	17,515	42,175	35,607
Axis:	7.00	89.00	205.05
W-50%:	0.60	0.60	0.45
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : NORM.U  
Comment :

Tuning Parameters

===Plasma Condition===

RF Power : 1550 W  
RF Matching : 1.7 V  
Smpl Depth : 7.8 mm  
Torch-H : -0.8 mm  
Torch-V : -0.3 mm  
Carrier Gas : 1.03 L/min  
Makeup Gas : 0 L/min  
Optional Gas : --- %  
Nebulizer Pump : 0.1 rps  
Sample Pump : --- rps  
S/C Temp : 2 degC

===Ion Lenses===

Extract 1 : 0 V  
Extract 2 : -175 V  
Omega Bias-ce : -30 V  
Omega Lens-ce : -0.2 V  
Cell Entrance : -30 V  
QP Focus : 5 V  
Cell Exit : -30 V

===Q-Pole Parameters===

AMU Gain : 134  
AMU Offset : 123  
Axis Gain : 1.001  
Axis Offset : -0.05  
QP Bias : -10 V

===Detector Parameters===

Discriminator : 8 mV  
Analog HV : 1740 V  
Pulse HV : 1390 V

===Octopole Parameters===

OctP RF : 180 V  
OctP Bias : -18 V

===Reaction Cell===

Reaction Mode : OFF  
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : --- %

P/A Factor Tuning Report

Acquired: Jun 24 2009 03:49 pm

Mass[amu]	Element	P/A Factor
6	Li	0.056718
7	(Li)	Sensitivity too low
9	Be	0.064016
45	Sc	0.077228
51	V	0.078776
52	Cr	0.082225
53	(Cr)	Sensitivity too low
55	Mn	0.083928
59	Co	0.087112
60	Ni	0.088839
63	Cu	0.091015
66	Zn	0.090699
72	Ge	0.089225
75	As	0.088472
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
95	Mo	0.089221
98	(Mo)	0.089321
99	(Mo)	0.090939
106	(Cd)	0.094970
107	Ag	Sensitivity too low
108	(Cd)	0.095488
111	Cd	0.095962
114	Cd	0.095973
115	In	0.095134
118	Sn	0.094981
121	Sb	0.094672
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
205	Tl	0.104372
206	(Pb)	0.103453
207	(Pb)	0.103546
208	Pb	0.103176
232	Th	0.101788
238	U	0.101858

===Detector Parameters===

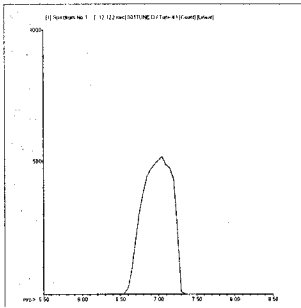
Discriminator: 8.0 mV  
Analog HV: 1740 V  
Pulse HV: 1390 V

## 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\001TUNE.D  
 Date Acquired: Jun 24 2009 07:03 pm  
 Acq. Method: tun\_isis.M  
 Operator: TEL  
 Sample Name: 200.8 TUNE  
 Misc Info:  
 Vial Number: 4  
 Current Method: C:\ICPCHEM\1\METHODS\tun\_isis.M

### RSD (%)

Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	10148	10089	10029	10089	10262	10266	2.79	5.00	
9 Be	1755	1771	1805	1760	1707	1730	2.90	5.00	
24 Mg	6955	6982	6967	6851	7035	6938	2.08	5.00	
59 Co	51905	52322	52279	52591	51727	50604	0.94	5.00	
115 In	462597	448980	462469	468100	470802	462631	2.44	5.00	
208 Pb	53885	55337	53878	53810	53372	53027	1.47	5.00	
238 U	106802	108619	107941	107202	105352	104892	2.15	5.00	



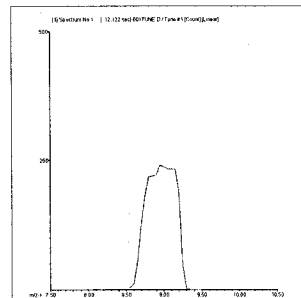
7 Li

#### Mass Calib.

Actual: 7.05  
 Required: 6.90 - 7.10  
 Flag:

#### Peak Width

Actual: 0.60  
 Required: 0.90  
 Flag:



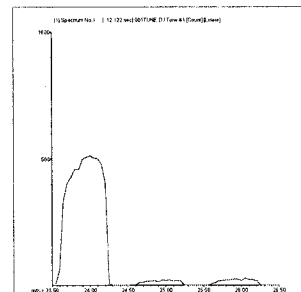
9 Be

#### Mass Calib.

Actual: 9.05  
 Required: 8.90 - 9.10  
 Flag:

#### Peak Width

Actual: 0.60  
 Required: 0.90  
 Flag:



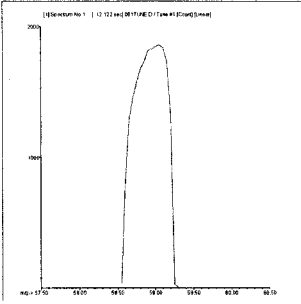
24 Mg

#### Mass Calib.

Actual: 24.00  
 Required: 23.90 - 24.10  
 Flag:

#### Peak Width

Actual: 0.60  
 Required: 0.90  
 Flag:



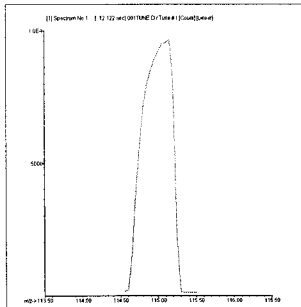
59 Co

Mass Calib.

Actual: 59.00  
Required: 58.90 - 59.10  
Flag:

Peak Width

Actual: 0.60  
Required: 0.90  
Flag:



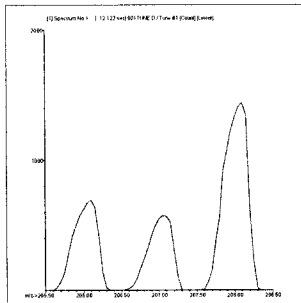
115 In

Mass Calib.

Actual: 115.05  
Required: 114.90 - 115.10  
Flag:

Peak Width

Actual: 0.60  
Required: 0.90  
Flag:



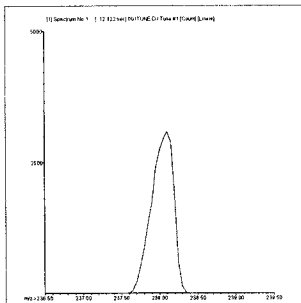
208 Pb

Mass Calib.

Actual: 208.05  
Required: 207.90 - 208.10  
Flag:

Peak Width

Actual: 0.55  
Required: 0.90  
Flag:



238 U

Mass Calib.

Actual: 238.05  
Required: 237.90 - 238.10  
Flag:

Peak Width

Actual: 0.50  
Required: 0.90  
Flag:

Tune Result:

Pass



**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#  
Date Acquired: Jun 24 2009 07:07 pm  
Acq. Method: NormISIS.M  
Operator: TEL  
Sample Name: Cal Blank  
Misc Info:  
Vial Number: 1101  
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
Last Cal. Update: Jun 24 2009 07:07 pm  
Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
51	V	72	1	-145	123.07
52	Cr	72	1	1567	3.74
55	Mn	72	1	110	47.24
59	Co	72	1	20	50.00
60	Ni	72	1	43	26.65
63	Cu	72	1	230	8.70
66	Zn	72	1	113	10.70
75	As	72	1	13	17.32
78	Se	72	1	53	28.64
95	Mo	72	1	33	75.50
107	Ag	115	1	120	14.43
111	Cd	115	1	-3	618.90
118	Sn	115	1	953	12.52
121	Sb	115	1	104	15.74
137	Ba	115	1	8	65.47
205	Tl	165	1	152	17.70
208	Pb	165	1	132	13.89
232	Th	165	1	447	11.27
238	U	165	1	60	27.78

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	163501	0.15
45	Sc	1	473295	0.64
72	Ge	1	272811	0.59
115	In	1	858259	0.37
165	Ho	1	1824721	0.44

Tune File# 1 c:\icpchem\1\7500\he.u  
Tune File# 2 C:\ICPCHEM\1\7500\  
Tune File# 3 C:\ICPCHEM\1\7500\

**Calibration Standard QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\003ICAL.D\003ICAL.D#  
 Date Acquired: Jun 24 2009 07:10 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:08 pm  
 Sample Type: ICAL

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	33917	0.70
51	V	72	540931	0.60
52	Cr	72	616152	1.28
55	Mn	72	554630	0.77
59	Co	72	886953	1.07
60	Ni	72	209311	2.01
63	Cu	72	528419	1.26
66	Zn	72	103879	1.21
75	As	72	67913	1.40
78	Se	72	9800	4.23
95	Mo	72	251498	1.05
107	Ag	115	802211	1.04
111	Cd	115	141668	1.10
118	Sn	115	351095	0.81
121	Sb	115	419639	0.73
137	Ba	115	157251	1.35
205	Tl	165	1656113	0.72
208	Pb	165	2343099	0.44
232	Th	165	2212844	0.87
238	U	165	2531076	0.95

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	159533	0.97	163501	97.6	30 - 120
45	Sc	1	459619	1.14	473295	97.1	30 - 120
72	Ge	1	266297	0.78	272811	97.6	30 - 120
115	In	1	825142	0.51	858259	96.1	30 - 120
165	Ho	1	1826683	0.51	1824721	100.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

**Initial Calibration Verification (ICV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\004\_ICV.D\004\_ICV.D#  
 Date Acquired: Jun 24 2009 07:13 pm  
 Operator: TEL  
 Sample Name: ICV  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: ICV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	37.74 ppb	2.95	40	94.4	90 - 110	
51	V	72	39.57 ppb	1.14	40	98.9	90 - 110	
52	Cr	72	39.74 ppb	1.46	40	99.4	90 - 110	
55	Mn	72	40.45 ppb	0.97	40	101.1	90 - 110	
59	Co	72	38.83 ppb	0.93	40	97.1	90 - 110	
60	Ni	72	40.85 ppb	1.17	40	102.1	90 - 110	
63	Cu	72	40.59 ppb	0.82	40	101.5	90 - 110	
66	Zn	72	39.58 ppb	0.25	40	99.0	90 - 110	
75	As	72	40.20 ppb	0.49	40	100.5	90 - 110	
78	Se	72	37.76 ppb	5.30	40	94.4	90 - 110	
95	Mo	72	40.09 ppb	1.05	40	100.2	90 - 110	
107	Ag	115	39.56 ppb	1.27	40	98.9	90 - 110	
111	Cd	115	39.92 ppb	0.33	40	99.8	90 - 110	
118	Sn	115	39.19 ppb	1.07	40	98.0	90 - 110	
121	Sb	115	38.41 ppb	0.35	40	96.0	90 - 110	
137	Ba	115	39.27 ppb	1.76	40	98.2	90 - 110	
205	Tl	165	40.47 ppb	1.84	40	101.2	90 - 110	
208	Pb	165	39.45 ppb	1.73	40	98.6	90 - 110	
232	Th	165	41.81 ppb	1.77	40	104.5	90 - 110	
238	U	165	39.37 ppb	1.93	40	98.4	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	162448	0.71	163501	99.4	30 - 120
45	Sc	1	460273	0.72	473295	97.2	30 - 120
72	Ge	1	266258	0.45	272811	97.6	30 - 120
115	In	1	830416	0.73	858259	96.8	30 - 120
165	Ho	1	1855738	0.65	1824721	101.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\005WASH.D\005WASH.D#  
 Date Acquired: Jun 24 2009 07:17 pm  
 Operator: TEL  
 Sample Name: RLIV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.013 ppb	16.38	1.30	
51 V	72	1	5.184 ppb	2.90	6.50	
52 Cr	72	1	2.106 ppb	2.23	2.60	
55 Mn	72	1	1.046 ppb	8.96	1.30	
59 Co	72	1	1.025 ppb	8.15	1.30	
60 Ni	72	1	2.042 ppb	5.81	2.60	
63 Cu	72	1	2.102 ppb	0.72	2.60	
66 Zn	72	1	10.290 ppb	3.26	13.00	
75 As	72	1	5.155 ppb	2.67	6.50	
78 Se	72	1	5.665 ppb	6.46	6.50	
95 Mo	72	1	2.116 ppb	1.68	2.60	
107 Ag	115	1	5.133 ppb	0.57	6.50	
111 Cd	115	1	0.950 ppb	4.09	1.30	
118 Sn	115	1	10.280 ppb	0.78	13.00	
121 Sb	115	1	2.148 ppb	1.25	2.60	
137 Ba	115	1	1.023 ppb	6.59	1.30	
205 Tl	165	1	1.145 ppb	2.23	1.30	
208 Pb	165	1	1.046 ppb	0.72	1.30	
232 Th	165	1	2.354 ppb	2.29	2.60	
238 U	165	1	1.064 ppb	1.46	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	160763	1.63	163501	98.3	30 - 120	
45 Sc	1	471262	0.38	473295	99.6	30 - 120	
72 Ge	1	271755	0.51	272811	99.6	30 - 120	
115 In	1	847415	0.20	858259	98.7	30 - 120	
165 Ho	1	1844156	0.82	1824721	101.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**RL STD QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\007RLST.D\007RLST.D#  
 Date Acquired: Jun 24 2009 07:24 pm  
 Operator: TEL  
 Sample Name: RL STD  
 Misc Info:  
 Vial Number: 2105  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: RLSTD  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	0.97 ppb	18.19	1	96.8	50 - 150
51	V	72	1	0.99 ppb	3.14	1	99.4	50 - 150
52	Cr	72	1	0.93 ppb	7.05	1	92.8	50 - 150
55	Mn	72	1	0.97 ppb	5.07	1	96.7	50 - 150
59	Co	72	1	0.96 ppb	0.68	1	96.0	50 - 150
60	Ni	72	1	1.01 ppb	2.54	1	101.2	50 - 150
63	Cu	72	1	1.03 ppb	3.32	1	103.2	50 - 150
66	Zn	72	1	10.02 ppb	0.47	10	100.2	50 - 150
75	As	72	1	0.92 ppb	3.90	1	92.0	50 - 150
78	Se	72	1	1.20 ppb	45.54	1	119.8	50 - 150
95	Mo	72	1	0.96 ppb	2.00	1	96.4	50 - 150
107	Ag	115	1	0.98 ppb	2.92	1	97.6	50 - 150
111	Cd	115	1	1.01 ppb	4.50	1	100.5	50 - 150
118	Sn	115	1	9.96 ppb	0.72	10	99.6	50 - 150
121	Sb	115	1	1.00 ppb	2.80	1	100.4	50 - 150
137	Ba	115	1	0.98 ppb	5.44	1	97.8	50 - 150
205	Tl	165	1	1.04 ppb	2.28	1	103.8	50 - 150
208	Pb	165	1	1.01 ppb	1.21	1	100.8	50 - 150
232	Th	165	1	1.04 ppb	2.19	1	104.0	50 - 150
238	U	165	1	1.02 ppb	1.33	1	101.7	50 - 150

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	160442	0.99	163501	98.1	30 - 120
45	Sc	1	470835	1.02	473295	99.5	30 - 120
72	Ge	1	273237	0.62	272811	100.2	30 - 120
115	In	1	850139	0.61	858259	99.1	30 - 120
165	Ho	1	1835371	0.47	1824721	100.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**AFCEE RL QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\008AFCE.D\008AFCE.D#  
 Date Acquired: Jun 24 2009 07:27 pm  
 Operator: TEL  
 Sample Name: AFCEE RL  
 Misc Info:  
 Vial Number: 2106  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: AFCEERL  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	0.16 ppb	29.97	0	81.1	80 - 120	
51	V	72	0.22 ppb	21.92	0	112.2	80 - 120	
52	Cr	72	0.16 ppb	14.27	0	86.6	80 - 120	
55	Mn	72	0.21 ppb	4.13	0	107.8	80 - 120	
59	Co	72	0.20 ppb	9.64	0	102.9	80 - 120	
60	Ni	72	0.21 ppb	19.96	0	103.9	80 - 120	
63	Cu	72	0.23 ppb	3.46	0	110.1	80 - 120	
66	Zn	72	2.05 ppb	5.49	2	102.2	80 - 120	
75	As	72	0.20 ppb	11.05	0	106.8	80 - 120	
78	Se	72	0.31 ppb	47.94	0	128.3	80 - 120	
95	Mo	72	0.23 ppb	9.33	0	117.9	80 - 120	
107	Ag	115	0.18 ppb	9.26	0	90.2	80 - 120	
111	Cd	115	0.22 ppb	10.37	0	109.8	80 - 120	
118	Sn	115	2.07 ppb	6.36	2	103.8	80 - 120	
121	Sb	115	0.21 ppb	0.98	0	102.5	80 - 120	
137	Ba	115	0.19 ppb	12.38	0	95.7	80 - 120	
205	Tl	165	0.22 ppb	3.71	0	105.8	80 - 120	
208	Pb	165	0.21 ppb	3.19	0	102.7	80 - 120	
232	Th	165	0.22 ppb	3.83	0	104.1	80 - 120	
238	U	165	0.21 ppb	2.86	0	101.7	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	160158	1.30	163501	98.0	30 - 120
45	Sc	1	466170	0.32	473295	98.5	30 - 120
72	Ge	1	270425	0.78	272811	99.1	30 - 120
115	In	1	841433	0.70	858259	98.0	30 - 120
165	Ho	1	1807963	1.45	1824721	99.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\009SMPL.D\009SMPL.D#  
 Date Acquired: Jun 24 2009 07:30 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ALTSe  
 Misc Info: 2 ppb  
 Vial Number: 2107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	0.02	0.02	ppb	198.41	3600	
52 Cr	72	1	-0.04	-0.04	ppb	31.12	3600	
55 Mn	72	1	0.00	0.00	ppb	629.93	3600	
59 Co	72	1	0.00	0.00	ppb	166.65	3600	
60 Ni	72	1	0.00	0.00	ppb	4583.20	3600	
63 Cu	72	1	0.01	0.01	ppb	137.68	3600	
66 Zn	72	1	0.09	0.09	ppb	14.30	3600	
75 As	72	1	0.00	0.00	ppb	161.72	3600	
78 Se	72	1	2.12	2.12	ppb	35.07	3600	
95 Mo	72	1	-0.01	-0.01	ppb	0.75	3600	
107 Ag	115	1	0.00	0.00	ppb	67.28	3600	
111 Cd	115	1	0.01	0.01	ppb	30.96	3600	
118 Sn	115	1	0.00	0.00	ppb	5718.90	3600	
121 Sb	115	1	-0.01	-0.01	ppb	44.60	3600	
137 Ba	115	1	0.00	0.00	ppb	70.63	3600	
205 Tl	165	1	0.00	0.00	ppb	86.15	3600	
208 Pb	165	1	0.00	0.00	ppb	57.78	3600	
232 Th	165	1	0.00	0.00	ppb	148.71	1000	
238 U	165	1	0.00	0.00	ppb	0.47	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	160785	1.21	163501	98.3	30 - 120	
45 Sc	1	472930	1.03	473295	99.9	30 - 120	
72 Ge	1	274512	0.51	272811	100.6	30 - 120	
115 In	1	854708	0.87	858259	99.6	30 - 120	
165 Ho	1	1840765	1.67	1824721	100.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\010ICSA.D\010ICSA.D#  
 Date Acquired: Jun 24 2009 07:34 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass  
ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9 Be	6	1	0.07 ppb	27.06	1.00	
51 V	72	1	-0.15 ppb	63.76	1.00	
52 Cr	72	1	1.00 ppb	9.52	1.00	
55 Mn	72	1	2.10 ppb	15.02	1.00	
59 Co	72	1	0.04 ppb	12.81	1.00	
60 Ni	72	1	0.77 ppb	16.00	1.00	
63 Cu	72	1	0.36 ppb	16.67	1.00	
66 Zn	72	1	2.79 ppb	14.69	10.00	
75 As	72	1	0.15 ppb	7.74	1.00	
78 Se	72	1	0.45 ppb	30.62	1.00	
95 Mo	72	1	2051.00 ppb	14.59	2000.00	
107 Ag	115	1	0.08 ppb	16.05	1.00	
111 Cd	115	1	0.34 ppb	55.09	1.00	
118 Sn	115	1	0.04 ppb	136.34	10.00	
121 Sb	115	1	0.22 ppb	25.12	1.00	
137 Ba	115	1	1.60 ppb	24.35	1.00	
205 Tl	165	1	0.03 ppb	16.30	1.00	
208 Pb	165	1	0.13 ppb	20.62	1.00	
232 Th	165	1	0.03 ppb	38.59	1.00	
238 U	165	1	0.02 ppb	18.11	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	150867	12.87	163501	92.3	30 - 120	
45 Sc	1	392581	18.49	473295	82.9	30 - 120	
72 Ge	1	224502	13.80	272811	82.3	30 - 120	
115 In	1	685599	16.48	858259	79.9	30 - 120	
165 Ho	1	1658393	18.54	1824721	90.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Nnumber of ISTD Failures Allowed



**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\012SMPL.D\012SMPL.D#  
 Date Acquired: Jun 24 2009 07:40 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.19	3600	
51 V	72	1	0.06	0.06	ppb	51.17	3600	
52 Cr	72	1	0.00	0.00	ppb	1189.30	3600	
55 Mn	72	1	0.00	0.00	ppb	108.29	3600	
59 Co	72	1	0.01	0.01	ppb	47.32	3600	
60 Ni	72	1	0.00	0.00	ppb	335.34	3600	
63 Cu	72	1	0.04	0.04	ppb	22.27	3600	
66 Zn	72	1	0.00	0.00	ppb	364.94	3600	
75 As	72	1	0.02	0.02	ppb	98.18	3600	
78 Se	72	1	0.03	0.03	ppb	1244.20	3600	
95 Mo	72	1	0.87	0.87	ppb	7.94	3600	
107 Ag	115	1	0.01	0.01	ppb	78.37	3600	
111 Cd	115	1	0.01	0.01	ppb	314.55	3600	
118 Sn	115	1	-0.01	-0.01	ppb	83.03	3600	
121 Sb	115	1	0.01	0.01	ppb	51.11	3600	
137 Ba	115	1	0.00	0.00	ppb	27.64	3600	
205 Tl	165	1	0.00	0.00	ppb	59.27	3600	
208 Pb	165	1	0.01	0.01	ppb	58.23	3600	
232 Th	165	1	0.25	0.25	ppb	23.49	1000	
238 U	165	1	0.01	0.01	ppb	20.75	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	172816	0.10	163501	105.7	30 - 120	
45 Sc	1	449254	0.62	473295	94.9	30 - 120	
72 Ge	1	259990	0.37	272811	95.3	30 - 120	
115 In	1	822615	0.25	858259	95.8	30 - 120	
165 Ho	1	1864559	1.27	1824721	102.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Linear Dynamic Range Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\013\_LR.D\013\_LR.D#  
 Date Acquired: Jun 24 2009 07:44 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LR  
 Misc Info:  
 Vial Number: 2110  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: LR  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	937.10 ppb	1.11	1000	93.7	90 - 110	
51 V	72	1	932.00 ppb	1.41	1000	93.2	90 - 110	
52 Cr	72	1	964.00 ppb	0.63	1000	96.4	90 - 110	
55 Mn	72	1	969.70 ppb	0.64	1000	97.0	90 - 110	
59 Co	72	1	926.20 ppb	1.18	1000	92.6	90 - 110	
60 Ni	72	1	995.00 ppb	1.85	1000	99.5	90 - 110	
63 Cu	72	1	955.90 ppb	0.71	1000	95.6	90 - 110	
66 Zn	72	1	1020.00 ppb	0.96	1000	102.0	90 - 110	
75 As	72	1	981.30 ppb	0.36	1000	98.1	90 - 110	
78 Se	72	1	950.60 ppb	1.07	1000	95.1	90 - 110	
95 Mo	72	1	1009.00 ppb	1.13	1000	100.9	90 - 110	
107 Ag	115	1	948.10 ppb	2.03	1000	94.8	90 - 110	
111 Cd	115	1	1006.00 ppb	0.95	1000	100.6	90 - 110	
118 Sn	115	1	993.40 ppb	1.10	1000	99.3	90 - 110	
121 Sb	115	1	986.00 ppb	1.37	1000	98.6	90 - 110	
137 Ba	115	1	1008.00 ppb	1.16	1000	100.8	90 - 110	
205 Tl	165	1	957.90 ppb	0.93	1000	95.8	90 - 110	
208 Pb	165	1	967.80 ppb	1.24	1000	96.8	90 - 110	
232 Th	165	1	985.20 ppb	1.85	1000	98.5	90 - 110	
238 U	165	1	979.70 ppb	1.31	1000	98.0	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	167418	0.56	163501	102.4	30 - 120	
45 Sc	1	441840	0.55	473295	93.4	30 - 120	
72 Ge	1	254704	0.98	272811	93.4	30 - 120	
115 In	1	794489	1.38	858259	92.6	30 - 120	
165 Ho	1	1851575	1.22	1824721	101.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\014SMPL.D\014SMPL.D#  
 Date Acquired: Jun 24 2009 07:47 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.06	0.06	ppb	99.58	3600	
51 V	72	1	0.04	0.04	ppb	67.88	3600	
52 Cr	72	1	0.00	0.00	ppb	7422.60	3600	
55 Mn	72	1	0.02	0.02	ppb	39.53	3600	
59 Co	72	1	0.03	0.03	ppb	20.63	3600	
60 Ni	72	1	0.01	0.01	ppb	222.29	3600	
63 Cu	72	1	0.06	0.06	ppb	26.83	3600	
66 Zn	72	1	0.05	0.05	ppb	8.94	3600	
75 As	72	1	0.07	0.07	ppb	35.45	3600	
78 Se	72	1	0.32	0.32	ppb	155.20	3600	
95 Mo	72	1	0.53	0.53	ppb	16.69	3600	
107 Ag	115	1	0.27	0.27	ppb	10.31	3600	
111 Cd	115	1	0.02	0.02	ppb	120.38	3600	
118 Sn	115	1	0.60	0.60	ppb	14.22	3600	
121 Sb	115	1	0.28	0.28	ppb	11.01	3600	
137 Ba	115	1	0.03	0.03	ppb	49.25	3600	
205 Tl	165	1	0.53	0.53	ppb	7.28	3600	
208 Pb	165	1	0.03	0.03	ppb	25.90	3600	
232 Th	165	1	2.47	2.47	ppb	17.39	1000	
238 U	165	1	0.07	0.07	ppb	11.38	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	169206	0.80	163501	103.5	30 - 120	
45 Sc	1	452007	0.24	473295	95.5	30 - 120	
72 Ge	1	264993	0.64	272811	97.1	30 - 120	
115 In	1	831332	0.49	858259	96.9	30 - 120	
165 Ho	1	1852436	0.43	1824721	101.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\015\_CCV.D\015\_CCV.D#  
 Date Acquired: Jun 24 2009 07:52 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	47.95 ppb	1.18	50	95.9	90 - 110	
51	V	72	49.01 ppb	1.26	50	98.0	90 - 110	
52	Cr	72	49.82 ppb	1.43	50	99.6	90 - 110	
55	Mn	72	50.08 ppb	0.46	50	100.2	90 - 110	
59	Co	72	48.73 ppb	1.25	50	97.5	90 - 110	
60	Ni	72	50.21 ppb	0.21	50	100.4	90 - 110	
63	Cu	72	50.36 ppb	0.99	50	100.7	90 - 110	
66	Zn	72	49.28 ppb	1.54	50	98.6	90 - 110	
75	As	72	50.00 ppb	0.87	50	100.0	90 - 110	
78	Se	72	47.07 ppb	6.00	50	94.1	90 - 110	
95	Mo	72	50.70 ppb	0.85	50	101.4	90 - 110	
107	Ag	115	50.22 ppb	0.54	50	100.4	90 - 110	
111	Cd	115	50.43 ppb	0.56	50	100.9	90 - 110	
118	Sn	115	50.40 ppb	1.34	50	100.8	90 - 110	
121	Sb	115	50.22 ppb	0.60	50	100.4	90 - 110	
137	Ba	115	50.22 ppb	0.37	50	100.4	90 - 110	
205	Tl	165	51.87 ppb	0.54	50	103.7	90 - 110	
208	Pb	165	50.22 ppb	0.96	50	100.4	90 - 110	
232	Th	165	48.96 ppb	1.93	50	97.9	90 - 110	
238	U	165	50.55 ppb	1.23	50	101.1	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	168391	0.58	163501	103.0	30 - 120
45	Sc	1	461420	0.74	473295	97.5	30 - 120
72	Ge	1	266462	0.21	272811	97.7	30 - 120
115	In	1	830967	0.55	858259	96.8	30 - 120
165	Ho	1	1872058	0.91	1824721	102.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\016\_CCB.D\016\_CCB.D#  
 Date Acquired: Jun 24 2009 07:55 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.009	ppb	173.20	1.00	
51 V	72	1	-0.038	ppb	90.01	1.00	
52 Cr	72	1	-0.014	ppb	95.55	1.00	
55 Mn	72	1	0.005	ppb	127.19	1.00	
59 Co	72	1	0.001	ppb	291.01	1.00	
60 Ni	72	1	-0.007	ppb	138.82	1.00	
63 Cu	72	1	0.012	ppb	208.41	1.00	
66 Zn	72	1	0.019	ppb	34.41	1.00	
75 As	72	1	-0.001	ppb	1011.90	1.00	
78 Se	72	1	0.391	ppb	70.56	1.00	
95 Mo	72	1	0.103	ppb	32.60	1.00	
107 Ag	115	1	0.079	ppb	22.88	1.00	
111 Cd	115	1	0.008	ppb	45.24	1.00	
118 Sn	115	1	0.134	ppb	39.20	1.00	
121 Sb	115	1	0.034	ppb	13.13	1.00	
137 Ba	115	1	0.000	ppb	1521.40	1.00	
205 Tl	165	1	0.074	ppb	9.57	1.00	
208 Pb	165	1	0.001	ppb	30.04	1.00	
232 Th	165	1	0.704	ppb	20.83	1.00	
238 U	165	1	0.005	ppb	6.54	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	165071	1.73	163501	101.0	30 - 120	
45 Sc	1	458156	2.72	473295	96.8	30 - 120	
72 Ge	1	266323	1.54	272811	97.6	30 - 120	
115 In	1	830225	2.53	858259	96.7	30 - 120	
165 Ho	1	1834045	3.17	1824721	100.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\017WASH.D\017WASH.D#  
 Date Acquired: Jun 24 2009 07:58 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.121 ppb	30.68	1.30	
51 V	72	1	5.154 ppb	3.56	6.50	
52 Cr	72	1	2.061 ppb	5.49	2.60	
55 Mn	72	1	1.001 ppb	1.48	1.30	
59 Co	72	1	1.029 ppb	3.34	1.30	
60 Ni	72	1	2.110 ppb	6.42	2.60	
63 Cu	72	1	2.085 ppb	1.98	2.60	
66 Zn	72	1	10.110 ppb	0.87	13.00	
75 As	72	1	5.183 ppb	1.61	6.50	
78 Se	72	1	4.623 ppb	11.87	6.50	
95 Mo	72	1	2.103 ppb	3.10	2.60	
107 Ag	115	1	5.138 ppb	0.77	6.50	
111 Cd	115	1	1.064 ppb	6.44	1.30	
118 Sn	115	1	10.490 ppb	2.92	13.00	
121 Sb	115	1	1.953 ppb	2.16	2.60	
137 Ba	115	1	1.009 ppb	8.26	1.30	
205 Tl	165	1	1.116 ppb	0.50	1.30	
208 Pb	165	1	1.050 ppb	1.33	1.30	
232 Th	165	1	2.150 ppb	0.71	2.60	
238 U	165	1	1.055 ppb	1.61	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	166616	0.49	163501	101.9	30 - 120	
45 Sc	1	470800	0.34	473295	99.5	30 - 120	
72 Ge	1	271876	0.14	272811	99.7	30 - 120	
115 In	1	848189	0.16	858259	98.8	30 - 120	
165 Ho	1	1850275	0.97	1824721	101.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\028\_CCV.D\028\_CCV.D#  
 Date Acquired: Jun 24 2009 08:36 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.91 ppb	4.06	50	99.8	90 - 110	
51	V	72	49.06 ppb	0.65	50	98.1	90 - 110	
52	Cr	72	49.15 ppb	0.81	50	98.3	90 - 110	
55	Mn	72	49.93 ppb	0.46	50	99.9	90 - 110	
59	Co	72	48.38 ppb	0.71	50	96.8	90 - 110	
60	Ni	72	49.43 ppb	1.21	50	98.9	90 - 110	
63	Cu	72	49.60 ppb	0.61	50	99.2	90 - 110	
66	Zn	72	48.83 ppb	1.38	50	97.7	90 - 110	
75	As	72	50.10 ppb	1.52	50	100.2	90 - 110	
78	Se	72	49.60 ppb	3.25	50	99.2	90 - 110	
95	Mo	72	50.21 ppb	0.79	50	100.4	90 - 110	
107	Ag	115	49.85 ppb	0.71	50	99.7	90 - 110	
111	Cd	115	50.33 ppb	1.36	50	100.7	90 - 110	
118	Sn	115	50.19 ppb	0.61	50	100.4	90 - 110	
121	Sb	115	50.21 ppb	0.46	50	100.4	90 - 110	
137	Ba	115	50.84 ppb	0.59	50	101.7	90 - 110	
205	Tl	165	52.34 ppb	1.90	50	104.7	90 - 110	
208	Pb	165	50.99 ppb	1.78	50	102.0	90 - 110	
232	Th	165	50.26 ppb	1.07	50	100.5	90 - 110	
238	U	165	52.01 ppb	0.60	50	104.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	147649	0.21	163501	90.3	30 - 120
45	Sc	1	427867	0.48	473295	90.4	30 - 120
72	Ge	1	249035	0.40	272811	91.3	30 - 120
115	In	1	786127	0.27	858259	91.6	30 - 120
165	Ho	1	1751379	1.24	1824721	96.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\029\_CCB.D\029\_CCB.D#  
 Date Acquired: Jun 24 2009 08:39 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.011 ppb	173.13	1.00	
51 V	72	1	-0.006 ppb	1394.40	1.00	
52 Cr	72	1	-0.032 ppb	101.03	1.00	
55 Mn	72	1	0.005 ppb	108.60	1.00	
59 Co	72	1	0.000 ppb	1570.50	1.00	
60 Ni	72	1	0.003 ppb	266.11	1.00	
63 Cu	72	1	0.018 ppb	27.46	1.00	
66 Zn	72	1	0.016 ppb	140.14	1.00	
75 As	72	1	0.012 ppb	56.52	1.00	
78 Se	72	1	0.279 ppb	108.79	1.00	
95 Mo	72	1	0.060 ppb	40.02	1.00	
107 Ag	115	1	0.109 ppb	28.36	1.00	
111 Cd	115	1	0.011 ppb	53.34	1.00	
118 Sn	115	1	0.039 ppb	55.82	1.00	
121 Sb	115	1	0.016 ppb	34.99	1.00	
137 Ba	115	1	0.005 ppb	108.69	1.00	
205 Tl	165	1	0.019 ppb	23.84	1.00	
208 Pb	165	1	0.003 ppb	38.29	1.00	
232 Th	165	1	0.728 ppb	16.33	1.00	
238 U	165	1	0.006 ppb	38.81	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	148730	1.56	163501	91.0	30 - 120	
45 Sc	1	439376	0.43	473295	92.8	30 - 120	
72 Ge	1	257637	0.39	272811	94.4	30 - 120	
115 In	1	817368	0.32	858259	95.2	30 - 120	
165 Ho	1	1773917	1.34	1824721	97.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\030WASH.D\030WASH.D#  
 Date Acquired: Jun 24 2009 08:42 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.959 ppb	10.84	1.30	
51 V	72	1	5.001 ppb	2.10	6.50	
52 Cr	72	1	2.073 ppb	2.04	2.60	
55 Mn	72	1	1.037 ppb	1.45	1.30	
59 Co	72	1	1.022 ppb	3.89	1.30	
60 Ni	72	1	1.926 ppb	3.49	2.60	
63 Cu	72	1	1.996 ppb	2.34	2.60	
66 Zn	72	1	10.210 ppb	0.70	13.00	
75 As	72	1	5.174 ppb	2.23	6.50	
78 Se	72	1	4.849 ppb	11.65	6.50	
95 Mo	72	1	2.025 ppb	3.19	2.60	
107 Ag	115	1	5.027 ppb	2.25	6.50	
111 Cd	115	1	1.037 ppb	5.78	1.30	
118 Sn	115	1	10.420 ppb	3.19	13.00	
121 Sb	115	1	1.948 ppb	3.09	2.60	
137 Ba	115	1	1.058 ppb	4.46	1.30	
205 Tl	165	1	1.115 ppb	0.89	1.30	
208 Pb	165	1	1.068 ppb	1.04	1.30	
232 Th	165	1	2.208 ppb	1.16	2.60	
238 U	165	1	1.083 ppb	1.42	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	145582	0.61	163501	89.0	30 - 120	
45 Sc	1	440932	0.10	473295	93.2	30 - 120	
72 Ge	1	258827	0.34	272811	94.9	30 - 120	
115 In	1	817143	0.75	858259	95.2	30 - 120	
165 Ho	1	1779277	0.27	1824721	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\031ICSA.D\031ICSA.D#  
 Date Acquired: Jun 24 2009 08:46 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.06 ppb	69.23	1.00
51	V	72	1	0.00 ppb	12424.00	1.00
52	Cr	72	1	0.90 ppb	6.03	1.00
55	Mn	72	1	2.00 ppb	1.68	1.00
59	Co	72	1	0.04 ppb	13.41	1.00
60	Ni	72	1	0.64 ppb	13.77	1.00
63	Cu	72	1	0.33 ppb	6.75	1.00
66	Zn	72	1	2.66 ppb	1.84	10.00
75	As	72	1	0.17 ppb	16.32	1.00
78	Se	72	1	-0.12 ppb	250.61	1.00
95	Mo	72	1	1987.00 ppb	0.59	2000.00
107	Ag	115	1	0.15 ppb	10.46	1.00
111	Cd	115	1	0.34 ppb	8.22	1.00
118	Sn	115	1	0.07 ppb	56.73	10.00
121	Sb	115	1	0.23 ppb	16.82	1.00
137	Ba	115	1	1.50 ppb	2.17	1.00
205	Tl	165	1	0.04 ppb	13.74	1.00
208	Pb	165	1	0.13 ppb	5.13	1.00
232	Th	165	1	0.14 ppb	15.33	1.00
238	U	165	1	0.02 ppb	10.77	1.00

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	142331	0.44	163501	87.1	30 - 120
45	Sc	1	386462	0.70	473295	81.7	30 - 120
72	Ge	1	221252	0.75	272811	81.1	30 - 120
115	In	1	696244	0.46	858259	81.1	30 - 120
165	Ho	1	1655055	0.69	1824721	90.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Nnumber of ISTD Failures Allowed

## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\032ICSB.D\032ICSB.D#  
 Date Acquired: Jun 24 2009 08:49 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	92.45	1.78	100	92.5	80 - 120	
51 V	72	1	98.47	1.03	100	98.5	80 - 120	
52 Cr	72	1	97.21	0.98	100	97.2	80 - 120	
55 Mn	72	1	98.03	0.06	100	98.0	80 - 120	
59 Co	72	1	91.77	0.80	100	91.8	80 - 120	
60 Ni	72	1	91.22	0.22	100	91.2	80 - 120	
63 Cu	72	1	89.66	0.13	100	89.7	80 - 120	
66 Zn	72	1	98.19	0.86	100	98.2	80 - 120	
75 As	72	1	101.70	0.51	100	101.7	80 - 120	
78 Se	72	1	107.30	2.92	100	107.3	80 - 120	
95 Mo	72	1	2111.00	0.65	2100	100.5	80 - 120	
107 Ag	115	1	87.33	3.11	100	87.3	80 - 120	
111 Cd	115	1	96.45	0.75	100	96.5	80 - 120	
118 Sn	115	1	101.30	1.24	100	101.3	80 - 120	
121 Sb	115	1	102.80	0.62	100	102.8	80 - 120	
137 Ba	115	1	104.30	0.55	100	104.3	80 - 120	
205 Tl	165	1	93.90	1.62	100	93.9	80 - 120	
208 Pb	165	1	92.10	2.05	100	92.1	80 - 120	
232 Th	165	1	102.00	0.53	100	102.0	80 - 120	
238 U	165	1	98.05	1.04	100	98.1	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	141789	0.76	163501	86.7	30 - 120	
45 Sc	1	372807	0.46	473295	78.8	30 - 120	
72 Ge	1	213418	0.77	272811	78.2	30 - 120	
115 In	1	668009	0.48	858259	77.8	30 - 120	
165 Ho	1	1645681	0.33	1824721	90.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\033WASH.D\033WASH.D#  
 Date Acquired: Jun 24 2009 08:52 pm  
 Operator: TEL  
 Sample Name: WASH  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.30	
51 V	72	1	0.032 ppb	259.28	6.50	
52 Cr	72	1	-0.006 ppb	153.20	2.60	
55 Mn	72	1	0.019 ppb	35.08	1.30	
59 Co	72	1	0.012 ppb	60.51	1.30	
60 Ni	72	1	0.027 ppb	77.20	2.60	
63 Cu	72	1	0.042 ppb	16.35	2.60	
66 Zn	72	1	-0.008 ppb	388.99	13.00	
75 As	72	1	0.030 ppb	45.45	6.50	
78 Se	72	1	0.186 ppb	33.94	6.50	
95 Mo	72	1	0.978 ppb	15.36	2.60	
107 Ag	115	1	0.025 ppb	22.42	6.50	
111 Cd	115	1	0.018 ppb	28.54	1.30	
118 Sn	115	1	0.043 ppb	45.64	13.00	
121 Sb	115	1	0.016 ppb	41.20	2.60	
137 Ba	115	1	0.018 ppb	30.15	1.30	
205 Tl	165	1	0.014 ppb	7.58	1.30	
208 Pb	165	1	0.016 ppb	18.72	1.30	
232 Th	165	1	0.583 ppb	15.44	2.60	
238 U	165	1	0.021 ppb	20.17	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153786	0.64	163501	94.1	30 - 120	
45 Sc	1	428807	0.32	473295	90.6	30 - 120	
72 Ge	1	253153	0.93	272811	92.8	30 - 120	
115 In	1	808206	0.62	858259	94.2	30 - 120	
165 Ho	1	1787510	1.50	1824721	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\034\_CCV.D\034\_CCV.D#  
 Date Acquired: Jun 24 2009 08:56 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.33 ppb	4.28	50	98.7	90 - 110	
51	V	72	49.34 ppb	1.56	50	98.7	90 - 110	
52	Cr	72	49.38 ppb	1.39	50	98.8	90 - 110	
55	Mn	72	49.99 ppb	0.62	50	100.0	90 - 110	
59	Co	72	48.65 ppb	0.29	50	97.3	90 - 110	
60	Ni	72	49.52 ppb	1.33	50	99.0	90 - 110	
63	Cu	72	50.08 ppb	0.95	50	100.2	90 - 110	
66	Zn	72	49.47 ppb	0.68	50	98.9	90 - 110	
75	As	72	50.32 ppb	0.62	50	100.6	90 - 110	
78	Se	72	51.47 ppb	0.64	50	102.9	90 - 110	
95	Mo	72	50.98 ppb	0.88	50	102.0	90 - 110	
107	Ag	115	49.57 ppb	0.98	50	99.1	90 - 110	
111	Cd	115	49.85 ppb	1.11	50	99.7	90 - 110	
118	Sn	115	50.38 ppb	0.65	50	100.8	90 - 110	
121	Sb	115	50.63 ppb	0.51	50	101.3	90 - 110	
137	Ba	115	51.01 ppb	0.65	50	102.0	90 - 110	
205	Tl	165	52.84 ppb	0.87	50	105.7	90 - 110	
208	Pb	165	51.41 ppb	0.73	50	102.8	90 - 110	
232	Th	165	49.16 ppb	1.12	50	98.3	90 - 110	
238	U	165	51.49 ppb	1.63	50	103.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	153433	0.11	163501	93.8	30 - 120
45	Sc	1	436100	0.76	473295	92.1	30 - 120
72	Ge	1	257738	0.44	272811	94.5	30 - 120
115	In	1	817010	0.44	858259	95.2	30 - 120
165	Ho	1	1819218	1.03	1824721	99.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\035\_CCB.D\035\_CCB.D#  
 Date Acquired: Jun 24 2009 08:59 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.018	ppb	439.98	1.00	
52 Cr	72	1	-0.017	ppb	242.94	1.00	
55 Mn	72	1	0.006	ppb	30.19	1.00	
59 Co	72	1	0.004	ppb	61.30	1.00	
60 Ni	72	1	-0.006	ppb	84.11	1.00	
63 Cu	72	1	0.018	ppb	61.00	1.00	
66 Zn	72	1	0.008	ppb	177.31	1.00	
75 As	72	1	0.008	ppb	117.46	1.00	
78 Se	72	1	-0.050	ppb	316.37	1.00	
95 Mo	72	1	0.116	ppb	15.10	1.00	
107 Ag	115	1	0.031	ppb	18.19	1.00	
111 Cd	115	1	0.011	ppb	40.99	1.00	
118 Sn	115	1	0.034	ppb	141.62	1.00	
121 Sb	115	1	0.012	ppb	57.85	1.00	
137 Ba	115	1	0.004	ppb	56.72	1.00	
205 Tl	165	1	0.020	ppb	5.90	1.00	
208 Pb	165	1	0.004	ppb	51.66	1.00	
232 Th	165	1	0.769	ppb	16.34	1.00	
238 U	165	1	0.006	ppb	15.54	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	154869	1.17	163501	94.7	30 - 120	
45 Sc	1	451661	0.35	473295	95.4	30 - 120	
72 Ge	1	263583	0.11	272811	96.6	30 - 120	
115 In	1	833562	0.51	858259	97.1	30 - 120	
165 Ho	1	1835458	0.28	1824721	100.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\036WASH.D\036WASH.D#  
 Date Acquired: Jun 24 2009 09:03 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.951 ppb	27.10	1.30	
51 V	72	1	4.969 ppb	3.16	6.50	
52 Cr	72	1	2.016 ppb	5.02	2.60	
55 Mn	72	1	0.995 ppb	1.50	1.30	
59 Co	72	1	0.986 ppb	4.94	1.30	
60 Ni	72	1	1.983 ppb	4.74	2.60	
63 Cu	72	1	2.086 ppb	1.02	2.60	
66 Zn	72	1	10.170 ppb	1.36	13.00	
75 As	72	1	5.100 ppb	3.51	6.50	
78 Se	72	1	5.716 ppb	8.09	6.50	
95 Mo	72	1	2.075 ppb	2.35	2.60	
107 Ag	115	1	5.141 ppb	1.32	6.50	
111 Cd	115	1	1.007 ppb	3.99	1.30	
118 Sn	115	1	10.460 ppb	0.61	13.00	
121 Sb	115	1	1.963 ppb	2.86	2.60	
137 Ba	115	1	1.014 ppb	2.28	1.30	
205 Tl	165	1	1.107 ppb	1.78	1.30	
208 Pb	165	1	1.082 ppb	1.57	1.30	
232 Th	165	1	2.251 ppb	0.44	2.60	
238 U	165	1	1.097 ppb	2.16	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153782	1.38	163501	94.1	30 - 120	
45 Sc	1	448278	0.23	473295	94.7	30 - 120	
72 Ge	1	265227	0.76	272811	97.2	30 - 120	
115 In	1	842610	0.68	858259	98.2	30 - 120	
165 Ho	1	1831850	0.33	1824721	100.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

...”During the course of an analytical run, the instrument may be “resloped” or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed.”

Analyst: LRD

Date: 06/24/2009

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#  
Date Acquired: Jun 24 2009 10:17 pm  
Acq. Method: NormISIS.M  
Operator: TEL  
Sample Name: Cal Blank  
Misc Info:  
Vial Number: 1101  
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
Last Cal. Update: Jun 24 2009 10:14 pm  
Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
51	V	72	1	-125	155.01
52	Cr	72	1	1347	3.12
55	Mn	72	1	137	19.15
59	Co	72	1	27	43.97
60	Ni	72	1	33	17.74
63	Cu	72	1	293	31.56
66	Zn	72	1	201	12.52
75	As	72	1	16	32.04
78	Se	72	1	77	62.26
95	Mo	72	1	147	21.43
107	Ag	115	1	107	32.36
111	Cd	115	1	7	50.68
118	Sn	115	1	767	9.91
121	Sb	115	1	64	7.31
137	Ba	115	1	14	52.84
205	Tl	165	1	126	11.03
208	Pb	165	1	148	13.20
232	Th	165	1	913	8.83
238	U	165	1	104	13.31

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	117322	1.68
45	Sc	1	379430	0.45
72	Ge	1	230888	0.98
115	In	1	694252	0.79
165	Ho	1	1482298	0.02

Tune File# 1 c:\icpchem\1\7500\he.u  
Tune File# 2 C:\ICPCHEM\1\7500\  
Tune File# 3 C:\ICPCHEM\1\7500\



**Calibration Standard QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\059ICAL.D\059ICAL.D#  
 Date Acquired: Jun 24 2009 10:20 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:18 pm  
 Sample Type: ICAL

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	25917	2.08
51	V	72	440859	0.40
52	Cr	72	498841	0.38
55	Mn	72	434202	0.35
59	Co	72	693184	0.44
60	Ni	72	170216	0.63
63	Cu	72	436062	0.02
66	Zn	72	90657	0.40
75	As	72	64010	0.60
78	Se	72	8116	1.74
95	Mo	72	212934	0.18
107	Ag	115	641135	1.00
111	Cd	115	113553	0.95
118	Sn	115	285789	0.95
121	Sb	115	375686	0.95
137	Ba	115	133578	0.91
205	Tl	165	1351068	1.18
208	Pb	165	1882489	0.46
232	Th	165	1769191	1.22
238	U	165	2026227	1.62

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range (%)	Flag
6	Li	1	116190	1.75	117322	99.0	30 - 120
45	Sc	1	372196	1.07	379430	98.1	30 - 120
72	Ge	1	228804	0.83	230888	99.1	30 - 120
115	In	1	674227	0.76	694252	97.1	30 - 120
165	Ho	1	1476640	0.84	1482298	99.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\060\_CCV.D\060\_CCV.D#  
 Date Acquired: Jun 24 2009 10:24 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.95 ppb	2.27	50	101.9	90 - 110	
51	V	72	51.38 ppb	1.81	50	102.8	90 - 110	
52	Cr	72	51.09 ppb	1.51	50	102.2	90 - 110	
55	Mn	72	51.40 ppb	0.27	50	102.8	90 - 110	
59	Co	72	51.06 ppb	0.83	50	102.1	90 - 110	
60	Ni	72	51.29 ppb	0.39	50	102.6	90 - 110	
63	Cu	72	51.32 ppb	1.67	50	102.6	90 - 110	
66	Zn	72	50.57 ppb	1.23	50	101.1	90 - 110	
75	As	72	51.06 ppb	0.85	50	102.1	90 - 110	
78	Se	72	48.68 ppb	4.68	50	97.4	90 - 110	
95	Mo	72	51.09 ppb	0.84	50	102.2	90 - 110	
107	Ag	115	50.68 ppb	0.72	50	101.4	90 - 110	
111	Cd	115	51.23 ppb	0.59	50	102.5	90 - 110	
118	Sn	115	50.95 ppb	0.60	50	101.9	90 - 110	
121	Sb	115	50.71 ppb	0.30	50	101.4	90 - 110	
137	Ba	115	50.69 ppb	0.51	50	101.4	90 - 110	
205	Tl	165	52.07 ppb	1.37	50	104.1	90 - 110	
208	Pb	165	51.54 ppb	1.96	50	103.1	90 - 110	
232	Th	165	54.55 ppb	1.65	50	109.1	90 - 110	
238	U	165	52.27 ppb	2.06	50	104.5	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	116863	0.68	117322	99.6	30 - 120
45	Sc	1	367256	0.44	379430	96.8	30 - 120
72	Ge	1	224440	0.68	230888	97.2	30 - 120
115	In	1	667028	1.07	694252	96.1	30 - 120
165	Ho	1	1451654	1.23	1482298	97.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\061\_CCB.D\061\_CCB.D#  
 Date Acquired: Jun 24 2009 10:27 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.013 ppb	173.21	1.00	
51 V	72	1	-0.019 ppb	133.49	1.00	
52 Cr	72	1	0.014 ppb	132.84	1.00	
55 Mn	72	1	-0.003 ppb	205.55	1.00	
59 Co	72	1	0.004 ppb	86.18	1.00	
60 Ni	72	1	-0.002 ppb	376.54	1.00	
63 Cu	72	1	0.006 ppb	281.36	1.00	
66 Zn	72	1	-0.086 ppb	10.54	1.00	
75 As	72	1	0.006 ppb	203.91	1.00	
78 Se	72	1	-0.193 ppb	112.83	1.00	
95 Mo	72	1	0.017 ppb	168.45	1.00	
107 Ag	115	1	0.034 ppb	14.31	1.00	
111 Cd	115	1	0.004 ppb	355.33	1.00	
118 Sn	115	1	0.098 ppb	30.14	1.00	
121 Sb	115	1	0.045 ppb	6.81	1.00	
137 Ba	115	1	0.002 ppb	262.73	1.00	
205 Tl	165	1	0.040 ppb	11.20	1.00	
208 Pb	165	1	0.003 ppb	55.31	1.00	
232 Th	165	1	1.012 ppb	13.11	1.00	Fail
238 U	165	1	0.005 ppb	40.98	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115652	0.56	117322	98.6	30 - 120	
45 Sc	1	370335	1.00	379430	97.6	30 - 120	
72 Ge	1	226326	0.63	230888	98.0	30 - 120	
115 In	1	680142	0.40	694252	98.0	30 - 120	
165 Ho	1	1472058	0.15	1482298	99.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 MR

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\062WASH.D\062WASH.D#  
 Date Acquired: Jun 24 2009 10:31 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.996 ppb	9.75	1.30	
51 V	72	1	5.287 ppb	1.19	6.50	
52 Cr	72	1	2.116 ppb	3.39	2.60	
55 Mn	72	1	1.069 ppb	7.23	1.30	
59 Co	72	1	1.052 ppb	3.77	1.30	
60 Ni	72	1	2.104 ppb	5.43	2.60	
63 Cu	72	1	2.107 ppb	1.94	2.60	
66 Zn	72	1	10.040 ppb	2.06	13.00	
75 As	72	1	5.106 ppb	0.91	6.50	
78 Se	72	1	4.258 ppb	39.17	6.50	
95 Mo	72	1	2.010 ppb	4.56	2.60	
107 Ag	115	1	5.207 ppb	1.30	6.50	
111 Cd	115	1	1.034 ppb	3.49	1.30	
118 Sn	115	1	10.620 ppb	3.50	13.00	
121 Sb	115	1	2.017 ppb	0.23	2.60	
137 Ba	115	1	0.968 ppb	5.29	1.30	
205 Tl	165	1	1.101 ppb	0.72	1.30	
208 Pb	165	1	1.065 ppb	2.60	1.30	
232 Th	165	1	2.307 ppb	1.83	2.60	
238 U	165	1	1.090 ppb	0.82	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	116951	0.50	117322	99.7	30 - 120	
45 Sc	1	372991	0.46	379430	98.3	30 - 120	
72 Ge	1	229458	0.38	230888	99.4	30 - 120	
115 In	1	689440	0.45	694252	99.3	30 - 120	
165 Ho	1	1499228	0.34	1482298	101.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\070\_CCV.D\070\_CCV.D#  
 Date Acquired: Jun 24 2009 10:58 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	51.12	ppb	3.62	50	102.2	90 - 110
51	V	72	1	51.40	ppb	1.66	50	102.8	90 - 110
52	Cr	72	1	51.25	ppb	0.98	50	102.5	90 - 110
55	Mn	72	1	51.36	ppb	0.87	50	102.7	90 - 110
59	Co	72	1	51.15	ppb	0.99	50	102.3	90 - 110
60	Ni	72	1	50.39	ppb	1.61	50	100.8	90 - 110
63	Cu	72	1	50.61	ppb	0.70	50	101.2	90 - 110
66	Zn	72	1	51.11	ppb	0.55	50	102.2	90 - 110
75	As	72	1	51.06	ppb	0.34	50	102.1	90 - 110
78	Se	72	1	47.32	ppb	5.38	50	94.6	90 - 110
95	Mo	72	1	50.76	ppb	2.38	50	101.5	90 - 110
107	Ag	115	1	50.53	ppb	0.97	50	101.1	90 - 110
111	Cd	115	1	51.39	ppb	1.09	50	102.8	90 - 110
118	Sn	115	1	51.03	ppb	0.91	50	102.1	90 - 110
121	Sb	115	1	51.36	ppb	0.80	50	102.7	90 - 110
137	Ba	115	1	50.55	ppb	0.59	50	101.1	90 - 110
205	Tl	165	1	52.58	ppb	0.96	50	105.2	90 - 110
208	Pb	165	1	52.00	ppb	1.19	50	104.0	90 - 110
232	Th	165	1	54.86	ppb	0.65	50	109.7	90 - 110
238	U	165	1	52.77	ppb	0.97	50	105.5	90 - 110

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	109473	1.64	117322	93.3	30 - 120
45	Sc	1	341668	0.27	379430	90.0	30 - 120
72	Ge	1	210335	0.32	230888	91.1	30 - 120
115	In	1	636527	0.76	694252	91.7	30 - 120
165	Ho	1	1399322	0.25	1482298	94.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\072WASH.D\072WASH.D#  
 Date Acquired: Jun 24 2009 11:05 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.120 ppb	38.53	1.30	
51 V	72	1	5.253 ppb	6.17	6.50	
52 Cr	72	1	2.013 ppb	0.50	2.60	
55 Mn	72	1	1.103 ppb	2.70	1.30	
59 Co	72	1	1.044 ppb	1.08	1.30	
60 Ni	72	1	2.051 ppb	3.00	2.60	
63 Cu	72	1	2.083 ppb	3.23	2.60	
66 Zn	72	1	10.250 ppb	1.58	13.00	
75 As	72	1	5.277 ppb	1.02	6.50	
78 Se	72	1	4.391 ppb	19.94	6.50	
95 Mo	72	1	1.992 ppb	2.34	2.60	
107 Ag	115	1	5.180 ppb	1.30	6.50	
111 Cd	115	1	0.980 ppb	2.57	1.30	
118 Sn	115	1	10.460 ppb	1.31	13.00	
121 Sb	115	1	2.019 ppb	1.37	2.60	
137 Ba	115	1	1.032 ppb	4.47	1.30	
205 Tl	165	1	1.131 ppb	0.96	1.30	
208 Pb	165	1	1.073 ppb	2.39	1.30	
232 Th	165	1	2.336 ppb	3.22	2.60	
238 U	165	1	1.094 ppb	1.33	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	112305	1.24	117322	95.7	30 - 120	
45 Sc	1	353972	0.54	379430	93.3	30 - 120	
72 Ge	1	218407	0.59	230888	94.6	30 - 120	
115 In	1	657406	0.31	694252	94.7	30 - 120	
165 Ho	1	1437398	1.09	1482298	97.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\073ICSA.D\073ICSA.D#  
 Date Acquired: Jun 24 2009 11:08 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	0.07 ppb	91.65	1.00	
51	V	72	-0.45 ppb	43.52	1.00	
52	Cr	72	0.98 ppb	1.45	1.00	
55	Mn	72	2.21 ppb	6.13	1.00	
59	Co	72	0.04 ppb	8.50	1.00	
60	Ni	72	0.62 ppb	10.61	1.00	
63	Cu	72	0.30 ppb	5.61	1.00	
66	Zn	72	2.43 ppb	0.45	10.00	
75	As	72	0.17 ppb	20.25	1.00	
78	Se	72	0.10 ppb	419.65	1.00	
95	Mo	72	1982.00 ppb	1.43	2000.00	
107	Ag	115	0.13 ppb	2.97	1.00	
111	Cd	115	0.32 ppb	49.44	1.00	
118	Sn	115	0.03 ppb	183.17	10.00	
121	Sb	115	0.24 ppb	5.73	1.00	
137	Ba	115	1.43 ppb	4.56	1.00	
205	Tl	165	0.04 ppb	10.19	1.00	
208	Pb	165	0.13 ppb	3.23	1.00	
232	Th	165	0.16 ppb	30.27	1.00	
238	U	165	0.02 ppb	6.46	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	102993	0.56	117322	87.8	30 - 120
45	Sc	1	315475	0.66	379430	83.1	30 - 120
72	Ge	1	191330	0.71	230888	82.9	30 - 120
115	In	1	568291	0.77	694252	81.9	30 - 120
165	Ho	1	1326927	0.41	1482298	89.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed



## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\074ICSB.D\074ICSB.D#  
 Date Acquired: Jun 24 2009 11:11 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	98.42	1.66	100	98.4	80 - 120	
51 V	72	1	96.22	1.36	100	96.2	80 - 120	
52 Cr	72	1	96.05	1.46	100	96.1	80 - 120	
55 Mn	72	1	97.87	0.93	100	97.9	80 - 120	
59 Co	72	1	93.49	1.22	100	93.5	80 - 120	
60 Ni	72	1	91.50	1.23	100	91.5	80 - 120	
63 Cu	72	1	90.00	0.13	100	90.0	80 - 120	
66 Zn	72	1	100.10	1.73	100	100.1	80 - 120	
75 As	72	1	100.60	1.10	100	100.6	80 - 120	
78 Se	72	1	98.72	2.59	100	98.7	80 - 120	
95 Mo	72	1	2095.00	0.31	2100	99.8	80 - 120	
107 Ag	115	1	88.72	0.70	100	88.7	80 - 120	
111 Cd	115	1	96.17	1.00	100	96.2	80 - 120	
118 Sn	115	1	103.30	1.29	100	103.3	80 - 120	
121 Sb	115	1	103.00	0.93	100	103.0	80 - 120	
137 Ba	115	1	100.30	0.59	100	100.3	80 - 120	
205 Tl	165	1	90.87	1.62	100	90.9	80 - 120	
208 Pb	165	1	91.64	2.02	100	91.6	80 - 120	
232 Th	165	1	102.90	3.07	100	102.9	80 - 120	
238 U	165	1	98.85	1.74	100	98.9	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	102532	1.32	117322	87.4	30 - 120	
45 Sc	1	309952	0.42	379430	81.7	30 - 120	
72 Ge	1	186383	0.55	230888	80.7	30 - 120	
115 In	1	554517	0.30	694252	79.9	30 - 120	
165 Ho	1	1331587	1.56	1482298	89.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\075WASH.D\075WASH.D#  
 Date Acquired: Jun 24 2009 11:15 pm  
 Operator: TEL  
 Sample Name: WASH  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.30	
51 V	72	1	0.000 ppb	16827.00	6.50	
52 Cr	72	1	-0.023 ppb	135.11	2.60	
55 Mn	72	1	0.004 ppb	210.96	1.30	
59 Co	72	1	0.008 ppb	111.37	1.30	
60 Ni	72	1	0.013 ppb	116.86	2.60	
63 Cu	72	1	0.027 ppb	46.19	2.60	
66 Zn	72	1	0.192 ppb	17.40	13.00	
75 As	72	1	0.024 ppb	27.96	6.50	
78 Se	72	1	-0.127 ppb	238.35	6.50	
95 Mo	72	1	0.798 ppb	6.52	2.60	
107 Ag	115	1	0.000 ppb	1726.50	6.50	
111 Cd	115	1	0.005 ppb	118.57	1.30	
118 Sn	115	1	0.147 ppb	22.53	13.00	
121 Sb	115	1	0.034 ppb	10.48	2.60	
137 Ba	115	1	0.001 ppb	395.61	1.30	
205 Tl	165	1	0.004 ppb	6.00	1.30	
208 Pb	165	1	0.006 ppb	7.58	1.30	
232 Th	165	1	0.653 ppb	15.07	2.60	
238 U	165	1	0.010 ppb	15.03	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	113953	0.31	117322	97.1	30 - 120	
45 Sc	1	355429	0.70	379430	93.7	30 - 120	
72 Ge	1	219786	0.49	230888	95.2	30 - 120	
115 In	1	664242	0.34	694252	95.7	30 - 120	
165 Ho	1	1438883	0.33	1482298	97.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

### Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\076 CCV.D\076 CCV.D#  
 Date Acquired: Jun 24 2009 11:18 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

#### QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.29 ppb	5.77	50	100.6	90 - 110	
51	V	72	51.40 ppb	1.30	50	102.8	90 - 110	
52	Cr	72	51.37 ppb	0.97	50	102.7	90 - 110	
55	Mn	72	51.70 ppb	0.40	50	103.4	90 - 110	
59	Co	72	51.77 ppb	1.27	50	103.5	90 - 110	
60	Ni	72	51.93 ppb	1.65	50	103.9	90 - 110	
63	Cu	72	51.29 ppb	1.25	50	102.6	90 - 110	
66	Zn	72	51.42 ppb	0.50	50	102.8	90 - 110	
75	As	72	51.68 ppb	0.43	50	103.4	90 - 110	
78	Se	72	49.46 ppb	1.75	50	98.9	90 - 110	
95	Mo	72	51.58 ppb	1.79	50	103.2	90 - 110	
107	Ag	115	51.17 ppb	0.58	50	102.3	90 - 110	
111	Cd	115	51.68 ppb	0.86	50	103.4	90 - 110	
118	Sn	115	51.39 ppb	0.25	50	102.8	90 - 110	
121	Sb	115	51.72 ppb	0.53	50	103.4	90 - 110	
137	Ba	115	51.33 ppb	0.85	50	102.7	90 - 110	
205	Tl	165	52.42 ppb	1.78	50	104.8	90 - 110	
208	Pb	165	51.82 ppb	2.00	50	103.6	90 - 110	
232	Th	165	53.75 ppb	1.32	50	107.5	90 - 110	
238	U	165	52.40 ppb	0.69	50	104.8	90 - 110	

#### ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	114693	0.48	117322	97.8	30 - 120
45	Sc	1	354431	0.24	379430	93.4	30 - 120
72	Ge	1	217392	0.54	230888	94.2	30 - 120
115	In	1	652251	1.03	694252	94.0	30 - 120
165	Ho	1	1447522	1.25	1482298	97.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\077\_CCB.D\077\_CCB.D#  
 Date Acquired: Jun 24 2009 11:21 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.013	ppb	173.23	1.00	
51 V	72	1	-0.004	ppb	1282.60	1.00	
52 Cr	72	1	-0.001	ppb	2544.20	1.00	
55 Mn	72	1	0.002	ppb	542.04	1.00	
59 Co	72	1	0.006	ppb	30.06	1.00	
60 Ni	72	1	0.005	ppb	457.64	1.00	
63 Cu	72	1	0.009	ppb	76.99	1.00	
66 Zn	72	1	-0.054	ppb	31.25	1.00	
75 As	72	1	-0.002	ppb	147.68	1.00	
78 Se	72	1	0.031	ppb	1234.80	1.00	
95 Mo	72	1	0.054	ppb	13.57	1.00	
107 Ag	115	1	0.022	ppb	31.63	1.00	
111 Cd	115	1	0.013	ppb	52.64	1.00	
118 Sn	115	1	0.095	ppb	23.21	1.00	
121 Sb	115	1	0.038	ppb	13.98	1.00	
137 Ba	115	1	0.002	ppb	125.37	1.00	
205 Tl	165	1	0.024	ppb	19.58	1.00	
208 Pb	165	1	0.007	ppb	37.52	1.00	
232 Th	165	1	0.910	ppb	18.59	1.00	
238 U	165	1	0.007	ppb	9.99	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115014	0.64	117322	98.0	30 - 120	
45 Sc	1	361067	1.06	379430	95.2	30 - 120	
72 Ge	1	222710	0.47	230888	96.5	30 - 120	
115 In	1	672947	0.24	694252	96.9	30 - 120	
165 Ho	1	1433333	0.55	1482298	96.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\078WASH.D\078WASH.D#  
 Date Acquired: Jun 24 2009 11:25 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.011 ppb	6.56	1.30	
51 V	72	1	5.430 ppb	2.12	6.50	
52 Cr	72	1	2.113 ppb	3.93	2.60	
55 Mn	72	1	1.097 ppb	5.79	1.30	
59 Co	72	1	1.038 ppb	5.34	1.30	
60 Ni	72	1	2.066 ppb	2.52	2.60	
63 Cu	72	1	2.089 ppb	1.78	2.60	
66 Zn	72	1	10.390 ppb	0.65	13.00	
75 As	72	1	5.259 ppb	1.54	6.50	
78 Se	72	1	3.751 ppb	6.47	6.50	
95 Mo	72	1	2.061 ppb	4.03	2.60	
107 Ag	115	1	5.133 ppb	0.84	6.50	
111 Cd	115	1	1.050 ppb	9.77	1.30	
118 Sn	115	1	10.460 ppb	1.81	13.00	
121 Sb	115	1	1.986 ppb	1.56	2.60	
137 Ba	115	1	1.066 ppb	2.14	1.30	
205 Tl	165	1	1.093 ppb	1.63	1.30	
208 Pb	165	1	1.070 ppb	0.11	1.30	
232 Th	165	1	2.286 ppb	1.31	2.60	
238 U	165	1	1.098 ppb	1.34	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115299	0.91	117322	98.3	30 - 120	
45 Sc	1	365732	0.26	379430	96.4	30 - 120	
72 Ge	1	224138	0.48	230888	97.1	30 - 120	
115 In	1	674529	0.84	694252	97.2	30 - 120	
165 Ho	1	1449277	0.68	1482298	97.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\119\_CCV.D\119\_CCV.D#  
 Date Acquired: Jun 25 2009 01:44 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	53.06 ppb	1.35	50	106.1	90 - 110	
51	V	72	51.93 ppb	1.17	50	103.9	90 - 110	
52	Cr	72	51.30 ppb	1.19	50	102.6	90 - 110	
55	Mn	72	50.14 ppb	1.25	50	100.3	90 - 110	
59	Co	72	51.00 ppb	0.33	50	102.0	90 - 110	
60	Ni	72	50.49 ppb	1.68	50	101.0	90 - 110	
63	Cu	72	50.89 ppb	0.90	50	101.8	90 - 110	
66	Zn	72	51.21 ppb	0.68	50	102.4	90 - 110	
75	As	72	51.99 ppb	0.39	50	104.0	90 - 110	
78	Se	72	49.48 ppb	3.93	50	99.0	90 - 110	
95	Mo	72	50.53 ppb	0.87	50	101.1	90 - 110	
107	Ag	115	50.97 ppb	1.09	50	101.9	90 - 110	
111	Cd	115	51.35 ppb	0.59	50	102.7	90 - 110	
118	Sn	115	51.26 ppb	1.99	50	102.5	90 - 110	
121	Sb	115	52.36 ppb	0.63	50	104.7	90 - 110	
137	Ba	115	50.93 ppb	0.61	50	101.9	90 - 110	
205	Tl	165	52.31 ppb	0.80	50	104.6	90 - 110	
208	Pb	165	51.81 ppb	1.55	50	103.6	90 - 110	
232	Th	165	53.35 ppb	2.41	50	106.7	90 - 110	
238	U	165	53.37 ppb	2.28	50	106.7	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	109303	0.53	117322	93.2	30 - 120
45	Sc	1	343559	0.91	379430	90.5	30 - 120
72	Ge	1	211836	0.13	230888	91.7	30 - 120
115	In	1	621221	0.51	694252	89.5	30 - 120
165	Ho	1	1343613	1.32	1482298	90.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\121WASH.D\121WASH.D#  
 Date Acquired: Jun 25 2009 01:51 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.045 ppb	11.17	1.30	
51 V	72	1	5.301 ppb	4.50	6.50	
52 Cr	72	1	2.110 ppb	4.23	2.60	
55 Mn	72	1	1.145 ppb	1.19	1.30	
59 Co	72	1	1.082 ppb	7.26	1.30	
60 Ni	72	1	2.099 ppb	2.94	2.60	
63 Cu	72	1	2.068 ppb	2.93	2.60	
66 Zn	72	1	10.390 ppb	2.26	13.00	
75 As	72	1	5.406 ppb	3.22	6.50	
78 Se	72	1	5.484 ppb	9.97	6.50	
95 Mo	72	1	2.044 ppb	5.75	2.60	
107 Ag	115	1	5.172 ppb	1.28	6.50	
111 Cd	115	1	1.086 ppb	6.15	1.30	
118 Sn	115	1	10.450 ppb	1.57	13.00	
121 Sb	115	1	2.010 ppb	2.25	2.60	
137 Ba	115	1	1.015 ppb	7.64	1.30	
205 Tl	165	1	1.142 ppb	2.59	1.30	
208 Pb	165	1	1.084 ppb	3.93	1.30	
232 Th	165	1	2.383 ppb	0.38	2.60	
238 U	165	1	1.107 ppb	3.79	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	107337	1.56	117322	91.5	30 - 120	
45 Sc	1	347744	1.00	379430	91.6	30 - 120	
72 Ge	1	215342	0.57	230888	93.3	30 - 120	
115 In	1	635891	0.67	694252	91.6	30 - 120	
165 Ho	1	1362723	1.21	1482298	91.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\122\_BLK.D\122\_BLK.D#  
Date Acquired: Jun 25 2009 01:54 am  
Operator: TEL  
Sample Name: LFFFXB  
Misc Info: BLANK 9174190 6020  
Vial Number: 2307  
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
Last Cal Update: Jun 24 2009 10:21 pm  
Sample Type: BLK  
Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
51 V	72	1	0.014 ppb	440.81	2.00	
52 Cr	72	1	0.074 ppb	25.76	2.00	
55 Mn	72	1	0.038 ppb	25.17	2.00	
59 Co	72	1	-0.002 ppb	100.51	2.00	
60 Ni	72	1	0.006 ppb	212.92	2.00	
63 Cu	72	1	0.025 ppb	18.07	2.00	
66 Zn	72	1	0.240 ppb	9.93	2.00	
75 As	72	1	-0.011 ppb	29.17	2.00	
78 Se	72	1	-0.238 ppb	123.97	2.00	
95 Mo	72	1	-0.055 ppb	35.60	2.00	
107 Ag	115	1	0.003 ppb	141.92	2.00	
111 Cd	115	1	0.000 ppb	2082.30	2.00	
118 Sn	115	1	0.183 ppb	18.34	2.00	
121 Sb	115	1	0.013 ppb	60.51	2.00	
137 Ba	115	1	0.008 ppb	67.26	2.00	
205 Tl	165	1	0.001 ppb	306.47	2.00	
208 Pb	165	1	0.008 ppb	28.60	2.00	
232 Th	165	1	0.203 ppb	22.71	2.00	
238 U	165	1	-0.002 ppb	20.95	2.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	106242	0.31	117322	90.6	30 - 120	
45 Sc	1	344253	1.69	379430	90.7	30 - 120	
72 Ge	1	212816	1.76	230888	92.2	30 - 120	
115 In	1	628767	1.56	694252	90.6	30 - 120	
165 Ho	1	1348506	1.50	1482298	91.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
Tune File# 2 C:\ICPCHEM\1\7500\  
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed







**Dilution Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\126SDIL.D\126SDIL.D#  
 Date Acquired: Jun 25 2009 02:08 am **QC Summary:**  
 Acq. Method: NormISIS.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE7CTP5  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2311  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SDIL  
 Dilution Factor: 1.00

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\125AREF.D\125AREF.D#

**QC elements**

Element	IS Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9	Be	6	1.00 ppb	14.07	0.60	166.3	90 - 110	
51	V	72	17.80 ppb	1.40	18.47	96.4	90 - 110	
52	Cr	72	8.49 ppb	1.14	8.80	96.5	90 - 110	
55	Mn	72	41650.00 ppb	0.44	42640.00	97.7	90 - 110	
59	Co	72	4.77 ppb	3.86	4.69	101.6	90 - 110	
60	Ni	72	11.82 ppb	2.28	11.76	100.5	90 - 110	
63	Cu	72	42.23 ppb	1.35	41.66	101.4	90 - 110	
66	Zn	72	16.96 ppb	1.28	16.39	103.5	90 - 110	
75	As	72	13.80 ppb	2.18	14.46	95.4	90 - 110	
78	Se	72	2.35 ppb	20.06	2.39	98.5	90 - 110	
95	Mo	72	0.82 ppb	4.66	0.75	110.0	90 - 110	
107	Ag	115	0.00 ppb	139.88	0.02	13.5	90 - 110	
111	Cd	115	0.27 ppb	23.26	0.27	102.7	90 - 110	
118	Sn	115	0.17 ppb	27.22	0.23	74.0	90 - 110	
121	Sb	115	0.05 ppb	19.88	0.05	95.6	90 - 110	
137	Ba	115	21.51 ppb	0.84	21.76	98.9	90 - 110	
205	Tl	165	0.09 ppb	0.39	0.09	100.7	90 - 110	
208	Pb	165	3.15 ppb	1.89	2.99	105.4	90 - 110	
232	Th	165	1.65 ppb	1.55	1.71	96.6	90 - 110	
238	U	165	3.02 ppb	2.88	2.97	101.8	90 - 110	

**ISTD elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	100153	0.31	117322	85.4	30 - 120
45	Sc	1	312890	0.77	379430	82.5	30 - 120
72	Ge	1	192635	0.54	230888	83.4	30 - 120
115	In	1	560246	0.43	694252	80.7	30 - 120
165	Ho	1	1236848	1.73	1482298	83.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:08

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTP5

Serial Dilution: 5.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 126

Method 6020\_

Acquired: 06/25/2009 02:08:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 22:17:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	223	4.9960	3.0050	66.3		*	
7440-62-2	Vanadium	51	65967	89.000	92.370	3.65		*	
7440-47-3	Chromium	52	36702	42.470	44.000	3.48		*	
7439-96-5	Manganese	55	52226000	208250	213200	2.32		*	
7440-48-4	Cobalt	59	27835	23.830	23.460	1.58		*	
7440-02-0	Nickel	60	16961	59.100	58.800	0.510		*	
7440-50-8	Copper	63	155193	211.15	208.30	1.37		*	
7440-66-6	Zinc	66	13083	84.800	81.970	3.45		*	
7440-38-2	Arsenic	75	7450	69.000	72.310	4.58	0.21	4.6	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	223	11.755	11.930	1.47	0.70	NC	<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	1593	4.1060	3.7340	9.96		*	
7440-22-4	Silver	107	100	0.01314	0.09698	86.5		*	
7440-43-9	Cadmium	111	265	1.3745	1.3390	2.65		*	
7440-31-5	Tin	118	1027	0.86050	1.1630	26.0		*	
7440-36-0	Antimony	121	201	0.23895	0.24990	4.38		*	
7440-39-3	Barium	137	23881	107.55	108.80	1.15		*	
7440-28-0	Thallium	205	1168	0.46975	0.46630	0.740		*	
7439-92-1	Lead	208	49783	15.750	14.950	5.35		*	
7440-61-1	Uranium	238	51342	15.105	14.840	1.79		*	
7440-29-1	Thorium	232	25169	8.2400	8.5270	3.37		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

\* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

*See only*

Reviewed by: *Z*

Date: *6/25/09*

**Post Digestion Spiked Sample (PDS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\127PDS.D\127PDS.D#  
 Date Acquired: Jun 25 2009 02:11 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE7CTZ  
 Misc Info: POST DIGESTION SPIKE  
 Vial Number: 2312  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: PDS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	172.90	3.01	ppb	4.33	200	85.2	75 - 125	
51 V	72	1	298.30	92.37	ppb	0.13	200	102.0	75 - 125	
52 Cr	72	1	242.40	44.00	ppb	2.23	200	99.3	75 - 125	
55 Mn	72	1	204700.00	213200.00	ppb	0.86	200	95.9	75 - 125	
59 Co	72	1	209.10	23.46	ppb	1.01	200	93.6	75 - 125	
60 Ni	72	1	231.80	58.80	ppb	1.26	200	89.6	75 - 125	
63 Cu	72	1	382.60	208.30	ppb	1.06	200	93.7	75 - 125	
66 Zn	72	1	263.60	81.97	ppb	0.26	200	93.5	75 - 125	
75 As	72	1	297.30	72.31	ppb	0.45	200	109.2	75 - 125	
78 Se	72	1	233.30	11.93	ppb	3.39	200	110.1	75 - 125	
95 Mo	72	1	202.90	3.73	ppb	0.42	200	99.6	75 - 125	
107 Ag	115	1	45.75	0.10	ppb	1.20	50	91.3	75 - 125	
111 Cd	115	1	191.70	1.34	ppb	0.26	200	95.2	75 - 125	
118 Sn	115	1	181.60	1.16	ppb	0.82	200	90.3	75 - 125	
121 Sb	115	1	210.00	0.25	ppb	0.82	200	104.9	75 - 125	
137 Ba	115	1	311.70	108.80	ppb	0.69	200	100.9	75 - 125	
205 Tl	165	1	178.60	0.47	ppb	1.27	200	89.1	75 - 125	
208 Pb	165	1	189.60	14.95	ppb	1.20	200	88.2	75 - 125	
232 Th	165	1	7.98	8.53	ppb	1.39	200	3.8	75 - 125	
238 U	165	1	198.90	14.84	ppb	0.79	200	92.6	75 - 125	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	104825	2.96	117322	89.3	30 - 120	
45 Sc	1	297454	0.97	379430	78.4	30 - 120	
72 Ge	1	171500	0.38	230888	74.3	30 - 120	
115 In	1	483356	0.42	694252	69.6	30 - 120	
165 Ho	1	1161004	1.01	1482298	78.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures                      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                        0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:12

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTZ

Spike Dilution: 1.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 127

Method 6020\_

Acquired: 06/25/2009 02:11:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 22:17:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	40403	172.90	3.0050	84.9	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	985902	298.30	92.370	103	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	904878	242.40	44.000	99.2	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	66097000	204700	213200	0.00	200	*	<input type="checkbox"/>
7440-48-4	Cobalt	59	1086600	209.10	23.460	92.8	200		<input type="checkbox"/>
7440-02-0	Nickel	60	295721	231.80	58.800	86.5	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1249950	382.60	208.30	87.2	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	178904	263.60	81.970	90.8	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	142608	297.30	72.310	112	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	14118	233.30	11.930	111	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	323688	202.90	3.7340	99.6	200		<input type="checkbox"/>
7440-22-4	Silver	107	210316	45.750	0.09698	91.3	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	156062	191.70	1.3390	95.2	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	371665	181.60	1.1630	90.2	200		<input type="checkbox"/>
7440-36-0	Antimony	121	565641	210.00	0.24990	105	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	298496	311.70	108.80	101	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	1896680	178.60	0.46630	89.1	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	2805220	189.60	14.950	87.3	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	3169070	198.90	14.840	92.0	200		<input type="checkbox"/>
7440-29-1	Thorium	232	111683	7.9810	8.5270				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

*Se only.*

Reviewed by: 

Date: 6/25/09





**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\129 CC.V.D\129 CC.V.D#  
 Date Acquired: Jun 25 2009 02:18 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	53.09	ppb	2.51	50	106.2	90 - 110	
51	V	72	1	50.60	ppb	1.29	50	101.2	90 - 110	
52	Cr	72	1	50.15	ppb	0.51	50	100.3	90 - 110	
55	Mn	72	1	62.11	ppb	4.59	50	124.2	90 - 110	Fail
59	Co	72	1	49.51	ppb	0.95	50	99.0	90 - 110	
60	Ni	72	1	49.92	ppb	2.05	50	99.8	90 - 110	
63	Cu	72	1	49.89	ppb	0.76	50	99.8	90 - 110	
66	Zn	72	1	51.56	ppb	0.22	50	103.1	90 - 110	
75	As	72	1	56.46	ppb	0.80	50	112.9	90 - 110	Fail
78	Se	72	1	47.87	ppb	8.47	50	95.7	90 - 110	
95	Mo	72	1	49.48	ppb	1.58	50	99.0	90 - 110	
107	Ag	115	1	51.19	ppb	0.41	50	102.4	90 - 110	
111	Cd	115	1	51.57	ppb	0.76	50	103.1	90 - 110	
118	Sn	115	1	50.57	ppb	1.14	50	101.1	90 - 110	
121	Sb	115	1	54.19	ppb	0.35	50	108.4	90 - 110	
137	Ba	115	1	51.68	ppb	0.60	50	103.4	90 - 110	
205	Tl	165	1	51.27	ppb	0.95	50	102.5	90 - 110	
208	Pb	165	1	50.76	ppb	1.34	50	101.5	90 - 110	
232	Th	165	1	53.66	ppb	0.66	50	107.3	90 - 110	
238	U	165	1	51.64	ppb	1.52	50	103.3	90 - 110	

*Se only  
Z  
6/25/09*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	95230	0.73	117322	81.2	30 - 120
45	Sc	1	313422	0.58	379430	82.6	30 - 120
72	Ge	1	198248	0.34	230888	85.9	30 - 120
115	In	1	569663	0.57	694252	82.1	30 - 120
165	Ho	1	1224221	0.63	1482298	82.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\130 CCB.D\130 CCB.D#  
 Date Acquired: Jun 25 2009 02:21 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.031 ppb	86.64	1.00	
51 V	72	1	0.015 ppb	356.57	1.00	
52 Cr	72	1	-0.022 ppb	32.80	1.00	
55 Mn	72	1	1.154 ppb	9.63	1.00	Fail
59 Co	72	1	0.007 ppb	47.21	1.00	
60 Ni	72	1	-0.004 ppb	78.43	1.00	
63 Cu	72	1	0.010 ppb	66.25	1.00	
66 Zn	72	1	-0.046 ppb	9.11	1.00	
75 As	72	1	0.016 ppb	46.36	1.00	
78 Se	72	1	0.276 ppb	258.45	1.00	
95 Mo	72	1	-0.014 ppb	169.57	1.00	
107 Ag	115	1	0.037 ppb	29.34	1.00	
111 Cd	115	1	-0.002 ppb	267.68	1.00	
118 Sn	115	1	0.151 ppb	30.44	1.00	
121 Sb	115	1	0.056 ppb	16.97	1.00	
137 Ba	115	1	0.003 ppb	141.19	1.00	
205 Tl	165	1	0.024 ppb	18.45	1.00	
208 Pb	165	1	0.008 ppb	17.07	1.00	
232 Th	165	1	0.507 ppb	20.87	1.00	
238 U	165	1	0.010 ppb	3.22	1.00	

*NR*  
  
*Sealy*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	98014	2.78	117322	83.5	30 - 120	
45 Sc	1	332388	3.50	379430	87.6	30 - 120	
72 Ge	1	209164	1.84	230888	90.6	30 - 120	
115 In	1	601113	3.43	694252	86.6	30 - 120	
165 Ho	1	1265864	3.01	1482298	85.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\131WASH.D\131WASH.D#  
 Date Acquired: Jun 25 2009 02:25 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.077 ppb	12.16	1.30	
51 V	72	1	5.388 ppb	1.37	6.50	
52 Cr	72	1	2.011 ppb	3.93	2.60	
55 Mn	72	1	1.546 ppb	2.77	1.30	
59 Co	72	1	1.025 ppb	3.50	1.30	
60 Ni	72	1	2.012 ppb	5.31	2.60	
63 Cu	72	1	1.958 ppb	3.07	2.60	
66 Zn	72	1	10.420 ppb	1.68	13.00	
75 As	72	1	5.473 ppb	1.30	6.50	
78 Se	72	1	5.100 ppb	13.03	6.50	
95 Mo	72	1	1.985 ppb	1.74	2.60	
107 Ag	115	1	5.139 ppb	1.41	6.50	
111 Cd	115	1	0.982 ppb	4.15	1.30	
118 Sn	115	1	10.200 ppb	2.21	13.00	
121 Sb	115	1	2.036 ppb	2.72	2.60	
137 Ba	115	1	1.037 ppb	5.24	1.30	
205 Tl	165	1	1.070 ppb	2.16	1.30	
208 Pb	165	1	1.029 ppb	1.25	1.30	
232 Th	165	1	2.182 ppb	1.85	2.60	
238 U	165	1	1.050 ppb	1.79	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	98628	1.73	117322	84.1	30 - 120	
45 Sc	1	345052	0.13	379430	90.9	30 - 120	
72 Ge	1	213318	0.12	230888	92.4	30 - 120	
115 In	1	620168	0.41	694252	89.3	30 - 120	
165 Ho	1	1292111	1.49	1482298	87.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\133SMPL.D\133SMPL.D#  
 Date Acquired: Jun 25 2009 02:32 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE9PT  
 Misc Info: D9F190216  
 Vial Number: 2403  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.07	0.07	ppb	173.22	3600
51	V	72	1	-399.00	-399.00	ppb	17.66	3600
52	Cr	72	1	12,670.00	12670.00	ppb	0.64	3600 >LDR <i>NR</i>
55	Mn	72	1	130.70	130.70	ppb	0.61	3600
59	Co	72	1	0.77	0.77	ppb	3.32	3600
60	Ni	72	1	3.08	3.08	ppb	0.17	3600
63	Cu	72	1	0.99	0.99	ppb	9.51	3600
66	Zn	72	1	5.89	5.89	ppb	3.02	3600
75	As	72	1	111.00	111.00	ppb	1.23	3600
78	Se	72	1	4.66	4.66	ppb	29.34	3600
95	Mo	72	1	12.57	12.57	ppb	1.40	3600
107	Ag	115	1	0.85	0.85	ppb	3.44	3600
111	Cd	115	1	0.34	0.34	ppb	34.52	3600
118	Sn	115	1	1.19	1.19	ppb	1.32	3600
121	Sb	115	1	0.36	0.36	ppb	4.99	3600
137	Ba	115	1	46.93	46.93	ppb	0.56	3600
205	Tl	165	1	0.28	0.28	ppb	3.93	3600
208	Pb	165	1	2.17	2.17	ppb	1.74	3600
232	Th	165	1	0.15	0.15	ppb	25.56	1000
238	U	165	1	48.30	48.30	ppb	0.12	3600

*Sealy*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	82574	2.28	117322	70.4	30 - 120
45	Sc	1	223737	2.79	379430	59.0	30 - 120
72	Ge	1	134084	2.49	230888	58.1	30 - 120
115	In	1	373849	1.39	694252	53.8	30 - 120
165	Ho	1	854183	2.53	1482298	57.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\135SMPL.D\135SMPL.D#  
 Date Acquired: Jun 25 2009 02:38 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4D  
 Misc Info: D9F200196  
 Vial Number: 2405  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.02	0.02	ppb	173.20	3600	
51 V	72	1	2.42	2.42	ppb	11.14	3600	
52 Cr	72	1	5.83	5.83	ppb	2.47	3600	
55 Mn	72	1	673.20	673.20	ppb	0.76	3600	
59 Co	72	1	0.70	0.70	ppb	2.97	3600	
60 Ni	72	1	7.59	7.59	ppb	7.70	3600	
63 Cu	72	1	1.56	1.56	ppb	2.51	3600	
66 Zn	72	1	1.96	1.96	ppb	4.90	3600	
75 As	72	1	176.10	176.10	ppb	0.94	3600	
78 Se	72	1	0.02	0.02	ppb	4714.30	3600	
95 Mo	72	1	41.80	41.80	ppb	1.07	3600	
107 Ag	115	1	0.07	0.07	ppb	37.37	3600	
111 Cd	115	1	0.05	0.05	ppb	56.17	3600	
118 Sn	115	1	0.94	0.94	ppb	26.26	3600	
121 Sb	115	1	0.38	0.38	ppb	4.61	3600	
137 Ba	115	1	20.72	20.72	ppb	1.08	3600	
205 Tl	165	1	0.05	0.05	ppb	17.95	3600	
208 Pb	165	1	0.26	0.26	ppb	5.52	3600	
232 Th	165	1	0.00	0.00	ppb	236.28	1000	
238 U	165	1	95.46	95.46	ppb	0.11	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62661	3.83	117322	53.4	30 - 120	
45 Sc	1	177196	0.63	379430	46.7	30 - 120	
72 Ge	1	108258	1.32	230888	46.9	30 - 120	
115 In	1	296194	0.80	694252	42.7	30 - 120	
165 Ho	1	678678	1.49	1482298	45.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\136SMPL.D\136SMPL.D#  
 Date Acquired: Jun 25 2009 02:42 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4P  
 Misc Info: D9F200199  
 Vial Number: 2406  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	57.39	57.39	ppb	3.12	3600	
52 Cr	72	1	349.90	349.90	ppb	1.02	3600	
55 Mn	72	1	6.67	6.67	ppb	1.52	3600	
59 Co	72	1	5.81	5.81	ppb	2.23	3600	
60 Ni	72	1	10.65	10.65	ppb	3.94	3600	
63 Cu	72	1	0.42	0.42	ppb	10.37	3600	
66 Zn	72	1	0.37	0.37	ppb	17.83	3600	
75 As	72	1	185.40	185.40	ppb	0.41	3600	
78 Se	72	1	3.11	3.11	ppb	6.12	3600	
95 Mo	72	1	149.20	149.20	ppb	1.12	3600	
107 Ag	115	1	0.41	0.41	ppb	8.65	3600	
111 Cd	115	1	0.02	0.02	ppb	414.43	3600	
118 Sn	115	1	-0.16	-0.16	ppb	15.48	3600	
121 Sb	115	1	0.16	0.16	ppb	14.52	3600	
137 Ba	115	1	29.80	29.80	ppb	0.71	3600	
205 Tl	165	1	0.04	0.04	ppb	29.43	3600	
208 Pb	165	1	0.03	0.03	ppb	11.59	3600	
232 Th	165	1	-0.03	-0.03	ppb	8.27	1000	
238 U	165	1	18.30	18.30	ppb	1.57	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62647	1.05	117322	53.4	30 - 120	
45 Sc	1	203182	1.32	379430	53.5	30 - 120	
72 Ge	1	126133	1.09	230888	54.6	30 - 120	
115 In	1	345279	1.28	694252	49.7	30 - 120	
165 Ho	1	781819	0.44	1482298	52.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\138\_CCV.D\138\_CCV.D#  
 Date Acquired: Jun 25 2009 02:48 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	61.15 ppb	3.08	50	122.3	90 - 110	Fail
51	V	72	1	50.08 ppb	0.58	50	100.2	90 - 110	
52	Cr	72	1	50.30 ppb	1.06	50	100.6	90 - 110	
55	Mn	72	1	48.83 ppb	1.06	50	97.7	90 - 110	
59	Co	72	1	48.38 ppb	1.21	50	96.8	90 - 110	
60	Ni	72	1	48.87 ppb	2.44	50	97.7	90 - 110	
63	Cu	72	1	49.38 ppb	1.21	50	98.8	90 - 110	
66	Zn	72	1	54.84 ppb	0.57	50	109.7	90 - 110	
75	As	72	1	65.05 ppb	0.95	50	130.1	90 - 110	Fail
78	Se	72	1	45.79 ppb	2.17	50	91.6	90 - 110	
95	Mo	72	1	49.19 ppb	1.32	50	98.4	90 - 110	
107	Ag	115	1	52.65 ppb	0.53	50	105.3	90 - 110	
111	Cd	115	1	53.13 ppb	2.07	50	106.3	90 - 110	
118	Sn	115	1	51.40 ppb	0.48	50	102.8	90 - 110	
121	Sb	115	1	59.54 ppb	0.35	50	119.1	90 - 110	Fail
137	Ba	115	1	55.08 ppb	0.33	50	110.2	90 - 110	Fail
205	Tl	165	1	52.98 ppb	0.52	50	106.0	90 - 110	
208	Pb	165	1	52.54 ppb	0.96	50	105.1	90 - 110	
232	Th	165	1	54.85 ppb	0.72	50	109.7	90 - 110	
238	U	165	1	53.25 ppb	0.99	50	106.5	90 - 110	

*Scandy*  
*Z*  
*6/25/09*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	61254	1.77	117322	52.2	30 - 120
45	Sc	1	206162	0.78	379430	54.3	30 - 120
72	Ge	1	134977	0.81	230888	58.5	30 - 120
115	In	1	368867	0.74	694252	53.1	30 - 120
165	Ho	1	784294	0.88	1482298	52.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\139\_CCB.D\139\_CCB.D#  
 Date Acquired: Jun 25 2009 02:52 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.036	ppb	333.79	1.00	
52 Cr	72	1	0.483	ppb	10.99	1.00	
55 Mn	72	1	0.422	ppb	8.18	1.00	
59 Co	72	1	0.007	ppb	105.78	1.00	
60 Ni	72	1	0.016	ppb	67.80	1.00	
63 Cu	72	1	0.044	ppb	36.71	1.00	
66 Zn	72	1	-0.013	ppb	298.88	1.00	
75 As	72	1	0.099	ppb	47.87	1.00	
78 Se	72	1	0.394	ppb	211.54	1.00	
95 Mo	72	1	-0.012	ppb	356.35	1.00	
107 Ag	115	1	0.008	ppb	73.56	1.00	
111 Cd	115	1	0.013	ppb	81.55	1.00	
118 Sn	115	1	0.147	ppb	29.98	1.00	
121 Sb	115	1	0.053	ppb	29.90	1.00	
137 Ba	115	1	0.016	ppb	74.67	1.00	
205 Tl	165	1	0.022	ppb	12.48	1.00	
208 Pb	165	1	0.008	ppb	19.60	1.00	
232 Th	165	1	0.852	ppb	11.35	1.00	
238 U	165	1	0.011	ppb	22.33	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62733	1.68	117322	53.5	30 - 120	
45 Sc	1	215967	0.80	379430	56.9	30 - 120	
72 Ge	1	140696	1.49	230888	60.9	30 - 120	
115 In	1	383814	0.78	694252	55.3	30 - 120	
165 Ho	1	815818	0.65	1482298	55.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\140WASH.D\140WASH.D#  
 Date Acquired: Jun 25 2009 02:55 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.124 ppb	10.47	1.30	
51 V	72	1	5.159 ppb	1.59	6.50	
52 Cr	72	1	2.387 ppb	8.34	2.60	
55 Mn	72	1	1.403 ppb	6.80	1.30	
59 Co	72	1	1.050 ppb	4.80	1.30	
60 Ni	72	1	2.138 ppb	4.37	2.60	
63 Cu	72	1	2.028 ppb	1.54	2.60	
66 Zn	72	1	11.320 ppb	2.17	13.00	
75 As	72	1	6.770 ppb	6.25	6.50	
78 Se	72	1	4.702 ppb	13.58	6.50	
95 Mo	72	1	1.954 ppb	10.98	2.60	
107 Ag	115	1	5.358 ppb	1.39	6.50	
111 Cd	115	1	1.122 ppb	13.99	1.30	
118 Sn	115	1	10.880 ppb	3.97	13.00	
121 Sb	115	1	2.328 ppb	1.99	2.60	
137 Ba	115	1	1.092 ppb	9.09	1.30	
205 Tl	165	1	1.094 ppb	2.88	1.30	
208 Pb	165	1	1.061 ppb	2.52	1.30	
232 Th	165	1	2.313 ppb	0.58	2.60	
238 U	165	1	1.092 ppb	1.45	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	63763	0.94	117322	54.3	30 - 120	
45 Sc	1	220434	0.22	379430	58.1	30 - 120	
72 Ge	1	142718	0.10	230888	61.8	30 - 120	
115 In	1	392669	0.48	694252	56.6	30 - 120	
165 Ho	1	824043	0.50	1482298	55.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9F190216

Client: Northgate Environmental

Batch(es) #: 9174190

Associated Samples: 1

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date:  6/29/09

# *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9F190216	1	AS	LE9PT1AC	20090625	6020TOTA	9174190	AG062509	024

**METALS  
PREPARATION LOGS  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**



Batch Number: 9174190

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:  
JON HARRE

Prep Date: 06/24/09  
Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	LFFFX	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	LFFFX	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	LE709 Total		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total		Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT	S	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	D	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F190216 Water	LE9PT Total		Due Date: 07/01/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4A Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4D Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4P Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4Q Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*Checked  
6/24/09*

*✓  
2  
6/29/09*

**TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)**

BATCH # 9174190  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

**CONSUMABLES USED**

Digestion Cups: Manufacturer: Environmental Express Lot #: A901LS267

One or more samples were filtered prior to analysis at the instrument.  Yes  No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials: JKH

**STANDARDS USED**

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

**REAGENTS USED**

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	3

**TEMPERATURE CYCLES**

Thermometer ID: 3311 Block & Cup #: 1,11

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO <sub>3</sub>	<u>6:00</u>	<u>95</u>	<u>10:20</u>	<u>95</u>
HNO <sub>3</sub>	<u>10:30</u>	<u>94</u>	<u>11:00</u>	<u>93</u>
HNO <sub>3</sub>				

Samples and QC revolved to: 50 mL Analyst's Initials JKH

**COMMENTS:**

I certify that all information above is correct and complete.

Signature: Kim Anne

Date: 6/24/09

**METALS  
SAMPLE DATA  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

### ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L. Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

### Quality Control Standards

ICV = Initial Calibration Verification (Second Source)      ICB = Initial Calibration Blank  
 CCV = Continuing Calibration Verification                      CCB = Continuing Calibration Blank

# TestAmerica Denver

## Standards Preparation Logbook Record

Jun-26-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008  
Date Expires(1): 10-01-2009 (None)  
Date Expires(2): 10-01-2009 (None)  
(METALS)-Inventory ID: 779

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	1,000.0	1,000.0

### STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008  
Date Expires(1): 12-01-2009 (None)  
Date Expires(2): 12-01-2009 (None)  
(METALS)-Inventory ID: 803

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1,000.0

### STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010  
Solvent: 1% HNO3  
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009  
Date Expires(1): 03-01-2010 (None)  
Date Expires(2): 03-01-2010 (None)  
(METALS)-Inventory ID: 833

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

### STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HN03 Lot No.: H02026 Volume (ml): 100.00  
Date Prep./Opened: 04-01-2009  
Date Expires(1): 12-01-2009 (1 Year)  
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3609-09, ICP-MS 10 ppm Zn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year)  
 Date Expires(2): 10-01-2009 (None)

Parent Std No.: STD4841-08, 1000 Zn (Inorganic Ventures) Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	10.000

STD3610-09, ICP-MS 10 ppm Sn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 03-01-2010 (1 Year)  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Parent Std No.: STD1198-09, 1000 mg/L Sn Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	10.000

STD3611-09, ICP-MS 1ppm Sn/Zn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000

STD3662-09, ICP-MS (024) INT STD BRC-HIGH

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-17-2009  
 Date Expires(1): 11-10-2009 (1 Year)  
 Date Expires(2): 12-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Volume (ml): 250.00

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 1.2000

Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	4,800.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.5000

Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	6,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,600.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	1,600.0

Parent Std No.: STD6318-08, Holmium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,600.0

STD3839-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)  
 Cu and Ag 1000 ppb

Volume (ml): 100.00

Parent Std No.: STD0749-09, 1000 ppm Ag Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
1000 ppm Ag	1,000.0	1.0000

Parent Std No.: STD2485-09, 1000 Cu Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Cu	1,000.0	1.0000

STD3841-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 07-25-2009 (1 Month)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 1,000.0

Parent Std No.: STD3840-09, NITRIC ACID

Aliquot Amount (ml): 50.000

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD3842-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD1198-09, 1000 mg/L Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	10.000

STD3843-09, ICP-MS HIGH CAL STD

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 100.00

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000



Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Al	2,000.0	10.000
Ca	2,000.0	10.000
Fe	2,000.0	10.000
K	2,000.0	10.000
Mg	2,000.0	10.000
Na	2,000.0	10.000

STD3844-09, ICP-MS HIGH CCV STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	0.0500
As	20.000	0.0500
Ba	20.000	0.0500
Be	20.000	0.0500
Cd	20.000	0.0500
Co	20.000	0.0500
Cr	20.000	0.0500
Cu	20.000	0.0500
Mn	20.000	0.0500
Ni	20.000	0.0500
Pb	20.000	0.0500
Se	20.000	0.0500
Th	20.000	0.0500
Tl	20.000	0.0500
U	20.000	0.0500
V	20.000	0.0500
Zn	20.000	0.0500

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.0500
Sb	20.000	0.0500
Sn	20.000	0.0500

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Al	2,000.0	5.0000
Ca	2,000.0	5.0000
Fe	2,000.0	5.0000
K	2,000.0	5.0000
Mg	2,000.0	5.0000
Na	2,000.0	5.0000

STD3845-09, ICP-MS HIGH RL STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD3843-09, ICP-MS HIGH CAL STD

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	0.1000	0.0010
As	0.1000	0.0010
Ba	0.1000	0.0010
Be	0.1000	0.0010
Cd	0.1000	0.0010
Co	0.1000	0.0010
Cr	0.1000	0.0010
Cu	0.1000	0.0010
Mn	0.1000	0.0010
Ni	0.1000	0.0010
Pb	0.1000	0.0010
Se	0.1000	0.0010
Th	0.1000	0.0010
Tl	0.1000	0.0010
U	0.1000	0.0010
V	0.1000	0.0010
Zn	0.1000	0.0010
Mo	0.1000	0.0010

Sb	0.1000	0.0010
Sn	0.1000	0.0010
Al	10.000	0.1000
Ca	10.000	0.1000
Fe	10.000	0.1000
K	10.000	0.1000
Mg	10.000	0.1000
Na	10.000	0.1000

STD3846-09, ICP-MS HIGH AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3845-09, ICP-MS HIGH RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Ag	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002
Al	0.1000	0.0200
Ca	0.1000	0.0200
Fe	0.1000	0.0200
K	0.1000	0.0200
Mg	0.1000	0.0200
Na	0.1000	0.0200

STD3847-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 07-25-2009 (1 Month)  
 Date Expires(2): 02-01-2010 (None)  
 pipettes: Met 8

Volume (ml): 50.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD3848-09, ICP-MS HIGH ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
Al	1,000.0	100.00
C	2,000.0	200.00
Ca	1,000.0	100.00
Cl	10,000	1,000.0
Fe	1,000.0	100.00
K	1,000.0	100.00
Mg	1,000.0	100.00
Mo	20.000	2.0000
Na	1,000.0	100.00
P	1,000.0	100.00
S	1,000.0	100.00
Ti	20.000	2.0000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
------------------	----------------------------	--------------------------

Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

STD3849-09, ICP-MS HIGH LR STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	1.0000
As	20.000	1.0000
Ba	20.000	1.0000
Be	20.000	1.0000
Cd	20.000	1.0000
Co	20.000	1.0000
Cr	20.000	1.0000
Cu	20.000	1.0000
Mn	20.000	1.0000
Ni	20.000	1.0000
Pb	20.000	1.0000
Se	20.000	1.0000
Th	20.000	1.0000
Tl	20.000	1.0000
U	20.000	1.0000
V	20.000	1.0000
Zn	20.000	1.0000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	1.0000
Sb	20.000	1.0000
Sn	20.000	1.0000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

STD3850-09, ICP-MS HIGH ICV STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3113-09, ICP-MS TA ICV A

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
As	20.000	0.0400
Ba	20.000	0.0400
Be	20.000	0.0400
Cd	20.000	0.0400
Co	20.000	0.0400
Cr	20.000	0.0400
Cu	20.000	0.0400
Mn	20.000	0.0400
Ni	20.000	0.0400
Pb	20.000	0.0400
Se	20.000	0.0400
Th	20.000	0.0400
Tl	20.000	0.0400
U	20.000	0.0400
V	20.000	0.0400
Zn	20.000	0.0400

Parent Std No.: STD3114-09, ICP-MS TA ICV B

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0400
Mo	20.000	0.0400
Sb	20.000	0.0400
Sn	20.000	0.0400

Parent Std No.: STD3115-09, ICP-MS TA ICV Alt

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	4.0000
Ca	2,000.0	4.0000
Fe	2,000.0	4.0000
K	2,000.0	4.0000
Mg	2,000.0	4.0000
Na	2,000.0	4.0000

STD3851-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

STD3852-09, LLCCV/RLICV

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Date Expires(2): 05-01-2010 (None)

pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000
Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000

Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.0000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2

Aliquot Amount (ml): 1.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.0000

Reviewed By: \_\_\_\_\_

*R. Hill* 6/26/09



Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/26/09 15:07:10
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File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
2	Cal Blank				1.0 06/25/09 17:43		<input type="checkbox"/>
3	Cal Blank				1.0 06/25/09 17:47		<input type="checkbox"/>
4	Cal Blank				1.0 06/25/09 17:50		<input type="checkbox"/>
5	100 ppb				1.0 06/25/09 17:54		<input type="checkbox"/>
6	ICV				1.0 06/25/09 17:57		<input type="checkbox"/>
7	RLIV				1.0 06/25/09 18:01		<input type="checkbox"/>
8	ICB				1.0 06/25/09 18:04		<input type="checkbox"/>
9	RL STD				1.0 06/25/09 18:08		<input type="checkbox"/>
10	AFCEE RL				1.0 06/25/09 18:11		<input type="checkbox"/>
11	ALTSe				1.0 06/25/09 18:15		<input type="checkbox"/>
12	ICSA				1.0 06/25/09 18:18		<input type="checkbox"/>
13	ICSAB				1.0 06/25/09 18:21		<input type="checkbox"/>
14	RINSE				1.0 06/25/09 18:25		<input type="checkbox"/>
15	LR				1.0 06/25/09 18:28		<input type="checkbox"/>
16	RINSE				1.0 06/25/09 18:32		<input type="checkbox"/>
17	ALTLR				1.0 06/25/09 18:35		<input type="checkbox"/>
18	RINSE				1.0 06/25/09 18:39		<input type="checkbox"/>
19	CCV				1.0 06/25/09 18:42		<input type="checkbox"/>
20	CCB				1.0 06/25/09 18:46		<input type="checkbox"/>
21	RLCV				1.0 06/25/09 18:49		<input type="checkbox"/>
22	<del>LE3WPB</del>	<del>D9F170000</del>	<del>9168244</del>	<del>04</del>	<del>1.0 06/25/09 18:53</del>		<input type="checkbox"/>
23	LE3WPC	D9F170000	9168244	04	1.0 06/25/09 18:56		<input type="checkbox"/>
24	LE3WPL	D9F170000	9168244	04	1.0 06/25/09 19:00		<input type="checkbox"/>
25	LEPAF	D9F110137-1	9168244	04	1.0 06/25/09 19:03		<input type="checkbox"/>
26	LEPAFP5	D9F110137	9168244	5.0	06/25/09 19:07		<input type="checkbox"/>
27	LEPAFZ	D9F110137-1	9168244	1.0	06/25/09 19:10		<input type="checkbox"/>
28	LEPCC	D9F110137-3	9168257	1.0	06/25/09 19:13		<input type="checkbox"/>
29	LEPCK	D9F110137-4	9168257	1.0	06/25/09 19:17		<input type="checkbox"/>
30	CCV				1.0 06/25/09 19:21		<input type="checkbox"/>
31	CCB				1.0 06/25/09 19:24		<input type="checkbox"/>
32	RLCV				1.0 06/25/09 19:28		<input type="checkbox"/>
33	LE35QB	D9F170000	9168263	04	1.0 06/25/09 19:31		<input type="checkbox"/>
34	LE35QC	D9F170000	9168263	04	1.0 06/25/09 19:35		<input type="checkbox"/>
35	LE35QL	D9F170000	9168263	04	1.0 06/25/09 19:38		<input type="checkbox"/>
36	LEPC5	D9F110137-7	9168263	04	1.0 06/25/09 19:42		<input type="checkbox"/>
37	LEPC5P5	D9F110137	9168263	5.0	06/25/09 19:45		<input type="checkbox"/>
38	<del>LEPC5Z</del>	<del>D9F110137-7</del>	<del>9168263</del>	<del>1.0</del>	<del>06/25/09 19:49</del>	<i>At 6/26/09 did not use.</i>	<input type="checkbox"/>
39	CCV				1.0 06/25/09 19:52		<input type="checkbox"/>
40	CCB				1.0 06/25/09 19:55		<input type="checkbox"/>
41	RLCV				1.0 06/25/09 19:59		<input type="checkbox"/>
42	LFFFXB	D9F230000	9174190	MS	1.0 06/25/09 20:02		<input type="checkbox"/>
43	LFFFXC	D9F230000	9174190	MS	1.0 06/25/09 20:06		<input type="checkbox"/>
44	LE709 10X	D9F180314-1	9174190	MS	10.0 06/25/09 20:09		<input type="checkbox"/>
45	LE7CT 5X	D9F180266-1	9174190	MS	5.0 06/25/09 20:13		<input type="checkbox"/>
46	LE7CTP25	D9F180266	9174190		25.0 06/25/09 20:16		<input type="checkbox"/>
47	LE7CTZ	D9F180266-1	9174190		1.0 06/25/09 20:20		<input type="checkbox"/>

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
48	LE7CTS 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:23	<input type="checkbox"/>
49	CCV				1.0	06/25/09 20:27	<input type="checkbox"/>
50	CCB				1.0	06/25/09 20:30	<input type="checkbox"/>
51	RLCV				1.0	06/25/09 20:34	<input type="checkbox"/>
52	LE7CTD 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:37	<input type="checkbox"/>
53	LE9PT 5X	D9F190216-1	9174190	MS	5.0	06/25/09 20:41	<input type="checkbox"/>
54	LFC4A 5X	D9F200196-1	9174190	MS	5.0	06/25/09 20:44	<input type="checkbox"/>
55	LFC4D 5X	D9F200196-3	9174190	MS	5.0	06/25/09 20:48	<input type="checkbox"/>
56	LFC4P 5X	D9F200199-1	9174190	MS	5.0	06/25/09 20:51	<input type="checkbox"/>
57	LFC4Q 5X	D9F200199-2	9174190	MS	5.0	06/25/09 20:55	<input type="checkbox"/>
58	CCV				1.0	06/25/09 20:58	<input type="checkbox"/>
59	CCB				1.0	06/25/09 21:02	<input type="checkbox"/>
60	RLCV				1.0	06/25/09 21:05	<input type="checkbox"/>
61	<del>LF1T1BF</del>	<del>D9F230000</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 21:09</del>	<input type="checkbox"/>
62	LF1T1CF	D9F230000	9174270	MD	1.0	06/25/09 21:12	<input type="checkbox"/>
63	RINSE				1.0	06/25/09 21:16	<input type="checkbox"/>
64	RINSE				1.0	06/25/09 21:19	<input type="checkbox"/>
65	RINSE				1.0	06/25/09 21:23	<input type="checkbox"/>
66	RINSE				1.0	06/25/09 21:26	<input type="checkbox"/>
67	RINSE				1.0	06/25/09 21:30	<input type="checkbox"/>
68	RINSE				1.0	06/25/09 21:33	<input type="checkbox"/>
69	Cal Blank				1.0	06/25/09 21:37	<input type="checkbox"/>
70	Cal Blank				1.0	06/25/09 21:40	<input type="checkbox"/>
71	100 ppb				1.0	06/25/09 21:43	<input type="checkbox"/>
72	CCV				1.0	06/25/09 21:47	<input type="checkbox"/>
73	CCB				1.0	06/25/09 21:50	<input type="checkbox"/>
74	RLCV				1.0	06/25/09 21:54	<input type="checkbox"/>
75	ICSA				1.0	06/25/09 21:57	<input type="checkbox"/>
76	ICSAB				1.0	06/25/09 22:01	<input type="checkbox"/>
77	WASH				1.0	06/25/09 22:04	<input type="checkbox"/>
78	CCV				1.0	06/25/09 22:08	<input type="checkbox"/>
79	CCB				1.0	06/25/09 22:11	<input type="checkbox"/>
80	RLCV				1.0	06/25/09 22:15	<input type="checkbox"/>
81	LF1T1BF	D9F230000	9174270	MD	1.0	06/25/09 22:18	<input type="checkbox"/>
82	LF1T1CF	D9F230000	9174270	MD	1.0	06/25/09 22:22	<input type="checkbox"/>
83	LE6C3F	D9F180143-1	9174270	MD	1.0	06/25/09 22:25	<input type="checkbox"/>
84	LE6C7F	D9F180143-2	9174270	MD	1.0	06/25/09 22:29	<input type="checkbox"/>
85	LE6C8F	D9F180143-3	9174270	MD	1.0	06/25/09 22:32	<input type="checkbox"/>
86	LE6C9F	D9F180143-4	9174270	MD	1.0	06/25/09 22:36	<input type="checkbox"/>
87	LE6DAF	D9F180143-5	9174270	MD	1.0	06/25/09 22:39	<input type="checkbox"/>
88	LE6DCF	D9F180143-6	9174270	MD	1.0	06/25/09 22:43	<input type="checkbox"/>
89	LE6DCP5F	D9F180143	9174270		5.0	06/25/09 22:46	<input type="checkbox"/>
90	<del>LE6DCZF</del>	<del>D9F180143-6</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 22:50</del>	<input type="checkbox"/>
91	CCV				1.0	06/25/09 22:53	<input type="checkbox"/>
92	CCB				1.0	06/25/09 22:57	<input type="checkbox"/>
93	RLCV				1.0	06/25/09 23:00	<input type="checkbox"/>

*6/26/09 did not use.*

*6/26/09 did not use.*

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
94	LE6DCSF	D9F180143-6	9174270	MD	1.0	06/25/09 23:04	<input type="checkbox"/>
95	LE6DCDF	D9F180143-6	9174270	MD	1.0	06/25/09 23:07	<input type="checkbox"/>
96	LE9GLF	D9F190197-1	9174270	MD	1.0	06/25/09 23:11	<input type="checkbox"/>
97	LFCECF	D9F200122-1	9174270	MD	1.0	06/25/09 23:14	<input type="checkbox"/>
98	LFCEMF	D9F200122-2	9174270	MD	1.0	06/25/09 23:18	<input type="checkbox"/>
99	LFCENF	D9F200122-3	9174270	MD	1.0	06/25/09 23:21	<input type="checkbox"/>
100	LFCEQF	D9F200122-4	9174270	MD	1.0	06/25/09 23:25	<input type="checkbox"/>
101	LFCERF	D9F200122-5	9174270	MD	1.0	06/25/09 23:28	<input type="checkbox"/>
102	LFCEWF	D9F200122-6	9174270	MD	1.0	06/25/09 23:32	<input type="checkbox"/>
103	LFCEXF	D9F200122-7	9174270	MD	1.0	06/25/09 23:35	<input type="checkbox"/>
104	CCV				1.0	06/25/09 23:39	<input type="checkbox"/>
105	CCB				1.0	06/25/09 23:42	<input type="checkbox"/>
106	RLCV				1.0	06/25/09 23:46	<input type="checkbox"/>
107	<del>LE6DCZF</del>	<del>D9F180143-6</del>	<del>9174270</del>		<del>1.0</del>	<del>06/25/09 23:49</del>	<input type="checkbox"/>
108	LFC4W 2X	D9F200200-1	9174178	MS	2.0	06/25/09 23:53	<input type="checkbox"/>
109	LFC4X 2X	D9F200200-2	9174178	MS	2.0	06/25/09 23:56	<input type="checkbox"/>
110	LFC40 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:00	<input type="checkbox"/>
111	LFC40P10	D9F200200	9174178		10.0	06/26/09 00:03	<input type="checkbox"/>
112	LFC40Z	D9F200200-3	9174178		1.0	06/26/09 00:07	<input type="checkbox"/>
113	LFC40S 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:10	<input type="checkbox"/>
114	LFC40D 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:14	<input type="checkbox"/>
115	CCV				1.0	06/26/09 00:17	<input type="checkbox"/>
116	CCB				1.0	06/26/09 00:21	<input type="checkbox"/>
117	RLCV				1.0	06/26/09 00:24	<input type="checkbox"/>
118	LFFC2B	D9F230000	9174162	MS	1.0	06/26/09 00:28	<input type="checkbox"/>
119	LFFC2C	D9F230000	9174162	MS	1.0	06/26/09 00:31	<input type="checkbox"/>
120	LE6AW 2X	D9F180141-1	9174162	MS	2.0	06/26/09 00:35	<input type="checkbox"/>
121	LE6A1 2X	D9F180141-2	9174162	MS	2.0	06/26/09 00:38	<input type="checkbox"/>
122	LE6A2 2X	D9F180141-3	9174162	MS	2.0	06/26/09 00:42	<input type="checkbox"/>
123	LE81M	D9F190156-1	9174162	MS	1.0	06/26/09 00:45	<input type="checkbox"/>
124	CCV				1.0	06/26/09 00:49	<input type="checkbox"/>
125	CCB				1.0	06/26/09 00:52	<input type="checkbox"/>
126	RLCV				1.0	06/26/09 00:56	<input type="checkbox"/>
127	LE81MP5	D9F190156	9174162		5.0	06/26/09 01:00	<input type="checkbox"/>
128	LE81MZ	D9F190156-1	9174162		1.0	06/26/09 01:03	<input type="checkbox"/>
129	LE81MS	D9F190156-1	9174162	MS	1.0	06/26/09 01:07	<input type="checkbox"/>
130	LE81MD	D9F190156-1	9174162	MS	1.0	06/26/09 01:10	<input type="checkbox"/>
131	LE82G	D9F190156-2	9174162	MS	1.0	06/26/09 01:14	<input type="checkbox"/>
132	CCV				1.0	06/26/09 01:17	<input type="checkbox"/>
133	CCB				1.0	06/26/09 01:21	<input type="checkbox"/>
134	RLCV				1.0	06/26/09 01:24	<input type="checkbox"/>
135	RINSE				1.0	06/26/09 01:28	<input type="checkbox"/>
136	RINSE				1.0	06/26/09 01:31	<input type="checkbox"/>
137	RINSE				1.0	06/26/09 01:35	<input type="checkbox"/>
138	RINSE				1.0	06/26/09 01:38	<input type="checkbox"/>
139	RINSE				1.0	06/26/09 01:41	<input type="checkbox"/>

*not done did not use.*

Denver

RUN SUMMARY

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
140	<del>RINSE</del>				<del>1.0 06/26/09 01:45</del>		<input type="checkbox"/>
141	Cal Blank				1.0 06/26/09 01:49		<input type="checkbox"/>
142	Cal Blank				1.0 06/26/09 01:52		<input type="checkbox"/>
143	100 ppb				1.0 06/26/09 01:56		<input type="checkbox"/>
144	CCV				1.0 06/26/09 01:59		<input type="checkbox"/>
145	CCB				1.0 06/26/09 02:03		<input type="checkbox"/>
146	RLCV				1.0 06/26/09 02:06		<input type="checkbox"/>
147	LFE9NBF	D9F230000	9174124	MD	1.0 06/26/09 02:10		<input type="checkbox"/>
148	LFE9NCF	D9F230000	9174124	MD	1.0 06/26/09 02:13		<input type="checkbox"/>
149	LE9ANF	D9F190184-1	9174124	MD	1.0 06/26/09 02:17		<input type="checkbox"/>
150	LE9CVF	D9F190184-2	9174124	MD	1.0 06/26/09 02:20		<input type="checkbox"/>
151	LE9CWF	D9F190184-3	9174124	MD	1.0 06/26/09 02:24		<input type="checkbox"/>
152	LE9CXF	D9F190184-4	9174124	MD	1.0 06/26/09 02:27		<input type="checkbox"/>
153	LE9C0F	D9F190184-5	9174124	MD	1.0 06/26/09 02:31		<input type="checkbox"/>
154	LE9C1F	D9F190184-6	9174124	MD	1.0 06/26/09 02:34		<input type="checkbox"/>
155	CCV				1.0 06/26/09 02:38		<input type="checkbox"/>
156	CCB				1.0 06/26/09 02:41		<input type="checkbox"/>
157	RLCV				1.0 06/26/09 02:45		<input type="checkbox"/>
158	LE9H7F	D9F190204-1	9174124	MD	1.0 06/26/09 02:48		<input type="checkbox"/>
159	LE9JMF	D9F190204-2	9174124	MD	1.0 06/26/09 02:52		<input type="checkbox"/>
160	LE9JNF	D9F190204-3	9174124	MD	1.0 06/26/09 02:55		<input type="checkbox"/>
161	LE9JPF	D9F190204-4	9174124	MD	1.0 06/26/09 02:59		<input type="checkbox"/>
162	LE9JQF	D9F190204-5	9174124	MD	1.0 06/26/09 03:03		<input type="checkbox"/>
163	LE9JQP5F	D9F190204	9174124		5.0 06/26/09 03:06		<input type="checkbox"/>
164	LE9JQZF	D9F190204-5	9174124		1.0 06/26/09 03:10		<input type="checkbox"/>
165	LE9JQSF	D9F190204-5	9174124	MD	1.0 06/26/09 03:13		<input type="checkbox"/>
166	CCV				1.0 06/26/09 03:17		<input type="checkbox"/>
167	CCB				1.0 06/26/09 03:20		<input type="checkbox"/>
168	RLCV				1.0 06/26/09 03:24		<input type="checkbox"/>
169	LE9JQDF	D9F190204-5	9174124	MD	1.0 06/26/09 03:27		<input type="checkbox"/>
170	LE9KJF	D9F190204-6	9174124	MD	1.0 06/26/09 03:31		<input type="checkbox"/>
171	LE9KMF	D9F190204-7	9174124	MD	1.0 06/26/09 03:34		<input type="checkbox"/>
172	LE9KPF	D9F190204-8	9174124	MD	1.0 06/26/09 03:38		<input type="checkbox"/>
173	LE9KRF	D9F190204-9	9174124	MD	1.0 06/26/09 03:41		<input type="checkbox"/>
174	LE9KXF	D9F190204-10	9174124	MD	1.0 06/26/09 03:45		<input type="checkbox"/>
175	LE9K1F	D9F190204-11	9174124	MD	1.0 06/26/09 03:48		<input type="checkbox"/>
176	CCV				1.0 06/26/09 03:52		<input type="checkbox"/>
177	CCB				1.0 06/26/09 03:55		<input type="checkbox"/>
178	RLCV				1.0 06/26/09 03:59		<input type="checkbox"/>
179	LFE9JB	D9F230000	9174123	MS	1.0 06/26/09 04:02		<input type="checkbox"/>
180	LFE9JC	D9F230000	9174123	MS	1.0 06/26/09 04:06		<input type="checkbox"/>
181	LE9AN	D9F190184-1	9174123	MS	1.0 06/26/09 04:09		<input type="checkbox"/>
182	LE9CV	D9F190184-2	9174123	MS	1.0 06/26/09 04:13		<input type="checkbox"/>
183	LE9CW	D9F190184-3	9174123	MS	1.0 06/26/09 04:16		<input type="checkbox"/>
184	LE9CX	D9F190184-4	9174123	MS	1.0 06/26/09 04:20		<input type="checkbox"/>
185	<del>LE9C0</del>	<del>D9F190184-5</del>	<del>9174123</del>	<del>MS</del>	<del>1.0 06/26/09 04:24</del>	<i>Not used 6/26/09</i>	<input type="checkbox"/>

Denver

RUN SUMMARY

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/26/09 15:07:10
-----------------------	-----------------	-----------------------------

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
186	<del>LE9G1</del>	<del>D9F190184-6</del>	<del>9174123</del>	<del>MS</del>	<del>1.0</del>	<del>06/26/09 04:27</del>	<input type="checkbox"/>
187	CCV				1.0	06/26/09 04:31	<input type="checkbox"/>
188	CCB				1.0	06/26/09 04:34	<input type="checkbox"/>
189	RLCV				1.0	06/26/09 04:38	<input type="checkbox"/>
190	LE9H7	D9F190204-1	9174123	MS	1.0	06/26/09 04:41	<input type="checkbox"/>
191	LE9H7P5	D9F190204	9174123		5.0	06/26/09 04:45	<input type="checkbox"/>
192	LE9H7Z	D9F190204-1	9174123		1.0	06/26/09 04:48	<input type="checkbox"/>
193	LE9H7S	D9F190204-1	9174123	MS	1.0	06/26/09 04:52	<input type="checkbox"/>
194	LE9H7D	D9F190204-1	9174123	MS	1.0	06/26/09 04:55	<input type="checkbox"/>
195	LE9JM	D9F190204-2	9174123	MS	1.0	06/26/09 04:59	<input type="checkbox"/>
196	LE9JN	D9F190204-3	9174123	MS	1.0	06/26/09 05:02	<input type="checkbox"/>
197	LE9JP	D9F190204-4	9174123	MS	1.0	06/26/09 05:06	<input type="checkbox"/>
198	CCV				1.0	06/26/09 05:09	<input type="checkbox"/>
199	CCB				1.0	06/26/09 05:13	<input type="checkbox"/>
200	RLCV				1.0	06/26/09 05:16	<input type="checkbox"/>
201	LE9JQ	D9F190204-5	9174123	MS	1.0	06/26/09 05:20	<input type="checkbox"/>
202	LE9KJ	D9F190204-6	9174123	MS	1.0	06/26/09 05:23	<input type="checkbox"/>
203	LE9KM	D9F190204-7	9174123	MS	1.0	06/26/09 05:27	<input type="checkbox"/>
204	LE9KP	D9F190204-8	9174123	MS	1.0	06/26/09 05:31	<input type="checkbox"/>
205	LE9KR	D9F190204-9	9174123	MS	1.0	06/26/09 05:34	<input type="checkbox"/>
206	LE9KX	D9F190204-10	9174123	MS	1.0	06/26/09 05:38	<input type="checkbox"/>
207	LE9K1	D9F190204-11	9174123	MS	1.0	06/26/09 05:41	<input type="checkbox"/>
208	CCV				1.0	06/26/09 05:45	<input type="checkbox"/>
209	CCB				1.0	06/26/09 05:48	<input type="checkbox"/>
210	RLCV				1.0	06/26/09 05:52	<input type="checkbox"/>
211	RINSE				1.0	06/26/09 05:55	<input type="checkbox"/>
212	RINSE				1.0	06/26/09 05:59	<input type="checkbox"/>
213	RINSE				1.0	06/26/09 06:02	<input type="checkbox"/>
214	RINSE				1.0	06/26/09 06:06	<input type="checkbox"/>
215	RINSE				1.0	06/26/09 06:09	<input type="checkbox"/>
216	RINSE				1.0	06/26/09 06:13	<input type="checkbox"/>
217	<del>Cal Blank</del>				<del>1.0</del>	<del>06/26/09 06:16</del> <i>did not use.</i>	<input type="checkbox"/>
218	Cal Blank				1.0	06/26/09 06:20	<input type="checkbox"/>
219	100 ppb				1.0	06/26/09 06:23	<input type="checkbox"/>
220	CCV				1.0	06/26/09 06:27	<input type="checkbox"/>
221	CCB				1.0	06/26/09 06:30	<input type="checkbox"/>
222	RLCV				1.0	06/26/09 06:34	<input type="checkbox"/>
223	LFHREBF	D9F240000	9175213	MD	1.0	06/26/09 06:37	<input type="checkbox"/>
224	LFHRECF	D9F240000	9175213	MD	1.0	06/26/09 06:41	<input type="checkbox"/>
225	LFFPKF	D9F230156-1	9175213	MD	1.0	06/26/09 06:44	<input type="checkbox"/>
226	LFFPTF	D9F230156-2	9175213	MD	1.0	06/26/09 06:48	<input type="checkbox"/>
227	LFFP0F	D9F230156-3	9175213	MD	1.0	06/26/09 06:51	<input type="checkbox"/>
228	LFFP2F	D9F230156-4	9175213	MD	1.0	06/26/09 06:55	<input type="checkbox"/>
229	LFFP4F	D9F230156-5	9175213	MD	1.0	06/26/09 06:58	<input type="checkbox"/>
230	LFFP5F	D9F230156-6	9175213	MD	1.0	06/26/09 07:02	<input type="checkbox"/>
231	CCV				1.0	06/26/09 07:05	<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
232	CCB				1.0 06/26/09 07:09		<input type="checkbox"/>
233	RLCV				1.0 06/26/09 07:12		<input type="checkbox"/>
234	LFFP5P5F	D9F230156	9175213		5.0 06/26/09 07:16		<input type="checkbox"/>
235	LFFP5ZF	D9F230156-6	9175213		1.0 06/26/09 07:20		<input type="checkbox"/>
236	LFFP5SF	D9F230156-6	9175213	MD	1.0 06/26/09 07:23		<input type="checkbox"/>
237	LFFP5DF	D9F230156-6	9175213	MD	1.0 06/26/09 07:27		<input type="checkbox"/>
238	LFFP6F	D9F230156-7	9175213	MD	1.0 06/26/09 07:30		<input type="checkbox"/>
239	LFFQAF	D9F230156-8	9175213	MD	1.0 06/26/09 07:34		<input type="checkbox"/>
240	LFFQEF	D9F230156-9	9175213	MD	1.0 06/26/09 07:37		<input type="checkbox"/>
241	LFFQGF	D9F230156-10	9175213	MD	1.0 06/26/09 07:41		<input type="checkbox"/>
242	CCV				1.0 06/26/09 07:44		<input type="checkbox"/>
243	CCB				1.0 06/26/09 07:48		<input type="checkbox"/>
244	RLCV				1.0 06/26/09 07:51		<input type="checkbox"/>
245	LFHP2B	D9F240000	9175194	04	1.0 06/26/09 07:55		<input type="checkbox"/>
246	LFHP2C	D9F240000	9175194	04	1.0 06/26/09 07:58		<input type="checkbox"/>
247	LFFPK	D9F230156-1	9175194	04	1.0 06/26/09 08:02		<input type="checkbox"/>
248	LFFPT	D9F230156-2	9175194	04	1.0 06/26/09 08:06		<input type="checkbox"/>
249	LFFPTP5	D9F230156	9175194		5.0 06/26/09 08:09		<input type="checkbox"/>
250	LFFPTZ	D9F230156-2	9175194		1.0 06/26/09 08:13		<input type="checkbox"/>
251	LFFPTS	D9F230156-2	9175194	04	1.0 06/26/09 08:16		<input type="checkbox"/>
252	LFFPTD	D9F230156-2	9175194	04	1.0 06/26/09 08:20		<input type="checkbox"/>
253	CCV				1.0 06/26/09 08:23		<input type="checkbox"/>
254	CCB				1.0 06/26/09 08:27		<input type="checkbox"/>
255	RLCV				1.0 06/26/09 08:30		<input type="checkbox"/>
256	LFFP0	D9F230156-3	9175194	04	1.0 06/26/09 08:34		<input type="checkbox"/>
257	LFFP2	D9F230156-4	9175194	04	1.0 06/26/09 08:37		<input type="checkbox"/>
258	LFFP4	D9F230156-5	9175194	04	1.0 06/26/09 08:41		<input type="checkbox"/>
259	LFFP5	D9F230156-6	9175194	04	1.0 06/26/09 08:44		<input type="checkbox"/>
260	LFFP6	D9F230156-7	9175194	04	1.0 06/26/09 08:48		<input type="checkbox"/>
261	LFFQA	D9F230156-8	9175194	04	1.0 06/26/09 08:52		<input type="checkbox"/>
262	LFFQE	D9F230156-9	9175194	04	1.0 06/26/09 08:55		<input type="checkbox"/>
263	LFFQG	D9F230156-10	9175194	04	1.0 06/26/09 08:59		<input type="checkbox"/>
264	CCV				1.0 06/26/09 09:02		<input type="checkbox"/>
265	CCB				1.0 06/26/09 09:06		<input type="checkbox"/>
266	RLCV				1.0 06/26/09 09:09		<input type="checkbox"/>
267	<del>RINSE</del>				<del>1.0 06/26/09 09:13</del>		<input type="checkbox"/>
268	RINSE				1.0 06/26/09 09:16		<input type="checkbox"/>
269	RINSE				1.0 06/26/09 09:20		<input type="checkbox"/>
270	RINSE				1.0 06/26/09 09:23		<input type="checkbox"/>
271	RINSE				1.0 06/26/09 09:27		<input type="checkbox"/>
272	RINSE				1.0 06/26/09 09:30		<input type="checkbox"/>
273	Cal Blank				1.0 06/26/09 09:34		<input type="checkbox"/>
274	Cal Blank				1.0 06/26/09 09:37		<input type="checkbox"/>
275	100 ppb				1.0 06/26/09 09:41		<input type="checkbox"/>
276	CCV				1.0 06/26/09 09:44		<input type="checkbox"/>
277	<del>OCB</del>				<del>1.0 06/26/09 09:48</del>	<i>AL c/26/09 did not use.</i>	<input type="checkbox"/>

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/26/09 15:07:10

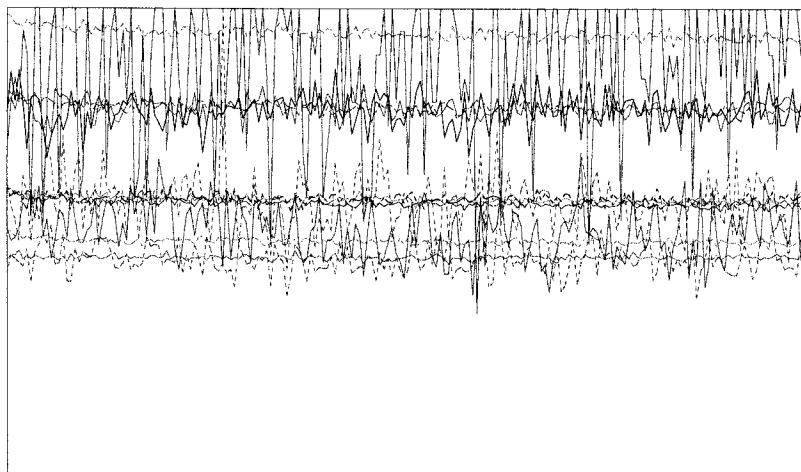
File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
278	<del>RLCV</del>			1.0	<del>06/26/09 09:51</del>		<input type="checkbox"/>
279	RINSE			1.0	06/26/09 09:55		<input type="checkbox"/>
280	RINSE			1.0	06/26/09 09:58		<input type="checkbox"/>
281	RINSE			1.0	06/26/09 10:02		<input type="checkbox"/>
282	RINSE			1.0	06/26/09 10:05		<input type="checkbox"/>
283	RINSE			1.0	06/26/09 10:09		<input type="checkbox"/>
284	RINSE			1.0	06/26/09 10:12		<input type="checkbox"/>
285	<del>Cal Blank</del>			1.0	<del>06/26/09 10:16</del>	<i>Cal blank did not use.</i>	<input type="checkbox"/>
286	Cal Blank			1.0	06/26/09 10:19		<input type="checkbox"/>
287	100 ppb			1.0	06/26/09 10:22		<input type="checkbox"/>
288	CCV			1.0	06/26/09 10:26		<input type="checkbox"/>
289	CCB			1.0	06/26/09 10:30		<input type="checkbox"/>
290	RLCV			1.0	06/26/09 10:33		<input type="checkbox"/>
291	SOLUTION 1			1.0	06/26/09 10:37		<input type="checkbox"/>
292	SOLUTION 2			1.0	06/26/09 10:40		<input type="checkbox"/>
293	CCV			1.0	06/26/09 10:44		<input type="checkbox"/>
294	CCB			1.0	06/26/09 10:47		<input type="checkbox"/>
295	RLCV			1.0	06/26/09 10:51		<input type="checkbox"/>

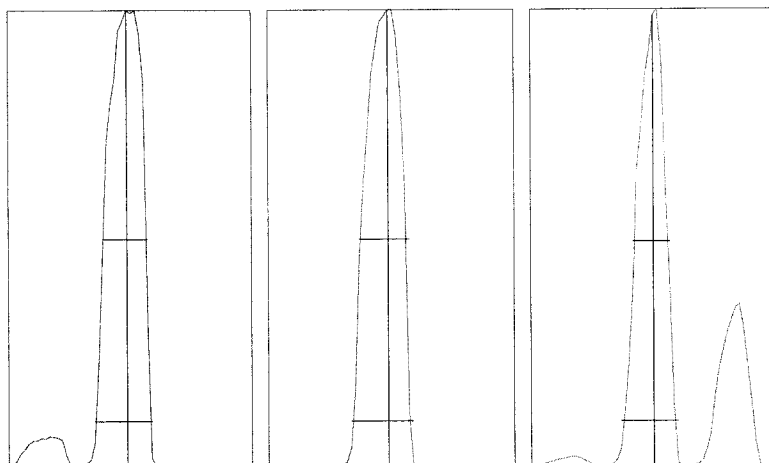
Tune Report

Tune File : NORM.U  
 Comment :



Integration Time: 0.1000 sec  
 Sampling Period: 1.5300 sec  
 n: 200  
 Oxide: 156/140 2.141%  
 Doubly Charged: 70/140 1.504%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1567.0	1571.1	2.71	0.50
7	50,000	23737.0	23564.8	1.07	1.00
59	50,000	29124.0	29753.3	1.34	0.40
63	200	101.0	106.3	10.73	1.00
70	1,000	813.0	782.6	4.46	1.00
75	20	27.0	18.5	23.81	0.50
78	500	209.0	233.2	6.87	1.00
89	50,000	46745.0	47248.3	1.21	0.50
115	100,000	50611.0	50646.2	1.25	1.10
118	200	116.0	119.4	14.11	1.20
137	10,000	5876.0	5968.3	1.81	1.30
205	50,000	38277.0	39401.7	1.44	1.70
238	100,000	57456.0	58700.9	1.39	1.90
156/140	5	2.093%	2.176%	4.33	
70/140	2	1.583%	1.498%	4.63	



m/z:	7	89	205
Height:	23,730	47,034	42,849
Axis:	7.00	89.00	205.05
W-50%:	0.55	0.60	0.45
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear



Tune Report

Tune File : NORM.U  
Comment :

Tuning Parameters

```
===Plasma Condition===
RF Power : 1550 W
RF Matching : 1.7 V
Smpl Depth : 7 mm
Torch-H : -0.8 mm
Torch-V : -0.3 mm
Carrier Gas : 0.83 L/min
Makeup Gas : 0.2 L/min
Optional Gas : --- %
Nebulizer Pump : 0.1 rps
Sample Pump : --- rps
S/C Temp : 2 degC

===Ion Lenses===
Extract 1 : 0 V
Extract 2 : -175 V
Omega Bias-ce : -30 V
Omega Lens-ce : -0.2 V
Cell Entrance : -30 V
QP Focus : 5 V
Cell Exit : -30 V

===Q-Pole Parameters===
AMU Gain : 134
AMU Offset : 123
Axis Gain : 1.001
Axis Offset : -0.05
QP Bias : -10 V

===Detector Parameters===
Discriminator : 8 mV
Analog HV : 1720 V
Pulse HV : 1390 V

===Octopole Parameters===
OctP RF : 180 V
OctP Bias : -18 V
```

===Reaction Cell===

```
Reaction Mode : OFF
H2 Gas : 0 mL/min
He Gas : 0 mL/min
Optional Gas : --- %
```

P/A Factor Tuning Report

Acquired: Jun 25 2009 05:11 pm

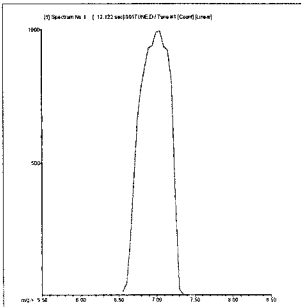
Mass[amu]	Element	P/A Factor
6	Li	0.060527
7	(Li)	Sensitivity too low
9	Be	0.068096
23	Na	0.076001
24	Mg	0.079086
27	Al	0.081496
39	K	0.080983
43	Ca	Sensitivity too low
45	Sc	0.081632
51	V	0.083426
52	Cr	0.086119
53	(Cr)	Sensitivity too low
55	Mn	0.088056
57	Fe	Sensitivity too low
59	Co	0.091535
60	Ni	0.092666
63	Cu	0.094952
66	Zn	0.094596
72	Ge	0.093381
75	As	0.092696
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
93	Nb	Sensitivity too low
95	Mo	0.094000
98	(Mo)	0.093591
99	(Mo)	0.095200
105	Pd	0.098595
106	(Cd)	0.098492
107	Ag	Sensitivity too low
108	(Cd)	0.099270
111	Cd	0.099751
114	Cd	0.099467
115	In	0.098711
118	Sn	0.098622
121	Sb	0.098489
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
182	W	Sensitivity too low
195	Pt	Sensitivity too low
205	Tl	0.108051
206	(Pb)	0.106587
207	(Pb)	0.106712
208	Pb	0.106080
232	Th	0.104987
238	U	0.105110

===Detector Parameters===  
Discriminator: 8.0 mV  
Analog HV: 1720 V  
Pulse HV: 1390 V

## 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\001TUNE.D  
 Date Acquired: Jun 25 2009 05:39 pm  
 Acq. Method: tun\_isis.M  
 Operator: TEL  
 Sample Name: 200.8 TUNE  
 Misc Info:  
 Vial Number: 4  
 Current Method: C:\ICPCHEM\1\METHODS\tun\_isis.M

Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	19878	20379	19597	20102	19795	19515	4.04	5.00	
9 Be	2433	2425	2477	2473	2415	2369	4.86	5.00	
24 Mg	9547	9717	9719	9432	9511	9352	1.95	5.00	
59 Co	66184	67525	66235	66635	65306	65215	2.98	5.00	
115 In	801383	798461	799262	802155	805195	801843	0.56	5.00	
208 Pb	66140	67999	66838	66447	65254	64161	2.50	5.00	
238 U	133648	138099	133760	136158	133050	127171	2.46	5.00	



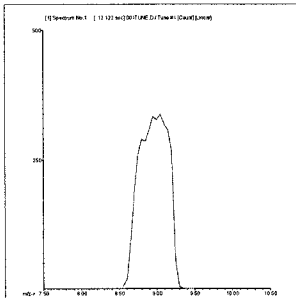
7 Li

**Mass Calib.**

Actual: 7.00  
 Required: 6.90 - 7.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



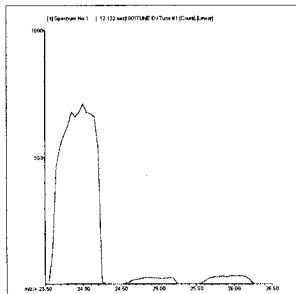
9 Be

**Mass Calib.**

Actual: 9.00  
 Required: 8.90 - 9.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



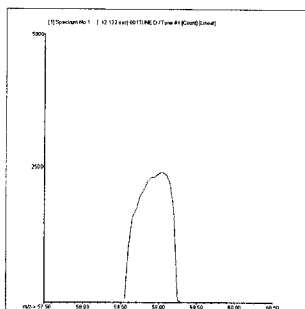
24 Mg

**Mass Calib.**

Actual: 23.95  
 Required: 23.90 - 24.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



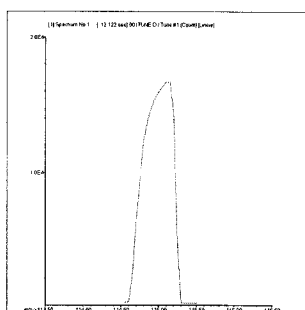
**59 Co**

**Mass Calib.**

Actual: 59.00  
 Required: 58.90 - 59.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



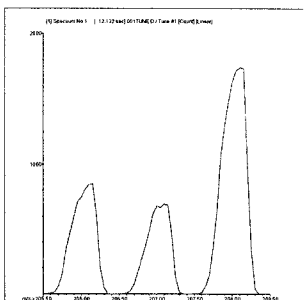
**115 In**

**Mass Calib.**

Actual: 115.05  
 Required: 114.90 - 115.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



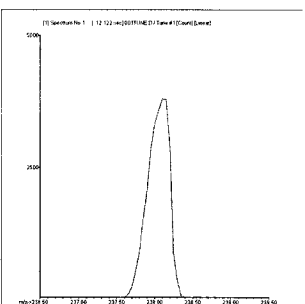
**208 Pb**

**Mass Calib.**

Actual: 208.05  
 Required: 207.90 - 208.10  
 Flag:

**Peak Width**

Actual: 0.50  
 Required: 0.90  
 Flag:



**238 U**

**Mass Calib.**

Actual: 238.10  
 Required: 237.90 - 238.10  
 Flag:

**Peak Width**

Actual: 0.50  
 Required: 0.90  
 Flag:

**Tune Result:**

Pass



**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\002CALB.D\002CALB.D#  
 Date Acquired: Jun 25 2009 05:43 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:44 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	187490	1.26
24	Mg	6	1	1467	3.76
27	Al	45	1	933	3.44
39	K	45	1	56573	1.73
43	Ca	45	1	7	86.60
51	V	72	1	175	130.46
52	Cr	72	1	1967	2.29
55	Mn	72	1	253	8.22
57	Fe	72	1	153	42.43
59	Co	72	1	110	39.63
60	Ni	72	1	60	28.87
63	Cu	72	1	283	23.50
66	Zn	72	1	121	8.18
75	As	72	1	26	27.74
78	Se	72	1	40	43.30
93	Nb	72	1	13	114.56
95	Mo	72	1	80	25.00
105	Pd	115	1	7	86.60
107	Ag	115	1	10	100.00
111	Cd	115	1	13	85.41
114	Cd	115	1	23	49.49
118	Sn	115	1	287	12.25
121	Sb	115	1	24	28.39
137	Ba	115	1	13	43.30
182	W	165	1	583	5.51
195	Pt	165	1	197	7.77
205	Tl	165	1	124	10.83
208	Pb	165	1	186	14.41
232	Th	165	1	303	26.65
238	U	165	1	70	37.80

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	363732	0.54
45	Sc	1	866037	0.98
72	Ge	1	481465	0.71
115	In	1	1530349	0.76
165	Ho	1	3426604	0.46

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Test Acquired 6/25/09 5:44 PM

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\003CALB.D\003CALB.D#  
 Date Acquired: Jun 25 2009 05:47 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 2101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:44 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	189918	0.74
24	Mg	6	1	1133	11.24
27	Al	45	1	913	20.38
39	K	45	1	58259	0.95
43	Ca	45	1	10	0.00
51	V	72	1	-84	139.39
52	Cr	72	1	1820	7.39
55	Mn	72	1	237	19.97
57	Fe	72	1	137	27.70
59	Co	72	1	150	23.09
60	Ni	72	1	47	24.74
63	Cu	72	1	253	23.79
66	Zn	72	1	183	12.02
75	As	72	1	23	20.38
78	Se	72	1	47	61.86
93	Nb	72	1	30	33.33
95	Mo	72	1	43	13.32
105	Pd	115	1	7	86.60
107	Ag	115	1	10	100.00
111	Cd	115	1	13	41.66
114	Cd	115	1	20	50.00
118	Sn	115	1	290	24.14
121	Sb	115	1	20	60.09
137	Ba	115	1	18	28.64
182	W	165	1	633	2.41
195	Pt	165	1	130	13.32
205	Tl	165	1	116	4.41
208	Pb	165	1	160	10.42
232	Th	165	1	227	34.27
238	U	165	1	39	40.51

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	363199	0.55
45	Sc	1	874110	1.41
72	Ge	1	487846	0.60
115	In	1	1544466	0.77
165	Ho	1	3433480	0.31

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#  
 Date Acquired: Jun 25 2009 05:50 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:48 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	191865	0.94
24	Mg	6	1	1784	7.57
27	Al	45	1	1073	3.77
39	K	45	1	58125	1.03
43	Ca	45	1	27	94.37
51	V	72	1	-38	239.76
52	Cr	72	1	1850	4.71
55	Mn	72	1	257	23.48
57	Fe	72	1	160	6.25
59	Co	72	1	133	37.75
60	Ni	72	1	23	49.49
63	Cu	72	1	237	25.47
66	Zn	72	1	114	10.96
75	As	72	1	25	25.38
78	Se	72	1	37	78.73
93	Nb	72	1	23	24.74
95	Mo	72	1	53	54.13
105	Pd	115	1	3	173.21
107	Ag	115	1	10	0.00
111	Cd	115	1	7	214.83
114	Cd	115	1	20	100.00
118	Sn	115	1	183	13.73
121	Sb	115	1	13	0.00
137	Ba	115	1	12	15.75
182	W	165	1	607	8.13
195	Pt	165	1	167	6.93
205	Tl	165	1	98	32.22
208	Pb	165	1	150	12.37
232	Th	165	1	253	8.22
238	U	165	1	31	32.73

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	357213	0.40
45	Sc	1	874931	1.37
72	Ge	1	488215	0.57
115	In	1	1536240	0.42
165	Ho	1	3429199	0.67

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\005ICAL.D\005ICAL.D#  
 Date Acquired: Jun 25 2009 05:54 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:51 pm  
 Sample Type: ICAL

## QC Elements

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	42650	2.23
23	Na	6	22137830	1.26
24	Mg	6	13459580	1.82
27	Al	45	9369846	1.21
39	K	45	13259470	1.08
43	Ca	45	38262	2.23
51	V	72	598158	1.83
52	Cr	72	689748	2.55
55	Mn	72	638890	2.13
57	Fe	72	1807362	0.63
59	Co	72	1008589	1.15
60	Ni	72	234051	1.72
63	Cu	72	572259	1.72
66	Zn	72	105421	1.99
75	As	72	65236	1.81
78	Se	72	9877	1.90
93	Nb	72	27	78.06
95	Mo	72	279637	1.61
105	Pd	115	0	0.00
107	Ag	115	893174	0.92
111	Cd	115	152087	1.51
114	Cd	115	378939	1.78
118	Sn	115	376011	1.54
121	Sb	115	395949	1.95
137	Ba	115	162196	1.45
182	W	165	710	25.86
195	Pt	165	133	31.23
205	Tl	165	1868558	0.59
208	Pb	165	2558274	1.39
232	Th	165	2293497	2.15
238	U	165	2787945	1.82

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	320724	0.42	357213	89.8	30 - 120
45	Sc	1	770897	0.81	874931	88.1	30 - 120
72	Ge	1	429302	0.56	488215	87.9	30 - 120
115	In	1	1391234	0.81	1536240	90.6	30 - 120
165	Ho	1	3180719	0.71	3429199	92.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0



**Initial Calibration Verification (ICV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\006\_ICV.D\006\_ICV.D#  
 Date Acquired: Jun 25 2009 05:57 pm  
 Operator: TEL  
 Sample Name: ICV  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: ICV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	39.75 ppb	2.80	40	99.4	90 - 110
23	Na	6	1	4085.00 ppb	0.24	4000	102.1	90 - 110
24	Mg	6	1	4111.00 ppb	0.68	4000	102.8	90 - 110
27	Al	45	1	4073.00 ppb	2.77	4000	101.8	90 - 110
39	K	45	1	4042.00 ppb	0.14	4000	101.1	90 - 110
43	Ca	45	1	4148.00 ppb	2.36	4000	103.7	90 - 110
51	V	72	1	40.09 ppb	1.19	40	100.2	90 - 110
52	Cr	72	1	40.31 ppb	1.75	40	100.8	90 - 110
55	Mn	72	1	40.51 ppb	1.75	40	101.3	90 - 110
57	Fe	72	1	3935.00 ppb	1.52	4000	98.4	90 - 110
59	Co	72	1	39.44 ppb	1.35	40	98.6	90 - 110
60	Ni	72	1	40.53 ppb	1.57	40	101.3	90 - 110
63	Cu	72	1	40.58 ppb	2.44	40	101.5	90 - 110
66	Zn	72	1	40.34 ppb	0.93	40	100.9	90 - 110
75	As	72	1	39.60 ppb	1.65	40	99.0	90 - 110
78	Se	72	1	43.02 ppb	5.00	40	107.6	90 - 110
93	Nb	72	1	391.30 ppb	47.23	80	489.1	90 - 110
95	Mo	72	1	39.48 ppb	1.37	40	98.7	90 - 110
105	Pd	115	1	-333.30 ppb	112.60	40	-833.3	90 - 110
107	Ag	115	1	40.36 ppb	0.80	40	100.9	90 - 110
111	Cd	115	1	40.01 ppb	2.07	40	100.0	90 - 110
114	Cd	115	1	40.05 ppb	1.99	40	100.1	90 - 110
118	Sn	115	1	39.80 ppb	2.35	40	99.5	90 - 110
121	Sb	115	1	39.76 ppb	1.08	40	99.4	90 - 110
137	Ba	115	1	39.85 ppb	2.24	40	99.6	90 - 110
182	W	165	1	68.18 ppb	38.84	40	170.5	90 - 110
195	Pt	165	1	184.90 ppb	39.28	40	462.3	90 - 110
205	Tl	165	1	40.23 ppb	1.26	40	100.6	90 - 110
208	Pb	165	1	40.64 ppb	1.99	40	101.6	90 - 110
232	Th	165	1	43.42 ppb	2.47	40	108.6	90 - 110
238	U	165	1	40.14 ppb	3.18	40	100.4	90 - 110

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	323232	1.00	357213	90.5	30 - 120
45	Sc	1	774515	0.09	874931	88.5	30 - 120
72	Ge	1	437599	0.33	488215	89.6	30 - 120
115	In	1	1425273	0.39	1536240	92.8	30 - 120
165	Ho	1	3229420	0.55	3429199	94.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\007WASH.D\007WASH.D#  
 Date Acquired: Jun 25 2009 06:01 pm  
 Operator: TEL  
 Sample Name: RLIV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.977 ppb	4.24	1.30	
23 Na	6	1	53.510 ppb	2.95	65.00	
24 Mg	6	1	54.110 ppb	1.89	65.00	
27 Al	45	1	33.130 ppb	1.77	39.00	
39 K	45	1	108.400 ppb	1.67	130.00	
43 Ca	45	1	45.830 ppb	20.04	65.00	
51 V	72	1	4.957 ppb	2.39	6.50	
52 Cr	72	1	2.042 ppb	5.22	2.60	
55 Mn	72	1	1.027 ppb	2.14	1.30	
57 Fe	72	1	50.840 ppb	4.93	65.00	
59 Co	72	1	1.002 ppb	3.94	1.30	
60 Ni	72	1	2.068 ppb	8.40	2.60	
63 Cu	72	1	2.074 ppb	0.92	2.60	
66 Zn	72	1	10.100 ppb	2.93	13.00	
75 As	72	1	5.072 ppb	3.39	6.50	
78 Se	72	1	5.194 ppb	10.40	6.50	
93 Nb	72	1	336.500 ppb	222.08	52.00	
95 Mo	72	1	1.973 ppb	8.51	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.422 ppb	2.72	6.50	
111 Cd	115	1	0.969 ppb	6.76	1.30	
114 Cd	115	1	1.247 ppb	2.67	1.30	
118 Sn	115	1	10.200 ppb	3.75	13.00	
121 Sb	115	1	2.180 ppb	2.06	2.60	
137 Ba	115	1	1.043 ppb	5.61	1.30	
182 W	165	1	-74.470 ppb	68.07	6.50	
195 Pt	165	1	86.750 ppb	91.57	1.30	
205 Tl	165	1	1.195 ppb	3.14	1.30	
208 Pb	165	1	1.064 ppb	1.16	1.30	
232 Th	165	1	2.959 ppb	5.89	2.60	
238 U	165	1	1.057 ppb	2.95	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	331015	0.78	357213	92.7	30 - 120	
45 Sc	1	802941	1.50	874931	91.8	30 - 120	
72 Ge	1	460777	0.36	488215	94.4	30 - 120	
115 In	1	1472933	0.62	1536240	95.9	30 - 120	
165 Ho	1	3274766	0.20	3429199	95.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

ISTD Ref File :

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\008\_ICB.D\008\_ICB.D#  
 Date Acquired: Jun 25 2009 06:04 pm  
 Operator: TEL  
 Sample Name: ICB  
 Misc Info:  
 Vial Number: 2104  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: ICB  
 Total Dil Factor: 1.00

## QC Summary:

Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS	Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9	Be	6	1	0.00	ppb	0.00	1.00	
23	Na	6	1	1.71	ppb	14.06	20.00	
24	Mg	6	1	-0.27	ppb	34.31	20.00	
27	Al	45	1	1.89	ppb	6.01	20.00	
39	K	45	1	1.04	ppb	51.68	20.00	
43	Ca	45	1	1.08	ppb	229.99	20.00	
51	V	72	1	0.03	ppb	65.24	1.00	
52	Cr	72	1	0.00	ppb	1791.30	1.00	
55	Mn	72	1	0.02	ppb	24.11	1.00	
57	Fe	72	1	1.10	ppb	23.04	20.00	
59	Co	72	1	0.00	ppb	70.81	1.00	
60	Ni	72	1	0.03	ppb	25.62	1.00	
63	Cu	72	1	0.02	ppb	29.19	1.00	
66	Zn	72	1	0.42	ppb	3.86	10.00	
75	As	72	1	0.01	ppb	35.82	1.00	
78	Se	72	1	0.23	ppb	122.79	1.00	
93	Nb	72	1	-366.30	ppb	79.47	2.00	
95	Mo	72	1	0.01	ppb	35.90	1.00	
105	Pd	115	1	-104.90	ppb	169.30	1.00	
107	Ag	115	1	0.01	ppb	19.03	1.00	
111	Cd	115	1	0.00	ppb	109.19	1.00	
114	Cd	115	1	0.01	ppb	69.09	1.00	
118	Sn	115	1	0.15	ppb	10.76	10.00	
121	Sb	115	1	0.12	ppb	14.14	1.00	
137	Ba	115	1	0.00	ppb	436.17	1.00	
182	W	165	1	-0.24	ppb	13902.00	5.00	
195	Pt	165	1	53.50	ppb	224.30	1.00	Fail
205	Tl	165	1	0.07	ppb	9.22	1.00	
208	Pb	165	1	0.01	ppb	16.20	1.00	
232	Th	165	1	0.33	ppb	11.31	2.00	
238	U	165	1	0.01	ppb	7.92	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	336355	0.88	357213	94.2	30 - 120
45	Sc	1	844778	1.23	874931	96.6	30 - 120
72	Ge	1	472720	0.34	488215	96.8	30 - 120
115	In	1	1510792	1.49	1536240	98.3	30 - 120
165	Ho	1	3335348	0.98	3429199	97.3	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

1 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**RL STD QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\009RLST.D\009RLST.D#  
 Date Acquired: Jun 25 2009 06:08 pm  
 Operator: TEL  
 Sample Name: RL STD  
 Misc Info: 2105  
 Vial Number: C:\ICPCHEM\1\METHODS\6020isis.M  
 Current Method: C:\ICPCHEM\1\CALIB\6020isis.C  
 Calibration File: Jun 25 2009 05:54 pm  
 Last Cal Update: RLSTD  
 Sample Type: 1.00  
 Total Dil Factor:

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1.21 ppb	4.23	1	121.2	50 - 150	
23	Na	6	110.70 ppb	1.38	100	110.7	50 - 150	
24	Mg	6	109.40 ppb	2.04	100	109.4	50 - 150	
27	Al	45	101.80 ppb	2.06	100	101.8	50 - 150	
39	K	45	104.90 ppb	2.43	100	104.9	50 - 150	
43	Ca	45	116.80 ppb	13.38	100	116.8	50 - 150	
51	V	72	0.94 ppb	9.10	1	94.3	50 - 150	
52	Cr	72	0.98 ppb	5.86	1	97.8	50 - 150	
55	Mn	72	1.01 ppb	1.74	1	100.8	50 - 150	
57	Fe	72	97.96 ppb	4.59	100	98.0	50 - 150	
59	Co	72	0.99 ppb	0.59	1	99.1	50 - 150	
60	Ni	72	0.95 ppb	3.90	1	94.6	50 - 150	
63	Cu	72	1.05 ppb	4.45	1	105.4	50 - 150	
66	Zn	72	10.09 ppb	1.64	10	100.9	50 - 150	
75	As	72	0.98 ppb	8.48	1	97.5	50 - 150	
78	Se	72	0.80 ppb	24.01	1	80.1	50 - 150	
93	Nb	72	-272.70 ppb	161.42	2	-13635.0	50 - 150	Fail
95	Mo	72	0.98 ppb	5.51	1	97.7	50 - 150	
105	Pd	115	-1.88 ppb	9378.30	1	-188.2	50 - 150	Fail
107	Ag	115	1.04 ppb	1.36	1	103.9	50 - 150	
111	Cd	115	1.05 ppb	2.12	1	105.0	50 - 150	
114	Cd	115	1.23 ppb	4.06	1	122.8	50 - 150	
118	Sn	115	10.02 ppb	3.19	10	100.2	50 - 150	
121	Sb	115	1.02 ppb	2.63	1	101.8	50 - 150	
137	Ba	115	1.01 ppb	2.94	1	100.7	50 - 150	
182	W	165	-41.51 ppb	182.32	1	-4151.0	50 - 150	Fail
195	Pt	165	39.80 ppb	171.68	1	3980.0	50 - 150	Fail
205	Tl	165	1.09 ppb	0.74	1	108.8	50 - 150	
208	Pb	165	1.04 ppb	4.08	1	103.9	50 - 150	
232	Th	165	1.11 ppb	4.83	1	111.2	50 - 150	
238	U	165	1.03 ppb	4.18	1	103.2	50 - 150	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	339022	0.49	357213	94.9	30 - 120
45	Sc	1	852135	1.34	874931	97.4	30 - 120
72	Ge	1	476660	0.24	488215	97.6	30 - 120
115	In	1	1520028	0.32	1536240	98.9	30 - 120
165	Ho	1	3339304	0.06	3429199	97.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**AFCEE RL QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\010AFCE.D\010AFCE.D#  
 Date Acquired: Jun 25 2009 06:11 pm  
 Operator: TEL  
 Sample Name: AFCEE RL  
 Misc Info:  
 Vial Number: 2106  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: AFCEERL  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	0.16 ppb	55.69	0	66.1	80 - 120
23	Na	6	1	21.12 ppb	7.64	22	95.4	80 - 120
24	Mg	6	1	21.04 ppb	2.07	22	96.2	80 - 120
27	Al	45	1	20.09 ppb	3.29	20	98.7	80 - 120
39	K	45	1	19.53 ppb	2.60	21	93.1	80 - 120
43	Ca	45	1	14.96 ppb	41.57	23	64.0	80 - 120
51	V	72	1	0.16 ppb	28.81	0	84.3	80 - 120
52	Cr	72	1	0.18 ppb	14.01	0	89.6	80 - 120
55	Mn	72	1	0.22 ppb	6.94	0	106.7	80 - 120
57	Fe	72	1	19.31 ppb	5.38	20	98.6	80 - 120
59	Co	72	1	0.20 ppb	2.85	0	99.2	80 - 120
60	Ni	72	1	0.19 ppb	14.26	0	101.5	80 - 120
63	Cu	72	1	0.21 ppb	13.15	0	99.3	80 - 120
66	Zn	72	1	2.00 ppb	2.14	2	99.3	80 - 120
75	As	72	1	0.19 ppb	9.98	0	98.2	80 - 120
78	Se	72	1	0.13 ppb	141.98	0	80.1	80 - 120
93	Nb	72	1	-465.60 ppb	35.61	-55	853.7	80 - 120
95	Mo	72	1	0.19 ppb	2.79	0	97.7	80 - 120
105	Pd	115	1	-0.41 ppb	#####	0	109.6	80 - 120
107	Ag	115	1	0.21 ppb	3.68	0	102.2	80 - 120
111	Cd	115	1	0.19 ppb	4.76	0	89.8	80 - 120
114	Cd	115	1	0.23 ppb	3.51	0	92.6	80 - 120
118	Sn	115	1	2.05 ppb	2.53	2	102.2	80 - 120
121	Sb	115	1	0.23 ppb	9.88	0	114.9	80 - 120
137	Ba	115	1	0.20 ppb	9.47	0	97.6	80 - 120
182	W	165	1	34.11 ppb	187.07	-8	-410.9	80 - 120
195	Pt	165	1	-103.40 ppb	490.33	8	-1299.0	80 - 120
205	Tl	165	1	0.24 ppb	3.62	0	109.9	80 - 120
208	Pb	165	1	0.21 ppb	7.52	0	99.3	80 - 120
232	Th	165	1	0.29 ppb	2.64	0	132.6	80 - 120
238	U	165	1	0.20 ppb	1.11	0	97.7	80 - 120

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	342755	1.03	357213	96.0	30 - 120
45	Sc	1	861526	0.65	874931	98.5	30 - 120
72	Ge	1	478472	0.23	488215	98.0	30 - 120
115	In	1	1533251	0.39	1536240	99.8	30 - 120
165	Ho	1	3354225	0.41	3429199	97.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\011SMPL.D\011SMPL.D#  
 Date Acquired: Jun 25 2009 06:15 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ALTSe  
 Misc Info: 2 ppb  
 Vial Number: 2107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.15	3600	
23 Na	6	1	-2.72	-2.72	ppb	35.07	100000	
24 Mg	6	1	-0.23	-0.23	ppb	34.31	100000	
27 Al	45	1	0.07	0.07	ppb	190.36	100000	
39 K	45	1	-0.91	-0.91	ppb	72.91	100000	
43 Ca	45	1	-2.90	-2.90	ppb	95.45	100000	
51 V	72	1	0.01	0.01	ppb	223.13	3600	
52 Cr	72	1	0.00	0.00	ppb	7708.20	3600	
55 Mn	72	1	0.01	0.01	ppb	9.84	18000	
57 Fe	72	1	0.38	0.38	ppb	33.95	100000	
59 Co	72	1	0.00	0.00	ppb	14.94	3600	
60 Ni	72	1	0.01	0.01	ppb	1.12	3600	
63 Cu	72	1	0.01	0.01	ppb	63.93	3600	
66 Zn	72	1	0.22	0.22	ppb	8.65	3600	
75 As	72	1	-0.01	-0.01	ppb	267.90	3600	
78 Se	72	1	2.25	2.25	ppb	28.36	3600	
93 Nb	72	1	-269.80	-269.80	ppb	61.42	2000	
95 Mo	72	1	0.00	0.00	ppb	168.98	3600	
105 Pd	115	1	-3.63	-3.63	ppb	4951.70	1000	
107 Ag	115	1	0.00	0.00	ppb	49.26	3600	
111 Cd	115	1	0.00	0.00	ppb	112.48	3600	
114 Cd	115	1	0.00	0.00	ppb	411.65	3600	
118 Sn	115	1	0.05	0.05	ppb	19.24	3600	
121 Sb	115	1	0.03	0.03	ppb	5.22	3600	
137 Ba	115	1	0.00	0.00	ppb	6.71	3600	
182 W	165	1	12.60	12.60	ppb	341.90	1000	
195 Pt	165	1	43.17	43.17	ppb	426.92	1000	
205 Tl	165	1	0.02	0.02	ppb	9.18	3600	
208 Pb	165	1	0.00	0.00	ppb	1333.90	3600	
232 Th	165	1	0.05	0.05	ppb	12.59	1000	
238 U	165	1	0.00	0.00	ppb	154.20	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	340404	1.39	357213	95.3	30 - 120	
45 Sc	1	847853	1.60	874931	96.9	30 - 120	
72 Ge	1	473050	0.49	488215	96.9	30 - 120	
115 In	1	1500983	0.70	1536240	97.7	30 - 120	
165 Ho	1	3355885	0.06	3429199	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\012ICSA.D\012ICSA.D#  
 Date Acquired: Jun 25 2009 06:18 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.03 ppb	43.08	1.00
23	Na	6	1	97230.00 ppb	0.72	100.00
24	Mg	6	1	93340.00 ppb	0.79	100.00
27	Al	45	1	97800.00 ppb	1.32	100.00
39	K	45	1	99100.00 ppb	0.76	100.00
43	Ca	45	1	104700.00 ppb	0.16	100.00
51	V	72	1	0.06 ppb	5.46	1.00
52	Cr	72	1	1.03 ppb	1.36	1.00
55	Mn	72	1	2.12 ppb	3.28	1.00
57	Fe	72	1	95700.00 ppb	1.69	100.00
59	Co	72	1	0.03 ppb	13.42	1.00
60	Ni	72	1	0.81 ppb	2.92	1.00
63	Cu	72	1	0.29 ppb	5.15	1.00
66	Zn	72	1	2.72 ppb	3.00	10.00
75	As	72	1	0.14 ppb	12.60	1.00
78	Se	72	1	0.18 ppb	133.62	1.00
93	Nb	72	1	2807.00 ppb	39.79	2.00
95	Mo	72	1	2033.00 ppb	0.43	2000.00
105	Pd	115	1	-2323.00 ppb	24.79	1.00
107	Ag	115	1	0.08 ppb	11.81	1.00
111	Cd	115	1	0.37 ppb	47.15	1.00
114	Cd	115	1	1.63 ppb	2.40	1.00
118	Sn	115	1	0.18 ppb	19.11	10.00
121	Sb	115	1	0.25 ppb	7.11	1.00
137	Ba	115	1	1.54 ppb	3.53	1.00
182	W	165	1	1072.00 ppb	2.44	5.00
195	Pt	165	1	-66.66 ppb	355.69	1.00
205	Tl	165	1	0.04 ppb	18.29	1.00
208	Pb	165	1	0.14 ppb	1.55	1.00
232	Th	165	1	0.09 ppb	20.92	2.00
238	U	165	1	0.02 ppb	5.32	1.00

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	303415	1.10	357213	84.9	30 - 120
45	Sc	1	684272	0.87	874931	78.2	30 - 120
72	Ge	1	370154	0.61	488215	75.8	30 - 120
115	In	1	1209203	0.34	1536240	78.7	30 - 120
165	Ho	1	2887854	0.72	3429199	84.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

**Interference Check Solution AB (ICS-AB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\013ICSB.D\013ICSB.D#  
 Date Acquired: Jun 25 2009 06:21 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	91.16	2.22	100	91.2	80 - 120	
23 Na	6	1	92920.00	1.17	110000	84.5	80 - 120	
24 Mg	6	1	89260.00	0.64	110000	81.1	80 - 120	
27 Al	45	1	96070.00	1.20	110000	87.3	80 - 120	
39 K	45	1	97200.00	0.15	110000	88.4	80 - 120	
43 Ca	45	1	101800.00	0.52	110000	92.5	80 - 120	
51 V	72	1	102.90	0.54	100	102.9	80 - 120	
52 Cr	72	1	101.40	1.69	100	101.4	80 - 120	
55 Mn	72	1	101.80	1.23	100	101.8	80 - 120	
57 Fe	72	1	95920.00	1.70	110000	87.2	80 - 120	
59 Co	72	1	96.01	1.02	100	96.0	80 - 120	
60 Ni	72	1	94.40	1.62	100	94.4	80 - 120	
63 Cu	72	1	91.91	1.58	100	91.9	80 - 120	
66 Zn	72	1	98.35	1.28	100	98.4	80 - 120	
75 As	72	1	98.91	0.32	100	98.9	80 - 120	
78 Se	72	1	106.20	2.22	100	106.2	80 - 120	
93 Nb	72	1	2529.00	16.76	200	1264.5	80 - 120	Fail
95 Mo	72	1	2131.00	0.55	2100	101.5	80 - 120	
105 Pd	115	1	-1182.00	37.04	100	-1182.0	80 - 120	Fail
107 Ag	115	1	85.93	1.82	100	85.9	80 - 120	
111 Cd	115	1	94.86	2.62	100	94.9	80 - 120	
114 Cd	115	1	96.58	2.43	100	96.6	80 - 120	
118 Sn	115	1	100.90	2.48	100	100.9	80 - 120	
121 Sb	115	1	101.00	2.28	100	101.0	80 - 120	
137 Ba	115	1	105.80	2.32	100	105.8	80 - 120	
182 W	165	1	983.20	13.21	100	983.2	80 - 120	Fail
195 Pt	165	1	42.84	198.95	100	42.8	80 - 120	Fail
205 Tl	165	1	95.91	1.96	100	95.9	80 - 120	
208 Pb	165	1	95.76	3.19	100	95.8	80 - 120	
232 Th	165	1	104.60	3.31	100	104.6	80 - 120	
238 U	165	1	100.80	2.04	100	100.8	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	307006	0.95	357213	85.9	30 - 120	
45 Sc	1	670438	0.67	874931	76.6	30 - 120	
72 Ge	1	359634	0.80	488215	73.7	30 - 120	
115 In	1	1201588	1.19	1536240	78.2	30 - 120	
165 Ho	1	2919411	1.34	3429199	85.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\014SMPL.D\014SMPL.D#  
 Date Acquired: Jun 25 2009 06:25 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.23	3600	
23 Na	6	1	-8.58	-8.58	ppb	7.89	100000	
24 Mg	6	1	4.37	4.37	ppb	30.17	100000	
27 Al	45	1	5.73	5.73	ppb	24.18	100000	
39 K	45	1	-0.43	-0.43	ppb	122.93	100000	
43 Ca	45	1	1.38	1.38	ppb	185.59	100000	
51 V	72	1	0.01	0.01	ppb	219.58	3600	
52 Cr	72	1	-0.01	-0.01	ppb	64.73	3600	
55 Mn	72	1	0.02	0.02	ppb	47.43	18000	
57 Fe	72	1	6.70	6.70	ppb	26.58	100000	
59 Co	72	1	0.00	0.00	ppb	144.50	3600	
60 Ni	72	1	0.00	0.00	ppb	212.11	3600	
63 Cu	72	1	0.02	0.02	ppb	43.54	3600	
66 Zn	72	1	-0.01	-0.01	ppb	135.79	3600	
75 As	72	1	-0.01	-0.01	ppb	108.15	3600	
78 Se	72	1	0.12	0.12	ppb	169.69	3600	
93 Nb	72	1	44.28	44.28	ppb	387.31	2000	
95 Mo	72	1	0.81	0.81	ppb	15.82	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	0.01	0.01	ppb	25.35	3600	
111 Cd	115	1	0.01	0.01	ppb	74.61	3600	
114 Cd	115	1	0.01	0.01	ppb	65.01	3600	
118 Sn	115	1	0.08	0.08	ppb	24.06	3600	
121 Sb	115	1	0.22	0.22	ppb	14.68	3600	
137 Ba	115	1	0.01	0.01	ppb	104.19	3600	
182 W	165	1	-57.75	-57.75	ppb	78.44	1000	
195 Pt	165	1	134.90	134.90	ppb	262.49	1000	
205 Tl	165	1	0.00	0.00	ppb	16.64	3600	
208 Pb	165	1	0.00	0.00	ppb	65.83	3600	
232 Th	165	1	0.64	0.64	ppb	16.36	1000	
238 U	165	1	0.01	0.01	ppb	20.54	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	357808	0.97	357213	100.2	30 - 120	
45 Sc	1	809505	1.74	874931	92.5	30 - 120	
72 Ge	1	457515	0.32	488215	93.7	30 - 120	
115 In	1	1476245	0.56	1536240	96.1	30 - 120	
165 Ho	1	3374873	0.57	3429199	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Linear Dynamic Range Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\015\_LR.D\015\_LR.D#  
 Date Acquired: Jun 25 2009 06:28 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LR  
 Misc Info:  
 Vial Number: 2110  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: LR  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	953.30 ppb	0.22	1000	95.3	90 - 110	
23 Na	6	1	98630.00 ppb	0.26	100000	98.6	90 - 110	
24 Mg	6	1	96030.00 ppb	0.17	100000	96.0	90 - 110	
27 Al	45	1	98370.00 ppb	1.10	100000	98.4	90 - 110	
39 K	45	1	98300.00 ppb	0.70	100000	98.3	90 - 110	
43 Ca	45	1	101000.00 ppb	1.07	100000	101.0	90 - 110	
51 V	72	1	998.30 ppb	0.99	1000	99.8	90 - 110	
52 Cr	72	1	978.80 ppb	0.23	1000	97.9	90 - 110	
55 Mn	72	1	957.00 ppb	0.35	1000	95.7	90 - 110	
57 Fe	72	1	94190.00 ppb	0.74	100000	94.2	90 - 110	
59 Co	72	1	924.80 ppb	0.80	1000	92.5	90 - 110	
60 Ni	72	1	946.10 ppb	0.17	1000	94.6	90 - 110	
63 Cu	72	1	885.80 ppb	0.34	1000	88.6	90 - 110	Fail
66 Zn	72	1	900.10 ppb	0.36	1000	90.0	90 - 110	
75 As	72	1	944.80 ppb	0.23	1000	94.5	90 - 110	
78 Se	72	1	952.60 ppb	0.74	1000	95.3	90 - 110	
93 Nb	72	1	1009.00 ppb	80.16	2000	50.5	90 - 110	Fail
95 Mo	72	1	1030.00 ppb	1.00	1000	103.0	90 - 110	
105 Pd	115	1	-435.80 ppb	212.96	1000	-43.6	90 - 110	Fail
107 Ag	115	1	854.10 ppb	0.64	1000	85.4	90 - 110	Fail
111 Cd	115	1	945.50 ppb	0.54	1000	94.6	90 - 110	
114 Cd	115	1	915.50 ppb	1.23	1000	91.6	90 - 110	
118 Sn	115	1	979.20 ppb	0.53	1000	97.9	90 - 110	
121 Sb	115	1	956.50 ppb	0.90	1000	95.7	90 - 110	
137 Ba	115	1	1031.00 ppb	1.12	1000	103.1	90 - 110	
182 W	165	1	427.60 ppb	30.57	1000	42.8	90 - 110	Fail
195 Pt	165	1	64.52 ppb	171.11	1000	6.5	90 - 110	Fail
205 Tl	165	1	918.90 ppb	0.78	1000	91.9	90 - 110	
208 Pb	165	1	904.20 ppb	1.29	1000	90.4	90 - 110	
232 Th	165	1	1008.00 ppb	0.97	1000	100.8	90 - 110	
238 U	165	1	960.30 ppb	0.95	1000	96.0	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	273131	1.16	357213	76.5	30 - 120	
45 Sc	1	662136	0.98	874931	75.7	30 - 120	
72 Ge	1	359007	1.26	488215	73.5	30 - 120	
115 In	1	1161475	0.75	1536240	75.6	30 - 120	
165 Ho	1	2712036	0.16	3429199	79.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

6 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\016SMPL.D\016SMPL.D#  
 Date Acquired: Jun 25 2009 06:32 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.09	0.09	ppb	66.20	3600	
23 Na	6	1	-8.50	-8.50	ppb	13.36	100000	
24 Mg	6	1	5.46	5.46	ppb	25.68	100000	
27 Al	45	1	6.62	6.62	ppb	19.82	100000	
39 K	45	1	3.69	3.69	ppb	48.73	100000	
43 Ca	45	1	2.13	2.13	ppb	69.09	100000	
51 V	72	1	0.05	0.05	ppb	84.99	3600	
52 Cr	72	1	0.04	0.04	ppb	80.39	3600	
55 Mn	72	1	0.07	0.07	ppb	17.95	18000	
57 Fe	72	1	6.43	6.43	ppb	16.34	100000	
59 Co	72	1	0.05	0.05	ppb	40.82	3600	
60 Ni	72	1	0.07	0.07	ppb	57.75	3600	
63 Cu	72	1	0.07	0.07	ppb	39.17	3600	
66 Zn	72	1	0.07	0.07	ppb	38.37	3600	
75 As	72	1	0.09	0.09	ppb	26.24	3600	
78 Se	72	1	0.24	0.24	ppb	104.69	3600	
93 Nb	72	1	-657.00	-657.00	ppb	0.00	2000	
95 Mo	72	1	0.52	0.52	ppb	19.40	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	0.21	0.21	ppb	14.70	3600	
111 Cd	115	1	0.05	0.05	ppb	26.97	3600	
114 Cd	115	1	0.07	0.07	ppb	19.92	3600	
118 Sn	115	1	1.60	1.60	ppb	1.04	3600	
121 Sb	115	1	1.68	1.68	ppb	0.28	3600	
137 Ba	115	1	0.05	0.05	ppb	27.11	3600	
182 W	165	1	-5.77	-5.77	ppb	633.86	1000	
195 Pt	165	1	123.40	123.40	ppb	79.53	1000	
205 Tl	165	1	0.06	0.06	ppb	12.35	3600	
208 Pb	165	1	0.05	0.05	ppb	26.05	3600	
232 Th	165	1	3.33	3.33	ppb	18.24	1000	
238 U	165	1	0.10	0.10	ppb	18.51	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	340395	1.02	357213	95.3	30 - 120	
45 Sc	1	816743	1.50	874931	93.3	30 - 120	
72 Ge	1	460813	0.55	488215	94.4	30 - 120	
115 In	1	1470258	0.55	1536240	95.7	30 - 120	
165 Ho	1	3230684	1.43	3429199	94.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\017SMPL.D\017SMPL.D#  
 Date Acquired: Jun 25 2009 06:35 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ALTLR  
 Misc Info: Cu/Ag  
 Vial Number: 2112  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	-10.40	-10.40	ppb	13.28	100000	
24 Mg	6	1	0.26	0.26	ppb	14.72	100000	
27 Al	45	1	0.79	0.79	ppb	10.38	100000	
39 K	45	1	0.36	0.36	ppb	574.75	100000	
43 Ca	45	1	-0.61	-0.61	ppb	905.75	100000	
51 V	72	1	0.02	0.02	ppb	94.18	3600	
52 Cr	72	1	0.00	0.00	ppb	819.92	3600	
55 Mn	72	1	0.01	0.01	ppb	59.46	18000	
57 Fe	72	1	0.82	0.82	ppb	33.30	100000	
59 Co	72	1	0.00	0.00	ppb	34.40	3600	
60 Ni	72	1	0.02	0.02	ppb	76.27	3600	
63 Cu	72	1	996.30	996.30	ppb	1.52	3600	
66 Zn	72	1	0.63	0.63	ppb	9.90	3600	
75 As	72	1	0.02	0.02	ppb	51.68	3600	
78 Se	72	1	0.07	0.07	ppb	79.35	3600	
93 Nb	72	1	-370.60	-370.60	ppb	133.86	2000	
95 Mo	72	1	0.16	0.16	ppb	12.92	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	975.90	975.90	ppb	0.71	3600	
111 Cd	115	1	0.00	0.00	ppb	1105.30	3600	
114 Cd	115	1	0.03	0.03	ppb	46.03	3600	
118 Sn	115	1	0.56	0.56	ppb	2.47	3600	
121 Sb	115	1	0.50	0.50	ppb	3.79	3600	
137 Ba	115	1	0.00	0.00	ppb	113.29	3600	
182 W	165	1	-63.64	-63.64	ppb	19.36	1000	
195 Pt	165	1	307.40	307.40	ppb	7.19	1000	
205 Tl	165	1	0.03	0.03	ppb	5.64	3600	
208 Pb	165	1	0.01	0.01	ppb	21.53	3600	
232 Th	165	1	0.72	0.72	ppb	9.80	1000	
238 U	165	1	0.01	0.01	ppb	10.70	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	354196	0.62	357213	99.2	30 - 120	
45 Sc	1	862724	1.88	874931	98.6	30 - 120	
72 Ge	1	479843	0.09	488215	98.3	30 - 120	
115 In	1	1531712	0.37	1536240	99.7	30 - 120	
165 Ho	1	3344703	0.85	3429199	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\018SMPL.D\018SMPL.D#  
 Date Acquired: Jun 25 2009 06:39 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS	Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.01	0.01	ppb	173.22	3600	
23	Na	6	1	-10.39	-10.39	ppb	3.61	100000	
24	Mg	6	1	1.17	1.17	ppb	3.69	100000	
27	Al	45	1	1.11	1.11	ppb	10.45	100000	
39	K	45	1	1.24	1.24	ppb	31.26	100000	
43	Ca	45	1	0.03	0.03	ppb	12568.00	100000	
51	V	72	1	0.00	0.00	ppb	5400.60	3600	
52	Cr	72	1	0.00	0.00	ppb	253.53	3600	
55	Mn	72	1	0.01	0.01	ppb	99.44	18000	
57	Fe	72	1	1.12	1.12	ppb	16.65	100000	
59	Co	72	1	0.00	0.00	ppb	76.82	3600	
60	Ni	72	1	0.01	0.01	ppb	130.49	3600	
63	Cu	72	1	0.06	0.06	ppb	67.02	3600	
66	Zn	72	1	0.00	0.00	ppb	508.31	3600	
75	As	72	1	0.02	0.02	ppb	23.95	3600	
78	Se	72	1	0.18	0.18	ppb	30.38	3600	
93	Nb	72	1	-283.10	-283.10	ppb	151.82	2000	
95	Mo	72	1	0.10	0.10	ppb	2.68	3600	
105	Pd	115	1	100.00	100.00	ppb	0.00	1000	
107	Ag	115	1	0.24	0.24	ppb	8.63	3600	
111	Cd	115	1	0.01	0.01	ppb	76.94	3600	
114	Cd	115	1	0.01	0.01	ppb	109.12	3600	
118	Sn	115	1	0.23	0.23	ppb	12.19	3600	
121	Sb	115	1	0.25	0.25	ppb	6.97	3600	
137	Ba	115	1	0.01	0.01	ppb	34.84	3600	
182	W	165	1	-67.79	-67.79	ppb	62.44	1000	
195	Pt	165	1	301.50	301.50	ppb	28.67	1000	
205	Tl	165	1	0.02	0.02	ppb	7.48	3600	
208	Pb	165	1	0.01	0.01	ppb	18.53	3600	
232	Th	165	1	0.19	0.19	ppb	3.15	1000	
238	U	165	1	0.01	0.01	ppb	6.76	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	362228	0.42	357213	101.4	30 - 120	
45	Sc	876024	0.49	874931	100.1	30 - 120	
72	Ge	491767	0.49	488215	100.7	30 - 120	
115	In	1554411	0.14	1536240	101.2	30 - 120	
165	Ho	3412353	1.00	3429199	99.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\019\_ccv.D\019\_ccv.D#  
 Date Acquired: Jun 25 2009 06:42 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	48.58 ppb	2.20	50	97.2	90 - 110
23	Na	6	1	5001.00 ppb	0.59	5000	100.0	90 - 110
24	Mg	6	1	5011.00 ppb	0.56	5000	100.2	90 - 110
27	Al	45	1	4937.00 ppb	2.02	5000	98.7	90 - 110
39	K	45	1	4984.00 ppb	1.24	5000	99.7	90 - 110
43	Ca	45	1	4970.00 ppb	1.82	5000	99.4	90 - 110
51	V	72	1	49.44 ppb	1.06	50	98.9	90 - 110
52	Cr	72	1	49.74 ppb	2.48	50	99.5	90 - 110
55	Mn	72	1	49.52 ppb	0.83	50	99.0	90 - 110
57	Fe	72	1	4995.00 ppb	1.86	5000	99.9	90 - 110
59	Co	72	1	49.00 ppb	1.67	50	98.0	90 - 110
60	Ni	72	1	50.51 ppb	1.39	50	101.0	90 - 110
63	Cu	72	1	50.24 ppb	1.17	50	100.5	90 - 110
66	Zn	72	1	48.96 ppb	2.02	50	97.9	90 - 110
75	As	72	1	49.45 ppb	2.04	50	98.9	90 - 110
78	Se	72	1	49.79 ppb	10.19	50	99.6	90 - 110
93	Nb	72	1	35.06 ppb	1941.80	100	35.1	90 - 110 Fail
95	Mo	72	1	48.76 ppb	0.79	50	97.5	90 - 110
105	Pd	115	1	-4.58 ppb	3958.50	50	-9.2	90 - 110 Fail
107	Ag	115	1	50.76 ppb	1.84	50	101.5	90 - 110
111	Cd	115	1	50.03 ppb	2.59	50	100.1	90 - 110
114	Cd	115	1	50.35 ppb	3.13	50	100.7	90 - 110
118	Sn	115	1	50.06 ppb	2.76	50	100.1	90 - 110
121	Sb	115	1	49.62 ppb	2.41	50	99.2	90 - 110
137	Ba	115	1	50.23 ppb	2.69	50	100.5	90 - 110
182	W	165	1	18.42 ppb	393.27	50	36.8	90 - 110 Fail
195	Pt	165	1	210.80 ppb	30.63	50	421.6	90 - 110 Fail
205	Tl	165	1	51.19 ppb	0.47	50	102.4	90 - 110
208	Pb	165	1	50.67 ppb	1.48	50	101.3	90 - 110
232	Th	165	1	49.85 ppb	2.04	50	99.7	90 - 110
238	U	165	1	50.88 ppb	1.59	50	101.8	90 - 110

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	340882	1.15	357213	95.4	30 - 120
45	Sc	1	840133	1.14	874931	96.0	30 - 120
72	Ge	1	461797	0.67	488215	94.6	30 - 120
115	In	1	1479459	0.67	1536240	96.3	30 - 120
165	Ho	1	3292289	0.82	3429199	96.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\020\_CCB.D\020\_CCB.D#  
 Date Acquired: Jun 25 2009 06:46 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9	Be	6	1	0.000	ppb	0.00	1.00
23	Na	6	1	-9.712	ppb	11.08	20.00
24	Mg	6	1	0.032	ppb	282.86	20.00
27	Al	45	1	0.481	ppb	14.31	20.00
39	K	45	1	1.447	ppb	38.74	20.00
43	Ca	45	1	0.079	ppb	4470.80	20.00
51	V	72	1	-0.021	ppb	102.29	1.00
52	Cr	72	1	-0.017	ppb	131.43	1.00
55	Mn	72	1	0.005	ppb	157.12	1.00
57	Fe	72	1	0.806	ppb	40.67	20.00
59	Co	72	1	-0.002	ppb	122.24	1.00
60	Ni	72	1	0.009	ppb	130.87	1.00
63	Cu	72	1	0.010	ppb	73.11	1.00
66	Zn	72	1	0.078	ppb	15.01	10.00
75	As	72	1	0.022	ppb	42.84	1.00
78	Se	72	1	0.088	ppb	210.00	1.00
93	Nb	72	1	184.700	ppb	150.79	2.00
95	Mo	72	1	0.059	ppb	16.78	1.00
105	Pd	115	1	100.000	ppb	0.00	1.00
107	Ag	115	1	0.085	ppb	8.72	1.00
111	Cd	115	1	0.008	ppb	68.72	1.00
114	Cd	115	1	0.009	ppb	88.24	1.00
118	Sn	115	1	0.379	ppb	9.21	10.00
121	Sb	115	1	0.306	ppb	3.89	1.00
137	Ba	115	1	0.006	ppb	51.20	1.00
182	W	165	1	-31.270	ppb	258.43	5.00
195	Pt	165	1	194.000	ppb	63.14	1.00
205	Tl	165	1	0.028	ppb	10.97	1.00
208	Pb	165	1	0.006	ppb	61.36	1.00
232	Th	165	1	0.942	ppb	12.21	2.00
238	U	165	1	0.007	ppb	17.32	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	351044	0.31	357213	98.3	30 - 120
45	Sc	1	870719	0.52	874931	99.5	30 - 120
72	Ge	1	489985	0.29	488215	100.4	30 - 120
115	In	1	1542513	0.43	1536240	100.4	30 - 120
165	Ho	1	3382584	1.10	3429199	98.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\021WASH.D\021WASH.D#  
 Date Acquired: Jun 25 2009 06:49 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.987 ppb	7.94	1.30	
23 Na	6	1	48.090 ppb	0.41	65.00	
24 Mg	6	1	55.170 ppb	0.72	65.00	
27 Al	45	1	32.880 ppb	2.12	39.00	
39 K	45	1	109.000 ppb	0.31	130.00	
43 Ca	45	1	41.610 ppb	19.24	65.00	
51 V	72	1	4.981 ppb	0.96	6.50	
52 Cr	72	1	2.047 ppb	1.06	2.60	
55 Mn	72	1	1.018 ppb	5.61	1.30	
57 Fe	72	1	50.580 ppb	3.06	65.00	
59 Co	72	1	1.013 ppb	0.70	1.30	
60 Ni	72	1	2.131 ppb	2.18	2.60	
63 Cu	72	1	2.131 ppb	0.79	2.60	
66 Zn	72	1	10.090 ppb	1.76	13.00	
75 As	72	1	5.116 ppb	0.62	6.50	
78 Se	72	1	5.418 ppb	10.91	6.50	
93 Nb	72	1	-376.200 ppb	74.40	52.00	
95 Mo	72	1	2.020 ppb	2.50	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.478 ppb	3.31	6.50	
111 Cd	115	1	1.035 ppb	3.59	1.30	
114 Cd	115	1	1.235 ppb	4.10	1.30	
118 Sn	115	1	10.680 ppb	4.31	13.00	
121 Sb	115	1	2.091 ppb	2.57	2.60	
137 Ba	115	1	1.062 ppb	5.70	1.30	
182 W	165	1	16.610 ppb	312.04	6.50	
195 Pt	165	1	62.090 ppb	366.08	1.30	
205 Tl	165	1	1.091 ppb	1.71	1.30	
208 Pb	165	1	1.075 ppb	0.94	1.30	
232 Th	165	1	2.390 ppb	1.59	2.60	
238 U	165	1	1.067 ppb	1.95	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	348321	0.99	357213	97.5	30 - 120	
45 Sc	1	873127	0.27	874931	99.8	30 - 120	
72 Ge	1	488285	0.57	488215	100.0	30 - 120	
115 In	1	1545065	1.13	1536240	100.6	30 - 120	
165 Ho	1	3375135	0.62	3429199	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\039\_CCV.D\039\_CCV.D#  
 Date Acquired: Jun 25 2009 07:52 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

QC Elements									
Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	48.74 ppb	4.12	50	97.5	90 - 110	
23	Na	6	1	5153.00 ppb	0.86	5000	103.1	90 - 110	
24	Mg	6	1	5072.00 ppb	1.94	5000	101.4	90 - 110	
27	Al	45	1	4915.00 ppb	2.34	5000	98.3	90 - 110	
39	K	45	1	4996.00 ppb	1.58	5000	99.9	90 - 110	
43	Ca	45	1	4810.00 ppb	0.73	5000	96.2	90 - 110	
51	V	72	1	48.92 ppb	1.25	50	97.8	90 - 110	
52	Cr	72	1	49.33 ppb	1.69	50	98.7	90 - 110	
55	Mn	72	1	49.68 ppb	1.09	50	99.4	90 - 110	
57	Fe	72	1	5031.00 ppb	0.66	5000	100.6	90 - 110	
59	Co	72	1	48.40 ppb	1.58	50	96.8	90 - 110	
60	Ni	72	1	49.73 ppb	1.30	50	99.5	90 - 110	
63	Cu	72	1	49.94 ppb	1.47	50	99.9	90 - 110	
66	Zn	72	1	48.82 ppb	1.93	50	97.6	90 - 110	
75	As	72	1	50.37 ppb	0.68	50	100.7	90 - 110	
78	Se	72	1	52.13 ppb	3.30	50	104.3	90 - 110	
93	Nb	72	1	295800.00 ppb	5.56	100	295800.0	90 - 110	Fail
95	Mo	72	1	49.19 ppb	0.34	50	98.4	90 - 110	
105	Pd	115	1	-211.50 ppb	147.47	50	-423.0	90 - 110	Fail
107	Ag	115	1	50.00 ppb	0.62	50	100.0	90 - 110	
111	Cd	115	1	49.20 ppb	0.81	50	98.4	90 - 110	
114	Cd	115	1	49.01 ppb	2.23	50	98.0	90 - 110	
118	Sn	115	1	50.08 ppb	1.79	50	100.2	90 - 110	
121	Sb	115	1	49.29 ppb	0.98	50	98.6	90 - 110	
137	Ba	115	1	49.35 ppb	1.14	50	98.7	90 - 110	
182	W	165	1	108.50 ppb	10.66	50	217.0	90 - 110	Fail
195	Pt	165	1	31.96 ppb	171.50	50	63.9	90 - 110	Fail
205	Tl	165	1	51.02 ppb	1.55	50	102.0	90 - 110	
208	Pb	165	1	50.70 ppb	2.07	50	101.4	90 - 110	
232	Th	165	1	50.71 ppb	2.43	50	101.4	90 - 110	
238	U	165	1	51.28 ppb	3.53	50	102.6	90 - 110	

ISTD Elements									
Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag	
6	Li	1	332857	0.23	357213	93.2	30 - 120		
45	Sc	1	839245	1.10	874931	95.9	30 - 120		
72	Ge	1	458159	0.61	488215	93.8	30 - 120		
115	In	1	1489019	0.31	1536240	96.9	30 - 120		
165	Ho	1	3302067	1.05	3429199	96.3	30 - 120		

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 4 :Element Failures  
 0 :ISTD Failures

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\040\_CCB.D\040\_CCB.D#  
 Date Acquired: Jun 25 2009 07:55 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag	
9	Be	6	1	0.000	ppb	0.00	1.00	
23	Na	6	1	10.720	ppb	12.16	20.00	
24	Mg	6	1	-0.161	ppb	28.66	20.00	
27	Al	45	1	0.312	ppb	37.01	20.00	
39	K	45	1	4.319	ppb	17.62	20.00	
43	Ca	45	1	-3.018	ppb	43.61	20.00	
51	V	72	1	-0.014	ppb	211.30	1.00	
52	Cr	72	1	-0.002	ppb	504.97	1.00	
55	Mn	72	1	0.002	ppb	254.01	1.00	
57	Fe	72	1	0.537	ppb	24.58	20.00	
59	Co	72	1	-0.002	ppb	152.30	1.00	
60	Ni	72	1	0.005	ppb	43.20	1.00	
63	Cu	72	1	0.014	ppb	31.27	1.00	
66	Zn	72	1	0.074	ppb	29.04	10.00	
75	As	72	1	0.002	ppb	220.68	1.00	
78	Se	72	1	0.358	ppb	28.47	1.00	
93	Nb	72	1	200100.000	ppb	9.95	2.00	Fail
95	Mo	72	1	0.049	ppb	28.99	1.00	
105	Pd	115	1	-98.540	ppb	174.55	1.00	
107	Ag	115	1	0.566	ppb	15.16	1.00	
111	Cd	115	1	0.009	ppb	43.15	1.00	
114	Cd	115	1	0.012	ppb	18.99	1.00	
118	Sn	115	1	0.457	ppb	2.92	10.00	
121	Sb	115	1	0.229	ppb	3.57	1.00	
137	Ba	115	1	0.007	ppb	56.18	1.00	
182	W	165	1	16.890	ppb	120.07	5.00	Fail
195	Pt	165	1	191.000	ppb	114.71	1.00	Fail
205	Tl	165	1	0.041	ppb	3.35	1.00	
208	Pb	165	1	0.010	ppb	17.05	1.00	
232	Th	165	1	0.843	ppb	14.20	2.00	
238	U	165	1	0.009	ppb	8.50	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	342068	0.36	357213	95.8	30 - 120
45	Sc	1	870331	1.04	874931	99.5	30 - 120
72	Ge	1	487820	0.23	488215	99.9	30 - 120
115	In	1	1552133	0.84	1536240	101.0	30 - 120
165	Ho	1	3356175	0.82	3429199	97.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\041WASH.D\041WASH.D#  
 Date Acquired: Jun 25 2009 07:59 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.826 ppb	13.06	1.30	
23 Na	6	1	62.380 ppb	2.41	65.00	
24 Mg	6	1	54.380 ppb	2.62	65.00	
27 Al	45	1	31.990 ppb	0.56	39.00	
39 K	45	1	107.900 ppb	0.32	130.00	
43 Ca	45	1	43.640 ppb	18.66	65.00	
51 V	72	1	4.998 ppb	2.61	6.50	
52 Cr	72	1	1.932 ppb	3.77	2.60	
55 Mn	72	1	1.035 ppb	1.40	1.30	
57 Fe	72	1	50.580 ppb	1.61	65.00	
59 Co	72	1	1.014 ppb	3.12	1.30	
60 Ni	72	1	2.108 ppb	1.75	2.60	
63 Cu	72	1	2.068 ppb	0.35	2.60	
66 Zn	72	1	9.893 ppb	2.70	13.00	
75 As	72	1	5.025 ppb	2.69	6.50	
78 Se	72	1	5.913 ppb	10.41	6.50	
93 Nb	72	1	153600.000 ppb	9.09	52.00	
95 Mo	72	1	1.943 ppb	7.32	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.551 ppb	1.79	6.50	
111 Cd	115	1	0.983 ppb	4.98	1.30	
114 Cd	115	1	1.217 ppb	3.90	1.30	
118 Sn	115	1	10.280 ppb	1.85	13.00	
121 Sb	115	1	2.014 ppb	1.23	2.60	
137 Ba	115	1	1.031 ppb	3.47	1.30	
182 W	165	1	7.650 ppb	132.16	6.50	
195 Pt	165	1	51.680 ppb	213.43	1.30	
205 Tl	165	1	1.107 ppb	1.98	1.30	
208 Pb	165	1	1.054 ppb	3.41	1.30	
232 Th	165	1	2.297 ppb	2.11	2.60	
238 U	165	1	1.087 ppb	2.74	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	342745	1.04	357213	95.9	30 - 120	
45 Sc	1	878289	0.18	874931	100.4	30 - 120	
72 Ge	1	486801	0.25	488215	99.7	30 - 120	
115 In	1	1569368	0.39	1536240	102.2	30 - 120	
165 Ho	1	3398464	0.55	3429199	99.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\042\_BLK.D\042\_BLK.D#  
 Date Acquired: Jun 25 2009 08:02 pm  
 Operator: TEL  
 Sample Name: LFFFXB  
 Misc Info: BLANK 9174190 6020  
 Vial Number: 2201  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: BLK  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
23 Na	6	1	7.942 ppb	6.98	40.00	
24 Mg	6	1	-0.024 ppb	514.36	40.00	
27 Al	45	1	0.692 ppb	36.17	40.00	
39 K	45	1	1.278 ppb	17.27	40.00	
43 Ca	45	1	0.715 ppb	631.38	40.00	
51 V	72	1	0.008 ppb	168.52	2.00	
52 Cr	72	1	0.033 ppb	79.93	2.00	
55 Mn	72	1	0.025 ppb	20.91	2.00	
57 Fe	72	1	0.789 ppb	15.39	40.00	
59 Co	72	1	-0.008 ppb	56.98	2.00	
60 Ni	72	1	0.025 ppb	39.31	2.00	
63 Cu	72	1	0.033 ppb	24.37	2.00	
66 Zn	72	1	0.287 ppb	3.10	20.00	
75 As	72	1	0.005 ppb	213.46	2.00	
78 Se	72	1	0.093 ppb	203.92	2.00	
93 Nb	72	1	141200.000 ppb	11.37	4.00	Fail
95 Mo	72	1	0.006 ppb	111.04	2.00	
105 Pd	115	1	-192.400 ppb	150.88	2.00	
107 Ag	115	1	0.058 ppb	7.02	2.00	
111 Cd	115	1	0.007 ppb	180.74	2.00	
114 Cd	115	1	0.017 ppb	27.48	2.00	
118 Sn	115	1	0.402 ppb	6.81	20.00	
121 Sb	115	1	0.072 ppb	10.34	2.00	
137 Ba	115	1	0.014 ppb	54.61	2.00	
182 W	165	1	23.290 ppb	253.41	10.00	Fail
195 Pt	165	1	171.000 ppb	118.19	2.00	Fail
205 Tl	165	1	0.013 ppb	34.54	2.00	
208 Pb	165	1	0.012 ppb	11.64	2.00	
232 Th	165	1	0.191 ppb	12.10	4.00	
238 U	165	1	0.002 ppb	12.09	2.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	344167	0.94	357213	96.3	30 - 120	
45 Sc	1	884330	0.77	874931	101.1	30 - 120	
72 Ge	1	484832	0.72	488215	99.3	30 - 120	
115 In	1	1573611	1.19	1536240	102.4	30 - 120	
165 Ho	1	3426259	1.24	3429199	99.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Laboratory Control Spike (LCS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\043\_LCS.D\043\_LCS.D#  
 Date Acquired: Jun 25 2009 08:06 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LFFFXC  
 Misc Info: LCS  
 Vial Number: 2202  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: LCS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

## Analyte Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	39.77	1.53	40	99.4	80 - 120	
23 Na	6	1	12.94	6.33	4000	0.3	80 - 120	
24 Mg	6	1	0.20	13.52	4000	0.0	80 - 120	
27 Al	45	1	45.13	1.04	4000	1.1	80 - 120	
39 K	45	1	4.48	36.17	4000	0.1	80 - 120	
43 Ca	45	1	0.16	#####	4000	0.0	80 - 120	
51 V	72	1	40.53	0.89	40	101.3	80 - 120	
52 Cr	72	1	41.13	1.04	40	102.8	80 - 120	
55 Mn	72	1	41.09	0.97	40	102.7	80 - 120	
57 Fe	72	1	0.60	62.76	4000	0.0	80 - 120	
59 Co	72	1	40.36	0.57	40	100.9	80 - 120	
60 Ni	72	1	41.39	1.35	40	103.5	80 - 120	
63 Cu	72	1	42.61	0.81	40	106.5	80 - 120	
66 Zn	72	1	39.66	1.04	40	99.2	80 - 120	
75 As	72	1	39.61	0.74	40	99.0	80 - 120	
78 Se	72	1	42.53	5.78	40	106.3	80 - 120	
93 Nb	72	1	112100.00	10.70	80	140125.0	80 - 120	
95 Mo	72	1	39.82	0.81	40	99.6	80 - 120	
105 Pd	115	1	-105.00	169.14	40	-262.5	80 - 120	
107 Ag	115	1	41.84	0.59	40	104.6	80 - 120	
111 Cd	115	1	40.03	0.80	40	100.1	80 - 120	
114 Cd	115	1	38.89	1.19	40	97.2	80 - 120	
118 Sn	115	1	0.13	14.91	40	0.3	80 - 120	
121 Sb	115	1	40.17	1.14	40	100.4	80 - 120	
137 Ba	115	1	41.28	1.04	40	103.2	80 - 120	
182 W	165	1	46.31	58.80	40	115.8	80 - 120	
195 Pt	165	1	-226.10	65.90	40	-565.3	80 - 120	
205 Tl	165	1	42.48	0.49	40	106.2	80 - 120	
208 Pb	165	1	42.34	0.96	40	105.9	80 - 120	
232 Th	165	1	44.02	1.58	40	110.1	80 - 120	
238 U	165	1	41.40	1.08	40	103.5	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	334934	1.49	357213	93.8	30 - 120	
45 Sc	1	857273	1.95	874931	98.0	30 - 120	
72 Ge	1	466043	1.48	488215	95.5	30 - 120	
115 In	1	1511830	1.47	1536240	98.4	30 - 120	
165 Ho	1	3344089	0.94	3429199	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\044SMPL.D\044SMPL.D#  
 Date Acquired: Jun 25 2009 08:09 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE709 10X  
 Misc Info: D9F180314  
 Vial Number: 2203  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 10.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 10.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.15	0.01	ppb	86.56	3600	
23 Na	6	1	1,173,000.00	117300.00	ppb	0.72	100000	>LDR
24 Mg	6	1	253,500.00	25350.00	ppb	0.72	100000	
27 Al	45	1	1,034.00	103.40	ppb	2.53	100000	
39 K	45	1	24,450.00	2445.00	ppb	3.05	100000	
43 Ca	45	1	459,700.00	45970.00	ppb	3.07	100000	
51 V	72	1	15.94	1.59	ppb	6.55	3600	
52 Cr	72	1	825.90	82.59	ppb	1.14	3600	
55 Mn	72	1	173.50	17.35	ppb	2.04	18000	
57 Fe	72	1	1,659.00	165.90	ppb	2.29	100000	
59 Co	72	1	0.81	0.08	ppb	11.83	3600	
60 Ni	72	1	5.28	0.53	ppb	9.91	3600	
63 Cu	72	1	2.04	0.20	ppb	14.72	3600	
66 Zn	72	1	4.58	0.46	ppb	8.59	3600	
75 As	72	1	111.90	11.19	ppb	0.44	3600	
78 Se	72	1	6.75	0.67	ppb	92.84	3600	
93 Nb	72	1	1,021,000.00	102100.00	ppb	4.18	2000	>LDR
95 Mo	72	1	109.20	10.92	ppb	1.21	3600	
105 Pd	115	1	-427,200.00	-42720.00	ppb	1.89	1000	
107 Ag	115	1	0.49	0.05	ppb	1.88	3600	
111 Cd	115	1	0.17	0.02	ppb	99.41	3600	
114 Cd	115	1	0.24	0.02	ppb	89.21	3600	
118 Sn	115	1	2.10	0.21	ppb	11.20	3600	
121 Sb	115	1	0.85	0.08	ppb	1.17	3600	
137 Ba	115	1	31.01	3.10	ppb	3.75	3600	
182 W	165	1	880,600.00	88060.00	ppb	1.70	1000	>LDR
195 Pt	165	1	-5,452.00	-545.20	ppb	34.65	1000	
205 Tl	165	1	0.26	0.03	ppb	17.83	3600	
208 Pb	165	1	0.60	0.06	ppb	8.40	3600	
232 Th	165	1	7.87	0.79	ppb	16.35	1000	
238 U	165	1	27.94	2.79	ppb	2.79	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	336376	1.15	357213	94.2	30 - 120	
45 Sc	1	816474	3.44	874931	93.3	30 - 120	
72 Ge	1	435413	0.15	488215	89.2	30 - 120	
115 In	1	1412428	0.78	1536240	91.9	30 - 120	
165 Ho	1	3242351	1.05	3429199	94.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\045AREF.D\045AREF.D#  
 Date Acquired: Jun 25 2009 08:13 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CT 5X  
 Misc Info: D9F180266  
 Vial Number: 2204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: AllRef  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	3.74	0.75	ppb	21.68	3600
23	Na	6	1	125,650.00	25130.00	ppb	0.29	100000
24	Mg	6	1	368,700.00	73740.00	ppb	0.94	100000
27	Al	45	1	21,970.00	4394.00	ppb	1.27	100000
39	K	45	1	43,265.00	8653.00	ppb	1.15	100000
43	Ca	45	1	586,000.00	117200.00	ppb	1.52	100000 >LDR NR
51	V	72	1	92.10	18.42	ppb	1.84	3600
52	Cr	72	1	45.09	9.02	ppb	3.58	3600
55	Mn	72	1	217,150.00	43430.00	ppb	0.90	18000 >LDR NR
57	Fe	72	1	18,695.00	3739.00	ppb	1.33	100000
59	Co	72	1	24.33	4.87	ppb	2.79	3600
60	Ni	72	1	60.90	12.18	ppb	0.23	3600
63	Cu	72	1	218.35	43.67	ppb	1.02	3600
66	Zn	72	1	86.50	17.30	ppb	1.27	3600
75	As	72	1	63.90	12.78	ppb	2.51	3600
78	Se	72	1	13.62	2.72	ppb	17.64	3600
93	Nb	72	1	1,028,000.00	205600.00	ppb	4.14	2000 >LDR NR
95	Mo	72	1	3.63	0.73	ppb	8.20	3600
105	Pd	115	1	-329,600.00	-65920.00	ppb	9.60	1000
107	Ag	115	1	0.12	0.02	ppb	11.98	3600
111	Cd	115	1	1.11	0.22	ppb	1.75	3600
114	Cd	115	1	1.14	0.23	ppb	12.53	3600
118	Sn	115	1	2.18	0.44	ppb	2.42	3600
121	Sb	115	1	0.39	0.08	ppb	4.81	3600
137	Ba	115	1	107.25	21.45	ppb	2.83	3600
182	W	165	1	20,790.00	4158.00	ppb	1.92	1000 >LDR NR
195	Pt	165	1	-6,630.00	-1326.00	ppb	38.91	1000
205	Tl	165	1	0.52	0.10	ppb	3.36	3600
208	Pb	165	1	15.46	3.09	ppb	1.85	3600
232	Th	165	1	9.64	1.93	ppb	3.08	1000
238	U	165	1	15.12	3.02	ppb	2.38	3600

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	345442	0.63	357213	96.7	30 - 120
45	Sc	1	796186	0.82	874931	91.0	30 - 120
72	Ge	1	418901	1.00	488215	85.8	30 - 120
115	In	1	1390221	0.99	1536240	90.5	30 - 120
165	Ho	1	3262596	0.18	3429199	95.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\046SDIL.D\046SDIL.D#  
 Date Acquired: Jun 25 2009 08:16 pm **QC Summary:**  
 Acq. Method: 6020isis.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE7CTP25  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2205  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SDIL  
 Dilution Factor: 5.00

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062509.B\045AREF.D\045AREF.D#

QC elements

Element	IS Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	0.13 ppb	29.18	0.15	89.6	90 - 110	
23 Na	6	1	5261.00 ppb	1.27	5026.00	104.7	90 - 110	
24 Mg	6	1	15770.00 ppb	1.35	14748.00	106.9	90 - 110	
27 Al	45	1	986.60 ppb	2.42	878.80	112.3	90 - 110	
39 K	45	1	1828.00 ppb	0.72	1730.60	105.6	90 - 110	
43 Ca	45	1	24320.00 ppb	1.81	23440.00	103.8	90 - 110	
51 V	72	1	3.55 ppb	4.99	3.68	96.4	90 - 110	
52 Cr	72	1	1.77 ppb	1.31	1.80	98.3	90 - 110	
55 Mn	72	1	8697.00 ppb	0.64	8686.00	100.1	90 - 110	
57 Fe	72	1	761.60 ppb	2.50	747.80	101.8	90 - 110	
59 Co	72	1	0.95 ppb	4.14	0.97	97.8	90 - 110	
60 Ni	72	1	2.64 ppb	4.25	2.44	108.5	90 - 110	
63 Cu	72	1	9.14 ppb	0.88	8.73	104.6	90 - 110	
66 Zn	72	1	4.59 ppb	1.91	3.46	132.8	90 - 110	
75 As	72	1	2.57 ppb	2.32	2.56	100.4	90 - 110	
78 Se	72	1	0.73 ppb	41.81	0.54	133.4	90 - 110	
93 Nb	72	1	85150.00 ppb	6.21	41120.00	207.1	90 - 110	
95 Mo	72	1	0.17 ppb	3.04	0.15	117.1	90 - 110	
105 Pd	115	1	-14520.00 ppb	9.41	-13184.00	110.1	90 - 110	
107 Ag	115	1	0.01 ppb	57.12	0.00	192.2	90 - 110	
111 Cd	115	1	0.06 ppb	21.46	0.04	145.7	90 - 110	
114 Cd	115	1	0.05 ppb	24.77	0.05	101.4	90 - 110	
118 Sn	115	1	0.26 ppb	6.83	0.09	293.0	90 - 110	
121 Sb	115	1	0.04 ppb	6.43	0.02	272.7	90 - 110	
137 Ba	115	1	4.62 ppb	3.56	4.29	107.6	90 - 110	
182 W	165	1	979.60 ppb	12.33	831.60	117.8	90 - 110	
195 Pt	165	1	-1261.00 ppb	10.79	-265.20	475.5	90 - 110	
205 Tl	165	1	0.02 ppb	5.31	0.02	116.5	90 - 110	
208 Pb	165	1	0.70 ppb	1.63	0.62	113.6	90 - 110	
232 Th	165	1	0.39 ppb	8.58	0.39	102.3	90 - 110	
238 U	165	1	0.65 ppb	2.08	0.60	106.8	90 - 110	

ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	337113	1.06	357213	94.4	30 - 120	
45 Sc	1	793164	0.71	874931	90.7	30 - 120	
72 Ge	1	441487	0.63	488215	90.4	30 - 120	
115 In	1	1434933	1.08	1536240	93.4	30 - 120	
165 Ho	1	3268288	0.61	3429199	95.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) ICPMS\_024 Reported: 06/26/09 15:10:48

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTP25

Serial Dilution: 25.00

Sample Dilution: 5.00

Instrument: Agilent7500 Channel 272
File: AG062509 # 46 Method 6020\_
Acquired: 06/25/2009 20:16:00 ICPMS\_024 Matrix: AQUEOUS
Calibrated: 06/25/2009 17:50:00 Units: ug/L

Table with columns: CASN, Analyte Name, M/S, Area, Dilution, Sample, %Diff., MDL, Flag, Q. Lists various elements like Beryllium, Vanadium, Chromium, etc., with their respective values and flags.

AS only
6/29/09

\* Analyte not requested for this batch, no MDL
NC : Serial dilution concentration < 100 X MDL
E : Difference greater than Limit (10%)

Reviewed by: [Signature] Date: 6/29/09

**Post Digestion Spiked Sample (PDS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\047PDS.D\047PDS.D#  
 Date Acquired: Jun 25 2009 08:20 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CTZ  
 Misc Info: POST DIGESTION SPIKE  
 Vial Number: 2206  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: PDS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	177.30	0.75	ppb	2.77	200	88.3	75 - 125	
23 Na	6	1	24490.00	25130.00	ppb	1.30	200000	10.9	75 - 125	
24 Mg	6	1	72400.00	73740.00	ppb	1.98	200000	26.4	75 - 125	
27 Al	45	1	4388.00	4394.00	ppb	1.87	200000	2.1	75 - 125	
39 K	45	1	8484.00	8653.00	ppb	1.98	200000	4.1	75 - 125	
43 Ca	45	1	115900.00	117200.00	ppb	2.58	200000	36.5	75 - 125	
51 V	72	1	224.30	18.42	ppb	1.22	200	102.7	75 - 125	
52 Cr	72	1	212.70	9.02	ppb	0.72	200	101.8	75 - 125	
55 Mn	72	1	43400.00	43430.00	ppb	1.20	200	99.5	75 - 125	
57 Fe	72	1	3673.00	3739.00	ppb	2.50	200000	1.8	75 - 125	
59 Co	72	1	194.30	4.86	ppb	1.29	200	94.8	75 - 125	
60 Ni	72	1	199.60	12.18	ppb	1.78	200	94.1	75 - 125	
63 Cu	72	1	231.90	43.67	ppb	1.42	200	95.2	75 - 125	
66 Zn	72	1	203.30	17.30	ppb	1.50	200	93.6	75 - 125	
75 As	72	1	211.60	12.78	ppb	1.55	200	99.4	75 - 125	
78 Se	72	1	220.90	2.72	ppb	2.26	200	109.0	75 - 125	
93 Nb	72	1	178100.00	205600.00	ppb	1.71	400	86.5	75 - 125	
95 Mo	72	1	202.70	0.73	ppb	1.67	200	101.0	75 - 125	
105 Pd	115	1	-70340.00	-65920.00	ppb	15.70	200	107.0	75 - 125	
107 Ag	115	1	45.21	0.02	ppb	2.20	50	90.4	75 - 125	
111 Cd	115	1	188.30	0.22	ppb	2.54	200	94.0	75 - 125	
114 Cd	115	1	188.20	0.23	ppb	2.32	200	94.0	75 - 125	
118 Sn	115	1	179.30	0.44	ppb	2.95	200	89.5	75 - 125	
121 Sb	115	1	196.50	0.08	ppb	2.73	200	98.2	75 - 125	
137 Ba	115	1	222.40	21.45	ppb	2.36	200	100.4	75 - 125	
182 W	165	1	4078.00	4158.00	ppb	1.49	200	93.6	75 - 125	
195 Pt	165	1	-301.40	-1326.00	ppb	84.44	200	26.8	75 - 125	
205 Tl	165	1	189.30	0.10	ppb	2.01	200	94.6	75 - 125	
208 Pb	165	1	191.10	3.09	ppb	2.14	200	94.1	75 - 125	
232 Th	165	1	1.74	1.93	ppb	4.46	200	0.9	75 - 125	
238 U	165	1	197.90	3.02	ppb	2.62	200	97.5	75 - 125	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	325497	1.29	357213	91.1	30 - 120	
45 Sc	1	739834	1.32	874931	84.6	30 - 120	
72 Ge	1	393784	0.94	488215	80.7	30 - 120	
115 In	1	1321729	1.38	1536240	86.0	30 - 120	
165 Ho	1	3104206	1.60	3429199	90.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
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ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/26/09 15:10:55

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTZ

Spike Dilution: 1.00

Sample Dilution: 5.00

Instrument: Agilent7500

Channel 272

File: AG062509 # 47

Method 6020\_

Acquired: 06/25/2009 20:20:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/25/2009 17:50:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	76738	177.30	0.74760	88.3	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	1230350	224.30	18.424	103	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	1344140	212.70	9.0160	102	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	54232000	43400	43420	0.00	200	*	<input type="checkbox"/>
7440-48-4	Cobalt	59	1797210	194.30	4.8660	94.7	200		<input checked="" type="checkbox"/>
7440-02-0	Nickel	60	428374	199.60	12.182	93.7	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1216920	231.90	43.660	94.1	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	196464	203.30	17.298	93.0	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	126586	211.60	12.776	99.4	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	19985	220.90	2.7220	109	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	519946	202.70	0.72540	101	200		<input checked="" type="checkbox"/>
7440-22-4	Silver	107	383551	45.210	0.02476	90.4	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	271982	188.30	0.22160	94.0	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	640204	179.30	0.43520	89.4	200		<input checked="" type="checkbox"/>
7440-36-0	Antimony	121	738908	196.50	0.07870	98.2	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	342571	222.40	21.440	100	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	3451230	189.30	0.10432	94.6	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	4771140	191.10	3.0920	94.0	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	5382990	197.90	3.0240	97.4	200		<input checked="" type="checkbox"/>
7440-23-5	Sodium	23	54755500	24490	25120				
7439-95-4	Magnesium	24	98863900	72400	73740				
7429-90-5	Aluminum	27	3945430	4388.0	4394.0				
7440-09-7	Potassium	39	10801400	8484.0	8652.0				
7440-70-2	Calcium	43	425172	115900	117240				
7439-89-6	Iron	57	608947	3673.0	3740.0				
7440-03-1	Niobium	93	5118	178100	205600				
7440-05-3	Palladium	105	2014	-70340	-65920				
7440-43-9	Cadmium	114	677452	188.20	0.22860				
7440-33-7	Tungsten	182	6408	4078.0	4158.0				
7440-06-4	Platinum	195	213	-301.40	-1326.6				
7440-29-1	Thorium	232	39034	1.7350	1.9278				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

AS only  
Z  
6/26/09

Reviewed by:

Date:

6/26/09

**Spiked Sample (MS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\048\_MS.D\048\_MS.D#  
 Date Acquired: Jun 25 2009 08:23 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CTS 5X  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2207  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: MS  
 Prep Dil. Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	7.97	0.75	ppb	3.99	40	19.6	50 - 150	
23 Na	6	1	25030.00	25130.00	ppb	0.83	4000	85.9	50 - 150	
24 Mg	6	1	73470.00	73740.00	ppb	0.54	4000	94.5	50 - 150	
27 Al	45	1	4311.00	4394.00	ppb	0.64	4000	51.4	50 - 150	
39 K	45	1	8675.00	8653.00	ppb	0.53	4000	68.6	50 - 150	
43 Ca	45	1	118500.00	117200.00	ppb	1.70	4000	97.8	50 - 150	
51 V	72	1	26.52	18.42	ppb	2.45	40	45.4	50 - 150	
52 Cr	72	1	17.10	9.02	ppb	2.28	40	34.9	50 - 150	
55 Mn	72	1	44050.00	43430.00	ppb	1.14	40	101.3	50 - 150	
57 Fe	72	1	3646.00	3739.00	ppb	1.97	4000	47.1	50 - 150	
59 Co	72	1	12.68	4.86	ppb	2.27	40	28.3	50 - 150	
60 Ni	72	1	20.55	12.18	ppb	2.00	40	39.4	50 - 150	
63 Cu	72	1	51.57	43.67	ppb	2.01	40	61.6	50 - 150	
66 Zn	72	1	24.36	17.30	ppb	1.63	40	42.5	50 - 150	
75 As	72	1	21.28	12.78	ppb	1.81	40	40.3	50 - 150	
78 Se	72	1	10.86	2.72	ppb	2.35	40	25.4	50 - 150	
93 Nb	72	1	161600.00	205600.00	ppb	10.07	80	78.6	50 - 150	
95 Mo	72	1	8.46	0.73	ppb	2.87	40	20.8	50 - 150	
105 Pd	115	1	-68210.00	-65920.00	ppb	3.76	40	103.5	50 - 150	
107 Ag	115	1	7.51	0.02	ppb	2.32	40	18.8	50 - 150	
111 Cd	115	1	7.95	0.22	ppb	3.58	40	19.8	50 - 150	
114 Cd	115	1	7.96	0.23	ppb	4.85	40	19.8	50 - 150	
118 Sn	115	1	0.63	0.44	ppb	1.13	40	1.6	50 - 150	
121 Sb	115	1	5.15	0.08	ppb	3.28	40	12.8	50 - 150	
137 Ba	115	1	29.40	21.45	ppb	1.66	40	47.8	50 - 150	
182 W	165	1	4791.00	4158.00	ppb	4.03	40	114.1	50 - 150	
195 Pt	165	1	-69.05	-1326.00	ppb	308.47	40	5.4	50 - 150	
205 Tl	165	1	8.06	0.10	ppb	1.13	40	20.1	50 - 150	
208 Pb	165	1	11.07	3.09	ppb	0.91	40	25.7	50 - 150	
232 Th	165	1	10.80	1.93	ppb	0.11	40	25.8	50 - 150	
238 U	165	1	11.75	3.02	ppb	2.01	40	27.3	50 - 150	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	323919	0.57	357213	90.7	30 - 120	
45 Sc	1	736519	0.41	874931	84.2	30 - 120	
72 Ge	1	389833	0.42	488215	79.8	30 - 120	
115 In	1	1316916	0.66	1536240	85.7	30 - 120	
165 Ho	1	3129832	0.72	3429199	91.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ---

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\049\_CCV.D\049\_CCV.D#  
 Date Acquired: Jun 25 2009 08:27 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	48.82	ppb	2.13	50	97.6	90 - 110
23	Na	6	4933.00	ppb	1.71	5000	98.7	90 - 110
24	Mg	6	4918.00	ppb	0.84	5000	98.4	90 - 110
27	Al	45	5066.00	ppb	2.97	5000	101.3	90 - 110
39	K	45	5082.00	ppb	1.15	5000	101.6	90 - 110
43	Ca	45	5010.00	ppb	3.12	5000	100.2	90 - 110
51	V	72	48.91	ppb	0.74	50	97.8	90 - 110
52	Cr	72	49.14	ppb	1.46	50	98.3	90 - 110
55	Mn	72	51.28	ppb	1.62	50	102.6	90 - 110
57	Fe	72	4869.00	ppb	1.55	5000	97.4	90 - 110
59	Co	72	48.40	ppb	0.47	50	96.8	90 - 110
60	Ni	72	49.65	ppb	1.40	50	99.3	90 - 110
63	Cu	72	49.63	ppb	1.77	50	99.3	90 - 110
66	Zn	72	49.29	ppb	1.14	50	98.6	90 - 110
75	As	72	49.70	ppb	1.61	50	99.4	90 - 110
78	Se	72	54.83	ppb	7.13	50	109.7	90 - 110
93	Nb	72	46450.00	ppb	0.87	100	46450.0	90 - 110
95	Mo	72	49.80	ppb	1.31	50	99.6	90 - 110
105	Pd	115	-15.41	ppb	1297.20	50	-30.8	90 - 110
107	Ag	115	49.41	ppb	2.33	50	98.8	90 - 110
111	Cd	115	49.45	ppb	2.43	50	98.9	90 - 110
114	Cd	115	49.48	ppb	2.69	50	99.0	90 - 110
118	Sn	115	50.34	ppb	3.61	50	100.7	90 - 110
121	Sb	115	49.58	ppb	2.29	50	99.2	90 - 110
137	Ba	115	51.06	ppb	3.52	50	102.1	90 - 110
182	W	165	48.41	ppb	105.21	50	96.8	90 - 110
195	Pt	165	32.31	ppb	513.15	50	64.6	90 - 110
205	Tl	165	52.37	ppb	2.92	50	104.7	90 - 110
208	Pb	165	52.02	ppb	3.21	50	104.0	90 - 110
232	Th	165	53.43	ppb	2.83	50	106.9	90 - 110
238	U	165	53.19	ppb	2.85	50	106.4	90 - 110

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	303437	0.40	357213	84.9	30 - 120
45	Sc	1	722820	0.93	874931	82.6	30 - 120
72	Ge	1	411767	0.43	488215	84.3	30 - 120
115	In	1	1366274	1.88	1536240	88.9	30 - 120
165	Ho	1	3094805	1.50	3429199	90.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\050\_CCB.D\050\_CCB.D#  
 Date Acquired: Jun 25 2009 08:30 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
23 Na	6	1	2.259 ppb	79.28	20.00	
24 Mg	6	1	0.333 ppb	44.49	20.00	
27 Al	45	1	0.355 ppb	20.80	20.00	
39 K	45	1	-1.224 ppb	43.93	20.00	
43 Ca	45	1	-2.622 ppb	153.32	20.00	
51 V	72	1	0.010 ppb	279.56	1.00	
52 Cr	72	1	0.002 ppb	1526.30	1.00	
55 Mn	72	1	0.213 ppb	8.90	1.00	
57 Fe	72	1	0.625 ppb	32.17	20.00	
59 Co	72	1	-0.001 ppb	150.25	1.00	
60 Ni	72	1	0.009 ppb	66.92	1.00	
63 Cu	72	1	0.013 ppb	36.81	1.00	
66 Zn	72	1	0.077 ppb	36.59	10.00	
75 As	72	1	0.013 ppb	176.36	1.00	
78 Se	72	1	0.389 ppb	94.30	1.00	
93 Nb	72	1	37730.000 ppb	8.04	2.00	Fail
95 Mo	72	1	0.047 ppb	49.00	1.00	
105 Pd	115	1	-6.045 ppb	3038.90	1.00	
107 Ag	115	1	0.025 ppb	12.20	1.00	
111 Cd	115	1	0.010 ppb	64.21	1.00	
114 Cd	115	1	0.011 ppb	14.30	1.00	
118 Sn	115	1	0.354 ppb	4.10	10.00	
121 Sb	115	1	0.204 ppb	5.95	1.00	
137 Ba	115	1	0.005 ppb	2.62	1.00	
182 W	165	1	29.380 ppb	321.14	5.00	Fail
195 Pt	165	1	29.030 ppb	1396.80	1.00	Fail
205 Tl	165	1	0.025 ppb	10.38	1.00	
208 Pb	165	1	0.008 ppb	20.25	1.00	
232 Th	165	1	0.725 ppb	16.47	2.00	
238 U	165	1	0.010 ppb	8.79	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	314692	0.96	357213	88.1	30 - 120	
45 Sc	1	774211	1.50	874931	88.5	30 - 120	
72 Ge	1	445434	1.20	488215	91.2	30 - 120	
115 In	1	1458822	1.10	1536240	95.0	30 - 120	
165 Ho	1	3220969	0.39	3429199	93.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\051WASH.D\051WASH.D#  
 Date Acquired: Jun 25 2009 08:34 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.968 ppb	20.57	1.30	
23 Na	6	1	74.820 ppb	1.20	65.00	
24 Mg	6	1	54.680 ppb	1.88	65.00	
27 Al	45	1	32.120 ppb	4.18	39.00	
39 K	45	1	107.900 ppb	6.65	130.00	
43 Ca	45	1	47.630 ppb	11.17	65.00	
51 V	72	1	4.824 ppb	3.33	6.50	
52 Cr	72	1	1.943 ppb	5.37	2.60	
55 Mn	72	1	1.160 ppb	2.99	1.30	
57 Fe	72	1	48.730 ppb	5.04	65.00	
59 Co	72	1	0.934 ppb	3.48	1.30	
60 Ni	72	1	2.093 ppb	5.93	2.60	
63 Cu	72	1	2.039 ppb	2.01	2.60	
66 Zn	72	1	10.090 ppb	1.80	13.00	
75 As	72	1	5.097 ppb	1.59	6.50	
78 Se	72	1	5.262 ppb	16.62	6.50	
93 Nb	72	1	31530.000 ppb	5.93	52.00	
95 Mo	72	1	1.930 ppb	3.14	2.60	
105 Pd	115	1	1.546 ppb	11028.00	1.30	
107 Ag	115	1	5.128 ppb	1.68	6.50	
111 Cd	115	1	1.054 ppb	6.59	1.30	
114 Cd	115	1	1.238 ppb	3.21	1.30	
118 Sn	115	1	10.090 ppb	2.87	13.00	
121 Sb	115	1	2.001 ppb	2.65	2.60	
137 Ba	115	1	1.078 ppb	7.43	1.30	
182 W	165	1	54.400 ppb	118.68	6.50	
195 Pt	165	1	103.500 ppb	226.57	1.30	
205 Tl	165	1	1.111 ppb	2.11	1.30	
208 Pb	165	1	1.085 ppb	2.00	1.30	
232 Th	165	1	2.323 ppb	2.05	2.60	
238 U	165	1	1.079 ppb	2.97	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	329086	0.64	357213	92.1	30 - 120	
45 Sc	1	836283	3.25	874931	95.6	30 - 120	
72 Ge	1	478794	0.67	488215	98.1	30 - 120	
115 In	1	1553843	0.98	1536240	101.1	30 - 120	
165 Ho	1	3364785	0.21	3429199	98.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\052\_MSD.D\052\_MSD.D#  
 Date Acquired: Jun 25 2009 08:37 pm **QC Summary:**  
 Acq. Method: 6020isis.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE7CTD 5X  
 Misc Info: MATRIX SPIKE DUPLICATE  
 Vial Number: 2208  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: MSD  
 Dilution Factor: 5.00

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG062509.B\048\_MS.D\048\_MS.D#

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	8.56 ppb	4.89	7.97	7.15	20	
23 Na	6	1	26090.00 ppb	0.85	25030.00	4.15	20	
24 Mg	6	1	77520.00 ppb	1.80	73470.00	5.36	20	
27 Al	45	1	4321.00 ppb	1.81	4311.00	0.23	20	
39 K	45	1	8935.00 ppb	0.29	8675.00	2.95	20	
43 Ca	45	1	123000.00 ppb	1.45	118500.00	3.73	20	
51 V	72	1	26.80 ppb	0.58	26.52	1.05	20	
52 Cr	72	1	17.03 ppb	2.62	17.10	0.41	20	
55 Mn	72	1	44420.00 ppb	1.38	44050.00	0.84	20	
57 Fe	72	1	3582.00 ppb	1.80	3646.00	1.77	20	
59 Co	72	1	12.57 ppb	1.45	12.68	0.87	20	
60 Ni	72	1	20.33 ppb	2.91	20.55	1.08	20	
63 Cu	72	1	52.05 ppb	2.86	51.57	0.93	20	
66 Zn	72	1	24.82 ppb	0.71	24.36	1.87	20	
75 As	72	1	21.94 ppb	1.03	21.28	3.05	20	
78 Se	72	1	10.89 ppb	5.14	10.86	0.28	20	
93 Nb	72	1	133500.00 ppb	8.67	161600.00	19.04	20	
95 Mo	72	1	8.61 ppb	3.58	8.46	1.76	20	
105 Pd	115	1	-71220.00 ppb	9.57	-68210.00	-4.32	20	
107 Ag	115	1	7.74 ppb	0.66	7.51	3.03	20	
111 Cd	115	1	8.48 ppb	1.14	7.95	6.48	20	
114 Cd	115	1	8.04 ppb	1.83	7.95	1.06	20	
118 Sn	115	1	0.48 ppb	7.14	0.63	27.82	20	
121 Sb	115	1	5.41 ppb	1.57	5.15	4.87	20	
137 Ba	115	1	29.73 ppb	1.75	29.40	1.12	20	
182 W	165	1	4763.00 ppb	4.36	4791.00	0.59	20	
195 Pt	165	1	-145.30 ppb	148.80	-69.05	-71.15	20	
205 Tl	165	1	8.33 ppb	2.26	8.06	3.27	20	
208 Pb	165	1	11.24 ppb	2.15	11.07	1.52	20	
232 Th	165	1	11.25 ppb	2.31	10.80	4.08	20	
238 U	165	1	11.84 ppb	3.05	11.75	0.76	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	324438	1.16	357213	90.8	30 - 120	
45 Sc	1	761049	0.04	874931	87.0	30 - 120	
72 Ge	1	409345	0.59	488215	83.8	30 - 120	
115 In	1	1343378	0.37	1536240	87.4	30 - 120	
165 Ho	1	3141154	0.75	3429199	91.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\053SMPL.D\053SMPL.D#  
 Date Acquired: Jun 25 2009 08:41 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE9PT 5X  
 Misc Info: D9F190216  
 Vial Number: 2209  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.04	0.01	ppb	173.16	3600
23	Na	6	1	1,565,000.00	313000.00	ppb	0.95	100000 >LDR
24	Mg	6	1	318,700.00	63740.00	ppb	1.22	100000
27	Al	45	1	135.35	27.07	ppb	2.77	100000
39	K	45	1	40,080.00	8016.00	ppb	0.35	100000
43	Ca	45	1	694,000.00	138800.00	ppb	1.62	100000 >LDR
51	V	72	1	-529.50	-105.90	ppb	5.98	3600
52	Cr	72	1	12,865.00	2573.00	ppb	1.13	3600
55	Mn	72	1	137.40	27.48	ppb	2.67	18000
57	Fe	72	1	834.50	166.90	ppb	1.28	100000
59	Co	72	1	0.77	0.15	ppb	2.29	3600
60	Ni	72	1	4.20	0.84	ppb	7.58	3600
63	Cu	72	1	1.14	0.23	ppb	5.43	3600
66	Zn	72	1	6.43	1.29	ppb	6.51	3600
75	As	72	1	92.35	18.47	ppb	2.41	3600
78	Se	72	1	6.20	1.24	ppb	29.25	3600
93	Nb	72	1	240,400.00	48080.00	ppb	10.26	2000 >LDR
95	Mo	72	1	12.75	2.55	ppb	4.20	3600
105	Pd	115	1	-703,500.00	-140700.00	ppb	3.80	1000
107	Ag	115	1	0.97	0.19	ppb	3.09	3600
111	Cd	115	1	0.44	0.09	ppb	33.06	3600
114	Cd	115	1	0.50	0.10	ppb	14.54	3600
118	Sn	115	1	2.06	0.41	ppb	9.53	3600
121	Sb	115	1	0.47	0.09	ppb	9.81	3600
137	Ba	115	1	47.03	9.41	ppb	0.76	3600
182	W	165	1	7,290.00	1458.00	ppb	8.94	1000 >LDR
195	Pt	165	1	-19,215.00	-3843.00	ppb	20.42	1000
205	Tl	165	1	0.35	0.07	ppb	7.56	3600
208	Pb	165	1	2.30	0.46	ppb	0.78	3600
232	Th	165	1	0.62	0.12	ppb	20.51	1000
238	U	165	1	49.48	9.90	ppb	2.64	3600

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	294713	0.96	357213	82.5	30 - 120
45	Sc	1	705797	0.90	874931	80.7	30 - 120
72	Ge	1	371019	1.02	488215	76.0	30 - 120
115	In	1	1204244	0.79	1536240	78.4	30 - 120
165	Ho	1	2851906	0.77	3429199	83.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\054SMPL.D\054SMPL.D#  
 Date Acquired: Jun 25 2009 08:44 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4A 5X  
 Misc Info: D9F200196  
 Vial Number: 2210  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.08	0.02	ppb	86.58	3600	
23 Na	6	1	366,900.00	73380.00	ppb	1.20	100000	
24 Mg	6	1	117,400.00	23480.00	ppb	2.00	100000	
27 Al	45	1	2,350.50	470.10	ppb	1.65	100000	
39 K	45	1	13,685.00	2737.00	ppb	0.95	100000	
43 Ca	45	1	257,200.00	51440.00	ppb	0.37	100000	
51 V	72	1	30.92	6.18	ppb	1.51	3600	
52 Cr	72	1	45.38	9.08	ppb	3.05	3600	
55 Mn	72	1	40.35	8.07	ppb	3.81	18000	
57 Fe	72	1	1,896.50	379.30	ppb	2.65	100000	
59 Co	72	1	0.74	0.15	ppb	13.15	3600	
60 Ni	72	1	3.29	0.66	ppb	8.25	3600	
63 Cu	72	1	2.02	0.40	ppb	3.61	3600	
66 Zn	72	1	7.95	1.59	ppb	1.53	3600	
75 As	72	1	89.15	17.83	ppb	1.67	3600	
78 Se	72	1	4.50	0.90	ppb	41.40	3600	
93 Nb	72	1	253,700.00	50740.00	ppb	5.41	2000	>LDR
95 Mo	72	1	22.84	4.57	ppb	2.99	3600	
105 Pd	115	1	-261,850.00	-52370.00	ppb	14.61	1000	
107 Ag	115	1	0.04	0.01	ppb	49.50	3600	
111 Cd	115	1	0.11	0.02	ppb	21.35	3600	
114 Cd	115	1	0.07	0.01	ppb	33.88	3600	
118 Sn	115	1	0.79	0.16	ppb	15.83	3600	
121 Sb	115	1	0.24	0.05	ppb	11.51	3600	
137 Ba	115	1	32.43	6.49	ppb	1.44	3600	
182 W	165	1	4,502.00	900.40	ppb	3.36	1000	
195 Pt	165	1	-130.75	-26.15	ppb	586.62	1000	
205 Tl	165	1	0.06	0.01	ppb	11.98	3600	
208 Pb	165	1	1.05	0.21	ppb	6.47	3600	
232 Th	165	1	1.07	0.21	ppb	2.39	1000	
238 U	165	1	20.72	4.14	ppb	2.85	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	313678	1.26	357213	87.8	30 - 120	
45 Sc	1	749905	0.67	874931	85.7	30 - 120	
72 Ge	1	414942	0.40	488215	85.0	30 - 120	
115 In	1	1323413	0.98	1536240	86.1	30 - 120	
165 Ho	1	3110668	0.67	3429199	90.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

1 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\055SMPL.D\055SMPL.D#  
 Date Acquired: Jun 25 2009 08:48 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4D 5X  
 Misc Info: D9F200196  
 Vial Number: 2211  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	2,868,000.00	573600.00	ppb	0.68	100000	>LDR
24 Mg	6	1	479,700.00	95940.00	ppb	0.98	100000	
27 Al	45	1	45.24	9.05	ppb	6.31	100000	
39 K	45	1	23,780.00	4756.00	ppb	0.24	100000	
43 Ca	45	1	695,000.00	139000.00	ppb	2.13	100000	>LDR
51 V	72	1	3.59	0.72	ppb	2.61	3600	
52 Cr	72	1	5.91	1.18	ppb	8.39	3600	
55 Mn	72	1	701.00	140.20	ppb	2.11	18000	
57 Fe	72	1	1,035.50	207.10	ppb	1.82	100000	
59 Co	72	1	0.69	0.14	ppb	5.27	3600	
60 Ni	72	1	8.88	1.78	ppb	0.56	3600	
63 Cu	72	1	1.76	0.35	ppb	2.60	3600	
66 Zn	72	1	2.04	0.41	ppb	5.59	3600	
75 As	72	1	138.05	27.61	ppb	1.78	3600	
78 Se	72	1	3.24	0.65	ppb	56.51	3600	
93 Nb	72	1	159,000.00	31800.00	ppb	11.87	2000	>LDR
95 Mo	72	1	44.34	8.87	ppb	0.97	3600	
105 Pd	115	1	-779,500.00	-155900.00	ppb	6.90	1000	
107 Ag	115	1	0.24	0.05	ppb	9.00	3600	
111 Cd	115	1	0.14	0.03	ppb	70.91	3600	
114 Cd	115	1	0.15	0.03	ppb	8.91	3600	
118 Sn	115	1	0.99	0.20	ppb	20.61	3600	
121 Sb	115	1	0.41	0.08	ppb	11.22	3600	
137 Ba	115	1	20.36	4.07	ppb	4.99	3600	
182 W	165	1	58,900.00	11780.00	ppb	2.51	1000	>LDR
195 Pt	165	1	-93.70	-18.74	ppb	831.38	1000	
205 Tl	165	1	0.07	0.01	ppb	13.14	3600	
208 Pb	165	1	0.30	0.06	ppb	9.54	3600	
232 Th	165	1	0.10	0.02	ppb	7.15	1000	
238 U	165	1	94.65	18.93	ppb	3.46	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	278841	0.87	357213	78.1	30 - 120	
45 Sc	1	691092	1.07	874931	79.0	30 - 120	
72 Ge	1	357390	0.11	488215	73.2	30 - 120	
115 In	1	1150906	1.54	1536240	74.9	30 - 120	
165 Ho	1	2740570	0.15	3429199	79.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\056SMPL.D\056SMPL.D#  
 Date Acquired: Jun 25 2009 08:51 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4P 5X  
 Misc Info: D9F200199  
 Vial Number: 2212  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.04	0.01	ppb	173.20	3600	
23 Na	6	1	814,500.00	162900.00	ppb	0.97	100000	>LDR
24 Mg	6	1	108,900.00	21780.00	ppb	1.79	100000	
27 Al	45	1	3.62	0.72	ppb	4.77	100000	
39 K	45	1	7,935.00	1587.00	ppb	1.28	100000	
43 Ca	45	1	262,850.00	52570.00	ppb	1.91	100000	
51 V	72	1	51.80	10.36	ppb	7.76	3600	
52 Cr	72	1	341.95	68.39	ppb	1.93	3600	
55 Mn	72	1	7.91	1.58	ppb	2.86	18000	
57 Fe	72	1	300.65	60.13	ppb	4.05	100000	
59 Co	72	1	5.81	1.16	ppb	6.19	3600	
60 Ni	72	1	11.05	2.21	ppb	5.48	3600	
63 Cu	72	1	0.55	0.11	ppb	19.76	3600	
66 Zn	72	1	0.81	0.16	ppb	12.52	3600	
75 As	72	1	146.70	29.34	ppb	2.20	3600	
78 Se	72	1	4.22	0.84	ppb	91.45	3600	
93 Nb	72	1	141,800.00	28360.00	ppb	17.85	2000	>LDR
95 Mo	72	1	149.25	29.85	ppb	2.97	3600	
105 Pd	115	1	-234,350.00	-46870.00	ppb	16.99	1000	
107 Ag	115	1	0.41	0.08	ppb	1.61	3600	
111 Cd	115	1	0.00	0.00	ppb	1735.60	3600	
114 Cd	115	1	0.19	0.04	ppb	34.09	3600	
118 Sn	115	1	0.73	0.15	ppb	18.63	3600	
121 Sb	115	1	0.25	0.05	ppb	14.34	3600	
137 Ba	115	1	28.90	5.78	ppb	1.29	3600	
182 W	165	1	1,602,000.00	320400.00	ppb	2.91	1000	>LDR
195 Pt	165	1	-4,069.50	-813.90	ppb	36.65	1000	
205 Tl	165	1	0.06	0.01	ppb	7.95	3600	
208 Pb	165	1	0.09	0.02	ppb	7.64	3600	
232 Th	165	1	0.05	0.01	ppb	35.00	1000	
238 U	165	1	18.26	3.65	ppb	3.65	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	291354	0.40	357213	81.6	30 - 120	
45 Sc	1	721576	0.67	874931	82.5	30 - 120	
72 Ge	1	396818	0.23	488215	81.3	30 - 120	
115 In	1	1273603	0.82	1536240	82.9	30 - 120	
165 Ho	1	2964594	0.72	3429199	86.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\057SMPL.D\057SMPL.D#  
 Date Acquired: Jun 25 2009 08:55 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4Q 5X  
 Misc Info: D9F200199  
 Vial Number: 2301  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.05	0.01	ppb	173.24	3600	
23 Na	6	1	1,590,500.00	318100.00	ppb	0.47	100000	>LDR
24 Mg	6	1	303,700.00	60740.00	ppb	1.06	100000	
27 Al	45	1	56.25	11.25	ppb	10.95	100000	
39 K	45	1	37,510.00	7502.00	ppb	1.53	100000	
43 Ca	45	1	667,500.00	133500.00	ppb	2.40	100000	>LDR
51 V	72	1	-703.00	-140.60	ppb	12.99	3600	
52 Cr	72	1	14,700.00	2940.00	ppb	0.51	3600	
55 Mn	72	1	107.30	21.46	ppb	1.15	18000	
57 Fe	72	1	701.00	140.20	ppb	3.77	100000	
59 Co	72	1	0.66	0.13	ppb	6.32	3600	
60 Ni	72	1	5.47	1.09	ppb	1.47	3600	
63 Cu	72	1	0.61	0.12	ppb	17.73	3600	
66 Zn	72	1	2.73	0.55	ppb	9.59	3600	
75 As	72	1	90.70	18.14	ppb	0.89	3600	
78 Se	72	1	8.45	1.69	ppb	51.42	3600	
93 Nb	72	1	127,550.00	25510.00	ppb	19.88	2000	>LDR
95 Mo	72	1	16.10	3.22	ppb	3.46	3600	
105 Pd	115	1	-630,500.00	-126100.00	ppb	1.47	1000	
107 Ag	115	1	0.09	0.02	ppb	19.62	3600	
111 Cd	115	1	-0.05	-0.01	ppb	230.16	3600	
114 Cd	115	1	0.02	0.00	ppb	137.56	3600	
118 Sn	115	1	0.69	0.14	ppb	3.96	3600	
121 Sb	115	1	0.32	0.06	ppb	13.16	3600	
137 Ba	115	1	37.89	7.58	ppb	4.70	3600	
182 W	165	1	10,335.00	2067.00	ppb	8.25	1000	>LDR
195 Pt	165	1	-10,095.00	-2019.00	ppb	18.26	1000	
205 Tl	165	1	0.17	0.03	ppb	17.92	3600	
208 Pb	165	1	0.12	0.02	ppb	23.68	3600	
232 Th	165	1	0.01	0.00	ppb	168.83	1000	
238 U	165	1	22.29	4.46	ppb	3.50	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	274896	0.70	357213	77.0	30 - 120	
45 Sc	1	691626	1.11	874931	79.0	30 - 120	
72 Ge	1	368140	0.68	488215	75.4	30 - 120	
115 In	1	1193874	1.54	1536240	77.7	30 - 120	
165 Ho	1	2764719	1.17	3429199	80.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\058\_CCV.D\058\_CCV.D#  
 Date Acquired: Jun 25 2009 08:58 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	50.61 ppb	2.55	50	101.2	90 - 110
23	Na	6	1	5100.00 ppb	0.23	5000	102.0	90 - 110
24	Mg	6	1	5067.00 ppb	1.05	5000	101.3	90 - 110
27	Al	45	1	4927.00 ppb	1.07	5000	98.5	90 - 110
39	K	45	1	5054.00 ppb	1.17	5000	101.1	90 - 110
43	Ca	45	1	4895.00 ppb	4.24	5000	97.9	90 - 110
51	V	72	1	48.02 ppb	2.07	50	96.0	90 - 110
52	Cr	72	1	47.76 ppb	1.53	50	95.5	90 - 110
55	Mn	72	1	48.02 ppb	0.90	50	96.0	90 - 110
57	Fe	72	1	4661.00 ppb	1.54	5000	93.2	90 - 110
59	Co	72	1	47.02 ppb	1.84	50	94.0	90 - 110
60	Ni	72	1	48.38 ppb	2.45	50	96.8	90 - 110
63	Cu	72	1	48.44 ppb	1.61	50	96.9	90 - 110
66	Zn	72	1	48.80 ppb	1.20	50	97.6	90 - 110
75	As	72	1	50.87 ppb	1.41	50	101.7	90 - 110
78	Se	72	1	51.05 ppb	4.16	50	102.1	90 - 110
93	Nb	72	1	18090.00 ppb	20.25	100	18090.0	90 - 110
95	Mo	72	1	48.16 ppb	1.97	50	96.3	90 - 110
105	Pd	115	1	-245.40 ppb	243.81	50	-490.8	90 - 110
107	Ag	115	1	48.85 ppb	0.76	50	97.7	90 - 110
111	Cd	115	1	49.41 ppb	1.52	50	98.8	90 - 110
114	Cd	115	1	49.52 ppb	1.72	50	99.0	90 - 110
118	Sn	115	1	49.28 ppb	1.30	50	98.6	90 - 110
121	Sb	115	1	50.80 ppb	1.55	50	101.6	90 - 110
137	Ba	115	1	50.17 ppb	1.04	50	100.3	90 - 110
182	W	165	1	191.20 ppb	23.15	50	382.4	90 - 110
195	Pt	165	1	144.60 ppb	84.37	50	289.2	90 - 110
205	Tl	165	1	50.85 ppb	0.31	50	101.7	90 - 110
208	Pb	165	1	50.59 ppb	1.02	50	101.2	90 - 110
232	Th	165	1	51.25 ppb	1.79	50	102.5	90 - 110
238	U	165	1	50.79 ppb	1.22	50	101.6	90 - 110

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	279400	1.14	357213	78.2	30 - 120
45	Sc	1	699197	1.61	874931	79.9	30 - 120
72	Ge	1	406164	1.34	488215	83.2	30 - 120
115	In	1	1330655	0.78	1536240	86.6	30 - 120
165	Ho	1	3000836	0.97	3429199	87.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\059\_CCB.D\059\_CCB.D#  
 Date Acquired: Jun 25 2009 09:02 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
23 Na	6	1	81.710 ppb	1.43	20.00	Fail
24 Mg	6	1	1.502 ppb	4.94	20.00	
27 Al	45	1	0.588 ppb	36.53	20.00	
39 K	45	1	12.860 ppb	6.53	20.00	
43 Ca	45	1	1.168 ppb	481.25	20.00	
51 V	72	1	0.013 ppb	154.99	1.00	
52 Cr	72	1	0.041 ppb	12.59	1.00	
55 Mn	72	1	0.285 ppb	8.11	1.00	
57 Fe	72	1	0.653 ppb	57.75	20.00	
59 Co	72	1	-0.005 ppb	23.06	1.00	
60 Ni	72	1	0.013 ppb	68.36	1.00	
63 Cu	72	1	0.009 ppb	72.12	1.00	
66 Zn	72	1	0.073 ppb	15.38	10.00	
75 As	72	1	0.011 ppb	85.14	1.00	
78 Se	72	1	0.446 ppb	103.23	1.00	
93 Nb	72	1	14650.000 ppb	8.77	2.00	Fail
95 Mo	72	1	0.031 ppb	29.87	1.00	
105 Pd	115	1	-13.020 ppb	1503.80	1.00	
107 Ag	115	1	0.021 ppb	25.03	1.00	
111 Cd	115	1	0.002 ppb	755.78	1.00	
114 Cd	115	1	0.012 ppb	14.27	1.00	
118 Sn	115	1	0.326 ppb	8.80	10.00	
121 Sb	115	1	0.177 ppb	0.87	1.00	
137 Ba	115	1	0.006 ppb	97.17	1.00	
182 W	165	1	128.200 ppb	42.67	5.00	Fail
195 Pt	165	1	94.370 ppb	299.46	1.00	Fail
205 Tl	165	1	0.020 ppb	12.98	1.00	
208 Pb	165	1	0.010 ppb	3.71	1.00	
232 Th	165	1	0.701 ppb	20.66	2.00	
238 U	165	1	0.008 ppb	14.11	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	287197	0.27	357213	80.4	30 - 120	
45 Sc	1	735910	1.07	874931	84.1	30 - 120	
72 Ge	1	431276	0.66	488215	88.3	30 - 120	
115 In	1	1381851	1.05	1536240	90.0	30 - 120	
165 Ho	1	3064484	1.48	3429199	89.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\060WASH.D\060WASH.D#  
 Date Acquired: Jun 25 2009 09:05 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info: 1204  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.940 ppb	14.16	1.30	
23 Na	6	1	123.200 ppb	2.27	65.00	
24 Mg	6	1	56.030 ppb	1.02	65.00	
27 Al	45	1	32.480 ppb	0.93	39.00	
39 K	45	1	116.500 ppb	1.30	130.00	
43 Ca	45	1	48.640 ppb	16.92	65.00	
51 V	72	1	4.965 ppb	3.94	6.50	
52 Cr	72	1	2.002 ppb	3.01	2.60	
55 Mn	72	1	1.240 ppb	2.14	1.30	
57 Fe	72	1	47.620 ppb	3.41	65.00	
59 Co	72	1	0.956 ppb	1.25	1.30	
60 Ni	72	1	1.982 ppb	2.59	2.60	
63 Cu	72	1	1.999 ppb	2.25	2.60	
66 Zn	72	1	9.950 ppb	1.60	13.00	
75 As	72	1	4.942 ppb	2.31	6.50	
78 Se	72	1	4.864 ppb	18.14	6.50	
93 Nb	72	1	17410.000 ppb	15.71	52.00	
95 Mo	72	1	1.946 ppb	5.02	2.60	
105 Pd	115	1	-8.990 ppb	2100.10	1.30	
107 Ag	115	1	5.029 ppb	3.29	6.50	
111 Cd	115	1	1.044 ppb	2.01	1.30	
114 Cd	115	1	1.215 ppb	2.12	1.30	
118 Sn	115	1	10.030 ppb	3.73	13.00	
121 Sb	115	1	2.068 ppb	3.51	2.60	
137 Ba	115	1	1.080 ppb	4.55	1.30	
182 W	165	1	81.170 ppb	89.69	6.50	
195 Pt	165	1	174.300 ppb	71.08	1.30	
205 Tl	165	1	1.098 ppb	0.91	1.30	
208 Pb	165	1	1.083 ppb	3.24	1.30	
232 Th	165	1	2.294 ppb	2.95	2.60	
238 U	165	1	1.070 ppb	1.06	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	287559	1.38	357213	80.5	30 - 120	
45 Sc	1	748913	0.52	874931	85.6	30 - 120	
72 Ge	1	434028	0.21	488215	88.9	30 - 120	
115 In	1	1413851	1.58	1536240	92.0	30 - 120	
165 Ho	1	3076772	0.46	3429199	89.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID:           D9F200196          

Client:           Northgate Environmental          

Batch(es) #:           9174183, 9174190          

Associated Samples:           1, 2, 3          

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date:            6/25/09

## *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9F200196	1	SE	LFC4A1AC	20090625	6020TOTA	9174190	AG062409G	024
D9F200196	2	SE	LFC4C1AC	20090624	6020DSVD	9174183	AG062409G	024
D9F200196	2	AS	LFC4C1AA	20090625	6020DSVD	9174183	AG062409G	024
D9F200196	3	SE	LFC4D1AC	20090625	6020TOTA	9174190	AG062409G	024

**METALS  
PREPARATION LOGS  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

Batch Number: 9174183

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:

JON HARRE

Prep Date: 06/24/09

Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	<b>LFFFC</b>	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	<b>LFFFC</b>	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	<b>LE71E</b> Dissolved		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180314 Water	<b>LE71E</b> Dissolved	S	Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180314 Water	<b>LE71E</b> Dissolved	D	Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F200196 Water	<b>LFC4C</b> Dissolved		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*Checked  
6/24/09*

*✓  
Z  
6/25/09*

**METALS PREP SHEET**

SOP: DEN-IP-0014

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING  
TestAmerica Denver

**DISSOLVED WATER DIGESTION FOR ICPMS (Prep code MD)**

BATCH # 9174183  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

CONSUMABLES USED	
Digestion Cups: Manufacturer: <u>Environmental Express</u>	Lot #: <u>A901LS267</u>
Were samples filtered in the lab?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If "yes", then the method blank and the LCS were filtered prior to digestion.	
Analyst(s) Initials:	<u>JKH</u>

STANDARDS USED				
Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

REAGENTS USED			
Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	2

TEMPERATURE CYCLES				
Thermometer ID: <u>4082</u>	Block & Cup #: <u>4,5</u>			
Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO3/HCl	<u>6:00</u>	<u>90</u>	<u>11:00</u>	<u>90</u>
Samples and QC revolved to:	<u>50</u> mL	Analyst's Initials: <u>JKH</u>		

COMMENTS:

I certify that all information above is correct and complete.

Signature: Kim Anne

Date: 6/24/09

Batch Number: 9174190

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:

JON HARRE

Prep Date: 06/24/09

Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	LFFFX	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	LFFFX	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	LE709 Total		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total		Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	S	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	D	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F190216 Water	LE9PT Total		Due Date: 07/01/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4A Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4D Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4P Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4Q Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*RT checked  
6/24/09*

*✓  
6/25/09*

**TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)**

BATCH # 9174190  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

**CONSUMABLES USED**

Digestion Cups: Manufacturer: Environmental Express Lot #: A901LS267  
One or more samples were filtered prior to analysis at the instrument.  Yes  No  
If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.  
Analyst(s) Initials:                     

**STANDARDS USED**

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

**REAGENTS USED**

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	3

**TEMPERATURE CYCLES**

Thermometer ID: 3311 Block & Cup #: 1, 11

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO <sub>3</sub>	<u>6:00</u>	<u>95</u>	<u>10:20</u>	<u>95</u>
HNO <sub>3</sub>	<u>10:30</u>	<u>94</u>	<u>11:00</u>	<u>93</u>
HNO <sub>3</sub>				

Samples and QC revolved to: 50 mL Analyst's Initials JKH

**COMMENTS:**

I certify that all information above is correct and complete.

Signature: *Kim Anne*

Date: 6/24/09

**METALS  
SAMPLE DATA  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**



## ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L. Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

### Quality Control Standards

ICV = Initial Calibration Verification (Second Source)      ICB = Initial Calibration Blank  
 CCV = Continuing Calibration Verification                      CCB = Continuing Calibration Blank

# TestAmerica Denver

## Standards Preparation Logbook Record

Jun-24-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008  
Date Expires(1): 10-01-2009 (None)  
Date Expires(2): 10-01-2009 (None)  
(METALS)-Inventory ID: 779

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	1,000.0	1,000.0

### STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008  
Date Expires(1): 12-01-2009 (None)  
Date Expires(2): 12-01-2009 (None)  
(METALS)-Inventory ID: 803

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1,000.0

### STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010  
Solvent: 1% HNO3  
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009  
Date Expires(1): 03-01-2010 (None)  
Date Expires(2): 03-01-2010 (None)  
(METALS)-Inventory ID: 833

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

### STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H02026 Volume (ml): 100.00  
Date Prep./Opened: 04-01-2009  
Date Expires(1): 12-01-2009 (1 Year)  
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009  

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3432-09, ICP-MS (024) INT STD BRC

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-08-2009  
 Date Expires(1): 11-10-2009 (1 Year) ✓  
 Date Expires(2): 12-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Volume (ml): 250.00

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 0.7500  
 Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010  

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010  

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.2500  
 Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010  

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009  

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock Aliquot Amount (ml): 0.2500  
 Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009  

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,000.0

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year) ✓

Volume (ml): 10.000

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009  

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	10.000	1.0000

STD3753-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-22-2009  
 Date Expires(1): 02-01-2010 (1 Year) ✓  
 Date Expires(2): 02-01-2010 (None)  
 pipettes: Met 8

Volume (ml): 50.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20,000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20,000	2,000.0

STD3807-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 03-01-2010 (1 Year) ✓  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD1198-09, 1000 mg/L Sn Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	10.000

STD3808-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 07-24-2009 (1 Month)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 1,000.0

Parent Std No.: STD3806-09, NITRIC ACID

Aliquot Amount (ml): 50.000

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD3809-09, ICP-MS 100 ppb cal

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 06-25-2009 (1 Day)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Lot No.: H12022

Volume (ml): 50.000

Parent Std No.: STD0100-09, Iron Stock

Aliquot Amount (ml): 0.2500

Parent Date Expires(1): 08-01-2009 Parent Date Expires(2): 08-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Fe	1,000.0	5,000.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures

Aliquot Amount (ml): 0.2500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.5000  
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	100.00

STD3810-09, ICP-MS CCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
Date Prep./Opened: 06-24-2009  
Date Expires(1): 06-25-2009 (1 Day)  
Date Verified: 12-31--4714 by - (Verification ID: 0)  
pipettes: Met 20

Volume (ml): 100.00

Parent Std No.: STD0100-09, Iron Stock Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 08-01-2009 Parent Date Expires(2): 08-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Fe	1,000.0	2,500.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	50.000
Al	20.000	50.000
As	20.000	50.000
Ba	20.000	50.000
Be	20.000	50.000
Cd	20.000	50.000
Co	20.000	50.000
Cr	20.000	50.000
Cu	20.000	50.000
Mn	20.000	50.000
Ni	20.000	50.000
Pb	20.000	50.000
Se	20.000	50.000
Th	20.000	50.000
Tl	20.000	50.000
U	20.000	50.000
V	20.000	50.000
Zn	20.000	50.000

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	50.000

Sb 20.000 50.000  
 Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
<u>Sn</u>	<u>10.000</u>	<u>50.000</u>

STD3811-09, ICP-MS RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day) ✓  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
<u>Sn</u>	<u>1.0000</u>	<u>0.0090</u>
1000 Zn	1.0000	0.0090

Parent Std No.: STD3809-09, ICP-MS 100 ppb cal Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 06-25-2009 Parent Date Expires(2): 06-25-2009

Component	Initial Conc (ug/L)	Final Conc (mg/L)
<u>Fe</u>	<u>5,000.0</u>	<u>0.0500</u>
Ag	100.00	0.0010
Al	100.00	0.0010
As	100.00	0.0010
Ba	100.00	0.0010
Be	100.00	0.0010
Cd	100.00	0.0010
Co	100.00	0.0010
Cr	100.00	0.0010
Cu	100.00	0.0010
Mn	100.00	0.0010
Ni	100.00	0.0010
Pb	100.00	0.0010
Se	100.00	0.0010
Th	100.00	0.0010
Tl	100.00	0.0010
U	100.00	0.0010
V	100.00	0.0010
Zn	100.00	0.0010
Mo	100.00	0.0010
Sb	100.00	0.0010
<u>Sn</u>	<u>100.00</u>	<u>0.0010</u>

STD3812-09, ICP-MS AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (2 Days) ✓  
 pipettes: Met 20 and Met 8

Volume (ml): 10.000

Parent Std No.: STD3811-09, ICP-MS RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Fe	0.0500	0.0100
Ag	0.0010	0.0002
Al	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002

STD3813-09, ICP-MS ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Verified: 12-31--4714 by - (Verification ID: Q) ✓  
 pipettes: Met 21, Met 20, and Met 8

Volume (ml): 10.000

Parent Std No.: STD1978-09, ICPMS Interferent Check Standard

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000



Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20,000.	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20,000	2,000.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.0500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.0500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	100.00

STD3814-09, ICPMS LR STD 1000 ppb

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-24-2009

Date Expires(1): 06-25-2009 (1 Day)

Date Verified: 12-31--4714 by - (Verification ID: 0)

pipettes: Met 20 and Met 8

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	1,000.0
Al	20.000	1,000.0
As	20.000	1,000.0
Ba	20.000	1,000.0
Be	20.000	1,000.0
Cd	20.000	1,000.0
Co	20.000	1,000.0
Cr	20.000	1,000.0
Cu	20.000	1,000.0
Mn	20.000	1,000.0
Ni	20.000	1,000.0
Pb	20.000	1,000.0
Se	20.000	1,000.0
Th	20.000	1,000.0
Tl	20.000	1,000.0
U	20.000	1,000.0
V	20.000	1,000.0
Zn	20.000	1,000.0

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	1,000.0
Sb	20.000	1,000.0

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	1,000.0

STD3815-09, ICPMS ICV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 02-27-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD1213-09, ICPMS ICV SOLUTION A (High Purity) Aliquot Amount (ml): 0.0400  
 Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Al	10.000	40.000
As	10.000	40.000
Ba	10.000	40.000
Be	10.000	40.000
Cd	10.000	40.000

Co	10.000	40.000
Cr	10.000	40.000
Cu	10.000	40.000
Fe	250.00	1,000.0
Li	10.000	40.000
Mn	10.000	40.000
Ni	10.000	40.000
Pb	10.000	40.000
Se	10.000	40.000
Th	10.000	40.000
Tl	10.000	40.000
U	10.000	40.000
V	10.000	40.000
Zn	10.000	40.000

Parent Std No.: STD1214-09, ICPMS ICV SOLUTION B (High Purity) Aliquot Amount (ml): 0.0400  
 Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Ag	10.000	40.000
Mo	10.000	40.000
Sb	10.000	40.000
Sn	10.000	40.000
Zr	10.000	40.000

STD3816-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 pipettes: Met 21 and Met 8

Volume (ml): 50.000

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1.0000	0.0020

STD3817-09, LLCCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 05-01-2010 (None)  
 pipettes: Met 20

Volume (ml): 50.000

Parent Std No.: STD3106-09, ICP-MS LLCCV 1

Aliquot Amount (ml): 0.5000

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000

Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By: \_\_\_\_\_

LRD

06/24/2009

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/25/09 11:05:10
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File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
2	Cal Blank			1.0	06/24/09 19:07		<input type="checkbox"/>
3	100 ppb			1.0	06/24/09 19:10		<input type="checkbox"/>
4	ICV			1.0	06/24/09 19:13		<input type="checkbox"/>
5	RLIV			1.0	06/24/09 19:17		<input type="checkbox"/>
6	ICB			1.0	06/24/09 19:20		<input type="checkbox"/>
7	RL STD			1.0	06/24/09 19:24		<input type="checkbox"/>
8	AFCEE RL			1.0	06/24/09 19:27		<input type="checkbox"/>
9	ALTSe			1.0	06/24/09 19:30		<input type="checkbox"/>
10	ICSA			1.0	06/24/09 19:34		<input type="checkbox"/>
11	ICSAB			1.0	06/24/09 19:37		<input type="checkbox"/>
12	RINSE			1.0	06/24/09 19:40		<input type="checkbox"/>
13	LR			1.0	06/24/09 19:44		<input type="checkbox"/>
14	RINSE			1.0	06/24/09 19:47		<input type="checkbox"/>
15	CCV			1.0	06/24/09 19:52		<input type="checkbox"/>
16	CCB			1.0	06/24/09 19:55		<input type="checkbox"/>
17	RLCV			1.0	06/24/09 19:58		<input type="checkbox"/>
18	LE7RWB	D9F180000	9169492	MS	1.0	06/24/09 20:02	<input type="checkbox"/>
19	LE7RWC	D9F180000	9169492	MS	1.0	06/24/09 20:05	<input type="checkbox"/>
20	LERAH	D9F110358-9	9169492	MS	1.0	06/24/09 20:09	<input type="checkbox"/>
21	LERAX	D9F110358-20	9169492	MS	1.0	06/24/09 20:12	<input type="checkbox"/>
22	LERA0	D9F110358-21	9169492	MS	1.0	06/24/09 20:15	<input type="checkbox"/>
23	LERA4	D9F110358-24	9169492	MS	1.0	06/24/09 20:19	<input type="checkbox"/>
24	LERA4P5	D9F110358	9169492		5.0	06/24/09 20:22	<input type="checkbox"/>
25	LERA4Z	D9F110358-24	9169492		1.0	06/24/09 20:25	<input type="checkbox"/>
26	LERA4S	D9F110358-24	9169492	MS	1.0	06/24/09 20:29	<input type="checkbox"/>
27	LERA4D	D9F110358-24	9169492	MS	1.0	06/24/09 20:32	<input type="checkbox"/>
28	CCV			1.0	06/24/09 20:36		<input type="checkbox"/>
29	CCB			1.0	06/24/09 20:39		<input type="checkbox"/>
30	RLCV			1.0	06/24/09 20:42		<input type="checkbox"/>
31	ICSA			1.0	06/24/09 20:46		<input type="checkbox"/>
32	ICSAB			1.0	06/24/09 20:49		<input type="checkbox"/>
33	WASH			1.0	06/24/09 20:52		<input type="checkbox"/>
34	CCV			1.0	06/24/09 20:56		<input type="checkbox"/>
35	CCB			1.0	06/24/09 20:59		<input type="checkbox"/>
36	RLCV			1.0	06/24/09 21:03		<input type="checkbox"/>
37	LFFFBCF	D9F230000	9174183	MD	1.0	06/24/09 21:06	<input type="checkbox"/>
38	LFFFCCF	D9F230000	9174183	MD	1.0	06/24/09 21:10	<input type="checkbox"/>
39	LE71EF	D9F180314-2	9174183	MD	1.0	06/24/09 21:13	<input type="checkbox"/>
40	LE71EP5F	D9F180314	9174183		5.0	06/24/09 21:16	<input type="checkbox"/>
41	LE71EZ	D9F180314-2	9174183		1.0	06/24/09 21:20	<input type="checkbox"/>
42	LE71ESF	D9F180314-2	9174183	MD	1.0	06/24/09 21:23	<input type="checkbox"/>
43	LE71EDF	D9F180314-2	9174183	MD	1.0	06/24/09 21:26	<input type="checkbox"/>
44	LFC4CF	D9F200196-2	9174183	MD	1.0	06/24/09 21:30	<input type="checkbox"/>
45	CCV			1.0	06/24/09 21:33		<input type="checkbox"/>
46	CCB			1.0	06/24/09 21:36		<input type="checkbox"/>
47	RLCV			1.0	06/24/09 21:40		<input type="checkbox"/>

Se only. 6/25/09

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
48	RINSE				1.0 06/24/09 21:43		<input type="checkbox"/>
49	RINSE				1.0 06/24/09 21:47		<input type="checkbox"/>
50	RINSE				1.0 06/24/09 21:50		<input type="checkbox"/>
51	RINSE				1.0 06/24/09 21:53		<input type="checkbox"/>
52	RINSE				1.0 06/24/09 21:57		<input type="checkbox"/>
53	RINSE				1.0 06/24/09 22:00		<input type="checkbox"/>
54	CCV				1.0 06/24/09 22:04		<input type="checkbox"/>
55	CCB				1.0 06/24/09 22:07		<input type="checkbox"/>
56	RLCV				1.0 06/24/09 22:10		<input type="checkbox"/>
57	Cal Blank				1.0 06/24/09 22:14		<input type="checkbox"/>
58	Cal Blank				1.0 06/24/09 22:17		<input type="checkbox"/>
59	100 ppb				1.0 06/24/09 22:20		<input type="checkbox"/>
60	CCV				1.0 06/24/09 22:24		<input type="checkbox"/>
61	CCB				1.0 06/24/09 22:27		<input type="checkbox"/>
62	RLCV				1.0 06/24/09 22:31		<input type="checkbox"/>
63	LFFPJBF	D9F230000	9174251	MD	1.0 06/24/09 22:34		<input type="checkbox"/>
64	LFFPJCF	D9F230000	9174251	MD	1.0 06/24/09 22:37		<input type="checkbox"/>
65	LE7RXF	D9F180298-1	9174251	MD	1.0 06/24/09 22:41		<input type="checkbox"/>
66	LE7TDF	D9F180298-2	9174251	MD	1.0 06/24/09 22:44		<input type="checkbox"/>
67	LE7TDP5F	D9F180298	9174251		5.0 06/24/09 22:48		<input type="checkbox"/>
68	LE7TDZF	D9F180298-2	9174251		1.0 06/24/09 22:51		<input type="checkbox"/>
69	LE7TDSF	D9F180298-2	9174251	MD	1.0 06/24/09 22:54		<input type="checkbox"/>
70	CCV				1.0 06/24/09 22:58		<input type="checkbox"/>
71	CCB				1.0 06/24/09 23:01		<input type="checkbox"/>
72	RLCV				1.0 06/24/09 23:05		<input type="checkbox"/>
73	ICSA				1.0 06/24/09 23:08		<input type="checkbox"/>
74	ICSAB				1.0 06/24/09 23:11		<input type="checkbox"/>
75	WASH				1.0 06/24/09 23:15		<input type="checkbox"/>
76	CCV				1.0 06/24/09 23:18		<input type="checkbox"/>
77	CCB				1.0 06/24/09 23:21		<input type="checkbox"/>
78	RLCV				1.0 06/24/09 23:25		<input type="checkbox"/>
79	LE7TDDF	D9F180298-2	9174251	MD	1.0 06/24/09 23:28		<input type="checkbox"/>
80	LE7VVF	D9F180298-3	9174251	MD	1.0 06/24/09 23:32		<input type="checkbox"/>
81	LE7V3F	D9F180298-4	9174251	MD	1.0 06/24/09 23:35		<input type="checkbox"/>
82	LE7V5F	D9F180298-5	9174251	MD	1.0 06/24/09 23:38		<input type="checkbox"/>
83	LE7V8F	D9F180298-6	9174251	MD	1.0 06/24/09 23:42		<input type="checkbox"/>
84	LE7WAF	D9F180298-7	9174251	MD	1.0 06/24/09 23:45		<input type="checkbox"/>
85	LE88DF	D9F190179-1	9174251	MD	1.0 06/24/09 23:49		<input type="checkbox"/>
86	CCV				1.0 06/24/09 23:52		<input type="checkbox"/>
87	CCB				1.0 06/24/09 23:55		<input type="checkbox"/>
88	RLCV				1.0 06/24/09 23:59		<input type="checkbox"/>
89	LE88HF	D9F190179-2	9174251	MD	1.0 06/25/09 00:02		<input type="checkbox"/>
90	LE88JF	D9F190179-3	9174251	MD	1.0 06/25/09 00:06		<input type="checkbox"/>
91	LE88LF	D9F190179-4	9174251	MD	1.0 06/25/09 00:09		<input type="checkbox"/>
92	LE88NF	D9F190179-5	9174251	MD	1.0 06/25/09 00:12		<input type="checkbox"/>
93	LE88QF	D9F190179-6	9174251	MD	1.0 06/25/09 00:16		<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
94	LFEAEF	D9F220120-1	9174251	MD	1.0	06/25/09 00:19	<input type="checkbox"/>
95	LFEA6F	D9F220120-2	9174251	MD	1.0	06/25/09 00:23	<input type="checkbox"/>
96	CCV				1.0	06/25/09 00:26	<input type="checkbox"/>
97	CCB				1.0	06/25/09 00:29	<input type="checkbox"/>
98	RLCV				1.0	06/25/09 00:33	<input type="checkbox"/>
99	LFGFMB	D9F230000	9174418	04	1.0	06/25/09 00:36	<input type="checkbox"/>
100	LFGFMC	D9F230000	9174418	04	1.0	06/25/09 00:40	<input type="checkbox"/>
101	LE4PX	D9F170234-1	9174418	04	1.0	06/25/09 00:43	<input type="checkbox"/>
102	LE4QF	D9F170234-2	9174418	04	1.0	06/25/09 00:46	<input type="checkbox"/>
103	LE4QG	D9F170234-3	9174418	04	1.0	06/25/09 00:50	<input type="checkbox"/>
104	LE4QN	D9F170234-4	9174418	04	1.0	06/25/09 00:53	<input type="checkbox"/>
105	LE63X	D9F180238-1	9174418	04	1.0	06/25/09 00:57	<input type="checkbox"/>
106	LE859	D9F190169-1	9174418	04	1.0	06/25/09 01:00	<input type="checkbox"/>
107	LE862	D9F190169-2	9174418	04	1.0	06/25/09 01:03	<input type="checkbox"/>
108	CCV				1.0	06/25/09 01:07	<input type="checkbox"/>
109	CCB				1.0	06/25/09 01:10	<input type="checkbox"/>
110	RLCV				1.0	06/25/09 01:13	<input type="checkbox"/>
111	LFCHJ	D9F200140-1	9174418	04	1.0	06/25/09 01:17	<input type="checkbox"/>
112	LFCHJP5	D9F200140	9174418		5.0	06/25/09 01:20	<input type="checkbox"/>
113	LFCHJZ	D9F200140-1	9174418		1.0	06/25/09 01:24	<input type="checkbox"/>
114	LFCHJS	D9F200140-1	9174418	04	1.0	06/25/09 01:27	<input type="checkbox"/>
115	LFCHJD	D9F200140-1	9174418	04	1.0	06/25/09 01:30	<input type="checkbox"/>
116	LFCH5	D9F200140-2	9174418	04	1.0	06/25/09 01:34	<input type="checkbox"/>
117	LFCH6	D9F200140-3	9174418	04	1.0	06/25/09 01:37	<input type="checkbox"/>
118	LFCH7	D9F200140-4	9174418	04	1.0	06/25/09 01:41	<input type="checkbox"/>
119	CCV				1.0	06/25/09 01:44	<input type="checkbox"/>
120	CCB				1.0	06/25/09 01:47	<input type="checkbox"/>
121	RLCV				1.0	06/25/09 01:51	<input type="checkbox"/>
122	LFFFXB	D9F230000	9174190	MS	1.0	06/25/09 01:54	<input type="checkbox"/>
123	LFFFXC	D9F230000	9174190	MS	1.0	06/25/09 01:58	<input type="checkbox"/>
124	LE709	D9F180314-1	9174190	MS	1.0	06/25/09 02:01	<input type="checkbox"/>
125	LE7CT	D9F180266-1	9174190	MS	1.0	06/25/09 02:04	<input type="checkbox"/>
126	LE7CTP5	D9F180266	9174190		5.0	06/25/09 02:08	<input type="checkbox"/>
127	LE7CTZ	D9F180266-1	9174190		1.0	06/25/09 02:11	<input type="checkbox"/>
128	LE7CTS	D9F180266-1	9174190	MS	1.0	06/25/09 02:15	<input type="checkbox"/>
129	CCV				1.0	06/25/09 02:18	<input type="checkbox"/>
130	CCB				1.0	06/25/09 02:21	<input type="checkbox"/>
131	RLCV				1.0	06/25/09 02:25	<input type="checkbox"/>
132	LE7CTD	D9F180266-1	9174190	MS	1.0	06/25/09 02:28	<input type="checkbox"/>
133	LE9PT	D9F190216-1	9174190	MS	1.0	06/25/09 02:32	<input type="checkbox"/>
134	LFC4A	D9F200196-1	9174190	MS	1.0	06/25/09 02:35	<input type="checkbox"/>
135	LFC4D	D9F200196-3	9174190	MS	1.0	06/25/09 02:38	<input type="checkbox"/>
136	LFC4P	D9F200199-1	9174190	MS	1.0	06/25/09 02:42	<input type="checkbox"/>
137	LFC4Q	D9F200199-2	9174190	MS	1.0	06/25/09 02:45	<input type="checkbox"/>
138	CCV				1.0	06/25/09 02:48	<input type="checkbox"/>
139	CCB				1.0	06/25/09 02:52	<input type="checkbox"/>

*- See only. AT 6/25/09*

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
140	RLCV				1.0	06/25/09 02:55	<input type="checkbox"/>
141	<del>LF11BF</del>	<del>D9F230000</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 02:59</del>	<input type="checkbox"/>
142	LF11CF	D9F230000	9174270	MD	1.0	06/25/09 03:02	<input type="checkbox"/>
143	LE6C3F	D9F180143-1	9174270	MD	1.0	06/25/09 03:05	<input type="checkbox"/>
144	LE6C7F	D9F180143-2	9174270	MD	1.0	06/25/09 03:09	<input type="checkbox"/>
145	LE6C8F	D9F180143-3	9174270	MD	1.0	06/25/09 03:12	<input type="checkbox"/>
146	LE6C9F	D9F180143-4	9174270	MD	1.0	06/25/09 03:16	<input type="checkbox"/>
147	LE6DAF	D9F180143-5	9174270	MD	1.0	06/25/09 03:19	<input type="checkbox"/>
148	LE6DCF	D9F180143-6	9174270	MD	1.0	06/25/09 03:22	<input type="checkbox"/>
149	LE6DCP5F	D9F180143	9174270		5.0	06/25/09 03:26	<input type="checkbox"/>
150	LE6DCZF	D9F180143-6	9174270		1.0	06/25/09 03:29	<input type="checkbox"/>
151	CCV				1.0	06/25/09 03:33	<input type="checkbox"/>
152	CCB				1.0	06/25/09 03:36	<input type="checkbox"/>
153	RLCV				1.0	06/25/09 03:39	<input type="checkbox"/>
154	LE6DCSF	D9F180143-6	9174270	MD	1.0	06/25/09 03:43	<input type="checkbox"/>
155	LE6DCDF	D9F180143-6	9174270	MD	1.0	06/25/09 03:46	<input type="checkbox"/>
156	LE9GLF	D9F190197-1	9174270	MD	1.0	06/25/09 03:50	<input type="checkbox"/>
157	LFCECF	D9F200122-1	9174270	MD	1.0	06/25/09 03:53	<input type="checkbox"/>
158	LFCEMF	D9F200122-2	9174270	MD	1.0	06/25/09 03:56	<input type="checkbox"/>
159	LFCEMF	D9F200122-3	9174270	MD	1.0	06/25/09 04:00	<input type="checkbox"/>
160	LFCEQF	D9F200122-4	9174270	MD	1.0	06/25/09 04:03	<input type="checkbox"/>
161	LFCERF	D9F200122-5	9174270	MD	1.0	06/25/09 04:07	<input type="checkbox"/>
162	LFCEWF	D9F200122-6	9174270	MD	1.0	06/25/09 04:10	<input type="checkbox"/>
163	LFCEXF	D9F200122-7	9174270	MD	1.0	06/25/09 04:13	<input type="checkbox"/>
164	CCV				1.0	06/25/09 04:17	<input type="checkbox"/>
165	CCB				1.0	06/25/09 04:20	<input type="checkbox"/>
166	RLCV				1.0	06/25/09 04:24	<input type="checkbox"/>
167	RINSE				1.0	06/25/09 04:27	<input type="checkbox"/>
168	RINSE				1.0	06/25/09 04:30	<input type="checkbox"/>
169	RINSE				1.0	06/25/09 04:34	<input type="checkbox"/>
170	RINSE				1.0	06/25/09 04:37	<input type="checkbox"/>
171	RINSE				1.0	06/25/09 04:41	<input type="checkbox"/>
172	RINSE				1.0	06/25/09 04:44	<input type="checkbox"/>
173	Cal Blank				1.0	06/25/09 04:47	<input type="checkbox"/>
174	Cal Blank				1.0	06/25/09 04:51	<input type="checkbox"/>
175	100 ppb				1.0	06/25/09 04:54	<input type="checkbox"/>
176	CCV				1.0	06/25/09 04:57	<input type="checkbox"/>
177	CCB				1.0	06/25/09 05:01	<input type="checkbox"/>
178	RLCV				1.0	06/25/09 05:04	<input type="checkbox"/>
179	MDLV BLANK				1.0	06/25/09 05:08	<input type="checkbox"/>
180	MDLV1				1.0	06/25/09 05:11	<input type="checkbox"/>
181	MDLV2				1.0	06/25/09 05:15	<input type="checkbox"/>
182	CCV				1.0	06/25/09 05:18	<input type="checkbox"/>
183	CCB				1.0	06/25/09 05:21	<input type="checkbox"/>
184	RLCV				1.0	06/25/09 05:25	<input type="checkbox"/>
185	LF11CBF	D9F230000	9174183	MD	1.0	06/25/09 05:28	<input type="checkbox"/>

*Ref 6/25/09 did not use.*

*As only, Ref 6/25/09*



Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
186	LFFFCCF	D9F230000	9174183	MD	1.0	06/25/09 05:32	<input type="checkbox"/>
187	LE71EF 10X	D9F180314-2	9174183	MD	10.0	06/25/09 05:35	<input type="checkbox"/>
188	LE71EP50F	D9F180314	9174183		50.0	06/25/09 05:38	<input type="checkbox"/>
189	LE71EZF	D9F180314-2	9174183		1.0	06/25/09 05:42	<input type="checkbox"/>
190	LE71ESF 10	D9F180314-2	9174183	MD	10.0	06/25/09 05:45	<input type="checkbox"/>
191	LE71EDF 10	D9F180314-2	9174183	MD	10.0	06/25/09 05:48	<input type="checkbox"/>
192	LFC4CF 10X	D9F200196-2	9174183	MD	10.0	06/25/09 05:52	<input type="checkbox"/>
193	CCV				1.0	06/25/09 05:55	<input type="checkbox"/>
194	CCB				1.0	06/25/09 05:59	<input type="checkbox"/>
195	RLCV				1.0	06/25/09 06:02	<input type="checkbox"/>
196	D9F120347-1				1.0	06/25/09 06:05	<input type="checkbox"/>
197	CCV				1.0	06/25/09 06:09	<input type="checkbox"/>
198	CCB				1.0	06/25/09 06:12	<input type="checkbox"/>
199	RLCV				1.0	06/25/09 06:16	<input type="checkbox"/>
200	LFFEFB	D9F230000	9174178	MS	1.0	06/25/09 06:19	<input type="checkbox"/>
201	LFFFC	D9F230000	9174178	MS	1.0	06/25/09 06:22	<input type="checkbox"/>
202	LE9GL	D9F190197-1	9174178	MS	1.0	06/25/09 06:26	<input type="checkbox"/>
203	LE720	D9F180321-1	9174178	MS	1.0	06/25/09 06:29	<input type="checkbox"/>
204	LE721	D9F180321-2	9174178	MS	1.0	06/25/09 06:33	<input type="checkbox"/>
205	LE723	D9F180321-3	9174178	MS	1.0	06/25/09 06:36	<input type="checkbox"/>
206	LE724	D9F180321-4	9174178	MS	1.0	06/25/09 06:39	<input type="checkbox"/>
207	CCV				1.0	06/25/09 06:43	<input type="checkbox"/>
208	CCB				1.0	06/25/09 06:46	<input type="checkbox"/>
209	RLCV				1.0	06/25/09 06:50	<input type="checkbox"/>
210	LFCEC	D9F200122-1	9174178	MS	1.0	06/25/09 06:53	<input type="checkbox"/>
211	LFCEM	D9F200122-2	9174178	MS	1.0	06/25/09 06:56	<input type="checkbox"/>
212	LFCEN	D9F200122-3	9174178	MS	1.0	06/25/09 07:00	<input type="checkbox"/>
213	LFCEQ	D9F200122-4	9174178	MS	1.0	06/25/09 07:03	<input type="checkbox"/>
214	LFCER	D9F200122-5	9174178	MS	1.0	06/25/09 07:07	<input type="checkbox"/>
215	LFCEW	D9F200122-6	9174178	MS	1.0	06/25/09 07:10	<input type="checkbox"/>
216	LFCEX	D9F200122-7	9174178	MS	1.0	06/25/09 07:13	<input type="checkbox"/>
217	CCV				1.0	06/25/09 07:17	<input type="checkbox"/>
218	CCB				1.0	06/25/09 07:20	<input type="checkbox"/>
219	RLCV				1.0	06/25/09 07:24	<input type="checkbox"/>
220	<del>LFC4W</del>	<del>D9F200200-1</del>	<del>9174178</del>	<del>MS</del>	<del>1.0</del>	<del>06/25/09 07:27</del>	<input type="checkbox"/>
221	LFC4X	D9F200200-2	9174178	MS	1.0	06/25/09 07:31	<input type="checkbox"/>
222	LFC40	D9F200200-3	9174178	MS	1.0	06/25/09 07:34	<input type="checkbox"/>
223	LFC40P5	D9F200200	9174178		5.0	06/25/09 07:37	<input type="checkbox"/>
224	LFC40Z	<del>D9F200200-3</del>	9174178		1.0	06/25/09 07:41	<input type="checkbox"/>
225	LFC40S	D9F200200-3	9174178	MS	1.0	06/25/09 07:44	<input type="checkbox"/>
226	<del>LFC40D</del>	<del>D9F200200-3</del>	<del>9174178</del>	<del>MS</del>	<del>1.0</del>	<del>06/25/09 07:47</del>	<input type="checkbox"/>
227	CCV				1.0	06/25/09 07:51	<input type="checkbox"/>
228	CCB				1.0	06/25/09 07:54	<input type="checkbox"/>
229	RLCV				1.0	06/25/09 07:58	<input type="checkbox"/>
230	LFFV0BF	D9F230000	9174276	MD	1.0	06/25/09 08:01	<input type="checkbox"/>
231	LFFV0CF	D9F230000	9174276	MD	1.0	06/25/09 08:04	<input type="checkbox"/>

*As only, 6/25/09*

*6/25/09 did not use.*

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

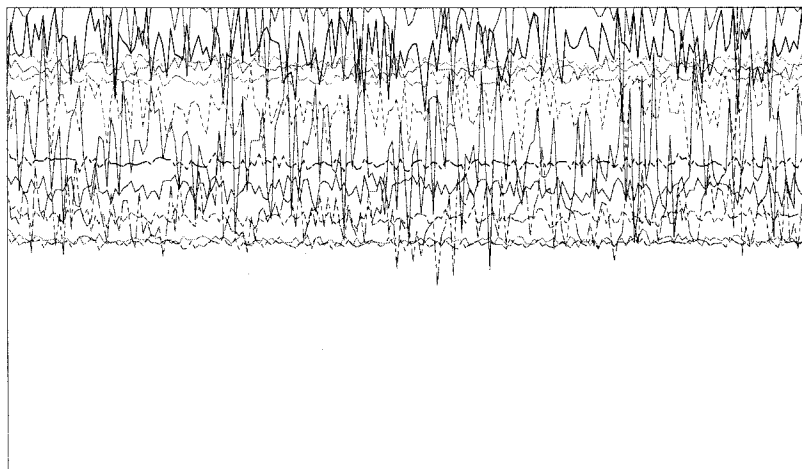
File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
232	LE98FF	D9F190267-1	9174276	MD	1.0	06/25/09 08:08	<input type="checkbox"/>
233	LE98FP5F	D9F190267	9174276		5.0	06/25/09 08:11	<input type="checkbox"/>
234	LE98FZF	D9F190267-1	9174276		1.0	06/25/09 08:15	<input type="checkbox"/>
235	LE98FSF	D9F190267-1	9174276	MD	1.0	06/25/09 08:18	<input type="checkbox"/>
236	LE98FDF	D9F190267-1	9174276	MD	1.0	06/25/09 08:22	<input type="checkbox"/>
237	LE99HF	D9F190267-2	9174276	MD	1.0	06/25/09 08:25	<input type="checkbox"/>
238	LE99RF	D9F190267-3	9174276	MD	1.0	06/25/09 08:28	<input type="checkbox"/>
239	CCV				1.0	06/25/09 08:32	<input type="checkbox"/>
240	CCB				1.0	06/25/09 08:35	<input type="checkbox"/>
241	RLCV				1.0	06/25/09 08:39	<input type="checkbox"/>
242	<del>RINSE</del>				<del>1.0</del>	<del>06/25/09 08:42</del>	<input type="checkbox"/>
243	RINSE				1.0	06/25/09 08:45	<input type="checkbox"/>
244	RINSE				1.0	06/25/09 08:49	<input type="checkbox"/>
245	RINSE				1.0	06/25/09 08:52	<input type="checkbox"/>
246	RINSE				1.0	06/25/09 08:56	<input type="checkbox"/>
247	RINSE				1.0	06/25/09 08:59	<input type="checkbox"/>
248	<del>Cal-Blank</del>				<del>1.0</del>	<del>06/25/09 09:02</del> <i>Not 6/25/09</i>	<input type="checkbox"/>
249	<del>Cal-Blank</del>				<del>1.0</del>	<del>06/25/09 09:06</del>	<input type="checkbox"/>
250	100 ppb				1.0	06/25/09 09:09	<input type="checkbox"/>
251	CCV				1.0	06/25/09 09:12	<input type="checkbox"/>
252	CCB				1.0	06/25/09 09:16	<input type="checkbox"/>
253	RLCV				1.0	06/25/09 09:19	<input type="checkbox"/>
254	LFFC2B	D9F230000	9174162	MS	1.0	06/25/09 09:23	<input type="checkbox"/>
255	LFFC2C	D9F230000	9174162	MS	1.0	06/25/09 09:26	<input type="checkbox"/>
256	LE6AW 2X	D9F180141-1	9174162	MS	2.0	06/25/09 09:29	<input type="checkbox"/>
257	LE6A1 2X	D9F180141-2	9174162	MS	2.0	06/25/09 09:33	<input type="checkbox"/>
258	LE6A2 2X	D9F180141-3	9174162	MS	2.0	06/25/09 09:36	<input type="checkbox"/>
259	LE81M	D9F190156-1	9174162	MS	1.0	06/25/09 09:40	<input type="checkbox"/>
260	CCV				1.0	06/25/09 09:43	<input type="checkbox"/>
261	CCB				1.0	06/25/09 09:47	<input type="checkbox"/>
262	RLCV				1.0	06/25/09 09:50	<input type="checkbox"/>
263	LE81MP5	D9F190156	9174162		5.0	06/25/09 09:53	<input type="checkbox"/>
264	LE81MZ	D9F190156-1	9174162		1.0	06/25/09 09:57	<input type="checkbox"/>
265	LE81MS	D9F190156-1	9174162	MS	1.0	06/25/09 10:00	<input type="checkbox"/>
266	LE81MD	D9F190156-1	9174162	MS	1.0	06/25/09 10:04	<input type="checkbox"/>
267	LE82G	D9F190156-2	9174162	MS	1.0	06/25/09 10:07	<input type="checkbox"/>
268	CCV				1.0	06/25/09 10:10	<input type="checkbox"/>
269	CCB				1.0	06/25/09 10:14	<input type="checkbox"/>
270	RLCV				1.0	06/25/09 10:17	<input type="checkbox"/>
271	LE6A1	D9F180141-2	9174162	MS	1.0	06/25/09 10:21	<input type="checkbox"/>
272	LE6A2	D9F180141-3	9174162	MS	1.0	06/25/09 10:24	<input type="checkbox"/>
273	LE81M	D9F190156-1	9174162	MS	1.0	06/25/09 10:27	<input type="checkbox"/>
274	CCV				1.0	06/25/09 10:31	<input type="checkbox"/>
275	CCB				1.0	06/25/09 10:34	<input type="checkbox"/>
276	<del>RLCV</del>				<del>1.0</del>	<del>06/25/09 10:38</del> <i>Not 6/25/09 did not use.</i>	<input type="checkbox"/>

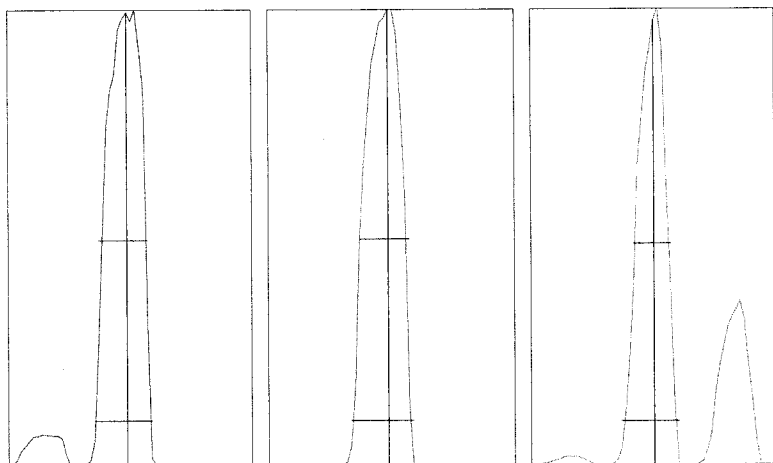
Tune Report

Tune File : NORM.U  
 Comment :



Integration Time: 0.1000 sec  
 Sampling Period: 1.5300 sec  
 n: 200  
 Oxide: 156/140 1.895%  
 Doubly Charged: 70/140 0.993%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1252.0	1210.7	3.15	0.50
7	20,000	17471.0	17359.0	1.29	0.50
59	50,000	24615.0	24727.2	1.47	0.70
63	100	89.0	103.1	10.52	0.60
70	500	416.0	457.8	5.82	1.10
75	100	58.0	68.5	14.27	1.10
78	500	424.0	392.8	5.32	1.10
89	50,000	42041.0	42147.0	1.21	0.80
115	50,000	42683.0	44143.0	1.25	1.10
137	10,000	5345.0	5438.1	2.07	1.50
205	50,000	32275.0	33040.5	1.41	2.80
238	100,000	49874.0	48834.3	1.31	3.20
156/140	5	1.895%	1.914%	4.40	
70/140	2	0.897%	0.986%	5.95	
118	200	104.0	109.9	12.05	1.30



m/z:	7	89	205
Height:	17,515	42,175	35,607
Axis:	7.00	89.00	205.05
W-50%:	0.60	0.60	0.45
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : NORM.U  
Comment :

Tuning Parameters

===Plasma Condition===

RF Power : 1550 W  
RF Matching : 1.7 V  
Smpl Depth : 7.8 mm  
Torch-H : -0.8 mm  
Torch-V : -0.3 mm  
Carrier Gas : 1.03 L/min  
Makeup Gas : 0 L/min  
Optional Gas : --- %  
Nebulizer Pump : 0.1 rps  
Sample Pump : --- rps  
S/C Temp : 2 degC

===Ion Lenses===

Extract 1 : 0 V  
Extract 2 : -175 V  
Omega Bias-ce : -30 V  
Omega Lens-ce : -0.2 V  
Cell Entrance : -30 V  
QP Focus : 5 V  
Cell Exit : -30 V

===Q-Pole Parameters===

AMU Gain : 134  
AMU Offset : 123  
Axis Gain : 1.001  
Axis Offset : -0.05  
QP Bias : -10 V

===Detector Parameters===

Discriminator : 8 mV  
Analog HV : 1740 V  
Pulse HV : 1390 V

===Octopole Parameters===

OctP RF : 180 V  
OctP Bias : -18 V

===Reaction Cell===

Reaction Mode : OFF  
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : --- %

P/A Factor Tuning Report

Acquired: Jun 24 2009 03:49 pm

Mass[amu]	Element	P/A Factor
6	Li	0.056718
7	(Li)	Sensitivity too low
9	Be	0.064016
45	Sc	0.077228
51	V	0.078776
52	Cr	0.082225
53	(Cr)	Sensitivity too low
55	Mn	0.083928
59	Co	0.087112
60	Ni	0.088839
63	Cu	0.091015
66	Zn	0.090699
72	Ge	0.089225
75	As	0.088472
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
95	Mo	0.089221
98	(Mo)	0.089321
99	(Mo)	0.090939
106	(Cd)	0.094970
107	Ag	Sensitivity too low
108	(Cd)	0.095488
111	Cd	0.095962
114	Cd	0.095973
115	In	0.095134
118	Sn	0.094981
121	Sb	0.094672
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
205	Tl	0.104372
206	(Pb)	0.103453
207	(Pb)	0.103546
208	Pb	0.103176
232	Th	0.101788
238	U	0.101858

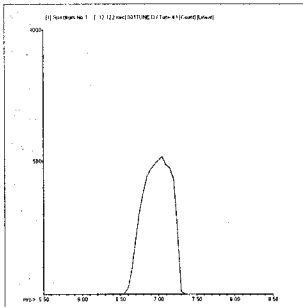
===Detector Parameters===

Discriminator: 8.0 mV  
Analog HV: 1740 V  
Pulse HV: 1390 V

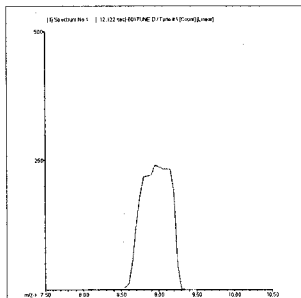
### 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\001TUNE.D  
 Date Acquired: Jun 24 2009 07:03 pm  
 Acq. Method: tun\_isis.M  
 Operator: TEL  
 Sample Name: 200.8 TUNE  
 Misc Info:  
 Vial Number: 4  
 Current Method: C:\ICPCHEM\1\METHODS\tun\_isis.M

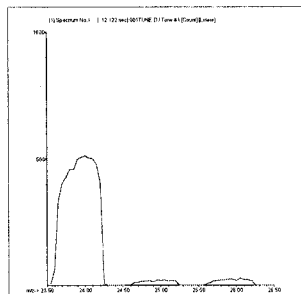
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	10148	10089	10029	10089	10262	10266	2.79	5.00	
9 Be	1755	1771	1805	1760	1707	1730	2.90	5.00	
24 Mg	6955	6982	6967	6851	7035	6938	2.08	5.00	
59 Co	51905	52322	52279	52591	51727	50604	0.94	5.00	
115 In	462597	448980	462469	468100	470802	462631	2.44	5.00	
208 Pb	53885	55337	53878	53810	53372	53027	1.47	5.00	
238 U	106802	108619	107941	107202	105352	104892	2.15	5.00	



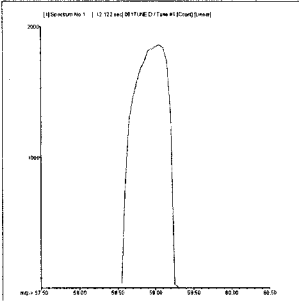
**7 Li**  
**Mass Calib.**  
 Actual: 7.05  
 Required: 6.90 - 7.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**9 Be**  
**Mass Calib.**  
 Actual: 9.05  
 Required: 8.90 - 9.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**24 Mg**  
**Mass Calib.**  
 Actual: 24.00  
 Required: 23.90 - 24.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



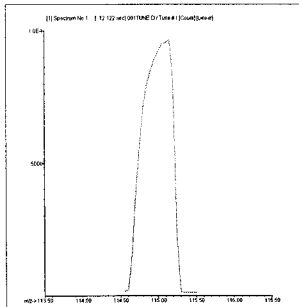
**59 Co**

**Mass Calib.**

Actual: 59.00  
Required: 58.90 - 59.10  
Flag:

**Peak Width**

Actual: 0.60  
Required: 0.90  
Flag:



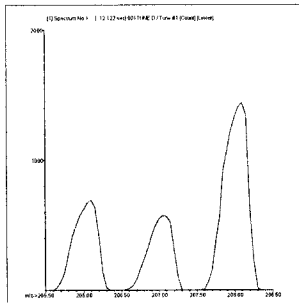
**115 In**

**Mass Calib.**

Actual: 115.05  
Required: 114.90 - 115.10  
Flag:

**Peak Width**

Actual: 0.60  
Required: 0.90  
Flag:



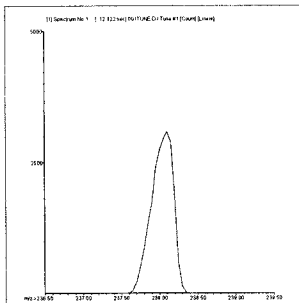
**208 Pb**

**Mass Calib.**

Actual: 208.05  
Required: 207.90 - 208.10  
Flag:

**Peak Width**

Actual: 0.55  
Required: 0.90  
Flag:



**238 U**

**Mass Calib.**

Actual: 238.05  
Required: 237.90 - 238.10  
Flag:

**Peak Width**

Actual: 0.50  
Required: 0.90  
Flag:

**Tune Result:**

Pass

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#  
 Date Acquired: Jun 24 2009 07:07 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:07 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
51	V	72	1	-145	123.07
52	Cr	72	1	1567	3.74
55	Mn	72	1	110	47.24
59	Co	72	1	20	50.00
60	Ni	72	1	43	26.65
63	Cu	72	1	230	8.70
66	Zn	72	1	113	10.70
75	As	72	1	13	17.32
78	Se	72	1	53	28.64
95	Mo	72	1	33	75.50
107	Ag	115	1	120	14.43
111	Cd	115	1	-3	618.90
118	Sn	115	1	953	12.52
121	Sb	115	1	104	15.74
137	Ba	115	1	8	65.47
205	Tl	165	1	152	17.70
208	Pb	165	1	132	13.89
232	Th	165	1	447	11.27
238	U	165	1	60	27.78

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	163501	0.15
45	Sc	1	473295	0.64
72	Ge	1	272811	0.59
115	In	1	858259	0.37
165	Ho	1	1824721	0.44

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\



**Calibration Standard QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\003ICAL.D\003ICAL.D#  
 Date Acquired: Jun 24 2009 07:10 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:08 pm  
 Sample Type: ICAL

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	33917	0.70
51	V	72	540931	0.60
52	Cr	72	616152	1.28
55	Mn	72	554630	0.77
59	Co	72	886953	1.07
60	Ni	72	209311	2.01
63	Cu	72	528419	1.26
66	Zn	72	103879	1.21
75	As	72	67913	1.40
78	Se	72	9800	4.23
95	Mo	72	251498	1.05
107	Ag	115	802211	1.04
111	Cd	115	141668	1.10
118	Sn	115	351095	0.81
121	Sb	115	419639	0.73
137	Ba	115	157251	1.35
205	Tl	165	1656113	0.72
208	Pb	165	2343099	0.44
232	Th	165	2212844	0.87
238	U	165	2531076	0.95

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	159533	0.97	163501	97.6	30 - 120
45	Sc	1	459619	1.14	473295	97.1	30 - 120
72	Ge	1	266297	0.78	272811	97.6	30 - 120
115	In	1	825142	0.51	858259	96.1	30 - 120
165	Ho	1	1826683	0.51	1824721	100.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

## Initial Calibration Verification (ICV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\004\_ICV.D\004\_ICV.D#  
 Date Acquired: Jun 24 2009 07:13 pm  
 Operator: TEL  
 Sample Name: ICV  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: ICV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	37.74 ppb	2.95	40	94.4	90 - 110	
51	V	72	39.57 ppb	1.14	40	98.9	90 - 110	
52	Cr	72	39.74 ppb	1.46	40	99.4	90 - 110	
55	Mn	72	40.45 ppb	0.97	40	101.1	90 - 110	
59	Co	72	38.83 ppb	0.93	40	97.1	90 - 110	
60	Ni	72	40.85 ppb	1.17	40	102.1	90 - 110	
63	Cu	72	40.59 ppb	0.82	40	101.5	90 - 110	
66	Zn	72	39.58 ppb	0.25	40	99.0	90 - 110	
75	As	72	40.20 ppb	0.49	40	100.5	90 - 110	
78	Se	72	37.76 ppb	5.30	40	94.4	90 - 110	
95	Mo	72	40.09 ppb	1.05	40	100.2	90 - 110	
107	Ag	115	39.56 ppb	1.27	40	98.9	90 - 110	
111	Cd	115	39.92 ppb	0.33	40	99.8	90 - 110	
118	Sn	115	39.19 ppb	1.07	40	98.0	90 - 110	
121	Sb	115	38.41 ppb	0.35	40	96.0	90 - 110	
137	Ba	115	39.27 ppb	1.76	40	98.2	90 - 110	
205	Tl	165	40.47 ppb	1.84	40	101.2	90 - 110	
208	Pb	165	39.45 ppb	1.73	40	98.6	90 - 110	
232	Th	165	41.81 ppb	1.77	40	104.5	90 - 110	
238	U	165	39.37 ppb	1.93	40	98.4	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	162448	0.71	163501	99.4	30 - 120
45	Sc	1	460273	0.72	473295	97.2	30 - 120
72	Ge	1	266258	0.45	272811	97.6	30 - 120
115	In	1	830416	0.73	858259	96.8	30 - 120
165	Ho	1	1855738	0.65	1824721	101.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\005WASH.D\005WASH.D#  
 Date Acquired: Jun 24 2009 07:17 pm  
 Operator: TEL  
 Sample Name: RLIV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.013 ppb	16.38	1.30	
51 V	72	1	5.184 ppb	2.90	6.50	
52 Cr	72	1	2.106 ppb	2.23	2.60	
55 Mn	72	1	1.046 ppb	8.96	1.30	
59 Co	72	1	1.025 ppb	8.15	1.30	
60 Ni	72	1	2.042 ppb	5.81	2.60	
63 Cu	72	1	2.102 ppb	0.72	2.60	
66 Zn	72	1	10.290 ppb	3.26	13.00	
75 As	72	1	5.155 ppb	2.67	6.50	
78 Se	72	1	5.665 ppb	6.46	6.50	
95 Mo	72	1	2.116 ppb	1.68	2.60	
107 Ag	115	1	5.133 ppb	0.57	6.50	
111 Cd	115	1	0.950 ppb	4.09	1.30	
118 Sn	115	1	10.280 ppb	0.78	13.00	
121 Sb	115	1	2.148 ppb	1.25	2.60	
137 Ba	115	1	1.023 ppb	6.59	1.30	
205 Tl	165	1	1.145 ppb	2.23	1.30	
208 Pb	165	1	1.046 ppb	0.72	1.30	
232 Th	165	1	2.354 ppb	2.29	2.60	
238 U	165	1	1.064 ppb	1.46	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	160763	1.63	163501	98.3	30 - 120	
45 Sc	1	471262	0.38	473295	99.6	30 - 120	
72 Ge	1	271755	0.51	272811	99.6	30 - 120	
115 In	1	847415	0.20	858259	98.7	30 - 120	
165 Ho	1	1844156	0.82	1824721	101.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed





**AFCEE RL QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\008AFCE.D\008AFCE.D#  
 Date Acquired: Jun 24 2009 07:27 pm  
 Operator: TEL  
 Sample Name: AFCEE RL  
 Misc Info:  
 Vial Number: 2106  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: AFCEERL  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	0.16 ppb	29.97	0	81.1	80 - 120	
51	V	72	0.22 ppb	21.92	0	112.2	80 - 120	
52	Cr	72	0.16 ppb	14.27	0	86.6	80 - 120	
55	Mn	72	0.21 ppb	4.13	0	107.8	80 - 120	
59	Co	72	0.20 ppb	9.64	0	102.9	80 - 120	
60	Ni	72	0.21 ppb	19.96	0	103.9	80 - 120	
63	Cu	72	0.23 ppb	3.46	0	110.1	80 - 120	
66	Zn	72	2.05 ppb	5.49	2	102.2	80 - 120	
75	As	72	0.20 ppb	11.05	0	106.8	80 - 120	
78	Se	72	0.31 ppb	47.94	0	128.3	80 - 120	
95	Mo	72	0.23 ppb	9.33	0	117.9	80 - 120	
107	Ag	115	0.18 ppb	9.26	0	90.2	80 - 120	
111	Cd	115	0.22 ppb	10.37	0	109.8	80 - 120	
118	Sn	115	2.07 ppb	6.36	2	103.8	80 - 120	
121	Sb	115	0.21 ppb	0.98	0	102.5	80 - 120	
137	Ba	115	0.19 ppb	12.38	0	95.7	80 - 120	
205	Tl	165	0.22 ppb	3.71	0	105.8	80 - 120	
208	Pb	165	0.21 ppb	3.19	0	102.7	80 - 120	
232	Th	165	0.22 ppb	3.83	0	104.1	80 - 120	
238	U	165	0.21 ppb	2.86	0	101.7	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	160158	1.30	163501	98.0	30 - 120
45	Sc	1	466170	0.32	473295	98.5	30 - 120
72	Ge	1	270425	0.78	272811	99.1	30 - 120
115	In	1	841433	0.70	858259	98.0	30 - 120
165	Ho	1	1807963	1.45	1824721	99.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\009SMPL.D\009SMPL.D#  
 Date Acquired: Jun 24 2009 07:30 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ALTSe  
 Misc Info: 2 ppb  
 Vial Number: 2107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	0.02	0.02	ppb	198.41	3600	
52 Cr	72	1	-0.04	-0.04	ppb	31.12	3600	
55 Mn	72	1	0.00	0.00	ppb	629.93	3600	
59 Co	72	1	0.00	0.00	ppb	166.65	3600	
60 Ni	72	1	0.00	0.00	ppb	4583.20	3600	
63 Cu	72	1	0.01	0.01	ppb	137.68	3600	
66 Zn	72	1	0.09	0.09	ppb	14.30	3600	
75 As	72	1	0.00	0.00	ppb	161.72	3600	
78 Se	72	1	2.12	2.12	ppb	35.07	3600	
95 Mo	72	1	-0.01	-0.01	ppb	0.75	3600	
107 Ag	115	1	0.00	0.00	ppb	67.28	3600	
111 Cd	115	1	0.01	0.01	ppb	30.96	3600	
118 Sn	115	1	0.00	0.00	ppb	5718.90	3600	
121 Sb	115	1	-0.01	-0.01	ppb	44.60	3600	
137 Ba	115	1	0.00	0.00	ppb	70.63	3600	
205 Tl	165	1	0.00	0.00	ppb	86.15	3600	
208 Pb	165	1	0.00	0.00	ppb	57.78	3600	
232 Th	165	1	0.00	0.00	ppb	148.71	1000	
238 U	165	1	0.00	0.00	ppb	0.47	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	160785	1.21	163501	98.3	30 - 120	
45 Sc	1	472930	1.03	473295	99.9	30 - 120	
72 Ge	1	274512	0.51	272811	100.6	30 - 120	
115 In	1	854708	0.87	858259	99.6	30 - 120	
165 Ho	1	1840765	1.67	1824721	100.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\010ICSA.D\010ICSA.D#  
 Date Acquired: Jun 24 2009 07:34 pm  
 Acq. Method: NormISIS.M QC Summary:  
 Operator: TEL Analytes: Pass  
 Sample Name: ICSA ISTD: Pass  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.07 ppb	27.06	1.00
51	V	72	1	-0.15 ppb	63.76	1.00
52	Cr	72	1	1.00 ppb	9.52	1.00
55	Mn	72	1	2.10 ppb	15.02	1.00
59	Co	72	1	0.04 ppb	12.81	1.00
60	Ni	72	1	0.77 ppb	16.00	1.00
63	Cu	72	1	0.36 ppb	16.67	1.00
66	Zn	72	1	2.79 ppb	14.69	10.00
75	As	72	1	0.15 ppb	7.74	1.00
78	Se	72	1	0.45 ppb	30.62	1.00
95	Mo	72	1	2051.00 ppb	14.59	2000.00
107	Ag	115	1	0.08 ppb	16.05	1.00
111	Cd	115	1	0.34 ppb	55.09	1.00
118	Sn	115	1	0.04 ppb	136.34	10.00
121	Sb	115	1	0.22 ppb	25.12	1.00
137	Ba	115	1	1.60 ppb	24.35	1.00
205	Tl	165	1	0.03 ppb	16.30	1.00
208	Pb	165	1	0.13 ppb	20.62	1.00
232	Th	165	1	0.03 ppb	38.59	1.00
238	U	165	1	0.02 ppb	18.11	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	150867	12.87	163501	92.3	30 - 120
45	Sc	1	392581	18.49	473295	82.9	30 - 120
72	Ge	1	224502	13.80	272811	82.3	30 - 120
115	In	1	685599	16.48	858259	79.9	30 - 120
165	Ho	1	1658393	18.54	1824721	90.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed



## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\011ICSB.D\011ICSB.D#  
 Date Acquired: Jun 24 2009 07:37 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	93.43	2.00	100	93.4	80 - 120	
51 V	72	1	99.77	0.22	100	99.8	80 - 120	
52 Cr	72	1	98.34	0.11	100	98.3	80 - 120	
55 Mn	72	1	99.43	0.16	100	99.4	80 - 120	
59 Co	72	1	93.29	0.48	100	93.3	80 - 120	
60 Ni	72	1	92.81	1.09	100	92.8	80 - 120	
63 Cu	72	1	90.62	0.82	100	90.6	80 - 120	
66 Zn	72	1	99.58	0.84	100	99.6	80 - 120	
75 As	72	1	100.90	0.42	100	100.9	80 - 120	
78 Se	72	1	101.10	2.90	100	101.1	80 - 120	
95 Mo	72	1	2139.00	0.51	2100	101.9	80 - 120	
107 Ag	115	1	88.67	1.33	100	88.7	80 - 120	
111 Cd	115	1	97.36	1.12	100	97.4	80 - 120	
118 Sn	115	1	102.70	1.18	100	102.7	80 - 120	
121 Sb	115	1	103.10	0.89	100	103.1	80 - 120	
137 Ba	115	1	104.40	0.34	100	104.4	80 - 120	
205 Tl	165	1	94.16	1.13	100	94.2	80 - 120	
208 Pb	165	1	92.84	0.53	100	92.8	80 - 120	
232 Th	165	1	101.60	2.76	100	101.6	80 - 120	
238 U	165	1	100.30	1.06	100	100.3	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	150818	1.18	163501	92.2	30 - 120	
45 Sc	1	377939	0.23	473295	79.9	30 - 120	
72 Ge	1	213285	0.56	272811	78.2	30 - 120	
115 In	1	664545	0.86	858259	77.4	30 - 120	
165 Ho	1	1659524	0.43	1824721	90.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\012SMPL.D\012SMPL.D#  
 Date Acquired: Jun 24 2009 07:40 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.19	3600	
51 V	72	1	0.06	0.06	ppb	51.17	3600	
52 Cr	72	1	0.00	0.00	ppb	1189.30	3600	
55 Mn	72	1	0.00	0.00	ppb	108.29	3600	
59 Co	72	1	0.01	0.01	ppb	47.32	3600	
60 Ni	72	1	0.00	0.00	ppb	335.34	3600	
63 Cu	72	1	0.04	0.04	ppb	22.27	3600	
66 Zn	72	1	0.00	0.00	ppb	364.94	3600	
75 As	72	1	0.02	0.02	ppb	98.18	3600	
78 Se	72	1	0.03	0.03	ppb	1244.20	3600	
95 Mo	72	1	0.87	0.87	ppb	7.94	3600	
107 Ag	115	1	0.01	0.01	ppb	78.37	3600	
111 Cd	115	1	0.01	0.01	ppb	314.55	3600	
118 Sn	115	1	-0.01	-0.01	ppb	83.03	3600	
121 Sb	115	1	0.01	0.01	ppb	51.11	3600	
137 Ba	115	1	0.00	0.00	ppb	27.64	3600	
205 Tl	165	1	0.00	0.00	ppb	59.27	3600	
208 Pb	165	1	0.01	0.01	ppb	58.23	3600	
232 Th	165	1	0.25	0.25	ppb	23.49	1000	
238 U	165	1	0.01	0.01	ppb	20.75	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	172816	0.10	163501	105.7	30 - 120	
45 Sc	1	449254	0.62	473295	94.9	30 - 120	
72 Ge	1	259990	0.37	272811	95.3	30 - 120	
115 In	1	822615	0.25	858259	95.8	30 - 120	
165 Ho	1	1864559	1.27	1824721	102.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Linear Dynamic Range Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\013\_LR.D\013\_LR.D#  
 Date Acquired: Jun 24 2009 07:44 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LR  
 Misc Info:  
 Vial Number: 2110  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: LR  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	937.10 ppb	1.11	1000	93.7	90 - 110	
51 V	72	1	932.00 ppb	1.41	1000	93.2	90 - 110	
52 Cr	72	1	964.00 ppb	0.63	1000	96.4	90 - 110	
55 Mn	72	1	969.70 ppb	0.64	1000	97.0	90 - 110	
59 Co	72	1	926.20 ppb	1.18	1000	92.6	90 - 110	
60 Ni	72	1	995.00 ppb	1.85	1000	99.5	90 - 110	
63 Cu	72	1	955.90 ppb	0.71	1000	95.6	90 - 110	
66 Zn	72	1	1020.00 ppb	0.96	1000	102.0	90 - 110	
75 As	72	1	981.30 ppb	0.36	1000	98.1	90 - 110	
78 Se	72	1	950.60 ppb	1.07	1000	95.1	90 - 110	
95 Mo	72	1	1009.00 ppb	1.13	1000	100.9	90 - 110	
107 Ag	115	1	948.10 ppb	2.03	1000	94.8	90 - 110	
111 Cd	115	1	1006.00 ppb	0.95	1000	100.6	90 - 110	
118 Sn	115	1	993.40 ppb	1.10	1000	99.3	90 - 110	
121 Sb	115	1	986.00 ppb	1.37	1000	98.6	90 - 110	
137 Ba	115	1	1008.00 ppb	1.16	1000	100.8	90 - 110	
205 Tl	165	1	957.90 ppb	0.93	1000	95.8	90 - 110	
208 Pb	165	1	967.80 ppb	1.24	1000	96.8	90 - 110	
232 Th	165	1	985.20 ppb	1.85	1000	98.5	90 - 110	
238 U	165	1	979.70 ppb	1.31	1000	98.0	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	167418	0.56	163501	102.4	30 - 120	
45 Sc	1	441840	0.55	473295	93.4	30 - 120	
72 Ge	1	254704	0.98	272811	93.4	30 - 120	
115 In	1	794489	1.38	858259	92.6	30 - 120	
165 Ho	1	1851575	1.22	1824721	101.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\015\_CCV.D\015\_CCV.D#  
 Date Acquired: Jun 24 2009 07:52 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	47.95 ppb	1.18	50	95.9	90 - 110	
51	V	72	49.01 ppb	1.26	50	98.0	90 - 110	
52	Cr	72	49.82 ppb	1.43	50	99.6	90 - 110	
55	Mn	72	50.08 ppb	0.46	50	100.2	90 - 110	
59	Co	72	48.73 ppb	1.25	50	97.5	90 - 110	
60	Ni	72	50.21 ppb	0.21	50	100.4	90 - 110	
63	Cu	72	50.36 ppb	0.99	50	100.7	90 - 110	
66	Zn	72	49.28 ppb	1.54	50	98.6	90 - 110	
75	As	72	50.00 ppb	0.87	50	100.0	90 - 110	
78	Se	72	47.07 ppb	6.00	50	94.1	90 - 110	
95	Mo	72	50.70 ppb	0.85	50	101.4	90 - 110	
107	Ag	115	50.22 ppb	0.54	50	100.4	90 - 110	
111	Cd	115	50.43 ppb	0.56	50	100.9	90 - 110	
118	Sn	115	50.40 ppb	1.34	50	100.8	90 - 110	
121	Sb	115	50.22 ppb	0.60	50	100.4	90 - 110	
137	Ba	115	50.22 ppb	0.37	50	100.4	90 - 110	
205	Tl	165	51.87 ppb	0.54	50	103.7	90 - 110	
208	Pb	165	50.22 ppb	0.96	50	100.4	90 - 110	
232	Th	165	48.96 ppb	1.93	50	97.9	90 - 110	
238	U	165	50.55 ppb	1.23	50	101.1	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	168391	0.58	163501	103.0	30 - 120
45	Sc	1	461420	0.74	473295	97.5	30 - 120
72	Ge	1	266462	0.21	272811	97.7	30 - 120
115	In	1	830967	0.55	858259	96.8	30 - 120
165	Ho	1	1872058	0.91	1824721	102.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\016\_CCB.D\016\_CCB.D#  
 Date Acquired: Jun 24 2009 07:55 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.009	ppb	173.20	1.00	
51 V	72	1	-0.038	ppb	90.01	1.00	
52 Cr	72	1	-0.014	ppb	95.55	1.00	
55 Mn	72	1	0.005	ppb	127.19	1.00	
59 Co	72	1	0.001	ppb	291.01	1.00	
60 Ni	72	1	-0.007	ppb	138.82	1.00	
63 Cu	72	1	0.012	ppb	208.41	1.00	
66 Zn	72	1	0.019	ppb	34.41	1.00	
75 As	72	1	-0.001	ppb	1011.90	1.00	
78 Se	72	1	0.391	ppb	70.56	1.00	
95 Mo	72	1	0.103	ppb	32.60	1.00	
107 Ag	115	1	0.079	ppb	22.88	1.00	
111 Cd	115	1	0.008	ppb	45.24	1.00	
118 Sn	115	1	0.134	ppb	39.20	1.00	
121 Sb	115	1	0.034	ppb	13.13	1.00	
137 Ba	115	1	0.000	ppb	1521.40	1.00	
205 Tl	165	1	0.074	ppb	9.57	1.00	
208 Pb	165	1	0.001	ppb	30.04	1.00	
232 Th	165	1	0.704	ppb	20.83	1.00	
238 U	165	1	0.005	ppb	6.54	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	165071	1.73	163501	101.0	30 - 120	
45 Sc	1	458156	2.72	473295	96.8	30 - 120	
72 Ge	1	266323	1.54	272811	97.6	30 - 120	
115 In	1	830225	2.53	858259	96.7	30 - 120	
165 Ho	1	1834045	3.17	1824721	100.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\017WASH.D\017WASH.D#  
 Date Acquired: Jun 24 2009 07:58 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.121 ppb	30.68	1.30	
51 V	72	1	5.154 ppb	3.56	6.50	
52 Cr	72	1	2.061 ppb	5.49	2.60	
55 Mn	72	1	1.001 ppb	1.48	1.30	
59 Co	72	1	1.029 ppb	3.34	1.30	
60 Ni	72	1	2.110 ppb	6.42	2.60	
63 Cu	72	1	2.085 ppb	1.98	2.60	
66 Zn	72	1	10.110 ppb	0.87	13.00	
75 As	72	1	5.183 ppb	1.61	6.50	
78 Se	72	1	4.623 ppb	11.87	6.50	
95 Mo	72	1	2.103 ppb	3.10	2.60	
107 Ag	115	1	5.138 ppb	0.77	6.50	
111 Cd	115	1	1.064 ppb	6.44	1.30	
118 Sn	115	1	10.490 ppb	2.92	13.00	
121 Sb	115	1	1.953 ppb	2.16	2.60	
137 Ba	115	1	1.009 ppb	8.26	1.30	
205 Tl	165	1	1.116 ppb	0.50	1.30	
208 Pb	165	1	1.050 ppb	1.33	1.30	
232 Th	165	1	2.150 ppb	0.71	2.60	
238 U	165	1	1.055 ppb	1.61	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	166616	0.49	163501	101.9	30 - 120	
45 Sc	1	470800	0.34	473295	99.5	30 - 120	
72 Ge	1	271876	0.14	272811	99.7	30 - 120	
115 In	1	848189	0.16	858259	98.8	30 - 120	
165 Ho	1	1850275	0.97	1824721	101.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\028\_CCV.D\028\_CCV.D#  
 Date Acquired: Jun 24 2009 08:36 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.91 ppb	4.06	50	99.8	90 - 110	
51	V	72	49.06 ppb	0.65	50	98.1	90 - 110	
52	Cr	72	49.15 ppb	0.81	50	98.3	90 - 110	
55	Mn	72	49.93 ppb	0.46	50	99.9	90 - 110	
59	Co	72	48.38 ppb	0.71	50	96.8	90 - 110	
60	Ni	72	49.43 ppb	1.21	50	98.9	90 - 110	
63	Cu	72	49.60 ppb	0.61	50	99.2	90 - 110	
66	Zn	72	48.83 ppb	1.38	50	97.7	90 - 110	
75	As	72	50.10 ppb	1.52	50	100.2	90 - 110	
78	Se	72	49.60 ppb	3.25	50	99.2	90 - 110	
95	Mo	72	50.21 ppb	0.79	50	100.4	90 - 110	
107	Ag	115	49.85 ppb	0.71	50	99.7	90 - 110	
111	Cd	115	50.33 ppb	1.36	50	100.7	90 - 110	
118	Sn	115	50.19 ppb	0.61	50	100.4	90 - 110	
121	Sb	115	50.21 ppb	0.46	50	100.4	90 - 110	
137	Ba	115	50.84 ppb	0.59	50	101.7	90 - 110	
205	Tl	165	52.34 ppb	1.90	50	104.7	90 - 110	
208	Pb	165	50.99 ppb	1.78	50	102.0	90 - 110	
232	Th	165	50.26 ppb	1.07	50	100.5	90 - 110	
238	U	165	52.01 ppb	0.60	50	104.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	147649	0.21	163501	90.3	30 - 120
45	Sc	1	427867	0.48	473295	90.4	30 - 120
72	Ge	1	249035	0.40	272811	91.3	30 - 120
115	In	1	786127	0.27	858259	91.6	30 - 120
165	Ho	1	1751379	1.24	1824721	96.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\029\_CCB.D\029\_CCB.D#  
 Date Acquired: Jun 24 2009 08:39 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.011 ppb	173.13	1.00	
51 V	72	1	-0.006 ppb	1394.40	1.00	
52 Cr	72	1	-0.032 ppb	101.03	1.00	
55 Mn	72	1	0.005 ppb	108.60	1.00	
59 Co	72	1	0.000 ppb	1570.50	1.00	
60 Ni	72	1	0.003 ppb	266.11	1.00	
63 Cu	72	1	0.018 ppb	27.46	1.00	
66 Zn	72	1	0.016 ppb	140.14	1.00	
75 As	72	1	0.012 ppb	56.52	1.00	
78 Se	72	1	0.279 ppb	108.79	1.00	
95 Mo	72	1	0.060 ppb	40.02	1.00	
107 Ag	115	1	0.109 ppb	28.36	1.00	
111 Cd	115	1	0.011 ppb	53.34	1.00	
118 Sn	115	1	0.039 ppb	55.82	1.00	
121 Sb	115	1	0.016 ppb	34.99	1.00	
137 Ba	115	1	0.005 ppb	108.69	1.00	
205 Tl	165	1	0.019 ppb	23.84	1.00	
208 Pb	165	1	0.003 ppb	38.29	1.00	
232 Th	165	1	0.728 ppb	16.33	1.00	
238 U	165	1	0.006 ppb	38.81	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	148730	1.56	163501	91.0	30 - 120	
45 Sc	1	439376	0.43	473295	92.8	30 - 120	
72 Ge	1	257637	0.39	272811	94.4	30 - 120	
115 In	1	817368	0.32	858259	95.2	30 - 120	
165 Ho	1	1773917	1.34	1824721	97.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\030WASH.D\030WASH.D#  
 Date Acquired: Jun 24 2009 08:42 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.959 ppb	10.84	1.30	
51 V	72	1	5.001 ppb	2.10	6.50	
52 Cr	72	1	2.073 ppb	2.04	2.60	
55 Mn	72	1	1.037 ppb	1.45	1.30	
59 Co	72	1	1.022 ppb	3.89	1.30	
60 Ni	72	1	1.926 ppb	3.49	2.60	
63 Cu	72	1	1.996 ppb	2.34	2.60	
66 Zn	72	1	10.210 ppb	0.70	13.00	
75 As	72	1	5.174 ppb	2.23	6.50	
78 Se	72	1	4.849 ppb	11.65	6.50	
95 Mo	72	1	2.025 ppb	3.19	2.60	
107 Ag	115	1	5.027 ppb	2.25	6.50	
111 Cd	115	1	1.037 ppb	5.78	1.30	
118 Sn	115	1	10.420 ppb	3.19	13.00	
121 Sb	115	1	1.948 ppb	3.09	2.60	
137 Ba	115	1	1.058 ppb	4.46	1.30	
205 Tl	165	1	1.115 ppb	0.89	1.30	
208 Pb	165	1	1.068 ppb	1.04	1.30	
232 Th	165	1	2.208 ppb	1.16	2.60	
238 U	165	1	1.083 ppb	1.42	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	145582	0.61	163501	89.0	30 - 120	
45 Sc	1	440932	0.10	473295	93.2	30 - 120	
72 Ge	1	258827	0.34	272811	94.9	30 - 120	
115 In	1	817143	0.75	858259	95.2	30 - 120	
165 Ho	1	1779277	0.27	1824721	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\031ICSA.D\031ICSA.D#  
 Date Acquired: Jun 24 2009 08:46 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.06 ppb	69.23	1.00
51	V	72	1	0.00 ppb	12424.00	1.00
52	Cr	72	1	0.90 ppb	6.03	1.00
55	Mn	72	1	2.00 ppb	1.68	1.00
59	Co	72	1	0.04 ppb	13.41	1.00
60	Ni	72	1	0.64 ppb	13.77	1.00
63	Cu	72	1	0.33 ppb	6.75	1.00
66	Zn	72	1	2.66 ppb	1.84	10.00
75	As	72	1	0.17 ppb	16.32	1.00
78	Se	72	1	-0.12 ppb	250.61	1.00
95	Mo	72	1	1987.00 ppb	0.59	2000.00
107	Ag	115	1	0.15 ppb	10.46	1.00
111	Cd	115	1	0.34 ppb	8.22	1.00
118	Sn	115	1	0.07 ppb	56.73	10.00
121	Sb	115	1	0.23 ppb	16.82	1.00
137	Ba	115	1	1.50 ppb	2.17	1.00
205	Tl	165	1	0.04 ppb	13.74	1.00
208	Pb	165	1	0.13 ppb	5.13	1.00
232	Th	165	1	0.14 ppb	15.33	1.00
238	U	165	1	0.02 ppb	10.77	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	142331	0.44	163501	87.1	30 - 120
45	Sc	1	386462	0.70	473295	81.7	30 - 120
72	Ge	1	221252	0.75	272811	81.1	30 - 120
115	In	1	696244	0.46	858259	81.1	30 - 120
165	Ho	1	1655055	0.69	1824721	90.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\032ICSB.D\032ICSB.D#  
 Date Acquired: Jun 24 2009 08:49 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	92.45	1.78	100	92.5	80 - 120	
51 V	72	1	98.47	1.03	100	98.5	80 - 120	
52 Cr	72	1	97.21	0.98	100	97.2	80 - 120	
55 Mn	72	1	98.03	0.06	100	98.0	80 - 120	
59 Co	72	1	91.77	0.80	100	91.8	80 - 120	
60 Ni	72	1	91.22	0.22	100	91.2	80 - 120	
63 Cu	72	1	89.66	0.13	100	89.7	80 - 120	
66 Zn	72	1	98.19	0.86	100	98.2	80 - 120	
75 As	72	1	101.70	0.51	100	101.7	80 - 120	
78 Se	72	1	107.30	2.92	100	107.3	80 - 120	
95 Mo	72	1	2111.00	0.65	2100	100.5	80 - 120	
107 Ag	115	1	87.33	3.11	100	87.3	80 - 120	
111 Cd	115	1	96.45	0.75	100	96.5	80 - 120	
118 Sn	115	1	101.30	1.24	100	101.3	80 - 120	
121 Sb	115	1	102.80	0.62	100	102.8	80 - 120	
137 Ba	115	1	104.30	0.55	100	104.3	80 - 120	
205 Tl	165	1	93.90	1.62	100	93.9	80 - 120	
208 Pb	165	1	92.10	2.05	100	92.1	80 - 120	
232 Th	165	1	102.00	0.53	100	102.0	80 - 120	
238 U	165	1	98.05	1.04	100	98.1	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	141789	0.76	163501	86.7	30 - 120	
45 Sc	1	372807	0.46	473295	78.8	30 - 120	
72 Ge	1	213418	0.77	272811	78.2	30 - 120	
115 In	1	668009	0.48	858259	77.8	30 - 120	
165 Ho	1	1645681	0.33	1824721	90.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\033WASH.D\033WASH.D#  
 Date Acquired: Jun 24 2009 08:52 pm  
 Operator: TEL  
 Sample Name: WASH  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.30	
51 V	72	1	0.032 ppb	259.28	6.50	
52 Cr	72	1	-0.006 ppb	153.20	2.60	
55 Mn	72	1	0.019 ppb	35.08	1.30	
59 Co	72	1	0.012 ppb	60.51	1.30	
60 Ni	72	1	0.027 ppb	77.20	2.60	
63 Cu	72	1	0.042 ppb	16.35	2.60	
66 Zn	72	1	-0.008 ppb	388.99	13.00	
75 As	72	1	0.030 ppb	45.45	6.50	
78 Se	72	1	0.186 ppb	33.94	6.50	
95 Mo	72	1	0.978 ppb	15.36	2.60	
107 Ag	115	1	0.025 ppb	22.42	6.50	
111 Cd	115	1	0.018 ppb	28.54	1.30	
118 Sn	115	1	0.043 ppb	45.64	13.00	
121 Sb	115	1	0.016 ppb	41.20	2.60	
137 Ba	115	1	0.018 ppb	30.15	1.30	
205 Tl	165	1	0.014 ppb	7.58	1.30	
208 Pb	165	1	0.016 ppb	18.72	1.30	
232 Th	165	1	0.583 ppb	15.44	2.60	
238 U	165	1	0.021 ppb	20.17	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153786	0.64	163501	94.1	30 - 120	
45 Sc	1	428807	0.32	473295	90.6	30 - 120	
72 Ge	1	253153	0.93	272811	92.8	30 - 120	
115 In	1	808206	0.62	858259	94.2	30 - 120	
165 Ho	1	1787510	1.50	1824721	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\034\_CCV.D\034\_CCV.D#  
 Date Acquired: Jun 24 2009 08:56 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.33 ppb	4.28	50	98.7	90 - 110	
51	V	72	49.34 ppb	1.56	50	98.7	90 - 110	
52	Cr	72	49.38 ppb	1.39	50	98.8	90 - 110	
55	Mn	72	49.99 ppb	0.62	50	100.0	90 - 110	
59	Co	72	48.65 ppb	0.29	50	97.3	90 - 110	
60	Ni	72	49.52 ppb	1.33	50	99.0	90 - 110	
63	Cu	72	50.08 ppb	0.95	50	100.2	90 - 110	
66	Zn	72	49.47 ppb	0.68	50	98.9	90 - 110	
75	As	72	50.32 ppb	0.62	50	100.6	90 - 110	
78	Se	72	51.47 ppb	0.64	50	102.9	90 - 110	
95	Mo	72	50.98 ppb	0.88	50	102.0	90 - 110	
107	Ag	115	49.57 ppb	0.98	50	99.1	90 - 110	
111	Cd	115	49.85 ppb	1.11	50	99.7	90 - 110	
118	Sn	115	50.38 ppb	0.65	50	100.8	90 - 110	
121	Sb	115	50.63 ppb	0.51	50	101.3	90 - 110	
137	Ba	115	51.01 ppb	0.65	50	102.0	90 - 110	
205	Tl	165	52.84 ppb	0.87	50	105.7	90 - 110	
208	Pb	165	51.41 ppb	0.73	50	102.8	90 - 110	
232	Th	165	49.16 ppb	1.12	50	98.3	90 - 110	
238	U	165	51.49 ppb	1.63	50	103.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	153433	0.11	163501	93.8	30 - 120
45	Sc	1	436100	0.76	473295	92.1	30 - 120
72	Ge	1	257738	0.44	272811	94.5	30 - 120
115	In	1	817010	0.44	858259	95.2	30 - 120
165	Ho	1	1819218	1.03	1824721	99.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\035\_CCB.D\035\_CCB.D#  
 Date Acquired: Jun 24 2009 08:59 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.018	ppb	439.98	1.00	
52 Cr	72	1	-0.017	ppb	242.94	1.00	
55 Mn	72	1	0.006	ppb	30.19	1.00	
59 Co	72	1	0.004	ppb	61.30	1.00	
60 Ni	72	1	-0.006	ppb	84.11	1.00	
63 Cu	72	1	0.018	ppb	61.00	1.00	
66 Zn	72	1	0.008	ppb	177.31	1.00	
75 As	72	1	0.008	ppb	117.46	1.00	
78 Se	72	1	-0.050	ppb	316.37	1.00	
95 Mo	72	1	0.116	ppb	15.10	1.00	
107 Ag	115	1	0.031	ppb	18.19	1.00	
111 Cd	115	1	0.011	ppb	40.99	1.00	
118 Sn	115	1	0.034	ppb	141.62	1.00	
121 Sb	115	1	0.012	ppb	57.85	1.00	
137 Ba	115	1	0.004	ppb	56.72	1.00	
205 Tl	165	1	0.020	ppb	5.90	1.00	
208 Pb	165	1	0.004	ppb	51.66	1.00	
232 Th	165	1	0.769	ppb	16.34	1.00	
238 U	165	1	0.006	ppb	15.54	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	154869	1.17	163501	94.7	30 - 120	
45 Sc	1	451661	0.35	473295	95.4	30 - 120	
72 Ge	1	263583	0.11	272811	96.6	30 - 120	
115 In	1	833562	0.51	858259	97.1	30 - 120	
165 Ho	1	1835458	0.28	1824721	100.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\036WASH.D\036WASH.D#  
 Date Acquired: Jun 24 2009 09:03 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.951 ppb	27.10	1.30	
51 V	72	1	4.969 ppb	3.16	6.50	
52 Cr	72	1	2.016 ppb	5.02	2.60	
55 Mn	72	1	0.995 ppb	1.50	1.30	
59 Co	72	1	0.986 ppb	4.94	1.30	
60 Ni	72	1	1.983 ppb	4.74	2.60	
63 Cu	72	1	2.086 ppb	1.02	2.60	
66 Zn	72	1	10.170 ppb	1.36	13.00	
75 As	72	1	5.100 ppb	3.51	6.50	
78 Se	72	1	5.716 ppb	8.09	6.50	
95 Mo	72	1	2.075 ppb	2.35	2.60	
107 Ag	115	1	5.141 ppb	1.32	6.50	
111 Cd	115	1	1.007 ppb	3.99	1.30	
118 Sn	115	1	10.460 ppb	0.61	13.00	
121 Sb	115	1	1.963 ppb	2.86	2.60	
137 Ba	115	1	1.014 ppb	2.28	1.30	
205 Tl	165	1	1.107 ppb	1.78	1.30	
208 Pb	165	1	1.082 ppb	1.57	1.30	
232 Th	165	1	2.251 ppb	0.44	2.60	
238 U	165	1	1.097 ppb	2.16	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153782	1.38	163501	94.1	30 - 120	
45 Sc	1	448278	0.23	473295	94.7	30 - 120	
72 Ge	1	265227	0.76	272811	97.2	30 - 120	
115 In	1	842610	0.68	858259	98.2	30 - 120	
165 Ho	1	1831850	0.33	1824721	100.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\037\_BLK.D\037\_BLK.D#  
 Date Acquired: Jun 24 2009 09:06 pm  
 Operator: TEL  
 Sample Name: LFFFCBF  
 Misc Info: BLANK 9174183 6020  
 Vial Number: 2211  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: BLK  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
51 V	72	1	-0.010 ppb	332.01	2.00	
52 Cr	72	1	-0.053 ppb	9.12	2.00	
55 Mn	72	1	0.032 ppb	51.62	2.00	
59 Co	72	1	0.000 ppb	22336.00	2.00	
60 Ni	72	1	0.034 ppb	28.28	2.00	
63 Cu	72	1	0.057 ppb	20.82	2.00	
66 Zn	72	1	0.344 ppb	5.63	2.00	
75 As	72	1	0.002 ppb	221.18	2.00	
78 Se	72	1	0.068 ppb	638.15	2.00	
95 Mo	72	1	0.035 ppb	44.24	2.00	
107 Ag	115	1	0.004 ppb	90.76	2.00	
111 Cd	115	1	0.006 ppb	61.51	2.00	
118 Sn	115	1	-0.148 ppb	11.60	2.00	
121 Sb	115	1	0.002 ppb	309.98	2.00	
137 Ba	115	1	0.018 ppb	32.87	2.00	
205 Tl	165	1	0.007 ppb	31.41	2.00	
208 Pb	165	1	0.240 ppb	0.91	2.00	
232 Th	165	1	0.055 ppb	12.30	2.00	
238 U	165	1	0.000 ppb	748.50	2.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	156360	1.00	163501	95.6	30 - 120	
45 Sc	1	457767	0.51	473295	96.7	30 - 120	
72 Ge	1	271991	0.59	272811	99.7	30 - 120	
115 In	1	855493	1.05	858259	99.7	30 - 120	
165 Ho	1	1838234	0.49	1824721	100.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\039AREF.D\039AREF.D#  
 Date Acquired: Jun 24 2009 09:13 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EF  
 Misc Info: D9F180314  
 Vial Number: 2301  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: AllRef  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.00	0.00	ppb	0.00	3600
51	V	72	1	14.90	14.90	ppb	31.84	3600
52	Cr	72	1	820.90	820.90	ppb	0.68	3600
55	Mn	72	1	143.50	143.50	ppb	0.48	3600
59	Co	72	1	0.55	0.55	ppb	5.96	3600
60	Ni	72	1	2.74	2.74	ppb	5.66	3600
63	Cu	72	1	0.50	0.50	ppb	8.03	3600
66	Zn	72	1	2.01	2.01	ppb	2.12	3600
75	As	72	1	121.20	121.20	ppb	0.66	3600
78	Se	72	1	7.13	7.13	ppb	13.80	3600
95	Mo	72	1	115.60	115.60	ppb	0.58	3600
107	Ag	115	1	0.13	0.13	ppb	25.98	3600
111	Cd	115	1	0.03	0.03	ppb	13.07	3600
118	Sn	115	1	-0.13	-0.13	ppb	15.88	3600
121	Sb	115	1	0.23	0.23	ppb	1.28	3600
137	Ba	115	1	23.13	23.13	ppb	1.32	3600
205	Tl	165	1	0.11	0.11	ppb	15.78	3600
208	Pb	165	1	0.04	0.04	ppb	9.14	3600
232	Th	165	1	0.87	0.87	ppb	24.18	1000
238	U	165	1	25.90	25.90	ppb	1.61	3600

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	131709	1.85	163501	80.6	30 - 120
45	Sc	1	365560	0.28	473295	77.2	30 - 120
72	Ge	1	193738	0.10	272811	71.0	30 - 120
115	In	1	596414	1.06	858259	69.5	30 - 120
165	Ho	1	1428089	0.57	1824721	78.3	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\040SDIL.D\040SDIL.D#  
 Date Acquired: Jun 24 2009 09:16 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EP5F  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2302  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SDIL  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\039AREF.D\039AREF.D#

## QC elements

Element	IS	Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9	Be	6	1	0.00 ppb	0.00	0.00	#DIV/0!	90 - 110	
51	V	72	1	3.19 ppb	37.54	2.98	107.0	90 - 110	
52	Cr	72	1	161.10 ppb	1.66	164.18	98.1	90 - 110	
55	Mn	72	1	28.25 ppb	1.37	28.70	98.4	90 - 110	
59	Co	72	1	0.11 ppb	6.22	0.11	98.9	90 - 110	
60	Ni	72	1	0.56 ppb	3.56	0.55	102.5	90 - 110	
63	Cu	72	1	0.12 ppb	19.58	0.10	116.8	90 - 110	
66	Zn	72	1	0.49 ppb	10.06	0.40	120.7	90 - 110	
75	As	72	1	23.34 ppb	1.49	24.24	96.3	90 - 110	
78	Se	72	1	1.35 ppb	50.40	1.43	95.0	90 - 110	
95	Mo	72	1	23.02 ppb	1.88	23.12	99.6	90 - 110	
107	Ag	115	1	0.01 ppb	18.55	0.03	53.3	90 - 110	
111	Cd	115	1	0.01 ppb	271.50	0.01	206.4	90 - 110	
118	Sn	115	1	-0.10 ppb	25.11	-0.03	404.0	90 - 110	
121	Sb	115	1	0.03 ppb	23.16	0.05	74.3	90 - 110	
137	Ba	115	1	4.64 ppb	3.10	4.63	100.3	90 - 110	
205	Tl	165	1	0.02 ppb	13.23	0.02	86.0	90 - 110	
208	Pb	165	1	0.01 ppb	13.73	0.01	144.4	90 - 110	
232	Th	165	1	0.09 ppb	7.39	0.17	50.5	90 - 110	
238	U	165	1	5.44 ppb	2.07	5.18	105.1	90 - 110	

## ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	133818	1.12	163501	81.8	30 - 120
45	Sc	1	385916	0.61	473295	81.5	30 - 120
72	Ge	1	222076	0.54	272811	81.4	30 - 120
115	In	1	678210	1.04	858259	79.0	30 - 120
165	Ho	1	1558305	1.10	1824721	85.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:05:29

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE71EP5F

Serial Dilution: 5.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 40

Method 6020\_

Acquired: 06/24/2009 21:16:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 19:07:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9		0	0			*	
7440-62-2	Vanadium	51	14253	15.945	14.900	7.01		*	
7440-47-3	Chromium	52	826794	805.50	820.90	1.88		*	
7439-96-5	Manganese	55	130735	141.25	143.50	1.57		*	
7440-48-4	Cobalt	59	820	0.54300	0.54910	1.11		*	
7440-02-0	Nickel	60	1013	2.8025	2.7350	2.47		*	
7440-50-8	Copper	63	700	0.58250	0.49880	16.8		*	
7440-66-6	Zinc	66	511	2.4255	2.0090	20.7		*	
7440-38-2	Arsenic	75	13225	116.70	121.20	3.71	0.21	3.7	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	153	6.7700	7.1260	5.00	0.70	NC	<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	48302	115.10	115.60	0.433		*	
7440-22-4	Silver	107	187	0.06975	0.13090	46.7		*	
7440-43-9	Cadmium	111	13	0.06210	0.03009	106		*	
7440-31-5	Tin	118	460	-0.50950	-0.12610			*	
7440-36-0	Antimony	121	198	0.16735	0.22520	25.7		*	
7440-39-3	Barium	137	5999	23.190	23.130	0.259		*	
7440-28-0	Thallium	205	407	0.09790	0.11380	14.0		*	
7439-92-1	Lead	208	322	0.05235	0.03625	44.4		*	
7440-61-1	Uranium	238	117535	27.210	25.900	5.06		*	
7440-29-1	Thorium	232	2040	0.43965	0.86990	49.5		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

*See only*

\* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

Reviewed by: 

Date: 6/25/09



Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:05:35

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE71EZF

Spike Dilution: 1.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 41

Method 6020\_

Acquired: 06/24/2009 21:20:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 19:07:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	46532	190.60	0	95.3	200		<input type="checkbox"/>
7440-62-2	Vanadium	51	879744	224.70	14.900	105	200		<input type="checkbox"/>
7440-47-3	Chromium	52	4369910	982.10	820.90	80.6	200	*	<input type="checkbox"/>
7439-96-5	Manganese	55	1318360	328.50	143.50	92.5	200		<input type="checkbox"/>
7440-48-4	Cobalt	59	1159070	180.50	0.54910	90.0	200		<input type="checkbox"/>
7440-02-0	Nickel	60	266510	175.90	2.7350	86.6	200		<input type="checkbox"/>
7440-50-8	Copper	63	667151	174.50	0.49880	87.0	200		<input type="checkbox"/>
7440-66-6	Zinc	66	137974	183.60	2.0090	90.8	200		<input type="checkbox"/>
7440-38-2	Arsenic	75	174201	354.50	121.20	117	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	16117	227.80	7.1260	110	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	568917	312.60	115.60	98.5	200		<input type="checkbox"/>
7440-22-4	Silver	107	234314	42.910	0.13090	85.6	50.0		<input type="checkbox"/>
7440-43-9	Cadmium	111	175818	182.40	0.03009	91.2	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	426615	178.80	-0.12610	89.4	200		<input type="checkbox"/>
7440-36-0	Antimony	121	612862	214.70	0.22520	107	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	243821	227.90	23.130	102	200		<input type="checkbox"/>
7440-28-0	Thallium	205	2099190	174.90	0.11380	87.4	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	2908460	171.30	0.03625	85.6	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	3733680	203.50	25.900	88.8	200		<input type="checkbox"/>
7440-29-1	Thorium	232	1010	0.04264	0.86990				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

*See only*

Reviewed by: 

Date: 6/25/09

**Spiked Sample (MS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\042\_MS.D\042\_MS.D#  
 Date Acquired: Jun 24 2009 09:23 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71ESF  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2304  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: MS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	45.02	0.00	ppb	2.42	40	112.6	50 - 150	
51 V	72	1	61.67	14.90	ppb	3.55	40	112.3	50 - 150	
52 Cr	72	1	851.40	820.90	ppb	0.24	40	98.9	50 - 150	
55 Mn	72	1	173.50	143.50	ppb	1.14	40	94.6	50 - 150	
59 Co	72	1	37.79	0.55	ppb	1.52	40	93.2	50 - 150	
60 Ni	72	1	39.63	2.73	ppb	1.45	40	92.7	50 - 150	
63 Cu	72	1	38.54	0.50	ppb	0.77	40	95.2	50 - 150	
66 Zn	72	1	42.17	2.01	ppb	1.03	40	100.4	50 - 150	
75 As	72	1	191.20	121.20	ppb	0.39	40	118.6	50 - 150	
78 Se	72	1	51.68	7.13	ppb	3.49	40	109.7	50 - 150	
95 Mo	72	1	154.80	115.60	ppb	0.75	40	99.5	50 - 150	
107 Ag	115	1	37.80	0.13	ppb	1.18	40	94.2	50 - 150	
111 Cd	115	1	39.73	0.03	ppb	1.86	40	99.3	50 - 150	
118 Sn	115	1	0.01	-0.13	ppb	130.50	40	0.0	50 - 150	
121 Sb	115	1	49.07	0.23	ppb	0.67	40	122.0	50 - 150	
137 Ba	115	1	68.36	23.13	ppb	1.11	40	108.3	50 - 150	
205 Tl	165	1	38.72	0.11	ppb	0.31	40	96.5	50 - 150	
208 Pb	165	1	37.21	0.04	ppb	0.23	40	92.9	50 - 150	
232 Th	165	1	42.30	0.87	ppb	0.71	40	103.5	50 - 150	
238 U	165	1	64.71	25.90	ppb	0.83	40	98.2	50 - 150	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	100074	3.39	163501	61.2	30 - 120	
45 Sc	1	322574	2.56	473295	68.2	30 - 120	
72 Ge	1	184931	2.17	272811	67.8	30 - 120	
115 In	1	520871	3.89	858259	60.7	30 - 120	
165 Ho	1	1191833	3.59	1824721	65.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures                      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                        0 :Max. Number of ISTD Failures Allowed



## Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\043 MSD.D\043 MSD.D#  
 Date Acquired: Jun 24 2009 09:26 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EDF  
 Misc Info: MATRIX SPIKE DUPLICATE  
 Vial Number: 2305  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: MSD  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass

ISTD: Pass

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\042 MS.D\042 MS.D#

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9	Be	6	44.27 ppb	3.22	45.02	1.68	20	
51	V	72	63.09 ppb	1.71	61.67	2.28	20	
52	Cr	72	849.90 ppb	0.94	851.40	0.18	20	
55	Mn	72	171.90 ppb	1.45	173.50	0.93	20	
59	Co	72	37.24 ppb	0.45	37.79	1.47	20	
60	Ni	72	39.27 ppb	0.79	39.63	0.91	20	
63	Cu	72	37.72 ppb	0.33	38.54	2.15	20	
66	Zn	72	42.88 ppb	1.21	42.17	1.67	20	
75	As	72	191.50 ppb	0.31	191.20	0.16	20	
78	Se	72	48.07 ppb	4.49	51.68	7.24	20	
95	Mo	72	153.80 ppb	1.24	154.80	0.65	20	
107	Ag	115	37.62 ppb	0.81	37.80	0.48	20	
111	Cd	115	38.76 ppb	0.11	39.73	2.47	20	
118	Sn	115	-0.11 ppb	11.76	0.01	-247.40	20	
121	Sb	115	48.77 ppb	0.63	49.07	0.61	20	
137	Ba	115	68.17 ppb	1.37	68.36	0.28	20	
205	Tl	165	37.58 ppb	1.80	38.72	2.99	20	
208	Pb	165	36.24 ppb	1.79	37.21	2.64	20	
232	Th	165	41.64 ppb	1.44	42.30	1.57	20	
238	U	165	64.19 ppb	1.12	64.71	0.81	20	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	97972	4.55	163501	59.9	30 - 120
45	Sc	1	305286	2.56	473295	64.5	30 - 120
72	Ge	1	176755	2.30	272811	64.8	30 - 120
115	In	1	499296	3.37	858259	58.2	30 - 120
165	Ho	1	1166222	2.44	1824721	63.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\044SMPL.D\044SMPL.D#  
 Date Acquired: Jun 24 2009 09:30 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LFC4CF  
 Misc Info: D9F200196  
 Vial Number: 2306  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	27.19	27.19	ppb	1.04	3600	
52 Cr	72	1	39.14	39.14	ppb	0.96	3600	
55 Mn	72	1	4.82	4.82	ppb	2.19	3600	
59 Co	72	1	0.19	0.19	ppb	14.21	3600	
60 Ni	72	1	0.46	0.46	ppb	13.84	3600	
63 Cu	72	1	0.22	0.22	ppb	15.00	3600	
66 Zn	72	1	1.19	1.19	ppb	3.60	3600	
75 As	72	1	101.50	101.50	ppb	1.04	3600	
78 Se	72	1	3.19	3.19	ppb	23.38	3600	
95 Mo	72	1	22.37	22.37	ppb	1.19	3600	
107 Ag	115	1	0.00	0.00	ppb	153.08	3600	
111 Cd	115	1	0.02	0.02	ppb	87.73	3600	
118 Sn	115	1	-0.17	-0.17	ppb	2.31	3600	
121 Sb	115	1	0.17	0.17	ppb	15.54	3600	
137 Ba	115	1	20.29	20.29	ppb	1.60	3600	
205 Tl	165	1	0.02	0.02	ppb	20.44	3600	
208 Pb	165	1	0.02	0.02	ppb	17.19	3600	
232 Th	165	1	0.50	0.50	ppb	11.22	1000	
238 U	165	1	18.66	18.66	ppb	0.63	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	101721	1.22	163501	62.2	30 - 120	
45 Sc	1	318066	0.79	473295	67.2	30 - 120	
72 Ge	1	188602	1.12	272811	69.1	30 - 120	
115 In	1	540766	1.57	858259	63.0	30 - 120	
165 Ho	1	1253246	1.18	1824721	68.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

### Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\045 CCV.D\045 CCV.D#  
 Date Acquired: Jun 24 2009 09:33 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

#### QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	55.77 ppb	0.94	50	111.5	90 - 110	Fail
51	V	72	48.46 ppb	1.05	50	96.9	90 - 110	
52	Cr	72	47.66 ppb	0.38	50	95.3	90 - 110	
55	Mn	72	45.69 ppb	0.26	50	91.4	90 - 110	
59	Co	72	46.62 ppb	0.74	50	93.2	90 - 110	
60	Ni	72	48.17 ppb	0.81	50	96.3	90 - 110	
63	Cu	72	49.62 ppb	0.84	50	99.2	90 - 110	
66	Zn	72	52.49 ppb	1.17	50	105.0	90 - 110	
75	As	72	57.75 ppb	1.45	50	115.5	90 - 110	Fail
78	Se	72	46.67 ppb	2.42	50	93.3	90 - 110	
95	Mo	72	49.79 ppb	0.47	50	99.6	90 - 110	
107	Ag	115	50.29 ppb	1.40	50	100.6	90 - 110	
111	Cd	115	50.77 ppb	2.46	50	101.5	90 - 110	
118	Sn	115	50.85 ppb	1.62	50	101.7	90 - 110	
121	Sb	115	57.62 ppb	0.82	50	115.2	90 - 110	Fail
137	Ba	115	52.59 ppb	1.42	50	105.2	90 - 110	
205	Tl	165	51.41 ppb	1.30	50	102.8	90 - 110	
208	Pb	165	50.24 ppb	1.78	50	100.5	90 - 110	
232	Th	165	51.44 ppb	1.78	50	102.9	90 - 110	
238	U	165	50.52 ppb	1.98	50	101.0	90 - 110	

#### ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	104505	2.29	163501	63.9	30 - 120
45	Sc	1	330213	0.28	473295	69.8	30 - 120
72	Ge	1	204696	1.86	272811	75.0	30 - 120
115	In	1	596634	1.01	858259	69.5	30 - 120
165	Ho	1	1322749	0.67	1824721	72.5	30 - 120

*Se only*  
*Z*  
*6/25/09*

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\046\_CCB.D\046\_CCB.D#  
 Date Acquired: Jun 24 2009 09:36 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
51 V	72	1	-0.056 ppb	83.79	1.00	
52 Cr	72	1	-0.007 ppb	166.81	1.00	
55 Mn	72	1	0.012 ppb	30.87	1.00	
59 Co	72	1	0.003 ppb	144.38	1.00	
60 Ni	72	1	-0.008 ppb	74.26	1.00	
63 Cu	72	1	0.043 ppb	29.58	1.00	
66 Zn	72	1	0.063 ppb	25.76	1.00	
75 As	72	1	0.017 ppb	33.81	1.00	
78 Se	72	1	0.887 ppb	28.63	1.00	
95 Mo	72	1	0.059 ppb	34.14	1.00	
107 Ag	115	1	0.026 ppb	39.55	1.00	
111 Cd	115	1	0.010 ppb	105.08	1.00	
118 Sn	115	1	0.118 ppb	24.72	1.00	
121 Sb	115	1	0.031 ppb	25.62	1.00	
137 Ba	115	1	0.005 ppb	196.59	1.00	
205 Tl	165	1	0.027 ppb	14.86	1.00	
208 Pb	165	1	0.006 ppb	41.71	1.00	
232 Th	165	1	0.790 ppb	17.84	1.00	
238 U	165	1	0.007 ppb	37.06	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	108190	0.76	163501	66.2	30 - 120	
45 Sc	1	344960	0.19	473295	72.9	30 - 120	
72 Ge	1	211376	0.32	272811	77.5	30 - 120	
115 In	1	626710	1.14	858259	73.0	30 - 120	
165 Ho	1	1351231	1.77	1824721	74.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\047WASH.D\047WASH.D#  
 Date Acquired: Jun 24 2009 09:40 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.186 ppb	10.61	1.30	
51 V	72	1	5.093 ppb	1.61	6.50	
52 Cr	72	1	2.037 ppb	1.03	2.60	
55 Mn	72	1	1.001 ppb	6.70	1.30	
59 Co	72	1	0.982 ppb	2.73	1.30	
60 Ni	72	1	1.992 ppb	3.78	2.60	
63 Cu	72	1	2.086 ppb	3.83	2.60	
66 Zn	72	1	10.780 ppb	0.84	13.00	
75 As	72	1	5.634 ppb	2.99	6.50	
78 Se	72	1	4.775 ppb	10.64	6.50	
95 Mo	72	1	2.117 ppb	4.86	2.60	
107 Ag	115	1	5.143 ppb	2.10	6.50	
111 Cd	115	1	1.006 ppb	6.91	1.30	
118 Sn	115	1	10.340 ppb	1.50	13.00	
121 Sb	115	1	2.213 ppb	0.89	2.60	
137 Ba	115	1	1.151 ppb	8.65	1.30	
205 Tl	165	1	1.102 ppb	1.94	1.30	
208 Pb	165	1	1.060 ppb	2.12	1.30	
232 Th	165	1	2.236 ppb	1.89	2.60	
238 U	165	1	1.074 ppb	2.05	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	108518	1.41	163501	66.4	30 - 120	
45 Sc	1	354521	0.93	473295	74.9	30 - 120	
72 Ge	1	217818	0.44	272811	79.8	30 - 120	
115 In	1	644518	0.89	858259	75.1	30 - 120	
165 Ho	1	1387326	0.15	1824721	76.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

...”During the course of an analytical run, the instrument may be “resloped” or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed.”

Analyst: LRD

Date: 06/24/2009

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#  
 Date Acquired: Jun 24 2009 10:17 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:14 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
51	V	72	1	-125	155.01
52	Cr	72	1	1347	3.12
55	Mn	72	1	137	19.15
59	Co	72	1	27	43.97
60	Ni	72	1	33	17.74
63	Cu	72	1	293	31.56
66	Zn	72	1	201	12.52
75	As	72	1	16	32.04
78	Se	72	1	77	62.26
95	Mo	72	1	147	21.43
107	Ag	115	1	107	32.36
111	Cd	115	1	7	50.68
118	Sn	115	1	767	9.91
121	Sb	115	1	64	7.31
137	Ba	115	1	14	52.84
205	Tl	165	1	126	11.03
208	Pb	165	1	148	13.20
232	Th	165	1	913	8.83
238	U	165	1	104	13.31

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	117322	1.68
45	Sc	1	379430	0.45
72	Ge	1	230888	0.98
115	In	1	694252	0.79
165	Ho	1	1482298	0.02

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

**Calibration Standard QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\059ICAL.D\059ICAL.D#  
 Date Acquired: Jun 24 2009 10:20 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:18 pm  
 Sample Type: ICAL

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	25917	2.08
51	V	72	440859	0.40
52	Cr	72	498841	0.38
55	Mn	72	434202	0.35
59	Co	72	693184	0.44
60	Ni	72	170216	0.63
63	Cu	72	436062	0.02
66	Zn	72	90657	0.40
75	As	72	64010	0.60
78	Se	72	8116	1.74
95	Mo	72	212934	0.18
107	Ag	115	641135	1.00
111	Cd	115	113553	0.95
118	Sn	115	285789	0.95
121	Sb	115	375686	0.95
137	Ba	115	133578	0.91
205	Tl	165	1351068	1.18
208	Pb	165	1882489	0.46
232	Th	165	1769191	1.22
238	U	165	2026227	1.62

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range (%)	Flag
6	Li	1	116190	1.75	117322	99.0	30 - 120
45	Sc	1	372196	1.07	379430	98.1	30 - 120
72	Ge	1	228804	0.83	230888	99.1	30 - 120
115	In	1	674227	0.76	694252	97.1	30 - 120
165	Ho	1	1476640	0.84	1482298	99.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0



## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\060\_CCV.D\060\_CCV.D#  
 Date Acquired: Jun 24 2009 10:24 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.95 ppb	2.27	50	101.9	90 - 110	
51	V	72	51.38 ppb	1.81	50	102.8	90 - 110	
52	Cr	72	51.09 ppb	1.51	50	102.2	90 - 110	
55	Mn	72	51.40 ppb	0.27	50	102.8	90 - 110	
59	Co	72	51.06 ppb	0.83	50	102.1	90 - 110	
60	Ni	72	51.29 ppb	0.39	50	102.6	90 - 110	
63	Cu	72	51.32 ppb	1.67	50	102.6	90 - 110	
66	Zn	72	50.57 ppb	1.23	50	101.1	90 - 110	
75	As	72	51.06 ppb	0.85	50	102.1	90 - 110	
78	Se	72	48.68 ppb	4.68	50	97.4	90 - 110	
95	Mo	72	51.09 ppb	0.84	50	102.2	90 - 110	
107	Ag	115	50.68 ppb	0.72	50	101.4	90 - 110	
111	Cd	115	51.23 ppb	0.59	50	102.5	90 - 110	
118	Sn	115	50.95 ppb	0.60	50	101.9	90 - 110	
121	Sb	115	50.71 ppb	0.30	50	101.4	90 - 110	
137	Ba	115	50.69 ppb	0.51	50	101.4	90 - 110	
205	Tl	165	52.07 ppb	1.37	50	104.1	90 - 110	
208	Pb	165	51.54 ppb	1.96	50	103.1	90 - 110	
232	Th	165	54.55 ppb	1.65	50	109.1	90 - 110	
238	U	165	52.27 ppb	2.06	50	104.5	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	116863	0.68	117322	99.6	30 - 120
45	Sc	1	367256	0.44	379430	96.8	30 - 120
72	Ge	1	224440	0.68	230888	97.2	30 - 120
115	In	1	667028	1.07	694252	96.1	30 - 120
165	Ho	1	1451654	1.23	1482298	97.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\061\_CCB.D\061\_CCB.D#  
 Date Acquired: Jun 24 2009 10:27 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.013 ppb	173.21	1.00	
51 V	72	1	-0.019 ppb	133.49	1.00	
52 Cr	72	1	0.014 ppb	132.84	1.00	
55 Mn	72	1	-0.003 ppb	205.55	1.00	
59 Co	72	1	0.004 ppb	86.18	1.00	
60 Ni	72	1	-0.002 ppb	376.54	1.00	
63 Cu	72	1	0.006 ppb	281.36	1.00	
66 Zn	72	1	-0.086 ppb	10.54	1.00	
75 As	72	1	0.006 ppb	203.91	1.00	
78 Se	72	1	-0.193 ppb	112.83	1.00	
95 Mo	72	1	0.017 ppb	168.45	1.00	
107 Ag	115	1	0.034 ppb	14.31	1.00	
111 Cd	115	1	0.004 ppb	355.33	1.00	
118 Sn	115	1	0.098 ppb	30.14	1.00	
121 Sb	115	1	0.045 ppb	6.81	1.00	
137 Ba	115	1	0.002 ppb	262.73	1.00	
205 Tl	165	1	0.040 ppb	11.20	1.00	
208 Pb	165	1	0.003 ppb	55.31	1.00	
232 Th	165	1	1.012 ppb	13.11	1.00	Fail
238 U	165	1	0.005 ppb	40.98	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115652	0.56	117322	98.6	30 - 120	
45 Sc	1	370335	1.00	379430	97.6	30 - 120	
72 Ge	1	226326	0.63	230888	98.0	30 - 120	
115 In	1	680142	0.40	694252	98.0	30 - 120	
165 Ho	1	1472058	0.15	1482298	99.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 MR

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\062WASH.D\062WASH.D#  
 Date Acquired: Jun 24 2009 10:31 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.996 ppb	9.75	1.30	
51 V	72	1	5.287 ppb	1.19	6.50	
52 Cr	72	1	2.116 ppb	3.39	2.60	
55 Mn	72	1	1.069 ppb	7.23	1.30	
59 Co	72	1	1.052 ppb	3.77	1.30	
60 Ni	72	1	2.104 ppb	5.43	2.60	
63 Cu	72	1	2.107 ppb	1.94	2.60	
66 Zn	72	1	10.040 ppb	2.06	13.00	
75 As	72	1	5.106 ppb	0.91	6.50	
78 Se	72	1	4.258 ppb	39.17	6.50	
95 Mo	72	1	2.010 ppb	4.56	2.60	
107 Ag	115	1	5.207 ppb	1.30	6.50	
111 Cd	115	1	1.034 ppb	3.49	1.30	
118 Sn	115	1	10.620 ppb	3.50	13.00	
121 Sb	115	1	2.017 ppb	0.23	2.60	
137 Ba	115	1	0.968 ppb	5.29	1.30	
205 Tl	165	1	1.101 ppb	0.72	1.30	
208 Pb	165	1	1.065 ppb	2.60	1.30	
232 Th	165	1	2.307 ppb	1.83	2.60	
238 U	165	1	1.090 ppb	0.82	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	116951	0.50	117322	99.7	30 - 120	
45 Sc	1	372991	0.46	379430	98.3	30 - 120	
72 Ge	1	229458	0.38	230888	99.4	30 - 120	
115 In	1	689440	0.45	694252	99.3	30 - 120	
165 Ho	1	1499228	0.34	1482298	101.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\070\_CCV.D\070\_CCV.D#  
 Date Acquired: Jun 24 2009 10:58 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	51.12	ppb	3.62	50	102.2	90 - 110
51	V	72	1	51.40	ppb	1.66	50	102.8	90 - 110
52	Cr	72	1	51.25	ppb	0.98	50	102.5	90 - 110
55	Mn	72	1	51.36	ppb	0.87	50	102.7	90 - 110
59	Co	72	1	51.15	ppb	0.99	50	102.3	90 - 110
60	Ni	72	1	50.39	ppb	1.61	50	100.8	90 - 110
63	Cu	72	1	50.61	ppb	0.70	50	101.2	90 - 110
66	Zn	72	1	51.11	ppb	0.55	50	102.2	90 - 110
75	As	72	1	51.06	ppb	0.34	50	102.1	90 - 110
78	Se	72	1	47.32	ppb	5.38	50	94.6	90 - 110
95	Mo	72	1	50.76	ppb	2.38	50	101.5	90 - 110
107	Ag	115	1	50.53	ppb	0.97	50	101.1	90 - 110
111	Cd	115	1	51.39	ppb	1.09	50	102.8	90 - 110
118	Sn	115	1	51.03	ppb	0.91	50	102.1	90 - 110
121	Sb	115	1	51.36	ppb	0.80	50	102.7	90 - 110
137	Ba	115	1	50.55	ppb	0.59	50	101.1	90 - 110
205	Tl	165	1	52.58	ppb	0.96	50	105.2	90 - 110
208	Pb	165	1	52.00	ppb	1.19	50	104.0	90 - 110
232	Th	165	1	54.86	ppb	0.65	50	109.7	90 - 110
238	U	165	1	52.77	ppb	0.97	50	105.5	90 - 110

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	109473	1.64	117322	93.3	30 - 120
45	Sc	1	341668	0.27	379430	90.0	30 - 120
72	Ge	1	210335	0.32	230888	91.1	30 - 120
115	In	1	636527	0.76	694252	91.7	30 - 120
165	Ho	1	1399322	0.25	1482298	94.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\071\_CCB.D\071\_CCB.D#  
 Date Acquired: Jun 24 2009 11:01 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.040 ppb	99.80	1.00	
51 V	72	1	0.025 ppb	151.65	1.00	
52 Cr	72	1	0.003 ppb	1291.30	1.00	
55 Mn	72	1	0.006 ppb	79.96	1.00	
59 Co	72	1	0.007 ppb	44.95	1.00	
60 Ni	72	1	-0.009 ppb	40.03	1.00	
63 Cu	72	1	0.010 ppb	232.72	1.00	
66 Zn	72	1	-0.041 ppb	67.70	1.00	
75 As	72	1	0.018 ppb	48.10	1.00	
78 Se	72	1	-0.068 ppb	620.09	1.00	
95 Mo	72	1	-0.017 ppb	60.34	1.00	
107 Ag	115	1	0.037 ppb	18.17	1.00	
111 Cd	115	1	0.010 ppb	35.50	1.00	
118 Sn	115	1	0.127 ppb	52.02	1.00	
121 Sb	115	1	0.050 ppb	15.28	1.00	
137 Ba	115	1	0.001 ppb	257.21	1.00	
205 Tl	165	1	0.042 ppb	10.70	1.00	
208 Pb	165	1	0.006 ppb	9.70	1.00	
232 Th	165	1	0.946 ppb	16.25	1.00	
238 U	165	1	0.009 ppb	30.23	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	112812	0.84	117322	96.2	30 - 120	
45 Sc	1	352656	1.09	379430	92.9	30 - 120	
72 Ge	1	215877	0.37	230888	93.5	30 - 120	
115 In	1	659266	0.49	694252	95.0	30 - 120	
165 Ho	1	1433503	0.91	1482298	96.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\072WASH.D\072WASH.D#  
 Date Acquired: Jun 24 2009 11:05 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.120 ppb	38.53	1.30	
51 V	72	1	5.253 ppb	6.17	6.50	
52 Cr	72	1	2.013 ppb	0.50	2.60	
55 Mn	72	1	1.103 ppb	2.70	1.30	
59 Co	72	1	1.044 ppb	1.08	1.30	
60 Ni	72	1	2.051 ppb	3.00	2.60	
63 Cu	72	1	2.083 ppb	3.23	2.60	
66 Zn	72	1	10.250 ppb	1.58	13.00	
75 As	72	1	5.277 ppb	1.02	6.50	
78 Se	72	1	4.391 ppb	19.94	6.50	
95 Mo	72	1	1.992 ppb	2.34	2.60	
107 Ag	115	1	5.180 ppb	1.30	6.50	
111 Cd	115	1	0.980 ppb	2.57	1.30	
118 Sn	115	1	10.460 ppb	1.31	13.00	
121 Sb	115	1	2.019 ppb	1.37	2.60	
137 Ba	115	1	1.032 ppb	4.47	1.30	
205 Tl	165	1	1.131 ppb	0.96	1.30	
208 Pb	165	1	1.073 ppb	2.39	1.30	
232 Th	165	1	2.336 ppb	3.22	2.60	
238 U	165	1	1.094 ppb	1.33	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	112305	1.24	117322	95.7	30 - 120	
45 Sc	1	353972	0.54	379430	93.3	30 - 120	
72 Ge	1	218407	0.59	230888	94.6	30 - 120	
115 In	1	657406	0.31	694252	94.7	30 - 120	
165 Ho	1	1437398	1.09	1482298	97.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\073ICSA.D\073ICSA.D#  
 Date Acquired: Jun 24 2009 11:08 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	0.07 ppb	91.65	1.00	
51	V	72	-0.45 ppb	43.52	1.00	
52	Cr	72	0.98 ppb	1.45	1.00	
55	Mn	72	2.21 ppb	6.13	1.00	
59	Co	72	0.04 ppb	8.50	1.00	
60	Ni	72	0.62 ppb	10.61	1.00	
63	Cu	72	0.30 ppb	5.61	1.00	
66	Zn	72	2.43 ppb	0.45	10.00	
75	As	72	0.17 ppb	20.25	1.00	
78	Se	72	0.10 ppb	419.65	1.00	
95	Mo	72	1982.00 ppb	1.43	2000.00	
107	Ag	115	0.13 ppb	2.97	1.00	
111	Cd	115	0.32 ppb	49.44	1.00	
118	Sn	115	0.03 ppb	183.17	10.00	
121	Sb	115	0.24 ppb	5.73	1.00	
137	Ba	115	1.43 ppb	4.56	1.00	
205	Tl	165	0.04 ppb	10.19	1.00	
208	Pb	165	0.13 ppb	3.23	1.00	
232	Th	165	0.16 ppb	30.27	1.00	
238	U	165	0.02 ppb	6.46	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	102993	0.56	117322	87.8	30 - 120
45	Sc	1	315475	0.66	379430	83.1	30 - 120
72	Ge	1	191330	0.71	230888	82.9	30 - 120
115	In	1	568291	0.77	694252	81.9	30 - 120
165	Ho	1	1326927	0.41	1482298	89.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed





**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\075WASH.D\075WASH.D#  
 Date Acquired: Jun 24 2009 11:15 pm  
 Operator: TEL  
 Sample Name: WASH  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.30	
51 V	72	1	0.000 ppb	16827.00	6.50	
52 Cr	72	1	-0.023 ppb	135.11	2.60	
55 Mn	72	1	0.004 ppb	210.96	1.30	
59 Co	72	1	0.008 ppb	111.37	1.30	
60 Ni	72	1	0.013 ppb	116.86	2.60	
63 Cu	72	1	0.027 ppb	46.19	2.60	
66 Zn	72	1	0.192 ppb	17.40	13.00	
75 As	72	1	0.024 ppb	27.96	6.50	
78 Se	72	1	-0.127 ppb	238.35	6.50	
95 Mo	72	1	0.798 ppb	6.52	2.60	
107 Ag	115	1	0.000 ppb	1726.50	6.50	
111 Cd	115	1	0.005 ppb	118.57	1.30	
118 Sn	115	1	0.147 ppb	22.53	13.00	
121 Sb	115	1	0.034 ppb	10.48	2.60	
137 Ba	115	1	0.001 ppb	395.61	1.30	
205 Tl	165	1	0.004 ppb	6.00	1.30	
208 Pb	165	1	0.006 ppb	7.58	1.30	
232 Th	165	1	0.653 ppb	15.07	2.60	
238 U	165	1	0.010 ppb	15.03	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	113953	0.31	117322	97.1	30 - 120	
45 Sc	1	355429	0.70	379430	93.7	30 - 120	
72 Ge	1	219786	0.49	230888	95.2	30 - 120	
115 In	1	664242	0.34	694252	95.7	30 - 120	
165 Ho	1	1438883	0.33	1482298	97.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

### Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\076 CCV.D\076 CCV.D#  
 Date Acquired: Jun 24 2009 11:18 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

#### QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.29 ppb	5.77	50	100.6	90 - 110	
51	V	72	51.40 ppb	1.30	50	102.8	90 - 110	
52	Cr	72	51.37 ppb	0.97	50	102.7	90 - 110	
55	Mn	72	51.70 ppb	0.40	50	103.4	90 - 110	
59	Co	72	51.77 ppb	1.27	50	103.5	90 - 110	
60	Ni	72	51.93 ppb	1.65	50	103.9	90 - 110	
63	Cu	72	51.29 ppb	1.25	50	102.6	90 - 110	
66	Zn	72	51.42 ppb	0.50	50	102.8	90 - 110	
75	As	72	51.68 ppb	0.43	50	103.4	90 - 110	
78	Se	72	49.46 ppb	1.75	50	98.9	90 - 110	
95	Mo	72	51.58 ppb	1.79	50	103.2	90 - 110	
107	Ag	115	51.17 ppb	0.58	50	102.3	90 - 110	
111	Cd	115	51.68 ppb	0.86	50	103.4	90 - 110	
118	Sn	115	51.39 ppb	0.25	50	102.8	90 - 110	
121	Sb	115	51.72 ppb	0.53	50	103.4	90 - 110	
137	Ba	115	51.33 ppb	0.85	50	102.7	90 - 110	
205	Tl	165	52.42 ppb	1.78	50	104.8	90 - 110	
208	Pb	165	51.82 ppb	2.00	50	103.6	90 - 110	
232	Th	165	53.75 ppb	1.32	50	107.5	90 - 110	
238	U	165	52.40 ppb	0.69	50	104.8	90 - 110	

#### ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	114693	0.48	117322	97.8	30 - 120
45	Sc	1	354431	0.24	379430	93.4	30 - 120
72	Ge	1	217392	0.54	230888	94.2	30 - 120
115	In	1	652251	1.03	694252	94.0	30 - 120
165	Ho	1	1447522	1.25	1482298	97.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\077\_CCB.D\077\_CCB.D#  
 Date Acquired: Jun 24 2009 11:21 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.013	ppb	173.23	1.00	
51 V	72	1	-0.004	ppb	1282.60	1.00	
52 Cr	72	1	-0.001	ppb	2544.20	1.00	
55 Mn	72	1	0.002	ppb	542.04	1.00	
59 Co	72	1	0.006	ppb	30.06	1.00	
60 Ni	72	1	0.005	ppb	457.64	1.00	
63 Cu	72	1	0.009	ppb	76.99	1.00	
66 Zn	72	1	-0.054	ppb	31.25	1.00	
75 As	72	1	-0.002	ppb	147.68	1.00	
78 Se	72	1	0.031	ppb	1234.80	1.00	
95 Mo	72	1	0.054	ppb	13.57	1.00	
107 Ag	115	1	0.022	ppb	31.63	1.00	
111 Cd	115	1	0.013	ppb	52.64	1.00	
118 Sn	115	1	0.095	ppb	23.21	1.00	
121 Sb	115	1	0.038	ppb	13.98	1.00	
137 Ba	115	1	0.002	ppb	125.37	1.00	
205 Tl	165	1	0.024	ppb	19.58	1.00	
208 Pb	165	1	0.007	ppb	37.52	1.00	
232 Th	165	1	0.910	ppb	18.59	1.00	
238 U	165	1	0.007	ppb	9.99	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115014	0.64	117322	98.0	30 - 120	
45 Sc	1	361067	1.06	379430	95.2	30 - 120	
72 Ge	1	222710	0.47	230888	96.5	30 - 120	
115 In	1	672947	0.24	694252	96.9	30 - 120	
165 Ho	1	1433333	0.55	1482298	96.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\078WASH.D\078WASH.D#  
 Date Acquired: Jun 24 2009 11:25 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.011 ppb	6.56	1.30	
51 V	72	1	5.430 ppb	2.12	6.50	
52 Cr	72	1	2.113 ppb	3.93	2.60	
55 Mn	72	1	1.097 ppb	5.79	1.30	
59 Co	72	1	1.038 ppb	5.34	1.30	
60 Ni	72	1	2.066 ppb	2.52	2.60	
63 Cu	72	1	2.089 ppb	1.78	2.60	
66 Zn	72	1	10.390 ppb	0.65	13.00	
75 As	72	1	5.259 ppb	1.54	6.50	
78 Se	72	1	3.751 ppb	6.47	6.50	
95 Mo	72	1	2.061 ppb	4.03	2.60	
107 Ag	115	1	5.133 ppb	0.84	6.50	
111 Cd	115	1	1.050 ppb	9.77	1.30	
118 Sn	115	1	10.460 ppb	1.81	13.00	
121 Sb	115	1	1.986 ppb	1.56	2.60	
137 Ba	115	1	1.066 ppb	2.14	1.30	
205 Tl	165	1	1.093 ppb	1.63	1.30	
208 Pb	165	1	1.070 ppb	0.11	1.30	
232 Th	165	1	2.286 ppb	1.31	2.60	
238 U	165	1	1.098 ppb	1.34	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115299	0.91	117322	98.3	30 - 120	
45 Sc	1	365732	0.26	379430	96.4	30 - 120	
72 Ge	1	224138	0.48	230888	97.1	30 - 120	
115 In	1	674529	0.84	694252	97.2	30 - 120	
165 Ho	1	1449277	0.68	1482298	97.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\119\_CCV.D\119\_CCV.D#  
 Date Acquired: Jun 25 2009 01:44 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	53.06 ppb	1.35	50	106.1	90 - 110	
51	V	72	51.93 ppb	1.17	50	103.9	90 - 110	
52	Cr	72	51.30 ppb	1.19	50	102.6	90 - 110	
55	Mn	72	50.14 ppb	1.25	50	100.3	90 - 110	
59	Co	72	51.00 ppb	0.33	50	102.0	90 - 110	
60	Ni	72	50.49 ppb	1.68	50	101.0	90 - 110	
63	Cu	72	50.89 ppb	0.90	50	101.8	90 - 110	
66	Zn	72	51.21 ppb	0.68	50	102.4	90 - 110	
75	As	72	51.99 ppb	0.39	50	104.0	90 - 110	
78	Se	72	49.48 ppb	3.93	50	99.0	90 - 110	
95	Mo	72	50.53 ppb	0.87	50	101.1	90 - 110	
107	Ag	115	50.97 ppb	1.09	50	101.9	90 - 110	
111	Cd	115	51.35 ppb	0.59	50	102.7	90 - 110	
118	Sn	115	51.26 ppb	1.99	50	102.5	90 - 110	
121	Sb	115	52.36 ppb	0.63	50	104.7	90 - 110	
137	Ba	115	50.93 ppb	0.61	50	101.9	90 - 110	
205	Tl	165	52.31 ppb	0.80	50	104.6	90 - 110	
208	Pb	165	51.81 ppb	1.55	50	103.6	90 - 110	
232	Th	165	53.35 ppb	2.41	50	106.7	90 - 110	
238	U	165	53.37 ppb	2.28	50	106.7	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	109303	0.53	117322	93.2	30 - 120
45	Sc	1	343559	0.91	379430	90.5	30 - 120
72	Ge	1	211836	0.13	230888	91.7	30 - 120
115	In	1	621221	0.51	694252	89.5	30 - 120
165	Ho	1	1343613	1.32	1482298	90.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\120\_CCB.D\120\_CCB.D#  
 Date Acquired: Jun 25 2009 01:47 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.009	ppb	570.32	1.00	
52 Cr	72	1	0.016	ppb	107.73	1.00	
55 Mn	72	1	0.005	ppb	175.85	1.00	
59 Co	72	1	0.007	ppb	58.10	1.00	
60 Ni	72	1	-0.005	ppb	150.77	1.00	
63 Cu	72	1	0.002	ppb	203.44	1.00	
66 Zn	72	1	-0.044	ppb	23.48	1.00	
75 As	72	1	0.004	ppb	240.83	1.00	
78 Se	72	1	0.073	ppb	927.59	1.00	
95 Mo	72	1	-0.032	ppb	32.75	1.00	
107 Ag	115	1	0.025	ppb	17.60	1.00	
111 Cd	115	1	0.013	ppb	0.28	1.00	
118 Sn	115	1	0.073	ppb	25.72	1.00	
121 Sb	115	1	0.025	ppb	25.97	1.00	
137 Ba	115	1	0.005	ppb	49.63	1.00	
205 Tl	165	1	0.021	ppb	11.47	1.00	
208 Pb	165	1	0.006	ppb	18.10	1.00	
232 Th	165	1	0.984	ppb	10.20	1.00	
238 U	165	1	0.009	ppb	20.35	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range(%)	Flag
6 Li	1	107635	2.40	117322	91.7	30 - 120	
45 Sc	1	349055	0.35	379430	92.0	30 - 120	
72 Ge	1	214206	0.47	230888	92.8	30 - 120	
115 In	1	635845	0.20	694252	91.6	30 - 120	
165 Ho	1	1368926	1.21	1482298	92.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\121WASH.D\121WASH.D#  
 Date Acquired: Jun 25 2009 01:51 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.045 ppb	11.17	1.30	
51 V	72	1	5.301 ppb	4.50	6.50	
52 Cr	72	1	2.110 ppb	4.23	2.60	
55 Mn	72	1	1.145 ppb	1.19	1.30	
59 Co	72	1	1.082 ppb	7.26	1.30	
60 Ni	72	1	2.099 ppb	2.94	2.60	
63 Cu	72	1	2.068 ppb	2.93	2.60	
66 Zn	72	1	10.390 ppb	2.26	13.00	
75 As	72	1	5.406 ppb	3.22	6.50	
78 Se	72	1	5.484 ppb	9.97	6.50	
95 Mo	72	1	2.044 ppb	5.75	2.60	
107 Ag	115	1	5.172 ppb	1.28	6.50	
111 Cd	115	1	1.086 ppb	6.15	1.30	
118 Sn	115	1	10.450 ppb	1.57	13.00	
121 Sb	115	1	2.010 ppb	2.25	2.60	
137 Ba	115	1	1.015 ppb	7.64	1.30	
205 Tl	165	1	1.142 ppb	2.59	1.30	
208 Pb	165	1	1.084 ppb	3.93	1.30	
232 Th	165	1	2.383 ppb	0.38	2.60	
238 U	165	1	1.107 ppb	3.79	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	107337	1.56	117322	91.5	30 - 120	
45 Sc	1	347744	1.00	379430	91.6	30 - 120	
72 Ge	1	215342	0.57	230888	93.3	30 - 120	
115 In	1	635891	0.67	694252	91.6	30 - 120	
165 Ho	1	1362723	1.21	1482298	91.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\122\_BLK.D\122\_BLK.D#  
Date Acquired: Jun 25 2009 01:54 am  
Operator: TEL  
Sample Name: LFFFXB  
Misc Info: BLANK 9174190 6020  
Vial Number: 2307  
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
Last Cal Update: Jun 24 2009 10:21 pm  
Sample Type: BLK  
Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
51 V	72	1	0.014 ppb	440.81	2.00	
52 Cr	72	1	0.074 ppb	25.76	2.00	
55 Mn	72	1	0.038 ppb	25.17	2.00	
59 Co	72	1	-0.002 ppb	100.51	2.00	
60 Ni	72	1	0.006 ppb	212.92	2.00	
63 Cu	72	1	0.025 ppb	18.07	2.00	
66 Zn	72	1	0.240 ppb	9.93	2.00	
75 As	72	1	-0.011 ppb	29.17	2.00	
78 Se	72	1	-0.238 ppb	123.97	2.00	
95 Mo	72	1	-0.055 ppb	35.60	2.00	
107 Ag	115	1	0.003 ppb	141.92	2.00	
111 Cd	115	1	0.000 ppb	2082.30	2.00	
118 Sn	115	1	0.183 ppb	18.34	2.00	
121 Sb	115	1	0.013 ppb	60.51	2.00	
137 Ba	115	1	0.008 ppb	67.26	2.00	
205 Tl	165	1	0.001 ppb	306.47	2.00	
208 Pb	165	1	0.008 ppb	28.60	2.00	
232 Th	165	1	0.203 ppb	22.71	2.00	
238 U	165	1	-0.002 ppb	20.95	2.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	106242	0.31	117322	90.6	30 - 120	
45 Sc	1	344253	1.69	379430	90.7	30 - 120	
72 Ge	1	212816	1.76	230888	92.2	30 - 120	
115 In	1	628767	1.56	694252	90.6	30 - 120	
165 Ho	1	1348506	1.50	1482298	91.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
Tune File# 2 C:\ICPCHEM\1\7500\  
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed









**Dilution Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\126SDIL.D\126SDIL.D#  
 Date Acquired: Jun 25 2009 02:08 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE7CTP5  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2311  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SDIL  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\125AREF.D\125AREF.D#

**QC elements**

Element	IS Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9	Be	6	1.00 ppb	14.07	0.60	166.3	90 - 110	
51	V	72	17.80 ppb	1.40	18.47	96.4	90 - 110	
52	Cr	72	8.49 ppb	1.14	8.80	96.5	90 - 110	
55	Mn	72	41650.00 ppb	0.44	42640.00	97.7	90 - 110	
59	Co	72	4.77 ppb	3.86	4.69	101.6	90 - 110	
60	Ni	72	11.82 ppb	2.28	11.76	100.5	90 - 110	
63	Cu	72	42.23 ppb	1.35	41.66	101.4	90 - 110	
66	Zn	72	16.96 ppb	1.28	16.39	103.5	90 - 110	
75	As	72	13.80 ppb	2.18	14.46	95.4	90 - 110	
78	Se	72	2.35 ppb	20.06	2.39	98.5	90 - 110	
95	Mo	72	0.82 ppb	4.66	0.75	110.0	90 - 110	
107	Ag	115	0.00 ppb	139.88	0.02	13.5	90 - 110	
111	Cd	115	0.27 ppb	23.26	0.27	102.7	90 - 110	
118	Sn	115	0.17 ppb	27.22	0.23	74.0	90 - 110	
121	Sb	115	0.05 ppb	19.88	0.05	95.6	90 - 110	
137	Ba	115	21.51 ppb	0.84	21.76	98.9	90 - 110	
205	Tl	165	0.09 ppb	0.39	0.09	100.7	90 - 110	
208	Pb	165	3.15 ppb	1.89	2.99	105.4	90 - 110	
232	Th	165	1.65 ppb	1.55	1.71	96.6	90 - 110	
238	U	165	3.02 ppb	2.88	2.97	101.8	90 - 110	

**ISTD elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	100153	0.31	117322	85.4	30 - 120	
45	Sc	312890	0.77	379430	82.5	30 - 120	
72	Ge	192635	0.54	230888	83.4	30 - 120	
115	In	560246	0.43	694252	80.7	30 - 120	
165	Ho	1236848	1.73	1482298	83.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:08

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTP5

Serial Dilution: 5.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 126

Method 6020\_

Acquired: 06/25/2009 02:08:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 22:17:00

Units: ug/L

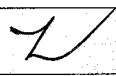
CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	223	4.9960	3.0050	66.3		*	
7440-62-2	Vanadium	51	65967	89.000	92.370	3.65		*	
7440-47-3	Chromium	52	36702	42.470	44.000	3.48		*	
7439-96-5	Manganese	55	52226000	208250	213200	2.32		*	
7440-48-4	Cobalt	59	27835	23.830	23.460	1.58		*	
7440-02-0	Nickel	60	16961	59.100	58.800	0.510		*	
7440-50-8	Copper	63	155193	211.15	208.30	1.37		*	
7440-66-6	Zinc	66	13083	84.800	81.970	3.45		*	
7440-38-2	Arsenic	75	7450	69.000	72.310	4.58	0.21	4.6	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	223	11.755	11.930	1.47	0.70	NC	<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	1593	4.1060	3.7340	9.96		*	
7440-22-4	Silver	107	100	0.01314	0.09698	86.5		*	
7440-43-9	Cadmium	111	265	1.3745	1.3390	2.65		*	
7440-31-5	Tin	118	1027	0.86050	1.1630	26.0		*	
7440-36-0	Antimony	121	201	0.23895	0.24990	4.38		*	
7440-39-3	Barium	137	23881	107.55	108.80	1.15		*	
7440-28-0	Thallium	205	1168	0.46975	0.46630	0.740		*	
7439-92-1	Lead	208	49783	15.750	14.950	5.35		*	
7440-61-1	Uranium	238	51342	15.105	14.840	1.79		*	
7440-29-1	Thorium	232	25169	8.2400	8.5270	3.37		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

\* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

*See only*

Reviewed by: 	Date: <i>6/25/09</i>
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Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:12

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTZ

Spike Dilution: 1.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 127

Method 6020\_

Acquired: 06/25/2009 02:11:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 22:17:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	40403	172.90	3.0050	84.9	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	985902	298.30	92.370	103	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	904878	242.40	44.000	99.2	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	66097000	204700	213200	0.00	200	*	<input type="checkbox"/>
7440-48-4	Cobalt	59	1086600	209.10	23.460	92.8	200		<input type="checkbox"/>
7440-02-0	Nickel	60	295721	231.80	58.800	86.5	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1249950	382.60	208.30	87.2	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	178904	263.60	81.970	90.8	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	142608	297.30	72.310	112	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	14118	233.30	11.930	111	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	323688	202.90	3.7340	99.6	200		<input type="checkbox"/>
7440-22-4	Silver	107	210316	45.750	0.09698	91.3	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	156062	191.70	1.3390	95.2	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	371665	181.60	1.1630	90.2	200		<input type="checkbox"/>
7440-36-0	Antimony	121	565641	210.00	0.24990	105	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	298496	311.70	108.80	101	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	1896680	178.60	0.46630	89.1	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	2805220	189.60	14.950	87.3	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	3169070	198.90	14.840	92.0	200		<input type="checkbox"/>
7440-29-1	Thorium	232	111683	7.9810	8.5270				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

*Se only.*

Reviewed by: 

Date: *6/25/09*

## Spiked Sample (MS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\128\_MS.D\128\_MS.D#  
 Date Acquired: Jun 25 2009 02:15 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE7CTS  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2401  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: MS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

## QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	38.86	3.01	ppb	3.64	40	90.4	50 - 150	
51 V	72	1	130.60	92.37	ppb	0.84	40	98.7	50 - 150	
52 Cr	72	1	81.81	44.00	ppb	0.77	40	97.4	50 - 150	
55 Mn	72	1	206700.00	213200.00	ppb	1.15	40	96.9	50 - 150	
59 Co	72	1	59.84	23.46	ppb	0.89	40	94.3	50 - 150	
60 Ni	72	1	93.35	58.80	ppb	1.82	40	94.5	50 - 150	
63 Cu	72	1	241.90	208.30	ppb	0.24	40	97.4	50 - 150	
66 Zn	72	1	120.90	81.97	ppb	0.58	40	99.1	50 - 150	
75 As	72	1	123.60	72.31	ppb	0.52	40	110.1	50 - 150	
78 Se	72	1	55.17	11.93	ppb	3.57	40	106.2	50 - 150	
95 Mo	72	1	40.23	3.73	ppb	2.24	40	92.0	50 - 150	
107 Ag	115	1	37.74	0.10	ppb	0.54	40	94.1	50 - 150	
111 Cd	115	1	40.40	1.34	ppb	1.51	40	97.7	50 - 150	
118 Sn	115	1	1.23	1.16	ppb	3.67	40	3.0	50 - 150	
121 Sb	115	1	27.12	0.25	ppb	1.76	40	67.4	50 - 150	
137 Ba	115	1	148.20	108.80	ppb	0.17	40	99.6	50 - 150	
205 Tl	165	1	37.33	0.47	ppb	0.34	40	92.2	50 - 150	
208 Pb	165	1	50.45	14.95	ppb	0.12	40	91.8	50 - 150	
232 Th	165	1	51.14	8.53	ppb	0.42	40	105.4	50 - 150	
238 U	165	1	53.88	14.84	ppb	0.73	40	98.2	50 - 150	

## ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	100159	5.10	117322	85.4	30 - 120	
45 Sc	1	285071	2.02	379430	75.1	30 - 120	
72 Ge	1	166111	2.56	230888	71.9	30 - 120	
115 In	1	469333	2.74	694252	67.6	30 - 120	
165 Ho	1	1106631	3.49	1482298	74.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures                      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                        0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\129 CCV.D\129 CCV.D#  
 Date Acquired: Jun 25 2009 02:18 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	53.09 ppb	2.51	50	106.2	90 - 110	
51	V	72	50.60 ppb	1.29	50	101.2	90 - 110	
52	Cr	72	50.15 ppb	0.51	50	100.3	90 - 110	
55	Mn	72	62.11 ppb	4.59	50	124.2	90 - 110	Fail
59	Co	72	49.51 ppb	0.95	50	99.0	90 - 110	
60	Ni	72	49.92 ppb	2.05	50	99.8	90 - 110	
63	Cu	72	49.89 ppb	0.76	50	99.8	90 - 110	
66	Zn	72	51.56 ppb	0.22	50	103.1	90 - 110	
75	As	72	56.46 ppb	0.80	50	112.9	90 - 110	Fail
78	Se	72	47.87 ppb	8.47	50	95.7	90 - 110	
95	Mo	72	49.48 ppb	1.58	50	99.0	90 - 110	
107	Ag	115	51.19 ppb	0.41	50	102.4	90 - 110	
111	Cd	115	51.57 ppb	0.76	50	103.1	90 - 110	
118	Sn	115	50.57 ppb	1.14	50	101.1	90 - 110	
121	Sb	115	54.19 ppb	0.35	50	108.4	90 - 110	
137	Ba	115	51.68 ppb	0.60	50	103.4	90 - 110	
205	Tl	165	51.27 ppb	0.95	50	102.5	90 - 110	
208	Pb	165	50.76 ppb	1.34	50	101.5	90 - 110	
232	Th	165	53.66 ppb	0.66	50	107.3	90 - 110	
238	U	165	51.64 ppb	1.52	50	103.3	90 - 110	

*Se only  
Z  
6/25/09*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	95230	0.73	117322	81.2	30 - 120
45	Sc	1	313422	0.58	379430	82.6	30 - 120
72	Ge	1	198248	0.34	230888	85.9	30 - 120
115	In	1	569663	0.57	694252	82.1	30 - 120
165	Ho	1	1224221	0.63	1482298	82.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\130 CCB.D\130 CCB.D#  
 Date Acquired: Jun 25 2009 02:21 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.031 ppb	86.64	1.00	
51 V	72	1	0.015 ppb	356.57	1.00	
52 Cr	72	1	-0.022 ppb	32.80	1.00	
55 Mn	72	1	1.154 ppb	9.63	1.00	Fail
59 Co	72	1	0.007 ppb	47.21	1.00	
60 Ni	72	1	-0.004 ppb	78.43	1.00	
63 Cu	72	1	0.010 ppb	66.25	1.00	
66 Zn	72	1	-0.046 ppb	9.11	1.00	
75 As	72	1	0.016 ppb	46.36	1.00	
78 Se	72	1	0.276 ppb	258.45	1.00	
95 Mo	72	1	-0.014 ppb	169.57	1.00	
107 Ag	115	1	0.037 ppb	29.34	1.00	
111 Cd	115	1	-0.002 ppb	267.68	1.00	
118 Sn	115	1	0.151 ppb	30.44	1.00	
121 Sb	115	1	0.056 ppb	16.97	1.00	
137 Ba	115	1	0.003 ppb	141.19	1.00	
205 Tl	165	1	0.024 ppb	18.45	1.00	
208 Pb	165	1	0.008 ppb	17.07	1.00	
232 Th	165	1	0.507 ppb	20.87	1.00	
238 U	165	1	0.010 ppb	3.22	1.00	

*NR*  
  
*Sealy*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	98014	2.78	117322	83.5	30 - 120	
45 Sc	1	332388	3.50	379430	87.6	30 - 120	
72 Ge	1	209164	1.84	230888	90.6	30 - 120	
115 In	1	601113	3.43	694252	86.6	30 - 120	
165 Ho	1	1265864	3.01	1482298	85.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\131WASH.D\131WASH.D#  
 Date Acquired: Jun 25 2009 02:25 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.077 ppb	12.16	1.30	
51 V	72	1	5.388 ppb	1.37	6.50	
52 Cr	72	1	2.011 ppb	3.93	2.60	
55 Mn	72	1	1.546 ppb	2.77	1.30	
59 Co	72	1	1.025 ppb	3.50	1.30	
60 Ni	72	1	2.012 ppb	5.31	2.60	
63 Cu	72	1	1.958 ppb	3.07	2.60	
66 Zn	72	1	10.420 ppb	1.68	13.00	
75 As	72	1	5.473 ppb	1.30	6.50	
78 Se	72	1	5.100 ppb	13.03	6.50	
95 Mo	72	1	1.985 ppb	1.74	2.60	
107 Ag	115	1	5.139 ppb	1.41	6.50	
111 Cd	115	1	0.982 ppb	4.15	1.30	
118 Sn	115	1	10.200 ppb	2.21	13.00	
121 Sb	115	1	2.036 ppb	2.72	2.60	
137 Ba	115	1	1.037 ppb	5.24	1.30	
205 Tl	165	1	1.070 ppb	2.16	1.30	
208 Pb	165	1	1.029 ppb	1.25	1.30	
232 Th	165	1	2.182 ppb	1.85	2.60	
238 U	165	1	1.050 ppb	1.79	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	98628	1.73	117322	84.1	30 - 120	
45 Sc	1	345052	0.13	379430	90.9	30 - 120	
72 Ge	1	213318	0.12	230888	92.4	30 - 120	
115 In	1	620168	0.41	694252	89.3	30 - 120	
165 Ho	1	1292111	1.49	1482298	87.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\133SMPL.D\133SMPL.D#  
 Date Acquired: Jun 25 2009 02:32 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE9PT  
 Misc Info: D9F190216  
 Vial Number: 2403  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.07	0.07	ppb	173.22	3600
51	V	72	1	-399.00	-399.00	ppb	17.66	3600
52	Cr	72	1	12,670.00	12670.00	ppb	0.64	3600 >LDR <i>NR</i>
55	Mn	72	1	130.70	130.70	ppb	0.61	3600
59	Co	72	1	0.77	0.77	ppb	3.32	3600
60	Ni	72	1	3.08	3.08	ppb	0.17	3600
63	Cu	72	1	0.99	0.99	ppb	9.51	3600
66	Zn	72	1	5.89	5.89	ppb	3.02	3600
75	As	72	1	111.00	111.00	ppb	1.23	3600
78	Se	72	1	4.66	4.66	ppb	29.34	3600
95	Mo	72	1	12.57	12.57	ppb	1.40	3600
107	Ag	115	1	0.85	0.85	ppb	3.44	3600
111	Cd	115	1	0.34	0.34	ppb	34.52	3600
118	Sn	115	1	1.19	1.19	ppb	1.32	3600
121	Sb	115	1	0.36	0.36	ppb	4.99	3600
137	Ba	115	1	46.93	46.93	ppb	0.56	3600
205	Tl	165	1	0.28	0.28	ppb	3.93	3600
208	Pb	165	1	2.17	2.17	ppb	1.74	3600
232	Th	165	1	0.15	0.15	ppb	25.56	1000
238	U	165	1	48.30	48.30	ppb	0.12	3600

*Sealy*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	82574	2.28	117322	70.4	30 - 120
45	Sc	1	223737	2.79	379430	59.0	30 - 120
72	Ge	1	134084	2.49	230888	58.1	30 - 120
115	In	1	373849	1.39	694252	53.8	30 - 120
165	Ho	1	854183	2.53	1482298	57.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\134SMPL.D\134SMPL.D#  
 Date Acquired: Jun 25 2009 02:35 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4A  
 Misc Info: D9F200196  
 Vial Number: 2404  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.06	0.06	ppb	98.60	3600
51	V	72	1	31.59	31.59	ppb	1.21	3600
52	Cr	72	1	44.85	44.85	ppb	0.55	3600
55	Mn	72	1	37.81	37.81	ppb	0.83	3600
59	Co	72	1	0.73	0.73	ppb	2.48	3600
60	Ni	72	1	2.33	2.33	ppb	1.30	3600
63	Cu	72	1	2.06	2.06	ppb	4.66	3600
66	Zn	72	1	7.75	7.75	ppb	1.70	3600
75	As	72	1	108.70	108.70	ppb	0.93	3600
78	Se	72	1	3.59	3.59	ppb	33.00	3600
95	Mo	72	1	22.14	22.14	ppb	0.75	3600
107	Ag	115	1	0.00	0.00	ppb	656.30	3600
111	Cd	115	1	0.08	0.08	ppb	45.12	3600
118	Sn	115	1	-0.08	-0.08	ppb	13.91	3600
121	Sb	115	1	0.18	0.18	ppb	12.52	3600
137	Ba	115	1	33.03	33.03	ppb	1.42	3600
205	Tl	165	1	0.04	0.04	ppb	4.42	3600
208	Pb	165	1	0.98	0.98	ppb	1.27	3600
232	Th	165	1	0.93	0.93	ppb	4.43	1000
238	U	165	1	20.15	20.15	ppb	1.06	3600

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	73024	2.47	117322	62.2	30 - 120
45	Sc	1	223543	4.10	379430	58.9	30 - 120
72	Ge	1	138814	3.61	230888	60.1	30 - 120
115	In	1	386216	4.07	694252	55.6	30 - 120
165	Ho	1	871332	4.13	1482298	58.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\135SMPL.D\135SMPL.D#  
 Date Acquired: Jun 25 2009 02:38 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4D  
 Misc Info: D9F200196  
 Vial Number: 2405  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.02	0.02	ppb	173.20	3600	
51 V	72	1	2.42	2.42	ppb	11.14	3600	
52 Cr	72	1	5.83	5.83	ppb	2.47	3600	
55 Mn	72	1	673.20	673.20	ppb	0.76	3600	
59 Co	72	1	0.70	0.70	ppb	2.97	3600	
60 Ni	72	1	7.59	7.59	ppb	7.70	3600	
63 Cu	72	1	1.56	1.56	ppb	2.51	3600	
66 Zn	72	1	1.96	1.96	ppb	4.90	3600	
75 As	72	1	176.10	176.10	ppb	0.94	3600	
78 Se	72	1	0.02	0.02	ppb	4714.30	3600	
95 Mo	72	1	41.80	41.80	ppb	1.07	3600	
107 Ag	115	1	0.07	0.07	ppb	37.37	3600	
111 Cd	115	1	0.05	0.05	ppb	56.17	3600	
118 Sn	115	1	0.94	0.94	ppb	26.26	3600	
121 Sb	115	1	0.38	0.38	ppb	4.61	3600	
137 Ba	115	1	20.72	20.72	ppb	1.08	3600	
205 Tl	165	1	0.05	0.05	ppb	17.95	3600	
208 Pb	165	1	0.26	0.26	ppb	5.52	3600	
232 Th	165	1	0.00	0.00	ppb	236.28	1000	
238 U	165	1	95.46	95.46	ppb	0.11	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62661	3.83	117322	53.4	30 - 120	
45 Sc	1	177196	0.63	379430	46.7	30 - 120	
72 Ge	1	108258	1.32	230888	46.9	30 - 120	
115 In	1	296194	0.80	694252	42.7	30 - 120	
165 Ho	1	678678	1.49	1482298	45.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\136SMPL.D\136SMPL.D#  
 Date Acquired: Jun 25 2009 02:42 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4P  
 Misc Info: D9F200199  
 Vial Number: 2406  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	57.39	57.39	ppb	3.12	3600	
52 Cr	72	1	349.90	349.90	ppb	1.02	3600	
55 Mn	72	1	6.67	6.67	ppb	1.52	3600	
59 Co	72	1	5.81	5.81	ppb	2.23	3600	
60 Ni	72	1	10.65	10.65	ppb	3.94	3600	
63 Cu	72	1	0.42	0.42	ppb	10.37	3600	
66 Zn	72	1	0.37	0.37	ppb	17.83	3600	
75 As	72	1	185.40	185.40	ppb	0.41	3600	
78 Se	72	1	3.11	3.11	ppb	6.12	3600	
95 Mo	72	1	149.20	149.20	ppb	1.12	3600	
107 Ag	115	1	0.41	0.41	ppb	8.65	3600	
111 Cd	115	1	0.02	0.02	ppb	414.43	3600	
118 Sn	115	1	-0.16	-0.16	ppb	15.48	3600	
121 Sb	115	1	0.16	0.16	ppb	14.52	3600	
137 Ba	115	1	29.80	29.80	ppb	0.71	3600	
205 Tl	165	1	0.04	0.04	ppb	29.43	3600	
208 Pb	165	1	0.03	0.03	ppb	11.59	3600	
232 Th	165	1	-0.03	-0.03	ppb	8.27	1000	
238 U	165	1	18.30	18.30	ppb	1.57	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62647	1.05	117322	53.4	30 - 120	
45 Sc	1	203182	1.32	379430	53.5	30 - 120	
72 Ge	1	126133	1.09	230888	54.6	30 - 120	
115 In	1	345279	1.28	694252	49.7	30 - 120	
165 Ho	1	781819	0.44	1482298	52.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed





**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\138\_CCV.D\138\_CCV.D#  
 Date Acquired: Jun 25 2009 02:48 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	61.15 ppb	3.08	50	122.3	90 - 110	Fail
51	V	72	50.08 ppb	0.58	50	100.2	90 - 110	
52	Cr	72	50.30 ppb	1.06	50	100.6	90 - 110	
55	Mn	72	48.83 ppb	1.06	50	97.7	90 - 110	
59	Co	72	48.38 ppb	1.21	50	96.8	90 - 110	
60	Ni	72	48.87 ppb	2.44	50	97.7	90 - 110	
63	Cu	72	49.38 ppb	1.21	50	98.8	90 - 110	
66	Zn	72	54.84 ppb	0.57	50	109.7	90 - 110	
75	As	72	65.05 ppb	0.95	50	130.1	90 - 110	Fail
78	Se	72	45.79 ppb	2.17	50	91.6	90 - 110	
95	Mo	72	49.19 ppb	1.32	50	98.4	90 - 110	
107	Ag	115	52.65 ppb	0.53	50	105.3	90 - 110	
111	Cd	115	53.13 ppb	2.07	50	106.3	90 - 110	
118	Sn	115	51.40 ppb	0.48	50	102.8	90 - 110	
121	Sb	115	59.54 ppb	0.35	50	119.1	90 - 110	Fail
137	Ba	115	55.08 ppb	0.33	50	110.2	90 - 110	Fail
205	Tl	165	52.98 ppb	0.52	50	106.0	90 - 110	
208	Pb	165	52.54 ppb	0.96	50	105.1	90 - 110	
232	Th	165	54.85 ppb	0.72	50	109.7	90 - 110	
238	U	165	53.25 ppb	0.99	50	106.5	90 - 110	

*Scandy*  
*Z*  
*6/25/09*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	61254	1.77	117322	52.2	30 - 120
45	Sc	1	206162	0.78	379430	54.3	30 - 120
72	Ge	1	134977	0.81	230888	58.5	30 - 120
115	In	1	368867	0.74	694252	53.1	30 - 120
165	Ho	1	784294	0.88	1482298	52.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\139\_CCB.D\139\_CCB.D#  
 Date Acquired: Jun 25 2009 02:52 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.036	ppb	333.79	1.00	
52 Cr	72	1	0.483	ppb	10.99	1.00	
55 Mn	72	1	0.422	ppb	8.18	1.00	
59 Co	72	1	0.007	ppb	105.78	1.00	
60 Ni	72	1	0.016	ppb	67.80	1.00	
63 Cu	72	1	0.044	ppb	36.71	1.00	
66 Zn	72	1	-0.013	ppb	298.88	1.00	
75 As	72	1	0.099	ppb	47.87	1.00	
78 Se	72	1	0.394	ppb	211.54	1.00	
95 Mo	72	1	-0.012	ppb	356.35	1.00	
107 Ag	115	1	0.008	ppb	73.56	1.00	
111 Cd	115	1	0.013	ppb	81.55	1.00	
118 Sn	115	1	0.147	ppb	29.98	1.00	
121 Sb	115	1	0.053	ppb	29.90	1.00	
137 Ba	115	1	0.016	ppb	74.67	1.00	
205 Tl	165	1	0.022	ppb	12.48	1.00	
208 Pb	165	1	0.008	ppb	19.60	1.00	
232 Th	165	1	0.852	ppb	11.35	1.00	
238 U	165	1	0.011	ppb	22.33	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62733	1.68	117322	53.5	30 - 120	
45 Sc	1	215967	0.80	379430	56.9	30 - 120	
72 Ge	1	140696	1.49	230888	60.9	30 - 120	
115 In	1	383814	0.78	694252	55.3	30 - 120	
165 Ho	1	815818	0.65	1482298	55.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\140WASH.D\140WASH.D#  
 Date Acquired: Jun 25 2009 02:55 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.124 ppb	10.47	1.30	
51 V	72	1	5.159 ppb	1.59	6.50	
52 Cr	72	1	2.387 ppb	8.34	2.60	
55 Mn	72	1	1.403 ppb	6.80	1.30	
59 Co	72	1	1.050 ppb	4.80	1.30	
60 Ni	72	1	2.138 ppb	4.37	2.60	
63 Cu	72	1	2.028 ppb	1.54	2.60	
66 Zn	72	1	11.320 ppb	2.17	13.00	
75 As	72	1	6.770 ppb	6.25	6.50	
78 Se	72	1	4.702 ppb	13.58	6.50	
95 Mo	72	1	1.954 ppb	10.98	2.60	
107 Ag	115	1	5.358 ppb	1.39	6.50	
111 Cd	115	1	1.122 ppb	13.99	1.30	
118 Sn	115	1	10.880 ppb	3.97	13.00	
121 Sb	115	1	2.328 ppb	1.99	2.60	
137 Ba	115	1	1.092 ppb	9.09	1.30	
205 Tl	165	1	1.094 ppb	2.88	1.30	
208 Pb	165	1	1.061 ppb	2.52	1.30	
232 Th	165	1	2.313 ppb	0.58	2.60	
238 U	165	1	1.092 ppb	1.45	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	63763	0.94	117322	54.3	30 - 120	
45 Sc	1	220434	0.22	379430	58.1	30 - 120	
72 Ge	1	142718	0.10	230888	61.8	30 - 120	
115 In	1	392669	0.48	694252	56.6	30 - 120	
165 Ho	1	824043	0.50	1482298	55.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

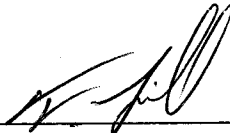
0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

...”During the course of an analytical run, the instrument may be “resloped” or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed.”

Analyst: \_\_\_\_\_



Date: \_\_\_\_\_

6/25/09

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#  
 Date Acquired: Jun 25 2009 04:51 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:48 am  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	13	43.87
51	V	72	1	-102	598.74
52	Cr	72	1	1140	3.09
55	Mn	72	1	1710	10.08
59	Co	72	1	33	45.56
60	Ni	72	1	20	50.41
63	Cu	72	1	320	8.45
66	Zn	72	1	302	9.15
75	As	72	1	21	39.96
78	Se	72	1	77	19.51
95	Mo	72	1	167	24.47
107	Ag	115	1	30	1.00
111	Cd	115	1	20	44.65
118	Sn	115	1	597	10.87
121	Sb	115	1	24	16.27
137	Ba	115	1	8	98.57
205	Tl	165	1	50	30.51
208	Pb	165	1	79	37.71
232	Th	165	1	283	14.05
238	U	165	1	49	57.20

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	62225	0.98
45	Sc	1	221098	0.91
72	Ge	1	143668	0.47
115	In	1	390474	0.99
165	Ho	1	807368	0.51

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

### Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\175ICAL.D\175ICAL.D#  
 Date Acquired: Jun 25 2009 04:54 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:51 am  
 Sample Type: ICAL

#### QC Elements

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	16513	1.31
51	V	72	263984	0.79
52	Cr	72	290851	0.50
55	Mn	72	241407	0.04
59	Co	72	402037	0.69
60	Ni	72	99432	0.85
63	Cu	72	255527	0.91
66	Zn	72	59681	0.78
75	As	72	51091	0.58
78	Se	72	4741	2.80
95	Mo	72	122658	0.75
107	Ag	115	365376	1.01
111	Cd	115	66044	1.60
118	Sn	115	159762	1.95
121	Sb	115	246791	1.25
137	Ba	115	80543	1.09
205	Tl	165	727520	0.42
208	Pb	165	1006933	0.28
232	Th	165	1002721	0.68
238	U	165	1074608	0.40

#### ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	61261	1.49	62225	98.5	30 - 120
45	Sc	1	216397	1.03	221098	97.9	30 - 120
72	Ge	1	139671	0.46	143668	97.2	30 - 120
115	In	1	377614	0.71	390474	96.7	30 - 120
165	Ho	1	787362	1.00	807368	97.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\176\_CCV.D\176\_CCV.D#  
 Date Acquired: Jun 25 2009 04:57 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	52.14 ppb	3.05	50	104.3	90 - 110	
51	V	72	51.84 ppb	0.80	50	103.7	90 - 110	
52	Cr	72	51.29 ppb	0.24	50	102.6	90 - 110	
55	Mn	72	53.16 ppb	0.26	50	106.3	90 - 110	
59	Co	72	50.99 ppb	1.23	50	102.0	90 - 110	
60	Ni	72	50.66 ppb	2.73	50	101.3	90 - 110	
63	Cu	72	51.65 ppb	1.61	50	103.3	90 - 110	
66	Zn	72	50.45 ppb	0.59	50	100.9	90 - 110	
75	As	72	51.12 ppb	1.61	50	102.2	90 - 110	
78	Se	72	52.95 ppb	7.22	50	105.9	90 - 110	
95	Mo	72	51.18 ppb	2.54	50	102.4	90 - 110	
107	Ag	115	51.35 ppb	0.70	50	102.7	90 - 110	
111	Cd	115	50.08 ppb	1.80	50	100.2	90 - 110	
118	Sn	115	51.39 ppb	0.77	50	102.8	90 - 110	
121	Sb	115	51.31 ppb	1.30	50	102.6	90 - 110	
137	Ba	115	50.98 ppb	0.87	50	102.0	90 - 110	
205	Tl	165	51.07 ppb	0.44	50	102.1	90 - 110	
208	Pb	165	51.39 ppb	0.20	50	102.8	90 - 110	
232	Th	165	52.08 ppb	0.34	50	104.2	90 - 110	
238	U	165	51.57 ppb	0.12	50	103.1	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	61671	1.13	62225	99.1	30 - 120
45	Sc	1	218143	0.12	221098	98.7	30 - 120
72	Ge	1	140332	0.44	143668	97.7	30 - 120
115	In	1	378394	0.55	390474	96.9	30 - 120
165	Ho	1	787763	0.96	807368	97.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\177\_CCB.D\177\_CCB.D#  
 Date Acquired: Jun 25 2009 05:01 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	-0.040	ppb	85.21	1.00	
51 V	72	1	-0.090	ppb	70.66	1.00	
52 Cr	72	1	0.015	ppb	296.83	1.00	
55 Mn	72	1	0.006	ppb	1302.50	1.00	
59 Co	72	1	0.007	ppb	153.20	1.00	
60 Ni	72	1	0.033	ppb	17.35	1.00	
63 Cu	72	1	0.028	ppb	19.01	1.00	
66 Zn	72	1	-0.319	ppb	3.92	1.00	
75 As	72	1	0.008	ppb	28.53	1.00	
78 Se	72	1	0.913	ppb	80.50	1.00	
95 Mo	72	1	-0.024	ppb	78.00	1.00	
107 Ag	115	1	0.026	ppb	60.05	1.00	
111 Cd	115	1	0.013	ppb	54.55	1.00	
118 Sn	115	1	0.078	ppb	14.41	1.00	
121 Sb	115	1	0.062	ppb	18.44	1.00	
137 Ba	115	1	0.004	ppb	55.47	1.00	
205 Tl	165	1	0.064	ppb	5.75	1.00	
208 Pb	165	1	0.010	ppb	24.45	1.00	
232 Th	165	1	1.005	ppb	16.22	1.00	Fail
238 U	165	1	0.011	ppb	39.85	1.00	

*NR*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62750	0.66	62225	100.8	30 - 120	
45 Sc	1	220169	1.44	221098	99.6	30 - 120	
72 Ge	1	143254	0.45	143668	99.7	30 - 120	
115 In	1	386189	0.46	390474	98.9	30 - 120	
165 Ho	1	801411	0.59	807368	99.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\178WASH.D\178WASH.D#  
 Date Acquired: Jun 25 2009 05:04 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.856 ppb	49.86	1.30	
51 V	72	1	5.355 ppb	4.85	6.50	
52 Cr	72	1	2.133 ppb	5.33	2.60	
55 Mn	72	1	1.057 ppb	8.29	1.30	
59 Co	72	1	1.039 ppb	4.56	1.30	
60 Ni	72	1	2.037 ppb	3.32	2.60	
63 Cu	72	1	2.113 ppb	6.02	2.60	
66 Zn	72	1	10.090 ppb	1.42	13.00	
75 As	72	1	5.321 ppb	4.48	6.50	
78 Se	72	1	5.949 ppb	3.28	6.50	
95 Mo	72	1	2.085 ppb	7.19	2.60	
107 Ag	115	1	5.247 ppb	2.26	6.50	
111 Cd	115	1	1.030 ppb	2.85	1.30	
118 Sn	115	1	10.280 ppb	3.44	13.00	
121 Sb	115	1	1.982 ppb	5.53	2.60	
137 Ba	115	1	1.068 ppb	1.60	1.30	
205 Tl	165	1	1.097 ppb	4.29	1.30	
208 Pb	165	1	1.048 ppb	0.89	1.30	
232 Th	165	1	2.249 ppb	2.51	2.60	
238 U	165	1	1.048 ppb	3.06	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62373	1.81	62225	100.2	30 - 120	
45 Sc	1	221417	1.71	221098	100.1	30 - 120	
72 Ge	1	142809	0.34	143668	99.4	30 - 120	
115 In	1	390131	0.77	390474	99.9	30 - 120	
165 Ho	1	808824	0.82	807368	100.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\179SMPL.D\179SMPL.D#  
 Date Acquired: Jun 25 2009 05:08 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: MDLV BLANK  
 Misc Info: HOT Sb  
 Vial Number: 4303  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS	Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	-0.02	-0.02	ppb	1.94	3600	
51	V	72	1	-3.15	-3.15	ppb	18.33	3600	
52	Cr	72	1	0.66	0.66	ppb	9.17	3600	
55	Mn	72	1	0.29	0.29	ppb	11.03	3600	
59	Co	72	1	0.00	0.00	ppb	374.77	3600	
60	Ni	72	1	0.15	0.15	ppb	15.11	3600	
63	Cu	72	1	0.83	0.83	ppb	15.01	3600	
66	Zn	72	1	6.70	6.70	ppb	1.73	3600	
75	As	72	1	0.89	0.89	ppb	14.80	3600	
78	Se	72	1	0.32	0.32	ppb	114.53	3600	
95	Mo	72	1	-0.09	-0.09	ppb	5.69	3600	
107	Ag	115	1	0.04	0.04	ppb	6.30	3600	
111	Cd	115	1	0.00	0.00	ppb	100.24	3600	
118	Sn	115	1	1.18	1.18	ppb	8.29	3600	
121	Sb	115	1	0.07	0.07	ppb	17.62	3600	
137	Ba	115	1	0.32	0.32	ppb	4.28	3600	
205	Tl	165	1	0.01	0.01	ppb	16.24	3600	
208	Pb	165	1	0.08	0.08	ppb	12.18	3600	
232	Th	165	1	0.13	0.13	ppb	2.96	1000	
238	U	165	1	0.00	0.00	ppb	40.79	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	65554	0.79	62225	105.4	30 - 120
45	Sc	1	216441	0.59	221098	97.9	30 - 120
72	Ge	1	140455	0.55	143668	97.8	30 - 120
115	In	1	386276	1.10	390474	98.9	30 - 120
165	Ho	1	814373	0.09	807368	100.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\181SMPL.D\181SMPL.D#  
 Date Acquired: Jun 25 2009 05:15 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: MDLV2  
 Misc Info: HOT Sb  
 Vial Number: 4305  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	-0.04	-0.04	ppb	146.31	3600	
51 V	72	1	-3.12	-3.12	ppb	6.24	3600	
52 Cr	72	1	0.47	0.47	ppb	6.00	3600	
55 Mn	72	1	0.10	0.10	ppb	55.22	3600	
59 Co	72	1	0.00	0.00	ppb	849.61	3600	
60 Ni	72	1	0.17	0.17	ppb	34.43	3600	
63 Cu	72	1	0.87	0.87	ppb	7.45	3600	
66 Zn	72	1	6.08	6.08	ppb	1.36	3600	
75 As	72	1	0.92	0.92	ppb	10.29	3600	
78 Se	72	1	-0.27	-0.27	ppb	118.66	3600	
95 Mo	72	1	-0.08	-0.08	ppb	39.32	3600	
107 Ag	115	1	0.05	0.05	ppb	18.37	3600	
111 Cd	115	1	-0.01	-0.01	ppb	111.27	3600	
118 Sn	115	1	1.39	1.39	ppb	17.74	3600	
121 Sb	115	1	0.17	0.17	ppb	7.63	3600	
137 Ba	115	1	0.24	0.24	ppb	20.67	3600	
205 Tl	165	1	0.00	0.00	ppb	98.11	3600	
208 Pb	165	1	0.17	0.17	ppb	1.36	3600	
232 Th	165	1	0.01	0.01	ppb	97.04	1000	
238 U	165	1	0.00	0.00	ppb	39.75	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	66495	1.76	62225	106.9	30 - 120	
45 Sc	1	220794	0.23	221098	99.9	30 - 120	
72 Ge	1	143303	0.51	143668	99.7	30 - 120	
115 In	1	394788	0.18	390474	101.1	30 - 120	
165 Ho	1	844318	0.14	807368	104.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\182\_CCV.D\182\_CCV.D#  
 Date Acquired: Jun 25 2009 05:18 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	48.90 ppb	2.18	50	97.8	90 - 110	
51	V	72	50.88 ppb	3.13	50	101.8	90 - 110	
52	Cr	72	51.25 ppb	1.21	50	102.5	90 - 110	
55	Mn	72	52.51 ppb	0.62	50	105.0	90 - 110	
59	Co	72	50.59 ppb	0.92	50	101.2	90 - 110	
60	Ni	72	50.66 ppb	1.05	50	101.3	90 - 110	
63	Cu	72	50.87 ppb	1.16	50	101.7	90 - 110	
66	Zn	72	50.46 ppb	0.49	50	100.9	90 - 110	
75	As	72	50.33 ppb	0.36	50	100.7	90 - 110	
78	Se	72	52.26 ppb	3.84	50	104.5	90 - 110	
95	Mo	72	51.88 ppb	1.02	50	103.8	90 - 110	
107	Ag	115	51.15 ppb	0.58	50	102.3	90 - 110	
111	Cd	115	50.58 ppb	0.98	50	101.2	90 - 110	
118	Sn	115	51.79 ppb	1.40	50	103.6	90 - 110	
121	Sb	115	51.26 ppb	0.76	50	102.5	90 - 110	
137	Ba	115	50.31 ppb	0.32	50	100.6	90 - 110	
205	Tl	165	51.42 ppb	0.51	50	102.8	90 - 110	
208	Pb	165	51.51 ppb	0.51	50	103.0	90 - 110	
232	Th	165	50.76 ppb	0.59	50	101.5	90 - 110	
238	U	165	52.34 ppb	0.96	50	104.7	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	64364	1.47	62225	103.4	30 - 120
45	Sc	1	217691	1.07	221098	98.5	30 - 120
72	Ge	1	141008	0.33	143668	98.1	30 - 120
115	In	1	386520	0.46	390474	99.0	30 - 120
165	Ho	1	822184	0.23	807368	101.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\183\_CCB.D\183\_CCB.D#  
 Date Acquired: Jun 25 2009 05:21 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	-0.041 ppb	83.19	1.00	
51 V	72	1	-0.169 ppb	120.09	1.00	
52 Cr	72	1	0.018 ppb	89.65	1.00	
55 Mn	72	1	-0.067 ppb	79.64	1.00	
59 Co	72	1	0.014 ppb	35.36	1.00	
60 Ni	72	1	0.026 ppb	78.50	1.00	
63 Cu	72	1	0.007 ppb	565.15	1.00	
66 Zn	72	1	-0.306 ppb	4.96	1.00	
75 As	72	1	0.062 ppb	15.37	1.00	
78 Se	72	1	0.142 ppb	362.23	1.00	
95 Mo	72	1	-0.069 ppb	11.65	1.00	
107 Ag	115	1	0.022 ppb	24.36	1.00	
111 Cd	115	1	-0.006 ppb	486.41	1.00	
118 Sn	115	1	0.067 ppb	100.81	1.00	
121 Sb	115	1	0.048 ppb	7.60	1.00	
137 Ba	115	1	0.009 ppb	152.34	1.00	
205 Tl	165	1	0.028 ppb	11.85	1.00	
208 Pb	165	1	0.010 ppb	9.41	1.00	
232 Th	165	1	0.915 ppb	15.17	1.00	
238 U	165	1	0.010 ppb	34.04	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	63544	1.55	62225	102.1	30 - 120	
45 Sc	1	221446	0.67	221098	100.2	30 - 120	
72 Ge	1	143334	0.65	143668	99.8	30 - 120	
115 In	1	395606	0.61	390474	101.3	30 - 120	
165 Ho	1	829347	0.26	807368	102.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\184WASH.D\184WASH.D#  
 Date Acquired: Jun 25 2009 05:25 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.969 ppb	10.37	1.30	
51 V	72	1	5.048 ppb	7.30	6.50	
52 Cr	72	1	2.030 ppb	10.78	2.60	
55 Mn	72	1	0.879 ppb	16.01	1.30	
59 Co	72	1	1.029 ppb	0.48	1.30	
60 Ni	72	1	2.151 ppb	3.11	2.60	
63 Cu	72	1	2.172 ppb	7.10	2.60	
66 Zn	72	1	10.080 ppb	1.76	13.00	
75 As	72	1	5.144 ppb	0.89	6.50	
78 Se	72	1	4.167 ppb	27.62	6.50	
95 Mo	72	1	1.902 ppb	5.54	2.60	
107 Ag	115	1	5.282 ppb	3.36	6.50	
111 Cd	115	1	0.969 ppb	1.65	1.30	
118 Sn	115	1	10.350 ppb	2.02	13.00	
121 Sb	115	1	2.021 ppb	0.99	2.60	
137 Ba	115	1	1.088 ppb	2.94	1.30	
205 Tl	165	1	1.082 ppb	1.19	1.30	
208 Pb	165	1	1.054 ppb	1.15	1.30	
232 Th	165	1	2.222 ppb	3.76	2.60	
238 U	165	1	1.051 ppb	1.94	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	61391	1.70	62225	98.7	30 - 120	
45 Sc	1	219436	0.26	221098	99.2	30 - 120	
72 Ge	1	143709	0.56	143668	100.0	30 - 120	
115 In	1	393133	0.98	390474	100.7	30 - 120	
165 Ho	1	827255	0.40	807368	102.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\185\_BLK.D\185\_BLK.D#  
 Date Acquired: Jun 25 2009 05:28 am  
 Operator: TEL  
 Sample Name: LFFFCBF  
 Misc Info: BLANK 9174183 6020  
 Vial Number: 2211  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: BLK  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	-0.040 ppb	167.84	2.00	
51 V	72	1	-0.155 ppb	143.81	2.00	
52 Cr	72	1	-0.026 ppb	267.59	2.00	
55 Mn	72	1	-0.278 ppb	33.40	2.00	
59 Co	72	1	-0.005 ppb	28.52	2.00	
60 Ni	72	1	0.013 ppb	43.47	2.00	
63 Cu	72	1	0.042 ppb	76.24	2.00	
66 Zn	72	1	-0.054 ppb	98.02	2.00	
75 As	72	1	0.010 ppb	101.14	2.00	
78 Se	72	1	0.544 ppb	122.95	2.00	
95 Mo	72	1	-0.096 ppb	9.48	2.00	
107 Ag	115	1	-0.005 ppb	49.41	2.00	
111 Cd	115	1	-0.001 ppb	237.72	2.00	
118 Sn	115	1	-0.219 ppb	15.62	2.00	
121 Sb	115	1	0.020 ppb	46.98	2.00	
137 Ba	115	1	0.008 ppb	58.13	2.00	
205 Tl	165	1	0.004 ppb	64.83	2.00	
208 Pb	165	1	0.233 ppb	5.40	2.00	
232 Th	165	1	0.061 ppb	16.57	2.00	
238 U	165	1	-0.003 ppb	17.44	2.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	63226	1.07	62225	101.6	30 - 120	
45 Sc	1	220039	0.64	221098	99.5	30 - 120	
72 Ge	1	144559	0.14	143668	100.6	30 - 120	
115 In	1	391556	0.72	390474	100.3	30 - 120	
165 Ho	1	827325	0.27	807368	102.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Laboratory Control Spike (LCS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\186\_LCS.D\186\_LCS.D#  
 Date Acquired: Jun 25 2009 05:32 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LFFFCCF  
 Misc Info: LCS  
 Vial Number: 2212  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: LCS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	42.71	2.61	40	106.8	80 - 120	
51 V	72	1	42.39	1.83	40	106.0	80 - 120	
52 Cr	72	1	42.12	1.02	40	105.3	80 - 120	
55 Mn	72	1	42.10	1.09	40	105.3	80 - 120	
59 Co	72	1	41.65	1.16	40	104.1	80 - 120	
60 Ni	72	1	42.75	2.67	40	106.9	80 - 120	
63 Cu	72	1	43.24	0.56	40	108.1	80 - 120	
66 Zn	72	1	42.08	1.31	40	105.2	80 - 120	
75 As	72	1	41.68	0.80	40	104.2	80 - 120	
78 Se	72	1	40.78	5.47	40	102.0	80 - 120	
95 Mo	72	1	42.22	2.93	40	105.6	80 - 120	
107 Ag	115	1	42.32	0.96	40	105.8	80 - 120	
111 Cd	115	1	41.39	0.78	40	103.5	80 - 120	
118 Sn	115	1	-0.23	4.85	40	-0.6	80 - 120	
121 Sb	115	1	42.16	0.63	40	105.4	80 - 120	
137 Ba	115	1	42.39	1.24	40	106.0	80 - 120	
205 Tl	165	1	42.50	0.87	40	106.3	80 - 120	
208 Pb	165	1	42.56	0.55	40	106.4	80 - 120	
232 Th	165	1	39.20	1.57	40	98.0	80 - 120	
238 U	165	1	42.96	0.08	40	107.4	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62418	1.27	62225	100.3	30 - 120	
45 Sc	1	215903	0.46	221098	97.7	30 - 120	
72 Ge	1	140814	0.45	143668	98.0	30 - 120	
115 In	1	384924	0.49	390474	98.6	30 - 120	
165 Ho	1	807407	1.34	807368	100.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\187AREF.D\187AREF.D#  
 Date Acquired: Jun 25 2009 05:35 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EF 10X  
 Misc Info: D9F180314  
 Vial Number: 2301  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: AllRef  
 Dilution Factor: 10.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 10.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.26	0.03	ppb	143.56	3600	
51 V	72	1	12.99	1.30	ppb	7.50	3600	
52 Cr	72	1	808.00	80.80	ppb	1.30	3600	
55 Mn	72	1	140.10	14.01	ppb	2.23	3600	
59 Co	72	1	0.60	0.06	ppb	11.17	3600	
60 Ni	72	1	2.67	0.27	ppb	26.01	3600	
63 Cu	72	1	0.75	0.07	ppb	35.49	3600	
66 Zn	72	1	-0.99	-0.10	ppb	34.84	3600	
75 As	72	1	109.70	10.97	ppb	1.83	3600	
78 Se	72	1	7.63	0.76	ppb	103.11	3600	
95 Mo	72	1	111.50	11.15	ppb	4.15	3600	
107 Ag	115	1	0.21	0.02	ppb	42.89	3600	
111 Cd	115	1	-0.12	-0.01	ppb	102.14	3600	
118 Sn	115	1	-2.15	-0.22	ppb	12.54	3600	
121 Sb	115	1	0.58	0.06	ppb	22.98	3600	
137 Ba	115	1	21.88	2.19	ppb	4.74	3600	
205 Tl	165	1	0.24	0.02	ppb	7.27	3600	
208 Pb	165	1	0.15	0.02	ppb	27.51	3600	
232 Th	165	1	11.23	1.12	ppb	15.76	1000	
238 U	165	1	27.13	2.71	ppb	0.85	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	58741	1.68	62225	94.4	30 - 120	
45 Sc	1	208759	0.35	221098	94.4	30 - 120	
72 Ge	1	135507	0.52	143668	94.3	30 - 120	
115 In	1	365769	0.62	390474	93.7	30 - 120	
165 Ho	1	784696	0.99	807368	97.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Dilution Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\188SDIL.D\188SDIL.D#  
 Date Acquired: Jun 25 2009 05:38 am **QC Summary:**  
 Acq. Method: NormISIS.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE71EP50F  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2302  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SDIL  
 Dilution Factor: 10.00

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\187AREF.D\187AREF.D#

**QC elements**

Element	IS Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	-0.04 ppb	88.89	0.01	-760.5	90 - 110	
51 V	72	1	0.40 ppb	50.04	0.26	153.2	90 - 110	
52 Cr	72	1	16.50 ppb	2.22	16.16	102.1	90 - 110	
55 Mn	72	1	2.64 ppb	4.22	2.80	94.2	90 - 110	
59 Co	72	1	0.00 ppb	56.25	0.01	20.6	90 - 110	
60 Ni	72	1	0.24 ppb	5.31	0.05	454.1	90 - 110	
63 Cu	72	1	0.00 ppb	1221.00	0.01	12.4	90 - 110	
66 Zn	72	1	-0.23 ppb	5.93	-0.02	1153.7	90 - 110	
75 As	72	1	2.24 ppb	3.31	2.19	102.2	90 - 110	
78 Se	72	1	0.50 ppb	44.51	0.15	327.3	90 - 110	
95 Mo	72	1	2.08 ppb	3.36	2.23	93.3	90 - 110	
107 Ag	115	1	0.00 ppb	548.12	0.00	43.3	90 - 110	
111 Cd	115	1	-0.01 ppb	95.77	0.00	341.3	90 - 110	
118 Sn	115	1	-0.23 ppb	6.81	-0.04	523.7	90 - 110	
121 Sb	115	1	0.02 ppb	71.67	0.01	129.3	90 - 110	
137 Ba	115	1	0.47 ppb	5.47	0.44	107.8	90 - 110	
205 Tl	165	1	0.01 ppb	29.26	0.00	129.2	90 - 110	
208 Pb	165	1	0.01 ppb	32.33	0.00	248.5	90 - 110	
232 Th	165	1	0.19 ppb	9.78	0.22	84.6	90 - 110	
238 U	165	1	0.55 ppb	0.40	0.54	102.0	90 - 110	

**ISTD elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	61264	0.36	62225	98.5	30 - 120	
45 Sc	1	217341	0.21	221098	98.3	30 - 120	
72 Ge	1	142903	0.61	143668	99.5	30 - 120	
115 In	1	386738	0.45	390474	99.0	30 - 120	
165 Ho	1	804769	0.92	807368	99.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:33

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE71EP50F

Serial Dilution: 50.00

Sample Dilution: 10.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 188

Method 6020\_

Acquired: 06/25/2009 05:38:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/25/2009 04:51:00

Units: ug/L

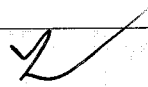
CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	7	-1.9660	0.25850	861		*	
7440-62-2	Vanadium	51	970	19.905	12.990	53.2		*	
7440-47-3	Chromium	52	50036	825.00	808.00	2.10		*	
7439-96-5	Manganese	55	8173	131.95	140.10	5.82		*	
7440-48-4	Cobalt	59	43	0.12410	0.60340	79.4		*	
7440-02-0	Nickel	60	267	12.130	2.6710	354		*	
7440-50-8	Copper	63	323	0.09275	0.74690	87.6		*	
7440-66-6	Zinc	66	162	-11.390	-0.98730			*	
7440-38-2	Arsenic	75	1192	112.10	109.70	2.19	0.21	NC	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	100	24.960	7.6250	227	0.70	NC	<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	2774	104.00	111.50	6.73		*	
7440-22-4	Silver	107	37	0.09195	0.21260	56.7		*	
7440-43-9	Cadmium	111	14	-0.39865	-0.11680			*	
7440-31-5	Tin	118	223	-11.275	-2.1530			*	
7440-36-0	Antimony	121	62	0.75350	0.58270	29.3		*	
7440-39-3	Barium	137	397	23.580	21.880	7.77		*	
7440-28-0	Thallium	205	97	0.31525	0.24400	29.2		*	
7439-92-1	Lead	208	158	0.38465	0.15480	148		*	
7440-61-1	Uranium	238	6126	27.665	27.130	1.97		*	
7440-29-1	Thorium	232	2230	9.5000	11.230	15.4		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

\* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

*AScanby*  
*6/25/09*

Reviewed by:  Date: *6/25/09*

## Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\189PDS.D\189PDS.D#  
 Date Acquired: Jun 25 2009 05:42 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EZF  
 Misc Info: POST DIGESTION SPIKE  
 Vial Number: 2303  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: PDS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

## QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	203.60	0.03	ppb	4.18	200	101.8	75 - 125	
51 V	72	1	197.10	1.30	ppb	0.67	200	97.9	75 - 125	
52 Cr	72	1	273.90	80.80	ppb	1.58	200	97.5	75 - 125	
55 Mn	72	1	209.70	14.01	ppb	1.34	200	98.0	75 - 125	
59 Co	72	1	188.50	0.06	ppb	1.24	200	94.2	75 - 125	
60 Ni	72	1	185.80	0.27	ppb	0.35	200	92.8	75 - 125	
63 Cu	72	1	187.60	0.07	ppb	1.37	200	93.8	75 - 125	
66 Zn	72	1	193.70	-0.10	ppb	0.91	200	96.9	75 - 125	
75 As	72	1	207.60	10.97	ppb	0.60	200	98.4	75 - 125	
78 Se	72	1	195.20	0.76	ppb	5.53	200	97.2	75 - 125	
95 Mo	72	1	210.60	11.15	ppb	0.91	200	99.7	75 - 125	
107 Ag	115	1	46.59	0.02	ppb	0.13	50	93.1	75 - 125	
111 Cd	115	1	191.70	-0.01	ppb	1.57	200	95.9	75 - 125	
118 Sn	115	1	180.20	-0.22	ppb	1.38	200	90.2	75 - 125	
121 Sb	115	1	198.10	0.06	ppb	0.74	200	99.0	75 - 125	
137 Ba	115	1	199.30	2.19	ppb	1.41	200	98.6	75 - 125	
205 Tl	165	1	187.10	0.02	ppb	0.42	200	93.5	75 - 125	
208 Pb	165	1	188.00	0.02	ppb	0.59	200	94.0	75 - 125	
232 Th	165	1	0.09	1.12	ppb	15.95	200	0.0	75 - 125	
238 U	165	1	193.40	2.71	ppb	1.23	200	95.4	75 - 125	

## ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	57406	2.48	62225	92.3	30 - 120	
45 Sc	1	206632	0.61	221098	93.5	30 - 120	
72 Ge	1	132535	0.98	143668	92.3	30 - 120	
115 In	1	354093	0.33	390474	90.7	30 - 120	
165 Ho	1	763992	0.46	807368	94.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures                      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                        0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:38

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE71EZF

Spike Dilution: 1.00

Sample Dilution: 10.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 189

Method 6020\_

Acquired: 06/25/2009 05:42:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/25/2009 04:51:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	31468	203.60	0.02585	102	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	493756	197.10	1.2990	97.9	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	753978	273.90	80.800	96.5	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	478507	209.70	14.010	97.8	200		<input checked="" type="checkbox"/>
7440-48-4	Cobalt	59	719202	188.50	0.06034	94.2	200		<input type="checkbox"/>
7440-02-0	Nickel	60	175314	185.80	0.26710	92.8	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	454686	187.60	0.07469	93.8	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	109405	193.70	-0.09873	96.8	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	100602	207.60	10.970	98.3	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	8713	195.20	0.76250	97.2	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	244924	210.60	11.150	99.7	200		<input type="checkbox"/>
7440-22-4	Silver	107	159634	46.590	0.02126	93.1	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	118674	191.70	-0.01168	95.8	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	269490	180.20	-0.21530	90.1	200		<input type="checkbox"/>
7440-36-0	Antimony	121	458414	198.10	0.05827	99.0	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	150519	199.30	2.1880	98.6	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	1321180	187.10	0.02440	93.5	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	1836670	188.00	0.01548	94.0	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	2016480	193.40	2.7130	95.3	200		<input type="checkbox"/>
7440-29-1	Thorium	232	1167	0.09235	1.1230				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

Reviewed by: *Z*

Date: 6/25/09

**Spiked Sample (MS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\190\_MS.D\190\_MS.D#  
 Date Acquired: Jun 25 2009 05:45 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71ESF 10X  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2304  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: MS  
 Prep Dil. Factor: 10.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 10.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	4.83	0.03	ppb	11.38	40	12.1	50 - 150	
51 V	72	1	5.40	1.30	ppb	17.56	40	13.1	50 - 150	
52 Cr	72	1	88.49	80.80	ppb	0.79	40	73.3	50 - 150	
55 Mn	72	1	18.80	14.01	ppb	1.88	40	34.8	50 - 150	
59 Co	72	1	4.13	0.06	ppb	2.52	40	10.3	50 - 150	
60 Ni	72	1	4.48	0.27	ppb	2.07	40	11.1	50 - 150	
63 Cu	72	1	4.27	0.07	ppb	0.99	40	10.7	50 - 150	
66 Zn	72	1	4.01	-0.10	ppb	4.33	40	10.1	50 - 150	
75 As	72	1	15.59	10.97	ppb	2.08	40	30.6	50 - 150	
78 Se	72	1	5.11	0.76	ppb	7.34	40	12.5	50 - 150	
95 Mo	72	1	15.78	11.15	ppb	0.19	40	30.9	50 - 150	
107 Ag	115	1	4.17	0.02	ppb	3.72	40	10.4	50 - 150	
111 Cd	115	1	4.28	-0.01	ppb	3.23	40	10.7	50 - 150	
118 Sn	115	1	0.13	-0.22	ppb	28.26	40	0.3	50 - 150	
121 Sb	115	1	4.49	0.06	ppb	2.59	40	11.2	50 - 150	
137 Ba	115	1	6.48	2.19	ppb	4.76	40	15.4	50 - 150	
205 Tl	165	1	4.17	0.02	ppb	0.91	40	10.4	50 - 150	
208 Pb	165	1	4.15	0.02	ppb	0.43	40	10.4	50 - 150	
232 Th	165	1	4.19	1.12	ppb	1.90	40	10.2	50 - 150	
238 U	165	1	7.16	2.71	ppb	0.13	40	16.8	50 - 150	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	58894	1.44	62225	94.6	30 - 120	
45 Sc	1	207122	1.36	221098	93.7	30 - 120	
72 Ge	1	135420	0.65	143668	94.3	30 - 120	
115 In	1	363749	0.55	390474	93.2	30 - 120	
165 Ho	1	776554	0.91	807368	96.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures                      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                        0 :Max. Number of ISTD Failures Allowed



**Duplicate Spike (MSD) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\191 MSD.D\191 MSD.D#  
 Date Acquired: Jun 25 2009 05:48 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE71EDF 10X  
 Misc Info: MATRIX SPIKE DUPLICATE  
 Vial Number: 2305  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: MSD  
 Dilution Factor: 10.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\190 MS.D\190 MS.D#

**QC Elements**

Element	IS	Ref	Tune	Conc.	RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9	Be	6	1	4.15 ppb	7.56	4.83	15.09	20	
51	V	72	1	5.96 ppb	17.42	5.40	9.95	20	
52	Cr	72	1	88.69 ppb	1.90	88.49	0.23	20	
55	Mn	72	1	19.17 ppb	2.05	18.80	1.95	20	
59	Co	72	1	4.16 ppb	2.08	4.13	0.55	20	
60	Ni	72	1	4.14 ppb	2.08	4.48	7.98	20	
63	Cu	72	1	4.27 ppb	2.97	4.27	0.09	20	
66	Zn	72	1	3.96 ppb	4.74	4.01	1.35	20	
75	As	72	1	15.78 ppb	3.12	15.59	1.21	20	
78	Se	72	1	5.75 ppb	13.55	5.11	11.77	20	
95	Mo	72	1	15.90 ppb	1.58	15.78	0.76	20	
107	Ag	115	1	4.16 ppb	2.53	4.17	0.24	20	
111	Cd	115	1	4.21 ppb	6.64	4.28	1.48	20	
118	Sn	115	1	-0.09 ppb	42.15	0.13	1054.07	20	
121	Sb	115	1	4.28 ppb	1.31	4.49	4.63	20	
137	Ba	115	1	6.60 ppb	3.02	6.48	1.96	20	
205	Tl	165	1	4.12 ppb	1.96	4.17	1.13	20	
208	Pb	165	1	4.13 ppb	1.21	4.15	0.41	20	
232	Th	165	1	4.26 ppb	0.37	4.19	1.73	20	
238	U	165	1	7.13 ppb	1.22	7.16	0.50	20	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	58753	0.11	62225	94.4	30 - 120
45	Sc	1	207543	0.88	221098	93.9	30 - 120
72	Ge	1	134454	0.36	143668	93.6	30 - 120
115	In	1	361465	0.42	390474	92.6	30 - 120
165	Ho	1	777254	0.36	807368	96.3	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\192SMPL.D\192SMPL.D#  
 Date Acquired: Jun 25 2009 05:52 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LFC4CF 10X  
 Misc Info: D9F200196  
 Vial Number: 2306  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SA  
 Dilution Factor: 10.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 10.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	-0.38	-0.04	ppb	191.85	3600
51	V	72	1	28.53	2.85	ppb	9.09	3600
52	Cr	72	1	41.12	4.11	ppb	2.98	3600
55	Mn	72	1	1.16	0.12	ppb	35.55	3600
59	Co	72	1	0.25	0.03	ppb	11.81	3600
60	Ni	72	1	0.71	0.07	ppb	48.96	3600
63	Cu	72	1	-0.13	-0.01	ppb	181.09	3600
66	Zn	72	1	-2.07	-0.21	ppb	24.23	3600
75	As	72	1	87.26	8.73	ppb	1.12	3600
78	Se	72	1	4.85	0.49	ppb	200.08	3600
95	Mo	72	1	20.97	2.10	ppb	4.19	3600
107	Ag	115	1	0.05	0.00	ppb	115.96	3600
111	Cd	115	1	-0.23	-0.02	ppb	64.27	3600
118	Sn	115	1	-1.31	-0.13	ppb	17.76	3600
121	Sb	115	1	0.25	0.03	ppb	44.90	3600
137	Ba	115	1	19.96	2.00	ppb	9.39	3600
205	Tl	165	1	0.04	0.00	ppb	38.29	3600
208	Pb	165	1	0.06	0.01	ppb	25.92	3600
232	Th	165	1	0.99	0.10	ppb	21.82	1000
238	U	165	1	19.26	1.93	ppb	0.12	3600

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	60474	1.96	62225	97.2	30 - 120
45	Sc	1	212509	0.32	221098	96.1	30 - 120
72	Ge	1	138955	0.32	143668	96.7	30 - 120
115	In	1	375109	0.31	390474	96.1	30 - 120
165	Ho	1	795020	0.70	807368	98.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\193\_CCV.D\193\_CCV.D#  
 Date Acquired: Jun 25 2009 05:55 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.05 ppb	3.20	50	98.1	90 - 110	
51	V	72	51.41 ppb	1.35	50	102.8	90 - 110	
52	Cr	72	51.26 ppb	0.88	50	102.5	90 - 110	
55	Mn	72	52.77 ppb	1.08	50	105.5	90 - 110	
59	Co	72	50.76 ppb	1.75	50	101.5	90 - 110	
60	Ni	72	50.59 ppb	4.31	50	101.2	90 - 110	
63	Cu	72	51.17 ppb	0.53	50	102.3	90 - 110	
66	Zn	72	50.99 ppb	0.90	50	102.0	90 - 110	
75	As	72	50.43 ppb	0.71	50	100.9	90 - 110	
78	Se	72	54.52 ppb	4.55	50	109.0	90 - 110	
95	Mo	72	51.33 ppb	2.93	50	102.7	90 - 110	
107	Ag	115	50.93 ppb	0.53	50	101.9	90 - 110	
111	Cd	115	51.11 ppb	1.51	50	102.2	90 - 110	
118	Sn	115	51.11 ppb	1.56	50	102.2	90 - 110	
121	Sb	115	51.48 ppb	0.75	50	103.0	90 - 110	
137	Ba	115	51.28 ppb	0.06	50	102.6	90 - 110	
205	Tl	165	51.50 ppb	0.19	50	103.0	90 - 110	
208	Pb	165	51.55 ppb	0.95	50	103.1	90 - 110	
232	Th	165	50.34 ppb	0.63	50	100.7	90 - 110	
238	U	165	51.78 ppb	0.75	50	103.6	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	60853	2.31	62225	97.8	30 - 120
45	Sc	1	210236	0.16	221098	95.1	30 - 120
72	Ge	1	137108	0.41	143668	95.4	30 - 120
115	In	1	372957	1.14	390474	95.5	30 - 120
165	Ho	1	783372	0.25	807368	97.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\194\_CCB.D\194\_CCB.D#  
 Date Acquired: Jun 25 2009 05:59 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	-0.080 ppb	0.00	1.00	
51 V	72	1	0.000 ppb	86595.00	1.00	
52 Cr	72	1	-0.027 ppb	139.00	1.00	
55 Mn	72	1	-0.320 ppb	13.65	1.00	
59 Co	72	1	0.010 ppb	37.05	1.00	
60 Ni	72	1	0.025 ppb	145.85	1.00	
63 Cu	72	1	-0.006 ppb	10.61	1.00	
66 Zn	72	1	-0.289 ppb	16.46	1.00	
75 As	72	1	0.016 ppb	26.23	1.00	
78 Se	72	1	-0.214 ppb	416.13	1.00	
95 Mo	72	1	-0.074 ppb	40.50	1.00	
107 Ag	115	1	0.018 ppb	18.24	1.00	
111 Cd	115	1	0.001 ppb	708.67	1.00	
118 Sn	115	1	0.074 ppb	30.50	1.00	
121 Sb	115	1	0.064 ppb	8.36	1.00	
137 Ba	115	1	0.009 ppb	169.81	1.00	
205 Tl	165	1	0.026 ppb	11.27	1.00	
208 Pb	165	1	0.008 ppb	36.54	1.00	
232 Th	165	1	0.884 ppb	14.61	1.00	
238 U	165	1	0.012 ppb	14.85	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	61588	1.12	62225	99.0	30 - 120	
45 Sc	1	212421	0.66	221098	96.1	30 - 120	
72 Ge	1	137435	0.59	143668	95.7	30 - 120	
115 In	1	378786	0.76	390474	97.0	30 - 120	
165 Ho	1	800930	0.74	807368	99.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 .

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\195WASH.D\195WASH.D#  
 Date Acquired: Jun 25 2009 06:02 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.870 ppb	20.55	1.30	
51 V	72	1	5.134 ppb	1.76	6.50	
52 Cr	72	1	2.124 ppb	3.51	2.60	
55 Mn	72	1	0.688 ppb	11.94	1.30	
59 Co	72	1	0.987 ppb	7.05	1.30	
60 Ni	72	1	2.166 ppb	3.15	2.60	
63 Cu	72	1	2.026 ppb	2.58	2.60	
66 Zn	72	1	9.966 ppb	0.57	13.00	
75 As	72	1	5.048 ppb	2.01	6.50	
78 Se	72	1	5.664 ppb	13.63	6.50	
95 Mo	72	1	2.099 ppb	11.90	2.60	
107 Ag	115	1	5.276 ppb	1.67	6.50	
111 Cd	115	1	1.097 ppb	4.13	1.30	
118 Sn	115	1	10.910 ppb	4.93	13.00	
121 Sb	115	1	2.066 ppb	1.86	2.60	
137 Ba	115	1	1.036 ppb	10.34	1.30	
205 Tl	165	1	1.081 ppb	2.81	1.30	
208 Pb	165	1	1.067 ppb	0.60	1.30	
232 Th	165	1	2.152 ppb	2.13	2.60	
238 U	165	1	1.044 ppb	0.50	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	61085	1.93	62225	98.2	30 - 120	
45 Sc	1	214770	0.64	221098	97.1	30 - 120	
72 Ge	1	140170	0.50	143668	97.6	30 - 120	
115 In	1	381967	0.47	390474	97.8	30 - 120	
165 Ho	1	802580	0.39	807368	99.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\196SMPL.D\196SMPL.D#  
 Date Acquired: Jun 25 2009 06:05 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: D9F120347-12  
 Misc Info: RAW BOTTLE  
 Vial Number: 4211  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 25 2009 04:55 am  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	-0.06	-0.06	ppb	64.63	3600	
51 V	72	1	-0.47	-0.47	ppb	58.35	3600	
52 Cr	72	1	0.23	0.23	ppb	22.20	3600	
55 Mn	72	1	2,275.00	2275.00	ppb	0.41	3600	
59 Co	72	1	3.50	3.50	ppb	3.45	3600	
60 Ni	72	1	8.83	8.83	ppb	4.87	3600	
63 Cu	72	1	0.21	0.21	ppb	19.95	3600	
66 Zn	72	1	17.43	17.43	ppb	1.89	3600	
75 As	72	1	17.76	17.76	ppb	2.47	3600	
78 Se	72	1	0.92	0.92	ppb	59.22	3600	
95 Mo	72	1	1.36	1.36	ppb	13.30	3600	
107 Ag	115	1	0.01	0.01	ppb	16.83	3600	
111 Cd	115	1	-0.03	-0.03	ppb	5.40	3600	
118 Sn	115	1	-0.21	-0.21	ppb	17.78	3600	
121 Sb	115	1	0.09	0.09	ppb	7.83	3600	
137 Ba	115	1	109.80	109.80	ppb	0.46	3600	
205 Tl	165	1	0.06	0.06	ppb	13.46	3600	
208 Pb	165	1	0.18	0.18	ppb	1.62	3600	
232 Th	165	1	-0.01	-0.01	ppb	84.40	1000	
238 U	165	1	17.24	17.24	ppb	0.27	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	57119	0.96	62225	91.8	30 - 120	
45 Sc	1	193751	0.62	221098	87.6	30 - 120	
72 Ge	1	126729	0.19	143668	88.2	30 - 120	
115 In	1	336747	0.80	390474	86.2	30 - 120	
165 Ho	1	746122	0.14	807368	92.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\197 CC.V.D\197 CC.V.D#  
 Date Acquired: Jun 25 2009 06:09 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	53.17 ppb	1.86	50	106.3	90 - 110	
51	V	72	51.07 ppb	0.41	50	102.1	90 - 110	
52	Cr	72	51.60 ppb	0.67	50	103.2	90 - 110	
55	Mn	72	53.28 ppb	0.77	50	106.6	90 - 110	
59	Co	72	51.40 ppb	1.79	50	102.8	90 - 110	
60	Ni	72	51.51 ppb	0.35	50	103.0	90 - 110	
63	Cu	72	52.16 ppb	0.46	50	104.3	90 - 110	
66	Zn	72	51.07 ppb	1.24	50	102.1	90 - 110	
75	As	72	50.85 ppb	0.98	50	101.7	90 - 110	
78	Se	72	51.42 ppb	7.76	50	102.8	90 - 110	
95	Mo	72	51.72 ppb	1.16	50	103.4	90 - 110	
107	Ag	115	51.80 ppb	1.04	50	103.6	90 - 110	
111	Cd	115	51.37 ppb	1.88	50	102.7	90 - 110	
118	Sn	115	51.66 ppb	1.04	50	103.3	90 - 110	
121	Sb	115	51.19 ppb	1.26	50	102.4	90 - 110	
137	Ba	115	51.13 ppb	0.56	50	102.3	90 - 110	
205	Tl	165	51.54 ppb	0.55	50	103.1	90 - 110	
208	Pb	165	51.76 ppb	0.86	50	103.5	90 - 110	
232	Th	165	50.64 ppb	1.17	50	101.3	90 - 110	
238	U	165	51.95 ppb	1.37	50	103.9	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	60209	2.89	62225	96.8	30 - 120
45	Sc	1	204816	0.34	221098	92.6	30 - 120
72	Ge	1	134336	0.89	143668	93.5	30 - 120
115	In	1	367912	0.41	390474	94.2	30 - 120
165	Ho	1	779611	0.67	807368	96.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\198\_CCB.D\198\_CCB.D#  
 Date Acquired: Jun 25 2009 06:12 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.002	ppb	4383.30	1.00	
51 V	72	1	-0.152	ppb	96.24	1.00	
52 Cr	72	1	-0.030	ppb	139.36	1.00	
55 Mn	72	1	-0.333	ppb	9.73	1.00	
59 Co	72	1	0.005	ppb	109.93	1.00	
60 Ni	72	1	0.008	ppb	203.56	1.00	
63 Cu	72	1	-0.025	ppb	32.03	1.00	
66 Zn	72	1	-0.307	ppb	5.88	1.00	
75 As	72	1	0.034	ppb	71.69	1.00	
78 Se	72	1	0.944	ppb	69.75	1.00	
95 Mo	72	1	-0.072	ppb	35.22	1.00	
107 Ag	115	1	0.023	ppb	7.17	1.00	
111 Cd	115	1	-0.009	ppb	42.15	1.00	
118 Sn	115	1	0.068	ppb	76.01	1.00	
121 Sb	115	1	0.068	ppb	17.11	1.00	
137 Ba	115	1	0.007	ppb	173.77	1.00	
205 Tl	165	1	0.024	ppb	23.24	1.00	
208 Pb	165	1	0.012	ppb	22.58	1.00	
232 Th	165	1	0.928	ppb	19.41	1.00	
238 U	165	1	0.014	ppb	12.79	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	60821	1.82	62225	97.7	30 - 120	
45 Sc	1	211853	1.08	221098	95.8	30 - 120	
72 Ge	1	137410	0.30	143668	95.6	30 - 120	
115 In	1	379827	0.97	390474	97.3	30 - 120	
165 Ho	1	804053	0.51	807368	99.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\199WASH.D\199WASH.D#  
 Date Acquired: Jun 25 2009 06:16 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 25 2009 04:55 am  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.007 ppb	22.93	1.30	
51 V	72	1	5.413 ppb	3.09	6.50	
52 Cr	72	1	2.175 ppb	4.01	2.60	
55 Mn	72	1	0.678 ppb	5.00	1.30	
59 Co	72	1	1.005 ppb	5.92	1.30	
60 Ni	72	1	2.210 ppb	10.24	2.60	
63 Cu	72	1	1.967 ppb	1.67	2.60	
66 Zn	72	1	10.280 ppb	1.39	13.00	
75 As	72	1	5.270 ppb	4.98	6.50	
78 Se	72	1	5.660 ppb	8.99	6.50	
95 Mo	72	1	2.045 ppb	6.92	2.60	
107 Ag	115	1	5.167 ppb	3.06	6.50	
111 Cd	115	1	0.975 ppb	1.20	1.30	
118 Sn	115	1	10.430 ppb	3.79	13.00	
121 Sb	115	1	2.012 ppb	2.44	2.60	
137 Ba	115	1	1.053 ppb	6.09	1.30	
205 Tl	165	1	1.085 ppb	1.40	1.30	
208 Pb	165	1	1.037 ppb	1.48	1.30	
232 Th	165	1	2.190 ppb	1.91	2.60	
238 U	165	1	1.057 ppb	3.37	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	61596	1.50	62225	99.0	30 - 120	
45 Sc	1	213917	0.73	221098	96.8	30 - 120	
72 Ge	1	140198	1.11	143668	97.6	30 - 120	
115 In	1	384628	1.38	390474	98.5	30 - 120	
165 Ho	1	809206	0.33	807368	100.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\174CALB.D\174CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID:           D9F200196          

Client:           Northgate Environmental          

Batch(es) #:           9174190          

Associated Samples:           1, 3          

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date:           *[Signature]* 6/29/09

# *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9F200196	1	AS	LFC4A1AA	20090625	6020TOTA	9174190	AG062509	024
D9F200196	3	AS	LFC4D1AA	20090625	6020TOTA	9174190	AG062509	024

**METALS  
PREPARATION LOGS  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

Batch Number: 9174190

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:  
JON HARRE

Prep Date: 06/24/09  
Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	LFFFX	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	LFFFX	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	LE709 Total		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total		Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	S	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	D	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F190216 Water	LE9PT Total		Due Date: 07/01/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4A Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4D Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4P Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4Q Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*Checked  
6/24/09*

*✓  
2  
6/29/09*

**TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)**

BATCH # 9174190  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

**CONSUMABLES USED**

Digestion Cups: Manufacturer: Environmental Express Lot #: A901LS267

One or more samples were filtered prior to analysis at the instrument.  Yes  No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials: JKH

**STANDARDS USED**

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

**REAGENTS USED**

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	3

**TEMPERATURE CYCLES**

Thermometer ID: 3311 Block & Cup #: 1,11

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO <sub>3</sub>	<u>6:00</u>	<u>95</u>	<u>10:20</u>	<u>95</u>
HNO <sub>3</sub>	<u>10:30</u>	<u>94</u>	<u>11:00</u>	<u>93</u>
HNO <sub>3</sub>				

Samples and QC revolved to: 50 mL Analyst's Initials JKH

**COMMENTS:**

I certify that all information above is correct and complete.

Signature: Kim Anne

Date: 6/24/09

**METALS  
SAMPLE DATA  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

### ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L. Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

### Quality Control Standards

ICV = Initial Calibration Verification (Second Source)      ICB = Initial Calibration Blank  
 CCV = Continuing Calibration Verification                      CCB = Continuing Calibration Blank



# TestAmerica Denver

## Standards Preparation Logbook Record

Jun-26-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008  
Date Expires(1): 10-01-2009 (None)  
Date Expires(2): 10-01-2009 (None)  
(METALS)-Inventory ID: 779

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	1,000.0	1,000.0

### STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008  
Date Expires(1): 12-01-2009 (None)  
Date Expires(2): 12-01-2009 (None)  
(METALS)-Inventory ID: 803

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1,000.0

### STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010  
Solvent: 1% HNO3  
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009  
Date Expires(1): 03-01-2010 (None)  
Date Expires(2): 03-01-2010 (None)  
(METALS)-Inventory ID: 833

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

### STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HN03 Lot No.: H02026 Volume (ml): 100.00  
Date Prep./Opened: 04-01-2009  
Date Expires(1): 12-01-2009 (1 Year)  
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3609-09, ICP-MS 10 ppm Zn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year)  
 Date Expires(2): 10-01-2009 (None)

Parent Std No.: STD4841-08, 1000 Zn (Inorganic Ventures) Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	10.000

STD3610-09, ICP-MS 10 ppm Sn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 03-01-2010 (1 Year)  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Parent Std No.: STD1198-09, 1000 mg/L Sn Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	10.000

STD3611-09, ICP-MS 1ppm Sn/Zn Analyst: DIAZL  
 Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000

STD3662-09, ICP-MS (024) INT STD BRC-HIGH

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-17-2009  
 Date Expires(1): 11-10-2009 (1 Year)  
 Date Expires(2): 12-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Volume (ml): 250.00

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 1.2000

Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	4,800.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.5000

Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	6,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,600.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	1,600.0

Parent Std No.: STD6318-08, Holmium Stock Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,600.0

STD3839-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)  
 Cu and Ag 1000 ppb

Volume (ml): 100.00

Parent Std No.: STD0749-09, 1000 ppm Ag Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
1000 ppm Ag	1,000.0	1.0000

Parent Std No.: STD2485-09, 1000 Cu Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Cu	1,000.0	1.0000

STD3841-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 07-25-2009 (1 Month)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 1,000.0

Parent Std No.: STD3840-09, NITRIC ACID

Aliquot Amount (ml): 50.000

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD3842-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)  
 Date Expires(2): 03-01-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD1198-09, 1000 mg/L Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	10.000

STD3843-09, ICP-MS HIGH CAL STD

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 100.00

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000

Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Al	2,000.0	10.000
Ca	2,000.0	10.000
Fe	2,000.0	10.000
K	2,000.0	10.000
Mg	2,000.0	10.000
Na	2,000.0	10.000

STD3844-09, ICP-MS HIGH CCV STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	0.0500
As	20.000	0.0500
Ba	20.000	0.0500
Be	20.000	0.0500
Cd	20.000	0.0500
Co	20.000	0.0500
Cr	20.000	0.0500
Cu	20.000	0.0500
Mn	20.000	0.0500
Ni	20.000	0.0500
Pb	20.000	0.0500
Se	20.000	0.0500
Th	20.000	0.0500
Tl	20.000	0.0500
U	20.000	0.0500
V	20.000	0.0500
Zn	20.000	0.0500

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.0500
Sb	20.000	0.0500
Sn	20.000	0.0500

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Al	2,000.0	5.0000
Ca	2,000.0	5.0000
Fe	2,000.0	5.0000
K	2,000.0	5.0000
Mg	2,000.0	5.0000
Na	2,000.0	5.0000

STD3845-09, ICP-MS HIGH RL STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD3843-09, ICP-MS HIGH CAL STD

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	0.1000	0.0010
As	0.1000	0.0010
Ba	0.1000	0.0010
Be	0.1000	0.0010
Cd	0.1000	0.0010
Co	0.1000	0.0010
Cr	0.1000	0.0010
Cu	0.1000	0.0010
Mn	0.1000	0.0010
Ni	0.1000	0.0010
Pb	0.1000	0.0010
Se	0.1000	0.0010
Th	0.1000	0.0010
Tl	0.1000	0.0010
U	0.1000	0.0010
V	0.1000	0.0010
Zn	0.1000	0.0010
Mo	0.1000	0.0010

Sb	0.1000	0.0010
Sn	0.1000	0.0010
Al	10.000	0.1000
Ca	10.000	0.1000
Fe	10.000	0.1000
K	10.000	0.1000
Mg	10.000	0.1000
Na	10.000	0.1000

STD3846-09, ICP-MS HIGH AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3845-09, ICP-MS HIGH RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Ag	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002
Al	0.1000	0.0200
Ca	0.1000	0.0200
Fe	0.1000	0.0200
K	0.1000	0.0200
Mg	0.1000	0.0200
Na	0.1000	0.0200

STD3847-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 07-25-2009 (1 Month)  
 Date Expires(2): 02-01-2010 (None)  
 pipettes: Met 8

Volume (ml): 50.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD3848-09, ICP-MS HIGH ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
Al	1,000.0	100.00
C	2,000.0	200.00
Ca	1,000.0	100.00
Cl	10,000	1,000.0
Fe	1,000.0	100.00
K	1,000.0	100.00
Mg	1,000.0	100.00
Mo	20.000	2.0000
Na	1,000.0	100.00
P	1,000.0	100.00
S	1,000.0	100.00
Ti	20.000	2.0000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

STD3849-09, ICP-MS HIGH LR STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	1.0000
As	20.000	1.0000
Ba	20.000	1.0000
Be	20.000	1.0000
Cd	20.000	1.0000
Co	20.000	1.0000
Cr	20.000	1.0000
Cu	20.000	1.0000
Mn	20.000	1.0000
Ni	20.000	1.0000
Pb	20.000	1.0000
Se	20.000	1.0000
Th	20.000	1.0000
Tl	20.000	1.0000
U	20.000	1.0000
V	20.000	1.0000
Zn	20.000	1.0000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	1.0000
Sb	20.000	1.0000
Sn	20.000	1.0000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

STD3850-09, ICP-MS HIGH ICV STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3113-09, ICP-MS TA ICV A

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
As	20.000	0.0400
Ba	20.000	0.0400
Be	20.000	0.0400
Cd	20.000	0.0400
Co	20.000	0.0400
Cr	20.000	0.0400
Cu	20.000	0.0400
Mn	20.000	0.0400
Ni	20.000	0.0400
Pb	20.000	0.0400
Se	20.000	0.0400
Th	20.000	0.0400
Tl	20.000	0.0400
U	20.000	0.0400
V	20.000	0.0400
Zn	20.000	0.0400

Parent Std No.: STD3114-09, ICP-MS TA ICV B

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0400
Mo	20.000	0.0400
Sb	20.000	0.0400
Sn	20.000	0.0400

Parent Std No.: STD3115-09, ICP-MS TA ICV Alt

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	4.0000
Ca	2,000.0	4.0000
Fe	2,000.0	4.0000
K	2,000.0	4.0000
Mg	2,000.0	4.0000
Na	2,000.0	4.0000

STD3851-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

STD3852-09, LLCCV/RLICV

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Date Expires(2): 05-01-2010 (None)

pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000
Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000

Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2

Aliquot Amount (ml): 1.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By: \_\_\_\_\_

*R. Hill* 6/26/09

Denver

RUN SUMMARY

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
2	Cal Blank				1.0 06/25/09 17:43		<input type="checkbox"/>
3	Cal Blank				1.0 06/25/09 17:47		<input type="checkbox"/>
4	Cal Blank				1.0 06/25/09 17:50		<input type="checkbox"/>
5	100 ppb				1.0 06/25/09 17:54		<input type="checkbox"/>
6	ICV				1.0 06/25/09 17:57		<input type="checkbox"/>
7	RLIV				1.0 06/25/09 18:01		<input type="checkbox"/>
8	ICB				1.0 06/25/09 18:04		<input type="checkbox"/>
9	RL STD				1.0 06/25/09 18:08		<input type="checkbox"/>
10	AFCEE RL				1.0 06/25/09 18:11		<input type="checkbox"/>
11	ALTSe				1.0 06/25/09 18:15		<input type="checkbox"/>
12	ICSA				1.0 06/25/09 18:18		<input type="checkbox"/>
13	ICSAB				1.0 06/25/09 18:21		<input type="checkbox"/>
14	RINSE				1.0 06/25/09 18:25		<input type="checkbox"/>
15	LR				1.0 06/25/09 18:28		<input type="checkbox"/>
16	RINSE				1.0 06/25/09 18:32		<input type="checkbox"/>
17	ALTLR				1.0 06/25/09 18:35		<input type="checkbox"/>
18	RINSE				1.0 06/25/09 18:39		<input type="checkbox"/>
19	CCV				1.0 06/25/09 18:42		<input type="checkbox"/>
20	CCB				1.0 06/25/09 18:46		<input type="checkbox"/>
21	RLCV				1.0 06/25/09 18:49		<input type="checkbox"/>
22	<del>LE3WPB</del>	<del>D9F170000</del>	<del>9168244</del>	<del>04</del>	<del>1.0 06/25/09 18:53</del>		<input type="checkbox"/>
23	LE3WPC	D9F170000	9168244	04	1.0 06/25/09 18:56		<input type="checkbox"/>
24	LE3WPL	D9F170000	9168244	04	1.0 06/25/09 19:00		<input type="checkbox"/>
25	LEPAF	D9F110137-1	9168244	04	1.0 06/25/09 19:03		<input type="checkbox"/>
26	LEPAFP5	D9F110137	9168244	5.0	06/25/09 19:07		<input type="checkbox"/>
27	LEPAFZ	D9F110137-1	9168244	1.0	06/25/09 19:10		<input type="checkbox"/>
28	LEPCC	D9F110137-3	9168257	1.0	06/25/09 19:13		<input type="checkbox"/>
29	LEPCK	D9F110137-4	9168257	1.0	06/25/09 19:17		<input type="checkbox"/>
30	CCV				1.0 06/25/09 19:21		<input type="checkbox"/>
31	CCB				1.0 06/25/09 19:24		<input type="checkbox"/>
32	RLCV				1.0 06/25/09 19:28		<input type="checkbox"/>
33	LE35QB	D9F170000	9168263	04	1.0 06/25/09 19:31		<input type="checkbox"/>
34	LE35QC	D9F170000	9168263	04	1.0 06/25/09 19:35		<input type="checkbox"/>
35	LE35QL	D9F170000	9168263	04	1.0 06/25/09 19:38		<input type="checkbox"/>
36	LEPC5	D9F110137-7	9168263	04	1.0 06/25/09 19:42		<input type="checkbox"/>
37	LEPC5P5	D9F110137	9168263	5.0	06/25/09 19:45		<input type="checkbox"/>
38	<del>LEPC5Z</del>	<del>D9F110137-7</del>	<del>9168263</del>	<del>1.0</del>	<del>06/25/09 19:49</del>	<i>At 6/26/09 did not use.</i>	<input type="checkbox"/>
39	CCV				1.0 06/25/09 19:52		<input type="checkbox"/>
40	CCB				1.0 06/25/09 19:55		<input type="checkbox"/>
41	RLCV				1.0 06/25/09 19:59		<input type="checkbox"/>
42	LFFFXB	D9F230000	9174190	MS	1.0 06/25/09 20:02		<input type="checkbox"/>
43	LFFFXC	D9F230000	9174190	MS	1.0 06/25/09 20:06		<input type="checkbox"/>
44	LE709 10X	D9F180314-1	9174190	MS	10.0 06/25/09 20:09		<input type="checkbox"/>
45	LE7CT 5X	D9F180266-1	9174190	MS	5.0 06/25/09 20:13		<input type="checkbox"/>
46	LE7CTP25	D9F180266	9174190		25.0 06/25/09 20:16		<input type="checkbox"/>
47	LE7CTZ	D9F180266-1	9174190		1.0 06/25/09 20:20		<input type="checkbox"/>

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/26/09 15:07:10
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File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
48	LE7CTS 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:23	<input type="checkbox"/>
49	CCV				1.0	06/25/09 20:27	<input type="checkbox"/>
50	CCB				1.0	06/25/09 20:30	<input type="checkbox"/>
51	RLCV				1.0	06/25/09 20:34	<input type="checkbox"/>
52	LE7CTD 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:37	<input type="checkbox"/>
53	LE9PT 5X	D9F190216-1	9174190	MS	5.0	06/25/09 20:41	<input type="checkbox"/>
54	LFC4A 5X	D9F200196-1	9174190	MS	5.0	06/25/09 20:44	<input type="checkbox"/>
55	LFC4D 5X	D9F200196-3	9174190	MS	5.0	06/25/09 20:48	<input type="checkbox"/>
56	LFC4P 5X	D9F200199-1	9174190	MS	5.0	06/25/09 20:51	<input type="checkbox"/>
57	LFC4Q 5X	D9F200199-2	9174190	MS	5.0	06/25/09 20:55	<input type="checkbox"/>
58	CCV				1.0	06/25/09 20:58	<input type="checkbox"/>
59	CCB				1.0	06/25/09 21:02	<input type="checkbox"/>
60	RLCV				1.0	06/25/09 21:05	<input type="checkbox"/>
61	<del>LF1T1BF</del>	<del>D9F230000</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 21:09</del>	<input type="checkbox"/>
62	LF1T1CF	D9F230000	9174270	MD	1.0	06/25/09 21:12	<input type="checkbox"/>
63	RINSE				1.0	06/25/09 21:16	<input type="checkbox"/>
64	RINSE				1.0	06/25/09 21:19	<input type="checkbox"/>
65	RINSE				1.0	06/25/09 21:23	<input type="checkbox"/>
66	RINSE				1.0	06/25/09 21:26	<input type="checkbox"/>
67	RINSE				1.0	06/25/09 21:30	<input type="checkbox"/>
68	RINSE				1.0	06/25/09 21:33	<input type="checkbox"/>
69	Cal Blank				1.0	06/25/09 21:37	<input type="checkbox"/>
70	Cal Blank				1.0	06/25/09 21:40	<input type="checkbox"/>
71	100 ppb				1.0	06/25/09 21:43	<input type="checkbox"/>
72	CCV				1.0	06/25/09 21:47	<input type="checkbox"/>
73	CCB				1.0	06/25/09 21:50	<input type="checkbox"/>
74	RLCV				1.0	06/25/09 21:54	<input type="checkbox"/>
75	ICSA				1.0	06/25/09 21:57	<input type="checkbox"/>
76	ICSAB				1.0	06/25/09 22:01	<input type="checkbox"/>
77	WASH				1.0	06/25/09 22:04	<input type="checkbox"/>
78	CCV				1.0	06/25/09 22:08	<input type="checkbox"/>
79	CCB				1.0	06/25/09 22:11	<input type="checkbox"/>
80	RLCV				1.0	06/25/09 22:15	<input type="checkbox"/>
81	LF1T1BF	D9F230000	9174270	MD	1.0	06/25/09 22:18	<input type="checkbox"/>
82	LF1T1CF	D9F230000	9174270	MD	1.0	06/25/09 22:22	<input type="checkbox"/>
83	LE6C3F	D9F180143-1	9174270	MD	1.0	06/25/09 22:25	<input type="checkbox"/>
84	LE6C7F	D9F180143-2	9174270	MD	1.0	06/25/09 22:29	<input type="checkbox"/>
85	LE6C8F	D9F180143-3	9174270	MD	1.0	06/25/09 22:32	<input type="checkbox"/>
86	LE6C9F	D9F180143-4	9174270	MD	1.0	06/25/09 22:36	<input type="checkbox"/>
87	LE6DAF	D9F180143-5	9174270	MD	1.0	06/25/09 22:39	<input type="checkbox"/>
88	LE6DCF	D9F180143-6	9174270	MD	1.0	06/25/09 22:43	<input type="checkbox"/>
89	LE6DCP5F	D9F180143	9174270		5.0	06/25/09 22:46	<input type="checkbox"/>
90	<del>LE6DCZF</del>	<del>D9F180143-6</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 22:50</del>	<input type="checkbox"/>
91	CCV				1.0	06/25/09 22:53	<input type="checkbox"/>
92	CCB				1.0	06/25/09 22:57	<input type="checkbox"/>
93	RLCV				1.0	06/25/09 23:00	<input type="checkbox"/>

*6/26/09 did not use.*

*6/26/09 did not use.*

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
94	LE6DCSF	D9F180143-6	9174270	MD	1.0	06/25/09 23:04	<input type="checkbox"/>
95	LE6DCDF	D9F180143-6	9174270	MD	1.0	06/25/09 23:07	<input type="checkbox"/>
96	LE9GLF	D9F190197-1	9174270	MD	1.0	06/25/09 23:11	<input type="checkbox"/>
97	LFCECF	D9F200122-1	9174270	MD	1.0	06/25/09 23:14	<input type="checkbox"/>
98	LFCEMF	D9F200122-2	9174270	MD	1.0	06/25/09 23:18	<input type="checkbox"/>
99	LFCENF	D9F200122-3	9174270	MD	1.0	06/25/09 23:21	<input type="checkbox"/>
100	LFCEQF	D9F200122-4	9174270	MD	1.0	06/25/09 23:25	<input type="checkbox"/>
101	LFCERF	D9F200122-5	9174270	MD	1.0	06/25/09 23:28	<input type="checkbox"/>
102	LFCEWF	D9F200122-6	9174270	MD	1.0	06/25/09 23:32	<input type="checkbox"/>
103	LFCEXF	D9F200122-7	9174270	MD	1.0	06/25/09 23:35	<input type="checkbox"/>
104	CCV				1.0	06/25/09 23:39	<input type="checkbox"/>
105	CCB				1.0	06/25/09 23:42	<input type="checkbox"/>
106	RLCV				1.0	06/25/09 23:46	<input type="checkbox"/>
107	<del>LE6DCZF</del>	<del>D9F180143-6</del>	<del>9174270</del>		<del>1.0</del>	<del>06/25/09 23:49</del>	<input type="checkbox"/>
108	LFC4W 2X	D9F200200-1	9174178	MS	2.0	06/25/09 23:53	<input type="checkbox"/>
109	LFC4X 2X	D9F200200-2	9174178	MS	2.0	06/25/09 23:56	<input type="checkbox"/>
110	LFC40 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:00	<input type="checkbox"/>
111	LFC40P10	D9F200200	9174178		10.0	06/26/09 00:03	<input type="checkbox"/>
112	LFC40Z	D9F200200-3	9174178		1.0	06/26/09 00:07	<input type="checkbox"/>
113	LFC40S 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:10	<input type="checkbox"/>
114	LFC40D 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:14	<input type="checkbox"/>
115	CCV				1.0	06/26/09 00:17	<input type="checkbox"/>
116	CCB				1.0	06/26/09 00:21	<input type="checkbox"/>
117	RLCV				1.0	06/26/09 00:24	<input type="checkbox"/>
118	LFFC2B	D9F230000	9174162	MS	1.0	06/26/09 00:28	<input type="checkbox"/>
119	LFFC2C	D9F230000	9174162	MS	1.0	06/26/09 00:31	<input type="checkbox"/>
120	LE6AW 2X	D9F180141-1	9174162	MS	2.0	06/26/09 00:35	<input type="checkbox"/>
121	LE6A1 2X	D9F180141-2	9174162	MS	2.0	06/26/09 00:38	<input type="checkbox"/>
122	LE6A2 2X	D9F180141-3	9174162	MS	2.0	06/26/09 00:42	<input type="checkbox"/>
123	LE81M	D9F190156-1	9174162	MS	1.0	06/26/09 00:45	<input type="checkbox"/>
124	CCV				1.0	06/26/09 00:49	<input type="checkbox"/>
125	CCB				1.0	06/26/09 00:52	<input type="checkbox"/>
126	RLCV				1.0	06/26/09 00:56	<input type="checkbox"/>
127	LE81MP5	D9F190156	9174162		5.0	06/26/09 01:00	<input type="checkbox"/>
128	LE81MZ	D9F190156-1	9174162		1.0	06/26/09 01:03	<input type="checkbox"/>
129	LE81MS	D9F190156-1	9174162	MS	1.0	06/26/09 01:07	<input type="checkbox"/>
130	LE81MD	D9F190156-1	9174162	MS	1.0	06/26/09 01:10	<input type="checkbox"/>
131	LE82G	D9F190156-2	9174162	MS	1.0	06/26/09 01:14	<input type="checkbox"/>
132	CCV				1.0	06/26/09 01:17	<input type="checkbox"/>
133	CCB				1.0	06/26/09 01:21	<input type="checkbox"/>
134	RLCV				1.0	06/26/09 01:24	<input type="checkbox"/>
135	RINSE				1.0	06/26/09 01:28	<input type="checkbox"/>
136	RINSE				1.0	06/26/09 01:31	<input type="checkbox"/>
137	RINSE				1.0	06/26/09 01:35	<input type="checkbox"/>
138	RINSE				1.0	06/26/09 01:38	<input type="checkbox"/>
139	RINSE				1.0	06/26/09 01:41	<input type="checkbox"/>

*not done did not use.*

Denver

RUN SUMMARY

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
140	<del>RINSE</del>				<del>1.0 06/26/09 01:45</del>		<input type="checkbox"/>
141	Cal Blank				1.0 06/26/09 01:49		<input type="checkbox"/>
142	Cal Blank				1.0 06/26/09 01:52		<input type="checkbox"/>
143	100 ppb				1.0 06/26/09 01:56		<input type="checkbox"/>
144	CCV				1.0 06/26/09 01:59		<input type="checkbox"/>
145	CCB				1.0 06/26/09 02:03		<input type="checkbox"/>
146	RLCV				1.0 06/26/09 02:06		<input type="checkbox"/>
147	LFE9NBF	D9F230000	9174124	MD	1.0 06/26/09 02:10		<input type="checkbox"/>
148	LFE9NCF	D9F230000	9174124	MD	1.0 06/26/09 02:13		<input type="checkbox"/>
149	LE9ANF	D9F190184-1	9174124	MD	1.0 06/26/09 02:17		<input type="checkbox"/>
150	LE9CVF	D9F190184-2	9174124	MD	1.0 06/26/09 02:20		<input type="checkbox"/>
151	LE9CWF	D9F190184-3	9174124	MD	1.0 06/26/09 02:24		<input type="checkbox"/>
152	LE9CXF	D9F190184-4	9174124	MD	1.0 06/26/09 02:27		<input type="checkbox"/>
153	LE9C0F	D9F190184-5	9174124	MD	1.0 06/26/09 02:31		<input type="checkbox"/>
154	LE9C1F	D9F190184-6	9174124	MD	1.0 06/26/09 02:34		<input type="checkbox"/>
155	CCV				1.0 06/26/09 02:38		<input type="checkbox"/>
156	CCB				1.0 06/26/09 02:41		<input type="checkbox"/>
157	RLCV				1.0 06/26/09 02:45		<input type="checkbox"/>
158	LE9H7F	D9F190204-1	9174124	MD	1.0 06/26/09 02:48		<input type="checkbox"/>
159	LE9JMF	D9F190204-2	9174124	MD	1.0 06/26/09 02:52		<input type="checkbox"/>
160	LE9JNF	D9F190204-3	9174124	MD	1.0 06/26/09 02:55		<input type="checkbox"/>
161	LE9JPF	D9F190204-4	9174124	MD	1.0 06/26/09 02:59		<input type="checkbox"/>
162	LE9JQF	D9F190204-5	9174124	MD	1.0 06/26/09 03:03		<input type="checkbox"/>
163	LE9JQP5F	D9F190204	9174124		5.0 06/26/09 03:06		<input type="checkbox"/>
164	LE9JQZF	D9F190204-5	9174124		1.0 06/26/09 03:10		<input type="checkbox"/>
165	LE9JQSF	D9F190204-5	9174124	MD	1.0 06/26/09 03:13		<input type="checkbox"/>
166	CCV				1.0 06/26/09 03:17		<input type="checkbox"/>
167	CCB				1.0 06/26/09 03:20		<input type="checkbox"/>
168	RLCV				1.0 06/26/09 03:24		<input type="checkbox"/>
169	LE9JQDF	D9F190204-5	9174124	MD	1.0 06/26/09 03:27		<input type="checkbox"/>
170	LE9KJF	D9F190204-6	9174124	MD	1.0 06/26/09 03:31		<input type="checkbox"/>
171	LE9KMF	D9F190204-7	9174124	MD	1.0 06/26/09 03:34		<input type="checkbox"/>
172	LE9KPF	D9F190204-8	9174124	MD	1.0 06/26/09 03:38		<input type="checkbox"/>
173	LE9KRF	D9F190204-9	9174124	MD	1.0 06/26/09 03:41		<input type="checkbox"/>
174	LE9KXF	D9F190204-10	9174124	MD	1.0 06/26/09 03:45		<input type="checkbox"/>
175	LE9K1F	D9F190204-11	9174124	MD	1.0 06/26/09 03:48		<input type="checkbox"/>
176	CCV				1.0 06/26/09 03:52		<input type="checkbox"/>
177	CCB				1.0 06/26/09 03:55		<input type="checkbox"/>
178	RLCV				1.0 06/26/09 03:59		<input type="checkbox"/>
179	LFE9JB	D9F230000	9174123	MS	1.0 06/26/09 04:02		<input type="checkbox"/>
180	LFE9JC	D9F230000	9174123	MS	1.0 06/26/09 04:06		<input type="checkbox"/>
181	LE9AN	D9F190184-1	9174123	MS	1.0 06/26/09 04:09		<input type="checkbox"/>
182	LE9CV	D9F190184-2	9174123	MS	1.0 06/26/09 04:13		<input type="checkbox"/>
183	LE9CW	D9F190184-3	9174123	MS	1.0 06/26/09 04:16		<input type="checkbox"/>
184	LE9CX	D9F190184-4	9174123	MS	1.0 06/26/09 04:20		<input type="checkbox"/>
185	<del>LE9C0</del>	<del>D9F190184-5</del>	<del>9174123</del>	<del>MS</del>	<del>1.0 06/26/09 04:24</del>	<i>Not used</i>	<input type="checkbox"/>



Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/26/09 15:07:10
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File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
186	<del>LE9G1</del>	<del>D9F190184-6</del>	<del>9174123</del>	<del>MS</del>	<del>1.0</del>	<del>06/26/09 04:27</del>	<input type="checkbox"/>
187	CCV				1.0	06/26/09 04:31	<input type="checkbox"/>
188	CCB				1.0	06/26/09 04:34	<input type="checkbox"/>
189	RLCV				1.0	06/26/09 04:38	<input type="checkbox"/>
190	LE9H7	D9F190204-1	9174123	MS	1.0	06/26/09 04:41	<input type="checkbox"/>
191	LE9H7P5	D9F190204	9174123		5.0	06/26/09 04:45	<input type="checkbox"/>
192	LE9H7Z	D9F190204-1	9174123		1.0	06/26/09 04:48	<input type="checkbox"/>
193	LE9H7S	D9F190204-1	9174123	MS	1.0	06/26/09 04:52	<input type="checkbox"/>
194	LE9H7D	D9F190204-1	9174123	MS	1.0	06/26/09 04:55	<input type="checkbox"/>
195	LE9JM	D9F190204-2	9174123	MS	1.0	06/26/09 04:59	<input type="checkbox"/>
196	LE9JN	D9F190204-3	9174123	MS	1.0	06/26/09 05:02	<input type="checkbox"/>
197	LE9JP	D9F190204-4	9174123	MS	1.0	06/26/09 05:06	<input type="checkbox"/>
198	CCV				1.0	06/26/09 05:09	<input type="checkbox"/>
199	CCB				1.0	06/26/09 05:13	<input type="checkbox"/>
200	RLCV				1.0	06/26/09 05:16	<input type="checkbox"/>
201	LE9JQ	D9F190204-5	9174123	MS	1.0	06/26/09 05:20	<input type="checkbox"/>
202	LE9KJ	D9F190204-6	9174123	MS	1.0	06/26/09 05:23	<input type="checkbox"/>
203	LE9KM	D9F190204-7	9174123	MS	1.0	06/26/09 05:27	<input type="checkbox"/>
204	LE9KP	D9F190204-8	9174123	MS	1.0	06/26/09 05:31	<input type="checkbox"/>
205	LE9KR	D9F190204-9	9174123	MS	1.0	06/26/09 05:34	<input type="checkbox"/>
206	LE9KX	D9F190204-10	9174123	MS	1.0	06/26/09 05:38	<input type="checkbox"/>
207	LE9K1	D9F190204-11	9174123	MS	1.0	06/26/09 05:41	<input type="checkbox"/>
208	CCV				1.0	06/26/09 05:45	<input type="checkbox"/>
209	CCB				1.0	06/26/09 05:48	<input type="checkbox"/>
210	RLCV				1.0	06/26/09 05:52	<input type="checkbox"/>
211	RINSE				1.0	06/26/09 05:55	<input type="checkbox"/>
212	RINSE				1.0	06/26/09 05:59	<input type="checkbox"/>
213	RINSE				1.0	06/26/09 06:02	<input type="checkbox"/>
214	RINSE				1.0	06/26/09 06:06	<input type="checkbox"/>
215	RINSE				1.0	06/26/09 06:09	<input type="checkbox"/>
216	RINSE				1.0	06/26/09 06:13	<input type="checkbox"/>
217	<del>Cal Blank</del>				<del>1.0</del>	<del>06/26/09 06:16</del> <i>did not use.</i>	<input type="checkbox"/>
218	Cal Blank				1.0	06/26/09 06:20	<input type="checkbox"/>
219	100 ppb				1.0	06/26/09 06:23	<input type="checkbox"/>
220	CCV				1.0	06/26/09 06:27	<input type="checkbox"/>
221	CCB				1.0	06/26/09 06:30	<input type="checkbox"/>
222	RLCV				1.0	06/26/09 06:34	<input type="checkbox"/>
223	LFHREBF	D9F240000	9175213	MD	1.0	06/26/09 06:37	<input type="checkbox"/>
224	LFHRECF	D9F240000	9175213	MD	1.0	06/26/09 06:41	<input type="checkbox"/>
225	LFFPKF	D9F230156-1	9175213	MD	1.0	06/26/09 06:44	<input type="checkbox"/>
226	LFFPTF	D9F230156-2	9175213	MD	1.0	06/26/09 06:48	<input type="checkbox"/>
227	LFFP0F	D9F230156-3	9175213	MD	1.0	06/26/09 06:51	<input type="checkbox"/>
228	LFFP2F	D9F230156-4	9175213	MD	1.0	06/26/09 06:55	<input type="checkbox"/>
229	LFFP4F	D9F230156-5	9175213	MD	1.0	06/26/09 06:58	<input type="checkbox"/>
230	LFFP5F	D9F230156-6	9175213	MD	1.0	06/26/09 07:02	<input type="checkbox"/>
231	CCV				1.0	06/26/09 07:05	<input type="checkbox"/>

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/26/09 15:07:10
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File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
232	CCB				1.0 06/26/09 07:09		<input type="checkbox"/>
233	RLCV				1.0 06/26/09 07:12		<input type="checkbox"/>
234	LFFP5PF	D9F230156	9175213		5.0 06/26/09 07:16		<input type="checkbox"/>
235	LFFP5ZF	D9F230156-6	9175213		1.0 06/26/09 07:20		<input type="checkbox"/>
236	LFFP5SF	D9F230156-6	9175213	MD	1.0 06/26/09 07:23		<input type="checkbox"/>
237	LFFP5DF	D9F230156-6	9175213	MD	1.0 06/26/09 07:27		<input type="checkbox"/>
238	LFFP6F	D9F230156-7	9175213	MD	1.0 06/26/09 07:30		<input type="checkbox"/>
239	LFFQAF	D9F230156-8	9175213	MD	1.0 06/26/09 07:34		<input type="checkbox"/>
240	LFFQEF	D9F230156-9	9175213	MD	1.0 06/26/09 07:37		<input type="checkbox"/>
241	LFFQGF	D9F230156-10	9175213	MD	1.0 06/26/09 07:41		<input type="checkbox"/>
242	CCV				1.0 06/26/09 07:44		<input type="checkbox"/>
243	CCB				1.0 06/26/09 07:48		<input type="checkbox"/>
244	RLCV				1.0 06/26/09 07:51		<input type="checkbox"/>
245	LFHP2B	D9F240000	9175194	04	1.0 06/26/09 07:55		<input type="checkbox"/>
246	LFHP2C	D9F240000	9175194	04	1.0 06/26/09 07:58		<input type="checkbox"/>
247	LFFPK	D9F230156-1	9175194	04	1.0 06/26/09 08:02		<input type="checkbox"/>
248	LFFPT	D9F230156-2	9175194	04	1.0 06/26/09 08:06		<input type="checkbox"/>
249	LFFPTP5	D9F230156	9175194		5.0 06/26/09 08:09		<input type="checkbox"/>
250	LFFPTZ	D9F230156-2	9175194		1.0 06/26/09 08:13		<input type="checkbox"/>
251	LFFPTS	D9F230156-2	9175194	04	1.0 06/26/09 08:16		<input type="checkbox"/>
252	LFFPTD	D9F230156-2	9175194	04	1.0 06/26/09 08:20		<input type="checkbox"/>
253	CCV				1.0 06/26/09 08:23		<input type="checkbox"/>
254	CCB				1.0 06/26/09 08:27		<input type="checkbox"/>
255	RLCV				1.0 06/26/09 08:30		<input type="checkbox"/>
256	LFFP0	D9F230156-3	9175194	04	1.0 06/26/09 08:34		<input type="checkbox"/>
257	LFFP2	D9F230156-4	9175194	04	1.0 06/26/09 08:37		<input type="checkbox"/>
258	LFFP4	D9F230156-5	9175194	04	1.0 06/26/09 08:41		<input type="checkbox"/>
259	LFFP5	D9F230156-6	9175194	04	1.0 06/26/09 08:44		<input type="checkbox"/>
260	LFFP6	D9F230156-7	9175194	04	1.0 06/26/09 08:48		<input type="checkbox"/>
261	LFFQA	D9F230156-8	9175194	04	1.0 06/26/09 08:52		<input type="checkbox"/>
262	LFFQE	D9F230156-9	9175194	04	1.0 06/26/09 08:55		<input type="checkbox"/>
263	LFFQG	D9F230156-10	9175194	04	1.0 06/26/09 08:59		<input type="checkbox"/>
264	CCV				1.0 06/26/09 09:02		<input type="checkbox"/>
265	CCB				1.0 06/26/09 09:06		<input type="checkbox"/>
266	RLCV				1.0 06/26/09 09:09		<input type="checkbox"/>
267	<del>RINSE</del>				<del>1.0 06/26/09 09:13</del>		<input type="checkbox"/>
268	RINSE				1.0 06/26/09 09:16		<input type="checkbox"/>
269	RINSE				1.0 06/26/09 09:20		<input type="checkbox"/>
270	RINSE				1.0 06/26/09 09:23		<input type="checkbox"/>
271	RINSE				1.0 06/26/09 09:27		<input type="checkbox"/>
272	RINSE				1.0 06/26/09 09:30		<input type="checkbox"/>
273	Cal Blank				1.0 06/26/09 09:34		<input type="checkbox"/>
274	Cal Blank				1.0 06/26/09 09:37		<input type="checkbox"/>
275	100 ppb				1.0 06/26/09 09:41		<input type="checkbox"/>
276	CCV				1.0 06/26/09 09:44		<input type="checkbox"/>
277	<del>OCB</del>				<del>1.0 06/26/09 09:48</del>	<i>AL c/26/09 did not use.</i>	<input type="checkbox"/>

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/26/09 15:07:10

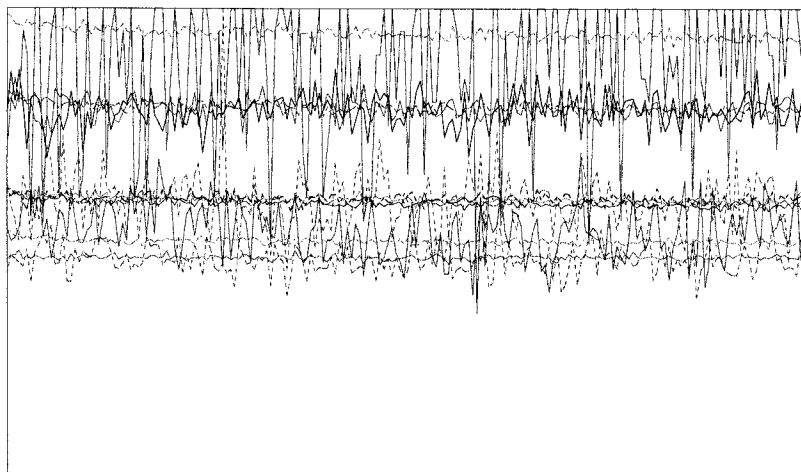
File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
278	<del>RLCV</del>			1.0	<del>06/26/09 09:51</del>		<input type="checkbox"/>
279	RINSE			1.0	06/26/09 09:55		<input type="checkbox"/>
280	RINSE			1.0	06/26/09 09:58		<input type="checkbox"/>
281	RINSE			1.0	06/26/09 10:02		<input type="checkbox"/>
282	RINSE			1.0	06/26/09 10:05		<input type="checkbox"/>
283	RINSE			1.0	06/26/09 10:09		<input type="checkbox"/>
284	RINSE			1.0	06/26/09 10:12		<input type="checkbox"/>
285	<del>Cal Blank</del>			1.0	<del>06/26/09 10:16</del>	<i>Cal blank did not use.</i>	<input type="checkbox"/>
286	Cal Blank			1.0	06/26/09 10:19		<input type="checkbox"/>
287	100 ppb			1.0	06/26/09 10:22		<input type="checkbox"/>
288	CCV			1.0	06/26/09 10:26		<input type="checkbox"/>
289	CCB			1.0	06/26/09 10:30		<input type="checkbox"/>
290	RLCV			1.0	06/26/09 10:33		<input type="checkbox"/>
291	SOLUTION 1			1.0	06/26/09 10:37		<input type="checkbox"/>
292	SOLUTION 2			1.0	06/26/09 10:40		<input type="checkbox"/>
293	CCV			1.0	06/26/09 10:44		<input type="checkbox"/>
294	CCB			1.0	06/26/09 10:47		<input type="checkbox"/>
295	RLCV			1.0	06/26/09 10:51		<input type="checkbox"/>

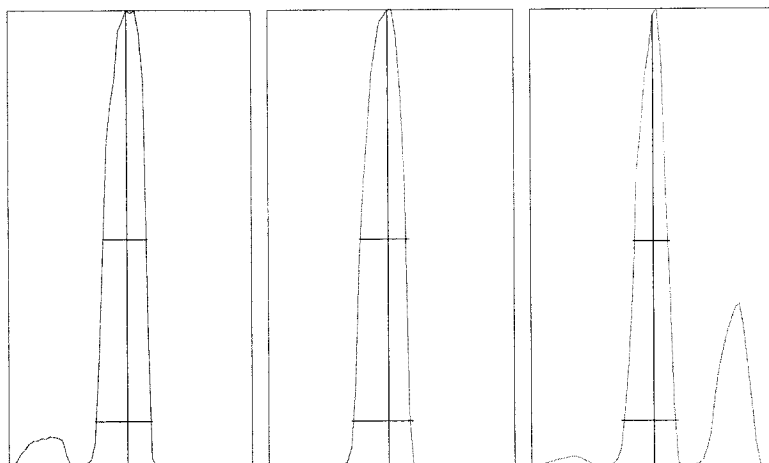
Tune Report

Tune File : NORM.U  
 Comment :



Integration Time: 0.1000 sec  
 Sampling Period: 1.5300 sec  
 n: 200  
 Oxide: 156/140 2.141%  
 Doubly Charged: 70/140 1.504%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1567.0	1571.1	2.71	0.50
7	50,000	23737.0	23564.8	1.07	1.00
59	50,000	29124.0	29753.3	1.34	0.40
63	200	101.0	106.3	10.73	1.00
70	1,000	813.0	782.6	4.46	1.00
75	20	27.0	18.5	23.81	0.50
78	500	209.0	233.2	6.87	1.00
89	50,000	46745.0	47248.3	1.21	0.50
115	100,000	50611.0	50646.2	1.25	1.10
118	200	116.0	119.4	14.11	1.20
137	10,000	5876.0	5968.3	1.81	1.30
205	50,000	38277.0	39401.7	1.44	1.70
238	100,000	57456.0	58700.9	1.39	1.90
156/140	5	2.093%	2.176%	4.33	
70/140	2	1.583%	1.498%	4.63	



m/z:	7	89	205
Height:	23,730	47,034	42,849
Axis:	7.00	89.00	205.05
W-50%:	0.55	0.60	0.45
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

# Tune Report

Tune File : NORM.U  
Comment :

## Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	: 1550 W		Extract 1	: 0 V		AMU Gain	: 134	
RF Matching	: 1.7 V		Extract 2	: -175 V		AMU Offset	: 123	
Smpl Depth	: 7 mm		Omega Bias-ce	: -30 V		Axis Gain	: 1.001	
Torch-H	: -0.8 mm		Omega Lens-ce	: -0.2 V		Axis Offset	: -0.05	
Torch-V	: -0.3 mm		Cell Entrance	: -30 V		QP Bias	: -10 V	
Carrier Gas	: 0.83 L/min		QP Focus	: 5 V		===Detector Parameters===		
Makeup Gas	: 0.2 L/min		Cell Exit	: -30 V		Discriminator	: 8 mV	
Optional Gas	: --- %		===Octopole Parameters===			Analog HV	: 1720 V	
Nebulizer Pump	: 0.1 rps		OctP RF	: 180 V		Pulse HV	: 1390 V	
Sample Pump	: --- rps		OctP Bias	: -18 V				
S/C Temp	: 2 degC							

## ===Reaction Cell===

Reaction Mode	: OFF							
H2 Gas	: 0 mL/min		He Gas	: 0 mL/min		Optional Gas	: --- %	

P/A Factor Tuning Report

Acquired: Jun 25 2009 05:11 pm

Mass[amu]	Element	P/A Factor
6	Li	0.060527
7	(Li)	Sensitivity too low
9	Be	0.068096
23	Na	0.076001
24	Mg	0.079086
27	Al	0.081496
39	K	0.080983
43	Ca	Sensitivity too low
45	Sc	0.081632
51	V	0.083426
52	Cr	0.086119
53	(Cr)	Sensitivity too low
55	Mn	0.088056
57	Fe	Sensitivity too low
59	Co	0.091535
60	Ni	0.092666
63	Cu	0.094952
66	Zn	0.094596
72	Ge	0.093381
75	As	0.092696
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
93	Nb	Sensitivity too low
95	Mo	0.094000
98	(Mo)	0.093591
99	(Mo)	0.095200
105	Pd	0.098595
106	(Cd)	0.098492
107	Ag	Sensitivity too low
108	(Cd)	0.099270
111	Cd	0.099751
114	Cd	0.099467
115	In	0.098711
118	Sn	0.098622
121	Sb	0.098489
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
182	W	Sensitivity too low
195	Pt	Sensitivity too low
205	Tl	0.108051
206	(Pb)	0.106587
207	(Pb)	0.106712
208	Pb	0.106080
232	Th	0.104987
238	U	0.105110

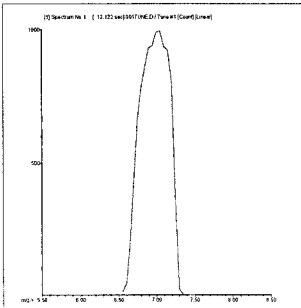
===Detector Parameters===

Discriminator: 8.0 mV  
Analog HV: 1720 V  
Pulse HV: 1390 V

## 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\001TUNE.D  
 Date Acquired: Jun 25 2009 05:39 pm  
 Acq. Method: tun\_isis.M  
 Operator: TEL  
 Sample Name: 200.8 TUNE  
 Misc Info:  
 Vial Number: 4  
 Current Method: C:\ICPCHEM\1\METHODS\tun\_isis.M

Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	19878	20379	19597	20102	19795	19515	4.04	5.00	
9 Be	2433	2425	2477	2473	2415	2369	4.86	5.00	
24 Mg	9547	9717	9719	9432	9511	9352	1.95	5.00	
59 Co	66184	67525	66235	66635	65306	65215	2.98	5.00	
115 In	801383	798461	799262	802155	805195	801843	0.56	5.00	
208 Pb	66140	67999	66838	66447	65254	64161	2.50	5.00	
238 U	133648	138099	133760	136158	133050	127171	2.46	5.00	



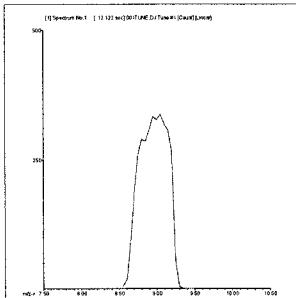
7 Li

**Mass Calib.**

Actual: 7.00  
 Required: 6.90 - 7.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



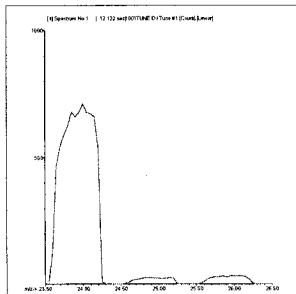
9 Be

**Mass Calib.**

Actual: 9.00  
 Required: 8.90 - 9.10  
 Flag:

**Peak Width**

Actual: 0.60  
 Required: 0.90  
 Flag:



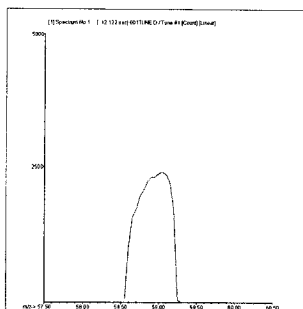
24 Mg

**Mass Calib.**

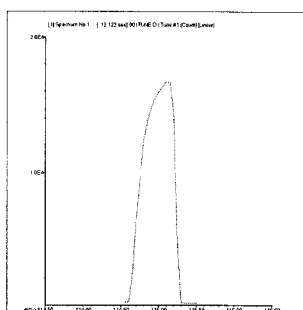
Actual: 23.95  
 Required: 23.90 - 24.10  
 Flag:

**Peak Width**

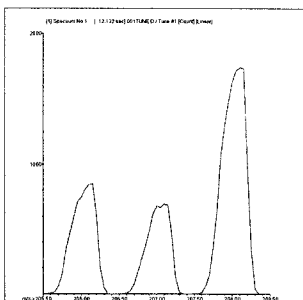
Actual: 0.60  
 Required: 0.90  
 Flag:



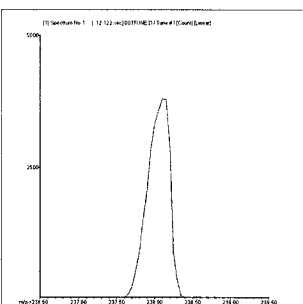
**59 Co**  
**Mass Calib.**  
 Actual: 59.00  
 Required: 58.90 - 59.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**115 In**  
**Mass Calib.**  
 Actual: 115.05  
 Required: 114.90 - 115.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**208 Pb**  
**Mass Calib.**  
 Actual: 208.05  
 Required: 207.90 - 208.10  
 Flag:  
**Peak Width**  
 Actual: 0.50  
 Required: 0.90  
 Flag:



**238 U**  
**Mass Calib.**  
 Actual: 238.10  
 Required: 237.90 - 238.10  
 Flag:  
**Peak Width**  
 Actual: 0.50  
 Required: 0.90  
 Flag:

**Tune Result:** Pass





**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\002CALB.D\002CALB.D#  
 Date Acquired: Jun 25 2009 05:43 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:44 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	187490	1.26
24	Mg	6	1	1467	3.76
27	Al	45	1	933	3.44
39	K	45	1	56573	1.73
43	Ca	45	1	7	86.60
51	V	72	1	175	130.46
52	Cr	72	1	1967	2.29
55	Mn	72	1	253	8.22
57	Fe	72	1	153	42.43
59	Co	72	1	110	39.63
60	Ni	72	1	60	28.87
63	Cu	72	1	283	23.50
66	Zn	72	1	121	8.18
75	As	72	1	26	27.74
78	Se	72	1	40	43.30
93	Nb	72	1	13	114.56
95	Mo	72	1	80	25.00
105	Pd	115	1	7	86.60
107	Ag	115	1	10	100.00
111	Cd	115	1	13	85.41
114	Cd	115	1	23	49.49
118	Sn	115	1	287	12.25
121	Sb	115	1	24	28.39
137	Ba	115	1	13	43.30
182	W	165	1	583	5.51
195	Pt	165	1	197	7.77
205	Tl	165	1	124	10.83
208	Pb	165	1	186	14.41
232	Th	165	1	303	26.65
238	U	165	1	70	37.80

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	363732	0.54
45	Sc	1	866037	0.98
72	Ge	1	481465	0.71
115	In	1	1530349	0.76
165	Ho	1	3426604	0.46

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 TestAcquired 6/25/09 5:44 PM

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\003CALB.D\003CALB.D#  
 Date Acquired: Jun 25 2009 05:47 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 2101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:44 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	189918	0.74
24	Mg	6	1	1133	11.24
27	Al	45	1	913	20.38
39	K	45	1	58259	0.95
43	Ca	45	1	10	0.00
51	V	72	1	-84	139.39
52	Cr	72	1	1820	7.39
55	Mn	72	1	237	19.97
57	Fe	72	1	137	27.70
59	Co	72	1	150	23.09
60	Ni	72	1	47	24.74
63	Cu	72	1	253	23.79
66	Zn	72	1	183	12.02
75	As	72	1	23	20.38
78	Se	72	1	47	61.86
93	Nb	72	1	30	33.33
95	Mo	72	1	43	13.32
105	Pd	115	1	7	86.60
107	Ag	115	1	10	100.00
111	Cd	115	1	13	41.66
114	Cd	115	1	20	50.00
118	Sn	115	1	290	24.14
121	Sb	115	1	20	60.09
137	Ba	115	1	18	28.64
182	W	165	1	633	2.41
195	Pt	165	1	130	13.32
205	Tl	165	1	116	4.41
208	Pb	165	1	160	10.42
232	Th	165	1	227	34.27
238	U	165	1	39	40.51

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	363199	0.55
45	Sc	1	874110	1.41
72	Ge	1	487846	0.60
115	In	1	1544466	0.77
165	Ho	1	3433480	0.31

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#  
 Date Acquired: Jun 25 2009 05:50 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:48 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	191865	0.94
24	Mg	6	1	1784	7.57
27	Al	45	1	1073	3.77
39	K	45	1	58125	1.03
43	Ca	45	1	27	94.37
51	V	72	1	-38	239.76
52	Cr	72	1	1850	4.71
55	Mn	72	1	257	23.48
57	Fe	72	1	160	6.25
59	Co	72	1	133	37.75
60	Ni	72	1	23	49.49
63	Cu	72	1	237	25.47
66	Zn	72	1	114	10.96
75	As	72	1	25	25.38
78	Se	72	1	37	78.73
93	Nb	72	1	23	24.74
95	Mo	72	1	53	54.13
105	Pd	115	1	3	173.21
107	Ag	115	1	10	0.00
111	Cd	115	1	7	214.83
114	Cd	115	1	20	100.00
118	Sn	115	1	183	13.73
121	Sb	115	1	13	0.00
137	Ba	115	1	12	15.75
182	W	165	1	607	8.13
195	Pt	165	1	167	6.93
205	Tl	165	1	98	32.22
208	Pb	165	1	150	12.37
232	Th	165	1	253	8.22
238	U	165	1	31	32.73

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	357213	0.40
45	Sc	1	874931	1.37
72	Ge	1	488215	0.57
115	In	1	1536240	0.42
165	Ho	1	3429199	0.67

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\005ICAL.D\005ICAL.D#  
 Date Acquired: Jun 25 2009 05:54 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:51 pm  
 Sample Type: ICAL

## QC Elements

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	42650	2.23
23	Na	6	22137830	1.26
24	Mg	6	13459580	1.82
27	Al	45	9369846	1.21
39	K	45	13259470	1.08
43	Ca	45	38262	2.23
51	V	72	598158	1.83
52	Cr	72	689748	2.55
55	Mn	72	638890	2.13
57	Fe	72	1807362	0.63
59	Co	72	1008589	1.15
60	Ni	72	234051	1.72
63	Cu	72	572259	1.72
66	Zn	72	105421	1.99
75	As	72	65236	1.81
78	Se	72	9877	1.90
93	Nb	72	27	78.06
95	Mo	72	279637	1.61
105	Pd	115	0	0.00
107	Ag	115	893174	0.92
111	Cd	115	152087	1.51
114	Cd	115	378939	1.78
118	Sn	115	376011	1.54
121	Sb	115	395949	1.95
137	Ba	115	162196	1.45
182	W	165	710	25.86
195	Pt	165	133	31.23
205	Tl	165	1868558	0.59
208	Pb	165	2558274	1.39
232	Th	165	2293497	2.15
238	U	165	2787945	1.82

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	320724	0.42	357213	89.8	30 - 120
45	Sc	1	770897	0.81	874931	88.1	30 - 120
72	Ge	1	429302	0.56	488215	87.9	30 - 120
115	In	1	1391234	0.81	1536240	90.6	30 - 120
165	Ho	1	3180719	0.71	3429199	92.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

**Initial Calibration Verification (ICV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\006\_ICV.D\006\_ICV.D#  
 Date Acquired: Jun 25 2009 05:57 pm  
 Operator: TEL  
 Sample Name: ICV  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: ICV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	39.75 ppb	2.80	40	99.4	90 - 110	
23	Na	6	1	4085.00 ppb	0.24	4000	102.1	90 - 110	
24	Mg	6	1	4111.00 ppb	0.68	4000	102.8	90 - 110	
27	Al	45	1	4073.00 ppb	2.77	4000	101.8	90 - 110	
39	K	45	1	4042.00 ppb	0.14	4000	101.1	90 - 110	
43	Ca	45	1	4148.00 ppb	2.36	4000	103.7	90 - 110	
51	V	72	1	40.09 ppb	1.19	40	100.2	90 - 110	
52	Cr	72	1	40.31 ppb	1.75	40	100.8	90 - 110	
55	Mn	72	1	40.51 ppb	1.75	40	101.3	90 - 110	
57	Fe	72	1	3935.00 ppb	1.52	4000	98.4	90 - 110	
59	Co	72	1	39.44 ppb	1.35	40	98.6	90 - 110	
60	Ni	72	1	40.53 ppb	1.57	40	101.3	90 - 110	
63	Cu	72	1	40.58 ppb	2.44	40	101.5	90 - 110	
66	Zn	72	1	40.34 ppb	0.93	40	100.9	90 - 110	
75	As	72	1	39.60 ppb	1.65	40	99.0	90 - 110	
78	Se	72	1	43.02 ppb	5.00	40	107.6	90 - 110	
93	Nb	72	1	391.30 ppb	47.23	80	489.1	90 - 110	Fail
95	Mo	72	1	39.48 ppb	1.37	40	98.7	90 - 110	
105	Pd	115	1	-333.30 ppb	112.60	40	-833.3	90 - 110	Fail
107	Ag	115	1	40.36 ppb	0.80	40	100.9	90 - 110	
111	Cd	115	1	40.01 ppb	2.07	40	100.0	90 - 110	
114	Cd	115	1	40.05 ppb	1.99	40	100.1	90 - 110	
118	Sn	115	1	39.80 ppb	2.35	40	99.5	90 - 110	
121	Sb	115	1	39.76 ppb	1.08	40	99.4	90 - 110	
137	Ba	115	1	39.85 ppb	2.24	40	99.6	90 - 110	
182	W	165	1	68.18 ppb	38.84	40	170.5	90 - 110	Fail
195	Pt	165	1	184.90 ppb	39.28	40	462.3	90 - 110	Fail
205	Tl	165	1	40.23 ppb	1.26	40	100.6	90 - 110	
208	Pb	165	1	40.64 ppb	1.99	40	101.6	90 - 110	
232	Th	165	1	43.42 ppb	2.47	40	108.6	90 - 110	
238	U	165	1	40.14 ppb	3.18	40	100.4	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	323232	1.00	357213	90.5	30 - 120
45	Sc	1	774515	0.09	874931	88.5	30 - 120
72	Ge	1	437599	0.33	488215	89.6	30 - 120
115	In	1	1425273	0.39	1536240	92.8	30 - 120
165	Ho	1	3229420	0.55	3429199	94.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\007WASH.D\007WASH.D#  
 Date Acquired: Jun 25 2009 06:01 pm  
 Operator: TEL  
 Sample Name: RLIV  
 Misc Info: 1204  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.977 ppb	4.24	1.30	
23 Na	6	1	53.510 ppb	2.95	65.00	
24 Mg	6	1	54.110 ppb	1.89	65.00	
27 Al	45	1	33.130 ppb	1.77	39.00	
39 K	45	1	108.400 ppb	1.67	130.00	
43 Ca	45	1	45.830 ppb	20.04	65.00	
51 V	72	1	4.957 ppb	2.39	6.50	
52 Cr	72	1	2.042 ppb	5.22	2.60	
55 Mn	72	1	1.027 ppb	2.14	1.30	
57 Fe	72	1	50.840 ppb	4.93	65.00	
59 Co	72	1	1.002 ppb	3.94	1.30	
60 Ni	72	1	2.068 ppb	8.40	2.60	
63 Cu	72	1	2.074 ppb	0.92	2.60	
66 Zn	72	1	10.100 ppb	2.93	13.00	
75 As	72	1	5.072 ppb	3.39	6.50	
78 Se	72	1	5.194 ppb	10.40	6.50	
93 Nb	72	1	336.500 ppb	222.08	52.00	
95 Mo	72	1	1.973 ppb	8.51	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.422 ppb	2.72	6.50	
111 Cd	115	1	0.969 ppb	6.76	1.30	
114 Cd	115	1	1.247 ppb	2.67	1.30	
118 Sn	115	1	10.200 ppb	3.75	13.00	
121 Sb	115	1	2.180 ppb	2.06	2.60	
137 Ba	115	1	1.043 ppb	5.61	1.30	
182 W	165	1	-74.470 ppb	68.07	6.50	
195 Pt	165	1	86.750 ppb	91.57	1.30	
205 Tl	165	1	1.195 ppb	3.14	1.30	
208 Pb	165	1	1.064 ppb	1.16	1.30	
232 Th	165	1	2.959 ppb	5.89	2.60	
238 U	165	1	1.057 ppb	2.95	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	331015	0.78	357213	92.7	30 - 120	
45 Sc	1	802941	1.50	874931	91.8	30 - 120	
72 Ge	1	460777	0.36	488215	94.4	30 - 120	
115 In	1	1472933	0.62	1536240	95.9	30 - 120	
165 Ho	1	3274766	0.20	3429199	95.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File :

C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\008\_ICB.D\008\_ICB.D#  
 Date Acquired: Jun 25 2009 06:04 pm  
 Operator: TEL  
 Sample Name: ICB  
 Misc Info:  
 Vial Number: 2104  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: ICB  
 Total Dil Factor: 1.00

## QC Summary:

Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS	Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9	Be	6	1	0.00	ppb	0.00	1.00	
23	Na	6	1	1.71	ppb	14.06	20.00	
24	Mg	6	1	-0.27	ppb	34.31	20.00	
27	Al	45	1	1.89	ppb	6.01	20.00	
39	K	45	1	1.04	ppb	51.68	20.00	
43	Ca	45	1	1.08	ppb	229.99	20.00	
51	V	72	1	0.03	ppb	65.24	1.00	
52	Cr	72	1	0.00	ppb	1791.30	1.00	
55	Mn	72	1	0.02	ppb	24.11	1.00	
57	Fe	72	1	1.10	ppb	23.04	20.00	
59	Co	72	1	0.00	ppb	70.81	1.00	
60	Ni	72	1	0.03	ppb	25.62	1.00	
63	Cu	72	1	0.02	ppb	29.19	1.00	
66	Zn	72	1	0.42	ppb	3.86	10.00	
75	As	72	1	0.01	ppb	35.82	1.00	
78	Se	72	1	0.23	ppb	122.79	1.00	
93	Nb	72	1	-366.30	ppb	79.47	2.00	
95	Mo	72	1	0.01	ppb	35.90	1.00	
105	Pd	115	1	-104.90	ppb	169.30	1.00	
107	Ag	115	1	0.01	ppb	19.03	1.00	
111	Cd	115	1	0.00	ppb	109.19	1.00	
114	Cd	115	1	0.01	ppb	69.09	1.00	
118	Sn	115	1	0.15	ppb	10.76	10.00	
121	Sb	115	1	0.12	ppb	14.14	1.00	
137	Ba	115	1	0.00	ppb	436.17	1.00	
182	W	165	1	-0.24	ppb	13902.00	5.00	
195	Pt	165	1	53.50	ppb	224.30	1.00	Fail
205	Tl	165	1	0.07	ppb	9.22	1.00	
208	Pb	165	1	0.01	ppb	16.20	1.00	
232	Th	165	1	0.33	ppb	11.31	2.00	
238	U	165	1	0.01	ppb	7.92	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	336355	0.88	357213	94.2	30 - 120
45	Sc	1	844778	1.23	874931	96.6	30 - 120
72	Ge	1	472720	0.34	488215	96.8	30 - 120
115	In	1	1510792	1.49	1536240	98.3	30 - 120
165	Ho	1	3335348	0.98	3429199	97.3	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

1 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**RL STD QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\009RLST.D\009RLST.D#  
 Date Acquired: Jun 25 2009 06:08 pm  
 Operator: TEL  
 Sample Name: RL STD  
 Misc Info: 2105  
 Vial Number: C:\ICPCHEM\1\METHODS\6020isis.M  
 Current Method: C:\ICPCHEM\1\CALIB\6020isis.C  
 Calibration File: Jun 25 2009 05:54 pm  
 Last Cal Update: RLSTD  
 Sample Type: 1.00  
 Total Dil Factor:

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	1.21 ppb	4.23	1	121.2	50 - 150	
23 Na	6	1	110.70 ppb	1.38	100	110.7	50 - 150	
24 Mg	6	1	109.40 ppb	2.04	100	109.4	50 - 150	
27 Al	45	1	101.80 ppb	2.06	100	101.8	50 - 150	
39 K	45	1	104.90 ppb	2.43	100	104.9	50 - 150	
43 Ca	45	1	116.80 ppb	13.38	100	116.8	50 - 150	
51 V	72	1	0.94 ppb	9.10	1	94.3	50 - 150	
52 Cr	72	1	0.98 ppb	5.86	1	97.8	50 - 150	
55 Mn	72	1	1.01 ppb	1.74	1	100.8	50 - 150	
57 Fe	72	1	97.96 ppb	4.59	100	98.0	50 - 150	
59 Co	72	1	0.99 ppb	0.59	1	99.1	50 - 150	
60 Ni	72	1	0.95 ppb	3.90	1	94.6	50 - 150	
63 Cu	72	1	1.05 ppb	4.45	1	105.4	50 - 150	
66 Zn	72	1	10.09 ppb	1.64	10	100.9	50 - 150	
75 As	72	1	0.98 ppb	8.48	1	97.5	50 - 150	
78 Se	72	1	0.80 ppb	24.01	1	80.1	50 - 150	
93 Nb	72	1	-272.70 ppb	161.42	2	-13635.0	50 - 150	Fail
95 Mo	72	1	0.98 ppb	5.51	1	97.7	50 - 150	
105 Pd	115	1	-1.88 ppb	9378.30	1	-188.2	50 - 150	Fail
107 Ag	115	1	1.04 ppb	1.36	1	103.9	50 - 150	
111 Cd	115	1	1.05 ppb	2.12	1	105.0	50 - 150	
114 Cd	115	1	1.23 ppb	4.06	1	122.8	50 - 150	
118 Sn	115	1	10.02 ppb	3.19	10	100.2	50 - 150	
121 Sb	115	1	1.02 ppb	2.63	1	101.8	50 - 150	
137 Ba	115	1	1.01 ppb	2.94	1	100.7	50 - 150	
182 W	165	1	-41.51 ppb	182.32	1	-4151.0	50 - 150	Fail
195 Pt	165	1	39.80 ppb	171.68	1	3980.0	50 - 150	Fail
205 Tl	165	1	1.09 ppb	0.74	1	108.8	50 - 150	
208 Pb	165	1	1.04 ppb	4.08	1	103.9	50 - 150	
232 Th	165	1	1.11 ppb	4.83	1	111.2	50 - 150	
238 U	165	1	1.03 ppb	4.18	1	103.2	50 - 150	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	339022	0.49	357213	94.9	30 - 120	
45 Sc	1	852135	1.34	874931	97.4	30 - 120	
72 Ge	1	476660	0.24	488215	97.6	30 - 120	
115 In	1	1520028	0.32	1536240	98.9	30 - 120	
165 Ho	1	3339304	0.06	3429199	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**AFCEE RL QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\010AFCE.D\010AFCE.D#  
 Date Acquired: Jun 25 2009 06:11 pm  
 Operator: TEL  
 Sample Name: AFCEE RL  
 Misc Info:  
 Vial Number: 2106  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: AFCEERL  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	0.16 ppb	55.69	0	66.1	80 - 120
23	Na	6	1	21.12 ppb	7.64	22	95.4	80 - 120
24	Mg	6	1	21.04 ppb	2.07	22	96.2	80 - 120
27	Al	45	1	20.09 ppb	3.29	20	98.7	80 - 120
39	K	45	1	19.53 ppb	2.60	21	93.1	80 - 120
43	Ca	45	1	14.96 ppb	41.57	23	64.0	80 - 120
51	V	72	1	0.16 ppb	28.81	0	84.3	80 - 120
52	Cr	72	1	0.18 ppb	14.01	0	89.6	80 - 120
55	Mn	72	1	0.22 ppb	6.94	0	106.7	80 - 120
57	Fe	72	1	19.31 ppb	5.38	20	98.6	80 - 120
59	Co	72	1	0.20 ppb	2.85	0	99.2	80 - 120
60	Ni	72	1	0.19 ppb	14.26	0	101.5	80 - 120
63	Cu	72	1	0.21 ppb	13.15	0	99.3	80 - 120
66	Zn	72	1	2.00 ppb	2.14	2	99.3	80 - 120
75	As	72	1	0.19 ppb	9.98	0	98.2	80 - 120
78	Se	72	1	0.13 ppb	141.98	0	80.1	80 - 120
93	Nb	72	1	-465.60 ppb	35.61	-55	853.7	80 - 120
95	Mo	72	1	0.19 ppb	2.79	0	97.7	80 - 120
105	Pd	115	1	-0.41 ppb	#####	0	109.6	80 - 120
107	Ag	115	1	0.21 ppb	3.68	0	102.2	80 - 120
111	Cd	115	1	0.19 ppb	4.76	0	89.8	80 - 120
114	Cd	115	1	0.23 ppb	3.51	0	92.6	80 - 120
118	Sn	115	1	2.05 ppb	2.53	2	102.2	80 - 120
121	Sb	115	1	0.23 ppb	9.88	0	114.9	80 - 120
137	Ba	115	1	0.20 ppb	9.47	0	97.6	80 - 120
182	W	165	1	34.11 ppb	187.07	-8	-410.9	80 - 120
195	Pt	165	1	-103.40 ppb	490.33	8	-1299.0	80 - 120
205	Tl	165	1	0.24 ppb	3.62	0	109.9	80 - 120
208	Pb	165	1	0.21 ppb	7.52	0	99.3	80 - 120
232	Th	165	1	0.29 ppb	2.64	0	132.6	80 - 120
238	U	165	1	0.20 ppb	1.11	0	97.7	80 - 120

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	342755	1.03	357213	96.0	30 - 120
45	Sc	1	861526	0.65	874931	98.5	30 - 120
72	Ge	1	478472	0.23	488215	98.0	30 - 120
115	In	1	1533251	0.39	1536240	99.8	30 - 120
165	Ho	1	3354225	0.41	3429199	97.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\011SMPL.D\011SMPL.D#  
 Date Acquired: Jun 25 2009 06:15 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ALTSe  
 Misc Info: 2 ppb  
 Vial Number: 2107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.15	3600	
23 Na	6	1	-2.72	-2.72	ppb	35.07	100000	
24 Mg	6	1	-0.23	-0.23	ppb	34.31	100000	
27 Al	45	1	0.07	0.07	ppb	190.36	100000	
39 K	45	1	-0.91	-0.91	ppb	72.91	100000	
43 Ca	45	1	-2.90	-2.90	ppb	95.45	100000	
51 V	72	1	0.01	0.01	ppb	223.13	3600	
52 Cr	72	1	0.00	0.00	ppb	7708.20	3600	
55 Mn	72	1	0.01	0.01	ppb	9.84	18000	
57 Fe	72	1	0.38	0.38	ppb	33.95	100000	
59 Co	72	1	0.00	0.00	ppb	14.94	3600	
60 Ni	72	1	0.01	0.01	ppb	1.12	3600	
63 Cu	72	1	0.01	0.01	ppb	63.93	3600	
66 Zn	72	1	0.22	0.22	ppb	8.65	3600	
75 As	72	1	-0.01	-0.01	ppb	267.90	3600	
78 Se	72	1	2.25	2.25	ppb	28.36	3600	
93 Nb	72	1	-269.80	-269.80	ppb	61.42	2000	
95 Mo	72	1	0.00	0.00	ppb	168.98	3600	
105 Pd	115	1	-3.63	-3.63	ppb	4951.70	1000	
107 Ag	115	1	0.00	0.00	ppb	49.26	3600	
111 Cd	115	1	0.00	0.00	ppb	112.48	3600	
114 Cd	115	1	0.00	0.00	ppb	411.65	3600	
118 Sn	115	1	0.05	0.05	ppb	19.24	3600	
121 Sb	115	1	0.03	0.03	ppb	5.22	3600	
137 Ba	115	1	0.00	0.00	ppb	6.71	3600	
182 W	165	1	12.60	12.60	ppb	341.90	1000	
195 Pt	165	1	43.17	43.17	ppb	426.92	1000	
205 Tl	165	1	0.02	0.02	ppb	9.18	3600	
208 Pb	165	1	0.00	0.00	ppb	1333.90	3600	
232 Th	165	1	0.05	0.05	ppb	12.59	1000	
238 U	165	1	0.00	0.00	ppb	154.20	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	340404	1.39	357213	95.3	30 - 120	
45 Sc	1	847853	1.60	874931	96.9	30 - 120	
72 Ge	1	473050	0.49	488215	96.9	30 - 120	
115 In	1	1500983	0.70	1536240	97.7	30 - 120	
165 Ho	1	3355885	0.06	3429199	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\012ICSA.D\012ICSA.D#  
 Date Acquired: Jun 25 2009 06:18 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.03 ppb	43.08	1.00
23	Na	6	1	97230.00 ppb	0.72	100.00
24	Mg	6	1	93340.00 ppb	0.79	100.00
27	Al	45	1	97800.00 ppb	1.32	100.00
39	K	45	1	99100.00 ppb	0.76	100.00
43	Ca	45	1	104700.00 ppb	0.16	100.00
51	V	72	1	0.06 ppb	5.46	1.00
52	Cr	72	1	1.03 ppb	1.36	1.00
55	Mn	72	1	2.12 ppb	3.28	1.00
57	Fe	72	1	95700.00 ppb	1.69	100.00
59	Co	72	1	0.03 ppb	13.42	1.00
60	Ni	72	1	0.81 ppb	2.92	1.00
63	Cu	72	1	0.29 ppb	5.15	1.00
66	Zn	72	1	2.72 ppb	3.00	10.00
75	As	72	1	0.14 ppb	12.60	1.00
78	Se	72	1	0.18 ppb	133.62	1.00
93	Nb	72	1	2807.00 ppb	39.79	2.00
95	Mo	72	1	2033.00 ppb	0.43	2000.00
105	Pd	115	1	-2323.00 ppb	24.79	1.00
107	Ag	115	1	0.08 ppb	11.81	1.00
111	Cd	115	1	0.37 ppb	47.15	1.00
114	Cd	115	1	1.63 ppb	2.40	1.00
118	Sn	115	1	0.18 ppb	19.11	10.00
121	Sb	115	1	0.25 ppb	7.11	1.00
137	Ba	115	1	1.54 ppb	3.53	1.00
182	W	165	1	1072.00 ppb	2.44	5.00
195	Pt	165	1	-66.66 ppb	355.69	1.00
205	Tl	165	1	0.04 ppb	18.29	1.00
208	Pb	165	1	0.14 ppb	1.55	1.00
232	Th	165	1	0.09 ppb	20.92	2.00
238	U	165	1	0.02 ppb	5.32	1.00

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	303415	1.10	357213	84.9	30 - 120
45	Sc	1	684272	0.87	874931	78.2	30 - 120
72	Ge	1	370154	0.61	488215	75.8	30 - 120
115	In	1	1209203	0.34	1536240	78.7	30 - 120
165	Ho	1	2887854	0.72	3429199	84.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

**Interference Check Solution AB (ICS-AB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\013ICSB.D\013ICSB.D#  
 Date Acquired: Jun 25 2009 06:21 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	91.16	2.22	100	91.2	80 - 120	
23 Na	6	1	92920.00	1.17	110000	84.5	80 - 120	
24 Mg	6	1	89260.00	0.64	110000	81.1	80 - 120	
27 Al	45	1	96070.00	1.20	110000	87.3	80 - 120	
39 K	45	1	97200.00	0.15	110000	88.4	80 - 120	
43 Ca	45	1	101800.00	0.52	110000	92.5	80 - 120	
51 V	72	1	102.90	0.54	100	102.9	80 - 120	
52 Cr	72	1	101.40	1.69	100	101.4	80 - 120	
55 Mn	72	1	101.80	1.23	100	101.8	80 - 120	
57 Fe	72	1	95920.00	1.70	110000	87.2	80 - 120	
59 Co	72	1	96.01	1.02	100	96.0	80 - 120	
60 Ni	72	1	94.40	1.62	100	94.4	80 - 120	
63 Cu	72	1	91.91	1.58	100	91.9	80 - 120	
66 Zn	72	1	98.35	1.28	100	98.4	80 - 120	
75 As	72	1	98.91	0.32	100	98.9	80 - 120	
78 Se	72	1	106.20	2.22	100	106.2	80 - 120	
93 Nb	72	1	2529.00	16.76	200	1264.5	80 - 120	Fail
95 Mo	72	1	2131.00	0.55	2100	101.5	80 - 120	
105 Pd	115	1	-1182.00	37.04	100	-1182.0	80 - 120	Fail
107 Ag	115	1	85.93	1.82	100	85.9	80 - 120	
111 Cd	115	1	94.86	2.62	100	94.9	80 - 120	
114 Cd	115	1	96.58	2.43	100	96.6	80 - 120	
118 Sn	115	1	100.90	2.48	100	100.9	80 - 120	
121 Sb	115	1	101.00	2.28	100	101.0	80 - 120	
137 Ba	115	1	105.80	2.32	100	105.8	80 - 120	
182 W	165	1	983.20	13.21	100	983.2	80 - 120	Fail
195 Pt	165	1	42.84	198.95	100	42.8	80 - 120	Fail
205 Tl	165	1	95.91	1.96	100	95.9	80 - 120	
208 Pb	165	1	95.76	3.19	100	95.8	80 - 120	
232 Th	165	1	104.60	3.31	100	104.6	80 - 120	
238 U	165	1	100.80	2.04	100	100.8	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	307006	0.95	357213	85.9	30 - 120	
45 Sc	1	670438	0.67	874931	76.6	30 - 120	
72 Ge	1	359634	0.80	488215	73.7	30 - 120	
115 In	1	1201588	1.19	1536240	78.2	30 - 120	
165 Ho	1	2919411	1.34	3429199	85.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 4 :Element Failures  
 0 :ISTD Failures

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\014SMPL.D\014SMPL.D#  
 Date Acquired: Jun 25 2009 06:25 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.23	3600	
23 Na	6	1	-8.58	-8.58	ppb	7.89	100000	
24 Mg	6	1	4.37	4.37	ppb	30.17	100000	
27 Al	45	1	5.73	5.73	ppb	24.18	100000	
39 K	45	1	-0.43	-0.43	ppb	122.93	100000	
43 Ca	45	1	1.38	1.38	ppb	185.59	100000	
51 V	72	1	0.01	0.01	ppb	219.58	3600	
52 Cr	72	1	-0.01	-0.01	ppb	64.73	3600	
55 Mn	72	1	0.02	0.02	ppb	47.43	18000	
57 Fe	72	1	6.70	6.70	ppb	26.58	100000	
59 Co	72	1	0.00	0.00	ppb	144.50	3600	
60 Ni	72	1	0.00	0.00	ppb	212.11	3600	
63 Cu	72	1	0.02	0.02	ppb	43.54	3600	
66 Zn	72	1	-0.01	-0.01	ppb	135.79	3600	
75 As	72	1	-0.01	-0.01	ppb	108.15	3600	
78 Se	72	1	0.12	0.12	ppb	169.69	3600	
93 Nb	72	1	44.28	44.28	ppb	387.31	2000	
95 Mo	72	1	0.81	0.81	ppb	15.82	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	0.01	0.01	ppb	25.35	3600	
111 Cd	115	1	0.01	0.01	ppb	74.61	3600	
114 Cd	115	1	0.01	0.01	ppb	65.01	3600	
118 Sn	115	1	0.08	0.08	ppb	24.06	3600	
121 Sb	115	1	0.22	0.22	ppb	14.68	3600	
137 Ba	115	1	0.01	0.01	ppb	104.19	3600	
182 W	165	1	-57.75	-57.75	ppb	78.44	1000	
195 Pt	165	1	134.90	134.90	ppb	262.49	1000	
205 Tl	165	1	0.00	0.00	ppb	16.64	3600	
208 Pb	165	1	0.00	0.00	ppb	65.83	3600	
232 Th	165	1	0.64	0.64	ppb	16.36	1000	
238 U	165	1	0.01	0.01	ppb	20.54	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	357808	0.97	357213	100.2	30 - 120	
45 Sc	1	809505	1.74	874931	92.5	30 - 120	
72 Ge	1	457515	0.32	488215	93.7	30 - 120	
115 In	1	1476245	0.56	1536240	96.1	30 - 120	
165 Ho	1	3374873	0.57	3429199	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Linear Dynamic Range Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\015\_LR.D\015\_LR.D#  
 Date Acquired: Jun 25 2009 06:28 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LR  
 Misc Info:  
 Vial Number: 2110  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: LR  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## Analyte Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	953.30 ppb	0.22	1000	95.3	90 - 110	
23 Na	6	1	98630.00 ppb	0.26	100000	98.6	90 - 110	
24 Mg	6	1	96030.00 ppb	0.17	100000	96.0	90 - 110	
27 Al	45	1	98370.00 ppb	1.10	100000	98.4	90 - 110	
39 K	45	1	98300.00 ppb	0.70	100000	98.3	90 - 110	
43 Ca	45	1	101000.00 ppb	1.07	100000	101.0	90 - 110	
51 V	72	1	998.30 ppb	0.99	1000	99.8	90 - 110	
52 Cr	72	1	978.80 ppb	0.23	1000	97.9	90 - 110	
55 Mn	72	1	957.00 ppb	0.35	1000	95.7	90 - 110	
57 Fe	72	1	94190.00 ppb	0.74	100000	94.2	90 - 110	
59 Co	72	1	924.80 ppb	0.80	1000	92.5	90 - 110	
60 Ni	72	1	946.10 ppb	0.17	1000	94.6	90 - 110	
63 Cu	72	1	885.80 ppb	0.34	1000	88.6	90 - 110	Fail
66 Zn	72	1	900.10 ppb	0.36	1000	90.0	90 - 110	
75 As	72	1	944.80 ppb	0.23	1000	94.5	90 - 110	
78 Se	72	1	952.60 ppb	0.74	1000	95.3	90 - 110	
93 Nb	72	1	1009.00 ppb	80.16	2000	50.5	90 - 110	Fail
95 Mo	72	1	1030.00 ppb	1.00	1000	103.0	90 - 110	
105 Pd	115	1	-435.80 ppb	212.96	1000	-43.6	90 - 110	Fail
107 Ag	115	1	854.10 ppb	0.64	1000	85.4	90 - 110	Fail
111 Cd	115	1	945.50 ppb	0.54	1000	94.6	90 - 110	
114 Cd	115	1	915.50 ppb	1.23	1000	91.6	90 - 110	
118 Sn	115	1	979.20 ppb	0.53	1000	97.9	90 - 110	
121 Sb	115	1	956.50 ppb	0.90	1000	95.7	90 - 110	
137 Ba	115	1	1031.00 ppb	1.12	1000	103.1	90 - 110	
182 W	165	1	427.60 ppb	30.57	1000	42.8	90 - 110	Fail
195 Pt	165	1	64.52 ppb	171.11	1000	6.5	90 - 110	Fail
205 Tl	165	1	918.90 ppb	0.78	1000	91.9	90 - 110	
208 Pb	165	1	904.20 ppb	1.29	1000	90.4	90 - 110	
232 Th	165	1	1008.00 ppb	0.97	1000	100.8	90 - 110	
238 U	165	1	960.30 ppb	0.95	1000	96.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	273131	1.16	357213	76.5	30 - 120	
45 Sc	1	662136	0.98	874931	75.7	30 - 120	
72 Ge	1	359007	1.26	488215	73.5	30 - 120	
115 In	1	1161475	0.75	1536240	75.6	30 - 120	
165 Ho	1	2712036	0.16	3429199	79.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

6 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\016SMPL.D\016SMPL.D#  
 Date Acquired: Jun 25 2009 06:32 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.09	0.09	ppb	66.20	3600	
23 Na	6	1	-8.50	-8.50	ppb	13.36	100000	
24 Mg	6	1	5.46	5.46	ppb	25.68	100000	
27 Al	45	1	6.62	6.62	ppb	19.82	100000	
39 K	45	1	3.69	3.69	ppb	48.73	100000	
43 Ca	45	1	2.13	2.13	ppb	69.09	100000	
51 V	72	1	0.05	0.05	ppb	84.99	3600	
52 Cr	72	1	0.04	0.04	ppb	80.39	3600	
55 Mn	72	1	0.07	0.07	ppb	17.95	18000	
57 Fe	72	1	6.43	6.43	ppb	16.34	100000	
59 Co	72	1	0.05	0.05	ppb	40.82	3600	
60 Ni	72	1	0.07	0.07	ppb	57.75	3600	
63 Cu	72	1	0.07	0.07	ppb	39.17	3600	
66 Zn	72	1	0.07	0.07	ppb	38.37	3600	
75 As	72	1	0.09	0.09	ppb	26.24	3600	
78 Se	72	1	0.24	0.24	ppb	104.69	3600	
93 Nb	72	1	-657.00	-657.00	ppb	0.00	2000	
95 Mo	72	1	0.52	0.52	ppb	19.40	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	0.21	0.21	ppb	14.70	3600	
111 Cd	115	1	0.05	0.05	ppb	26.97	3600	
114 Cd	115	1	0.07	0.07	ppb	19.92	3600	
118 Sn	115	1	1.60	1.60	ppb	1.04	3600	
121 Sb	115	1	1.68	1.68	ppb	0.28	3600	
137 Ba	115	1	0.05	0.05	ppb	27.11	3600	
182 W	165	1	-5.77	-5.77	ppb	633.86	1000	
195 Pt	165	1	123.40	123.40	ppb	79.53	1000	
205 Tl	165	1	0.06	0.06	ppb	12.35	3600	
208 Pb	165	1	0.05	0.05	ppb	26.05	3600	
232 Th	165	1	3.33	3.33	ppb	18.24	1000	
238 U	165	1	0.10	0.10	ppb	18.51	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	340395	1.02	357213	95.3	30 - 120	
45 Sc	1	816743	1.50	874931	93.3	30 - 120	
72 Ge	1	460813	0.55	488215	94.4	30 - 120	
115 In	1	1470258	0.55	1536240	95.7	30 - 120	
165 Ho	1	3230684	1.43	3429199	94.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\017SMPL.D\017SMPL.D#  
 Date Acquired: Jun 25 2009 06:35 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ALTLR  
 Misc Info: Cu/Ag  
 Vial Number: 2112  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	-10.40	-10.40	ppb	13.28	100000	
24 Mg	6	1	0.26	0.26	ppb	14.72	100000	
27 Al	45	1	0.79	0.79	ppb	10.38	100000	
39 K	45	1	0.36	0.36	ppb	574.75	100000	
43 Ca	45	1	-0.61	-0.61	ppb	905.75	100000	
51 V	72	1	0.02	0.02	ppb	94.18	3600	
52 Cr	72	1	0.00	0.00	ppb	819.92	3600	
55 Mn	72	1	0.01	0.01	ppb	59.46	18000	
57 Fe	72	1	0.82	0.82	ppb	33.30	100000	
59 Co	72	1	0.00	0.00	ppb	34.40	3600	
60 Ni	72	1	0.02	0.02	ppb	76.27	3600	
63 Cu	72	1	996.30	996.30	ppb	1.52	3600	
66 Zn	72	1	0.63	0.63	ppb	9.90	3600	
75 As	72	1	0.02	0.02	ppb	51.68	3600	
78 Se	72	1	0.07	0.07	ppb	79.35	3600	
93 Nb	72	1	-370.60	-370.60	ppb	133.86	2000	
95 Mo	72	1	0.16	0.16	ppb	12.92	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	975.90	975.90	ppb	0.71	3600	
111 Cd	115	1	0.00	0.00	ppb	1105.30	3600	
114 Cd	115	1	0.03	0.03	ppb	46.03	3600	
118 Sn	115	1	0.56	0.56	ppb	2.47	3600	
121 Sb	115	1	0.50	0.50	ppb	3.79	3600	
137 Ba	115	1	0.00	0.00	ppb	113.29	3600	
182 W	165	1	-63.64	-63.64	ppb	19.36	1000	
195 Pt	165	1	307.40	307.40	ppb	7.19	1000	
205 Tl	165	1	0.03	0.03	ppb	5.64	3600	
208 Pb	165	1	0.01	0.01	ppb	21.53	3600	
232 Th	165	1	0.72	0.72	ppb	9.80	1000	
238 U	165	1	0.01	0.01	ppb	10.70	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	354196	0.62	357213	99.2	30 - 120	
45 Sc	1	862724	1.88	874931	98.6	30 - 120	
72 Ge	1	479843	0.09	488215	98.3	30 - 120	
115 In	1	1531712	0.37	1536240	99.7	30 - 120	
165 Ho	1	3344703	0.85	3429199	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\018SMPL.D\018SMPL.D#  
 Date Acquired: Jun 25 2009 06:39 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS	Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.01	0.01	ppb	173.22	3600	
23	Na	6	1	-10.39	-10.39	ppb	3.61	100000	
24	Mg	6	1	1.17	1.17	ppb	3.69	100000	
27	Al	45	1	1.11	1.11	ppb	10.45	100000	
39	K	45	1	1.24	1.24	ppb	31.26	100000	
43	Ca	45	1	0.03	0.03	ppb	12568.00	100000	
51	V	72	1	0.00	0.00	ppb	5400.60	3600	
52	Cr	72	1	0.00	0.00	ppb	253.53	3600	
55	Mn	72	1	0.01	0.01	ppb	99.44	18000	
57	Fe	72	1	1.12	1.12	ppb	16.65	100000	
59	Co	72	1	0.00	0.00	ppb	76.82	3600	
60	Ni	72	1	0.01	0.01	ppb	130.49	3600	
63	Cu	72	1	0.06	0.06	ppb	67.02	3600	
66	Zn	72	1	0.00	0.00	ppb	508.31	3600	
75	As	72	1	0.02	0.02	ppb	23.95	3600	
78	Se	72	1	0.18	0.18	ppb	30.38	3600	
93	Nb	72	1	-283.10	-283.10	ppb	151.82	2000	
95	Mo	72	1	0.10	0.10	ppb	2.68	3600	
105	Pd	115	1	100.00	100.00	ppb	0.00	1000	
107	Ag	115	1	0.24	0.24	ppb	8.63	3600	
111	Cd	115	1	0.01	0.01	ppb	76.94	3600	
114	Cd	115	1	0.01	0.01	ppb	109.12	3600	
118	Sn	115	1	0.23	0.23	ppb	12.19	3600	
121	Sb	115	1	0.25	0.25	ppb	6.97	3600	
137	Ba	115	1	0.01	0.01	ppb	34.84	3600	
182	W	165	1	-67.79	-67.79	ppb	62.44	1000	
195	Pt	165	1	301.50	301.50	ppb	28.67	1000	
205	Tl	165	1	0.02	0.02	ppb	7.48	3600	
208	Pb	165	1	0.01	0.01	ppb	18.53	3600	
232	Th	165	1	0.19	0.19	ppb	3.15	1000	
238	U	165	1	0.01	0.01	ppb	6.76	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	362228	0.42	357213	101.4	30 - 120
45	Sc	1	876024	0.49	874931	100.1	30 - 120
72	Ge	1	491767	0.49	488215	100.7	30 - 120
115	In	1	1554411	0.14	1536240	101.2	30 - 120
165	Ho	1	3412353	1.00	3429199	99.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\019\_ccv.D\019\_ccv.D#  
 Date Acquired: Jun 25 2009 06:42 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	48.58 ppb	2.20	50	97.2	90 - 110	
23	Na	6	5001.00 ppb	0.59	5000	100.0	90 - 110	
24	Mg	6	5011.00 ppb	0.56	5000	100.2	90 - 110	
27	Al	45	4937.00 ppb	2.02	5000	98.7	90 - 110	
39	K	45	4984.00 ppb	1.24	5000	99.7	90 - 110	
43	Ca	45	4970.00 ppb	1.82	5000	99.4	90 - 110	
51	V	72	49.44 ppb	1.06	50	98.9	90 - 110	
52	Cr	72	49.74 ppb	2.48	50	99.5	90 - 110	
55	Mn	72	49.52 ppb	0.83	50	99.0	90 - 110	
57	Fe	72	4995.00 ppb	1.86	5000	99.9	90 - 110	
59	Co	72	49.00 ppb	1.67	50	98.0	90 - 110	
60	Ni	72	50.51 ppb	1.39	50	101.0	90 - 110	
63	Cu	72	50.24 ppb	1.17	50	100.5	90 - 110	
66	Zn	72	48.96 ppb	2.02	50	97.9	90 - 110	
75	As	72	49.45 ppb	2.04	50	98.9	90 - 110	
78	Se	72	49.79 ppb	10.19	50	99.6	90 - 110	
93	Nb	72	35.06 ppb	1941.80	100	35.1	90 - 110	Fail
95	Mo	72	48.76 ppb	0.79	50	97.5	90 - 110	
105	Pd	115	-4.58 ppb	3958.50	50	-9.2	90 - 110	Fail
107	Ag	115	50.76 ppb	1.84	50	101.5	90 - 110	
111	Cd	115	50.03 ppb	2.59	50	100.1	90 - 110	
114	Cd	115	50.35 ppb	3.13	50	100.7	90 - 110	
118	Sn	115	50.06 ppb	2.76	50	100.1	90 - 110	
121	Sb	115	49.62 ppb	2.41	50	99.2	90 - 110	
137	Ba	115	50.23 ppb	2.69	50	100.5	90 - 110	
182	W	165	18.42 ppb	393.27	50	36.8	90 - 110	Fail
195	Pt	165	210.80 ppb	30.63	50	421.6	90 - 110	Fail
205	Tl	165	51.19 ppb	0.47	50	102.4	90 - 110	
208	Pb	165	50.67 ppb	1.48	50	101.3	90 - 110	
232	Th	165	49.85 ppb	2.04	50	99.7	90 - 110	
238	U	165	50.88 ppb	1.59	50	101.8	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	340882	1.15	357213	95.4	30 - 120
45	Sc	1	840133	1.14	874931	96.0	30 - 120
72	Ge	1	461797	0.67	488215	94.6	30 - 120
115	In	1	1479459	0.67	1536240	96.3	30 - 120
165	Ho	1	3292289	0.82	3429199	96.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\020\_CCB.D\020\_CCB.D#  
 Date Acquired: Jun 25 2009 06:46 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9	Be	6	1	0.000	ppb	0.00	1.00
23	Na	6	1	-9.712	ppb	11.08	20.00
24	Mg	6	1	0.032	ppb	282.86	20.00
27	Al	45	1	0.481	ppb	14.31	20.00
39	K	45	1	1.447	ppb	38.74	20.00
43	Ca	45	1	0.079	ppb	4470.80	20.00
51	V	72	1	-0.021	ppb	102.29	1.00
52	Cr	72	1	-0.017	ppb	131.43	1.00
55	Mn	72	1	0.005	ppb	157.12	1.00
57	Fe	72	1	0.806	ppb	40.67	20.00
59	Co	72	1	-0.002	ppb	122.24	1.00
60	Ni	72	1	0.009	ppb	130.87	1.00
63	Cu	72	1	0.010	ppb	73.11	1.00
66	Zn	72	1	0.078	ppb	15.01	10.00
75	As	72	1	0.022	ppb	42.84	1.00
78	Se	72	1	0.088	ppb	210.00	1.00
93	Nb	72	1	184.700	ppb	150.79	2.00
95	Mo	72	1	0.059	ppb	16.78	1.00
105	Pd	115	1	100.000	ppb	0.00	1.00
107	Ag	115	1	0.085	ppb	8.72	1.00
111	Cd	115	1	0.008	ppb	68.72	1.00
114	Cd	115	1	0.009	ppb	88.24	1.00
118	Sn	115	1	0.379	ppb	9.21	10.00
121	Sb	115	1	0.306	ppb	3.89	1.00
137	Ba	115	1	0.006	ppb	51.20	1.00
182	W	165	1	-31.270	ppb	258.43	5.00
195	Pt	165	1	194.000	ppb	63.14	1.00
205	Tl	165	1	0.028	ppb	10.97	1.00
208	Pb	165	1	0.006	ppb	61.36	1.00
232	Th	165	1	0.942	ppb	12.21	2.00
238	U	165	1	0.007	ppb	17.32	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	351044	0.31	357213	98.3	30 - 120
45	Sc	1	870719	0.52	874931	99.5	30 - 120
72	Ge	1	489985	0.29	488215	100.4	30 - 120
115	In	1	1542513	0.43	1536240	100.4	30 - 120
165	Ho	1	3382584	1.10	3429199	98.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\021WASH.D\021WASH.D#  
 Date Acquired: Jun 25 2009 06:49 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

## QC Summary:

Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.987 ppb	7.94	1.30	
23 Na	6	1	48.090 ppb	0.41	65.00	
24 Mg	6	1	55.170 ppb	0.72	65.00	
27 Al	45	1	32.880 ppb	2.12	39.00	
39 K	45	1	109.000 ppb	0.31	130.00	
43 Ca	45	1	41.610 ppb	19.24	65.00	
51 V	72	1	4.981 ppb	0.96	6.50	
52 Cr	72	1	2.047 ppb	1.06	2.60	
55 Mn	72	1	1.018 ppb	5.61	1.30	
57 Fe	72	1	50.580 ppb	3.06	65.00	
59 Co	72	1	1.013 ppb	0.70	1.30	
60 Ni	72	1	2.131 ppb	2.18	2.60	
63 Cu	72	1	2.131 ppb	0.79	2.60	
66 Zn	72	1	10.090 ppb	1.76	13.00	
75 As	72	1	5.116 ppb	0.62	6.50	
78 Se	72	1	5.418 ppb	10.91	6.50	
93 Nb	72	1	-376.200 ppb	74.40	52.00	
95 Mo	72	1	2.020 ppb	2.50	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.478 ppb	3.31	6.50	
111 Cd	115	1	1.035 ppb	3.59	1.30	
114 Cd	115	1	1.235 ppb	4.10	1.30	
118 Sn	115	1	10.680 ppb	4.31	13.00	
121 Sb	115	1	2.091 ppb	2.57	2.60	
137 Ba	115	1	1.062 ppb	5.70	1.30	
182 W	165	1	16.610 ppb	312.04	6.50	
195 Pt	165	1	62.090 ppb	366.08	1.30	
205 Tl	165	1	1.091 ppb	1.71	1.30	
208 Pb	165	1	1.075 ppb	0.94	1.30	
232 Th	165	1	2.390 ppb	1.59	2.60	
238 U	165	1	1.067 ppb	1.95	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	348321	0.99	357213	97.5	30 - 120	
45 Sc	1	873127	0.27	874931	99.8	30 - 120	
72 Ge	1	488285	0.57	488215	100.0	30 - 120	
115 In	1	1545065	1.13	1536240	100.6	30 - 120	
165 Ho	1	3375135	0.62	3429199	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\039\_CCV.D\039\_CCV.D#  
 Date Acquired: Jun 25 2009 07:52 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	48.74 ppb	4.12	50	97.5	90 - 110	
23	Na	6	1	5153.00 ppb	0.86	5000	103.1	90 - 110	
24	Mg	6	1	5072.00 ppb	1.94	5000	101.4	90 - 110	
27	Al	45	1	4915.00 ppb	2.34	5000	98.3	90 - 110	
39	K	45	1	4996.00 ppb	1.58	5000	99.9	90 - 110	
43	Ca	45	1	4810.00 ppb	0.73	5000	96.2	90 - 110	
51	V	72	1	48.92 ppb	1.25	50	97.8	90 - 110	
52	Cr	72	1	49.33 ppb	1.69	50	98.7	90 - 110	
55	Mn	72	1	49.68 ppb	1.09	50	99.4	90 - 110	
57	Fe	72	1	5031.00 ppb	0.66	5000	100.6	90 - 110	
59	Co	72	1	48.40 ppb	1.58	50	96.8	90 - 110	
60	Ni	72	1	49.73 ppb	1.30	50	99.5	90 - 110	
63	Cu	72	1	49.94 ppb	1.47	50	99.9	90 - 110	
66	Zn	72	1	48.82 ppb	1.93	50	97.6	90 - 110	
75	As	72	1	50.37 ppb	0.68	50	100.7	90 - 110	
78	Se	72	1	52.13 ppb	3.30	50	104.3	90 - 110	
93	Nb	72	1	295800.00 ppb	5.56	100	295800.0	90 - 110	Fail
95	Mo	72	1	49.19 ppb	0.34	50	98.4	90 - 110	Fail
105	Pd	115	1	-211.50 ppb	147.47	50	-423.0	90 - 110	Fail
107	Ag	115	1	50.00 ppb	0.62	50	100.0	90 - 110	
111	Cd	115	1	49.20 ppb	0.81	50	98.4	90 - 110	
114	Cd	115	1	49.01 ppb	2.23	50	98.0	90 - 110	
118	Sn	115	1	50.08 ppb	1.79	50	100.2	90 - 110	
121	Sb	115	1	49.29 ppb	0.98	50	98.6	90 - 110	
137	Ba	115	1	49.35 ppb	1.14	50	98.7	90 - 110	Fail
182	W	165	1	108.50 ppb	10.66	50	217.0	90 - 110	Fail
195	Pt	165	1	31.96 ppb	171.50	50	63.9	90 - 110	Fail
205	Tl	165	1	51.02 ppb	1.55	50	102.0	90 - 110	
208	Pb	165	1	50.70 ppb	2.07	50	101.4	90 - 110	
232	Th	165	1	50.71 ppb	2.43	50	101.4	90 - 110	
238	U	165	1	51.28 ppb	3.53	50	102.6	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	332857	0.23	357213	93.2	30 - 120
45	Sc	1	839245	1.10	874931	95.9	30 - 120
72	Ge	1	458159	0.61	488215	93.8	30 - 120
115	In	1	1489019	0.31	1536240	96.9	30 - 120
165	Ho	1	3302067	1.05	3429199	96.3	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 4 :Element Failures  
 0 :ISTD Failures

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\040\_CCB.D\040\_CCB.D#  
 Date Acquired: Jun 25 2009 07:55 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag	
9	Be	6	1	0.000	ppb	0.00	1.00	
23	Na	6	1	10.720	ppb	12.16	20.00	
24	Mg	6	1	-0.161	ppb	28.66	20.00	
27	Al	45	1	0.312	ppb	37.01	20.00	
39	K	45	1	4.319	ppb	17.62	20.00	
43	Ca	45	1	-3.018	ppb	43.61	20.00	
51	V	72	1	-0.014	ppb	211.30	1.00	
52	Cr	72	1	-0.002	ppb	504.97	1.00	
55	Mn	72	1	0.002	ppb	254.01	1.00	
57	Fe	72	1	0.537	ppb	24.58	20.00	
59	Co	72	1	-0.002	ppb	152.30	1.00	
60	Ni	72	1	0.005	ppb	43.20	1.00	
63	Cu	72	1	0.014	ppb	31.27	1.00	
66	Zn	72	1	0.074	ppb	29.04	10.00	
75	As	72	1	0.002	ppb	220.68	1.00	
78	Se	72	1	0.358	ppb	28.47	1.00	
93	Nb	72	1	200100.000	ppb	9.95	2.00	Fail
95	Mo	72	1	0.049	ppb	28.99	1.00	
105	Pd	115	1	-98.540	ppb	174.55	1.00	
107	Ag	115	1	0.566	ppb	15.16	1.00	
111	Cd	115	1	0.009	ppb	43.15	1.00	
114	Cd	115	1	0.012	ppb	18.99	1.00	
118	Sn	115	1	0.457	ppb	2.92	10.00	
121	Sb	115	1	0.229	ppb	3.57	1.00	
137	Ba	115	1	0.007	ppb	56.18	1.00	
182	W	165	1	16.890	ppb	120.07	5.00	Fail
195	Pt	165	1	191.000	ppb	114.71	1.00	Fail
205	Tl	165	1	0.041	ppb	3.35	1.00	
208	Pb	165	1	0.010	ppb	17.05	1.00	
232	Th	165	1	0.843	ppb	14.20	2.00	
238	U	165	1	0.009	ppb	8.50	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	342068	0.36	357213	95.8	30 - 120
45	Sc	1	870331	1.04	874931	99.5	30 - 120
72	Ge	1	487820	0.23	488215	99.9	30 - 120
115	In	1	1552133	0.84	1536240	101.0	30 - 120
165	Ho	1	3356175	0.82	3429199	97.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\041WASH.D\041WASH.D#  
 Date Acquired: Jun 25 2009 07:59 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.826 ppb	13.06	1.30	
23 Na	6	1	62.380 ppb	2.41	65.00	
24 Mg	6	1	54.380 ppb	2.62	65.00	
27 Al	45	1	31.990 ppb	0.56	39.00	
39 K	45	1	107.900 ppb	0.32	130.00	
43 Ca	45	1	43.640 ppb	18.66	65.00	
51 V	72	1	4.998 ppb	2.61	6.50	
52 Cr	72	1	1.932 ppb	3.77	2.60	
55 Mn	72	1	1.035 ppb	1.40	1.30	
57 Fe	72	1	50.580 ppb	1.61	65.00	
59 Co	72	1	1.014 ppb	3.12	1.30	
60 Ni	72	1	2.108 ppb	1.75	2.60	
63 Cu	72	1	2.068 ppb	0.35	2.60	
66 Zn	72	1	9.893 ppb	2.70	13.00	
75 As	72	1	5.025 ppb	2.69	6.50	
78 Se	72	1	5.913 ppb	10.41	6.50	
93 Nb	72	1	153600.000 ppb	9.09	52.00	
95 Mo	72	1	1.943 ppb	7.32	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.551 ppb	1.79	6.50	
111 Cd	115	1	0.983 ppb	4.98	1.30	
114 Cd	115	1	1.217 ppb	3.90	1.30	
118 Sn	115	1	10.280 ppb	1.85	13.00	
121 Sb	115	1	2.014 ppb	1.23	2.60	
137 Ba	115	1	1.031 ppb	3.47	1.30	
182 W	165	1	7.650 ppb	132.16	6.50	
195 Pt	165	1	51.680 ppb	213.43	1.30	
205 Tl	165	1	1.107 ppb	1.98	1.30	
208 Pb	165	1	1.054 ppb	3.41	1.30	
232 Th	165	1	2.297 ppb	2.11	2.60	
238 U	165	1	1.087 ppb	2.74	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	342745	1.04	357213	95.9	30 - 120	
45 Sc	1	878289	0.18	874931	100.4	30 - 120	
72 Ge	1	486801	0.25	488215	99.7	30 - 120	
115 In	1	1569368	0.39	1536240	102.2	30 - 120	
165 Ho	1	3398464	0.55	3429199	99.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\042\_BLK.D\042\_BLK.D#  
 Date Acquired: Jun 25 2009 08:02 pm  
 Operator: TEL  
 Sample Name: LFFFXB  
 Misc Info: BLANK 9174190 6020  
 Vial Number: 2201  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: BLK  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
23 Na	6	1	7.942 ppb	6.98	40.00	
24 Mg	6	1	-0.024 ppb	514.36	40.00	
27 Al	45	1	0.692 ppb	36.17	40.00	
39 K	45	1	1.278 ppb	17.27	40.00	
43 Ca	45	1	0.715 ppb	631.38	40.00	
51 V	72	1	0.008 ppb	168.52	2.00	
52 Cr	72	1	0.033 ppb	79.93	2.00	
55 Mn	72	1	0.025 ppb	20.91	2.00	
57 Fe	72	1	0.789 ppb	15.39	40.00	
59 Co	72	1	-0.008 ppb	56.98	2.00	
60 Ni	72	1	0.025 ppb	39.31	2.00	
63 Cu	72	1	0.033 ppb	24.37	2.00	
66 Zn	72	1	0.287 ppb	3.10	20.00	
75 As	72	1	0.005 ppb	213.46	2.00	
78 Se	72	1	0.093 ppb	203.92	2.00	
93 Nb	72	1	141200.000 ppb	11.37	4.00	Fail
95 Mo	72	1	0.006 ppb	111.04	2.00	
105 Pd	115	1	-192.400 ppb	150.88	2.00	
107 Ag	115	1	0.058 ppb	7.02	2.00	
111 Cd	115	1	0.007 ppb	180.74	2.00	
114 Cd	115	1	0.017 ppb	27.48	2.00	
118 Sn	115	1	0.402 ppb	6.81	20.00	
121 Sb	115	1	0.072 ppb	10.34	2.00	
137 Ba	115	1	0.014 ppb	54.61	2.00	
182 W	165	1	23.290 ppb	253.41	10.00	Fail
195 Pt	165	1	171.000 ppb	118.19	2.00	Fail
205 Tl	165	1	0.013 ppb	34.54	2.00	
208 Pb	165	1	0.012 ppb	11.64	2.00	
232 Th	165	1	0.191 ppb	12.10	4.00	
238 U	165	1	0.002 ppb	12.09	2.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	344167	0.94	357213	96.3	30 - 120	
45 Sc	1	884330	0.77	874931	101.1	30 - 120	
72 Ge	1	484832	0.72	488215	99.3	30 - 120	
115 In	1	1573611	1.19	1536240	102.4	30 - 120	
165 Ho	1	3426259	1.24	3429199	99.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Laboratory Control Spike (LCS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\043\_LCS.D\043\_LCS.D#  
 Date Acquired: Jun 25 2009 08:06 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LFFFXC  
 Misc Info: LCS  
 Vial Number: 2202  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: LCS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	39.77	1.53	40	99.4	80 - 120	
23 Na	6	1	12.94	6.33	4000	0.3	80 - 120	
24 Mg	6	1	0.20	13.52	4000	0.0	80 - 120	
27 Al	45	1	45.13	1.04	4000	1.1	80 - 120	
39 K	45	1	4.48	36.17	4000	0.1	80 - 120	
43 Ca	45	1	0.16	#####	4000	0.0	80 - 120	
51 V	72	1	40.53	0.89	40	101.3	80 - 120	
52 Cr	72	1	41.13	1.04	40	102.8	80 - 120	
55 Mn	72	1	41.09	0.97	40	102.7	80 - 120	
57 Fe	72	1	0.60	62.76	4000	0.0	80 - 120	
59 Co	72	1	40.36	0.57	40	100.9	80 - 120	
60 Ni	72	1	41.39	1.35	40	103.5	80 - 120	
63 Cu	72	1	42.61	0.81	40	106.5	80 - 120	
66 Zn	72	1	39.66	1.04	40	99.2	80 - 120	
75 As	72	1	39.61	0.74	40	99.0	80 - 120	
78 Se	72	1	42.53	5.78	40	106.3	80 - 120	
93 Nb	72	1	112100.00	10.70	80	140125.0	80 - 120	
95 Mo	72	1	39.82	0.81	40	99.6	80 - 120	
105 Pd	115	1	-105.00	169.14	40	-262.5	80 - 120	
107 Ag	115	1	41.84	0.59	40	104.6	80 - 120	
111 Cd	115	1	40.03	0.80	40	100.1	80 - 120	
114 Cd	115	1	38.89	1.19	40	97.2	80 - 120	
118 Sn	115	1	0.13	14.91	40	0.3	80 - 120	
121 Sb	115	1	40.17	1.14	40	100.4	80 - 120	
137 Ba	115	1	41.28	1.04	40	103.2	80 - 120	
182 W	165	1	46.31	58.80	40	115.8	80 - 120	
195 Pt	165	1	-226.10	65.90	40	-565.3	80 - 120	
205 Tl	165	1	42.48	0.49	40	106.2	80 - 120	
208 Pb	165	1	42.34	0.96	40	105.9	80 - 120	
232 Th	165	1	44.02	1.58	40	110.1	80 - 120	
238 U	165	1	41.40	1.08	40	103.5	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	334934	1.49	357213	93.8	30 - 120	
45 Sc	1	857273	1.95	874931	98.0	30 - 120	
72 Ge	1	466043	1.48	488215	95.5	30 - 120	
115 In	1	1511830	1.47	1536240	98.4	30 - 120	
165 Ho	1	3344089	0.94	3429199	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\044SMPL.D\044SMPL.D#  
 Date Acquired: Jun 25 2009 08:09 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE709 10X  
 Misc Info: D9F180314  
 Vial Number: 2203  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 10.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 10.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.15	0.01	ppb	86.56	3600	
23 Na	6	1	1,173,000.00	117300.00	ppb	0.72	100000	>LDR
24 Mg	6	1	253,500.00	25350.00	ppb	0.72	100000	
27 Al	45	1	1,034.00	103.40	ppb	2.53	100000	
39 K	45	1	24,450.00	2445.00	ppb	3.05	100000	
43 Ca	45	1	459,700.00	45970.00	ppb	3.07	100000	
51 V	72	1	15.94	1.59	ppb	6.55	3600	
52 Cr	72	1	825.90	82.59	ppb	1.14	3600	
55 Mn	72	1	173.50	17.35	ppb	2.04	18000	
57 Fe	72	1	1,659.00	165.90	ppb	2.29	100000	
59 Co	72	1	0.81	0.08	ppb	11.83	3600	
60 Ni	72	1	5.28	0.53	ppb	9.91	3600	
63 Cu	72	1	2.04	0.20	ppb	14.72	3600	
66 Zn	72	1	4.58	0.46	ppb	8.59	3600	
75 As	72	1	111.90	11.19	ppb	0.44	3600	
78 Se	72	1	6.75	0.67	ppb	92.84	3600	
93 Nb	72	1	1,021,000.00	102100.00	ppb	4.18	2000	>LDR
95 Mo	72	1	109.20	10.92	ppb	1.21	3600	
105 Pd	115	1	-427,200.00	-42720.00	ppb	1.89	1000	
107 Ag	115	1	0.49	0.05	ppb	1.88	3600	
111 Cd	115	1	0.17	0.02	ppb	99.41	3600	
114 Cd	115	1	0.24	0.02	ppb	89.21	3600	
118 Sn	115	1	2.10	0.21	ppb	11.20	3600	
121 Sb	115	1	0.85	0.08	ppb	1.17	3600	
137 Ba	115	1	31.01	3.10	ppb	3.75	3600	
182 W	165	1	880,600.00	88060.00	ppb	1.70	1000	>LDR
195 Pt	165	1	-5,452.00	-545.20	ppb	34.65	1000	
205 Tl	165	1	0.26	0.03	ppb	17.83	3600	
208 Pb	165	1	0.60	0.06	ppb	8.40	3600	
232 Th	165	1	7.87	0.79	ppb	16.35	1000	
238 U	165	1	27.94	2.79	ppb	2.79	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	336376	1.15	357213	94.2	30 - 120	
45 Sc	1	816474	3.44	874931	93.3	30 - 120	
72 Ge	1	435413	0.15	488215	89.2	30 - 120	
115 In	1	1412428	0.78	1536240	91.9	30 - 120	
165 Ho	1	3242351	1.05	3429199	94.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\045AREF.D\045AREF.D#  
 Date Acquired: Jun 25 2009 08:13 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CT 5X  
 Misc Info: D9F180266  
 Vial Number: 2204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: AllRef  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	3.74	0.75	ppb	21.68	3600
23	Na	6	1	125,650.00	25130.00	ppb	0.29	100000
24	Mg	6	1	368,700.00	73740.00	ppb	0.94	100000
27	Al	45	1	21,970.00	4394.00	ppb	1.27	100000
39	K	45	1	43,265.00	8653.00	ppb	1.15	100000
43	Ca	45	1	586,000.00	117200.00	ppb	1.52	100000 >LDR NR
51	V	72	1	92.10	18.42	ppb	1.84	3600
52	Cr	72	1	45.09	9.02	ppb	3.58	3600
55	Mn	72	1	217,150.00	43430.00	ppb	0.90	18000 >LDR NR
57	Fe	72	1	18,695.00	3739.00	ppb	1.33	100000
59	Co	72	1	24.33	4.87	ppb	2.79	3600
60	Ni	72	1	60.90	12.18	ppb	0.23	3600
63	Cu	72	1	218.35	43.67	ppb	1.02	3600
66	Zn	72	1	86.50	17.30	ppb	1.27	3600
75	As	72	1	63.90	12.78	ppb	2.51	3600
78	Se	72	1	13.62	2.72	ppb	17.64	3600
93	Nb	72	1	1,028,000.00	205600.00	ppb	4.14	2000 >LDR NR
95	Mo	72	1	3.63	0.73	ppb	8.20	3600
105	Pd	115	1	-329,600.00	-65920.00	ppb	9.60	1000
107	Ag	115	1	0.12	0.02	ppb	11.98	3600
111	Cd	115	1	1.11	0.22	ppb	1.75	3600
114	Cd	115	1	1.14	0.23	ppb	12.53	3600
118	Sn	115	1	2.18	0.44	ppb	2.42	3600
121	Sb	115	1	0.39	0.08	ppb	4.81	3600
137	Ba	115	1	107.25	21.45	ppb	2.83	3600
182	W	165	1	20,790.00	4158.00	ppb	1.92	1000 >LDR NR
195	Pt	165	1	-6,630.00	-1326.00	ppb	38.91	1000
205	Tl	165	1	0.52	0.10	ppb	3.36	3600
208	Pb	165	1	15.46	3.09	ppb	1.85	3600
232	Th	165	1	9.64	1.93	ppb	3.08	1000
238	U	165	1	15.12	3.02	ppb	2.38	3600

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	345442	0.63	357213	96.7	30 - 120
45	Sc	1	796186	0.82	874931	91.0	30 - 120
72	Ge	1	418901	1.00	488215	85.8	30 - 120
115	In	1	1390221	0.99	1536240	90.5	30 - 120
165	Ho	1	3262596	0.18	3429199	95.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\046SDIL.D\046SDIL.D#  
 Date Acquired: Jun 25 2009 08:16 pm **QC Summary:**  
 Acq. Method: 6020isis.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE7CTP25  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2205  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SDIL  
 Dilution Factor: 5.00

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062509.B\045AREF.D\045AREF.D#

QC elements

Element	IS Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	0.13 ppb	29.18	0.15	89.6	90 - 110	
23 Na	6	1	5261.00 ppb	1.27	5026.00	104.7	90 - 110	
24 Mg	6	1	15770.00 ppb	1.35	14748.00	106.9	90 - 110	
27 Al	45	1	986.60 ppb	2.42	878.80	112.3	90 - 110	
39 K	45	1	1828.00 ppb	0.72	1730.60	105.6	90 - 110	
43 Ca	45	1	24320.00 ppb	1.81	23440.00	103.8	90 - 110	
51 V	72	1	3.55 ppb	4.99	3.68	96.4	90 - 110	
52 Cr	72	1	1.77 ppb	1.31	1.80	98.3	90 - 110	
55 Mn	72	1	8697.00 ppb	0.64	8686.00	100.1	90 - 110	
57 Fe	72	1	761.60 ppb	2.50	747.80	101.8	90 - 110	
59 Co	72	1	0.95 ppb	4.14	0.97	97.8	90 - 110	
60 Ni	72	1	2.64 ppb	4.25	2.44	108.5	90 - 110	
63 Cu	72	1	9.14 ppb	0.88	8.73	104.6	90 - 110	
66 Zn	72	1	4.59 ppb	1.91	3.46	132.8	90 - 110	
75 As	72	1	2.57 ppb	2.32	2.56	100.4	90 - 110	
78 Se	72	1	0.73 ppb	41.81	0.54	133.4	90 - 110	
93 Nb	72	1	85150.00 ppb	6.21	41120.00	207.1	90 - 110	
95 Mo	72	1	0.17 ppb	3.04	0.15	117.1	90 - 110	
105 Pd	115	1	-14520.00 ppb	9.41	-13184.00	110.1	90 - 110	
107 Ag	115	1	0.01 ppb	57.12	0.00	192.2	90 - 110	
111 Cd	115	1	0.06 ppb	21.46	0.04	145.7	90 - 110	
114 Cd	115	1	0.05 ppb	24.77	0.05	101.4	90 - 110	
118 Sn	115	1	0.26 ppb	6.83	0.09	293.0	90 - 110	
121 Sb	115	1	0.04 ppb	6.43	0.02	272.7	90 - 110	
137 Ba	115	1	4.62 ppb	3.56	4.29	107.6	90 - 110	
182 W	165	1	979.60 ppb	12.33	831.60	117.8	90 - 110	
195 Pt	165	1	-1261.00 ppb	10.79	-265.20	475.5	90 - 110	
205 Tl	165	1	0.02 ppb	5.31	0.02	116.5	90 - 110	
208 Pb	165	1	0.70 ppb	1.63	0.62	113.6	90 - 110	
232 Th	165	1	0.39 ppb	8.58	0.39	102.3	90 - 110	
238 U	165	1	0.65 ppb	2.08	0.60	106.8	90 - 110	

ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	337113	1.06	357213	94.4	30 - 120	
45 Sc	1	793164	0.71	874931	90.7	30 - 120	
72 Ge	1	441487	0.63	488215	90.4	30 - 120	
115 In	1	1434933	1.08	1536240	93.4	30 - 120	
165 Ho	1	3268288	0.61	3429199	95.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) ICPMS\_024 Reported: 06/26/09 15:10:48

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTP25

Serial Dilution: 25.00

Sample Dilution: 5.00

Instrument: Agilent7500 Channel 272
File: AG062509 # 46 Method 6020\_
Acquired: 06/25/2009 20:16:00 ICPMS\_024 Matrix: AQUEOUS
Calibrated: 06/25/2009 17:50:00 Units: ug/L

Table with columns: CASN, Analyte Name, M/S, Area, Dilution, Sample, %Diff., MDL, Flag, Q. Lists various elements like Beryllium, Vanadium, Chromium, etc., with their respective values and flags.

AS only
6/29/09

\* Analyte not requested for this batch, no MDL
NC : Serial dilution concentration < 100 X MDL
E : Difference greater than Limit (10%)

Reviewed by: [Signature] Date: 6/29/09

Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\047PDS.D\047PDS.D#  
 Date Acquired: Jun 25 2009 08:20 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CTZ  
 Misc Info: POST DIGESTION SPIKE  
 Vial Number: 2206  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: PDS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

Spike Ref. File: ---

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	177.30	0.75	ppb	2.77	200	88.3	75 - 125	
23 Na	6	1	24490.00	25130.00	ppb	1.30	200000	10.9	75 - 125	
24 Mg	6	1	72400.00	73740.00	ppb	1.98	200000	26.4	75 - 125	
27 Al	45	1	4388.00	4394.00	ppb	1.87	200000	2.1	75 - 125	
39 K	45	1	8484.00	8653.00	ppb	1.98	200000	4.1	75 - 125	
43 Ca	45	1	115900.00	117200.00	ppb	2.58	200000	36.5	75 - 125	
51 V	72	1	224.30	18.42	ppb	1.22	200	102.7	75 - 125	
52 Cr	72	1	212.70	9.02	ppb	0.72	200	101.8	75 - 125	
55 Mn	72	1	43400.00	43430.00	ppb	1.20	200	99.5	75 - 125	
57 Fe	72	1	3673.00	3739.00	ppb	2.50	200000	1.8	75 - 125	
59 Co	72	1	194.30	4.86	ppb	1.29	200	94.8	75 - 125	
60 Ni	72	1	199.60	12.18	ppb	1.78	200	94.1	75 - 125	
63 Cu	72	1	231.90	43.67	ppb	1.42	200	95.2	75 - 125	
66 Zn	72	1	203.30	17.30	ppb	1.50	200	93.6	75 - 125	
75 As	72	1	211.60	12.78	ppb	1.55	200	99.4	75 - 125	
78 Se	72	1	220.90	2.72	ppb	2.26	200	109.0	75 - 125	
93 Nb	72	1	178100.00	205600.00	ppb	1.71	400	86.5	75 - 125	
95 Mo	72	1	202.70	0.73	ppb	1.67	200	101.0	75 - 125	
105 Pd	115	1	-70340.00	-65920.00	ppb	15.70	200	107.0	75 - 125	
107 Ag	115	1	45.21	0.02	ppb	2.20	50	90.4	75 - 125	
111 Cd	115	1	188.30	0.22	ppb	2.54	200	94.0	75 - 125	
114 Cd	115	1	188.20	0.23	ppb	2.32	200	94.0	75 - 125	
118 Sn	115	1	179.30	0.44	ppb	2.95	200	89.5	75 - 125	
121 Sb	115	1	196.50	0.08	ppb	2.73	200	98.2	75 - 125	
137 Ba	115	1	222.40	21.45	ppb	2.36	200	100.4	75 - 125	
182 W	165	1	4078.00	4158.00	ppb	1.49	200	93.6	75 - 125	
195 Pt	165	1	-301.40	-1326.00	ppb	84.44	200	26.8	75 - 125	
205 Tl	165	1	189.30	0.10	ppb	2.01	200	94.6	75 - 125	
208 Pb	165	1	191.10	3.09	ppb	2.14	200	94.1	75 - 125	
232 Th	165	1	1.74	1.93	ppb	4.46	200	0.9	75 - 125	
238 U	165	1	197.90	3.02	ppb	2.62	200	97.5	75 - 125	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	325497	1.29	357213	91.1	30 - 120	
45 Sc	1	739834	1.32	874931	84.6	30 - 120	
72 Ge	1	393784	0.94	488215	80.7	30 - 120	
115 In	1	1321729	1.38	1536240	86.0	30 - 120	
165 Ho	1	3104206	1.60	3429199	90.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
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ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/26/09 15:10:55

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTZ

Spike Dilution: 1.00

Sample Dilution: 5.00

Instrument: Agilent7500

Channel 272

File: AG062509 # 47

Method 6020\_

Acquired: 06/25/2009 20:20:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/25/2009 17:50:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	76738	177.30	0.74760	88.3	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	1230350	224.30	18.424	103	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	1344140	212.70	9.0160	102	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	54232000	43400	43420	0.00	200	*	<input type="checkbox"/>
7440-48-4	Cobalt	59	1797210	194.30	4.8660	94.7	200		<input checked="" type="checkbox"/>
7440-02-0	Nickel	60	428374	199.60	12.182	93.7	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1216920	231.90	43.660	94.1	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	196464	203.30	17.298	93.0	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	126586	211.60	12.776	99.4	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	19985	220.90	2.7220	109	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	519946	202.70	0.72540	101	200		<input checked="" type="checkbox"/>
7440-22-4	Silver	107	383551	45.210	0.02476	90.4	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	271982	188.30	0.22160	94.0	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	640204	179.30	0.43520	89.4	200		<input checked="" type="checkbox"/>
7440-36-0	Antimony	121	738908	196.50	0.07870	98.2	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	342571	222.40	21.440	100	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	3451230	189.30	0.10432	94.6	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	4771140	191.10	3.0920	94.0	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	5382990	197.90	3.0240	97.4	200		<input checked="" type="checkbox"/>
7440-23-5	Sodium	23	54755500	24490	25120				
7439-95-4	Magnesium	24	98863900	72400	73740				
7429-90-5	Aluminum	27	3945430	4388.0	4394.0				
7440-09-7	Potassium	39	10801400	8484.0	8652.0				
7440-70-2	Calcium	43	425172	115900	117240				
7439-89-6	Iron	57	608947	3673.0	3740.0				
7440-03-1	Niobium	93	5118	178100	205600				
7440-05-3	Palladium	105	2014	-70340	-65920				
7440-43-9	Cadmium	114	677452	188.20	0.22860				
7440-33-7	Tungsten	182	6408	4078.0	4158.0				
7440-06-4	Platinum	195	213	-301.40	-1326.6				
7440-29-1	Thorium	232	39034	1.7350	1.9278				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

AS only  
Z  
6/26/09

Reviewed by:

Date:

6/26/09

**Spiked Sample (MS) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\048\_MS.D\048\_MS.D#  
 Date Acquired: Jun 25 2009 08:23 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CTS 5X  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2207  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: MS  
 Prep Dil. Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

**QC Elements**

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	7.97	0.75	ppb	3.99	40	19.6	50 - 150	
23 Na	6	1	25030.00	25130.00	ppb	0.83	4000	85.9	50 - 150	
24 Mg	6	1	73470.00	73740.00	ppb	0.54	4000	94.5	50 - 150	
27 Al	45	1	4311.00	4394.00	ppb	0.64	4000	51.4	50 - 150	
39 K	45	1	8675.00	8653.00	ppb	0.53	4000	68.6	50 - 150	
43 Ca	45	1	118500.00	117200.00	ppb	1.70	4000	97.8	50 - 150	
51 V	72	1	26.52	18.42	ppb	2.45	40	45.4	50 - 150	
52 Cr	72	1	17.10	9.02	ppb	2.28	40	34.9	50 - 150	
55 Mn	72	1	44050.00	43430.00	ppb	1.14	40	101.3	50 - 150	
57 Fe	72	1	3646.00	3739.00	ppb	1.97	4000	47.1	50 - 150	
59 Co	72	1	12.68	4.86	ppb	2.27	40	28.3	50 - 150	
60 Ni	72	1	20.55	12.18	ppb	2.00	40	39.4	50 - 150	
63 Cu	72	1	51.57	43.67	ppb	2.01	40	61.6	50 - 150	
66 Zn	72	1	24.36	17.30	ppb	1.63	40	42.5	50 - 150	
75 As	72	1	21.28	12.78	ppb	1.81	40	40.3	50 - 150	
78 Se	72	1	10.86	2.72	ppb	2.35	40	25.4	50 - 150	
93 Nb	72	1	161600.00	205600.00	ppb	10.07	80	78.6	50 - 150	
95 Mo	72	1	8.46	0.73	ppb	2.87	40	20.8	50 - 150	
105 Pd	115	1	-68210.00	-65920.00	ppb	3.76	40	103.5	50 - 150	
107 Ag	115	1	7.51	0.02	ppb	2.32	40	18.8	50 - 150	
111 Cd	115	1	7.95	0.22	ppb	3.58	40	19.8	50 - 150	
114 Cd	115	1	7.96	0.23	ppb	4.85	40	19.8	50 - 150	
118 Sn	115	1	0.63	0.44	ppb	1.13	40	1.6	50 - 150	
121 Sb	115	1	5.15	0.08	ppb	3.28	40	12.8	50 - 150	
137 Ba	115	1	29.40	21.45	ppb	1.66	40	47.8	50 - 150	
182 W	165	1	4791.00	4158.00	ppb	4.03	40	114.1	50 - 150	
195 Pt	165	1	-69.05	-1326.00	ppb	308.47	40	5.4	50 - 150	
205 Tl	165	1	8.06	0.10	ppb	1.13	40	20.1	50 - 150	
208 Pb	165	1	11.07	3.09	ppb	0.91	40	25.7	50 - 150	
232 Th	165	1	10.80	1.93	ppb	0.11	40	25.8	50 - 150	
238 U	165	1	11.75	3.02	ppb	2.01	40	27.3	50 - 150	

**ISTD Elements**

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	323919	0.57	357213	90.7	30 - 120	
45 Sc	1	736519	0.41	874931	84.2	30 - 120	
72 Ge	1	389833	0.42	488215	79.8	30 - 120	
115 In	1	1316916	0.66	1536240	85.7	30 - 120	
165 Ho	1	3129832	0.72	3429199	91.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
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ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\049\_CCV.D\049\_CCV.D#  
 Date Acquired: Jun 25 2009 08:27 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	48.82	ppb 2.13	50	97.6	90 - 110	
23	Na	6	4933.00	ppb 1.71	5000	98.7	90 - 110	
24	Mg	6	4918.00	ppb 0.84	5000	98.4	90 - 110	
27	Al	45	5066.00	ppb 2.97	5000	101.3	90 - 110	
39	K	45	5082.00	ppb 1.15	5000	101.6	90 - 110	
43	Ca	45	5010.00	ppb 3.12	5000	100.2	90 - 110	
51	V	72	48.91	ppb 0.74	50	97.8	90 - 110	
52	Cr	72	49.14	ppb 1.46	50	98.3	90 - 110	
55	Mn	72	51.28	ppb 1.62	50	102.6	90 - 110	
57	Fe	72	4869.00	ppb 1.55	5000	97.4	90 - 110	
59	Co	72	48.40	ppb 0.47	50	96.8	90 - 110	
60	Ni	72	49.65	ppb 1.40	50	99.3	90 - 110	
63	Cu	72	49.63	ppb 1.77	50	99.3	90 - 110	
66	Zn	72	49.29	ppb 1.14	50	98.6	90 - 110	
75	As	72	49.70	ppb 1.61	50	99.4	90 - 110	
78	Se	72	54.83	ppb 7.13	50	109.7	90 - 110	
93	Nb	72	46450.00	ppb 0.87	100	46450.0	90 - 110	Fail
95	Mo	72	49.80	ppb 1.31	50	99.6	90 - 110	
105	Pd	115	-15.41	ppb 1297.20	50	-30.8	90 - 110	Fail
107	Ag	115	49.41	ppb 2.33	50	98.8	90 - 110	
111	Cd	115	49.45	ppb 2.43	50	98.9	90 - 110	
114	Cd	115	49.48	ppb 2.69	50	99.0	90 - 110	
118	Sn	115	50.34	ppb 3.61	50	100.7	90 - 110	
121	Sb	115	49.58	ppb 2.29	50	99.2	90 - 110	
137	Ba	115	51.06	ppb 3.52	50	102.1	90 - 110	
182	W	165	48.41	ppb 105.21	50	96.8	90 - 110	
195	Pt	165	32.31	ppb 513.15	50	64.6	90 - 110	Fail
205	Tl	165	52.37	ppb 2.92	50	104.7	90 - 110	
208	Pb	165	52.02	ppb 3.21	50	104.0	90 - 110	
232	Th	165	53.43	ppb 2.83	50	106.9	90 - 110	
238	U	165	53.19	ppb 2.85	50	106.4	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	303437	0.40	357213	84.9	30 - 120	
45	Sc	722820	0.93	874931	82.6	30 - 120	
72	Ge	411767	0.43	488215	84.3	30 - 120	
115	In	1366274	1.88	1536240	88.9	30 - 120	
165	Ho	3094805	1.50	3429199	90.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\050\_CCB.D\050\_CCB.D#  
 Date Acquired: Jun 25 2009 08:30 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
23 Na	6	1	2.259 ppb	79.28	20.00	
24 Mg	6	1	0.333 ppb	44.49	20.00	
27 Al	45	1	0.355 ppb	20.80	20.00	
39 K	45	1	-1.224 ppb	43.93	20.00	
43 Ca	45	1	-2.622 ppb	153.32	20.00	
51 V	72	1	0.010 ppb	279.56	1.00	
52 Cr	72	1	0.002 ppb	1526.30	1.00	
55 Mn	72	1	0.213 ppb	8.90	1.00	
57 Fe	72	1	0.625 ppb	32.17	20.00	
59 Co	72	1	-0.001 ppb	150.25	1.00	
60 Ni	72	1	0.009 ppb	66.92	1.00	
63 Cu	72	1	0.013 ppb	36.81	1.00	
66 Zn	72	1	0.077 ppb	36.59	10.00	
75 As	72	1	0.013 ppb	176.36	1.00	
78 Se	72	1	0.389 ppb	94.30	1.00	
93 Nb	72	1	37730.000 ppb	8.04	2.00	Fail
95 Mo	72	1	0.047 ppb	49.00	1.00	
105 Pd	115	1	-6.045 ppb	3038.90	1.00	
107 Ag	115	1	0.025 ppb	12.20	1.00	
111 Cd	115	1	0.010 ppb	64.21	1.00	
114 Cd	115	1	0.011 ppb	14.30	1.00	
118 Sn	115	1	0.354 ppb	4.10	10.00	
121 Sb	115	1	0.204 ppb	5.95	1.00	
137 Ba	115	1	0.005 ppb	2.62	1.00	
182 W	165	1	29.380 ppb	321.14	5.00	Fail
195 Pt	165	1	29.030 ppb	1396.80	1.00	Fail
205 Tl	165	1	0.025 ppb	10.38	1.00	
208 Pb	165	1	0.008 ppb	20.25	1.00	
232 Th	165	1	0.725 ppb	16.47	2.00	
238 U	165	1	0.010 ppb	8.79	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	314692	0.96	357213	88.1	30 - 120	
45 Sc	1	774211	1.50	874931	88.5	30 - 120	
72 Ge	1	445434	1.20	488215	91.2	30 - 120	
115 In	1	1458822	1.10	1536240	95.0	30 - 120	
165 Ho	1	3220969	0.39	3429199	93.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\051WASH.D\051WASH.D#  
 Date Acquired: Jun 25 2009 08:34 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.968 ppb	20.57	1.30	
23 Na	6	1	74.820 ppb	1.20	65.00	
24 Mg	6	1	54.680 ppb	1.88	65.00	
27 Al	45	1	32.120 ppb	4.18	39.00	
39 K	45	1	107.900 ppb	6.65	130.00	
43 Ca	45	1	47.630 ppb	11.17	65.00	
51 V	72	1	4.824 ppb	3.33	6.50	
52 Cr	72	1	1.943 ppb	5.37	2.60	
55 Mn	72	1	1.160 ppb	2.99	1.30	
57 Fe	72	1	48.730 ppb	5.04	65.00	
59 Co	72	1	0.934 ppb	3.48	1.30	
60 Ni	72	1	2.093 ppb	5.93	2.60	
63 Cu	72	1	2.039 ppb	2.01	2.60	
66 Zn	72	1	10.090 ppb	1.80	13.00	
75 As	72	1	5.097 ppb	1.59	6.50	
78 Se	72	1	5.262 ppb	16.62	6.50	
93 Nb	72	1	31530.000 ppb	5.93	52.00	
95 Mo	72	1	1.930 ppb	3.14	2.60	
105 Pd	115	1	1.546 ppb	11028.00	1.30	
107 Ag	115	1	5.128 ppb	1.68	6.50	
111 Cd	115	1	1.054 ppb	6.59	1.30	
114 Cd	115	1	1.238 ppb	3.21	1.30	
118 Sn	115	1	10.090 ppb	2.87	13.00	
121 Sb	115	1	2.001 ppb	2.65	2.60	
137 Ba	115	1	1.078 ppb	7.43	1.30	
182 W	165	1	54.400 ppb	118.68	6.50	
195 Pt	165	1	103.500 ppb	226.57	1.30	
205 Tl	165	1	1.111 ppb	2.11	1.30	
208 Pb	165	1	1.085 ppb	2.00	1.30	
232 Th	165	1	2.323 ppb	2.05	2.60	
238 U	165	1	1.079 ppb	2.97	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	329086	0.64	357213	92.1	30 - 120	
45 Sc	1	836283	3.25	874931	95.6	30 - 120	
72 Ge	1	478794	0.67	488215	98.1	30 - 120	
115 In	1	1553843	0.98	1536240	101.1	30 - 120	
165 Ho	1	3364785	0.21	3429199	98.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\052\_MSD.D\052\_MSD.D#  
 Date Acquired: Jun 25 2009 08:37 pm **QC Summary:**  
 Acq. Method: 6020isis.M **Analytes: Pass**  
 Operator: TEL **ISTD: Pass**  
 Sample Name: LE7CTD 5X  
 Misc Info: MATRIX SPIKE DUPLICATE  
 Vial Number: 2208  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: MSD  
 Dilution Factor: 5.00

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG062509.B\048\_MS.D\048\_MS.D#

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	8.56 ppb	4.89	7.97	7.15	20	
23 Na	6	1	26090.00 ppb	0.85	25030.00	4.15	20	
24 Mg	6	1	77520.00 ppb	1.80	73470.00	5.36	20	
27 Al	45	1	4321.00 ppb	1.81	4311.00	0.23	20	
39 K	45	1	8935.00 ppb	0.29	8675.00	2.95	20	
43 Ca	45	1	123000.00 ppb	1.45	118500.00	3.73	20	
51 V	72	1	26.80 ppb	0.58	26.52	1.05	20	
52 Cr	72	1	17.03 ppb	2.62	17.10	0.41	20	
55 Mn	72	1	44420.00 ppb	1.38	44050.00	0.84	20	
57 Fe	72	1	3582.00 ppb	1.80	3646.00	1.77	20	
59 Co	72	1	12.57 ppb	1.45	12.68	0.87	20	
60 Ni	72	1	20.33 ppb	2.91	20.55	1.08	20	
63 Cu	72	1	52.05 ppb	2.86	51.57	0.93	20	
66 Zn	72	1	24.82 ppb	0.71	24.36	1.87	20	
75 As	72	1	21.94 ppb	1.03	21.28	3.05	20	
78 Se	72	1	10.89 ppb	5.14	10.86	0.28	20	
93 Nb	72	1	133500.00 ppb	8.67	161600.00	19.04	20	
95 Mo	72	1	8.61 ppb	3.58	8.46	1.76	20	
105 Pd	115	1	-71220.00 ppb	9.57	-68210.00	-4.32	20	
107 Ag	115	1	7.74 ppb	0.66	7.51	3.03	20	
111 Cd	115	1	8.48 ppb	1.14	7.95	6.48	20	
114 Cd	115	1	8.04 ppb	1.83	7.95	1.06	20	
118 Sn	115	1	0.48 ppb	7.14	0.63	27.82	20	
121 Sb	115	1	5.41 ppb	1.57	5.15	4.87	20	
137 Ba	115	1	29.73 ppb	1.75	29.40	1.12	20	
182 W	165	1	4763.00 ppb	4.36	4791.00	0.59	20	
195 Pt	165	1	-145.30 ppb	148.80	-69.05	-71.15	20	
205 Tl	165	1	8.33 ppb	2.26	8.06	3.27	20	
208 Pb	165	1	11.24 ppb	2.15	11.07	1.52	20	
232 Th	165	1	11.25 ppb	2.31	10.80	4.08	20	
238 U	165	1	11.84 ppb	3.05	11.75	0.76	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	324438	1.16	357213	90.8	30 - 120	
45 Sc	1	761049	0.04	874931	87.0	30 - 120	
72 Ge	1	409345	0.59	488215	83.8	30 - 120	
115 In	1	1343378	0.37	1536240	87.4	30 - 120	
165 Ho	1	3141154	0.75	3429199	91.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\053SMPL.D\053SMPL.D#  
 Date Acquired: Jun 25 2009 08:41 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE9PT 5X  
 Misc Info: D9F190216  
 Vial Number: 2209  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.04	0.01	ppb	173.16	3600
23	Na	6	1	1,565,000.00	313000.00	ppb	0.95	100000 >LDR
24	Mg	6	1	318,700.00	63740.00	ppb	1.22	100000
27	Al	45	1	135.35	27.07	ppb	2.77	100000
39	K	45	1	40,080.00	8016.00	ppb	0.35	100000
43	Ca	45	1	694,000.00	138800.00	ppb	1.62	100000 >LDR
51	V	72	1	-529.50	-105.90	ppb	5.98	3600
52	Cr	72	1	12,865.00	2573.00	ppb	1.13	3600
55	Mn	72	1	137.40	27.48	ppb	2.67	18000
57	Fe	72	1	834.50	166.90	ppb	1.28	100000
59	Co	72	1	0.77	0.15	ppb	2.29	3600
60	Ni	72	1	4.20	0.84	ppb	7.58	3600
63	Cu	72	1	1.14	0.23	ppb	5.43	3600
66	Zn	72	1	6.43	1.29	ppb	6.51	3600
75	As	72	1	92.35	18.47	ppb	2.41	3600
78	Se	72	1	6.20	1.24	ppb	29.25	3600
93	Nb	72	1	240,400.00	48080.00	ppb	10.26	2000 >LDR
95	Mo	72	1	12.75	2.55	ppb	4.20	3600
105	Pd	115	1	-703,500.00	-140700.00	ppb	3.80	1000
107	Ag	115	1	0.97	0.19	ppb	3.09	3600
111	Cd	115	1	0.44	0.09	ppb	33.06	3600
114	Cd	115	1	0.50	0.10	ppb	14.54	3600
118	Sn	115	1	2.06	0.41	ppb	9.53	3600
121	Sb	115	1	0.47	0.09	ppb	9.81	3600
137	Ba	115	1	47.03	9.41	ppb	0.76	3600
182	W	165	1	7,290.00	1458.00	ppb	8.94	1000 >LDR
195	Pt	165	1	-19,215.00	-3843.00	ppb	20.42	1000
205	Tl	165	1	0.35	0.07	ppb	7.56	3600
208	Pb	165	1	2.30	0.46	ppb	0.78	3600
232	Th	165	1	0.62	0.12	ppb	20.51	1000
238	U	165	1	49.48	9.90	ppb	2.64	3600

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	294713	0.96	357213	82.5	30 - 120
45	Sc	1	705797	0.90	874931	80.7	30 - 120
72	Ge	1	371019	1.02	488215	76.0	30 - 120
115	In	1	1204244	0.79	1536240	78.4	30 - 120
165	Ho	1	2851906	0.77	3429199	83.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\054SMPL.D\054SMPL.D#  
 Date Acquired: Jun 25 2009 08:44 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4A 5X  
 Misc Info: D9F200196  
 Vial Number: 2210  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS	Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.08	0.02	ppb	86.58	3600	
23	Na	6	1	366,900.00	73380.00	ppb	1.20	100000	
24	Mg	6	1	117,400.00	23480.00	ppb	2.00	100000	
27	Al	45	1	2,350.50	470.10	ppb	1.65	100000	
39	K	45	1	13,685.00	2737.00	ppb	0.95	100000	
43	Ca	45	1	257,200.00	51440.00	ppb	0.37	100000	
51	V	72	1	30.92	6.18	ppb	1.51	3600	
52	Cr	72	1	45.38	9.08	ppb	3.05	3600	
55	Mn	72	1	40.35	8.07	ppb	3.81	18000	
57	Fe	72	1	1,896.50	379.30	ppb	2.65	100000	
59	Co	72	1	0.74	0.15	ppb	13.15	3600	
60	Ni	72	1	3.29	0.66	ppb	8.25	3600	
63	Cu	72	1	2.02	0.40	ppb	3.61	3600	
66	Zn	72	1	7.95	1.59	ppb	1.53	3600	
75	As	72	1	89.15	17.83	ppb	1.67	3600	
78	Se	72	1	4.50	0.90	ppb	41.40	3600	
93	Nb	72	1	253,700.00	50740.00	ppb	5.41	2000	>LDR
95	Mo	72	1	22.84	4.57	ppb	2.99	3600	
105	Pd	115	1	-261,850.00	-52370.00	ppb	14.61	1000	
107	Ag	115	1	0.04	0.01	ppb	49.50	3600	
111	Cd	115	1	0.11	0.02	ppb	21.35	3600	
114	Cd	115	1	0.07	0.01	ppb	33.88	3600	
118	Sn	115	1	0.79	0.16	ppb	15.83	3600	
121	Sb	115	1	0.24	0.05	ppb	11.51	3600	
137	Ba	115	1	32.43	6.49	ppb	1.44	3600	
182	W	165	1	4,502.00	900.40	ppb	3.36	1000	
195	Pt	165	1	-130.75	-26.15	ppb	586.62	1000	
205	Tl	165	1	0.06	0.01	ppb	11.98	3600	
208	Pb	165	1	1.05	0.21	ppb	6.47	3600	
232	Th	165	1	1.07	0.21	ppb	2.39	1000	
238	U	165	1	20.72	4.14	ppb	2.85	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	313678	1.26	357213	87.8	30 - 120
45	Sc	1	749905	0.67	874931	85.7	30 - 120
72	Ge	1	414942	0.40	488215	85.0	30 - 120
115	In	1	1323413	0.98	1536240	86.1	30 - 120
165	Ho	1	3110668	0.67	3429199	90.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

1 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\055SMPL.D\055SMPL.D#  
 Date Acquired: Jun 25 2009 08:48 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4D 5X  
 Misc Info: D9F200196  
 Vial Number: 2211  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	2,868,000.00	573600.00	ppb	0.68	100000	>LDR
24 Mg	6	1	479,700.00	95940.00	ppb	0.98	100000	
27 Al	45	1	45.24	9.05	ppb	6.31	100000	
39 K	45	1	23,780.00	4756.00	ppb	0.24	100000	
43 Ca	45	1	695,000.00	139000.00	ppb	2.13	100000	>LDR
51 V	72	1	3.59	0.72	ppb	2.61	3600	
52 Cr	72	1	5.91	1.18	ppb	8.39	3600	
55 Mn	72	1	701.00	140.20	ppb	2.11	18000	
57 Fe	72	1	1,035.50	207.10	ppb	1.82	100000	
59 Co	72	1	0.69	0.14	ppb	5.27	3600	
60 Ni	72	1	8.88	1.78	ppb	0.56	3600	
63 Cu	72	1	1.76	0.35	ppb	2.60	3600	
66 Zn	72	1	2.04	0.41	ppb	5.59	3600	
75 As	72	1	138.05	27.61	ppb	1.78	3600	
78 Se	72	1	3.24	0.65	ppb	56.51	3600	
93 Nb	72	1	159,000.00	31800.00	ppb	11.87	2000	>LDR
95 Mo	72	1	44.34	8.87	ppb	0.97	3600	
105 Pd	115	1	-779,500.00	-155900.00	ppb	6.90	1000	
107 Ag	115	1	0.24	0.05	ppb	9.00	3600	
111 Cd	115	1	0.14	0.03	ppb	70.91	3600	
114 Cd	115	1	0.15	0.03	ppb	8.91	3600	
118 Sn	115	1	0.99	0.20	ppb	20.61	3600	
121 Sb	115	1	0.41	0.08	ppb	11.22	3600	
137 Ba	115	1	20.36	4.07	ppb	4.99	3600	
182 W	165	1	58,900.00	11780.00	ppb	2.51	1000	>LDR
195 Pt	165	1	-93.70	-18.74	ppb	831.38	1000	
205 Tl	165	1	0.07	0.01	ppb	13.14	3600	
208 Pb	165	1	0.30	0.06	ppb	9.54	3600	
232 Th	165	1	0.10	0.02	ppb	7.15	1000	
238 U	165	1	94.65	18.93	ppb	3.46	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	278841	0.87	357213	78.1	30 - 120	
45 Sc	1	691092	1.07	874931	79.0	30 - 120	
72 Ge	1	357390	0.11	488215	73.2	30 - 120	
115 In	1	1150906	1.54	1536240	74.9	30 - 120	
165 Ho	1	2740570	0.15	3429199	79.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\056SMPL.D\056SMPL.D#  
 Date Acquired: Jun 25 2009 08:51 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4P 5X  
 Misc Info: D9F200199  
 Vial Number: 2212  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.04	0.01	ppb	173.20	3600
23	Na	6	1	814,500.00	162900.00	ppb	0.97	100000 >LDR
24	Mg	6	1	108,900.00	21780.00	ppb	1.79	100000
27	Al	45	1	3.62	0.72	ppb	4.77	100000
39	K	45	1	7,935.00	1587.00	ppb	1.28	100000
43	Ca	45	1	262,850.00	52570.00	ppb	1.91	100000
51	V	72	1	51.80	10.36	ppb	7.76	3600
52	Cr	72	1	341.95	68.39	ppb	1.93	3600
55	Mn	72	1	7.91	1.58	ppb	2.86	18000
57	Fe	72	1	300.65	60.13	ppb	4.05	100000
59	Co	72	1	5.81	1.16	ppb	6.19	3600
60	Ni	72	1	11.05	2.21	ppb	5.48	3600
63	Cu	72	1	0.55	0.11	ppb	19.76	3600
66	Zn	72	1	0.81	0.16	ppb	12.52	3600
75	As	72	1	146.70	29.34	ppb	2.20	3600
78	Se	72	1	4.22	0.84	ppb	91.45	3600
93	Nb	72	1	141,800.00	28360.00	ppb	17.85	2000 >LDR
95	Mo	72	1	149.25	29.85	ppb	2.97	3600
105	Pd	115	1	-234,350.00	-46870.00	ppb	16.99	1000
107	Ag	115	1	0.41	0.08	ppb	1.61	3600
111	Cd	115	1	0.00	0.00	ppb	1735.60	3600
114	Cd	115	1	0.19	0.04	ppb	34.09	3600
118	Sn	115	1	0.73	0.15	ppb	18.63	3600
121	Sb	115	1	0.25	0.05	ppb	14.34	3600
137	Ba	115	1	28.90	5.78	ppb	1.29	3600
182	W	165	1	1,602,000.00	320400.00	ppb	2.91	1000 >LDR
195	Pt	165	1	-4,069.50	-813.90	ppb	36.65	1000
205	Tl	165	1	0.06	0.01	ppb	7.95	3600
208	Pb	165	1	0.09	0.02	ppb	7.64	3600
232	Th	165	1	0.05	0.01	ppb	35.00	1000
238	U	165	1	18.26	3.65	ppb	3.65	3600

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	291354	0.40	357213	81.6	30 - 120
45	Sc	1	721576	0.67	874931	82.5	30 - 120
72	Ge	1	396818	0.23	488215	81.3	30 - 120
115	In	1	1273603	0.82	1536240	82.9	30 - 120
165	Ho	1	2964594	0.72	3429199	86.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\057SMPL.D\057SMPL.D#  
 Date Acquired: Jun 25 2009 08:55 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4Q 5X  
 Misc Info: D9F200199  
 Vial Number: 2301  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.05	0.01	ppb	173.24	3600	
23 Na	6	1	1,590,500.00	318100.00	ppb	0.47	100000	>LDR
24 Mg	6	1	303,700.00	60740.00	ppb	1.06	100000	
27 Al	45	1	56.25	11.25	ppb	10.95	100000	
39 K	45	1	37,510.00	7502.00	ppb	1.53	100000	
43 Ca	45	1	667,500.00	133500.00	ppb	2.40	100000	>LDR
51 V	72	1	-703.00	-140.60	ppb	12.99	3600	
52 Cr	72	1	14,700.00	2940.00	ppb	0.51	3600	
55 Mn	72	1	107.30	21.46	ppb	1.15	18000	
57 Fe	72	1	701.00	140.20	ppb	3.77	100000	
59 Co	72	1	0.66	0.13	ppb	6.32	3600	
60 Ni	72	1	5.47	1.09	ppb	1.47	3600	
63 Cu	72	1	0.61	0.12	ppb	17.73	3600	
66 Zn	72	1	2.73	0.55	ppb	9.59	3600	
75 As	72	1	90.70	18.14	ppb	0.89	3600	
78 Se	72	1	8.45	1.69	ppb	51.42	3600	
93 Nb	72	1	127,550.00	25510.00	ppb	19.88	2000	>LDR
95 Mo	72	1	16.10	3.22	ppb	3.46	3600	
105 Pd	115	1	-630,500.00	-126100.00	ppb	1.47	1000	
107 Ag	115	1	0.09	0.02	ppb	19.62	3600	
111 Cd	115	1	-0.05	-0.01	ppb	230.16	3600	
114 Cd	115	1	0.02	0.00	ppb	137.56	3600	
118 Sn	115	1	0.69	0.14	ppb	3.96	3600	
121 Sb	115	1	0.32	0.06	ppb	13.16	3600	
137 Ba	115	1	37.89	7.58	ppb	4.70	3600	
182 W	165	1	10,335.00	2067.00	ppb	8.25	1000	>LDR
195 Pt	165	1	-10,095.00	-2019.00	ppb	18.26	1000	
205 Tl	165	1	0.17	0.03	ppb	17.92	3600	
208 Pb	165	1	0.12	0.02	ppb	23.68	3600	
232 Th	165	1	0.01	0.00	ppb	168.83	1000	
238 U	165	1	22.29	4.46	ppb	3.50	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	274896	0.70	357213	77.0	30 - 120	
45 Sc	1	691626	1.11	874931	79.0	30 - 120	
72 Ge	1	368140	0.68	488215	75.4	30 - 120	
115 In	1	1193874	1.54	1536240	77.7	30 - 120	
165 Ho	1	2764719	1.17	3429199	80.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\058\_CCV.D\058\_CCV.D#  
 Date Acquired: Jun 25 2009 08:58 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.61 ppb	2.55	50	101.2	90 - 110	
23	Na	6	5100.00 ppb	0.23	5000	102.0	90 - 110	
24	Mg	6	5067.00 ppb	1.05	5000	101.3	90 - 110	
27	Al	45	4927.00 ppb	1.07	5000	98.5	90 - 110	
39	K	45	5054.00 ppb	1.17	5000	101.1	90 - 110	
43	Ca	45	4895.00 ppb	4.24	5000	97.9	90 - 110	
51	V	72	48.02 ppb	2.07	50	96.0	90 - 110	
52	Cr	72	47.76 ppb	1.53	50	95.5	90 - 110	
55	Mn	72	48.02 ppb	0.90	50	96.0	90 - 110	
57	Fe	72	4661.00 ppb	1.54	5000	93.2	90 - 110	
59	Co	72	47.02 ppb	1.84	50	94.0	90 - 110	
60	Ni	72	48.38 ppb	2.45	50	96.8	90 - 110	
63	Cu	72	48.44 ppb	1.61	50	96.9	90 - 110	
66	Zn	72	48.80 ppb	1.20	50	97.6	90 - 110	
75	As	72	50.87 ppb	1.41	50	101.7	90 - 110	
78	Se	72	51.05 ppb	4.16	50	102.1	90 - 110	
93	Nb	72	18090.00 ppb	20.25	100	18090.0	90 - 110	Fail
95	Mo	72	48.16 ppb	1.97	50	96.3	90 - 110	
105	Pd	115	-245.40 ppb	243.81	50	-490.8	90 - 110	Fail
107	Ag	115	48.85 ppb	0.76	50	97.7	90 - 110	
111	Cd	115	49.41 ppb	1.52	50	98.8	90 - 110	
114	Cd	115	49.52 ppb	1.72	50	99.0	90 - 110	
118	Sn	115	49.28 ppb	1.30	50	98.6	90 - 110	
121	Sb	115	50.80 ppb	1.55	50	101.6	90 - 110	
137	Ba	115	50.17 ppb	1.04	50	100.3	90 - 110	
182	W	165	191.20 ppb	23.15	50	382.4	90 - 110	Fail
195	Pt	165	144.60 ppb	84.37	50	289.2	90 - 110	Fail
205	Tl	165	50.85 ppb	0.31	50	101.7	90 - 110	
208	Pb	165	50.59 ppb	1.02	50	101.2	90 - 110	
232	Th	165	51.25 ppb	1.79	50	102.5	90 - 110	
238	U	165	50.79 ppb	1.22	50	101.6	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	279400	1.14	357213	78.2	30 - 120
45	Sc	1	699197	1.61	874931	79.9	30 - 120
72	Ge	1	406164	1.34	488215	83.2	30 - 120
115	In	1	1330655	0.78	1536240	86.6	30 - 120
165	Ho	1	3000836	0.97	3429199	87.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\059\_CCB.D\059\_CCB.D#  
 Date Acquired: Jun 25 2009 09:02 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
23 Na	6	1	81.710 ppb	1.43	20.00	Fail
24 Mg	6	1	1.502 ppb	4.94	20.00	
27 Al	45	1	0.588 ppb	36.53	20.00	
39 K	45	1	12.860 ppb	6.53	20.00	
43 Ca	45	1	1.168 ppb	481.25	20.00	
51 V	72	1	0.013 ppb	154.99	1.00	
52 Cr	72	1	0.041 ppb	12.59	1.00	
55 Mn	72	1	0.285 ppb	8.11	1.00	
57 Fe	72	1	0.653 ppb	57.75	20.00	
59 Co	72	1	-0.005 ppb	23.06	1.00	
60 Ni	72	1	0.013 ppb	68.36	1.00	
63 Cu	72	1	0.009 ppb	72.12	1.00	
66 Zn	72	1	0.073 ppb	15.38	10.00	
75 As	72	1	0.011 ppb	85.14	1.00	
78 Se	72	1	0.446 ppb	103.23	1.00	
93 Nb	72	1	14650.000 ppb	8.77	2.00	Fail
95 Mo	72	1	0.031 ppb	29.87	1.00	
105 Pd	115	1	-13.020 ppb	1503.80	1.00	
107 Ag	115	1	0.021 ppb	25.03	1.00	
111 Cd	115	1	0.002 ppb	755.78	1.00	
114 Cd	115	1	0.012 ppb	14.27	1.00	
118 Sn	115	1	0.326 ppb	8.80	10.00	
121 Sb	115	1	0.177 ppb	0.87	1.00	
137 Ba	115	1	0.006 ppb	97.17	1.00	
182 W	165	1	128.200 ppb	42.67	5.00	Fail
195 Pt	165	1	94.370 ppb	299.46	1.00	Fail
205 Tl	165	1	0.020 ppb	12.98	1.00	
208 Pb	165	1	0.010 ppb	3.71	1.00	
232 Th	165	1	0.701 ppb	20.66	2.00	
238 U	165	1	0.008 ppb	14.11	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	287197	0.27	357213	80.4	30 - 120	
45 Sc	1	735910	1.07	874931	84.1	30 - 120	
72 Ge	1	431276	0.66	488215	88.3	30 - 120	
115 In	1	1381851	1.05	1536240	90.0	30 - 120	
165 Ho	1	3064484	1.48	3429199	89.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\060WASH.D\060WASH.D#  
 Date Acquired: Jun 25 2009 09:05 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info: 1204  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.940 ppb	14.16	1.30	
23 Na	6	1	123.200 ppb	2.27	65.00	
24 Mg	6	1	56.030 ppb	1.02	65.00	
27 Al	45	1	32.480 ppb	0.93	39.00	
39 K	45	1	116.500 ppb	1.30	130.00	
43 Ca	45	1	48.640 ppb	16.92	65.00	
51 V	72	1	4.965 ppb	3.94	6.50	
52 Cr	72	1	2.002 ppb	3.01	2.60	
55 Mn	72	1	1.240 ppb	2.14	1.30	
57 Fe	72	1	47.620 ppb	3.41	65.00	
59 Co	72	1	0.956 ppb	1.25	1.30	
60 Ni	72	1	1.982 ppb	2.59	2.60	
63 Cu	72	1	1.999 ppb	2.25	2.60	
66 Zn	72	1	9.950 ppb	1.60	13.00	
75 As	72	1	4.942 ppb	2.31	6.50	
78 Se	72	1	4.864 ppb	18.14	6.50	
93 Nb	72	1	17410.000 ppb	15.71	52.00	
95 Mo	72	1	1.946 ppb	5.02	2.60	
105 Pd	115	1	-8.990 ppb	2100.10	1.30	
107 Ag	115	1	5.029 ppb	3.29	6.50	
111 Cd	115	1	1.044 ppb	2.01	1.30	
114 Cd	115	1	1.215 ppb	2.12	1.30	
118 Sn	115	1	10.030 ppb	3.73	13.00	
121 Sb	115	1	2.068 ppb	3.51	2.60	
137 Ba	115	1	1.080 ppb	4.55	1.30	
182 W	165	1	81.170 ppb	89.69	6.50	
195 Pt	165	1	174.300 ppb	71.08	1.30	
205 Tl	165	1	1.098 ppb	0.91	1.30	
208 Pb	165	1	1.083 ppb	3.24	1.30	
232 Th	165	1	2.294 ppb	2.95	2.60	
238 U	165	1	1.070 ppb	1.06	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	287559	1.38	357213	80.5	30 - 120	
45 Sc	1	748913	0.52	874931	85.6	30 - 120	
72 Ge	1	434028	0.21	488215	88.9	30 - 120	
115 In	1	1413851	1.58	1536240	92.0	30 - 120	
165 Ho	1	3076772	0.46	3429199	89.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Semivolatile GC

Supporting Documentation

Sample Sequence, Chromatograms

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9F200199

Client: Northgate

Method: 8141

Associated Samples: 2

Batch #(s): 9173103

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date: N. [Signature] 07.01.09

**GC SEMIVOLATILE  
ORGANIC EXTRACTION  
LOG SHEETS**

**TestAmerica**  
  
THE LEADER IN ENVIRONMENTAL TESTING

LEV 1	LEV 2	LEV 1	LEV 2	Weights/Volumes
Y	Y	Y	Y	Spike & Surrogate Worksheet
Y	Y	Y	Y	Vial contains correct Volume
Y	Y	Y	Y	Labels, greenbars, worksheets
Y	Y	Y	Y	computer batch: correct & all match
Y	Y	Y	Y	Anomalies to Extraction Method

Extractionist: 008268 Katie Stoltz  
 Concentrationist: 000906 Sarah Otis  
 \*\*\*\*\*  
 \* QC BATCH: 9173103 \*  
 \* \*\*\*\*\*  
 PREP DATE: 6/22/09 12:00  
 COMP DATE: 6/23/09 23:20

Reviewer/Date: OTISS / 6/23/09  
 Compounds, Organophosphorus (8141A)  
 ID/LIQ, SEP FUNNEL (PAH,P/P,TPH,Dioxin) - Nominal

EXTR EXPR	ANL DUE	LOT# WORK ORDER	MSRUM# /	TEST FIGS	EXT MTH	MATRIX	INIT/PTN WT/VOL	INIT ADJT	PH'S ADJ2	EXTRACTION VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID						
6/23/09	6/30/09	D9F180266-002	IE7EE-1-AA	DR	09	P2	WATER	1064mL	2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML	GSV0675	6.4.09

COMMENTS:

6/24/09	7/01/09	D9F190216-002	IE906-1-AA	DR	09	P2	WATER	1066mL	2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML	GSV0675	6.4.09
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COMMENTS:

6/24/09	7/01/09	D9F190216-003	IE9RA-1-AA	DR	09	P2	WATER	1066mL	2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML	GSV0675	6.4.09
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COMMENTS:

6/26/09	7/02/09	D9F200199-002	IEC4Q-1-AD	DR	09	P2	WATER	1054mL	2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML	GSV0675	6.4.09
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COMMENTS:

6/23/09	0/00/00	D9F220000-103	IEFD4W-1-AAB	DR	09	P2	WATER	1000mL	2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML	GSV0675	6.4.09
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COMMENTS:

6/23/09	0/00/00	D9F220000-103	IEFD4W-1-ACC	DR	09	P2	WATER	1000mL	2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML	GSV0682	6.4.09
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COMMENTS:

6/23/09	0/00/00	D9F220000-103	IEFD4W-1-ADL	DR	09	P2	WATER	1000mL	2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML	GSV0682	6.4.09
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DY-OP-0006/7 BAL:M27995 H2O: EIGA+NACL:G47616 NA2S04:G45627 MECL2:H10J07  
 S/S:KS-F W:KA SHARE MB, LCS/D 9173102 TORBOVAP:A@40C HEX:THILLE04 PIP:CON-6

R = RUSH C = CLP  
 E = EPA 600 D = EXP. DEL) NUMBER OF WORK ORDERS IN BATCH: 7

**GC SEMIVOLATILE  
INSTRUMENT  
LOG SHEETS**

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING



Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L5 GSV0635				
4	Vial 4	LE5PX1AA,MB				
5	Vial 5	LE5PX1AC,LCS				
6	Vial 6	LE5PX1AD,LCSD				
7	Vial 7	LE39F1AA,179-1				
8	Vial 8	LE3PF1AA,179-2				
9	Vial 9	LE39L1AA,179-3				
10	Vial 10	LFARL1AA,MB				
11	Vial 11	LFARL1AC,LCS				
12	Vial 12	LFARL1AD,LCSD				
13	Vial 13	LEKLE2AE,180-2				
14	Vial 14	LEKLF2AE,180-3				
15	Vial 15	LEKLL2AE,180-4				
16	Vial 16	LEKQL2AE,180-5				
17	Vial 17	LENR72AD,322-1				
18	Vial 18	LEPG32AJ,161-1				
19	Vial 19	OPP L5 GSV0635				
20	Vial 20	LFD4N1AA,MB				
21	Vial 21	LFD4N1AC,LCS				
22	Vial 22	LFD4N1AD,LCSD				
23	Vial 23	LE3041AJ,158-1				
24	Vial 24	LFD4W1AA,MB				
25	Vial 25	LFD4W1AC,LCS				
26	Vial 26	LFD4W1AD,LCSD				
27	Vial 27	LE7EE1AA,266-2				
28	Vial 28	LE9Q61AA,216-2				
29	Vial 29	LE9RA1AA,216-3				
30	Vial 30	LFC4Q1AD,199-2				
31	Vial 31	OPP L5 GSV0635				
32	Vial 32	LFAN01AA,MB				
33	Vial 33	LFAN01AC,LCS				
34	Vial 34	LFAN01AD,LCSD				
35	Vial 35	LE4291AA,273-1				
36	Vial 36	LE4291AD,273-1S				
37	Vial 37	LE4291AE,273-1D				
38	Vial 38	LE9PJ1AA,215-1				
39	Vial 39	OPP L5 GSV0635				
40	Vial 40	OPP L1 GSV0641				
41	Vial 100	HEXANE/ACETONE				

*— bad injection; ccv not needed, only 9 samples*

Sequence Table (Back Injector):

No entries - empty table!

**GC SEMIVOLATILE  
CONTINUING CALIBRATION DATA**



CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6816	10.6	15.0
2 Dichlorvos	3.0000	2.8457	5.1	15.0
3 Mevinphos	3.0000	2.6789	10.7	15.0
4 Chlormefos	3.0000	3.1969	6.6	15.0
5 Thionazin	3.0000	2.8724	4.3	15.0
6 Demeton-O	0.9750	0.9537	2.2	15.0
7 Ethoprop	3.0000	2.9060	3.1	15.0
8 Naled	3.0000	2.3519	21.6	15.0
9 Sulfotepp	3.0000	3.1051	3.5	15.0
10 Phorate	3.0000	3.0333	1.1	15.0
11 Dimethoate	3.0000	3.0797	2.7	15.0
12 Demeton-S	2.0400	2.1332	4.6	15.0
13 Simazine	3.0000	3.3112	10.4	15.0
14 Atrazine	3.0000	3.1680	5.6	15.0
15 propazine	3.0000	3.1813	6.0	15.0
17 Disulfoton	3.0000	2.9623	1.3	15.0
16 Diazinon	3.0000	3.1341	4.5	15.0
18 Methyl Parathion	3.0000	3.0020	0.1	15.0
19 Ronnel	3.0000	2.9298	2.3	15.0
20 Malathion	3.0000	2.9153	2.8	15.0
21 Fenthion	3.0000	2.9311	2.3	15.0
22 Parathion	3.0000	2.9803	0.7	15.0
23 Chlorpyrifos	3.0000	3.1137	3.8	15.0
24 Trichloronate	3.0000	3.1459	4.9	15.0
25 Anilazine	3.0000	1.5882	47.1	15.0
148 Merphos-A (Merphos)	3.0000	2.1991	26.7	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.6173	12.8	15.0
28 Tokuthion	3.0000	3.1710	5.7	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.9483	131.6	999.0
29 Carbophenothion-methyl	3.0000	3.0127	0.4	15.0
29 Fensulfothion	3.0000	2.8001	6.7	15.0
30 Bolstar / Famphur	6.0000	5.9498	0.8	15.0
32 Carbophenothion	3.0000	3.0373	1.2	15.0
31 Triphenyl phosphate	3.0000	2.9775	0.8	15.0
34 Phosmet	3.0000	2.8475	5.1	15.0
32 EPN	3.0000	3.0078	0.3	15.0
33 Azinphos-methyl	3.0000	2.8768	4.1	15.0
35 Azinphos-ethyl	3.0000	2.9631	1.2	15.0
36 Coumaphos	3.0000	3.0385	1.3	15.0

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.2247	7.5	15.0
40 Total Demeton	3.0000	3.0869	2.9	15.0

Average %D = 9.19

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\019F1901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 02:41  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 19 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.276	3.254	(0.184)	288332	3.00000	2.682
2 Dichlorvos	4.081	4.074	(0.229)	190001	3.00000	2.846
3 Mevinphos	5.740	5.739	(0.322)	98255	3.00000	2.679
\$ 4 Chlormefos	5.835	5.836	(0.327)	267292	3.00000	3.197
5 Thionazin	7.506	7.507	(0.421)	219177	3.00000	2.872
6 Demeton-O	7.646	7.649	(0.429)	69455	0.97500	0.9537
7 Ethoprop	7.848	7.852	(0.440)	194316	3.00000	2.906
8 Naled	8.055	8.057	(0.451)	39036	3.00000	2.352
* 9 Tributylphosphate	8.110	8.135	(1.000)	141606	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	295169	3.00000	3.105
11 Phorate	8.530	8.532	(0.478)	210053	3.00000	3.033
12 Dimethoate	8.656	8.659	(0.485)	247743	3.00000	3.080
13 Demeton-S	8.838	8.846	(0.495)	124437	2.04000	2.133
14 Simazine	8.921	8.924	(0.500)	90186	3.00000	3.311
15 Atrazine	9.090	9.094	(0.509)	98818	3.00000	3.168
16 propazine	9.236	9.241	(0.518)	91559	3.00000	3.181
17 Disulfoton	9.866	9.869	(0.553)	138461	3.00000	2.962
18 Diazinon	9.900	9.902	(0.555)	233134	3.00000	3.134
19 Methyl Parathion	10.715	10.717	(0.601)	141620	3.00000	3.002
20 Ronnel	11.240	11.241	(0.630)	142874	3.00000	2.930
21 Malathion	11.800	11.804	(0.661)	129106	3.00000	2.915
22 Penthion	11.930	11.932	(0.669)	140561	3.00000	2.931
23 Parathion	12.018	12.019	(0.674)	152105	3.00000	2.980
24 Chlorpyrifos	12.066	12.067	(0.676)	192261	3.00000	3.114
25 Trichloronate	12.495	12.496	(0.700)	173613	3.00000	3.146
26 Anilazine	12.818	12.817	(0.718)	7053	3.00000	1.588
27 Merphos-A (Merphos)	13.198	13.199	(0.740)	101256	3.00000	2.199
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	80093	3.00000	2.617
29 Tokuthion	14.446	14.449	(0.810)	167753	3.00000	3.171
30 Merphos-B (Merphos Oxone)	14.648	14.651	(0.821)	86264	3.00000	6.948 (A)
31 Carbophenothion-methyl	15.236	15.239	(0.854)	121998	3.00000	3.013
32 Fensulfothion	15.360	15.361	(0.861)	122599	3.00000	2.800
33 Bolstar / Famphur	16.051	16.053	(0.900)	301122	6.00000	5.950

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.195	16.197	(0.908)	154215	3.00000	3.037
S 35 Triphenyl phosphate	16.710	16.712	(0.936)	114885	3.00000	2.977 (A)
36 Phosmet	16.963	16.963	(0.951)	123749	3.00000	2.848
37 EPN	17.150	17.151	(0.961)	125827	3.00000	3.008
38 Azinphos-methyl	17.480	17.480	(0.980)	133223	3.00000	2.877
* 39 TOCP	17.843	17.846	(1.000)	76317	2.00000	
40 Azinphos-ethyl	17.925	17.926	(1.005)	150049	3.00000	2.963
41 Coumaphos	18.365	18.366	(1.029)	113491	3.00000	3.038
S 42 Merphos				187520	3.00000	3.225
M 43 Total Demeton				193892	3.00000	3.087

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i Calibration Date: 29-JUN-2009  
 Lab File ID: 019F1901.D Calibration Time: 21:41  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

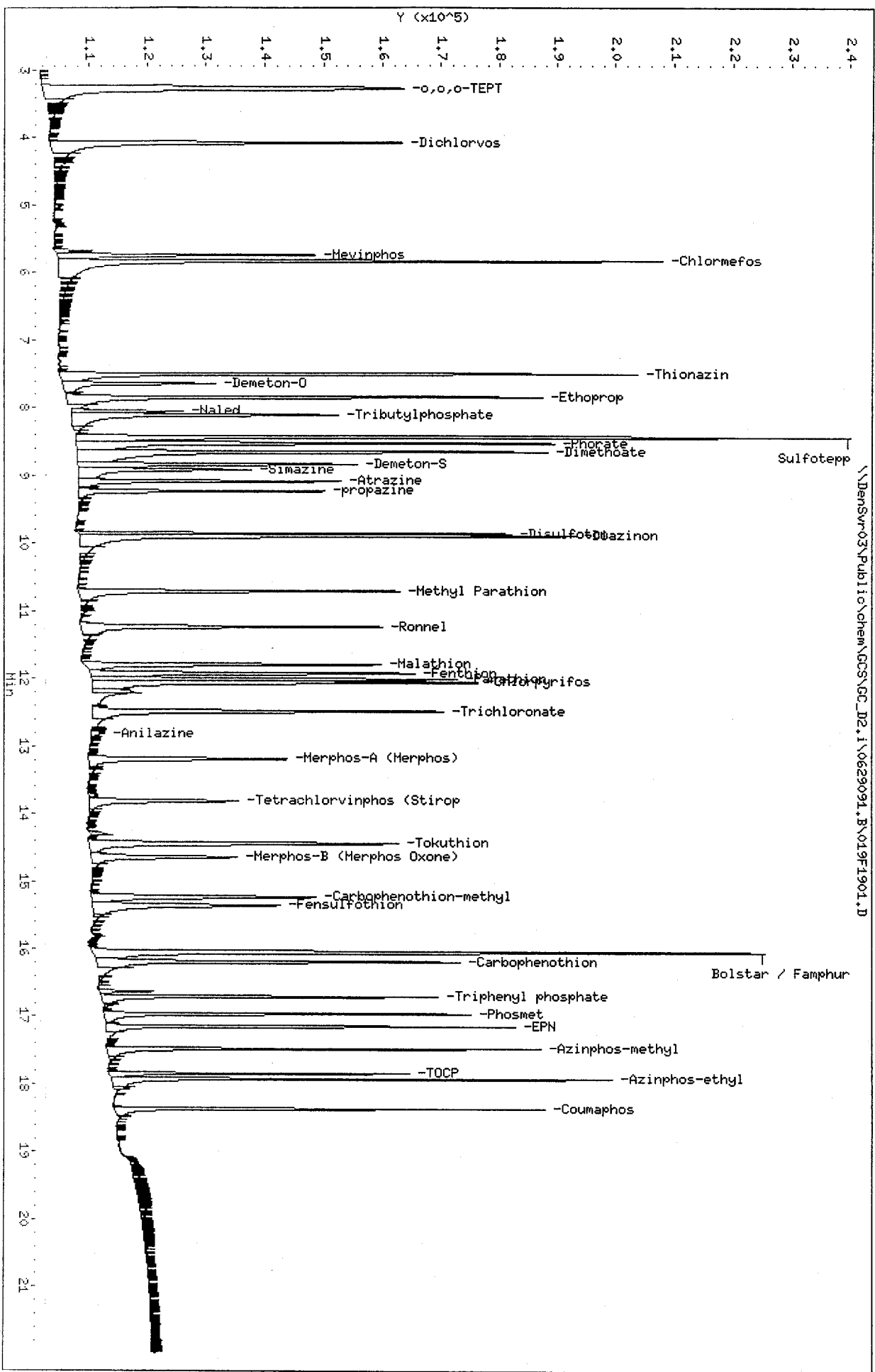
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	108848	54424	217696	141606	30.10
39 TOCP	76040	38020	152080	76317	0.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	-0.03
39 TOCP	17.85	17.35	18.35	17.84	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densur03\Public\chem\GCS\GC\_D2.1\0629091.B\019F1901.D  
 Date: 30-JUN-2009 02:41  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTX-IMS

Instrument: GC\_D2.1  
 Operator: HPK/TLM  
 Column diameter: 0.32





CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 019F1901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.6732	10.9	15.0
2 Dichlorvos	3.0000	2.7445	8.5	15.0
3 Chlormefos	3.0000	3.1434	4.8	15.0
4 Mevinphos	3.0000	2.7962	6.8	15.0
5 Demeton-O	0.9750	0.9905	1.6	15.0
6 Thionazin	3.0000	2.9759	0.8	15.0
7 Ethoprop	3.0000	2.8559	4.8	15.0
8 Phorate	3.0000	3.2113	7.0	15.0
10 Naled	3.0000	2.5980	13.4	15.0
146 Sulfotepp	3.0000	3.0720	2.4	15.0
10 Simazine	3.0000	2.9810	0.6	15.0
12 Diazinon	3.0000	3.0817	2.7	15.0
150 Atrazine	3.0000	3.4669	15.6	15.0
13 Propazine	3.0000	3.2538	8.5	15.0
14 Disulfoton	3.0000	3.1235	4.1	15.0
15 Demeton-S	2.0400	1.8994	6.9	15.0
16 Dimethoate	3.0000	3.0065	0.2	15.0
17 Ronnel	3.0000	2.8752	4.2	15.0
148 Merphos-A (Merphos)	3.0000	2.2490	25.0	999.0
18 Chlorpyrifos	3.0000	3.1462	4.9	15.0
19 Fenthion	3.0000	3.0376	1.3	15.0
20 Trichloronate	3.0000	3.1893	6.3	15.0
21 Anilazine	3.0000	1.1314	62.3	15.0
23 Methyl Parathion	3.0000	3.2271	7.6	15.0
24 Malathion	3.0000	3.2435	8.1	15.0
25 Tokuthion	3.0000	3.1034	3.4	15.0
26 Parathion	3.0000	2.8711	4.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	6.4788	116.0	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.9194	2.7	15.0
28 Carbophenothion methyl	3.0000	3.1683	5.6	15.0
28 Bolstar	3.0000	3.2160	7.2	15.0
30 Carbophenothion	3.0000	3.1768	5.9	15.0
29 Triphenyl phosphate	3.0000	3.2806	9.4	15.0
30 Fensulfothion	3.0000	3.0927	3.1	15.0
35 Phosmet / EPN	6.0000	5.8461	2.6	15.0
33 Famphur	3.0000	2.7291	9.0	15.0
34 Azinphos-methyl	3.0000	2.8371	5.4	15.0
35 Azinphos-ethyl	3.0000	3.0920	3.1	15.0
36 Coumaphos	3.0000	3.1035	3.4	15.0

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 02:41  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	3.2640	8.8	15.0
40 Total Demeton	3.0000	2.8899	3.7	15.0

Average %D = 10.1

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\019F1901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 02:41  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 19 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.731	4.731	(0.251)	214900	3.00000	2.673
2 Dichlorvos	6.546	6.546	(0.348)	172280	3.00000	2.744
3 Chlormefos	7.383	7.384	(0.392)	198631	3.00000	3.143
4 Mevinphos	9.234	9.234	(0.491)	118236	3.00000	2.796
5 Demeton-O	9.733	9.734	(0.517)	39911	0.97500	0.9905
6 Thionazin	9.983	9.984	(0.531)	188173	3.00000	2.976
7 Ethoprop	10.498	10.499	(0.558)	134937	3.00000	2.856
8 Phorate	10.536	10.539	(0.560)	175954	3.00000	3.211
9 Naled	10.939	10.939	(0.581)	35526	3.00000	2.598
10 Sulfotepp	11.014	11.017	(0.585)	253863	3.00000	3.072 (A)
* 11 Tributylphosphate	11.114	11.116	(1.000)	110664	2.00000	
12 Simazine	11.398	11.399	(0.606)	35282	3.00000	2.981 (A)
13 Diazinon	11.539	11.541	(0.613)	137027	3.00000	3.082
14 Atrazine	11.581	11.584	(0.616)	83824	3.00000	3.467 (A)
15 Propazine	11.744	11.747	(0.624)	67578	3.00000	3.254
16 Disulfoton	12.048	12.049	(0.640)	136123	3.00000	3.123
17 Demeton-S	12.123	12.124	(0.644)	97817	2.04000	1.899
18 Dimethoate	13.281	13.282	(0.706)	175607	3.00000	3.006
19 Ronnel	13.586	13.587	(0.722)	113037	3.00000	2.875
20 Merphos-A (Merphos)	13.688	13.689	(1.232)	90184	3.00000	2.249 (A)
21 Chlorpyrifos	14.408	14.409	(0.766)	125458	3.00000	3.146
22 Fenthion	14.661	14.662	(0.779)	112346	3.00000	3.038
23 Trichloronate	14.706	14.711	(0.782)	166627	3.00000	3.189
24 Anilazine	15.209	15.216	(0.808)	3864	3.00000	1.131
25 Methyl Parathion	15.518	15.519	(0.825)	128855	3.00000	3.227 (A)
26 Malathion	15.723	15.724	(0.836)	121327	3.00000	3.244
27 Tokuthion	16.344	16.344	(0.869)	135918	3.00000	3.103
28 Parathion	16.493	16.494	(0.877)	112964	3.00000	2.871 (M)
29 Merphos-B (Merphos Oxone)	16.508	16.517	(1.485)	78883	3.00000	6.479 (AM)
30 Tetrachlorvinphos (stirophos)	16.974	16.977	(0.902)	74305	3.00000	2.919
31 Carbophenothion methyl	17.081	17.082	(0.908)	115581	3.00000	3.168
32 Bolstar	17.439	17.440	(0.927)	123583	3.00000	3.216
33 Carbophenothion	17.523	17.524	(0.931)	120041	3.00000	3.177 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	101723	3.00000	3.281
35 Fensulfothion	18.558	18.559	(0.986)	88051	3.00000	3.093
* 36 TOCP	18.814	18.816	(1.000)	62152	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	185278	6.00000	5.846 (A)
38 Famphur	19.008	19.011	(1.010)	111253	3.00000	2.729
39 Azinphos-methyl	19.143	19.147	(1.017)	105798	3.00000	2.837
40 Azinphos-ethyl	19.363	19.366	(1.029)	109814	3.00000	3.092
41 Coumaphos	20.344	20.347	(1.081)	84746	3.00000	3.103
S 42 Merphos				169067	3.00000	3.264 (A)
M 43 Total Demeton				137728	3.00000	2.890

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 29-JUN-2009  
 Lab File ID: 019F1901.D Calibration Time: 21:41  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

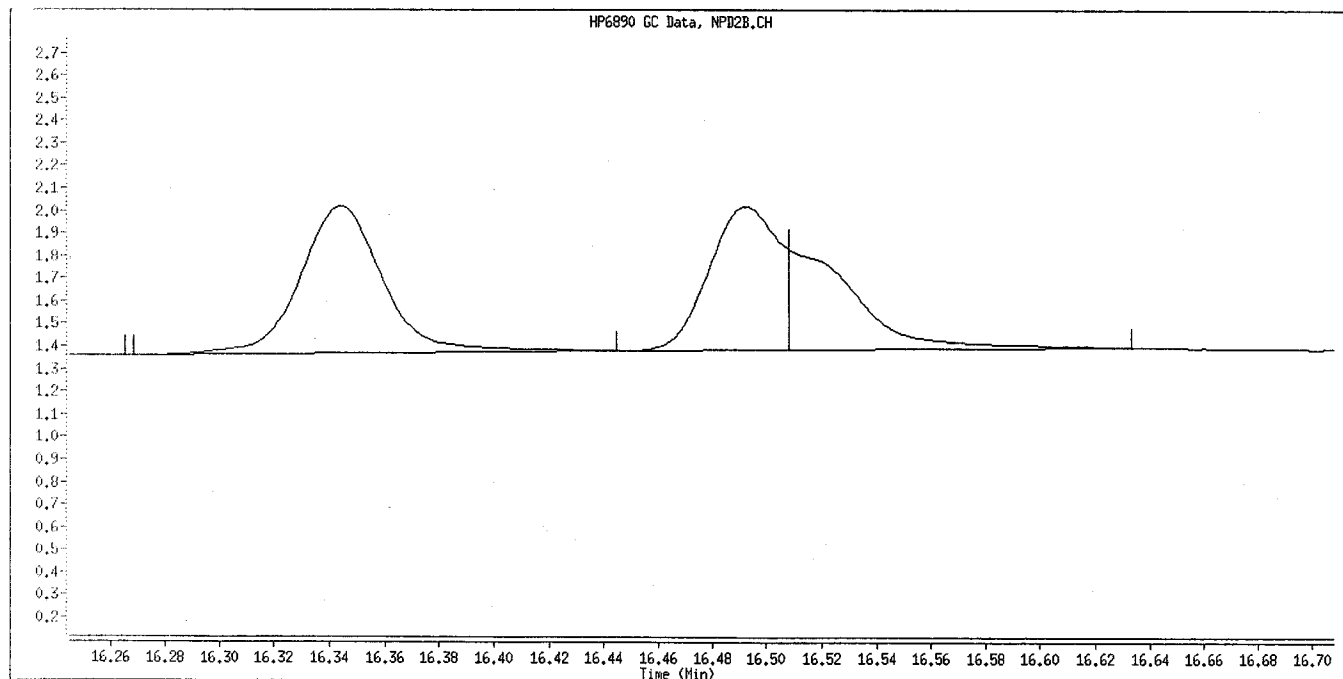
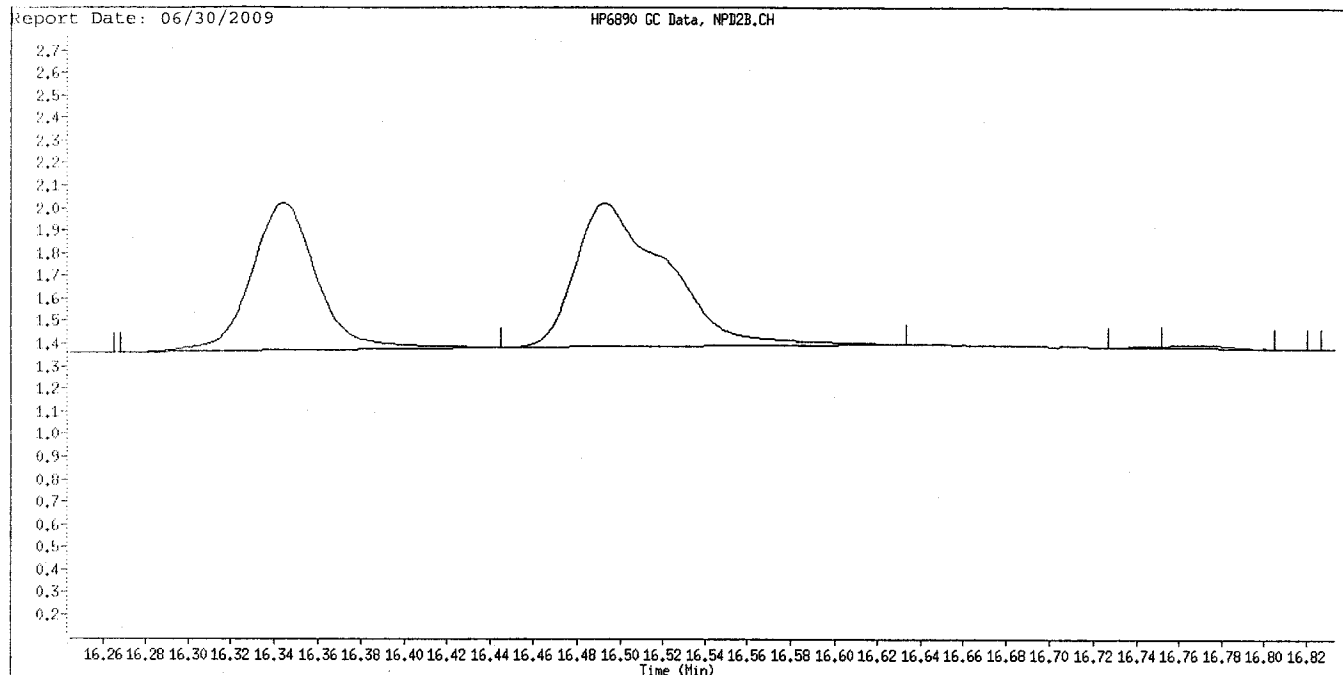
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	77376	38688	154752	110664	43.02
36 TOCP	55298	27649	110596	62152	12.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.11	-0.02
36 TOCP	18.82	18.32	19.32	18.81	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



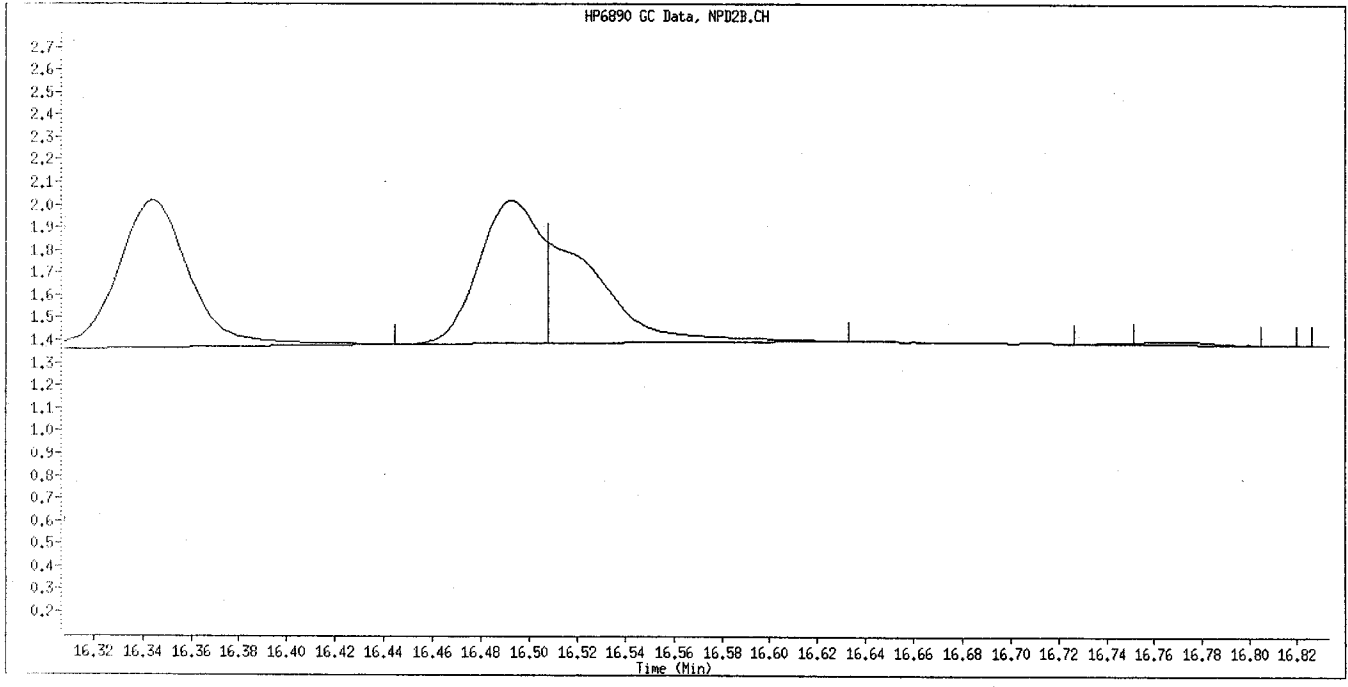
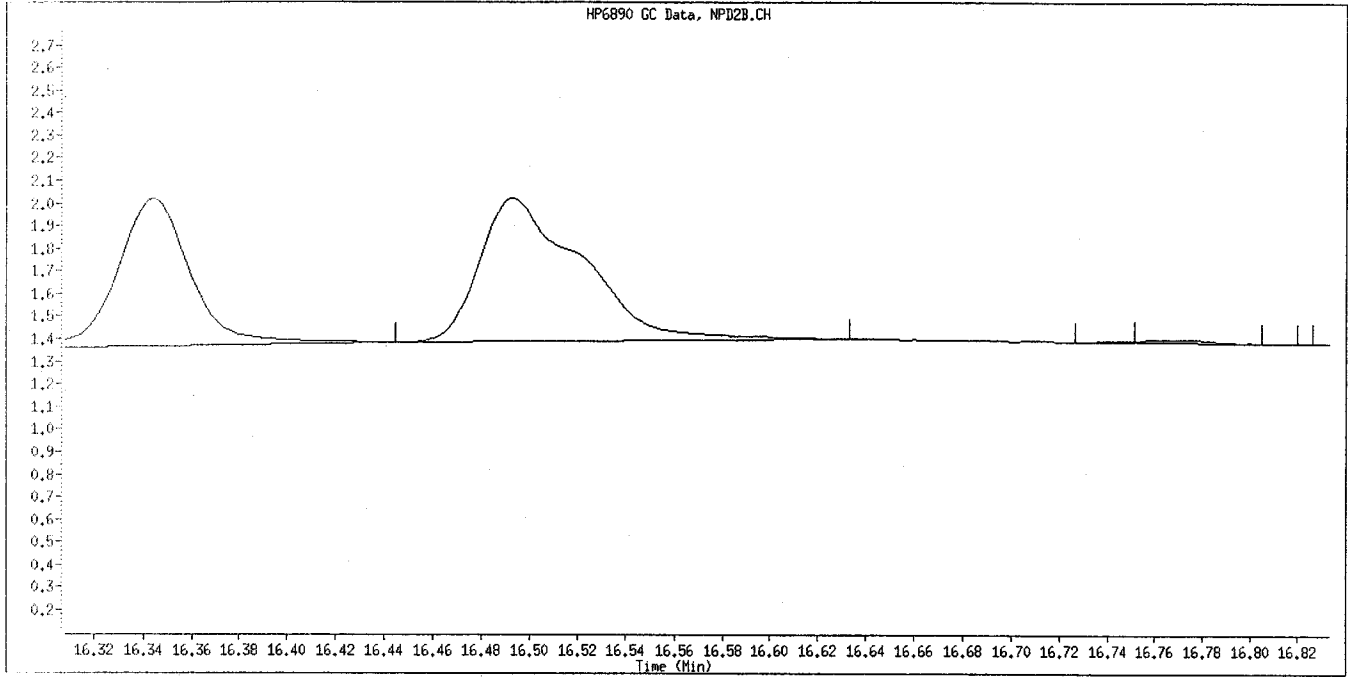
Data File Name: 019F1901.D  
inj. Date and Time: 30-JUN-2009 02:41  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Parathion  
CAS #:



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature:*  
JL  
6/30/09

Data File Name: 019F1901.D  
Inj. Date and Time: 30-JUN-2009 02:41  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
6/30/09



CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.8218	5.9	15.0
2 Dichlorvos	3.0000	2.8304	5.7	15.0
3 Mevinphos	3.0000	2.6552	11.5	15.0
4 Chlormefos	3.0000	3.0356	1.2	15.0
5 Thionazin	3.0000	2.8846	3.8	15.0
6 Demeton-O	0.9750	1.1089	13.7	15.0
7 Ethoprop	3.0000	3.2239	7.5	15.0
8 Naled	3.0000	1.8139	39.5	15.0
9 Sulfotepp	3.0000	3.0130	0.4	15.0
10 Phorate	3.0000	3.0193	0.6	15.0
11 Dimethoate	3.0000	2.9893	0.4	15.0
12 Demeton-S	2.0400	2.1060	3.2	15.0
13 Simazine	3.0000	3.4001	13.3	15.0
14 Atrazine	3.0000	3.2309	7.7	15.0
15 propazine	3.0000	3.0091	0.3	15.0
17 Disulfoton	3.0000	2.7422	8.6	15.0
16 Diazinon	3.0000	3.1584	5.3	15.0
18 Methyl Parathion	3.0000	3.0137	0.5	15.0
19 Ronnel	3.0000	2.9565	1.4	15.0
20 Malathion	3.0000	2.8366	5.4	15.0
21 Fenthion	3.0000	2.8471	5.1	15.0
22 Parathion	3.0000	2.9564	1.5	15.0
23 Chlorpyrifos	3.0000	3.0022	0.1	15.0
24 Trichloronate	3.0000	3.1508	5.0	15.0
25 Anilazine	3.0000	2.1130	29.6	15.0
148 Merphos-A (Merphos)	3.0000	2.6447	11.8	999.0
26 Tetrachlorvinphos (Stirophos)	3.0000	2.4443	18.5	15.0
28 Tokuthion	3.0000	3.1390	4.6	15.0
149 Merphos-B (Merphos Oxone)	3.0000	4.6954	56.5	999.0
29 Carbophenothion-methyl	3.0000	2.9046	3.2	15.0
29 Fensulfothion	3.0000	2.8499	5.0	15.0
30 Bolstar / Famphur	6.0000	5.6912	5.1	15.0
32 Carbophenothion	3.0000	2.8072	6.4	15.0
31 Triphenyl phosphate	3.0000	3.0801	2.7	15.0
34 Phosmet	3.0000	2.6152	12.8	15.0
32 EPN	3.0000	2.8279	5.7	15.0
33 Azinphos-methyl	3.0000	2.6249	12.5	15.0
35 Azinphos-ethyl	3.0000	2.8450	5.2	15.0
36 Coumaphos	3.0000	2.8862	3.8	15.0

Data File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\039F3901.D  
Report Date: 06/30/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	3.0000	3.0951	3.2	15.0
40 Total Demeton	3.0000	3.2150	7.2	15.0

Average %D = 8.33

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\039F3901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 11:49  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 39 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.281	3.254	(0.184)	303682	3.00000	2.822
2 Dichlorvos	4.083	4.074	(0.229)	189151	3.00000	2.830
3 Mevinphos	5.736	5.739	(0.322)	97473	3.00000	2.655
4 Chlormefos	5.838	5.836	(0.327)	254040	3.00000	3.036
5 Thionazin	7.506	7.507	(0.421)	220309	3.00000	2.885
6 Demeton-O	7.646	7.649	(0.429)	80536	0.97500	1.109
7 Ethoprop	7.845	7.852	(0.440)	215766	3.00000	3.224
8 Naled	8.055	8.057	(0.451)	29336	3.00000	1.814
9 Tributylphosphate	8.093	8.135	(1.000)	150474	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	286869	3.00000	3.013
11 Phorate	8.531	8.532	(0.478)	209273	3.00000	3.019
12 Dimethoate	8.653	8.659	(0.485)	240687	3.00000	2.989
13 Demeton-S	8.833	8.846	(0.495)	122960	2.04000	2.106
14 Simazine	8.918	8.924	(0.500)	92753	3.00000	3.400
15 Atrazine	9.086	9.094	(0.509)	100869	3.00000	3.231
16 propazine	9.231	9.241	(0.517)	86681	3.00000	3.009
17 Disulfoton	9.868	9.869	(0.553)	128421	3.00000	2.742
18 Diazinon	9.898	9.902	(0.555)	235156	3.00000	3.158
19 Methyl Parathion	10.715	10.717	(0.601)	142302	3.00000	3.014
20 Ronnel	11.240	11.241	(0.630)	144306	3.00000	2.956
21 Malathion	11.798	11.804	(0.661)	125783	3.00000	2.836
22 Fenthion	11.930	11.932	(0.669)	136656	3.00000	2.847
23 Parathion	12.018	12.019	(0.674)	151023	3.00000	2.956
24 Chlorpyrifos	12.065	12.067	(0.676)	185547	3.00000	3.002
25 Trichloronate	12.495	12.496	(0.700)	174037	3.00000	3.151
26 Anilazine	12.816	12.817	(0.718)	9824	3.00000	2.113
27 Merphos-A (Merphos)	13.195	13.199	(0.739)	121883	3.00000	2.645
28 Tetrachlorvinphos (Stirophos)	13.815	13.824	(0.774)	74867	3.00000	2.444
29 Tokuthion	14.446	14.449	(0.810)	166210	3.00000	3.139
30 Merphos-B (Merphos Oxone)	14.643	14.651	(0.821)	58263	3.00000	4.695
31 Carbophenothion-methyl	15.235	15.239	(0.854)	117822	3.00000	2.905
32 Fensulfothion	15.358	15.361	(0.861)	124967	3.00000	2.850
33 Bolstar / Famphur	16.050	16.053	(0.899)	288294	6.00000	5.691

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.195	16.197	(0.908)	142661	3.00000	2.807
S 35 Triphenyl phosphate	16.710	16.712	(0.936)	118951	3.00000	3.080 (A)
36 Phosmet	16.963	16.963	(0.951)	113755	3.00000	2.615
37 EPN	17.150	17.151	(0.961)	118279	3.00000	2.828
38 Azinphos-methyl	17.480	17.480	(0.980)	121668	3.00000	2.625
* 39 TOCP	17.843	17.846	(1.000)	76386	2.00000	
40 Azinphos-ethyl	17.925	17.926	(1.005)	144486	3.00000	2.845
41 Coumaphos	18.365	18.366	(1.029)	107900	3.00000	2.886
S 42 Merphos				180146	3.00000	3.095
M 43 Total Demeton				203496	3.00000	3.215

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

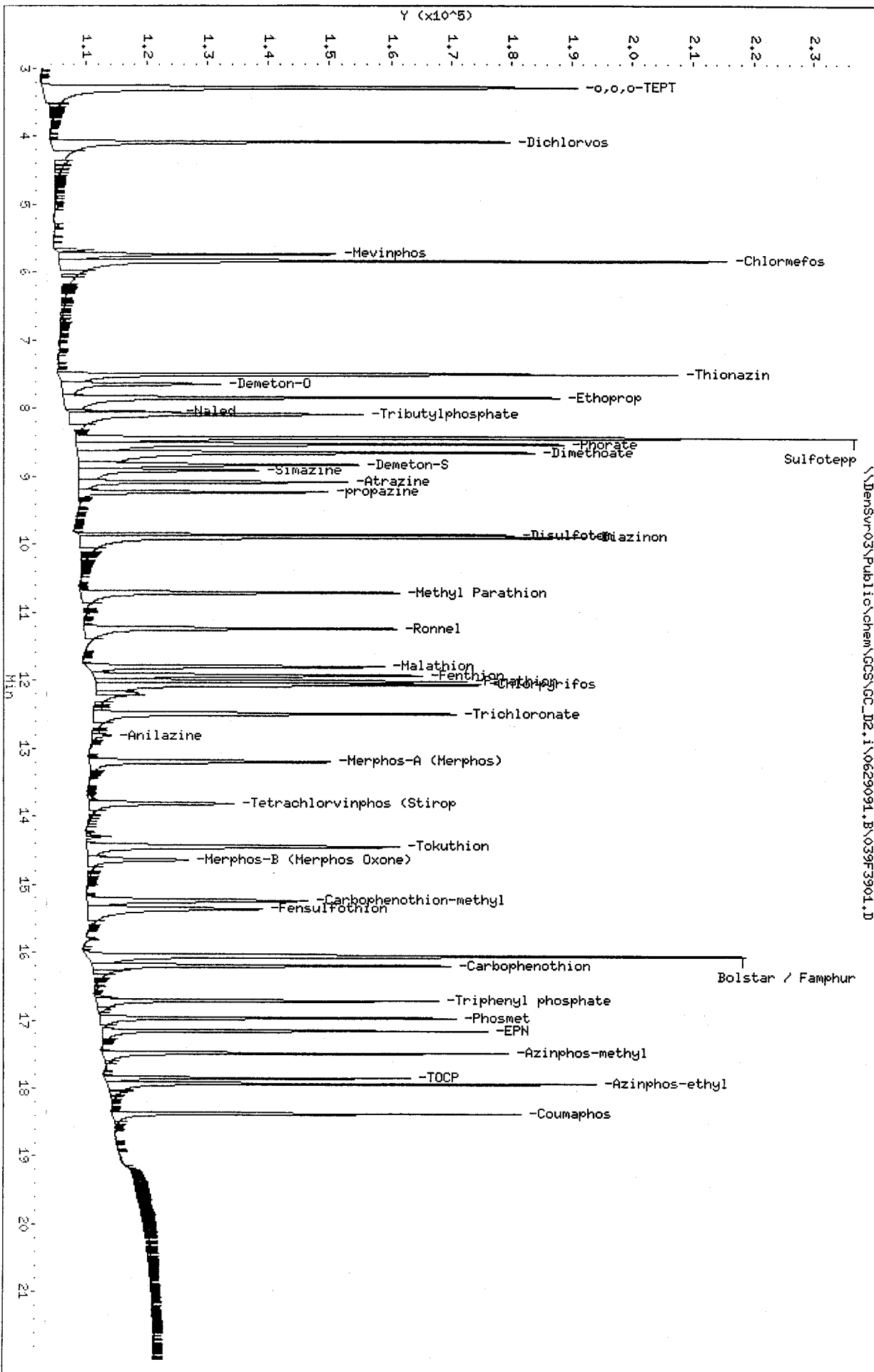
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	150474	6.26
39 TOCP	76317	38159	152634	76386	0.09

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.09	-0.21
39 TOCP	17.84	17.34	18.34	17.84	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densur-03\Public\chem\GCS\GC\_D2.i\0629091.B\039F3901.D  
 Date : 30-JUN-2009 11:49  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTX-1MS

Instrument: GC\_D2.i  
 Operator: HPK/TLW  
 Column diameter: 0.32



CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
 Lab Sample ID: OPP L5 GSV0635  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	3.0000	2.8166	6.1	15.0
2 Dichlorvos	3.0000	2.8245	5.8	15.0
3 Chlormefos	3.0000	3.2183	7.3	15.0
4 Mevinphos	3.0000	2.9838	0.5	15.0
5 Demeton-O	0.9750	0.9758	0.1	15.0
6 Thionazin	3.0000	2.8054	6.5	15.0
7 Ethoprop	3.0000	2.8590	4.7	15.0
8 Phorate	3.0000	3.1654	5.5	15.0
10 Naled	3.0000	2.2828	23.9	15.0
146 Sulfotepp	3.0000	2.8627	4.6	15.0
10 Simazine	3.0000	2.9076	3.1	15.0
12 Diazinon	3.0000	2.8253	5.8	15.0
150 Atrazine	3.0000	2.9267	2.4	15.0
13 Propazine	3.0000	2.8284	5.7	15.0
14 Disulfoton	3.0000	2.9455	1.8	15.0
15 Demeton-S	2.0400	1.8853	7.6	15.0
16 Dimethoate	3.0000	2.8716	4.3	15.0
17 Ronnel	3.0000	2.7428	8.6	15.0
148 Merphos-A (Merphos)	3.0000	2.4110	19.6	999.0
18 Chlorpyrifos	3.0000	3.1163	3.9	15.0
19 Fenthion	3.0000	2.9120	2.9	15.0
20 Trichloronate	3.0000	3.3902	13.0	15.0
21 Anilazine	3.0000	1.7240	42.5	15.0
23 Methyl Parathion	3.0000	2.8664	4.5	15.0
24 Malathion	3.0000	2.7318	8.9	15.0
25 Tokuthion	3.0000	2.9114	3.0	15.0
26 Parathion	3.0000	2.9008	3.3	15.0
149 Merphos-B (Merphos Oxone)	3.0000	3.5874	19.6	999.0
27 Tetrachlorvinphos (stirophos)	3.0000	2.6695	11.0	15.0
28 Carbophenothion methyl	3.0000	3.0681	2.3	15.0
28 Bolstar	3.0000	3.0614	2.0	15.0
30 Carbophenothion	3.0000	3.3384	11.3	15.0
29 Triphenyl phosphate	3.0000	2.8735	4.2	15.0
30 Fensulfothion	3.0000	2.9476	1.7	15.0
35 Phosmet / EPN	6.0000	5.6693	5.5	15.0
33 Famphur	3.0000	3.0504	1.7	15.0
34 Azinphos-methyl	3.0000	2.9582	1.4	15.0
35 Azinphos-ethyl	3.0000	2.9123	2.9	15.0
36 Coumaphos	3.0000	2.9494	1.7	15.0

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC D2.i  
Lab File ID: 039F3901.D  
Analysis Type: NONE

Injection Date: 30-JUN-2009 11:49  
Lab Sample ID: OPP L5 GSV0635  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	3.0000	2.8269	5.8	15.0
40 Total Demeton	3.0000	2.8612	4.6	15.0

Average %D = 6.87



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\039F3901.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 30-JUN-2009 11:49  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:05 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 39 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.736	4.731	(0.252)	245165	3.00000	2.817
2 Dichlorvos	6.546	6.546	(0.348)	191968	3.00000	2.824
3 Chlormefos	7.383	7.384	(0.392)	220191	3.00000	3.218
4 Mevinphos	9.231	9.234	(0.491)	136606	3.00000	2.984
5 Demeton-O	9.731	9.734	(0.517)	42571	0.97500	0.9758
6 Thionazin	9.981	9.984	(0.530)	192069	3.00000	2.805
7 Ethoprop	10.493	10.499	(0.558)	146259	3.00000	2.859
8 Phorate	10.536	10.539	(0.560)	187787	3.00000	3.165
9 Naled	10.936	10.939	(0.581)	33261	3.00000	2.283
10 Sulfotepp	11.014	11.017	(0.585)	256144	3.00000	2.863 (A)
* 11 Tributylphosphate	11.106	11.116	(1.000)	124508	2.00000	
12 Simazine	11.396	11.399	(0.606)	37261	3.00000	2.908 (A)
13 Diazinon	11.538	11.541	(0.613)	135902	3.00000	2.825
14 Atrazine	11.578	11.584	(0.615)	75601	3.00000	2.927 (A)
15 Propazine	11.743	11.747	(0.624)	63428	3.00000	2.828
16 Disulfoton	12.046	12.049	(0.640)	138988	3.00000	2.946
17 Demeton-S	12.119	12.124	(0.644)	105075	2.04000	1.885
18 Dimethoate	13.278	13.282	(0.706)	181606	3.00000	2.872
19 Ronnel	13.584	13.587	(0.722)	116755	3.00000	2.743
20 Merphos-A (Merphos)	13.684	13.689	(1.232)	108777	3.00000	2.411 (A)
21 Chlorpyrifos	14.406	14.409	(0.766)	134546	3.00000	3.116
22 Fenthion	14.658	14.662	(0.779)	116611	3.00000	2.912
23 Trichloronate	14.706	14.711	(0.782)	192170	3.00000	3.390
24 Anilazine	15.211	15.216	(0.808)	6373	3.00000	1.724
25 Methyl Parathion	15.516	15.519	(0.825)	123922	3.00000	2.866 (A)
26 Malathion	15.721	15.724	(0.836)	110638	3.00000	2.732
27 Tokuthion	16.343	16.344	(0.869)	138056	3.00000	2.911
28 Parathion	16.491	16.494	(0.876)	123577	3.00000	2.901 (M)
29 Merphos-B (Merphos Oxone)	16.511	16.517	(1.487)	49765	3.00000	3.587 (AM)
30 Tetrachlorvinphos (stirophos)	16.974	16.977	(0.902)	73565	3.00000	2.670
31 Carbophenothion methyl	17.079	17.082	(0.908)	121188	3.00000	3.068
32 Bolstar	17.439	17.440	(0.927)	127373	3.00000	3.061
33 Carbophenothion	17.523	17.524	(0.931)	136582	3.00000	3.338 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
S 34 Triphenyl phosphate	18.278	18.281	(0.971)	96470	3.00000	2.873
35 Fensulfothion	18.558	18.559	(0.986)	90861	3.00000	2.948
* 36 TOCP	18.816	18.816	(1.000)	67294	2.00000	
37 Phosmet / EPN	18.911	18.909	(1.005)	194625	6.00000	5.669 (A)
38 Famphur	19.014	19.011	(1.011)	134637	3.00000	3.050
39 Azinphos-methyl	19.153	19.147	(1.018)	119439	3.00000	2.958
40 Azinphos-ethyl	19.371	19.366	(1.029)	111990	3.00000	2.912
41 Coumaphos	20.354	20.347	(1.082)	87203	3.00000	2.949
S 42 Merphos				158542	3.00000	2.827 (A)
M 43 Total Demeton				147646	3.00000	2.861

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 039F3901.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	124508	12.51
36 TOCP	62152	31076	124304	67294	8.27

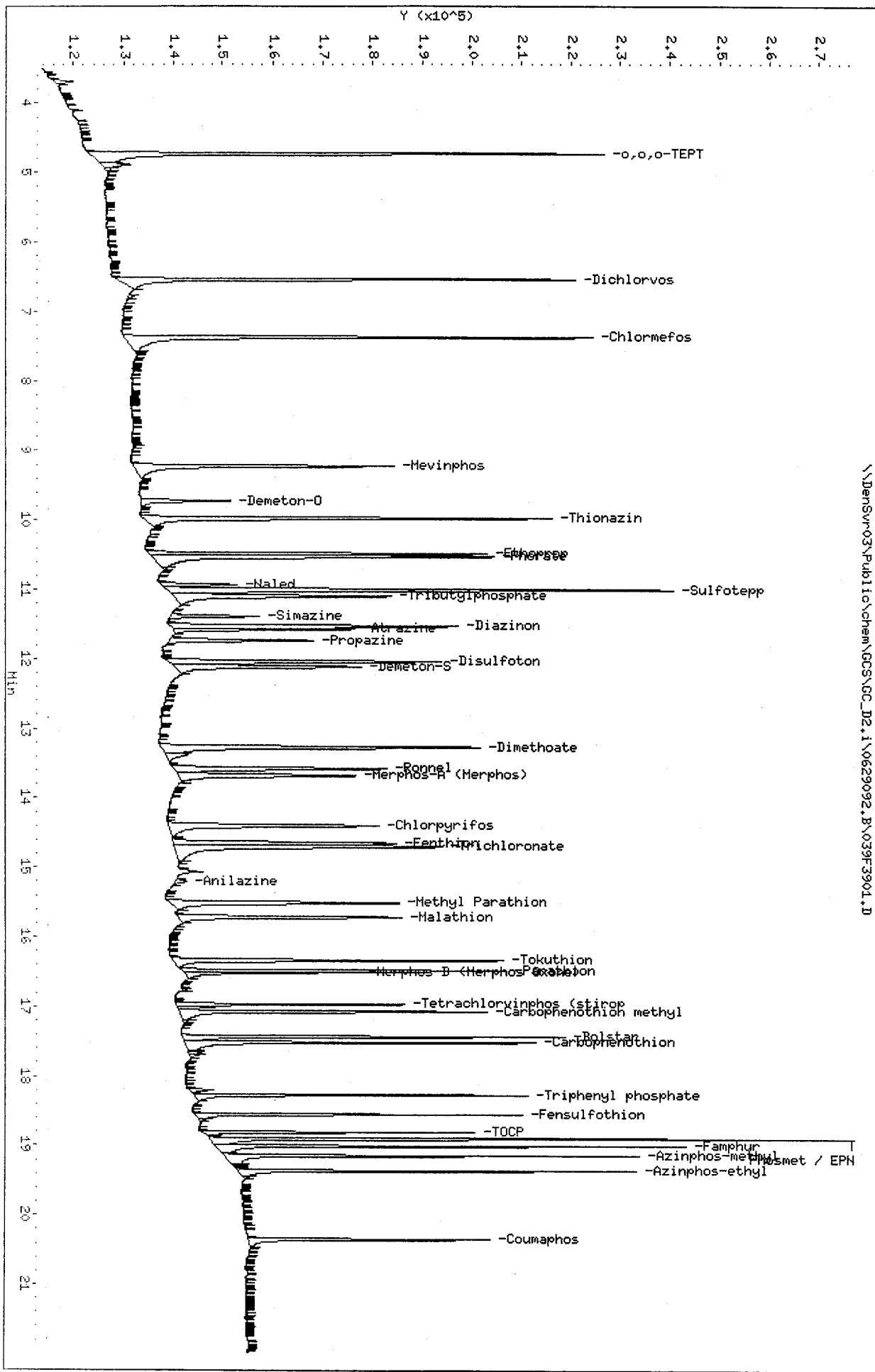
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.11	-0.08
36 TOCP	18.81	18.31	19.31	18.82	0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

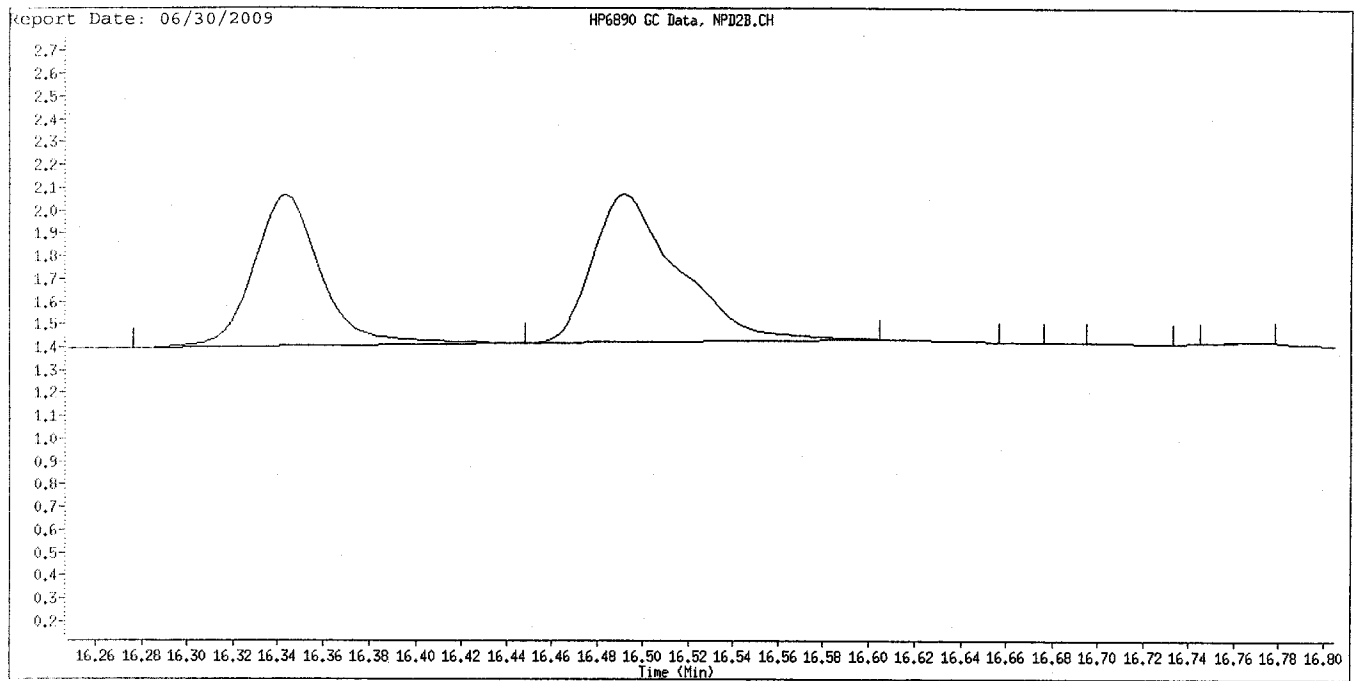
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 Date: 30-JUN-2009 11:49  
 Client ID: OPP L5 GSW0635  
 Sample Info: OPP L5 GSW0635  
 Column phase: RTX-OPPest

Instrument: CC\_D2.1  
 Operator: NPK/TLW  
 Column diameter: 0.32

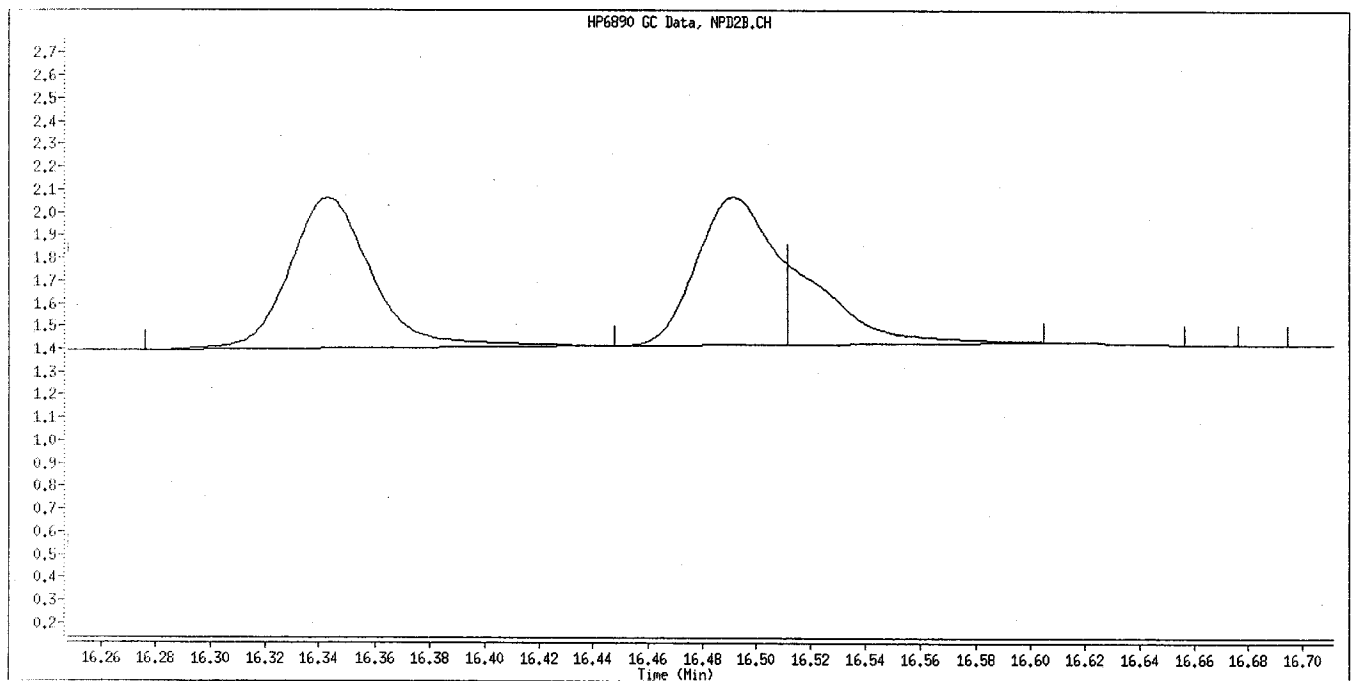
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Data File Name: 039F3901.D  
Inj. Date and Time: 30-JUN-2009 11:49  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Parathion  
CAS #:



Original Integration

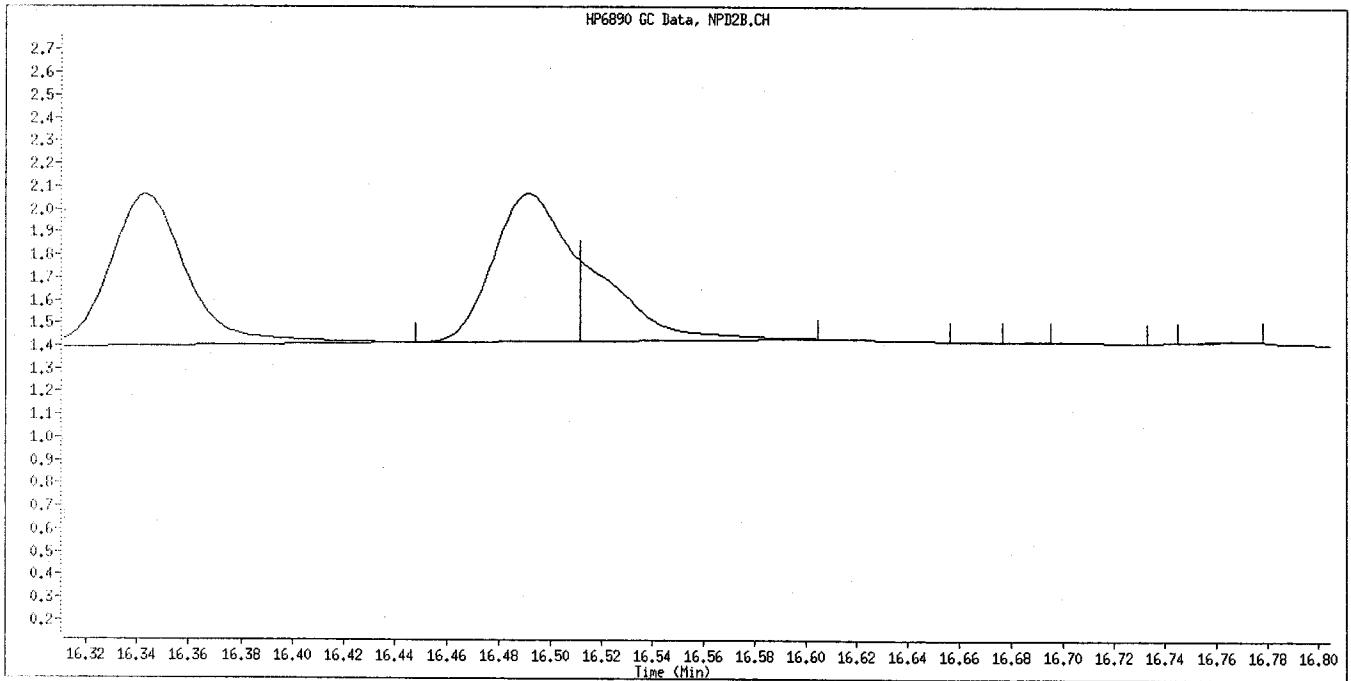
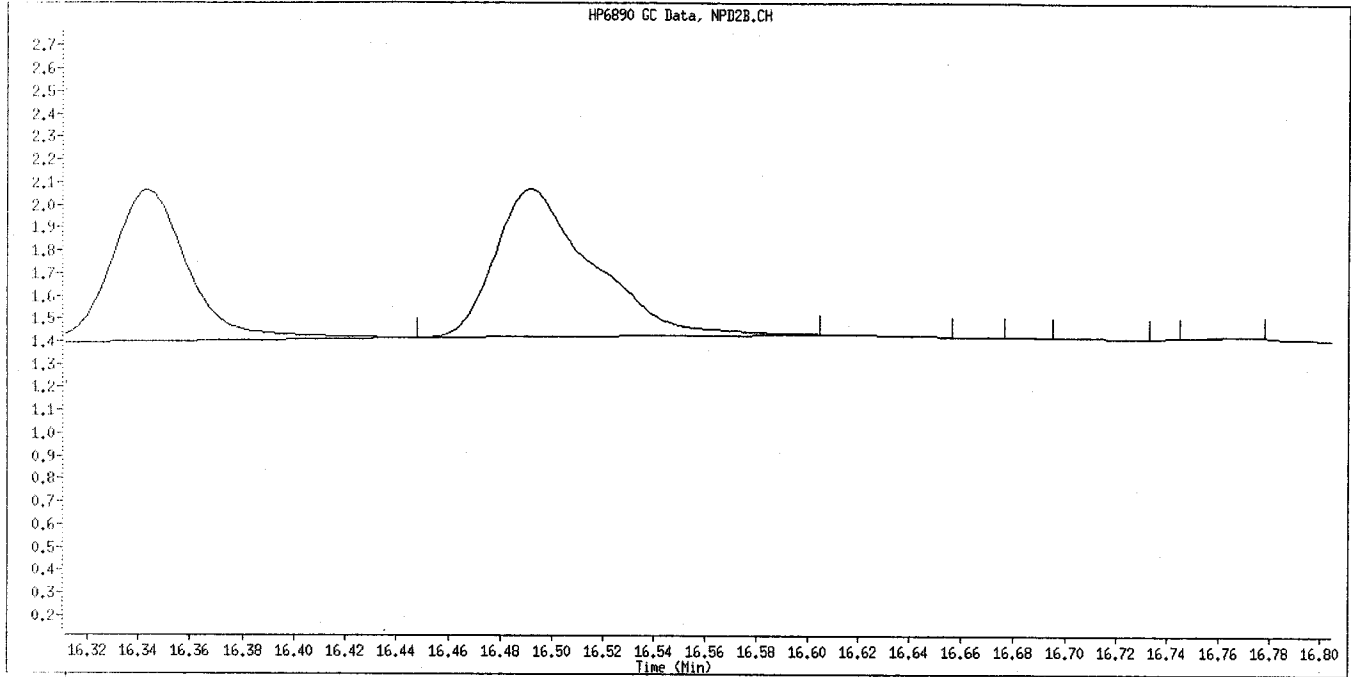


Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*yl*  
6/30/09

Data File Name: 039F3901.D  
Inj. Date and Time: 30-JUN-2009 11:49  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
Jb  
6/30/09

**GC SEMIVOLATILE  
SAMPLE DATA**

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\024F2401.D  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Inj Date : 30-JUN-2009 04:58  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AA,MB  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 24 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
3 Mevinphos						
\$ 4 Chlormefos	5.838	5.836	(0.327)	48945	0.53028	1.060
5 Thionazin						
6 Demeton-O						
7 Ethoprop						
8 Naled	8.048	8.057	(0.451)	75	0.19641	0.3928 <i>not a peak</i>
* 9 Tributylphosphate	8.114	8.135	(1.000)	122925	2.00000	
10 Sulfotepp						
11 Phorate						
12 Dimethoate						
13 Demeton-S						
14 Simazine						
15 Atrazine						
16 propazine						
17 Disulfoton						
18 Diazinon						
19 Methyl Parathion						
20 Ronnel						
21 Malathion						
22 Fenthion						



Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion						
24 Chlorpyrifos	12.064	12.067	(0.676)	95	0.00139	0.002787(a)
25 Trichloronate						
26 Anilazine						
27 Merphos-A (Merphos)	13.236	13.199	(0.742)	75	0.00148	0.002951
28 Tetrachlorvinphos (Stirophos)	13.821	13.824	(0.775)	121	0.00358	0.007164
29 Tokuthion						
30 Merphos-B (Merphos Oxone)	14.651	14.651	(0.821)	122	0.02976	0.05952
31 Carbophenothion-methyl						
32 Fensulfothion						
33 Bolstar / Famphur						
34 Carbophenothion						
\$ 35 Triphenyl phosphate	16.713	16.712	(0.937)	33336	0.78264	1.565
36 Phosmet						
37 EPN						
38 Azinphos-methyl						
* 39 TOCP	17.844	17.846	(1.000)	84248	2.00000	
40 Azinphos-ethyl						
41 Coumaphos						
S 42 Merphos				197	0.00307	0.006138
M 43 Total Demeton						

### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 024F2401.D  
 Lab Smp Id: LFD4W1AA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: BLANK  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	122925	-13.19
39 TOCP	76317	38159	152634	84248	10.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.06
39 TOCP	17.84	17.34	18.34	17.84	0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: BLANK  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	2.000	1.060	53.03	48-114
\$ 35 Triphenyl phosphat	2.000	1.565	78.26	50-150

Data File: \\Densvyr03\Public\chem\GCS\GC\_D2.1\0623091.B\024F2401.D

Date : 30-JUN-2009 04:58

Client ID: BLANK

Sample Info: LFD4M1A8.MB

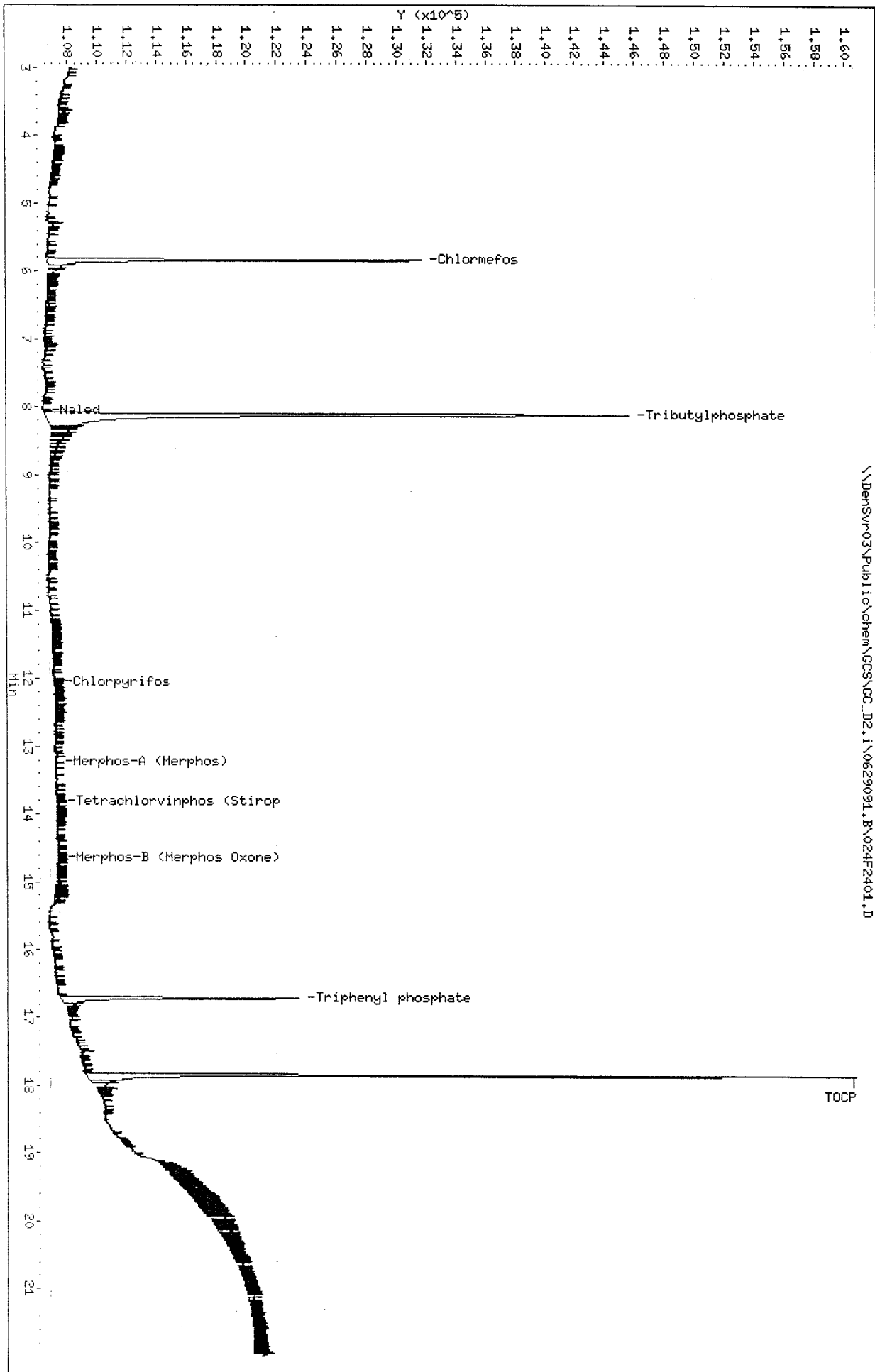
Column phase: RTX-1MS

Instrument: GC\_D2.1

Operator: MPK/TLW

Column diameter: 0.32

\\Densvyr03\Public\chem\GCS\GC\_D2.1\0623091.B\024F2401.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\024F2401.D  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Inj Date : 30-JUN-2009 04:58  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AA,MB  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 24 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
\$ 3 Chlormefos	7.384	7.384	(0.392)	42280	0.59193	1.184
4 Mevinphos						
5 Demeton-O						
6 Thionazin						
7 Ethoprop						
8 Phorate						
9 Naled	10.936	10.939	(0.581)	150	0.27743	0.5549
10 Sulfotepp	11.019	11.017	(0.586)	120	0.00128	0.002569 (aA)
* 11 Tributylphosphate	11.116	11.116	(1.000)	102153	2.00000	
12 Simazine	11.352	11.399	(0.603)	77	0.00576	0.01151 (aA)
13 Diazinon						
14 Atrazine	11.581	11.584	(0.616)	118	0.23644	0.4729 (aA)
15 Propazine						
16 Disulfoton						
17 Demeton-S	12.104	12.124	(0.643)	108	0.12082	0.2416
18 Dimethoate						
19 Ronnel						
20 Merphos-A (Merphos)	13.692	13.689	(1.232)	51	0.00138	0.002756 (aA)
21 Chlorpyrifos						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.681	14.711	(0.780)	96	0.10683	0.2137
24 Anilazine	Compound Not Detected.					
25 Methyl Parathion	Compound Not Detected.					
26 Malathion	15.751	15.724	(0.837)	70	0.00166	0.003311(a)
27 Tokuthion	Compound Not Detected.					
28 Parathion	16.499	16.494	(0.877)	124	0.00279	0.005576(a)
29 Merphos-B (Merphos Oxone)	Compound Not Detected.					
30 Tetrachlorvinphos (stirophos)	Compound Not Detected.					
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	Compound Not Detected.					
33 Carbophenothion	Compound Not Detected.					
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	26301	0.75040	1.501
35 Fensulfothion	Compound Not Detected.					
* 36 TOCP	18.814	18.816	(1.000)	70254	2.00000	
37 Phosmet / EPN	Compound Not Detected.					
38 Famphur	Compound Not Detected.					
39 Azinphos-methyl	Compound Not Detected.					
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	Compound Not Detected.					
S 42 Merphos	Compound Not Detected.					
M 43 Total Demeton				108	0.12082	0.2416

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 024F2401.D  
 Lab Smp Id: LFD4W1AA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: BLANK  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	102153	-7.69
36 TOCP	62152	31076	124304	70254	13.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.12	0.01
36 TOCP	18.81	18.31	19.31	18.81	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AA Client Smp ID: BLANK  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: BLANK  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	2.000	1.184	59.19	48-114
\$ 34 Triphenyl phosphat	2.000	1.501	75.04	50-150



Date : 30-JUN-2009 04:58

Client ID: BLANK

Sample Info: LFD4M1A9.MB

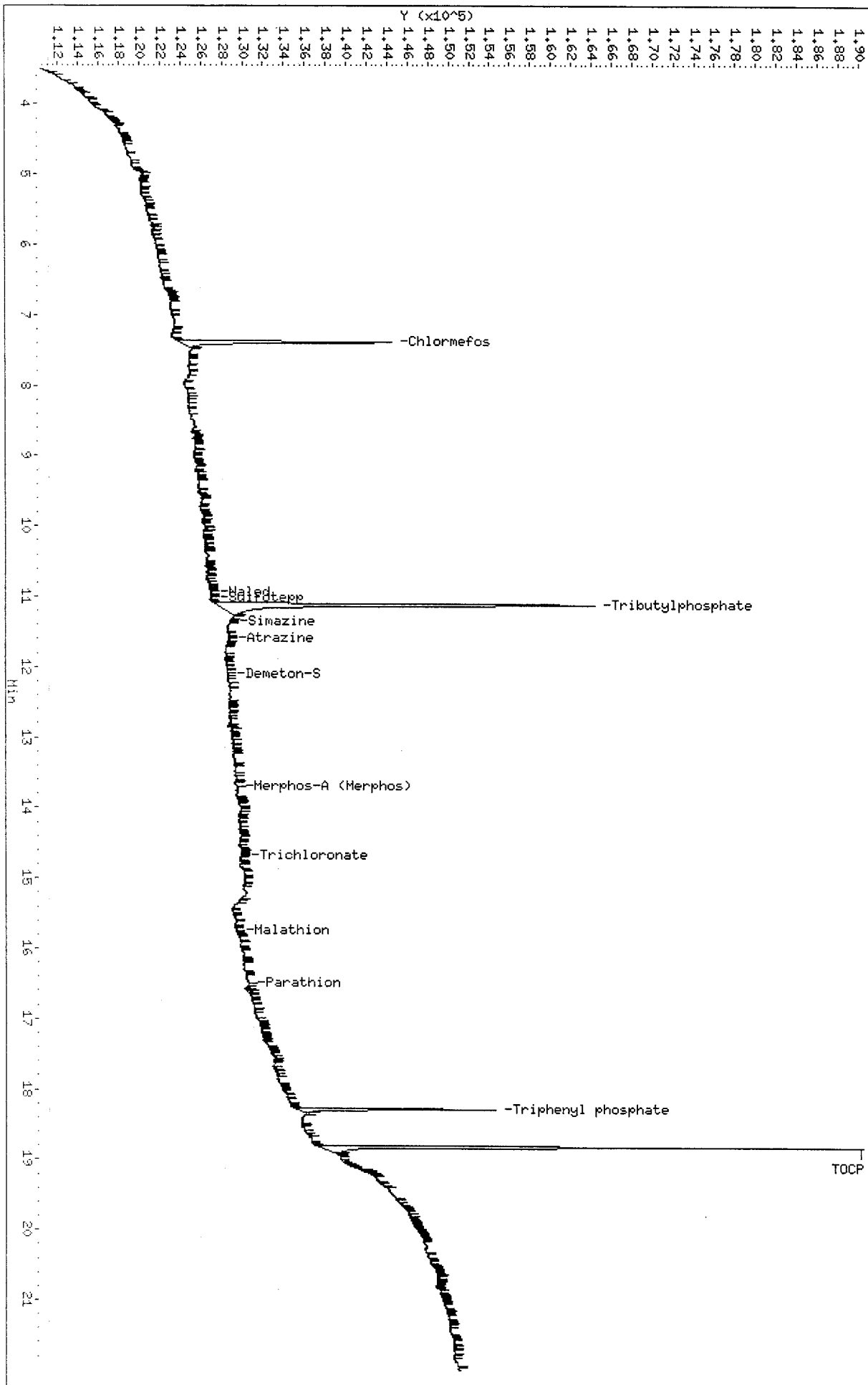
Column phase: RTX-OPPest

Instrument: GC\_D2.i

Operator: NPK/TLM

Column diameter: 0.32

\\Densysr03\Public\chem\GCS\GC\_D2.i\0629092.B\024F2401.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\025F2501.D  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Inj Date : 30-JUN-2009 05:26  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AC,LCS  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 25 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT	3.283	3.254	(0.184)	138523	1.15632	2.313
2 Dichlorvos	4.090	4.074	(0.229)	116083	1.56046	3.121
3 Mevinphos	5.747	5.739	(0.322)	54068	1.32312	2.646
\$ 4 Chlormefos	5.837	5.836	(0.327)	67783	0.72763	1.455
5 Thionazin	7.508	7.507	(0.421)	140540	1.65313	3.306
6 Demeton-O	7.648	7.649	(0.429)	36990	0.44243	0.8849 (R)
7 Ethoprop	7.852	7.852	(0.440)	128464	1.72434	3.449
8 Naled	8.058	8.057	(0.452)	13245	0.85021	1.700
* 9 Tributylphosphate	8.110	8.135	(1.000)	139396	2.00000	
10 Sulfotepp	8.440	8.442	(0.473)	158318	1.45884	2.918
11 Phorate	8.530	8.532	(0.478)	119956	1.55476	3.110
12 Dimethoate	8.657	8.659	(0.485)	142057	1.58498	3.170
13 Demeton-S	8.840	8.846	(0.495)	13483	0.20746	0.4149 (R)
14 Simazine	8.920	8.924	(0.500)	49547	1.67315	3.346
15 Atrazine	9.088	9.094	(0.509)	54035	1.55484	3.110
16 propazine	9.235	9.241	(0.518)	50946	1.58878	3.178
17 Disulfoton	9.867	9.869	(0.553)	61203	1.15200	2.304
18 Diazinon	9.902	9.902	(0.555)	145502	1.75560	3.511
19 Methyl Parathion	10.715	10.717	(0.601)	86433	1.64444	3.289
20 Ronnel	11.240	11.241	(0.630)	80696	1.48524	2.970
21 Malathion	11.800	11.804	(0.661)	68038	1.35714	2.714
22 Fenthion	11.930	11.932	(0.669)	84464	1.58085	3.162

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion	12.017	12.019	(0.673)	99182	1.74423	3.488
24 Chlorpyrifos	12.067	12.067	(0.676)	109317	1.58900	3.178
25 Trichloronate	12.493	12.496	(0.700)	81279	1.32190	2.644
26 Anilazine	12.815	12.817	(0.718)	9566	1.88507	3.770
27 Merphos-A (Merphos)	13.192	13.199	(0.739)	53	0.00103	0.002066
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	52138	1.52922	3.058
29 Tokuthion	14.448	14.449	(0.810)	95769	1.62481	3.250
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	102981	7.44341	14.89(A)
31 Carbophenothion-methyl	Compound Not Detected.					
32 Fensulfothion	15.362	15.361	(0.861)	71787	1.51647	3.033
33 Bolstar / Famphur	16.050	16.053	(0.899)	181269	3.21468	6.429
34 Carbophenothion	16.193	16.197	(0.908)	88279	1.56054	3.121
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	32919	0.76575	1.531
36 Phosmet	16.962	16.963	(0.951)	63736	1.31632	2.633
37 EPN	17.148	17.151	(0.961)	73272	1.59553	3.191
38 Azinphos-methyl	17.478	17.480	(0.980)	81177	1.57333	3.147
* 39 TOCP	17.843	17.846	(1.000)	85029	2.00000	
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	18.365	18.366	(1.029)	69555	1.67140	3.343
S 42 Merphos				103034	1.59029	3.180
M 43 Total Demeton				50473	0.64989	1.300(R)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 025F2501.D  
 Lab Smp Id: LFD4W1AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: LCS  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	139396	-1.56
39 TOCP	76317	38159	152634	85029	11.42

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.01
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCS  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 o,o,o-TEPT	4.000	2.313	57.82	36-119
2 Dichlorvos	4.000	3.121	78.02	50-120
3 Mevinphos	4.000	2.646	66.16	35-108
\$ 4 Chlormefos	2.000	1.455	72.76	48-114
5 Thionazin	4.000	3.306	82.66	65-116
6 Demeton-O	2.792	0.8849	31.69*	36-119
7 Ethoprop	4.000	3.449	86.22	65-108
8 Naled	4.000	1.700	42.51	36-119
10 Sulfotepp	4.000	2.918	72.94	69-103
11 Phorate	4.000	3.110	77.74	62-104
12 Dimethoate	4.000	3.170	79.25	28-115
13 Demeton-S	1.208	0.4149	34.35*	36-119
14 Simazine	4.000	3.346	83.66	47-109
15 Atrazine	4.000	3.110	77.74	36-119
16 propazine	4.000	3.178	79.44	36-119
18 Diazinon	4.000	3.511	87.78	36-119
17 Disulfoton	4.000	2.304	57.60	36-119
19 Methyl Parathion	4.000	3.289	82.22	68-119
20 Ronnel	4.000	2.970	74.26	62-115
21 Malathion	4.000	2.714	67.86	67-115
22 Fenthion	4.000	3.162	79.04	36-119
23 Parathion	4.000	3.488	87.21	36-119
24 Chlorpyrifos	4.000	3.178	79.45	36-119
25 Trichloronate	4.000	2.644	66.10	36-119
26 Anilazine	4.000	3.770	94.25	47-115
S 42 Merphos	4.000	3.180	79.51	36-119
28 Tetrachlorvinphos	4.000	3.058	76.46	36-119
29 Tokuthion	4.000	3.250	81.24	36-119
31 Carbophenothion-m	4.000	0.0000	*	36-119
32 Fensulfothion	4.000	3.033	75.82	61-115
33 Bolstar / Famphur	8.000	6.429	80.37	36-119
34 Carbophenothion	4.000	3.121	78.03	36-119
\$ 35 Triphenyl phosphat	2.000	1.531	76.57	50-150
36 Phosmet	4.000	2.633	65.82	36-119
37 EPN	4.000	3.191	79.78	36-119
38 Azinphos-methyl	4.000	3.147	78.67	55-115
40 Azinphos-ethyl	4.000	0.0000	*	36-119
41 Coumaphos	4.000	3.343	83.57	62-115
M 43 Total Demeton	4.000	1.300	32.49*	47-115

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RECOVERY REPORT

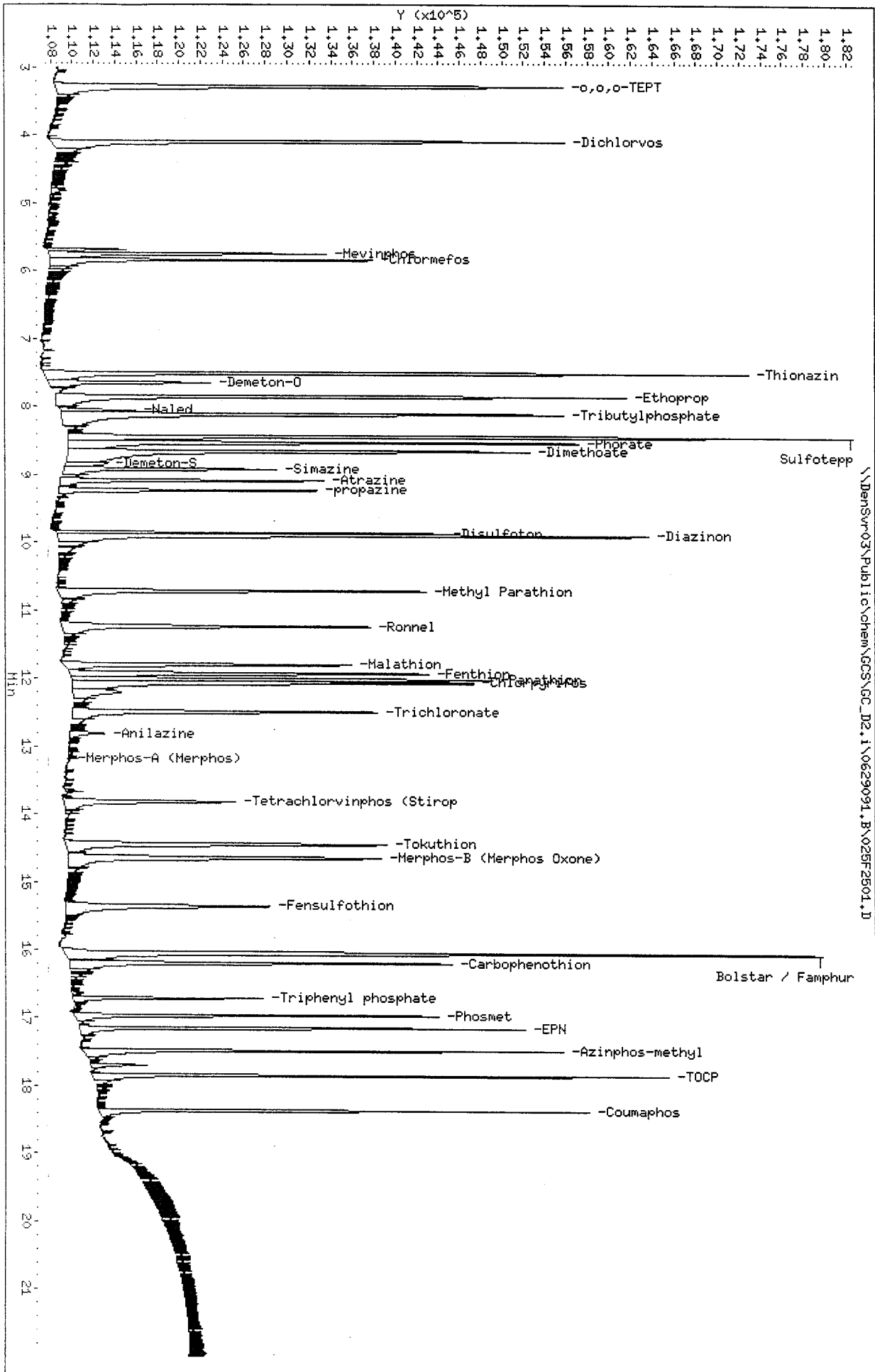
Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCS  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	2.000	1.455	72.76	48-114
\$ 35 Triphenyl phosphat	2.000	1.531	76.57	50-150

Data File: \\Densvr03\Public\chem\GCS\GC\_D2.1\0629091.B\025F2501.D  
 Date : 30-JUN-2009 05:26  
 Client ID: LCS  
 Sample Info: LFD4M4C.LCS  
 Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: NPK/TLW  
 Column diameter: 0.32

\\Densvr03\Public\chem\GCS\GC\_D2.1\0629091.B\025F2501.D



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Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\025F2501.D  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Inj Date : 30-JUN-2009 05:26  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AC,LCS  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 25 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT	4.736	4.731 (0.252)		104457	1.19467	2.389
2 Dichlorvos	6.548	6.546 (0.348)		112676	1.65037	3.301
S 3 Chlormefos	7.383	7.384 (0.392)		46525	0.67694	1.354
4 Mevinphos	9.233	9.234 (0.491)		68670	1.49315	2.986
5 Demeton-O	9.733	9.734 (0.517)		21426	0.48891	0.9778 (R)
6 Thionazin	9.983	9.984 (0.531)		120494	1.75201	3.504
7 Ethoprop	10.498	10.499 (0.558)		88246	1.71718	3.434
8 Phorate	10.535	10.539 (0.560)		88901	1.49179	2.984
9 Naled	10.940	10.939 (0.581)		12202	1.00429	2.008
10 Sulfotepp	11.015	11.017 (0.585)		130898	1.45635	2.913 (A)
* 11 Tributylphosphate	11.113	11.116 (1.000)		118388	2.00000	
12 Simazine	11.398	11.399 (0.606)		28332	2.20088	4.402 (A)
13 Diazinon	11.538	11.541 (0.613)		91373	1.90066	3.801
14 Atrazine	11.580	11.584 (0.615)		45757	1.85573	3.711 (A)
15 Propazine	11.743	11.747 (0.624)		38062	1.71304	3.426
16 Disulfoton	12.048	12.049 (0.640)		64593	1.36272	2.725
17 Demeton-S	Compound Not Detected.					
18 Dimethoate	13.280	13.282 (0.706)		99039	1.55898	3.118
19 Ronnel	13.585	13.587 (0.722)		68431	1.60033	3.201
20 Merphos-A (Merphos)	13.720	13.689 (1.235)		187	0.00436	0.008718 (aA)
21 Chlorpyrifos	14.406	14.409 (0.766)		75604	1.74318	3.486
22 Penthion	14.661	14.662 (0.779)		72514	1.80263	3.605



Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.706	14.711	(0.782)	74495	1.37294	2.746
24 Anilazine	15.213	15.216	(0.809)	7337	1.97603	3.952
25 Methyl Parathion	15.516	15.519	(0.825)	76857	1.76973	3.539
26 Malathion	15.721	15.724	(0.836)	57870	1.42242	2.845
27 Tokuthion	16.343	16.344	(0.869)	73500	1.54299	3.086
28 Parathion	16.493	16.494	(0.877)	73320	1.71334	3.427
29 Merphos-B (Merphos Oxone)	16.520	16.517	(1.486)	83434	6.40430	12.81 (A)
30 Tetrachlorvinphos (stirophos)	16.975	16.977	(0.902)	48611	1.75603	3.512
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	17.440	17.440	(0.927)	73422	1.75672	3.513
33 Carbophenothion	17.521	17.524	(0.931)	71491	1.73953	3.479 (A)
\$ 34 Triphenyl phosphate	18.278	18.281	(0.971)	30050	0.89104	1.782
35 Fensulfothion	18.558	18.559	(0.986)	61930	1.99997	4.000
* 36 TOCP	18.815	18.816	(1.000)	67599	2.00000	
37 Phosmet / EPN	18.906	18.909	(1.005)	108511	3.10866	6.217
38 Famphur	19.008	19.011	(1.010)	69120	1.55895	3.118
39 Azinphos-methyl	19.143	19.147	(1.017)	62082	1.53066	3.061
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	20.343	20.347	(1.081)	54198	1.82485	3.650
S 42 Merphos				83621	1.48429	2.968
M 43 Total Demeton				21426	0.48891	0.9778 (R)

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 025F2501.D  
 Lab Smp Id: LFD4W1AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: LCS  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	118388	6.98
36 TOCP	62152	31076	124304	67599	8.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.11	-0.01
36 TOCP	18.81	18.31	19.31	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCS  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	1 o,o,o-TEPT	4.000	2.389	59.73	36-119
	2 Dichlorvos	4.000	3.301	82.52	50-120
\$	3 Chlormefos	2.000	1.354	67.69	58-114
	4 Mevinphos	4.000	2.986	74.66	35-108
	5 Demeton-O	2.800	0.9778	34.92*	36-119
	6 Thionazin	4.000	3.504	87.60	65-116
	7 Ethoprop	4.000	3.434	85.86	36-119
	8 Phorate	4.000	2.984	74.59	36-119
	9 Naled	4.000	2.008	50.21	36-119
	10 Sulfotepp	4.000	2.913	72.82	36-119
	12 Simazine	4.000	4.402	110.04	36-119
	13 Diazinon	4.000	3.801	95.03	36-119
	14 Atrazine	4.000	3.711	92.79	36-119
	15 Propazine	4.000	3.426	85.65	36-119
	16 Disulfoton	4.000	2.725	68.14	61-103
	17 Demeton-S	1.200	0.0000	*	36-119
	18 Dimethoate	4.000	3.118	77.95	28-82
	19 Ronnel	4.000	3.201	80.02	62-99
	21 Chlorpyrifos	4.000	3.486	87.16	66-101
	22 Fenthion	4.000	3.605	90.13	36-119
	23 Trichloronate	4.000	2.746	68.65	36-119
	24 Anilazine	4.000	3.952	98.80	36-119
	25 Methyl Parathion	4.000	3.539	88.49	36-119
	26 Malathion	4.000	2.845	71.12	36-119
	27 Tokuthion	4.000	3.086	77.15	36-119
	28 Parathion	4.000	3.427	85.67	36-119
	30 Tetrachlorvinphos	4.000	3.512	87.80	36-119
	31 Carbophenothion m	4.000	0.0000	*	36-119
	32 Bolstar	4.000	3.513	87.84	36-119
	33 Carbophenothion	4.000	3.479	86.98	36-119
\$	34 Triphenyl phosphat	2.000	1.782	89.10	36-119
	35 Fensulfothion	4.000	4.000	100.00	20-105
	37 Phosmet / EPN	8.000	6.217	77.72	36-119
	38 Famphur	4.000	3.118	77.95	61-108
	39 Azinphos-methyl	4.000	3.061	76.53	55-103
	40 Azinphos-ethyl	4.000	0.0000	*	36-119
	41 Coumaphos	4.000	3.650	91.24	36-119
S	42 Merphos	4.000	2.968	74.21	36-119
M	43 Total Demeton	4.000	0.9778	24.45*	47-100

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RECOVERY REPORT

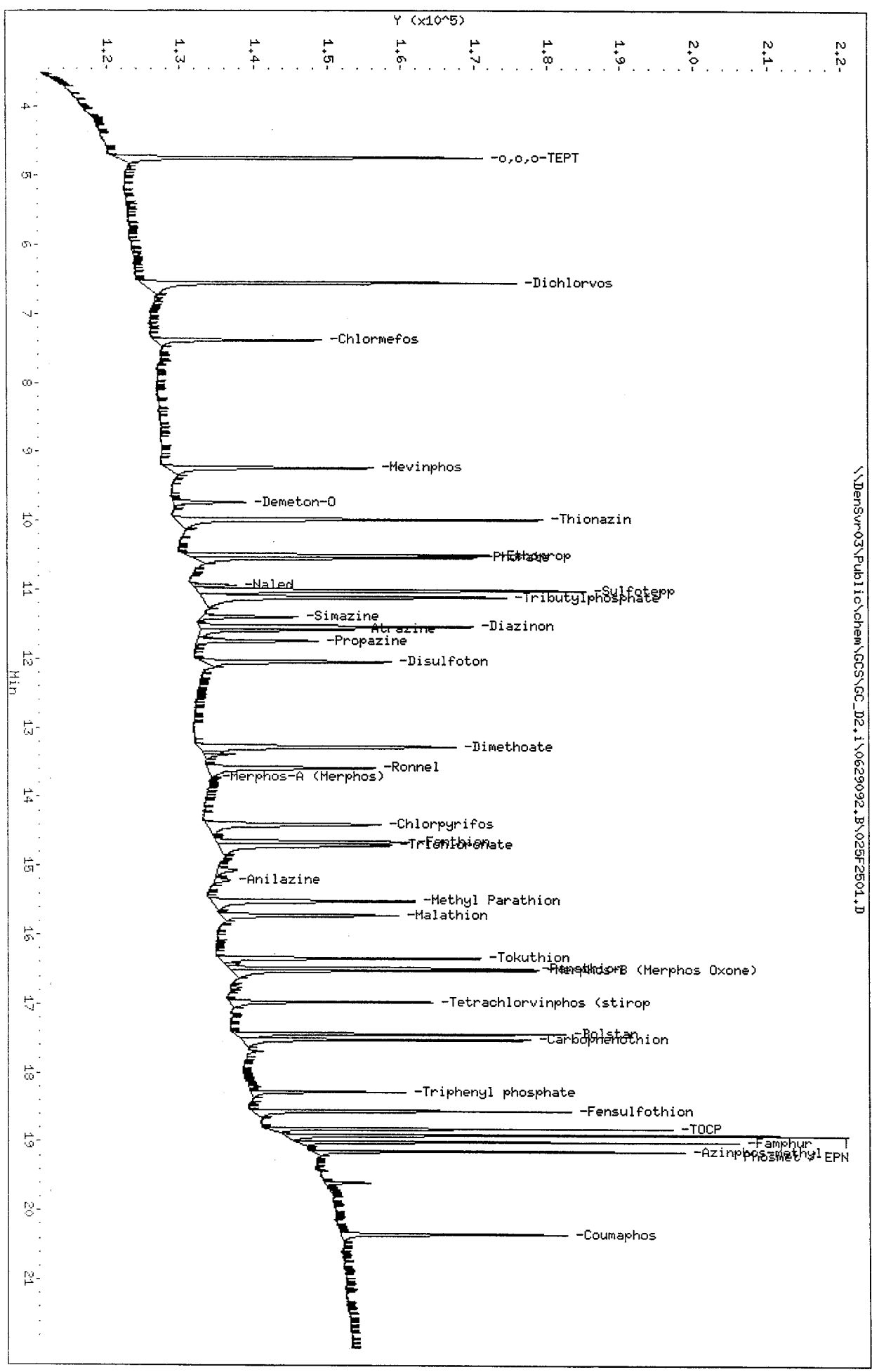
Client Name: Client SDG: D9F220000  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LFD4W1AC Client Smp ID: LCS  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: LCS  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	2.000	1.354	67.69	48-114
\$ 34 Triphenyl phosphat	2.000	1.782	89.10	50-150

Data File: \\DensSvr-03\Publio\chem\GCOS\GC\_D2.1\0629092.B\025F2501.D  
 Date : 30-JUN-2009 05:26  
 Client ID: LCS  
 Sample Info: LFD4M1AC,LCS  
 Column phase: RTX-QPest

Instrument: GC\_D2.1  
 Operator: MKP/TLN  
 Column diameter: 0.32

\\DensSvr-03\Publio\chem\GCOS\GC\_D2.1\0629092.B\025F2501.D



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Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\026F2601.D  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Inj Date : 30-JUN-2009 05:53  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AD,LCSD  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 26 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT	3.286	3.254 (0.184)		141739	1.27499	2.550
2 Dichlorvos	4.091	4.074 (0.229)		116087	1.68162	3.363
3 Mevinphos	5.748	5.739 (0.322)		52159	1.37547	2.751
4 Chlormefos	5.838	5.836 (0.327)		63622	0.73597	1.472
5 Thionazin	7.508	7.507 (0.421)		141890	1.79854	3.597
6 Demeton-O	7.648	7.649 (0.429)		38070	0.49350	0.9870 (R)
7 Ethoprop	7.851	7.852 (0.440)		129460	1.87258	3.745
8 Naled	8.060	8.057 (0.452)		13470	0.91328	1.826
* 9 Tributylphosphate	8.111	8.135 (1.000)		127878	2.00000	
10 Sulfotepp	8.440	8.442 (0.473)		157329	1.56716	3.134
11 Phorate	8.531	8.532 (0.478)		117800	1.64532	3.291
12 Dimethoate	8.658	8.659 (0.485)		130746	1.57200	3.144
13 Demeton-S	8.838	8.846 (0.495)		9463	0.15690	0.3138 (R)
14 Simazine	8.920	8.924 (0.500)		45523	1.65737	3.315
15 Atrazine	9.090	9.094 (0.509)		51567	1.59898	3.198
16 propazine	9.235	9.241 (0.518)		50969	1.71286	3.426
17 Disulfoton	9.868	9.869 (0.553)		60048	1.22019	2.440
18 Diazinon	9.900	9.902 (0.555)		159268	2.07085	4.142
19 Methyl Parathion	10.715	10.717 (0.601)		89397	1.83283	3.666
20 Ronnel	11.238	11.241 (0.630)		85722	1.70020	3.400
21 Malathion	11.800	11.804 (0.661)		69385	1.49552	2.991
22 Fenthion	11.930	11.932 (0.669)		84971	1.71377	3.428

-RPT 2°

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion	12.018	12.019	(0.674)	99425	1.88421	3.768
24 Chlorpyrifos	12.066	12.067	(0.676)	111760	1.75059	3.501
25 Trichloronate	12.495	12.496	(0.700)	80135	1.40445	2.809
26 Anilazine	12.816	12.817	(0.718)	8534	1.82199	3.644
27 Merphos-A (Merphos)	13.185	13.199	(0.739)	106	0.00223	0.004453
28 Tetrachlorvinphos (Stirophos)	13.820	13.824	(0.775)	51677	1.63333	3.267
29 Tokuthion	14.448	14.449	(0.810)	91825	1.67881	3.358
30 Merphos-B (Merphos Oxone)	14.648	14.651	(0.821)	93586	7.28977	14.58 (A)
31 Carbophenothion-methyl	Compound Not Detected.					
32 Fensulfothion	15.363	15.361	(0.861)	65995	1.50320	3.006
33 Bolstar / Famphur	16.051	16.053	(0.900)	180350	3.44662	6.893
34 Carbophenothion	16.195	16.197	(0.908)	92463	1.76136	3.523
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	33822	0.84782	1.696
36 Phosmet	16.963	16.963	(0.951)	65375	1.45496	2.910
37 EPN	17.150	17.151	(0.961)	76811	1.79604	3.592
38 Azinphos-methyl	17.480	17.480	(0.980)	72586	1.51601	3.032
* 39 TOCP	17.843	17.846	(1.000)	78905	2.00000	
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	18.365	18.366	(1.029)	66344	1.71797	3.436
S 42 Merphos				93692	1.55834	3.117
M 43 Total Demeton				47533	0.65040	1.301 (R)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 026F2601.D  
 Lab Smp Id: LFD4W1AD  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: LCSD  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	127878	-9.69
39 TOCP	76317	38159	152634	78905	3.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.02
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



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RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCSD  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

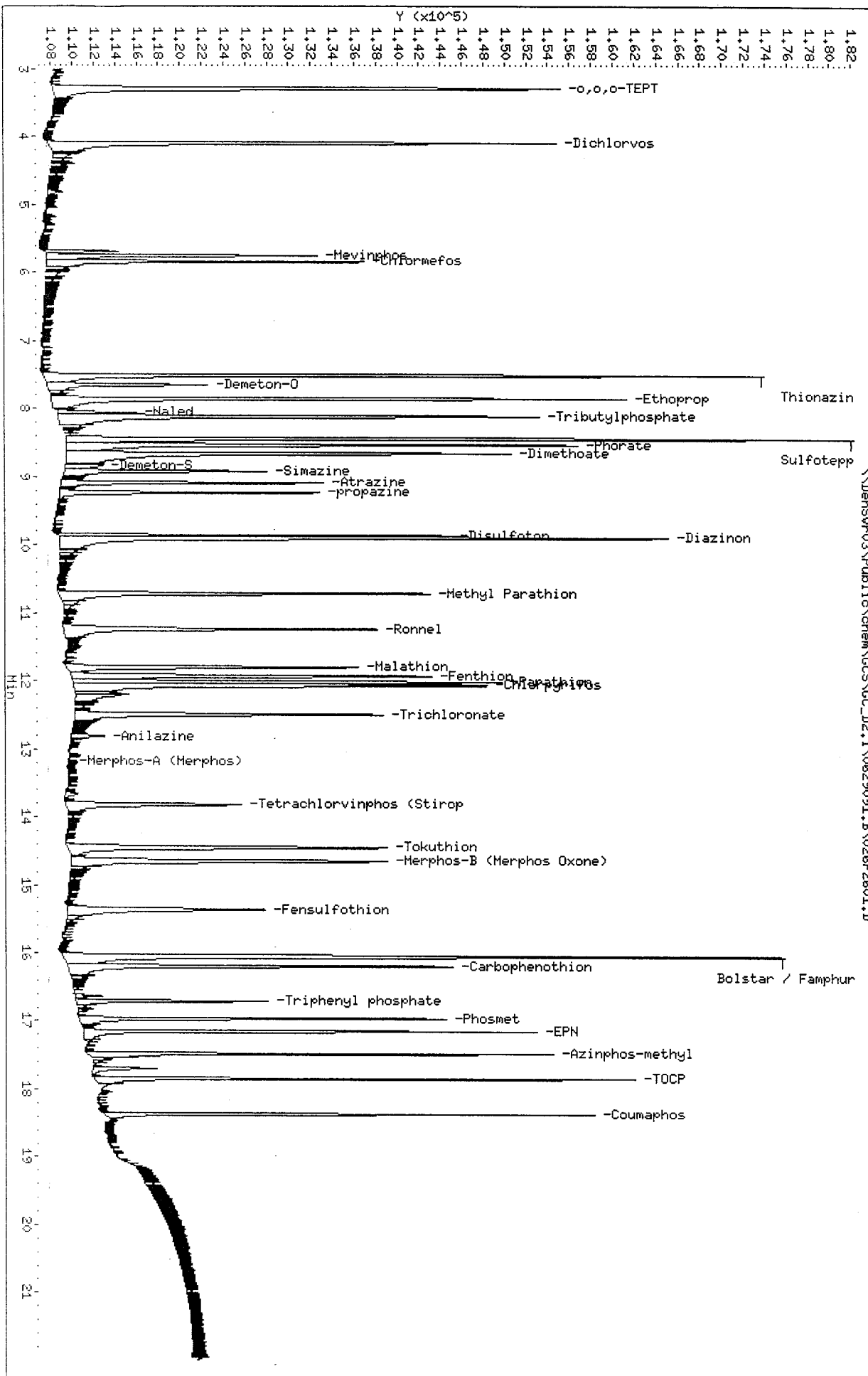
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 o,o,o-TEPT	4.000	2.550	63.75	36-119
2 Dichlorvos	4.000	3.363	84.08	50-120
3 Mevinphos	4.000	2.751	68.77	35-108
\$ 4 Chlormefos	2.000	1.472	73.60	48-114
5 Thionazin	4.000	3.597	89.93	65-116
6 Demeton-O	2.792	0.9870	35.35*	36-119
7 Ethoprop	4.000	3.745	93.63	65-108
8 Naled	4.000	1.826	45.66	36-119
10 Sulfotepp	4.000	3.134	78.36	69-103
11 Phorate	4.000	3.291	82.27	62-104
12 Dimethoate	4.000	3.144	78.60	28-115
13 Demeton-S	1.208	0.3138	25.98*	36-119
14 Simazine	4.000	3.315	82.87	47-109
15 Atrazine	4.000	3.198	79.95	36-119
16 propazine	4.000	3.426	85.64	36-119
18 Diazinon	4.000	4.142	103.54	36-119
17 Disulfoton	4.000	2.440	61.01	36-119
19 Methyl Parathion	4.000	3.666	91.64	68-119
20 Ronnel	4.000	3.400	85.01	62-115
21 Malathion	4.000	2.991	74.78	67-115
22 Fenthion	4.000	3.428	85.69	36-119
23 Parathion	4.000	3.768	94.21	36-119
24 Chlorpyrifos	4.000	3.501	87.53	36-119
25 Trichloronate	4.000	2.809	70.22	36-119
26 Anilazine	4.000	3.644	91.10	47-115
S 42 Merphos	4.000	3.117	77.92	36-119
28 Tetrachlorvinphos	4.000	3.267	81.67	36-119
29 Tokuthion	4.000	3.358	83.94	36-119
31 Carbophenothion-m	4.000	0.0000	*	36-119
32 Fensulfothion	4.000	3.006	75.16	61-115
33 Bolstar / Famphur	8.000	6.893	86.17	36-119
34 Carbophenothion	4.000	3.523	88.07	36-119
\$ 35 Triphenyl phosphat	2.000	1.696	84.78	50-150
36 Phosmet	4.000	2.910	72.75	36-119
37 EPN	4.000	3.592	89.80	36-119
38 Azinphos-methyl	4.000	3.032	75.80	55-115
40 Azinphos-ethyl	4.000	0.0000	*	36-119
41 Coumaphos	4.000	3.436	85.90	62-115
M 43 Total Demeton	4.000	1.301	32.52*	47-115

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RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCSD  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	2.000	1.472	73.60	48-114
\$ 35 Triphenyl phosphat	2.000	1.696	84.78	50-150



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Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\026F2601.D  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Inj Date : 30-JUN-2009 05:53  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFD4W1AD,LCSD  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 26 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT	4.738	4.731 (0.252)		114192	1.33441	2.669
2 Dichlorvos	6.549	6.546 (0.348)		103656	1.55128	3.102
\$ 3 Chlormefos	7.384	7.384 (0.392)		42095	0.62581	1.252
4 Mevinphos	9.234	9.234 (0.491)		75490	1.67714	3.354
5 Demeton-O	9.733	9.734 (0.517)		21005	0.48973	0.9795 (R)
6 Thionazin	9.984	9.984 (0.531)		124413	1.84834	3.697
7 Ethoprop	10.499	10.499 (0.558)		85997	1.70981	3.420
8 Phorate	10.538	10.539 (0.560)		90461	1.55098	3.102
9 Naled	10.941	10.939 (0.582)		12103	1.01419	2.028
10 Sulfotepp	11.016	11.017 (0.586)		130888	1.48791	2.976 (A)
* 11 Tributylphosphate	11.114	11.116 (1.000)		107752	2.00000	
12 Simazine	11.399	11.399 (0.606)		26110	2.07238	4.145 (A)
13 Diazinon	11.539	11.541 (0.613)		91041	1.93442	3.869
14 Atrazine	11.579	11.584 (0.615)		44824	1.85722	3.714 (A)
15 Propazine	11.744	11.747 (0.624)		37540	1.72585	3.452
16 Disulfoton	12.048	12.049 (0.640)		61147	1.31808	2.636
17 Demeton-S	Compound Not Detected.					
18 Dimethoate	13.281	13.282 (0.706)		94783	1.52444	3.049
19 Ronnel	13.586	13.587 (0.722)		70586	1.68663	3.373
20 Merphos-A (Merphos)	13.713	13.689 (1.234)		855	0.02190	0.04380 (aA)
21 Chlorpyrifos	14.409	14.409 (0.766)		69729	1.64269	3.285
22 Fenthion	14.659	14.662 (0.779)		70738	1.79673	3.593

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.706	14.711	(0.782)	68787	1.30127	2.602
24 Anilazine	15.213	15.216	(0.809)	5761	1.58509	3.170
25 Methyl Parathion	15.518	15.519	(0.825)	72480	1.70524	3.410
26 Malathion	15.723	15.724	(0.836)	57225	1.43716	2.874
27 Tokuthion	16.343	16.344	(0.869)	72375	1.55242	3.105
28 Parathion	16.493	16.494	(0.877)	70521	1.68378	3.368
29 Merphos-B (Merphos Oxone)	16.519	16.517	(1.486)	81996	6.92343	13.85 (A)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	48095	1.77518	3.550
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	17.439	17.440	(0.927)	68048	1.66355	3.327
33 Carbophenothion	17.521	17.524	(0.931)	63909	1.58887	3.178 (A)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	33221	1.00649	2.013
35 Fensulfothion	18.558	18.559	(0.986)	58752	1.93861	3.877
* 36 TOCP	18.814	18.816	(1.000)	66160	2.00000	
37 Phosmet / EPN	18.906	18.909	(1.005)	113369	3.32422	6.648
38 Famphur	19.008	19.011	(1.010)	73634	1.69689	3.394
39 Azinphos-methyl	19.144	19.147	(1.018)	62081	1.56392	3.128
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	20.344	20.347	(1.081)	50528	1.73828	3.476
S 42 Merphos				82851	1.50260	3.005
M 43 Total Demeton				21005	0.48973	0.9795 (R)

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 026F2601.D  
 Lab Smp Id: LFD4W1AD  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: LCSD  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	107752	-2.63
36 TOCP	62152	31076	124304	66160	6.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.11	0.00
36 TOCP	18.81	18.31	19.31	18.81	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

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RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCSD  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	1 o,o,o-TEPT	4.000	2.669	66.72	36-119
	2 Dichlorvos	4.000	3.102	77.56	50-120
\$	3 Chlormefos	2.000	1.252	62.58	58-114
	4 Mevinphos	4.000	3.354	83.86	35-108
	5 Demeton-O	2.800	0.9795	34.98*	36-119
	6 Thionazin	4.000	3.697	92.42	65-116
	7 Ethoprop	4.000	3.420	85.49	36-119
	8 Phorate	4.000	3.102	77.55	36-119
	9 Naled	4.000	2.028	50.71	36-119
	10 Sulfotepp	4.000	2.976	74.40	36-119
	12 Simazine	4.000	4.145	103.62	36-119
	13 Diazinon	4.000	3.869	96.72	36-119
	14 Atrazine	4.000	3.714	92.86	36-119
	15 Propazine	4.000	3.452	86.29	36-119
	16 Disulfoton	4.000	2.636	65.90	61-103
	17 Demeton-S	1.200	0.0000	*	36-119
	18 Dimethoate	4.000	3.049	76.22	28-82
	19 Ronnel	4.000	3.373	84.33	62-99
	21 Chlorpyrifos	4.000	3.285	82.13	66-101
	22 Fenthion	4.000	3.593	89.84	36-119
	23 Trichloronate	4.000	2.602	65.06	36-119
	24 Anilazine	4.000	3.170	79.25	36-119
	25 Methyl Parathion	4.000	3.410	85.26	36-119
	26 Malathion	4.000	2.874	71.86	36-119
	27 Tokuthion	4.000	3.105	77.62	36-119
	28 Parathion	4.000	3.368	84.19	36-119
	30 Tetrachlorvinphos	4.000	3.550	88.76	36-119
	31 Carbophenothion m	4.000	0.0000	*	36-119
	32 Bolstar	4.000	3.327	83.18	36-119
	33 Carbophenothion	4.000	3.178	79.44	36-119
\$	34 Triphenyl phosphat	2.000	2.013	100.65	36-119
	35 Fensulfothion	4.000	3.877	96.93	20-105
	37 Phosmet / EPN	8.000	6.648	83.11	36-119
	38 Famphur	4.000	3.394	84.84	61-108
	39 Azinphos-methyl	4.000	3.128	78.20	55-103
	40 Azinphos-ethyl	4.000	0.0000	*	36-119
S	41 Coumaphos	4.000	3.476	86.91	36-119
	42 Merphos	4.000	3.005	75.13	36-119
M	43 Total Demeton	4.000	0.9795	24.49*	47-100

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9F220000  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFD4W1AD Client Smp ID: LCSD  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: LCSD  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

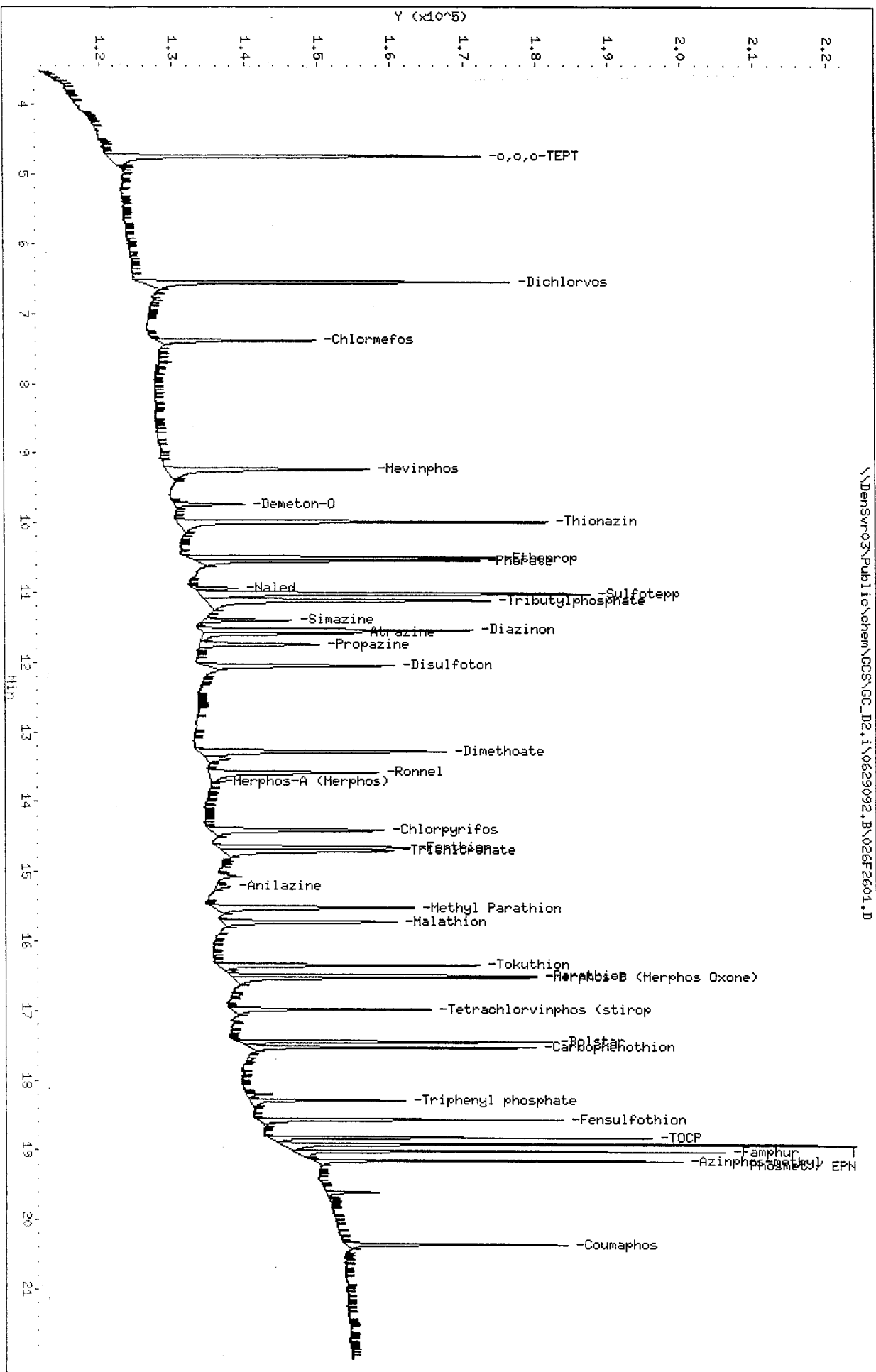
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	2.000	1.252	62.58	48-114
\$ 34 Triphenyl phosphat	2.000	2.013	100.65	50-150



Data File: \\Densysrv03\Public\chem\GCS\GC\_D2.i\0629092.B\026F2601.D  
 Date : 30-JUN-2009 05:53  
 Client ID: LCSD  
 Sample Info: LFD4M1AD,LCSD  
 Column phase: RTX-QPest

Instrument: GC\_D2.i  
 Operator: NPK/TLM  
 Column diameter: 0.32

\\Densysrv03\Public\chem\GCS\GC\_D2.i\0629092.B\026F2601.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\030F3001.D  
 Lab Smp Id: LFC4Q1AD Client Smp ID: M-34B  
 Inj Date : 30-JUN-2009 07:43  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFC4Q1AD,199-2  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 14:02 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 30  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1054.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
3 Mevinphos						
\$ 4 Chlormefos	5.838	5.836	(0.327)	48775	0.47725	0.9056(R) <i>-EPT 20</i>
5 Thionazin						
6 Demeton-O						
7 Ethoprop						
8 Naled	8.026	8.057	(0.450)	74	0.19600	0.3719 <i>RT</i>
* 9. Tributylphosphate	8.111	8.135	(1.000)	133183	2.00000	
10 Sulfotepp						
11 Phorate						
12 Dimethoate						
13 Demeton-S						
14 Simazine						
15 Atrazine						
16 propazine						
17 Disulfoton						
18 Diazinon						
19 Methyl Parathion						
20 Ronnel						
21 Malathion						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Parathion						
24 Chlorpyrifos	12.063	12.067	(0.676)	125	0.00166	0.003143 (a)
25 Trichloronate						
26 Anilazine						
27 Merphos-A (Merphos)	13.183	13.199	(0.739)	55	1e-003	0.001854
28 Tetrachlorvinphos (Stirophos)	13.836	13.824	(0.775)	74	0.00198	0.003754
29 Tokuthion						
30 Merphos-B (Merphos Oxone)	14.651	14.651	(0.821)	62	0.02496	0.04736
31 Carbophenothion-methyl						
32 Fensulfothion						
33 Bolstar / Famphur						
34 Carbophenothion						
\$ 35 Triphenyl phosphate	16.711	16.712	(0.937)	34553	0.73263	1.390
36 Phosmet						
37 EPN						
38 Azinphos-methyl						
* 39 TOCP	17.843	17.846	(1.000)	93284	2.00000	
40 Azinphos-ethyl						
41 Coumaphos						
S 42 Merphos				117	0.00165	0.003123
M 43 Total Demeton						

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 030F3001.D  
 Lab Smp Id: LFC4Q1AD  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: M-34B  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	141606	70803	283212	133183	-5.95
39 TOCP	76317	38159	152634	93284	22.23

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.02
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Northgate Environmen20-JUN-2009 00:00 Client SDG: 8304607  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: LFC4Q1AD Client Smp ID: M-34B  
 Level: LOW Operator: MPK/TLW  
 Data Type: GC DATA SampleType: SAMPLE  
 SpikeList File: fullDFCwater.spk Quant Type: ISTD  
 Sublist File: 8141A.sub  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 4 Chlormefos	1.898	0.9056	47.73*	48-114
\$ 35 Triphenyl phosphat	1.898	1.390	73.26	50-150

Date: 30-JUN-2009 07:43

Client ID: H-34B

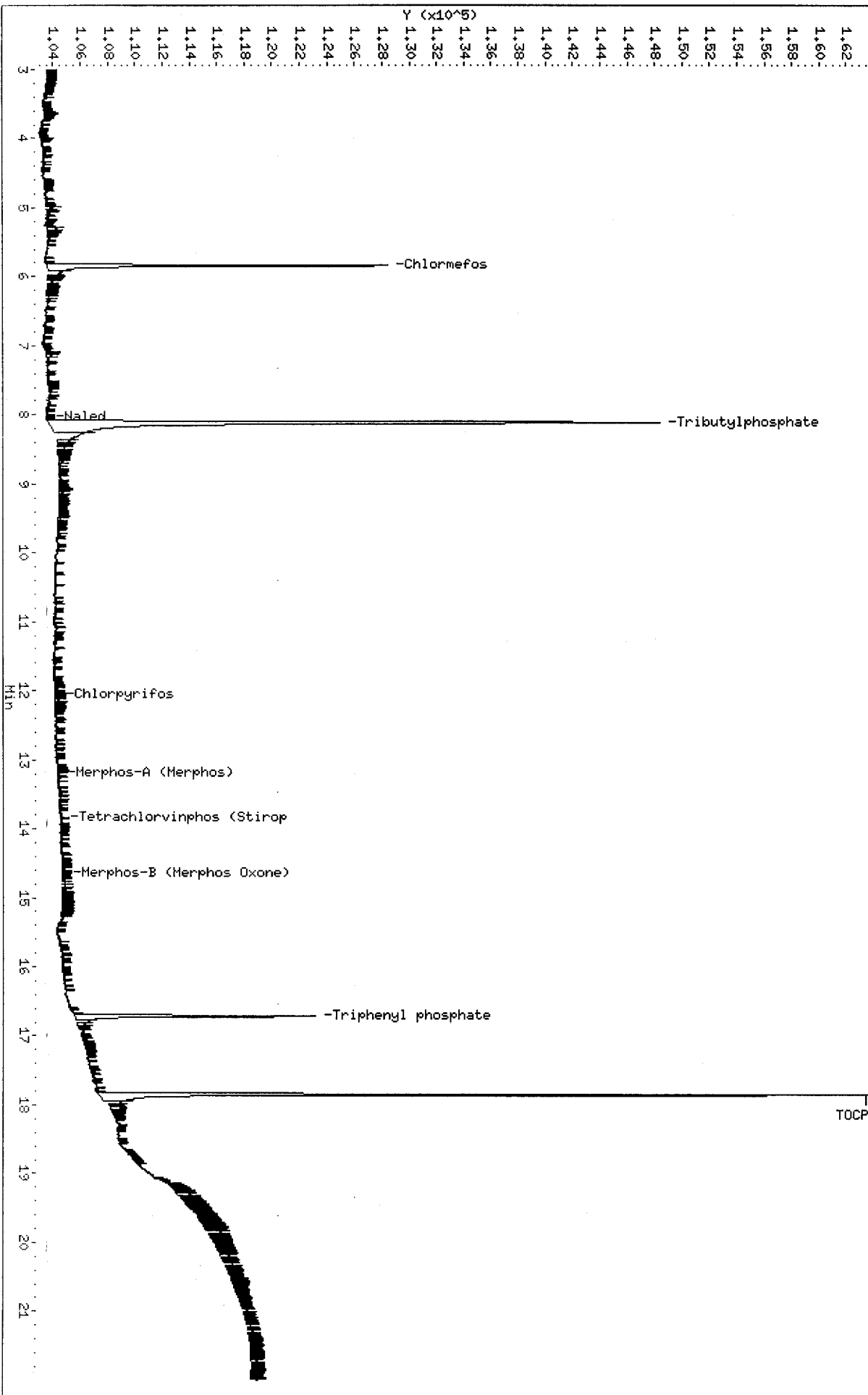
Instrument: GC\_D2.1

Sample Info: LFC001AD,199-2

Column phase: RTX-1HS

Operator: HPK/TLW  
Column diameter: 0.32

\\DensSvr03\Public\chem\GCs\GC\_D2.1\0629091.B\030F3001.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\030F3001.D  
 Lab Smp Id: LFC4Q1AD Client Smp ID: M-34B  
 Inj Date : 30-JUN-2009 07:43  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : LFC4Q1AD,199-2  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 14:04 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 30  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Concentration Formula: Amt \* DF \* Vf / Vs \* CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1054.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
\$ 3 Chlormefos	7.383	7.384	(0.392)	43630	0.52747	1.001
4 Mevinphos						
5 Demeton-O						
6 Thionazin						
7 Ethoprop						
8 Phorate						
9 Naled	10.913	10.939	(0.580)	56	0.27153	0.5152 <i>not a peak</i>
10 Sulfotepp	11.011	11.017	(0.585)	81	7e-004	0.001421 (aA)
* 11 Tributylphosphate	11.114	11.116	(1.000)	104471	2.00000	
12 Simazine	11.423	11.399	(0.607)	84	0.00542	0.01029 (aA)
13 Diazinon						
14 Atrazine	11.588	11.584	(0.616)	65	0.23433	0.4446 (aA)
15 Propazine						
16 Disulfoton						
17 Demeton-S	12.121	12.124	(0.644)	117	0.12071	0.2290
18 Dimethoate						
19 Ronnel						
20 Merphos-A (Merphos)	13.653	13.689	(1.228)	125	0.00330	0.006266 (aA)
21 Chlorpyrifos						
22, Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL ( ug/L)
23 Trichloronate	14.748	14.711	(0.784)	121	0.10697	0.2030
24 Anilazine	Compound Not Detected.					
25 Methyl Parathion	Compound Not Detected.					
26 Malathion	15.724	15.724	(0.836)	198	0.00404	0.007673 (a)
27 Tokuthion	Compound Not Detected.					
28 Parathion	16.466	16.494	(0.875)	50	1e-003	0.001842(a)
29 Merphos-B (Merphos Oxone)	Compound Not Detected.					
30 Tetrachlorvinphos (stirophos)	Compound Not Detected.					
31 Carbophenothion methyl	Compound Not Detected.					
32 Bolstar	Compound Not Detected.					
33 Carbophenothion	Compound Not Detected.					
\$ 34 Triphenyl phosphate	18.278	18.281	(0.971)	28183	0.69437	1.318
35 Fensulfothion	Compound Not Detected.					
* 36 TOCP	18.814	18.816	(1.000)	81356	2.00000	
37 Phosmet / EPN	Compound Not Detected.					
38 Famphur	Compound Not Detected.					
39 Azinphos-methyl	Compound Not Detected.					
40 Azinphos-ethyl	Compound Not Detected.					
41 Coumaphos	Compound Not Detected.					
S 42 Merphos	Compound Not Detected.					
M 43 Total Demeton				117	0.12071	0.2290

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.



TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 030F3001.D  
 Lab Smp Id: LFC4Q1AD  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
 Misc Info:

Calibration Date: 30-JUN-2009  
 Calibration Time: 02:41  
 Client Smp ID: M-34B  
 Level: LOW  
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	110664	55332	221328	104471	-5.60
36 TOCP	62152	31076	124304	81356	30.90

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.11	10.61	11.61	11.11	0.00
36 TOCP	18.81	18.31	19.31	18.81	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

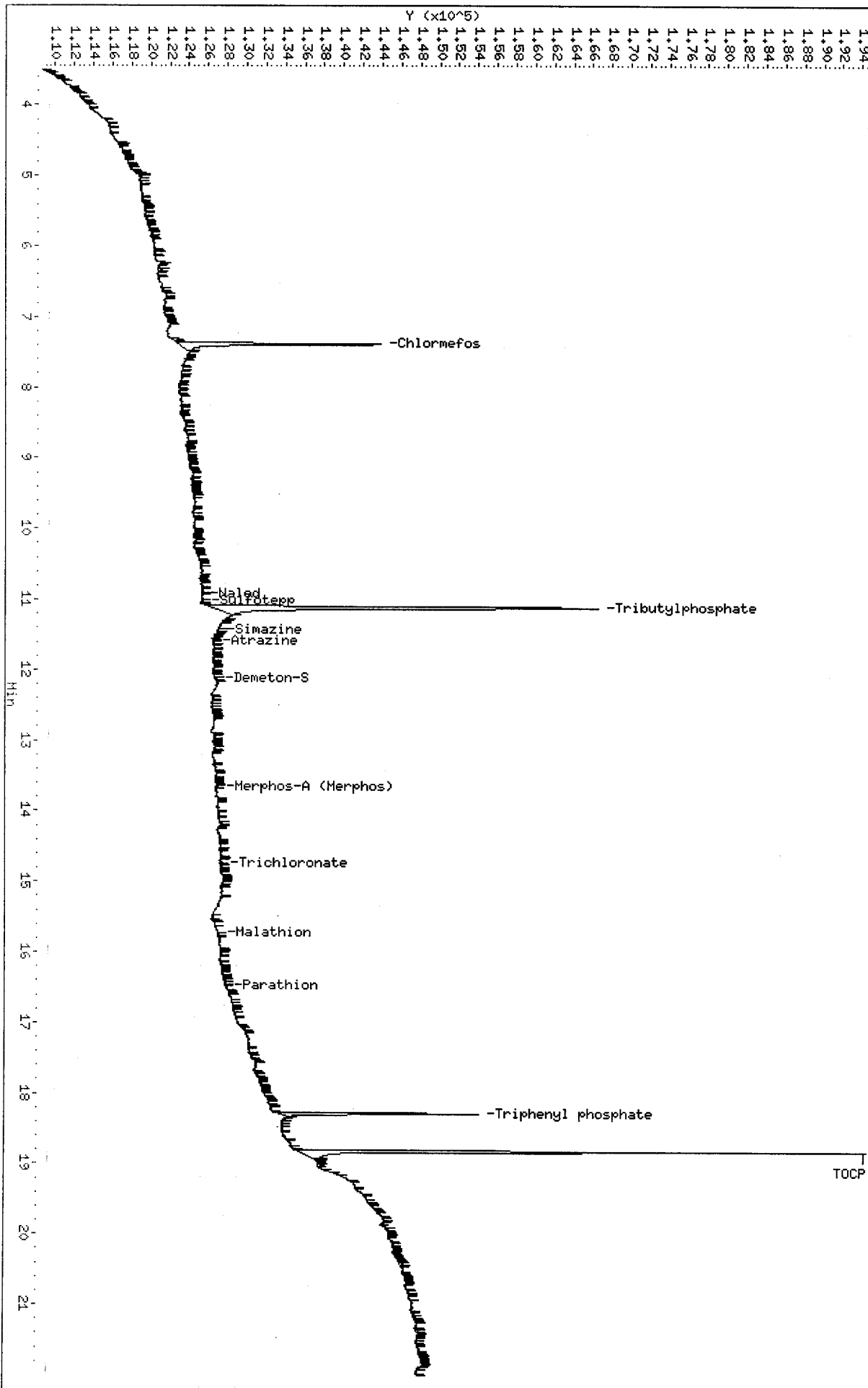
TestAmerica

RECOVERY REPORT

Client Name: Northgate Environmen20-JUN-2009 00:00 Client SDG: 8304607  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: LFC4Q1AD Client Smp ID: M-34B  
Level: LOW Operator: MPK/TLW  
Data Type: GC DATA SampleType: SAMPLE  
SpikeList File: fullDFCwater.spk Quant Type: ISTD  
Sublist File: 8141A.sub  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0629092.B\8141A-2.m  
Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	1.898	1.001	52.75	48-114
\$ 34 Triphenyl phosphat	1.898	1.318	69.44	50-150

\\Densvnr03\Public\chem\GCs\GC\_D2.1\06229092.B\030F3001.D



**GC SEMIVOLATILE  
INITIAL CALIBRATION DATA**

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

GC and HPLC ICAL Review Checklist

608 8081 8082 8151 8141  
 TPH/DRO Other SV Lab  
 8310 8330 Other HPLC \_\_\_\_\_

601 602 8021 BTEX  
 TPH/GRO Other Volatile GC \_\_\_\_\_

Calibration Date: 6/26/09  
 Instrument ID: D2

Initial Calibration	Review Items	Level 1			Level 2	Comments
		Yes	No	N/A		
1.	Are correct data files used?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
2.	Is there a sufficient number of calibration points used?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
3.	Are reasons for removal of points documented?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Better linearity
4.	Is linearity acceptable, 8000 Series: linear least-squares regression with $r \geq 0.990$ , (DOD projects require $r \geq 0.995$ ) quadratic fit $COD\ r^2 > 0.990$ , or average response factors with $RSD \leq 20\%$ ?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
5.	600 Series: < 10% RSD or linear regression Are the correct RT windows applied to the ICAL integration?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
6.	Are DDT & Endrin breakdown < 15%?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	NA	
7.	Is each manual integration completely documented, signed and appropriate?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
8.	Is traceability of standards properly documented?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
9.	Was second level hand calculation performed? (document analyte checked)	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
10.	Was second-source ICV performed & recovery 85-115%?	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Primary Include %R Naled -40.1%, Simazine +31.1%, Disulfoton -20.6%, Malathion -18.8%, Atrazine -49.2%, Carbofenthiion-methyl -32.3%, Phosmet-17.6%, Secondary Include %R Naled -47.6%, Simazine +80.1%, Atrazine -39.9%, Malathion -23.2%, Carbofenthiion-methyl -39.7%, Megphos -19.3%

1st Level Reviewer: [Signature] Date: 6/30/09  
 2nd Level Reviewer: [Signature] Date: 6/30/09

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
====	=====	=====	=====	=====	=====	=====
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L7 GSV0634				
4	Vial 4	OPP L6 GSV0637				
5	Vial 5	OPP L5 GSV0635				
6	Vial 6	OPP L4 GSV0638				
7	Vial 7	OPP L3 GSV0639				
8	Vial 8	OPP L2 GSV0640				
9	Vial 9	OPP L1 GSV0641				
10	Vial 10	OPP SS GSV0633				
11	Vial 11	GSV075309 SPK				
12	Vial 12	LE2931AA,MB				
13	Vial 13	LE2931AC,LCS				
14	Vial 14	LE2931AD,LCSD				
15	Vial 15	LEQA91AC,222-15			10	
16	Vial 16	LEQA91AC,222-15			3	
17	Vial 17	LEQCQ1AC,222-18			2	
18	Vial 18	LERD61AD,377-1				
19	Vial 19	LERD81AH,377-3				
20	Vial 20	LERN71AF,115-1				
21	Vial 21	LERPQ1AF,115-2				
22	Vial 22	LERPX1AF,115-3				
23	Vial 23	LE1F91AJ,138-1				
24	Vial 24	OPP L5 GSV0635				
25	Vial 25	LE29M1AA,MB				
26	Vial 26	LE29M1AC,LCS				
27	Vial 27	LE29M1AD,LCSD				
28	Vial 28	LEQA91AA,222-15			10	
29	Vial 29	LEQA91AA,222-15			3	
30	Vial 30	LEQCQ1AA,222-18			2	
31	Vial 31	LFARC1AA,MB				
32	Vial 32	LFARC1AC,LCS				
33	Vial 33	LFARC1AD,LCSD				
34	Vial 34	LEKL02AA,185-1				
35	Vial 35	LE29L1AA,MB				
36	Vial 36	LE29L1AC,LCS				
37	Vial 37	LE29L1AD,LCSD				
38	Vial 38	LERCV1AA,370-1				
39	Vial 39	LEWJG1AA,143-1				
40	Vial 40	OPP L5 GSV0635				
41	Vial 41	LE5PX1AA,MB				
42	Vial 42	LE5PX1AC,LCS				
43	Vial 43	LE5PX1AD,LCSD				
44	Vial 44	LE39F1AA,179-1				
45	Vial 45	LE3PF1AA,179-2				
46	Vial 46	LE39L1AA,179-3				
47	Vial 47	LFARL1AA,MB				
48	Vial 48	LFARL1AC,LCS				
49	Vial 49	LFARL1AD,LCSD				
50	Vial 50	LEKLE2AE,180-2				
51	Vial 51	LEKLF2AE,180-3				
52	Vial 52	LEKLL2AE,180-4				
53	Vial 53	LEKLO2AE,180-5				
54	Vial 54	LENR72AD,322-1				
55	Vial 55	LEPG32AJ,161-1				
56	Vial 56	OPP L5 GSV0635				
57	Vial 57	LFD4N1AA,MB				
58	Vial 58	LFD4N1AC,LCS				

9168144

9168147

9170431

9168145

9168533

9170430

9173102

RR

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
59	Vial 59	LFD4N1AD, LCSD				
60	Vial 60	LE3041AJ, 158-1				
61	Vial 61	LFD4W1AA, MB				
62	Vial 62	LFD4W1AC, LCS				
63	Vial 63	LFD4W1AD, LCSD				
64	Vial 64	LE7EE1AA, 266-2				
65	Vial 65	LE9Q61AA, 216-2				
66	Vial 66	LE9RA1AA, 216-3				
67	Vial 67	LFC4Q1AD, 199-2				
68	Vial 68	OPP L5 GSV0635				
69	Vial 69	LFAN01AA, MB				
70	Vial 70	LFAN01AC, LCS				
71	Vial 71	LFAN01AD, LCSD				
72	Vial 72	LE4291AA, 273-1				
73	Vial 73	LE4291AD, 273-1S				
74	Vial 74	LE4291AE, 273-1D				
75	Vial 75	LE9PJ1AA, 215-1				
76	Vial 76	OPP L5 GSV0635				
77	Vial 77	OPP L1 GSV0641				
78	Vial 100	HEXANE/ACETONE				

11/23/03

11/20/09

Sequence Table (Back Injector):

No entries - empty table!

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Calibration File Names:

Level 1: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\009F0901.D  
 Level 2: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\008F0801.D  
 Level 3: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\007F0701.D  
 Level 4: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\006F0601.D  
 Level 5: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\005F0501.D  
 Level 6: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\004F0401.D  
 Level 7: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			ml	or R <sup>2</sup>
1 o,o'-TEPP	3.11591 2.77446	2.63737	2.67945	2.89676	2.71623	2.90430	AVRG		2.81778	5.91149
2 Dichlorvos	2.01706 1.79032	1.62225	1.58545	1.76366	1.71981	1.74982	AVRG		1.74977	7.99554
3 Mevinphos	1.01774 0.94429	0.91295	0.90158	1.01760	0.95159	0.98250	AVRG		0.96118	4.85992
5 Thiomazin	2.12707 1.93224	1.94606	1.94866	2.08214	1.96051	2.00095	AVRG		1.99966	3.79706



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
6 Demeton-O	9836 165003	17553	30145	62341	96004	113108	WLINR	-0.01288	1.85831		0.99594
7 Ethoprop	1.93480 1.74432	1.70823	1.62324	1.73203	1.74110	1.78272	AVRG		1.75235		5.38512
8 Naled	1992 121152	6103	15042	36940	67594	90892	WLINR	0.09632	0.47378		0.98961
10 Sulforepp	34658 609341	70885	131347	259970	393078	486417	WLINR	-0.03469	2.43674		0.99856
11 Phorate	2.02801 1.72902	1.82946	1.73796	1.82370	1.76374	1.79146	AVRG		1.81476		5.60901
12 Dimethoate	1.89561 2.21598	1.76866	2.07434	2.25696	2.23554	2.30994	AVRG		2.10815		9.72697
13 Demeton-S	1.49306 1.52702	1.46224	1.49173	1.58543	1.55216	1.58919	AVRG		1.52869		3.21407

Handwritten marks: 'X' next to compound 6, 'X' next to compound 7, and '1/4 r = 0.995' next to compound 8.

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	Level							Curve	D	Coefficients		RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
14 Simazine	4819 190219	16248	29382	64611	115426	147784	WLNMR	0.03988	0.73140		0.99336	
15 Atrazine	0.70185 0.89508	0.76532	0.75073	0.84628	0.85434	0.90844	AVRG		0.81743		9.61085	
16 propazine	0.73887 0.79462	0.70136	0.69239	0.78178	0.75651	0.81417	AVRG		0.75424		6.13423	
17 Disulfoton	15404 290419	33208	61920	127893	193050	247845	WLNMR	-0.01928	1.20917		0.99576	
18 Diazinon	2.20234 1.92388	1.83553	1.83772	2.01856	1.98676	1.84115	AVRG		1.94942		6.88114	
19 Methyl Parathion	1.22644 1.26213	1.10389	1.13741	1.32395	1.30344	1.29686	AVRG		1.23630		6.92144	
20 Ronnel	1.42863 1.18584	1.23369	1.21320	1.29342	1.2446	1.34650	AVRG		1.27796		6.65504	

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients ml	m2	%RSD or R <sup>2</sup>
21 Malathion	15443 283462	30581	57103	119836	186013	228260	WLINR	-0.02066	1.14436		0.99783
22 Fenthion	1.46442 1.18151	1.18458	1.16481	1.29096	1.25584	1.25506	AVRG		1.25674		8.19381
23 Parathion	1.42438 1.31279	1.25387	1.23322	1.38998	1.36308	1.38514	AVRG		1.33749		5.43501
24 Chlorpyrifos	1.85614 1.56216	1.56747	1.47379	1.62915	1.61527	1.62330	AVRG		1.61818		7.28314
25 Trichloronate	1.44751 1.43428	1.42551	1.34762	1.48171	1.46256	1.52450	AVRG		1.44624		3.78186
26 Anilazine	1493 +++++	2095	5311	12790	19893	29375	QUAD	0.02107	9.16488	-8.66056	0.99476
27 Merphos-A (Merphos)	1.24844 1.18648	1.15527	1.15966	1.23989	1.21263	1.24409	AVRG		1.20664		3.30523

X

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Target Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients ml	m2	%RSD or R <sup>2</sup>
28 Tetrachlorvinphos (Stirophos)	0.76814 0.82648	0.74606	0.73464	0.83451	0.85233	0.85150	AVRG		0.80195		6.32809
29 Tokuthion	1.50295 1.37817	1.28283	1.29501	1.44234	1.39452	1.40891	AVRG		1.38639		5.62055
30 Merphos-B (Merphos Oxone)	3884 79809	7933	11676	34113	50056	65974	WLINR	0.01044	0.32634		0.98820
31 Carophenothion-methyl	14924 266724	30542	55023	105577	167145	206137	WLINR	-0.03349	1.03813		0.99979
32 Fensulfothion	8319 295978	23000	51304	104440	185778	229856	WLINR	0.04728	1.18751		0.99821
33 Bolstar / Fampnur	1.54988 1.23307	1.27794	1.32328	1.33835	1.27633	1.28540	AVRG		1.32632		7.86825
34 Carophenothion	1.57916 1.25966	1.19992	1.27687	1.32336	1.26122	1.41398	AVRG		1.33059		9.63398

NTC  
 See Merphos

1/2 X

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\Densv03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	Retention Times							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	m1			m2		
36 Phosmet	1.22087	1.01385	1.11032	1.20586	1.12340	1.16129	AVRG		1.13890		6.04111	
37 EPN	9525 294020	23196	48705	111165	171283	220388	WLNMR	0.02456	1.11450		0.99317	
38 Azinphos-methyl	1.19565	1.13516	1.16767	1.28235	1.23551	1.26700	AVRG		1.21360		4.33999	
40 Azinphos-ethyl	23154 318459	43578	74071	134607	209971	253982	WLNMR	-0.07409	1.26388		0.99928	
41 Coumaphos	1.00140	0.89806	0.92250	1.01947	1.01017	1.01013	AVRG		0.97884		4.92558	
42 Merphos	1.61523	1.45962	1.38820	1.59026	1.52873	1.58626	AVRG		1.52393		5.34513	
43 Total Demeton	1.94415	1.66775	1.60440	1.71838	1.66174	1.66727	AVRG		1.70696		6.44185	

1/2  
1/2

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
\$ 4 Chloroformos	2.28223	2.03679	2.00000	2.26084	2.35620	2.24671	AVRG		2.19114		6.04132
	2.15521										
\$ 35 Triphenyl phosphate	1.09980	0.99217	0.96977	1.05450	0.99627	1.00900	AVRG		1.01117		4.94580
	0.95665										

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method File : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Last Edit : 30-Jun-2009 12:45 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Start Cal Date: 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Last Cal Level: 1  
 Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\003F0301.D

Continuing Calibration



Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\010F1001.D
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\006F0601.D
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626091.B\005F0501.D

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Calibration File Names:  
 Level 1: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Level 2: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Level 3: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\007F0701.D  
 Level 4: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Level 5: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0501.D  
 Level 6: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D  
 Level 7: \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			ml	or R <sup>2</sup>
1 o,o'-TEPT	2.92648	2.44243	2.35582	2.65851	2.57132	2.61478	AVRG		2.58691	7.02274
2 Dichlorvos	1.96421	1.82228	1.84036	2.17503	2.12732	2.04712	AVRG		2.01995	7.32345
4 Mevinphos	1.44354	1.24995	1.21811	1.44363	1.32123	1.40873	AVRG		1.36067	7.12634
5 Demeton-O	1.19821	1.29971	1.18493	1.34261	1.38930	1.37760	AVRG		1.29658	6.26552
	5.0000									
	Level 7									

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Level							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
6 Thiomazin	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6						
	5.0000 Level 7											
7 Ethoprop	2.15838 1.70034 1.46268	1.84195 1.41105	1.93751 1.44674	1.98059 1.51565	2.08762 1.56615	2.20076 1.54046	AVRG					6.19054 6.33190
8 Phorate	1.89356 1.74661	1.60276	1.58391	1.69691	1.82591	1.99241	AVRG					1.76315 8.53946
9 Naled	94.00000 78857	1666	10859	28010	46004	58330	WLINR	0.13436		0.49080		0.99248
10 Sulfofepp	2.79835 2.57687	2.53605	2.59328	2.75080	2.67397	2.68532	AVRG			2.65923		3.59851
12 Salmazine	0.36415 0.41001	0.34683	0.35351	0.38559	0.39087	0.41510	AVRG			0.38086		7.05346
13 Diazinon	12067 228810	15923	49407	98649	155648	181790	WLINR	0.01456		1.44446		0.99190

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : Falcom  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Coefficients							m1	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	b			
14 Altrazine	5427 128612	1231	21316	49088	85997	98759	LINR	0.11621	0.83396	0.99221
15 Propazine	4880 110050	8102	20907	43235	72628	85745	WLINR	0.02910	0.68050	0.99492
16 Disulfoton	1.39584 1.37843	1.32983	1.36835	1.41433	1.46581	1.46415	AVRG		1.40239	3.56764
17 Demeton-S	667 175573	15766	33785	70921	121463	157195	WLINR	0.05954	1.76807	0.99272
18 Dimethoate	1.93513 1.92489	1.88284	1.72920	1.81890	1.98388	1.88204	AVRG		1.87955	4.46888
19 Ronnel	1.49381 1.27410	1.09752	1.14631	1.23377	1.29336	1.31702	AVRG		1.26513	10.15653
20 Merphos-A (Merphos)	0.73714 0.62474	0.72841	0.76463	0.71117	0.75339	0.75359	AVRG		0.72472	6.56840

X X

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
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 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Level							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
21 Chlorpyrifos	1.28253 1.37311	1.15885	1.24944	1.20702	1.32365	1.38773	AVRG		1.28319		6.60140	
22 Fenitrothion	1.20874 1.18668	1.15890	1.17283	1.16181	1.25398	1.18816	AVRG		1.19016		2.76871	
23 Trichloronate	6944 296442	26053	49357	106326	170976	208762	WLINR	0.05263	1.73863		0.99738	
24 Amlazine	1634 19108	2256	3581	6899	11039	13112	LINR	-0.00058	0.10979		0.99085	
25 Methyl Parathion	1.21391 1.41908	1.12059	1.22102	1.33829	1.35198	1.32937	AVRG		1.28489		8.00353	
26 Malathion	1.23986 1.27856	1.19694	1.15056	1.17724	1.17540	1.20726	AVRG		1.20369		3.60449	
27 Tokuthion	1.50291 1.40826	1.31056	1.35261	1.35076	1.45106	1.48916	AVRG		1.40933		5.28420	

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INITIAL CALIBRATION DATA

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 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	Level							Curve	b	Coefficients		%RSD or R <sup>2</sup>
	1	2	3	4	5	6	m1			m2		
28 Parathion	1.27111	1.15628	1.24872	1.23420	1.30817	1.35972	AVRG		1.26610		5.02432	
29 Merphos-B (Merphos Oxone)	3793	6271	15065	23458	40683	62127	MINR	-0.05169	0.21659		0.96366	
30 Tetrachlorvinphos (stirophos)	0.86036	0.73114	0.73243	0.80291	0.86664	0.87311	AVRG		0.81902		7.82425	
31 Carbophenothion methyl	1.16513	1.02032	1.04699	1.17159	1.27808	1.26831	AVRG		1.17392		9.08251	
32 Bolstar	1.33280	1.22387	1.19075	1.20601	1.27262	1.22830	AVRG		1.23655		4.05030	
33 Carbophenothion	1.18442	1.13595	1.15332	1.18001	1.34689	1.22912	AVRG		1.21593		6.21486	
35 Pemsulfotion	0.88346	0.80409	0.88036	0.97346	0.94597	1.00424	AVRG		0.91615		7.30438	

NTC,  
 SRE merphos

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INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
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 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method File : \\DensSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	%RSD	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R <sup>2</sup>
37 Phosmet / EPN	19707 330448	35826	68186	146012	207459	263604	WLNLR	-0.04262	1.00518		0.99785
38 Fenphur	1.45536 1.32805	1.20800	1.18770	1.39816	1.20947	1.39569	AVRG		1.31178		8.35158
39 Azinphos-methyl	1.25589 1.19199	1.08970	1.07858	1.30240	1.20427	1.27709	AVRG		1.19999		7.33978
40 Azinphos-ethyl	1.14013 1.12699	1.11628	1.12015	1.18786	1.16269	1.14594	AVRG		1.14286		2.23350
41 Coumaphos	0.78930 0.93653	0.81655	0.85887	0.90448	0.89897	0.94628	AVRG		0.87871		6.77030
42 Merphos	1.56460 1.70275	1.43887	1.64263	1.66880	1.73437	1.91569	AVRG		1.66682		8.85773
M 43 Total Demeton	3533 244812	23328	47171	100663	168375	213468	WLNLR	0.06780	1.63923		0.99469

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
\$ 3 Chloroethfos	5.0000 Level 7	2.19506 2.04016	1.83698 1.78322	2.03418 2.29040	2.05386	AVRG		2.03341			8.83890
\$ 34 Triphenyl phosphate	1.10969 1.00703	0.86972	0.91132	1.07710	1.01080	0.99885	AVRG	0.99779			8.47904



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 26-JUN-2009 18:28  
 End Cal Date : 26-JUN-2009 21:13  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : FALCON  
 Method file : \\DensVr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Last Edit : 30-Jun-2009 12:58 GC\_D2.i

Curve	Formula	Units
Averaged	Amt = Resp/ml	Response
Linear	Amt = b + Resp/ml	Response
Wt Linear	Amt = b + Resp/ml	Response

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
Start Cal Date: 26-JUN-2009 18:28  
End Cal Date : 26-JUN-2009 21:13  
Last Cal Level: 1  
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
26-JUN-2009 21:13	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
26-JUN-2009 20:45	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
26-JUN-2009 20:18	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
26-JUN-2009 18:55	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
26-JUN-2009 18:28	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\003F0301.D

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

26-JUN-2009 21:40	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\010F1001.D
26-JUN-2009 19:50	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\006F0601.D
26-JUN-2009 19:23	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\005F0501.D

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0577	2.9	15.0
2 Dichlorvos	2.0000	1.9061	4.7	15.0
3 Mevinphos	2.0000	1.6977	15.1	15.0
4 Chlorfepos	2.0000	1.7808	11.0	15.0
5 Thionazin	2.0000	1.9740	1.3	15.0
6 Demeton-O	0.6500	1.8707	187.8	15.0
7 Ethoprop	2.0000	2.0536	2.7	15.0
8 Naled	2.0000	1.1983	40.1	15.0
9 Sulfotepp	2.0000	1.7932	10.3	15.0
10 Phorate	2.0000	2.0180	0.9	15.0
11 Dimethoate	2.0000	2.0859	4.3	15.0
12 Demeton-S	1.3600	0.2313	83.0	15.0
13 Simazine	2.0000	2.6218	31.1	15.0
14 Atrazine	2.0000	1.9566	2.2	15.0
15 propazine	2.0000	1.9127	4.4	15.0
17 Disulfoton	2.0000	1.5890	20.6	15.0
16 Diazinon	2.0000	2.1583	7.9	15.0
18 Methyl Parathion	2.0000	2.0404	2.0	15.0
19 Ronnel	2.0000	2.1513	7.6	15.0
20 Malathion	2.0000	1.6248	18.8	15.0
21 Fenthion	2.0000	1.8840	5.8	15.0
22 Parathion	2.0000	1.9436	2.8	15.0
23 Chlorpyrifos	2.0000	1.9720	1.4	15.0
24 Trichloronate	2.0000	1.8619	6.9	15.0
25 Anilazine	2.0000	1.0151	49.2	15.0
148 Merphos-A (Merphos)	2.0000	0.4078	79.6	999.0
26 Tetrachlorvinphos (Stirophos)	2.0000	2.0880	4.4	15.0
28 Tokuthion	2.0000	2.0254	1.3	15.0
149 Merphos-B (Merphos Oxone)	2.0000	6.6232	231.2	999.0
29 Carbophenothion-methyl	2.0000	1.3536	32.3	15.0
29 Fensulfothion	2.0000	1.9235	3.8	15.0
30 Bolstar / Famphur	4.0000	4.0636	1.6	15.0
32 Carbophenothion	2.0000	1.8639	6.8	15.0
31 Triphenyl phosphate	2.0000	1.7170	14.2	15.0
34 Phosmet	2.0000	1.6471	17.6	15.0
32 EPN	2.0000	1.7931	10.3	15.0
33 Azinphos-methyl	2.0000	1.9226	3.9	15.0
35 Azinphos-ethyl	2.0000	1.8331	8.3	15.0
36 Coumaphos	2.0000	2.0063	0.3	15.0

*<-ok*

*<-ok, see total demeton*

*<-ok, see total demeton*

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	2.0000	1.7215	13.9	15.0
40 Total Demeton	2.0000	2.1021	5.1	15.0

Average %D = 23.4

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
 Lab File ID: 010F1001.D  
 Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
 Lab Sample ID: OPP SS GSV0633  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
1 o,o,o-TEPT	2.0000	2.0069	0.3	15.0
2 Dichlorvos	2.0000	1.7707	11.5	15.0
3 Chlormefos	2.0000	1.6957	15.2	15.0
4 Mevinphos	2.0000	1.8364	8.2	15.0
5 Demeton-O	0.6500	2.0472	215.0	15.0
6 Thionazin	2.0000	1.8758	6.2	15.0
7 Ethoprop	2.0000	1.8962	5.2	15.0
8 Phorate	2.0000	1.9509	2.5	15.0
10 Naled	2.0000	1.0486	47.6	15.0
146 Sulfotepp	2.0000	1.7143	14.3	15.0
10 Simazine	2.0000	3.6013	80.1	15.0
12 Diazinon	2.0000	2.0803	4.0	15.0
150 Atrazine	2.0000	1.9693	1.5	15.0
13 Propazine	2.0000	1.8742	6.3	15.0
14 Disulfoton	2.0000	1.6970	15.1	15.0
15 Demeton-S	1.3600	0.2011	85.2	15.0
16 Dimethoate	2.0000	1.8701	6.5	15.0
17 Ronnel	2.0000	2.0112	0.6	15.0
148 Merphos-A (Merphos)	2.0000	0.5348	73.3	999.0
18 Chlorpyrifos	2.0000	2.1084	5.4	15.0
19 Fenthion	2.0000	2.0634	3.2	15.0
20 Trichloronate	2.0000	1.8617	6.9	15.0
21 Anilazine	2.0000	1.2425	37.9	15.0
23 Methyl Parathion	2.0000	2.0228	1.1	15.0
24 Malathion	2.0000	1.5362	23.2	15.0
25 Tokuthion	2.0000	1.8925	5.4	15.0
26 Parathion	2.0000	2.1337	6.7	15.0
149 Merphos-B (Merphos Oxone)	2.0000	5.0080	150.4	999.0
27 Tetrachlorvinphos (stirophos)	2.0000	2.0814	4.1	15.0
28 Carbophenothion methyl	2.0000	1.2466	37.7	15.0
28 Bolstar	2.0000	2.0778	3.9	15.0
30 Carbophenothion	2.0000	1.7496	12.5	15.0
29 Triphenyl phosphate	2.0000	1.7275	13.6	15.0
30 Fensulfothion	2.0000	2.0824	4.1	15.0
35 Phosmet / EPN	4.0000	3.4695	13.3	15.0
33 Famphur	2.0000	1.7579	12.1	15.0
34 Azinphos-methyl	2.0000	1.8108	9.5	15.0
35 Azinphos-ethyl	2.0000	1.7982	10.1	15.0
36 Coumaphos	2.0000	1.9588	2.1	15.0

*ok*

*ok, see total demeton*

*ok*

*ok, see total demeton*

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_D2.i  
Lab File ID: 010F1001.D  
Analysis Type: NONE

Injection Date: 26-JUN-2009 21:40  
Lab Sample ID: OPP SS GSV0633  
Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	2.0000	1.6146	19.3	15.0
40 Total Demeton	2.0000	2.2483	12.4	15.0

Average %D = 24.2

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\003F0301.D  
 Lab Smp Id: OPP L7 GSV0634 Client Smp ID: OPP L7 GSV0634  
 Inj Date : 26-JUN-2009 18:28  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L7 GSV0634  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:18 Cal File: 007F0701.D  
 Als bottle: 3 Calibration Sample, Level: 7  
 Dil Factor: 1.00000 Compound Sublist: 8141A.sub  
 Integrator: Falcon  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.256	3.254	(0.183)	707938	5.00000	4.923
2 Dichlorvos	4.075	4.074	(0.228)	456822	5.00000	5.116 (A)
3 Mevinphos	5.736	5.739	(0.322)	240948	5.00000	4.912
§ 4 Chlormefos	5.835	5.836	(0.327)	549929	5.00000	4.918
5 Thionazin	7.505	7.507	(0.421)	493034	5.00000	4.831
6 Demeton-O	7.645	7.649	(0.428)	165003	1.62500	1.714
7 Ethoprop	7.846	7.852	(0.440)	445084	5.00000	4.977
8 Naled	8.053	8.057	(0.451)	121152	5.00000	5.203 (A)
* 9 Tributylphosphate	8.110	8.135	(1.000)	206876	2.00000	
10 Sulfotepp	8.440	8.442	(0.473)	609341	5.00000	4.831
11 Phorate	8.530	8.532	(0.478)	441181	5.00000	4.764
12 Dimethoate	8.655	8.659	(0.485)	565436	5.00000	5.256 (A)
13 Demeton-S	8.838	8.846	(0.495)	264954	3.40000	3.396
14 Simazine	8.921	8.924	(0.500)	190219	5.00000	5.176 (A)
15 Atrazine	9.091	9.094	(0.510)	228392	5.00000	5.475 (A)
16 propazine	9.236	9.241	(0.518)	202756	5.00000	5.268 (A)
17 Disulfoton	9.866	9.869	(0.553)	290419	5.00000	4.668
18 Diazinon	9.900	9.902	(0.555)	490902	5.00000	4.934
19 Methyl Parathion	10.715	10.717	(0.601)	322048	5.00000	5.104 (A)
20 Ronnel	11.238	11.241	(0.630)	302582	5.00000	4.640
21 Malathion	11.801	11.804	(0.661)	283462	5.00000	4.812
22 Fenthion	11.930	11.932	(0.669)	301476	5.00000	4.701
23 Parathion	12.020	12.019	(0.674)	334974	5.00000	4.908
24 Chlorpyrifos	12.068	12.067	(0.676)	398604	5.00000	4.827
25 Trichloronate	12.493	12.496	(0.700)	365975	5.00000	4.959
26 Anilazine	12.815	12.817	(0.718)	34322	5.00000	4.247
27 Merphos-A (Merphos)	13.196	13.199	(0.740)	302744	5.00000	4.916
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	210886	5.00000	5.153 (A)
29 Tokuthion	14.448	14.449	(0.810)	351657	5.00000	4.970
30 Merphos-B (Merphos Oxone)	14.646	14.651	(0.821)	79809	5.00000	4.813
31 Carbophenothion-methyl	15.235	15.239	(0.854)	266724	5.00000	4.968
32 Fensulfothion	15.356	15.361	(0.861)	295978	5.00000	4.978
33 Bolstar / Famphur	16.053	16.053	(0.900)	629265	10.0000	9.297

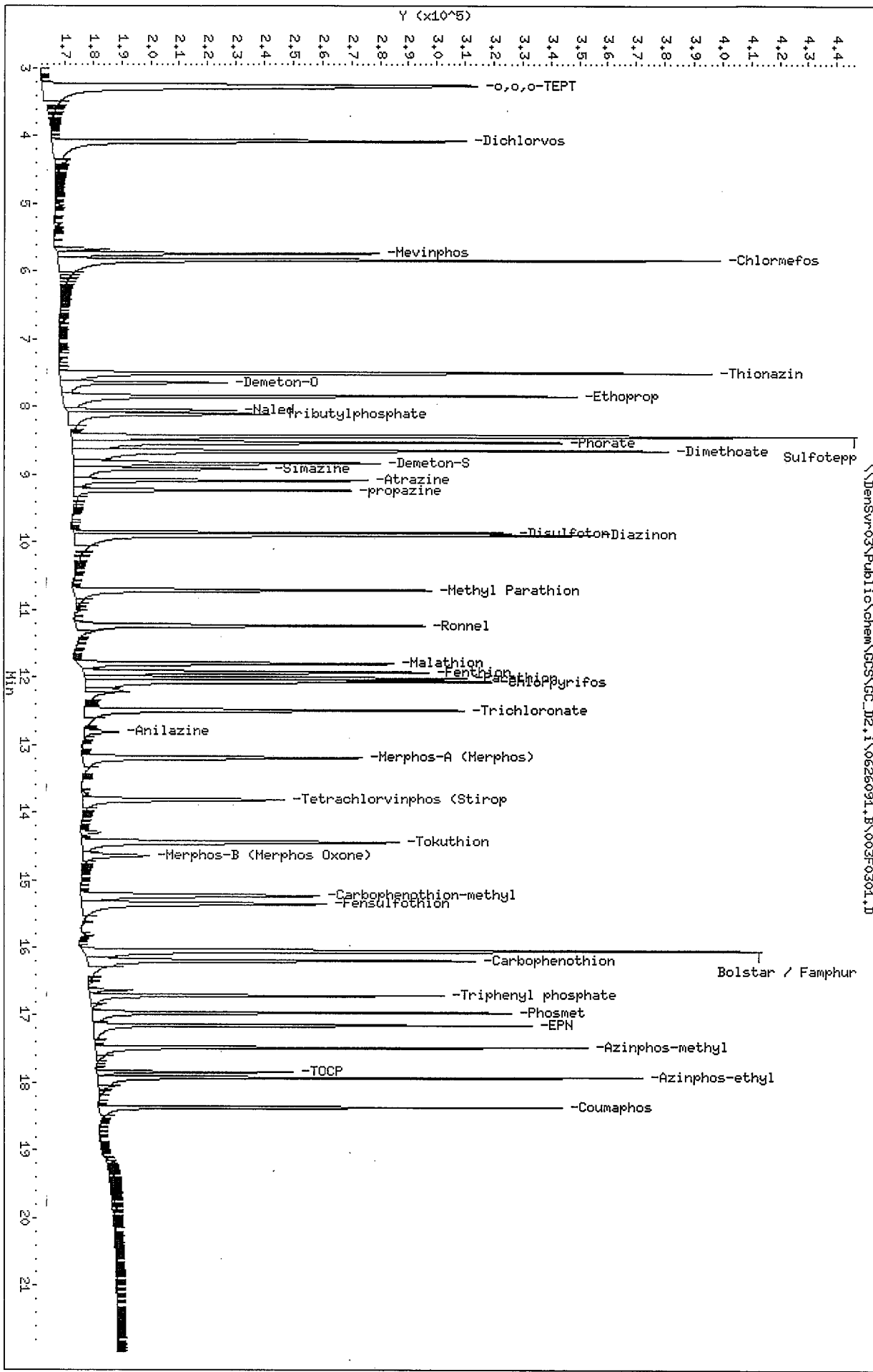


Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.196	16.197	(0.908)	321417	5.00000	4.733
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	244102	5.00000	4.730 (A)
36 Phosmet	16.963	16.963	(0.951)	290049	5.00000	4.990
37 EPN	17.150	17.151	(0.961)	294020	5.00000	5.219 (A)
38 Azinphos-methyl	17.478	17.480	(0.980)	309219	5.00000	4.993
* 39 TOCP	17.843	17.846	(1.000)	102065	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	318459	5.00000	4.789
41 Coumaphos	18.363	18.366	(1.029)	252650	5.00000	5.058 (A)
S 42 Merphos				382553	5.00000	4.876
M 43 Total Demeton				429957	5.00000	5.110

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.





TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\004F0401.D  
 Lab Smp Id: OPP L6 GSV0637 Client Smp ID: OPP L6 GSV0637  
 Inj Date : 26-JUN-2009 18:55  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L6 GSV0637  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:28 Cal File: 003F0301.D  
 Als bottle: 4 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.254	3.254	(0.182)	559984	4.00000	4.123
2 Dichlorvos	4.074	4.074	(0.228)	337386	4.00000	4.000
3 Mevinphos	5.736	5.739	(0.321)	189437	4.00000	4.089
\$ 4 Chlorfepos	5.834	5.836	(0.327)	433193	4.00000	4.101
5 Thionazin	7.504	7.507	(0.421)	385808	4.00000	4.002
6 Demeton-O	7.646	7.649	(0.429)	113108	1.30000	1.237
7 Ethoprop	7.848	7.852	(0.440)	343730	4.00000	4.069
8 Naled	8.054	8.057	(0.451)	90892	4.00000	4.172
* 9 Tributylphosphate	8.111	8.135	(1.000)	190710	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	486417	4.00000	4.072
11 Phorate	8.531	8.532	(0.478)	345415	4.00000	3.949
12 Dimethoate	8.654	8.659	(0.485)	445385	4.00000	4.383
13 Demeton-S	8.838	8.846	(0.495)	208362	2.72000	2.828
14 Simazine	8.919	8.924	(0.500)	147784	4.00000	4.272
15 Atrazine	9.089	9.094	(0.509)	175159	4.00000	4.445
16 propazine	9.236	9.241	(0.518)	156982	4.00000	4.318
17 Disulfoton	9.868	9.869	(0.553)	247845	4.00000	4.214
18 Diazinon	9.901	9.902	(0.555)	354996	4.00000	3.778
19 Methyl Parathion	10.714	10.717	(0.601)	250051	4.00000	4.196
20 Ronnel	11.239	11.241	(0.630)	259621	4.00000	4.214
21 Malathion	11.799	11.804	(0.661)	228260	4.00000	4.097
22 Fenthion	11.931	11.932	(0.669)	241990	4.00000	3.995
23 Parathion	12.018	12.019	(0.674)	267071	4.00000	4.142
24 Chlorpyrifos	12.066	12.067	(0.676)	312992	4.00000	4.013
25 Trichloronate	12.493	12.496	(0.700)	293942	4.00000	4.216
26 Anilazine	12.814	12.817	(0.718)	29375	4.00000	4.019
27 Merphos-A (Merphos)	13.196	13.199	(0.740)	239875	4.00000	4.124
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	164180	4.00000	4.247
29 Tokuthion	14.446	14.449	(0.810)	271654	4.00000	4.065
30 Merphos-B (Merphos Oxone)	14.648	14.651	(0.821)	65974	4.00000	4.215
31 Carbophenothion-methyl	15.234	15.239	(0.854)	206137	4.00000	4.052
32 Fensulfotion	15.358	15.361	(0.861)	229856	4.00000	4.110
33 Bolstar / Famphur	16.053	16.053	(0.900)	495681	8.00000	7.753

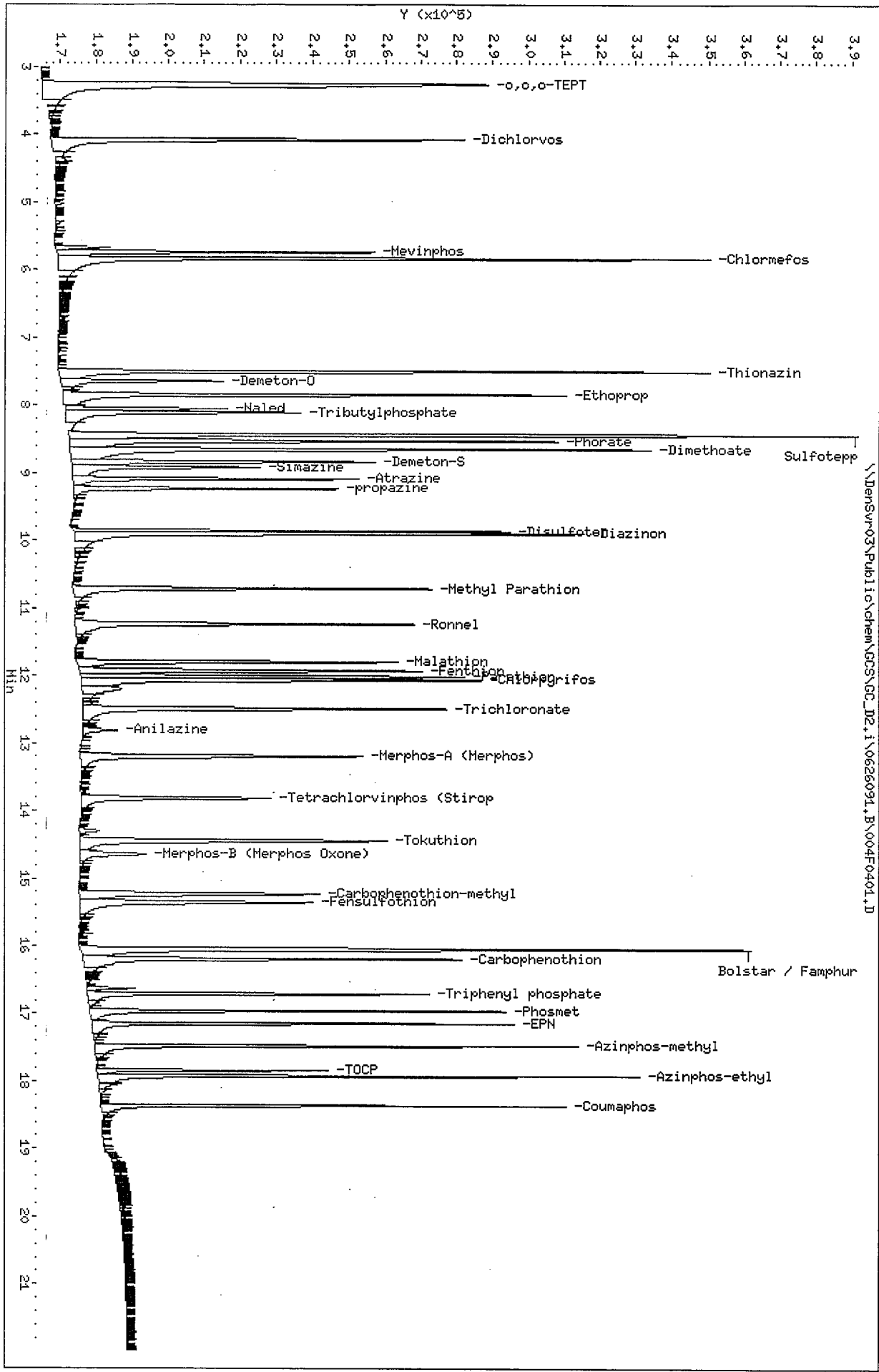
AMOUNTS

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.194	16.197	(0.908)	272632	4.00000	4.251
\$ 35 Triphenyl phosphate	16.711	16.712	(0.937)	194548	4.00000	3.991 (A)
36 Phosmet	16.963	16.963	(0.951)	223910	4.00000	4.079
37 EPN	17.148	17.151	(0.961)	220388	4.00000	4.152
38 Azinphos-methyl	17.478	17.480	(0.980)	244293	4.00000	4.176
* 39 TOCP	17.843	17.846	(1.000)	96406	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	253982	4.00000	4.021
41 Coumaphos	18.363	18.366	(1.029)	194765	4.00000	4.128
S 42 Merphos				305849	4.00000	4.161
M 43 Total Demeton				321470	4.00000	4.064

QC Flag Legend

A - Target compound detected but, quantitated amount  
 exceeded maximum amount.





TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\005F0501.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 26-JUN-2009 19:23  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:55 Cal File: 004F0401.D  
 Als bottle: 5 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.254	3.254	(0.182)	430120	3.00000	2.892
2 Dichlorvos	4.074	4.074	(0.228)	272336	3.00000	2.949
3 Mevinphos	5.737	5.739	(0.322)	150686	3.00000	2.970
\$ 4 Chlorfepos	5.834	5.836	(0.327)	373109	3.00000	3.226
5 Thionazin	7.504	7.507	(0.421)	310451	3.00000	2.941
6 Demeton-O	7.646	7.649	(0.429)	96004	0.97500	0.9530
7 Ethoprop	7.847	7.852	(0.440)	275706	3.00000	2.981
8 Naled	8.054	8.057	(0.451)	67594	3.00000	2.896
* 9 Tributylphosphate	8.111	8.135	(1.000)	190357	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	393078	3.00000	2.987
11 Phorate	8.531	8.532	(0.478)	279291	3.00000	2.916
12 Dimethoate	8.654	8.659	(0.485)	354003	3.00000	3.181
13 Demeton-S	8.837	8.846	(0.495)	167136	2.04000	2.071
14 Simazine	8.919	8.924	(0.500)	115426	3.00000	3.070
15 Atrazine	9.089	9.094	(0.509)	135287	3.00000	3.135
16 propazine	9.236	9.241	(0.518)	119795	3.00000	3.009
17 Disulfoton	9.867	9.869	(0.553)	193050	3.00000	2.986
18 Diazinon	9.901	9.902	(0.555)	314608	3.00000	3.057
19 Methyl Parathion	10.714	10.717	(0.600)	206402	3.00000	3.163
20 Ronnel	11.239	11.241	(0.630)	197062	3.00000	2.921
21 Malathion	11.799	11.804	(0.661)	186013	3.00000	3.038
22 Fenthion	11.931	11.932	(0.669)	198864	3.00000	2.998
23 Parathion	12.017	12.019	(0.674)	215846	3.00000	3.057
24 Chlorpyrifos	12.066	12.067	(0.676)	255782	3.00000	2.995
25 Trichloronate	12.494	12.496	(0.700)	231599	3.00000	3.034
26 Anilazine	12.812	12.817	(0.718)	19893	3.00000	2.881
27 Merphos-A (Merphos)	13.196	13.199	(0.740)	192022	3.00000	3.015
28 Tetrachlorvinphos (Stirophos)	13.816	13.824	(0.774)	134968	3.00000	3.188
29 Tokuthion	14.447	14.449	(0.810)	220825	3.00000	3.018
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	50056	3.00000	2.927
31 Carbophenothion-methyl	15.236	15.239	(0.854)	167145	3.00000	2.983
32 Fensulfothion	15.356	15.361	(0.861)	185778	3.00000	3.058
33 Bolstar / Famphur	16.051	16.053	(0.900)	404218	6.00000	5.774



Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.194	16.197	(0.908)	199717	3.00000	2.844
\$ 35 Triphenyl phosphate	16.711	16.712	(0.937)	157761	3.00000	2.956 (A)
36 Phosmet	16.962	16.963	(0.951)	177892	3.00000	2.959
37 EPN	17.149	17.151	(0.961)	171283	3.00000	2.961
38 Azinphos-methyl	17.476	17.480	(0.979)	195645	3.00000	3.054
* 39 TOCP	17.842	17.846	(1.000)	105568	2.00000	
40 Azinphos-ethyl	17.922	17.926	(1.004)	209971	3.00000	2.999
41 Coumaphos	18.364	18.366	(1.029)	159962	3.00000	3.096
S 42 Merphos				242078	3.00000	2.978
M 43 Total Demeton				263140	3.00000	3.024

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 005F0501.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 26-JUN-2009  
 Calibration Time: 21:40  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

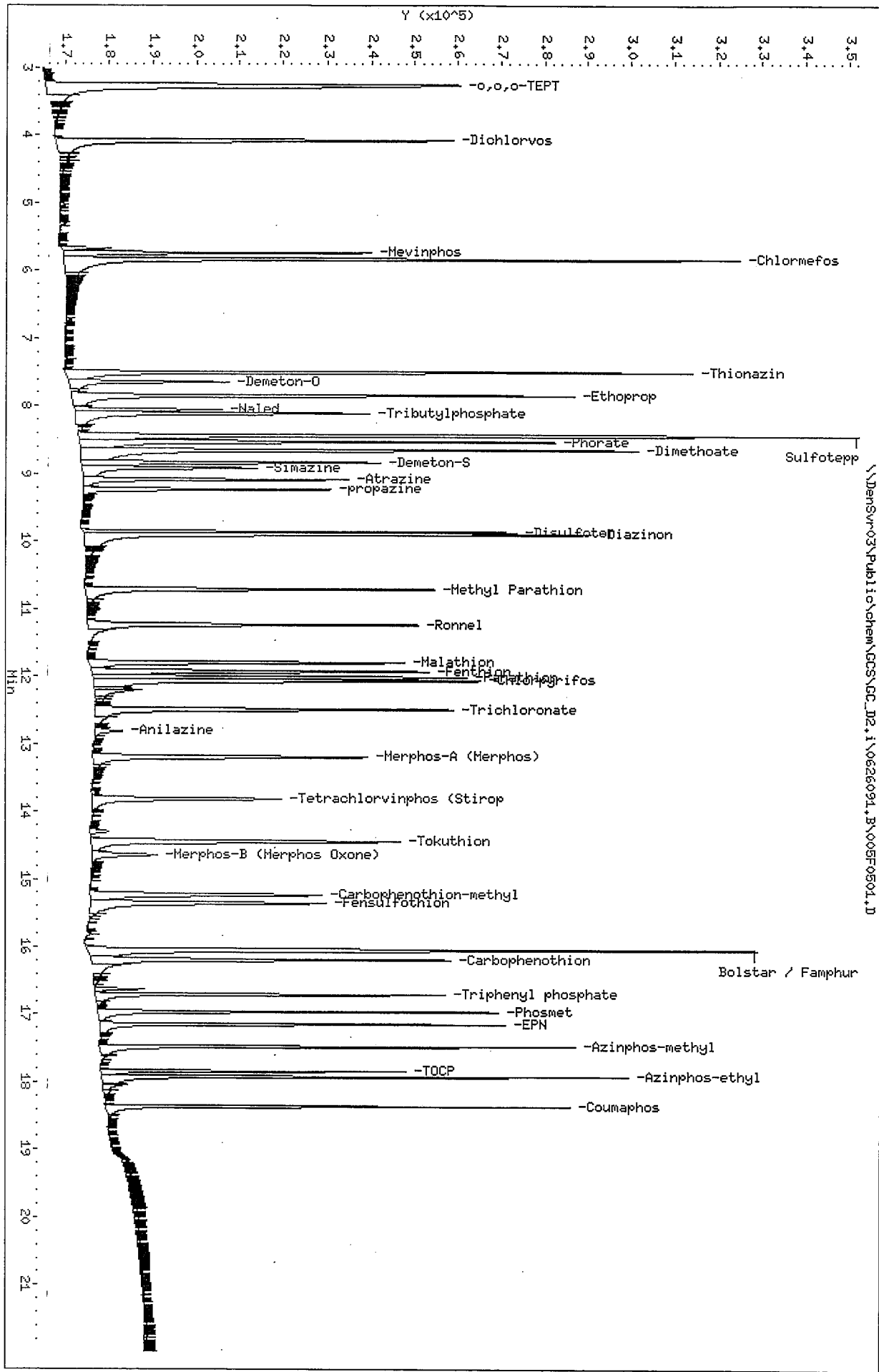
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	166572	83286	333144	190357	14.28
39 TOCP	99647	49824	199294	105568	5.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	-0.02
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densw03\Public\chem\GCS\GC\_D2+1\0626094\_B\005F0504.D  
 Date: 26-JUN-2009 19:23  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTX-1MS

Instrument: GC\_D2+1  
 Operator: HPK/TLN  
 Column diameter: 0.32



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\006F0601.D  
 Lab Smp Id: OPP L4 GSV0638 Client Smp ID: OPP L4 GSV0638  
 Inj. Date : 26-JUN-2009 19:50  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L4 GSV0638  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:23 Cal File: 005F0501.D  
 Als bottle: 6 Calibration Sample, Level: 4  
 Dil Factor: 1.00000 Compound Sublist: 8141A.sub  
 Integrator: Falcon  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.255	3.254	(0.182)	282037	2.00000	2.056
2 Dichlorvos	4.075	4.074	(0.228)	171715	2.00000	2.016
3 Mevinphos	5.737	5.739	(0.322)	99077	2.00000	2.117
\$ 4 Chlormefos	5.834	5.836	(0.327)	220122	2.00000	2.064
5 Thionazin	7.504	7.507	(0.421)	202723	2.00000	2.082
6 Demeton-O	7.647	7.649	(0.429)	62341	0.65000	0.6633
7 Ethoprop	7.849	7.852	(0.440)	168636	2.00000	1.977
8 Naled	8.055	8.057	(0.451)	36940	2.00000	1.794
* 9 Tributylphosphate	8.112	8.135	(1.000)	160310	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	259970	2.00000	2.122
11 Phorate	8.530	8.532	(0.478)	177561	2.00000	2.010
12 Dimethoate	8.655	8.659	(0.485)	219744	2.00000	2.141
13 Demeton-S	8.840	8.846	(0.495)	104966	1.36000	1.410
14 Simazine	8.919	8.924	(0.500)	64611	2.00000	1.894
15 Atrazine	9.089	9.094	(0.509)	82396	2.00000	2.070
16 propazine	9.235	9.241	(0.518)	76116	2.00000	2.073
17 Disulfoton	9.867	9.869	(0.553)	127893	2.00000	2.134
18 Diazinon	9.902	9.902	(0.555)	196533	2.00000	2.071
19 Methyl Parathion	10.714	10.717	(0.600)	128904	2.00000	2.142
20 Ronnel	11.239	11.241	(0.630)	125931	2.00000	2.024
21 Malathion	11.799	11.804	(0.661)	119836	2.00000	2.110
22 Fenthion	11.930	11.932	(0.669)	125692	2.00000	2.054
23 Parathion	12.017	12.019	(0.673)	135333	2.00000	2.078
24 Chlorpyrifos	12.067	12.067	(0.676)	158619	2.00000	2.014
25 Trichloronate	12.494	12.496	(0.700)	144264	2.00000	2.049
26 Anilazine	12.815	12.817	(0.718)	12790	2.00000	2.151
27 Merphos-A (Merphos)	13.197	13.199	(0.740)	120719	2.00000	2.055
28 Tetrachlorvinphos (Stirophos)	13.817	13.824	(0.774)	81250	2.00000	2.081
29 Tokuthion	14.447	14.449	(0.810)	140431	2.00000	2.081
30 Merphos-B (Merphos Oxone)	14.649	14.651	(0.821)	34113	2.00000	2.168
31 Carbofenothion-methyl	15.235	15.239	(0.854)	105577	2.00000	2.022
32 Fensulfothion	15.357	15.361	(0.861)	104440	2.00000	1.901
33 Bolstar / Famphur	16.052	16.053	(0.900)	260611	4.00000	4.036

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.195	16.197	(0.908)	128846	2.00000	1.989
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	102669	2.00000	2.086 (A)
36 Phosmet	16.962	16.963	(0.951)	117406	2.00000	2.118
37 EPN	17.149	17.151	(0.961)	111165	2.00000	2.098
38 Azinphos-methyl	17.477	17.480	(0.979)	124853	2.00000	2.113
* 39 TOCP	17.844	17.846	(1.000)	97363	2.00000	
40 Azinphos-ethyl	17.924	17.926	(1.004)	134607	2.00000	2.040
S 41 Coumaphos	18.364	18.366	(1.029)	99259	2.00000	2.083
M 42 Merphos				154832	2.00000	2.068
M 43 Total Demeton				167307	2.00000	2.074

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 006F0601.D  
 Lab Smp Id: OPP L4 GSV0638  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L4 GSV0638  
 Level:  
 Sample Type:

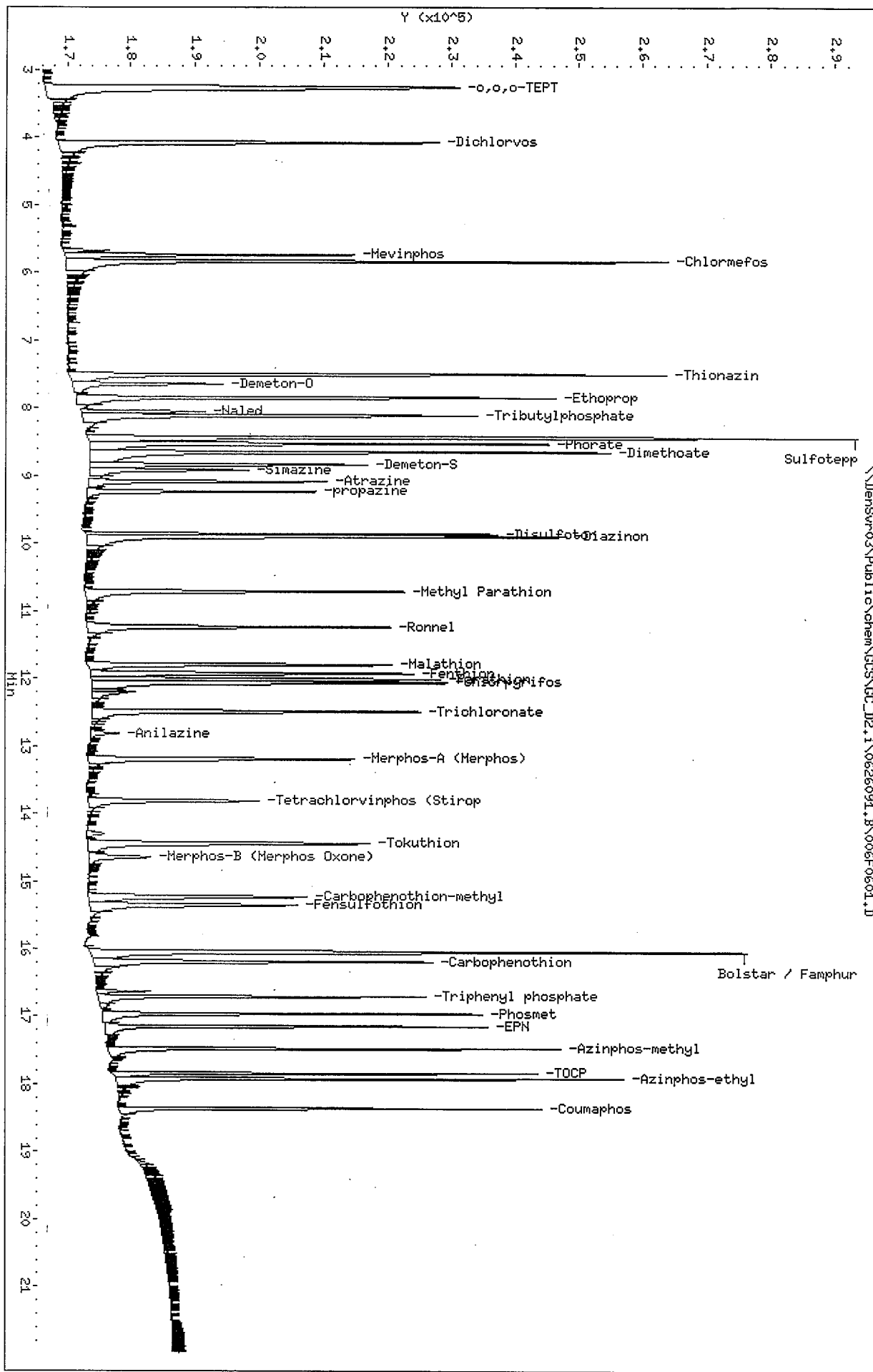
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	160310	0.00
39 TOCP	97363	48682	194726	97363	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.00
39 TOCP	17.84	17.34	18.34	17.84	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densv03\Public\chem\GCS\GC\_D2.i\0626091.B\006F0604.D  
 Date: 26-JUN-2009 19:50  
 Client ID: OPP L4 GSV0638  
 Sample Info: OPP L4 GSV0638  
 Column phase: RTX-IMS

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\007F0701.D  
 Lab Smp Id: OPP L3 GSV0639 Client Smp ID: OPP L3 GSV0639  
 Inj Date : 26-JUN-2009 20:18  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L3 GSV0639  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:50 Cal File: 006F0601.D  
 Als bottle: 7 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.253	3.254	(0.182)	136897	1.00000	0.9509
2 Dichlorvos	4.075	4.074	(0.228)	81003	1.00000	0.9061
3 Mevinphos	5.738	5.739	(0.322)	46063	1.00000	0.9380
§ 4 Chlormefos	5.833	5.836	(0.327)	102183	1.00000	0.9128
5 Thionazin	7.503	7.507	(0.421)	99560	1.00000	0.9745
6 Demeton-O	7.645	7.649	(0.429)	30145	0.32500	0.2917
7 Ethoprop	7.850	7.852	(0.440)	82934	1.00000	0.9263
8 Naled	8.055	8.057	(0.451)	15042	1.00000	0.8141
* 9 Tributylphosphate	8.113	8.135	(1.000)	156624	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	131347	1.00000	0.9856
11 Phorate	8.530	8.532	(0.478)	88795	1.00000	0.9577
12 Dimethoate	8.657	8.659	(0.485)	105981	1.00000	0.9840
13 Demeton-S	8.840	8.846	(0.495)	51826	0.68000	0.6636
14 Simazine	8.918	8.924	(0.500)	29382	1.00000	0.8660
15 Atrazine	9.088	9.094	(0.509)	38356	1.00000	0.9184
16 propazine	9.235	9.241	(0.518)	35375	1.00000	0.9180
17 Disulfoton	9.867	9.869	(0.553)	61920	1.00000	0.9637
18 Diazinon	9.902	9.902	(0.555)	93892	1.00000	0.9427
19 Methyl Parathion	10.715	10.717	(0.601)	58112	1.00000	0.9200
20 Ronnel	11.240	11.241	(0.630)	61984	1.00000	0.9493
21 Malathion	11.800	11.804	(0.661)	57103	1.00000	0.9353
22 Fenthion	11.930	11.932	(0.669)	59512	1.00000	0.9268
23 Parathion	12.017	12.019	(0.674)	63007	1.00000	0.9220
24 Chlorpyrifos	12.067	12.067	(0.676)	75298	1.00000	0.9108
25 Trichloronate	12.493	12.496	(0.700)	68852	1.00000	0.9318
26 Anilazine	12.817	12.817	(0.718)	5311	1.00000	0.9480
27 Merphos-A (Merphos)	13.198	13.199	(0.740)	59249	1.00000	0.9611
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.775)	37534	1.00000	0.9161
29 Tokuthion	14.448	14.449	(0.810)	66164	1.00000	0.9341
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	11676	1.00000	0.7212
31 Carbophenothion-methyl	15.235	15.239	(0.854)	55023	1.00000	0.9704
32 Fensulfothion	15.360	15.361	(0.861)	51304	1.00000	0.9402
33 Bolstar / Famphur	16.050	16.053	(0.900)	135217	2.00000	1.995



Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
===== 34 Carbophenothion	16.193	16.197	(0.908)	65237	1.00000	0.9596
\$ 35 Triphenyl phosphate	16.708	16.712	(0.936)	49547	1.00000	0.9591
36 Phosmet	16.962	16.963	(0.951)	56728	1.00000	0.9749
37 EPN	17.148	17.151	(0.961)	48705	1.00000	0.9045
38 Azinphos-methyl	17.478	17.480	(0.980)	59658	1.00000	0.9622
* 39 TOCP	17.842	17.846	(1.000)	102183	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.005)	74071	1.00000	0.9989
41 Coumaphos	18.363	18.366	(1.029)	47132	1.00000	0.9424
S 42 Merphos				70925	1.00000	0.8976
M 43 Total Demeton				81971	1.00000	0.9553

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 007F0701.D  
 Lab Smp Id: OPP L3 GSV0639  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L3 GSV0639  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	156624	-2.30
39 TOCP	97363	48682	194726	102183	4.95

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.02
39 TOCP	17.84	17.34	18.34	17.84	-0.01

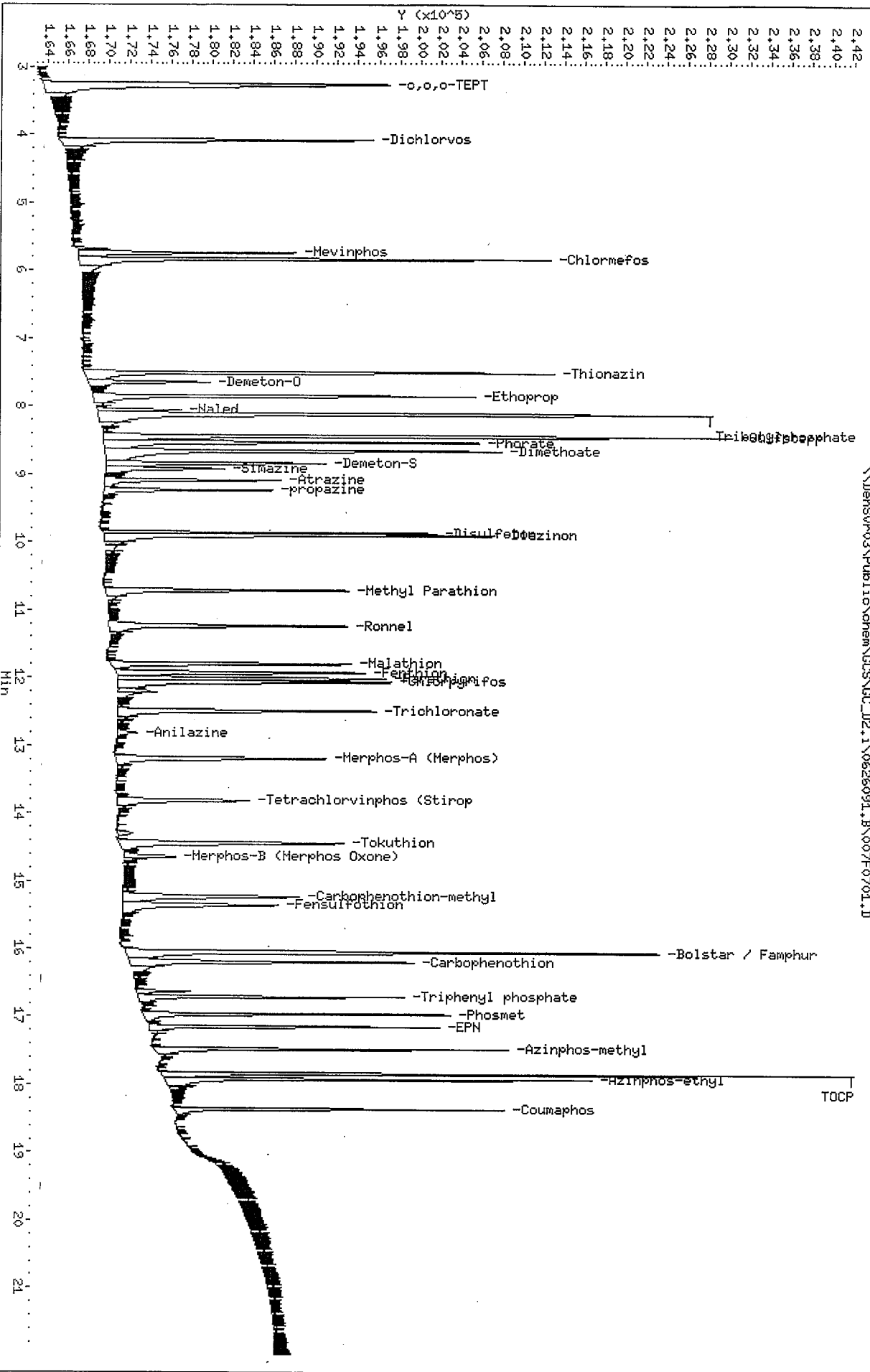
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvr-03\Public\chem\GCS\GC\_D2.1\0626091.B\007F0701.D  
 Date: 26-JUN-2009 20:18  
 Client ID: OPP L3 GSV0639  
 Sample Info: OPP L3 GSV0639

Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: NPK/TLW  
 Column diameter: 0.32

\\Densvr-03\Public\chem\GCS\GC\_D2.1\0626091.B\007F0701.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\008F0801.D  
 Lab Smp Id: OPP L2 GSV0640 Client Smp ID: OPP L2 GSV0640  
 Inj Date : 26-JUN-2009 20:45  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L2 GSV0640  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:18 Cal File: 007F0701.D  
 Als bottle: 8 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.255	3.254	(0.182)	68743	0.50000	0.4680
2 Dichlorvos	4.076	4.074	(0.228)	42284	0.50000	0.4636
3 Mevinphos	5.738	5.739	(0.322)	23796	0.50000	0.4749
4 Chlormefos	5.833	5.836	(0.327)	53089	0.50000	0.4648
5 Thionazin	7.505	7.507	(0.421)	50724	0.50000	0.4866
6 Demeton-O	7.646	7.649	(0.429)	17553	0.16250	0.1554
7 Ethoprop	7.851	7.852	(0.440)	44525	0.50000	0.4874
8 Naled	8.056	8.057	(0.452)	6103	0.50000	0.4398
* 9 Tributylphosphate	8.113	8.135	(1.000)	165852	2.00000	
10 Sulfotepp	8.438	8.442	(0.473)	70885	0.50000	0.4886
11 Phorate	8.530	8.532	(0.478)	47685	0.50000	0.5040
12 Dimethoate	8.660	8.659	(0.485)	46100	0.50000	0.4195
13 Demeton-S	8.843	8.846	(0.496)	25917	0.34000	0.3252
14 Simazine	8.920	8.924	(0.500)	16248	0.50000	0.5059
15 Atrazine	9.091	9.094	(0.510)	19948	0.50000	0.4681
16 propazine	9.236	9.241	(0.518)	18281	0.50000	0.4649
17 Disulfoton	9.866	9.869	(0.553)	33208	0.50000	0.4883
18 Diazinon	9.903	9.902	(0.555)	47843	0.50000	0.4708
19 Methyl Parathion	10.715	10.717	(0.601)	28773	0.50000	0.4464
20 Ronnel	11.240	11.241	(0.630)	32156	0.50000	0.4827
21 Malathion	11.800	11.804	(0.661)	30581	0.50000	0.4713
22 Fenthion	11.931	11.932	(0.669)	30876	0.50000	0.4713
23 Parathion	12.016	12.019	(0.673)	32682	0.50000	0.4687
24 Chlorpyrifos	12.066	12.067	(0.676)	40856	0.50000	0.4843
25 Trichloronate	12.493	12.496	(0.700)	37156	0.50000	0.4928
26 Anilazine	12.820	12.817	(0.718)	2095	0.50000	0.4035 (M)
27 Merphos-A (Merphos)	13.200	13.199	(0.740)	30112	0.50000	0.4787
28 Tetrachlorvinphos (Stirophos)	13.818	13.824	(0.774)	19446	0.50000	0.4652
29 Tokuthion	14.448	14.449	(0.810)	33437	0.50000	0.4626
30 Merphos-B (Merphos Oxone)	14.651	14.651	(0.821)	7933	0.50000	0.4872 (M)
31 Carbophenothion-methyl	15.235	15.239	(0.854)	30542	0.50000	0.4974
32 Fensulfothion	15.360	15.361	(0.861)	23000	0.50000	0.4661
33 Bolstar / Famphur	16.050	16.053	(0.899)	66619	1.00000	0.9635

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 Carbophenothion	16.193	16.197	(0.908)	31276	0.50000	0.4509
\$ 35 Triphenyl phosphate	16.710	16.712	(0.936)	25861	0.50000	0.4906
36 Phosmet	16.961	16.963	(0.951)	26426	0.50000	0.4451
37 EPN	17.148	17.151	(0.961)	23196	0.50000	0.4484
38 Azinphos-methyl	17.478	17.480	(0.980)	29588	0.50000	0.4677
* 39 TOCP	17.843	17.846	(1.000)	104260	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	43578	0.50000	0.5132
41 Coumaphos	18.363	18.366	(1.029)	23408	0.50000	0.4587
S 42 Merphos				38045	0.50000	0.4789
M 43 Total Demeton				43470	0.50000	0.4806

QC Flag Legend

M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 008F0801.D Calibration Time: 19:50  
 Lab Smp Id: OPP L2 GSV0640 Client Smp ID: OPP L2 GSV0640  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	165852	3.46
39 TOCP	97363	48682	194726	104260	7.08

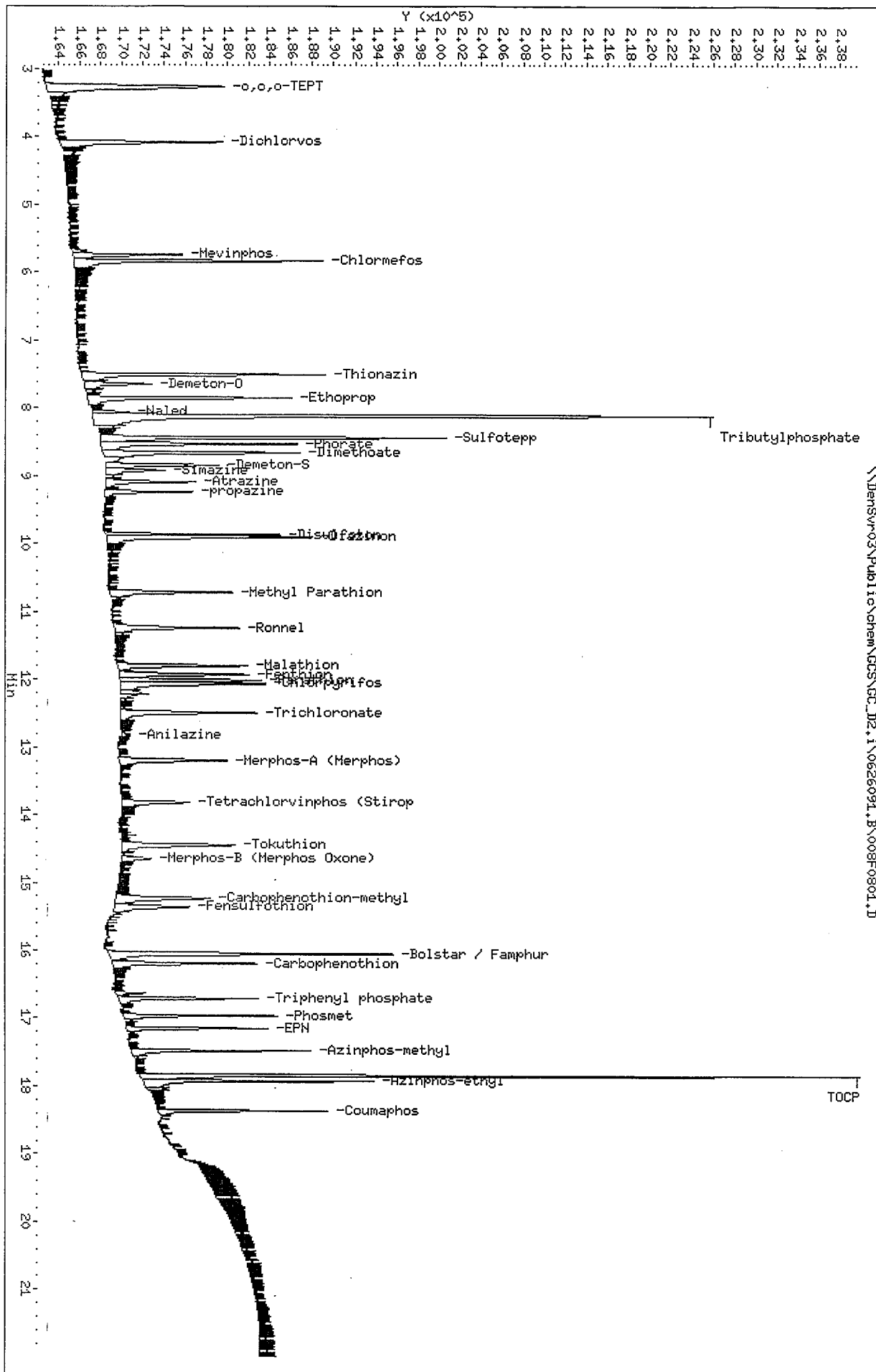
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.01
39 TOCP	17.84	17.34	18.34	17.84	-0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

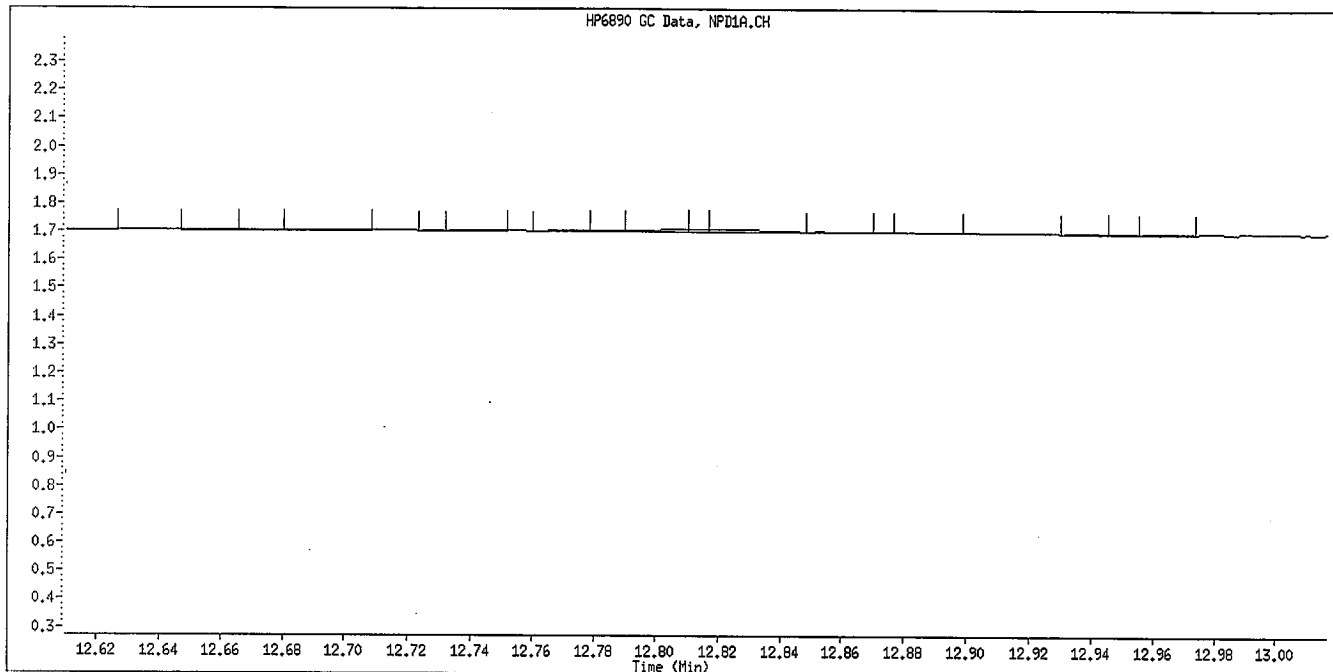
Data File: \\Densvyr03\Public\chem\GCs\GC\_D2.1\0626091.B\008F0801.D  
 Date: 26-JUN-2009 20:45  
 Client ID: OPP L2 GSV0640  
 Sample Info: OPP L2 GSV0640  
 Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: MPK/TLM  
 Column diameter: 0.32

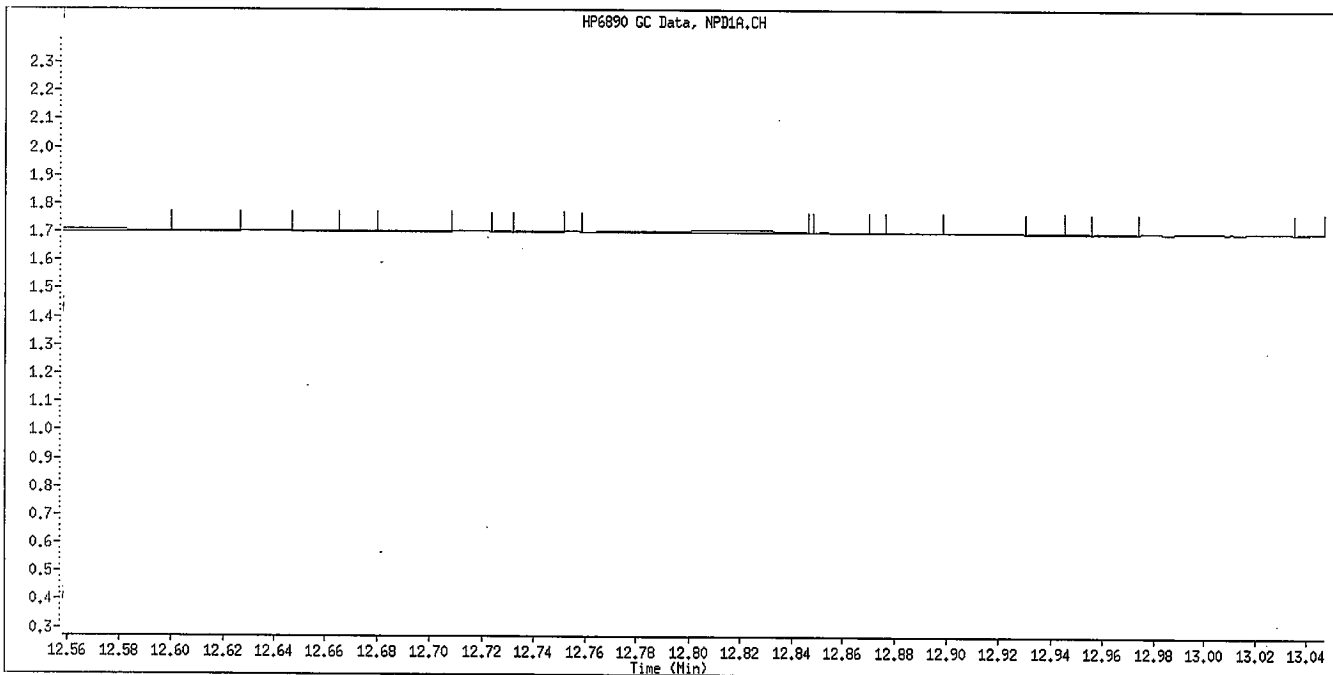
\\Densvyr03\Public\chem\GCs\GC\_D2.1\0626091.B\008F0801.D



Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration



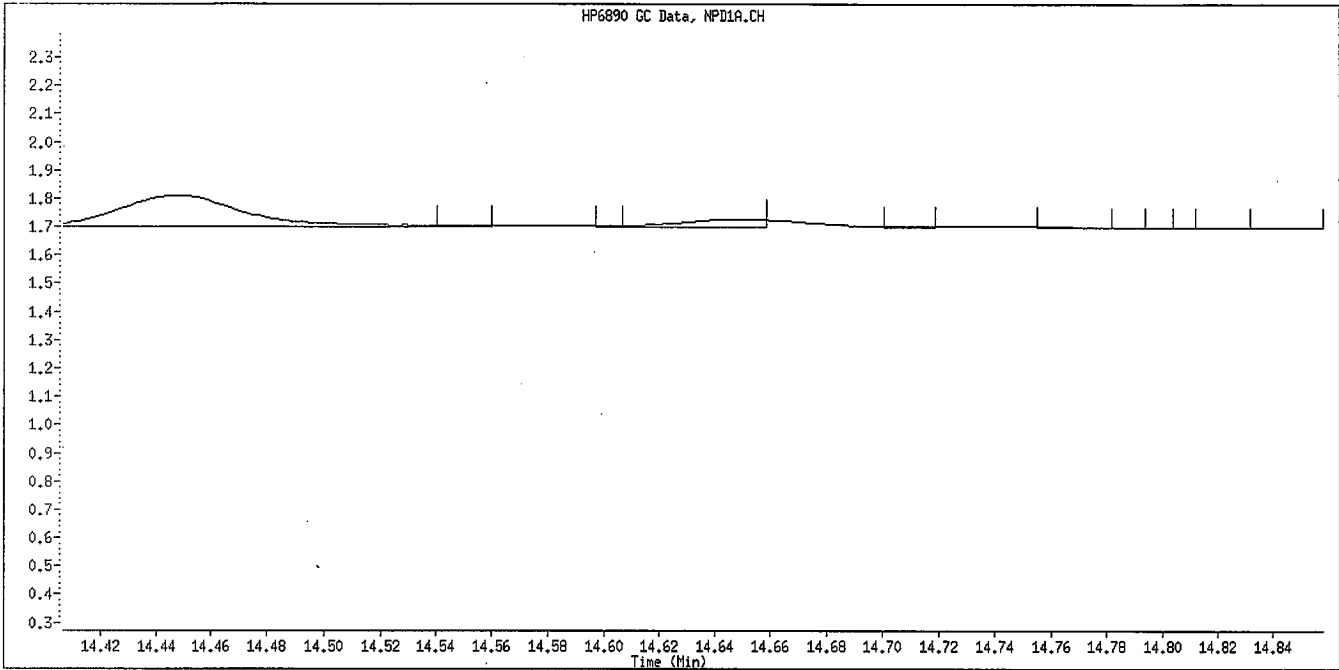
Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

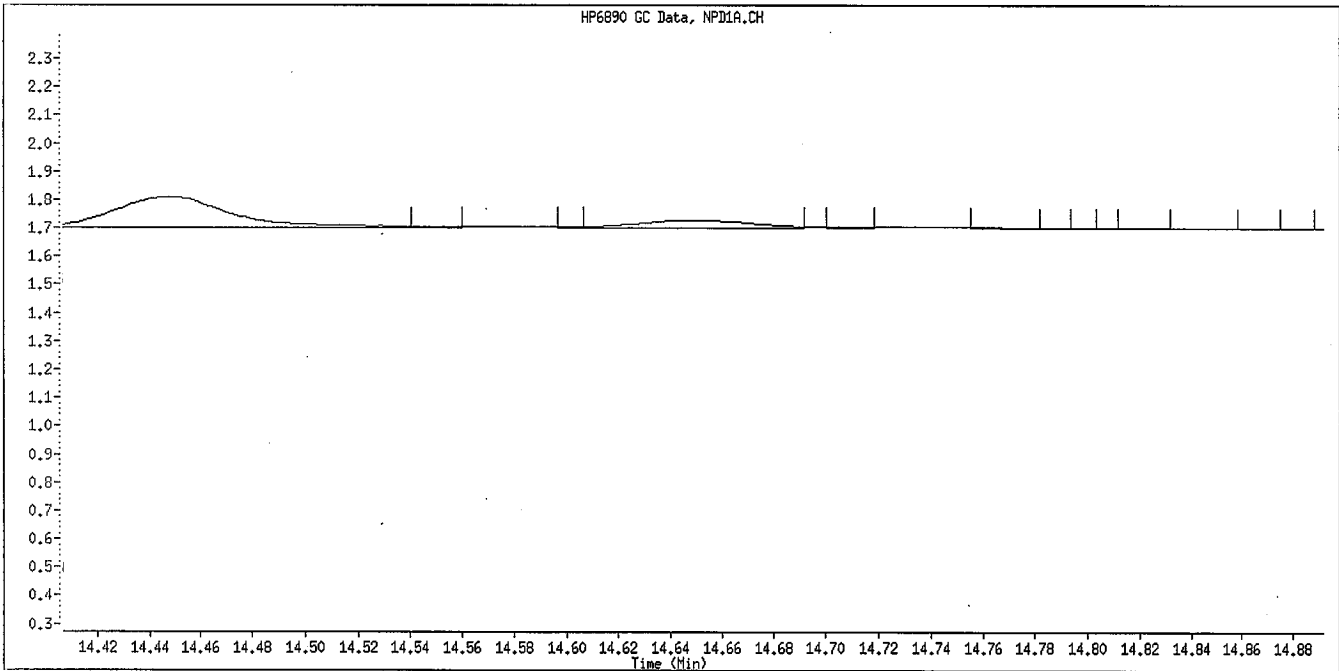
*Handwritten signature:*  
JL  
6/30/09



Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Je*  
*6/30/09*

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\009F0901.D  
 Lab Smp Id: OPP L1 GSV0641 Client Smp ID: OPP L1 GSV0641  
 Inj Date : 26-JUN-2009 21:13  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L1 GSV0641  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:45 Cal File: 008F0801.D  
 Als bottle: 9 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.258	3.254	(0.183)	32995	0.20000	0.2212
2 Dichlorvos	4.081	4.074	(0.229)	21359	0.20000	0.2306
3 Mevinphos	5.743	5.739	(0.322)	10777	0.20000	0.2118
\$ 4 Chlormefos	5.834	5.836	(0.327)	24167	0.20000	0.2083
5 Thionazin	7.506	7.507	(0.421)	22524	0.20000	0.2127
6 Demeton-O	7.646	7.649	(0.429)	9836	0.06500	0.07420
7 Ethoprop	7.854	7.852	(0.440)	20488	0.20000	0.2208
8 Naled	8.063	8.057	(0.452)	1992	0.20000	0.2720 (M)
* 9 Tributylphosphate	8.114	8.135	(1.000)	165799	2.00000	
10 Sulfotepp	8.439	8.442	(0.473)	34658	0.20000	0.1992
11 Phorate	8.531	8.532	(0.478)	21475	0.20000	0.2235
12 Dimethoate	8.664	8.659	(0.486)	20073	0.20000	0.1798
13 Demeton-S	8.846	8.846	(0.496)	10751	0.13600	0.1328
14 Simazine	8.926	8.924	(0.500)	4819	0.20000	0.2042 (M)
15 Atrazine	9.093	9.094	(0.510)	7432	0.20000	0.1717
16 propazine	9.238	9.241	(0.518)	7824	0.20000	0.1959
17 Disulfoton	9.868	9.869	(0.553)	15404	0.20000	0.2020
18 Diazinon	9.904	9.902	(0.555)	23321	0.20000	0.2259
19 Methyl Parathion	10.716	10.717	(0.601)	12987	0.20000	0.1984
20 Ronnel	11.239	11.241	(0.630)	15128	0.20000	0.2236
21 Malathion	11.801	11.804	(0.661)	15443	0.20000	0.2136
22 Fenthion	11.931	11.932	(0.669)	15507	0.20000	0.2330
23 Parathion	12.019	12.019	(0.674)	15083	0.20000	0.2130
24 Chlorpyrifos	12.069	12.067	(0.676)	19655	0.20000	0.2294
25 Trichloronate	12.494	12.496	(0.700)	15328	0.20000	0.2002
26 Anilazine	12.824	12.817	(0.719)	1493	0.20000	0.2971 (M)
27 Merphos-A (Merphos)	13.199	13.199	(0.740)	13220	0.20000	0.2069
28 Tetrachlorvinphos (Stirophos)	13.823	13.824	(0.775)	8134	0.20000	0.1916
29 Tokuthion	14.448	14.449	(0.810)	15915	0.20000	0.2168
30 Merphos-B (Merphos Oxone)	14.656	14.651	(0.821)	3884	0.20000	0.2457 (M)
31 Carbophenothion-methyl	15.238	15.239	(0.854)	14924	0.20000	0.2045
32 Fensulfothion	15.364	15.361	(0.861)	8319	0.20000	0.2269
33 Bolstar / Famphur	16.049	16.053	(0.899)	32824	0.40000	0.4674

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
===== 34 Carbophenothion	16.193	16.197	(0.908)	16722	0.20000	0.2374
\$ 35 Triphenyl phosphate	16.709	16.712	(0.936)	11646	0.20000	0.2175
36 Phosmet	16.963	16.963	(0.951)	12928	0.20000	0.2144
37 EPN	17.148	17.151	(0.961)	9525	0.20000	0.2105
38 Azinphos-methyl	17.478	17.480	(0.980)	12661	0.20000	0.1970
* 39 TOCP	17.843	17.846	(1.000)	105892	2.00000	
40 Azinphos-ethyl	17.923	17.926	(1.004)	23154	0.20000	0.1978
41 Coumaphos	18.364	18.366	(1.029)	10604	0.20000	0.2046
S 42 Merphos				17104	0.20000	0.2120
M 43 Total Demeton				20587	0.20000	0.2070

QC Flag Legend

M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 009F0901.D Calibration Time: 19:50  
 Lab Smp Id: OPP L1 GSV0641 Client Smp ID: OPP L1 GSV0641  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Misc Info: IS - GSV0633-09

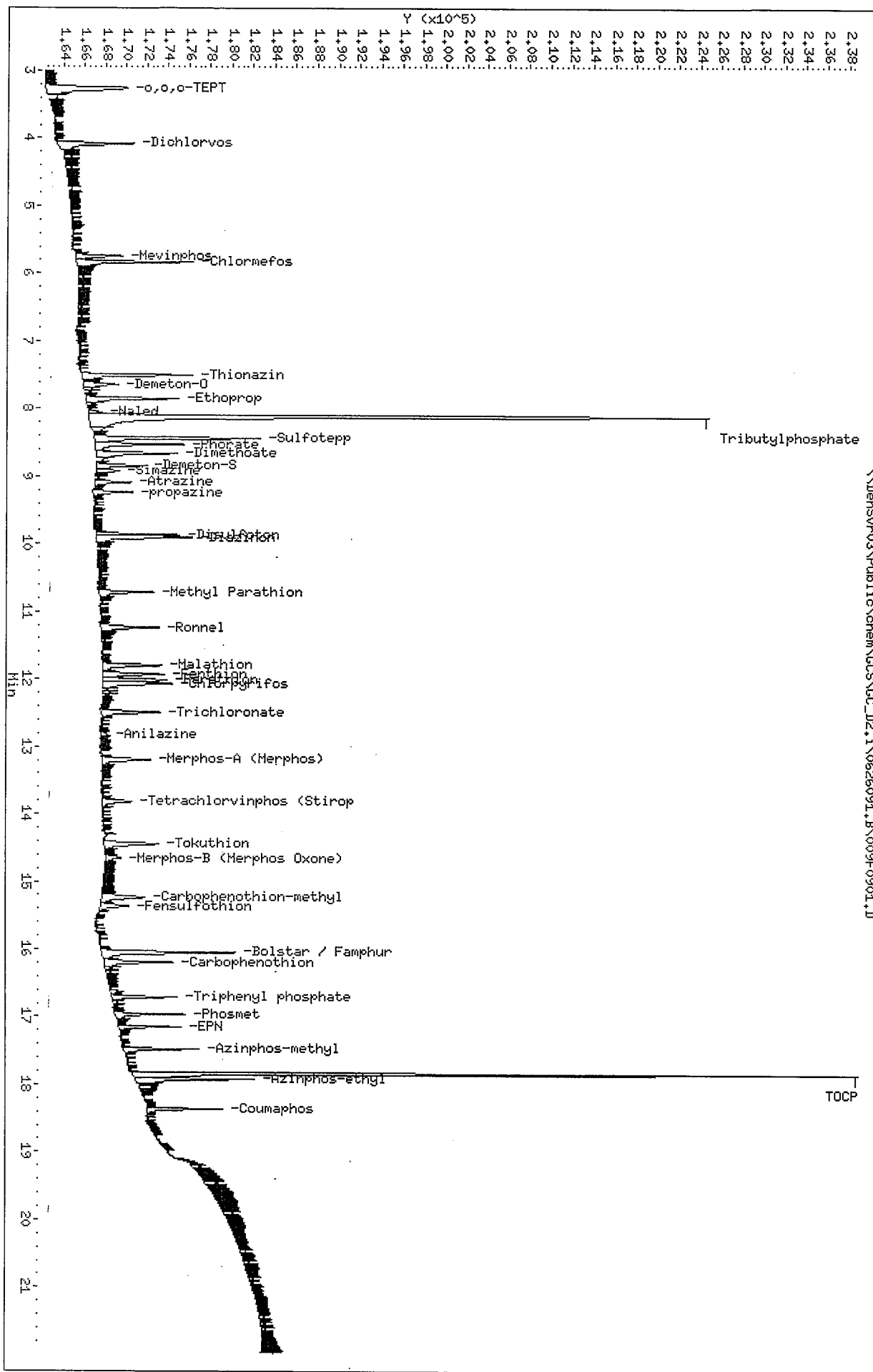
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	160310	80155	320620	165799	3.42
39 TOCP	97363	48682	194726	105892	8.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	8.11	7.61	8.61	8.11	0.03
39 TOCP	17.84	17.34	18.34	17.84	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densur-03\Public\chem\GC\GC\_D2.1\0626091.B\009F0901.D  
 Date: 26-JUN-2009 21:13  
 Client ID: OPP L1 GSV0641  
 Sample Info: OPP L1 GSV0641  
 Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: HPK/TLW  
 Column diameter: 0.32



Data File Name: 009F0901.D

Inj. Date and Time: 26-JUN-2009 21:13

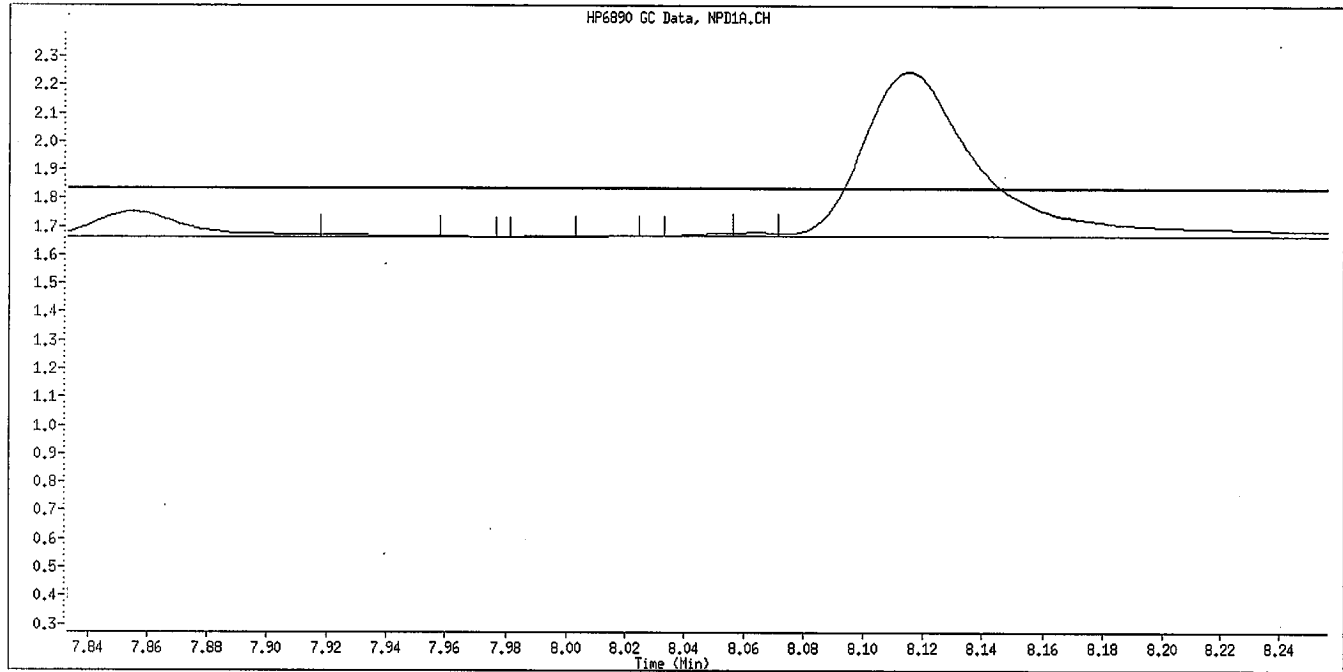
Instrument ID: GC\_D2.i

Client ID: OPP L1 GSV0641

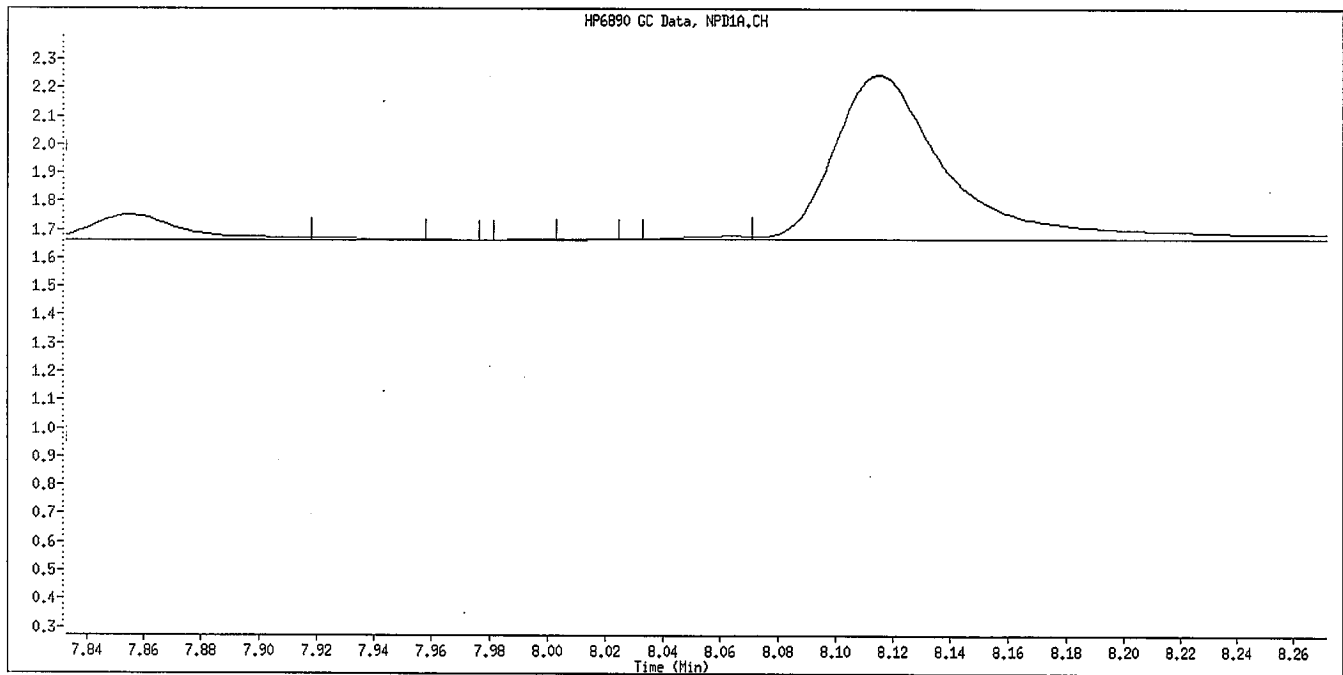
Compound Name: Naled

CAS #:

Report Date: 06/30/2009



Original Integration



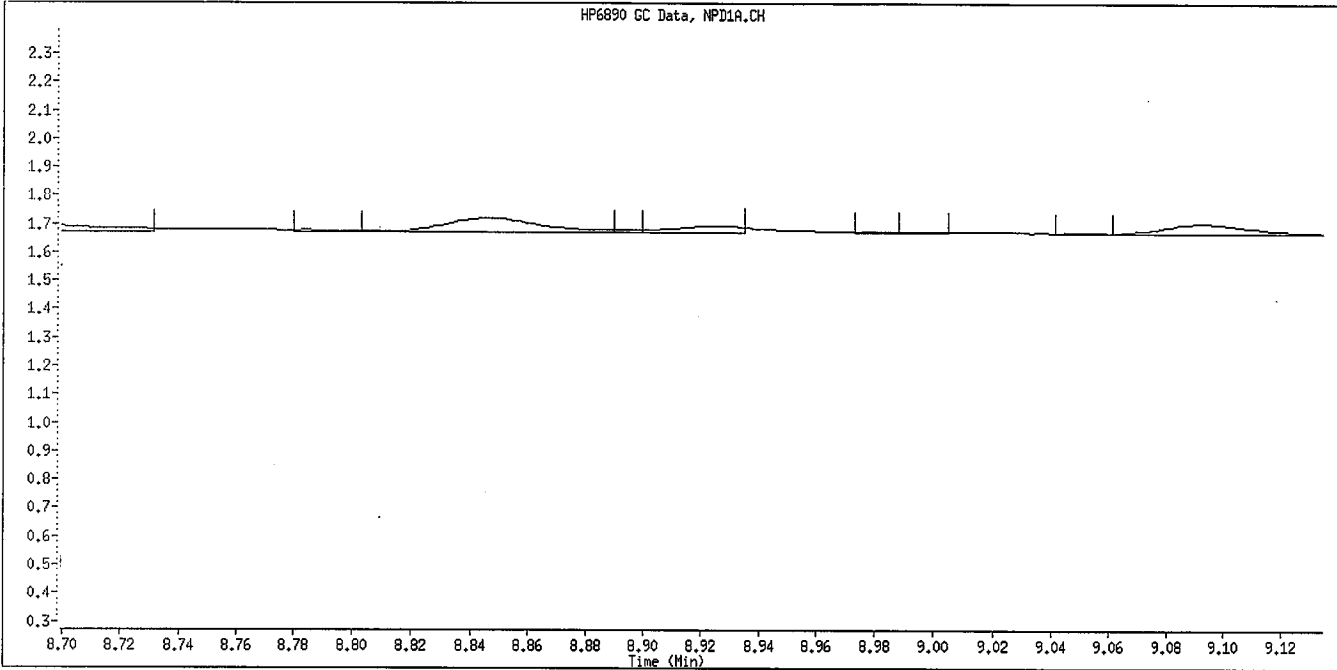
Manual Integration

Manually Integrated By: williamst

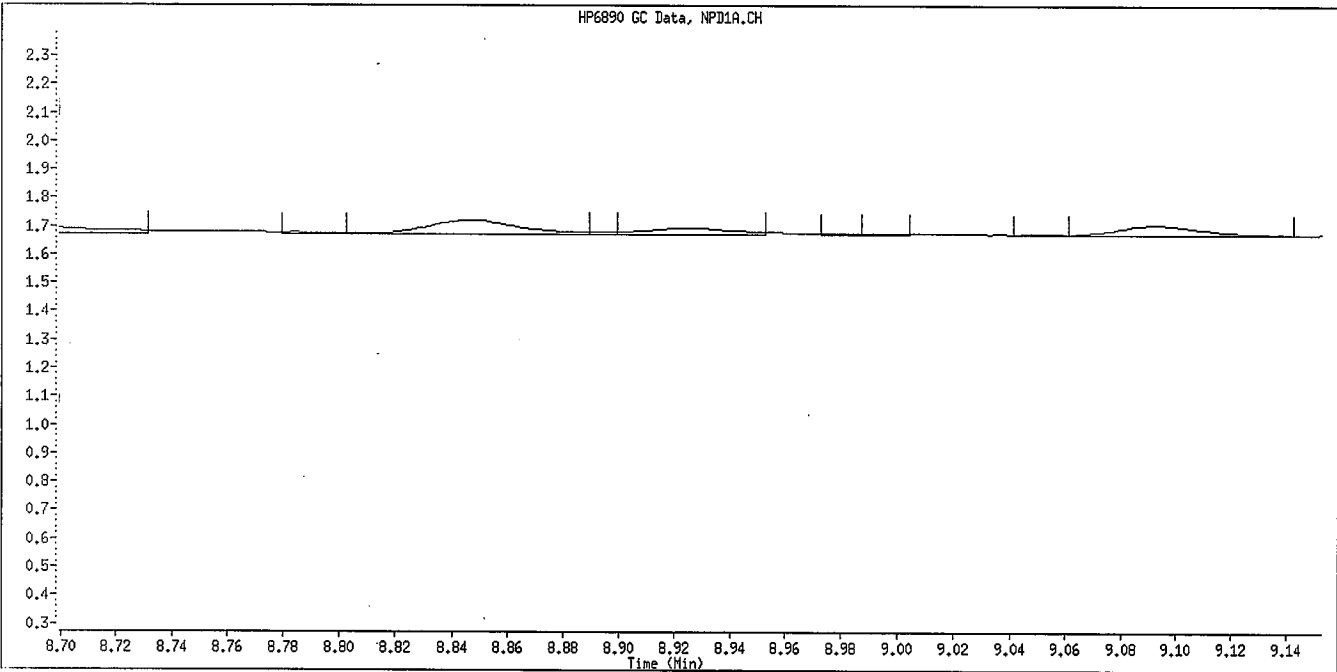
Manual Integration Reason: Baseline Event

*Handwritten signature and date: 6/30/09*

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Simazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

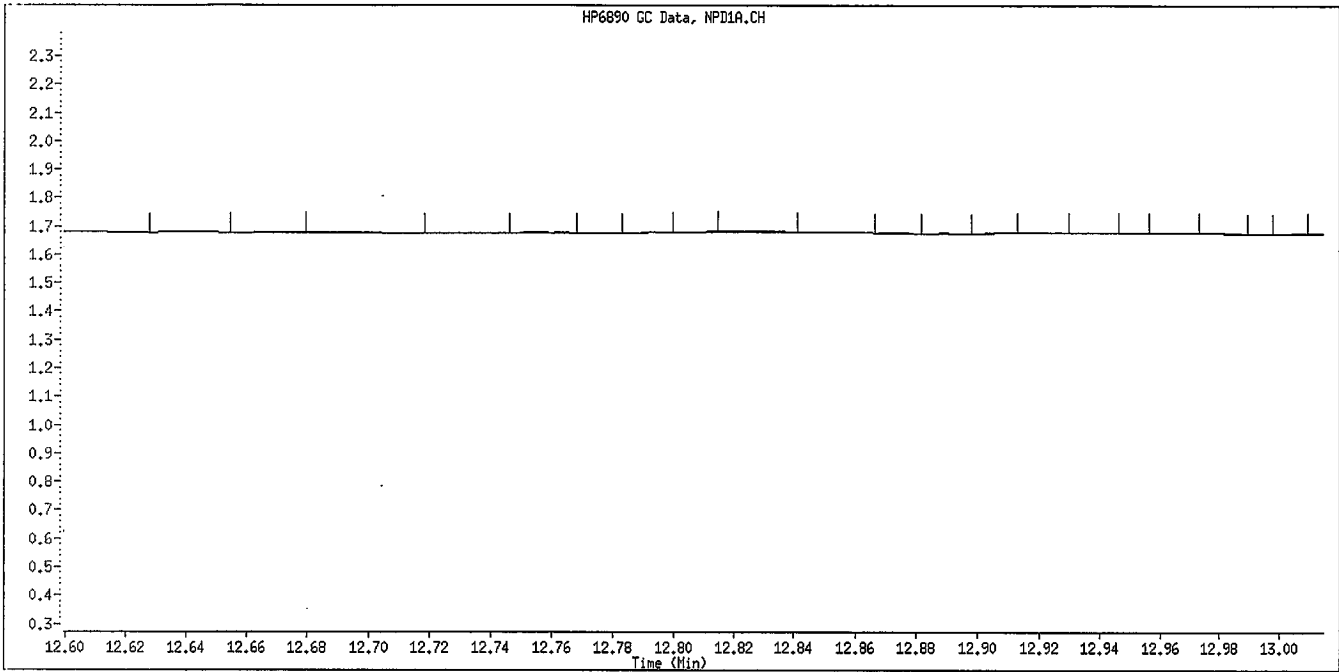


Manual Integration

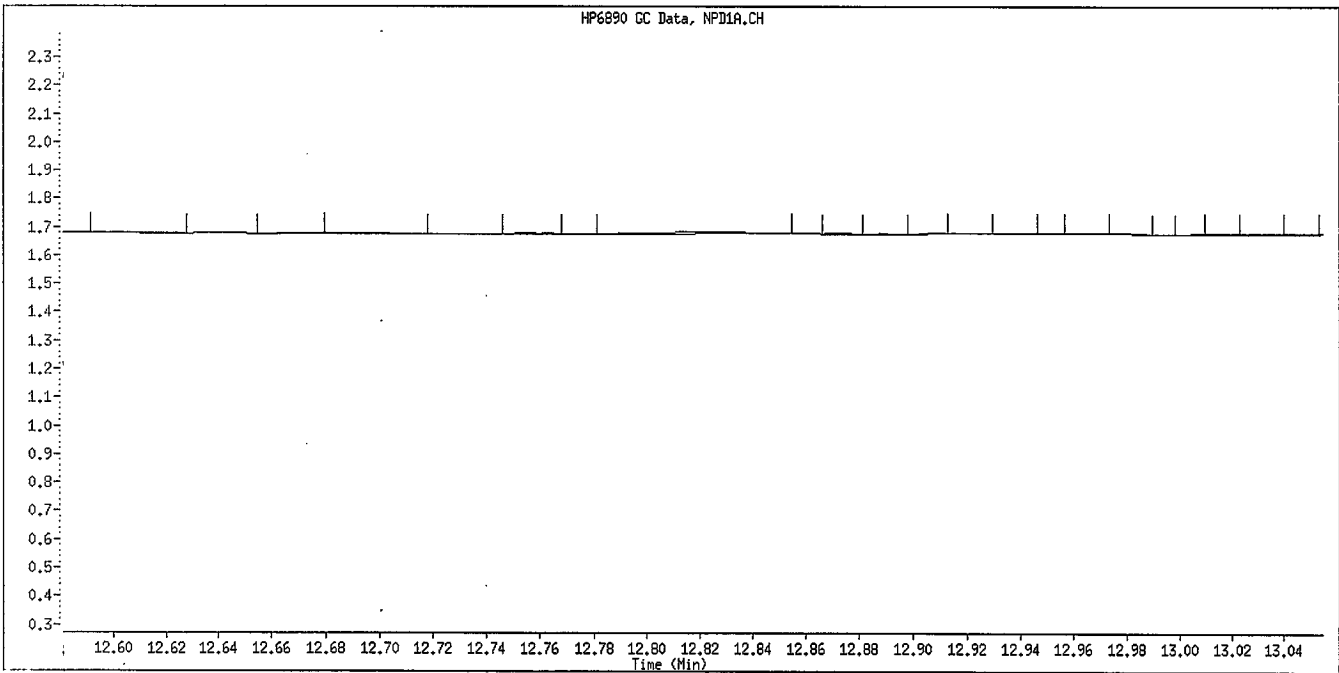
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration



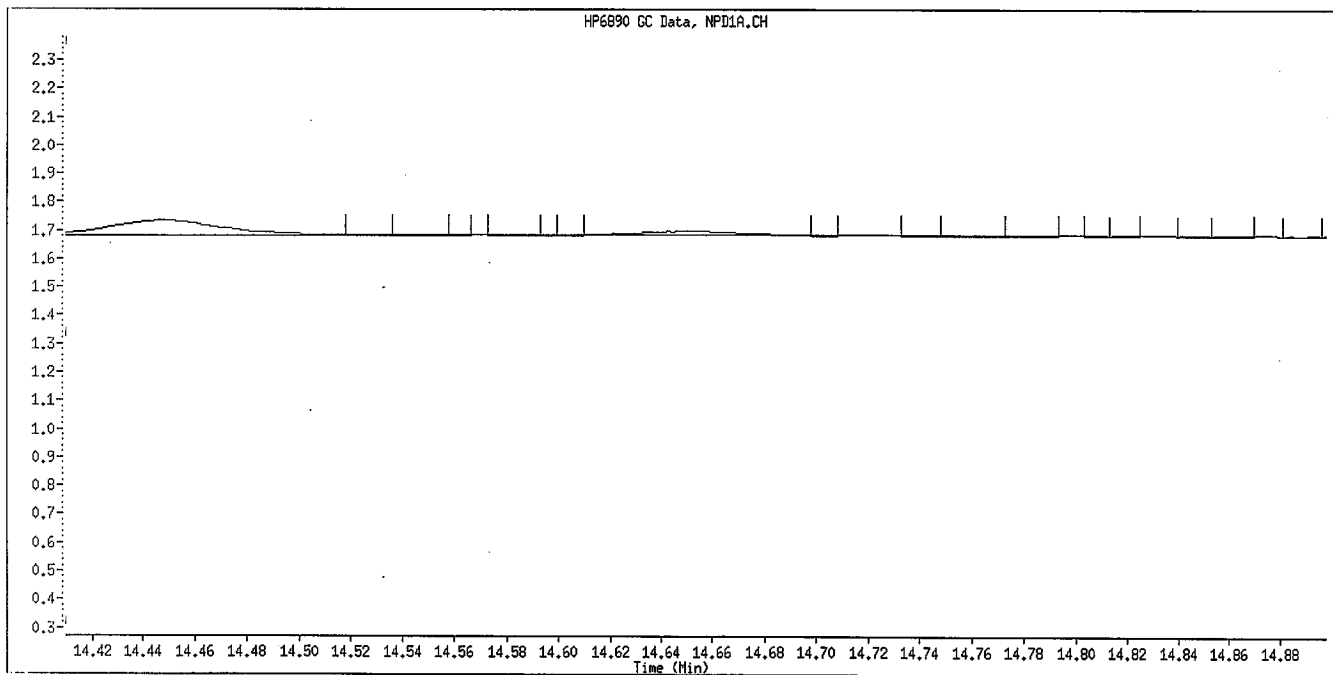
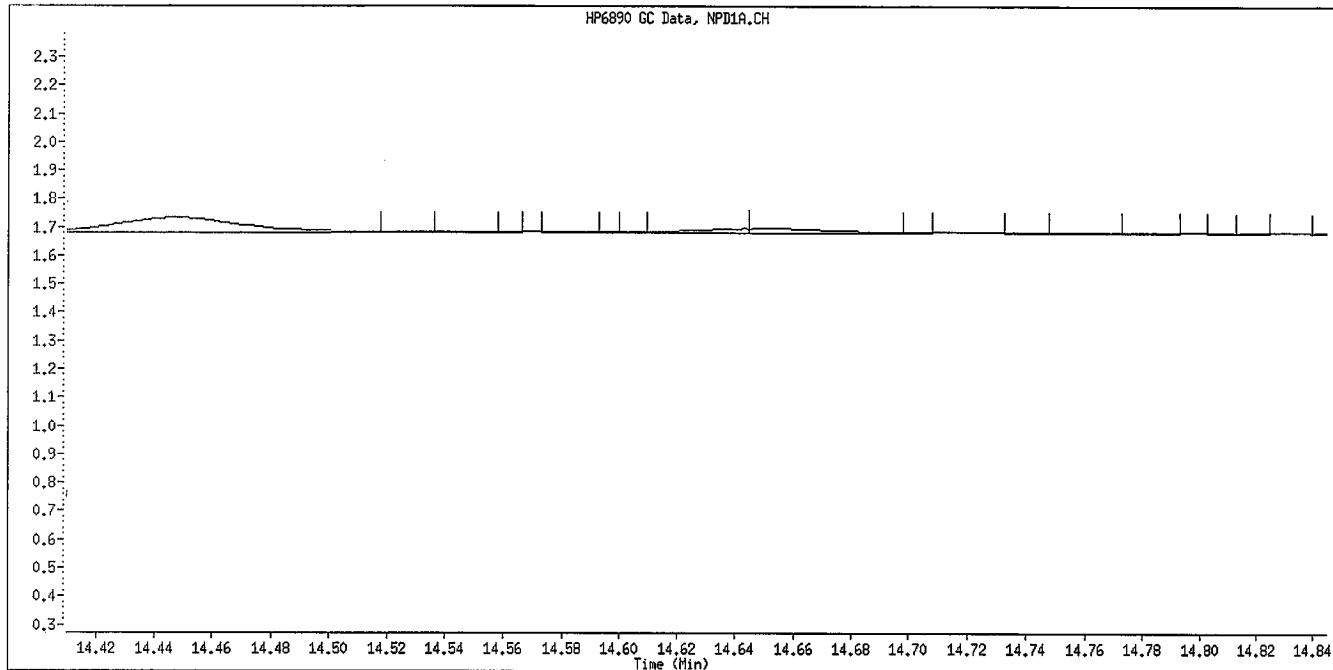
Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature*  
6/30/09



Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
7/6  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\010F1001.D  
 Lab Smp Id: OPP SS GSV0633 Client Smp ID: OPP SS GSV0633  
 Inj Date : 26-JUN-2009 21:40  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP SS GSV0633  
 Misc Info : IS - GSV0633-09  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626091.B\8141A-1.m  
 Meth Date : 30-Jun-2009 12:45 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 10 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	3.252	3.254	(0.182)	288886	2.00000	2.058
2 Dichlorvos	4.074	4.074	(0.228)	166172	2.00000	1.906
3 Mevinphos	5.737	5.739	(0.322)	81302	2.00000	1.698
4 Chlormefos	5.834	5.836	(0.327)	194413	2.00000	1.781
5 Thionazin	7.504	7.507	(0.421)	196672	2.00000	1.974
6 Demeton-O	7.645	7.649	(0.429)	175593	0.65000	1.871
7 Ethoprop	7.849	7.852	(0.440)	179292	2.00000	2.054
8 Naled	8.054	8.057	(0.451)	23739	2.00000	1.198
9 Tributylphosphate	8.112	8.135	(1.000)	166572	2.00000	
10 Sulfotepp	8.437	8.442	(0.473)	226133	2.00000	1.793
11 Phorate	8.529	8.532	(0.478)	182466	2.00000	2.018
12 Dimethoate	8.654	8.659	(0.485)	219089	2.00000	2.086
13 Demeton-S	8.842	8.846	(0.496)	17618	1.36000	0.2313
14 Simazine	8.919	8.924	(0.500)	92634	2.00000	2.622
15 Atrazine	9.089	9.094	(0.509)	79689	2.00000	1.957
16 propazine	9.235	9.241	(0.518)	71876	2.00000	1.913
17 Disulfoton	9.865	9.869	(0.553)	98052	2.00000	1.589
18 Diazinon	9.900	9.902	(0.555)	209627	2.00000	2.158
19 Methyl Parathion	10.714	10.717	(0.600)	125682	2.00000	2.040
20 Ronnel	11.237	11.241	(0.630)	136977	2.00000	2.151
21 Malathion	11.799	11.804	(0.661)	94998	2.00000	1.625
22 Fenthion	11.929	11.932	(0.669)	117968	2.00000	1.884
23 Parathion	12.017	12.019	(0.674)	129518	2.00000	1.944
24 Chlorpyrifos	12.067	12.067	(0.676)	158990	2.00000	1.972
25 Trichloronate	12.492	12.496	(0.700)	134163	2.00000	1.862
26 Anilazine	12.817	12.817	(0.718)	5585	2.00000	1.015
27 Merphos-A (Merphos)	13.195	13.199	(0.740)	24516	2.00000	0.4078
28 Tetrachlorvinphos (Stirophos)	13.817	13.824	(0.774)	83430	2.00000	2.088
29 Tokuthion	14.444	14.449	(0.810)	139904	2.00000	2.025
30 Merphos-B (Merphos Oxone)	14.647	14.651	(0.821)	107349	2.00000	6.623(A)
31 Carbophenothion-methyl	15.234	15.239	(0.854)	73477	2.00000	1.354
32 Fensulfothion	15.355	15.361	(0.861)	108213	2.00000	1.924
33 Bolstar / Famphur	16.047	16.053	(0.899)	268528	4.00000	4.064

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
===== 34 Carbophenothion	16.194	16.197	(0.908)	123570	2.00000	1.864
\$ 35 Triphenyl phosphate	16.709	16.712	(0.936)	86501	2.00000	1.717
36 Phosmet	16.960	16.963	(0.951)	93465	2.00000	1.647
37 EPN	17.147	17.151	(0.961)	96842	2.00000	1.793
38 Azinphos-methyl	17.477	17.480	(0.980)	116249	2.00000	1.922
* 39 TOCP	17.842	17.846	(1.000)	99647	2.00000	
40 Azinphos-ethyl	17.922	17.926	(1.004)	124764	2.00000	1.833
41 Coumaphos	18.362	18.366	(1.029)	97846	2.00000	2.006
S 42 Merphos				131865	2.00000	1.737
M 43 Total Demeton				193211	2.00000	2.102

QC Flag Legend

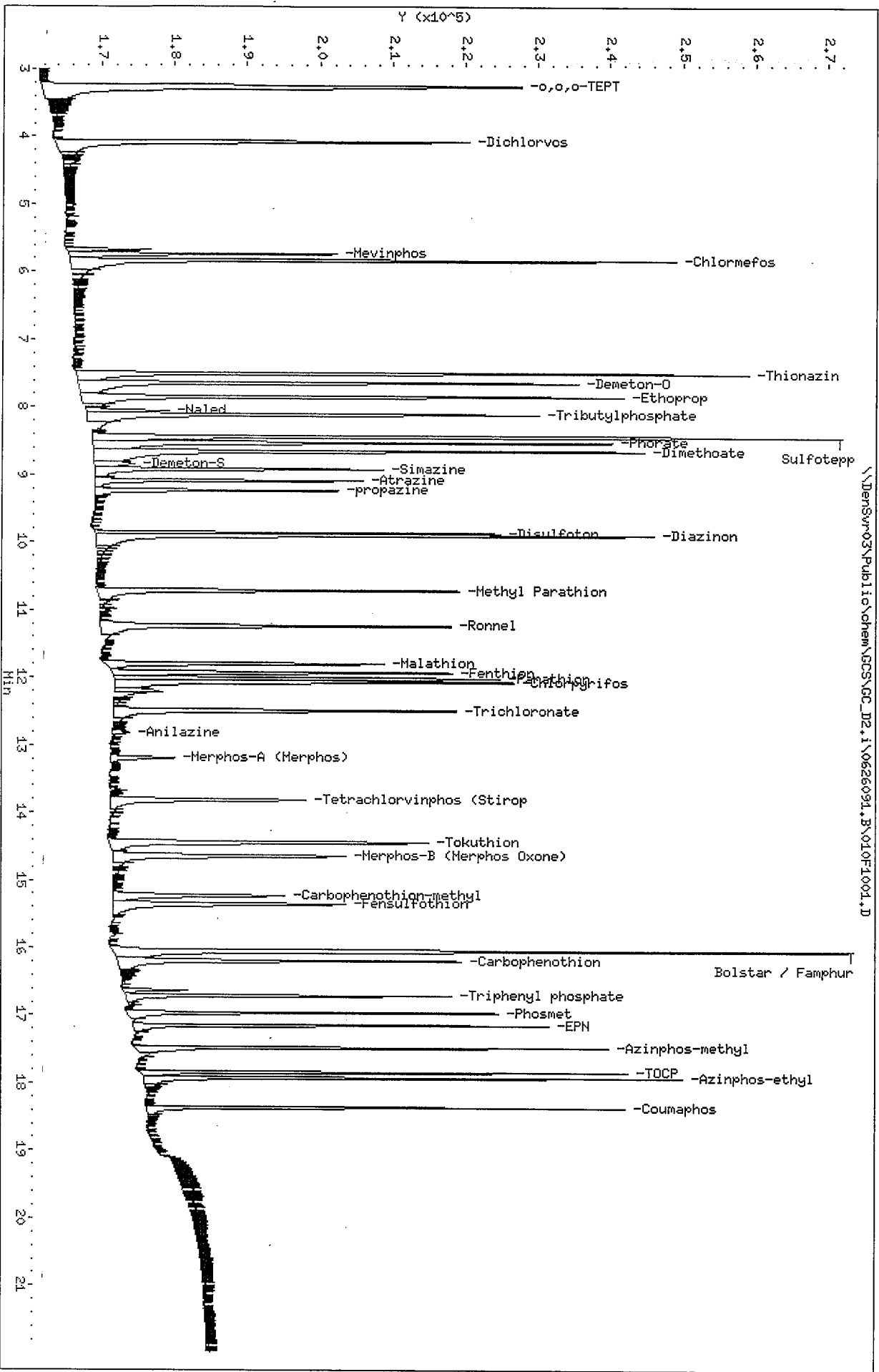
A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\DensSvr-03\Public\chem\GCS\GC\_D2.1\0626091.B\010F1001.D  
 Date: 26-JUN-2009 21:40  
 Client ID: OPP SS GSV0633  
 Sample Info: OPP SS GSV0633  
 Column phase: RTX-1MS

Instrument: GC\_D2.1  
 Operator: MPK/TLW  
 Column diameter: 0.32

\\DensSvr-03\Public\chem\GCS\GC\_D2.1\0626091.B\010F1001.D



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\003F0301.D  
 Lab Smp Id: OPP L7 GSV0634 Client Smp ID: OPP L7 GSV0634  
 Inj Date : 26-JUN-2009 18:28  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L7 GSV0634  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 3 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.729	4.731	(0.251)	421372	5.00000	4.907
2 Dichlorvos	6.546	6.546	(0.348)	359024	5.00000	5.355 (A)
\$ 3 Chlormefos	7.383	7.384	(0.392)	338585	5.00000	5.016 (A)
4 Mevinphos	9.233	9.234	(0.491)	238906	5.00000	5.290 (A)
5 Demeton-O	9.733	9.734	(0.517)	69239	1.62500	1.609
6 Thionazin	9.984	9.984	(0.531)	338015	5.00000	5.005 (A)
7 Ethoprop	10.499	10.499	(0.558)	242747	5.00000	4.810
8 Phorate	10.538	10.539	(0.560)	289868	5.00000	4.953
9 Naled	10.939	10.939	(0.581)	78857	5.00000	5.109 (A)
10 Sulfofotepp	11.018	11.017	(0.586)	427657	5.00000	4.845 (A)
* 11 Tributylphosphate	11.116	11.116	(1.000)	139264	2.00000	
12 Simazine	11.401	11.399	(0.606)	68046	5.00000	5.383 (A)
13 Diazinon	11.541	11.541	(0.613)	228810	5.00000	4.801
14 Atrazine	11.584	11.584	(0.616)	128612	5.00000	4.879 (A)
15 Propazine	11.746	11.747	(0.624)	110050	5.00000	4.930
16 Disulfoton	12.049	12.049	(0.640)	228764	5.00000	4.914
17 Demeton-S	12.124	12.124	(0.644)	175573	3.40000	3.111
18 Dimethoate	13.283	13.282	(0.706)	319454	5.00000	5.120 (A)
19 Ronnel	13.588	13.587	(0.722)	211449	5.00000	5.035 (A)
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	217509	5.00000	4.310 (A)
21 Chlorpyrifos	14.411	14.409	(0.766)	227882	5.00000	5.350 (A)
22 Fenthion	14.663	14.662	(0.779)	196942	5.00000	4.985
23 Trichloronate	14.711	14.711	(0.782)	296442	5.00000	5.242 (A)
24 Anilazine	15.214	15.216	(0.809)	19108	5.00000	5.242 (A)
25 Methyl Parathion	15.521	15.519	(0.825)	235511	5.00000	5.522 (A)
26 Malathion	15.724	15.724	(0.836)	212190	5.00000	5.311 (A)
27 Tokuthion	16.344	16.344	(0.869)	233715	5.00000	4.996
28 Parathion	16.493	16.494	(0.877)	213175	5.00000	5.073 (AM)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.486)	65080	5.00000	4.212 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	143806	5.00000	5.290 (A)
31 Carbophenothion methyl	17.081	17.082	(0.908)	210272	5.00000	5.396 (A)
32 Bolstar	17.441	17.440	(0.927)	199405	5.00000	4.858
33 Carbophenothion	17.523	17.524	(0.931)	212727	5.00000	5.271 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	167127	5.00000	5.046 (A)
35 Fensulfothion	18.558	18.559	(0.986)	152929	5.00000	5.029 (A)
* 36 TOCP	18.814	18.816	(1.000)	66384	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	330448	10.0000	9.819 (A)
38 Famphur	19.011	19.011	(1.010)	220404	5.00000	5.062 (A)
39 Azinphos-methyl	19.146	19.147	(1.018)	197822	5.00000	4.967
40 Azinphos-ethyl	19.364	19.366	(1.029)	187035	5.00000	4.930
41 Coumaphos	20.348	20.347	(1.081)	155426	5.00000	5.329 (A)
S 42 Merphos				282589	5.00000	5.108 (A)
M 43 Total Demeton				244812	5.00000	4.720

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i	Calibration Date: 26-JUN-2009
Lab File ID: 003F0301.D	Calibration Time: 21:40
Lab Smp Id: OPP L7 GSV0634	Client Smp ID: OPP L7 GSV0634
Analysis Type: SV	Level:
Quant Type: ISTD	Sample Type:
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\8141A-2.m	
Misc Info:	

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	123933	61967	247866	139264	12.37
36 TOCP	68831	34416	137662	66384	-3.56

COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.01
36 TOCP	18.82	18.32	19.32	18.81	-0.00

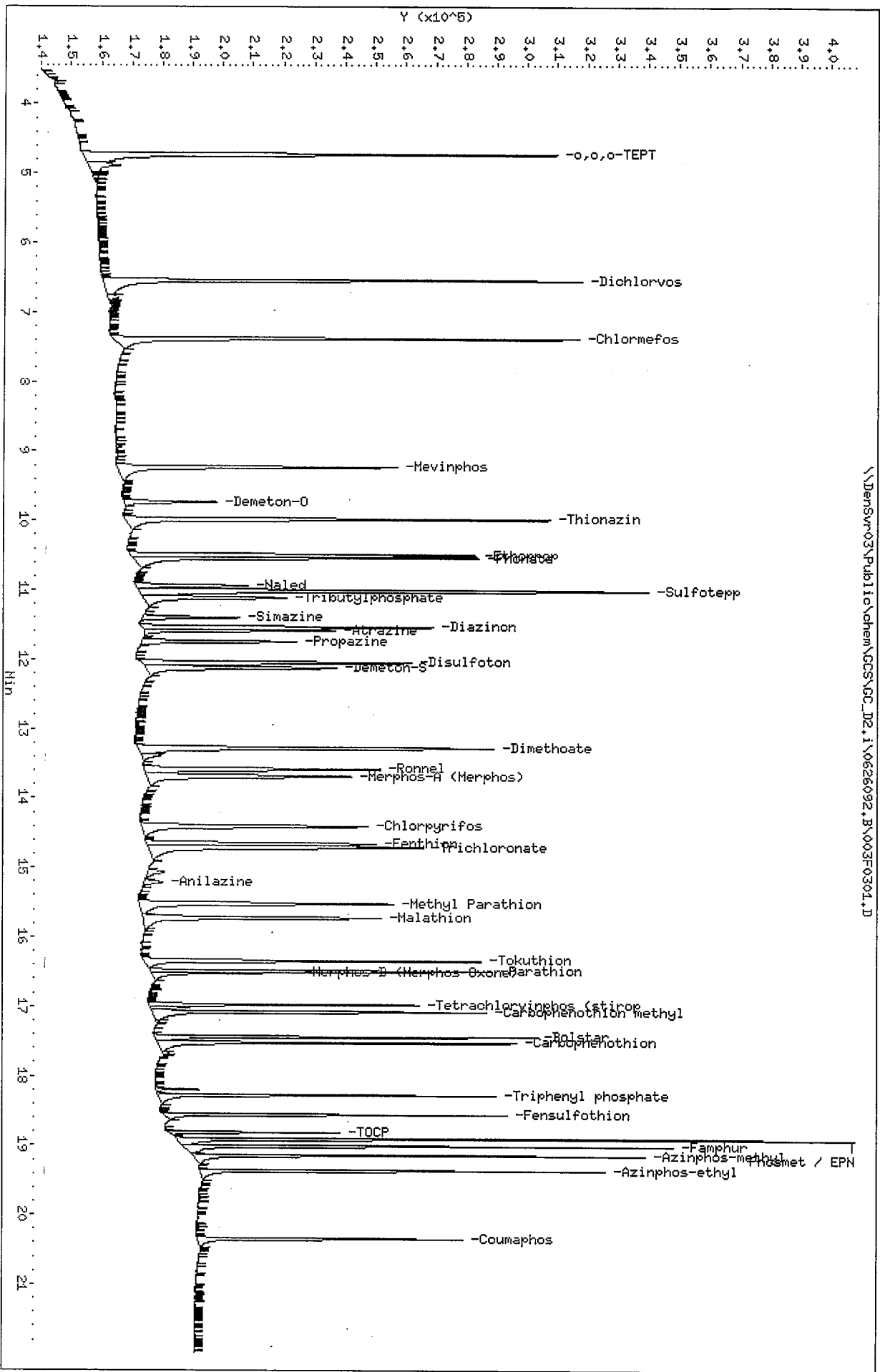
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



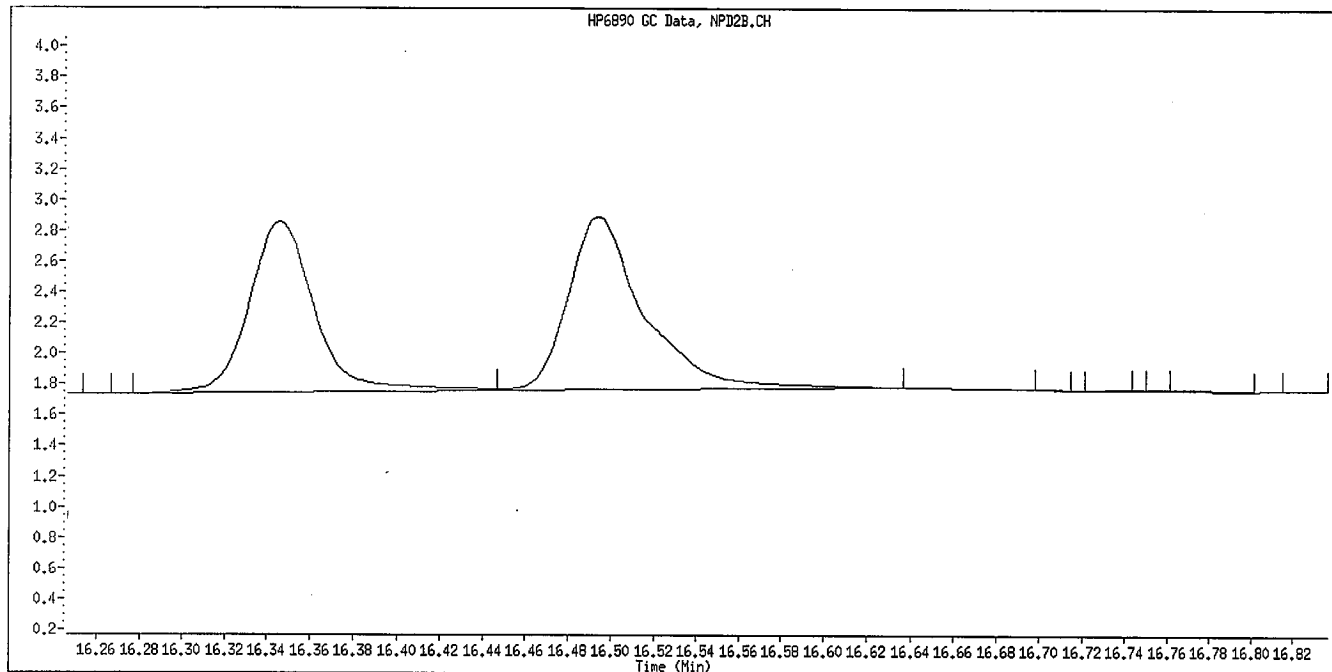
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 Date: 26-JUN-2009 18:28  
 Client ID: OPP L7 GSV0634  
 Sample Info: OPP L7 GSV0634  
 Column phase: RTX-OPPest

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32

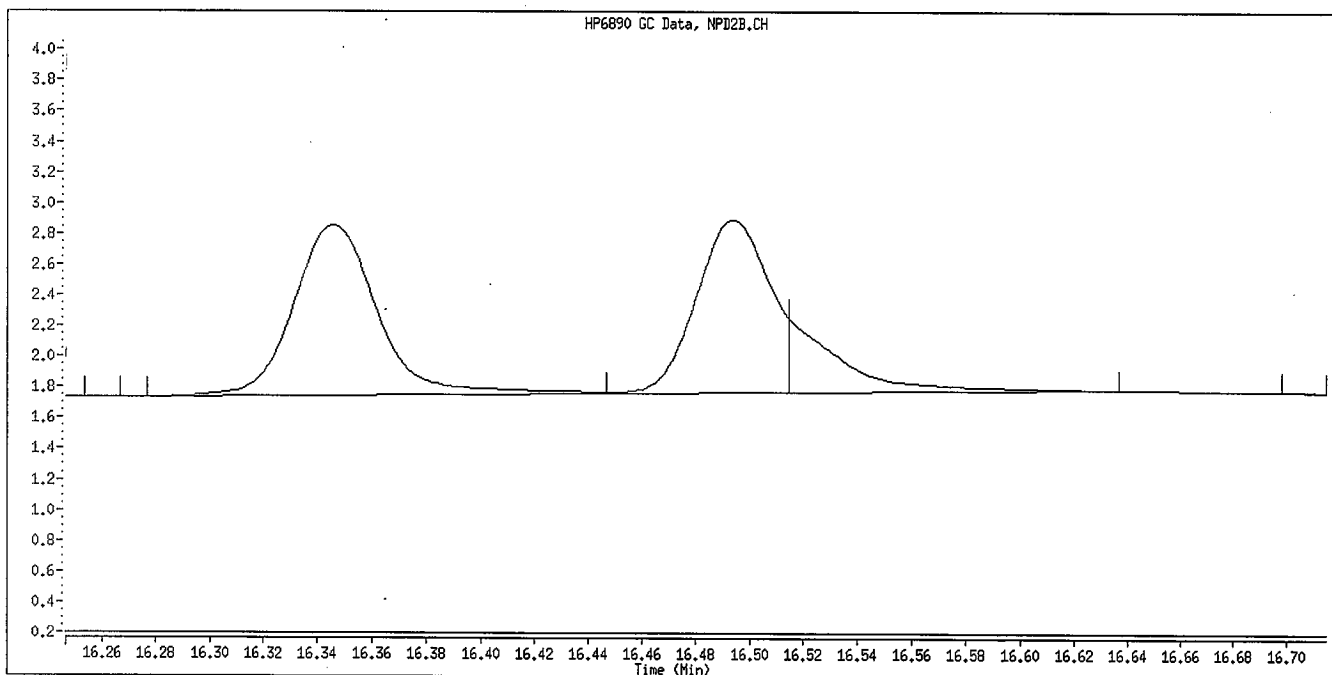
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Data File Name: 003F0301.D  
Inj. Date and Time: 26-JUN-2009 18:28  
Instrument ID: GC\_D2.i  
Client ID: OPP L7 GSV0634  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

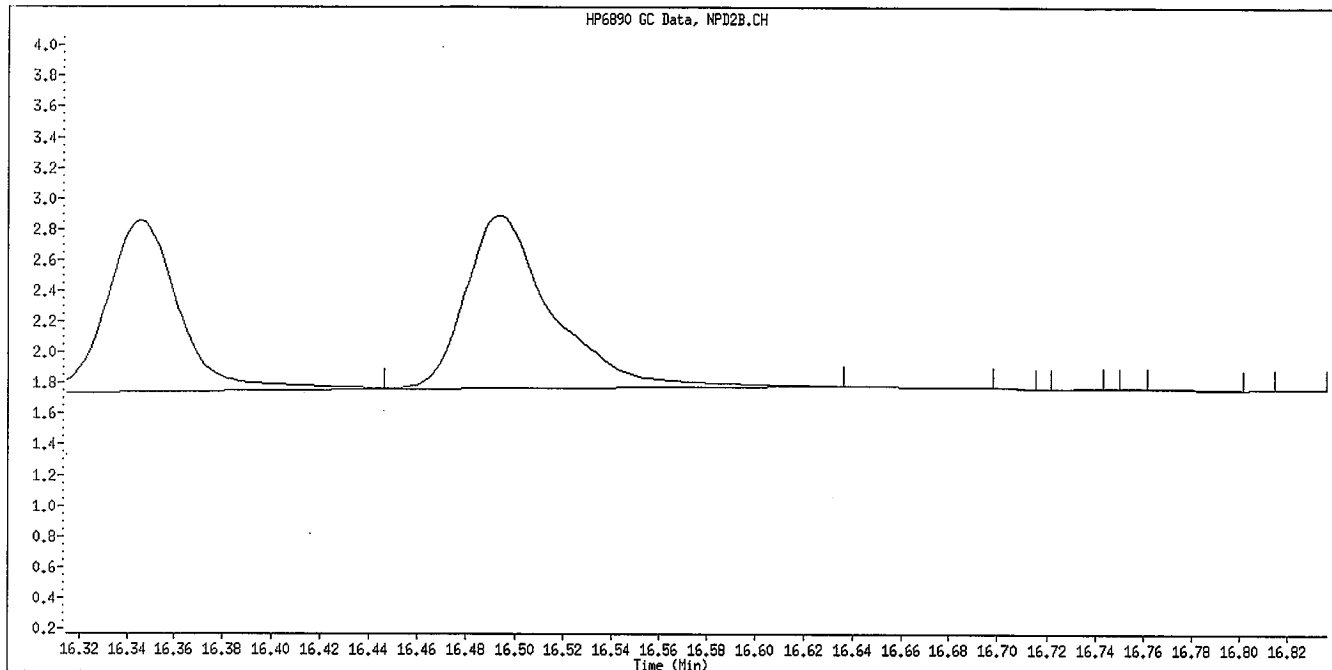


Manual Integration

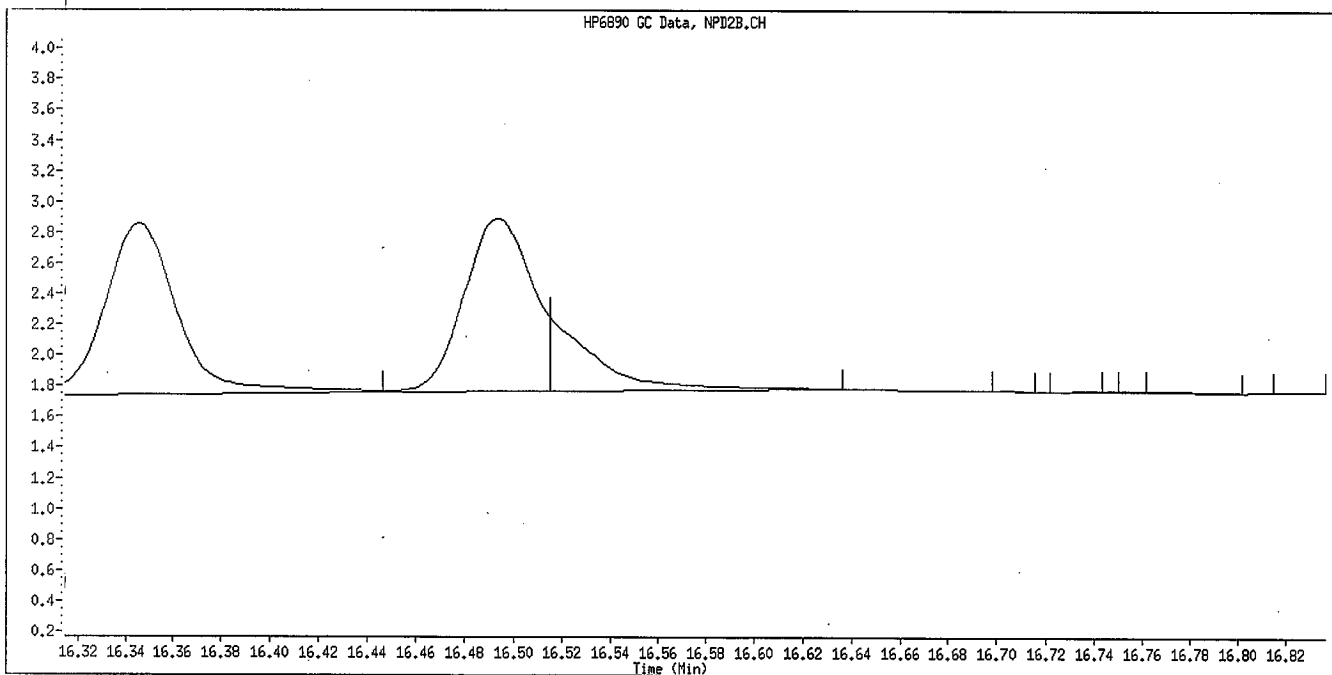
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 003F0301.D  
Inj. Date and Time: 26-JUN-2009 18:28  
Instrument ID: GC\_D2.i  
Client ID: OPP L7 GSV0634  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\004F0401.D  
 Lab Smp Id: OPP L6 GSV0637 Client Smp ID: OPP L6 GSV0637  
 Inj Date : 26-JUN-2009 18:55  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L6 GSV0637  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:28 Cal File: 003F0301.D  
 Als bottle: 4 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.729	4.731	(0.251)	328646	4.00000	4.043
2 Dichlorvos	6.546	6.546	(0.348)	257298	4.00000	4.054
\$ 3 Chlormefos	7.384	7.384	(0.392)	258146	4.00000	4.040
4 Mevinphos	9.234	9.234	(0.491)	177060	4.00000	4.141
5 Demeton-O	9.734	9.734	(0.517)	56273	1.30000	1.381
6 Thionazin	9.984	9.984	(0.531)	276609	4.00000	4.326
7 Ethoprop	10.499	10.499	(0.558)	193617	4.00000	4.053
8 Phorate	10.537	10.539	(0.560)	250422	4.00000	4.520
9 Naled	10.941	10.939	(0.582)	58330	4.00000	4.051
10 Sulfotepp	11.017	11.017	(0.586)	337512	4.00000	4.039 (A)
* 11 Tributylphosphate	11.116	11.116	(1.000)	118534	2.00000	
12 Simazine	11.401	11.399	(0.606)	52173	4.00000	4.360 (A)
13 Diazinon	11.541	11.541	(0.613)	181790	4.00000	4.034
14 Atrazine	11.582	11.584	(0.616)	98759	4.00000	4.001 (A)
15 Propazine	11.746	11.747	(0.624)	85745	4.00000	4.068
16 Disulfoton	12.049	12.049	(0.640)	184026	4.00000	4.176
17 Demeton-S	12.124	12.124	(0.644)	157195	2.72000	2.948
18 Dimethoate	13.282	13.282	(0.706)	236550	4.00000	4.005
19 Ronnel	13.589	13.587	(0.722)	165534	4.00000	4.164
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	178652	4.00000	4.159 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	174421	4.00000	4.326
22 Fenthion	14.662	14.662	(0.779)	149338	4.00000	3.993
23 Trichloronate	14.709	14.711	(0.782)	208762	4.00000	3.926
24 Anilazine	15.216	15.216	(0.809)	13112	4.00000	3.800 (M)
25 Methyl Parathion	15.519	15.519	(0.825)	167086	4.00000	4.138 (A)
26 Malathion	15.724	15.724	(0.836)	151738	4.00000	4.012
27 Tokuthion	16.346	16.344	(0.869)	187169	4.00000	4.226
28 Parathion	16.492	16.494	(0.877)	170901	4.00000	4.296 (M)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.486)	62127	4.00000	4.736 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	109740	4.00000	4.264
31 Carbophenothion methyl	17.081	17.082	(0.908)	159411	4.00000	4.322
32 Bolstar	17.441	17.440	(0.927)	154382	4.00000	3.973
33 Carbophenothion	17.522	17.524	(0.931)	154486	4.00000	4.043 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	125543	4.00000	4.004
35 Fensulfothion	18.557	18.559	(0.986)	126221	4.00000	4.385
* 36 TOCP	18.814	18.816	(1.000)	62844	2.00000	
37 Phosmet / EPN	18.907	18.909	(1.005)	263604	8.00000	8.261 (A)
38 Famphur	19.009	19.011	(1.010)	175421	4.00000	4.256
39 Azinphos-methyl	19.144	19.147	(1.018)	160515	4.00000	4.257
40 Azinphos-ethyl	19.362	19.366	(1.029)	144031	4.00000	4.011
41 Coumaphos	20.346	20.347	(1.081)	118936	4.00000	4.308
S 42 Merphos				240779	4.00000	4.597 (A)
M 43 Total Demeton				213468	4.00000	4.330

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 004F0401.D  
 Lab Smp Id: OPP L6 GSV0637  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 21:40  
 Client Smp ID: OPP L6 GSV0637  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	123933	61967	247866	118534	-4.36
36 TOCP	68831	34416	137662	62844	-8.70

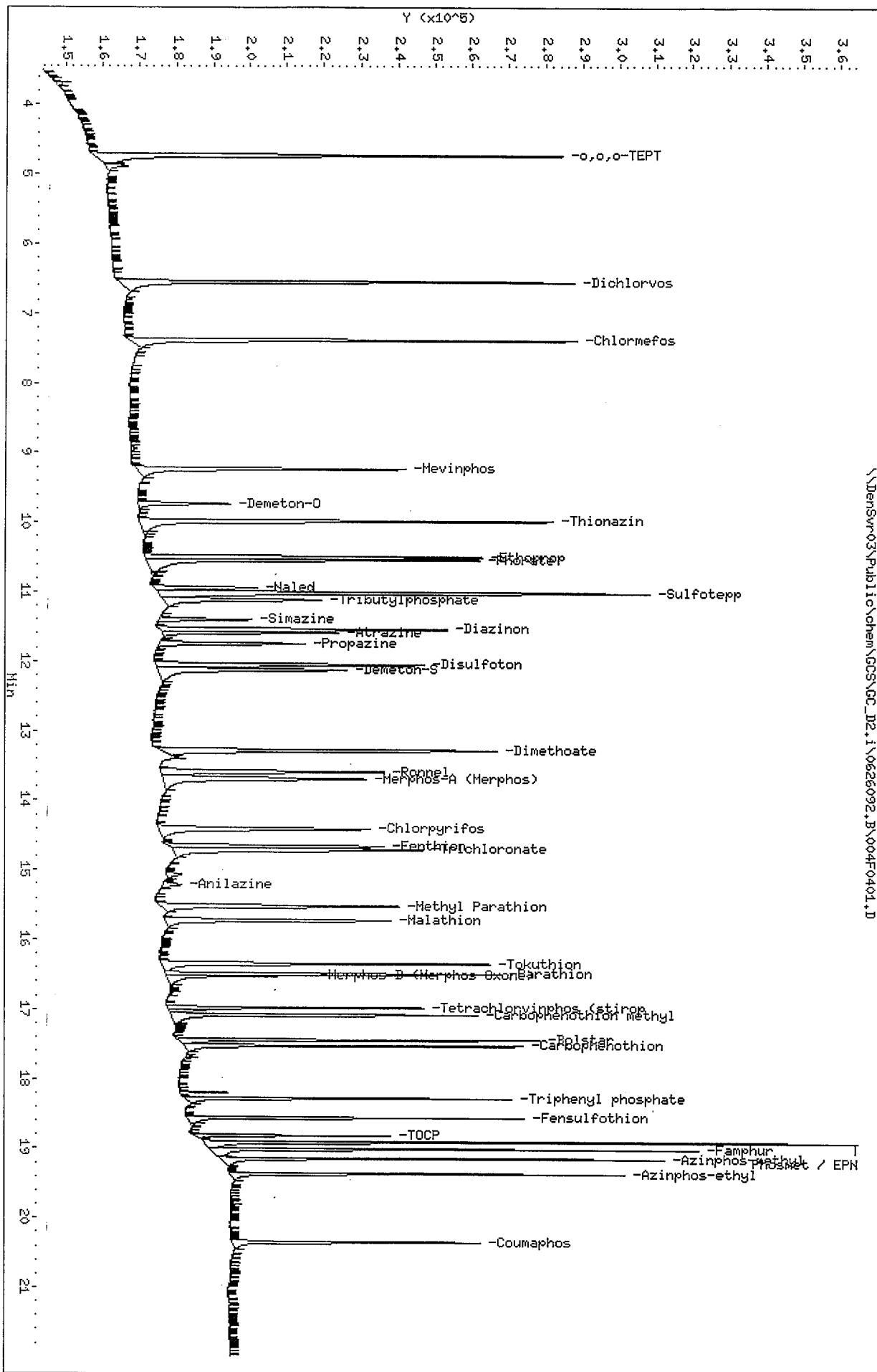
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.01
36 TOCP	18.82	18.32	19.32	18.81	-0.01

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

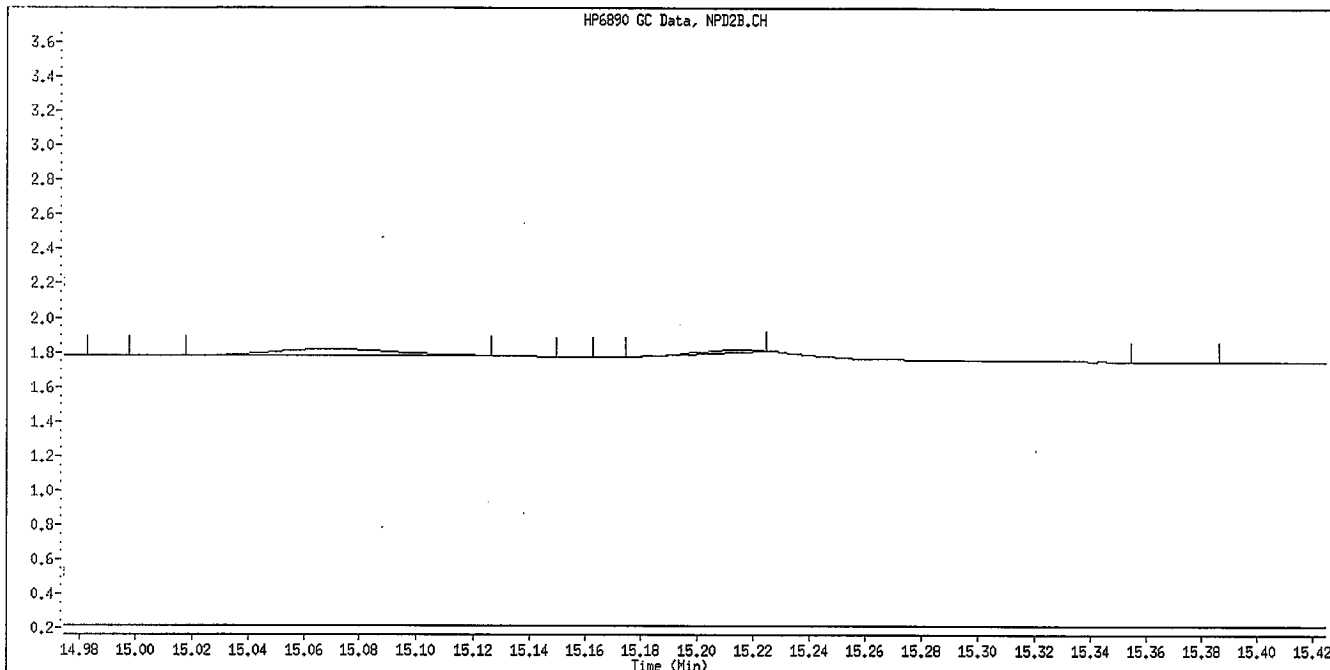
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 Date: 26-JUN-2009 18:55  
 Client ID: OPP L6 GSW0637  
 Sample Info: OPP L6 GSW0637  
 Column phase: RTX-OPPest

Instrument: GC\_D2.i  
 Operator: HPK/TLN  
 Column diameter: 0.32

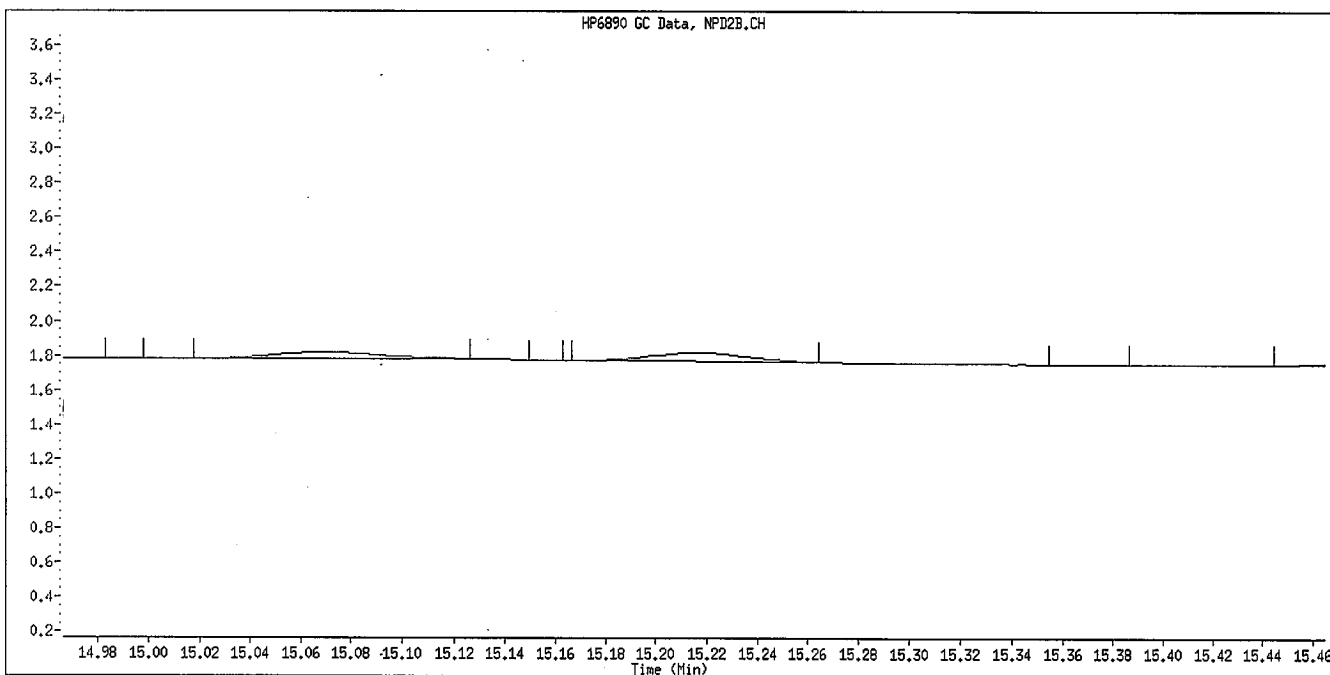
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Data File Name: 004F0401.D  
Inj. Date and Time: 26-JUN-2009 18:55  
Instrument ID: GC\_D2.i  
Client ID: OPP L6 GSV0637  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration



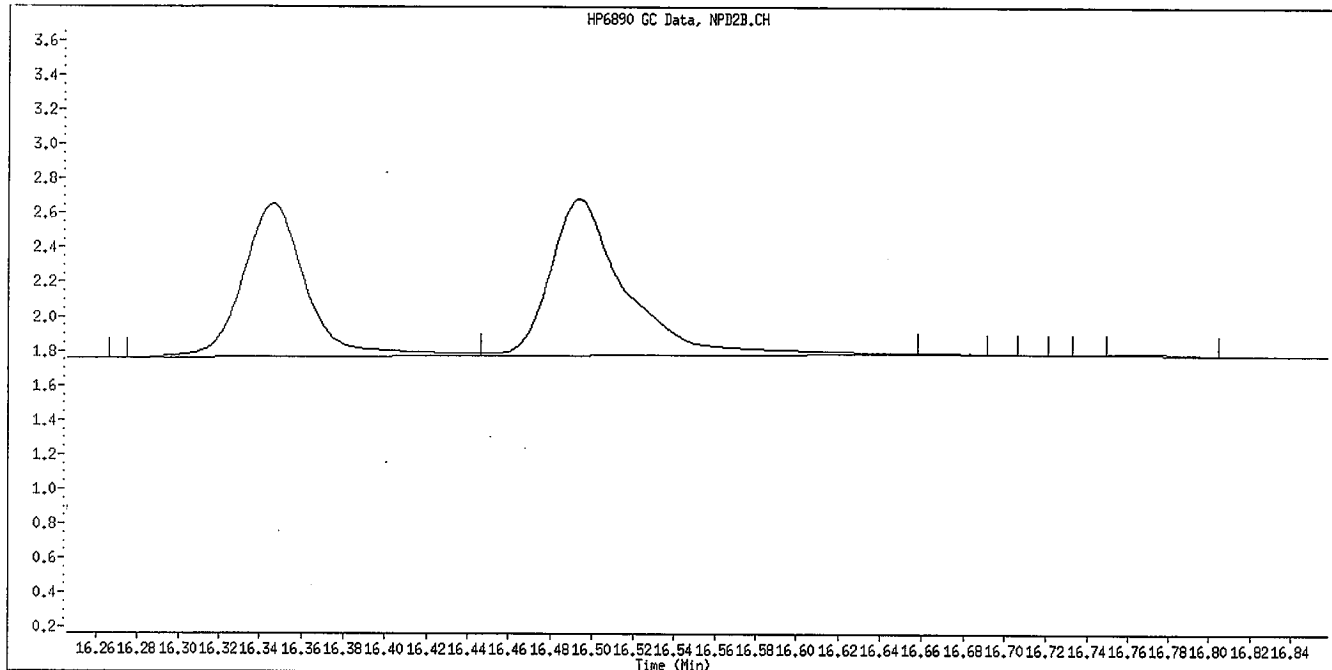
Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

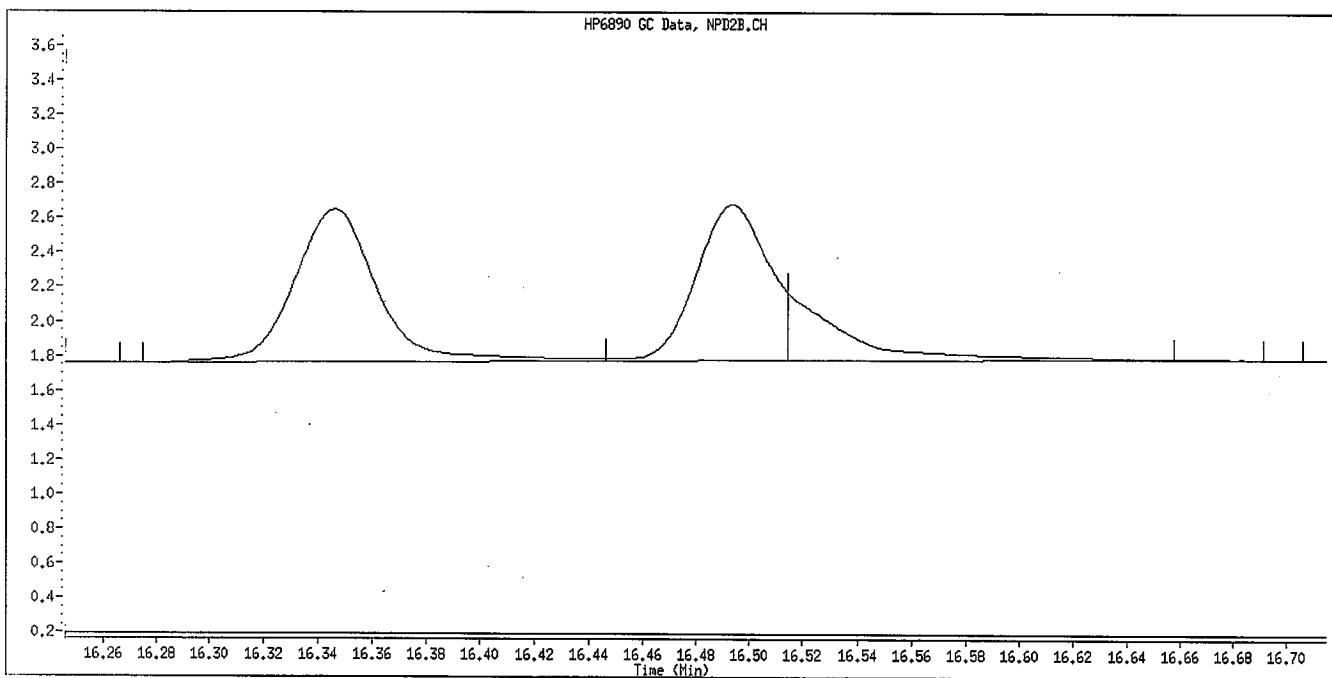
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6/30/09



Data File Name: 004F0401.D  
Inj. Date and Time: 26-JUN-2009 18:55  
Instrument ID: GC\_D2.i  
Client ID: OPP L6 GSV0637  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

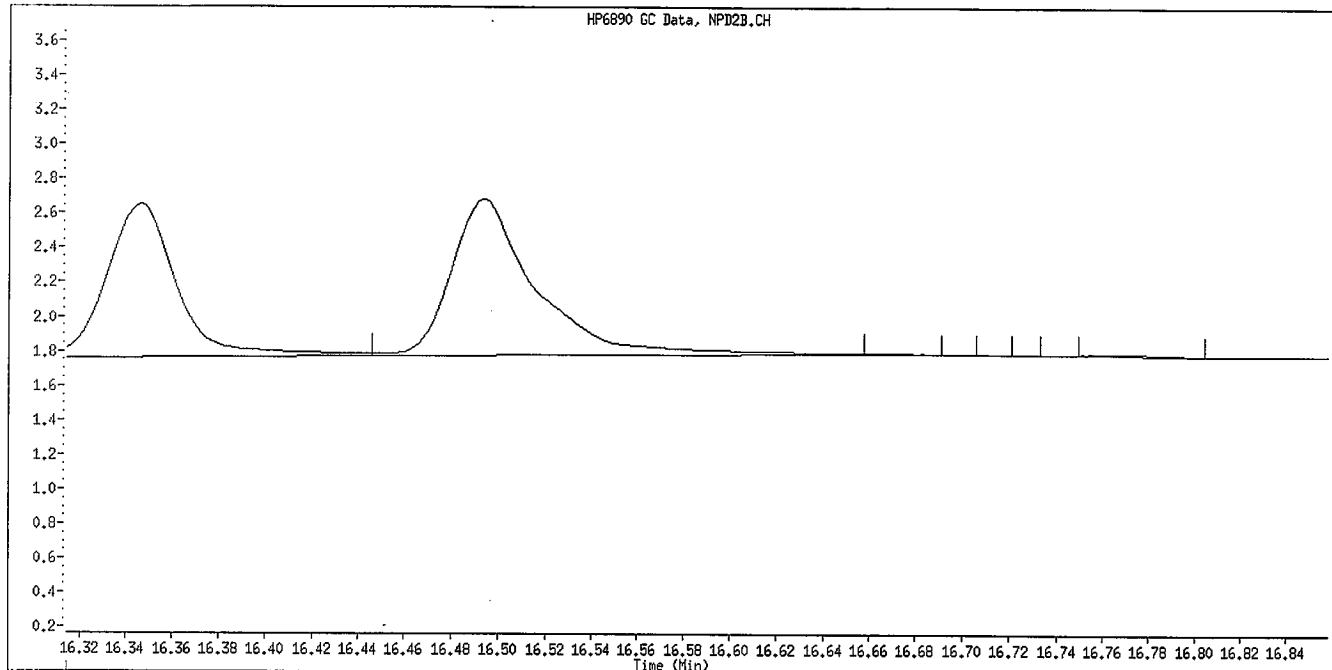


Manual Integration

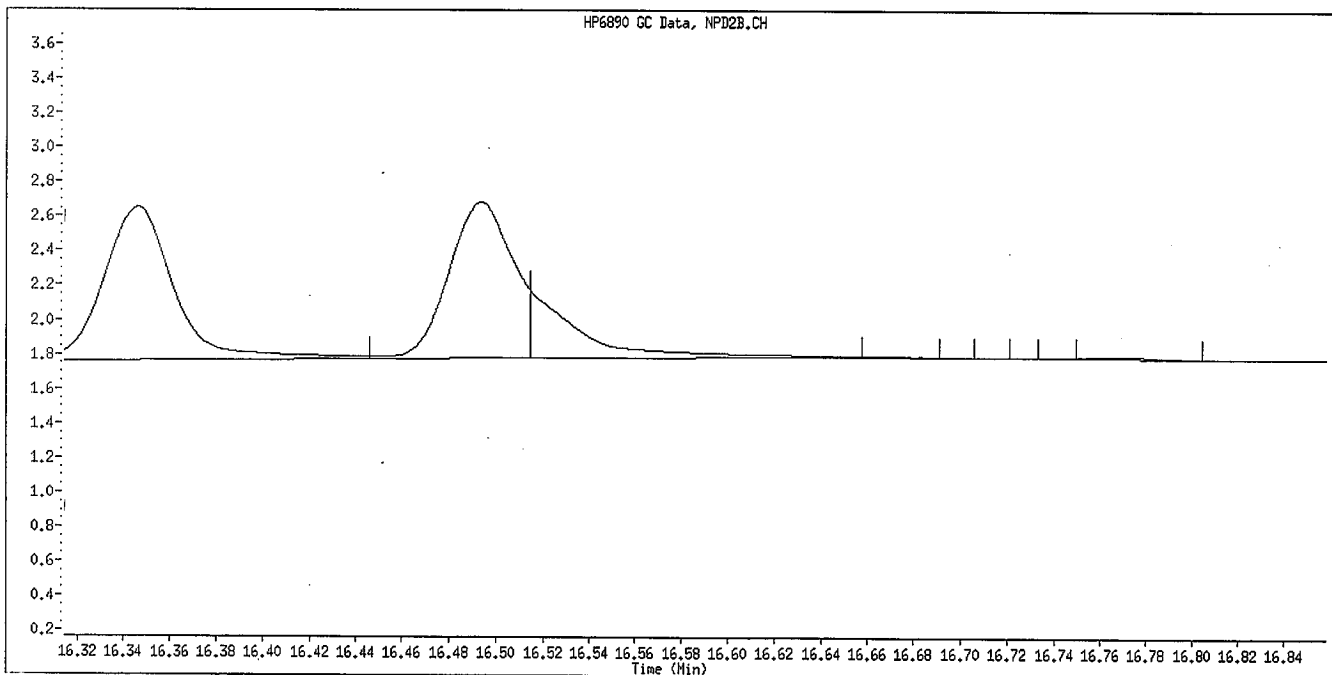
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*YJL*  
*6/30/09*

Data File Name: 004F0401.D  
Inj. Date and Time: 26-JUN-2009 18:55  
Instrument ID: GC\_D2.i  
Client ID: OPP L6 GSV0637  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0501.D  
 Lab Smp Id: OPP L5 GSV0635 Client Smp ID: OPP L5 GSV0635  
 Inj Date : 26-JUN-2009 19:23  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L5 GSV0635  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 18:55 Cal File: 004F0401.D  
 Als bottle: 5 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.730	4.731	(0.251)	267154	3.00000	2.982
2 Dichlorvos	6.545	6.546	(0.348)	221023	3.00000	3.159
\$ 3 Chlormefos	7.384	7.384	(0.392)	237967	3.00000	3.379
4 Mevinphos	9.234	9.234	(0.491)	137272	3.00000	2.913
5 Demeton-O	9.734	9.734	(0.517)	46912	0.97500	1.045
6 Thionazin	9.984	9.984	(0.531)	216898	3.00000	3.078
7 Ethoprop	10.499	10.499	(0.558)	162719	3.00000	3.090
8 Phorate	10.539	10.539	(0.560)	189707	3.00000	3.107
9 Naled	10.939	10.939	(0.581)	46004	3.00000	2.975
10 Sulfotepp	11.017	11.017	(0.586)	277819	3.00000	3.017 (A)
* 11 Tributylphosphate	11.115	11.116	(1.000)	123454	2.00000	
12 Simazine	11.399	11.399	(0.606)	40610	3.00000	3.079 (A)
13 Diazinon	11.540	11.541	(0.613)	155648	3.00000	3.140
14 Atrazine	11.584	11.584	(0.616)	85997	3.00000	3.210 (A)
15 Propazine	11.747	11.747	(0.624)	72628	3.00000	3.140
16 Disulfoton	12.049	12.049	(0.640)	152294	3.00000	3.136
17 Demeton-S	12.124	12.124	(0.644)	121463	2.04000	2.103
18 Dimethoate	13.282	13.282	(0.706)	206120	3.00000	3.166
19 Ronnel	13.587	13.587	(0.722)	134377	3.00000	3.067
20 Merphos-A (Merphos)	13.689	13.689	(1.232)	139514	3.00000	3.119 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	137524	3.00000	3.094
22 Fenthion	14.662	14.662	(0.779)	130285	3.00000	3.161
23 Trichloronate	14.710	14.711	(0.782)	170976	3.00000	2.945
24 Anilazine	15.215	15.216	(0.809)	11039	3.00000	2.902
25 Methyl Parathion	15.519	15.519	(0.825)	140467	3.00000	3.157 (A)
26 Malathion	15.724	15.724	(0.836)	122121	3.00000	2.929
27 Tokuthion	16.344	16.344	(0.869)	150762	3.00000	3.089
28 Parathion	16.494	16.494	(0.877)	135916	3.00000	3.100 (M)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.486)	40683	3.00000	2.940 (AM)
30 Tetrachlorvinphos (stirophos)	16.977	16.977	(0.902)	90042	3.00000	3.174
31 Carbophenothion methyl	17.082	17.082	(0.908)	132789	3.00000	3.266
32 Bolstar	17.440	17.440	(0.927)	132222	3.00000	3.088
33 Carbophenothion	17.524	17.524	(0.931)	139939	3.00000	3.323 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.280	18.281	(0.972)	105020	3.00000	3.039
35 Fensulfothion	18.559	18.559	(0.986)	98284	3.00000	3.098
* 36 TOCP	18.815	18.816	(1.000)	69265	2.00000	
37 Phosmet / EPN	18.909	18.909	(1.005)	207459	6.00000	5.874 (A)
38 Famphur	19.010	19.011	(1.010)	125661	3.00000	2.766
39 Azinphos-methyl	19.147	19.147	(1.018)	125121	3.00000	3.011
40 Azinphos-ethyl	19.365	19.366	(1.029)	120801	3.00000	3.052
41 Coumaphos	20.347	20.347	(1.081)	93401	3.00000	3.069
S 42 Merphos				180197	3.00000	3.122 (A)
M 43 Total Demeton				168375	3.00000	3.147

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M -, Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 005F0501.D  
 Lab Smp Id: OPP L5 GSV0635  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 21:40  
 Client Smp ID: OPP L5 GSV0635  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	123933	61967	247866	123454	-0.39
36 TOCP	68831	34416	137662	69265	0.63

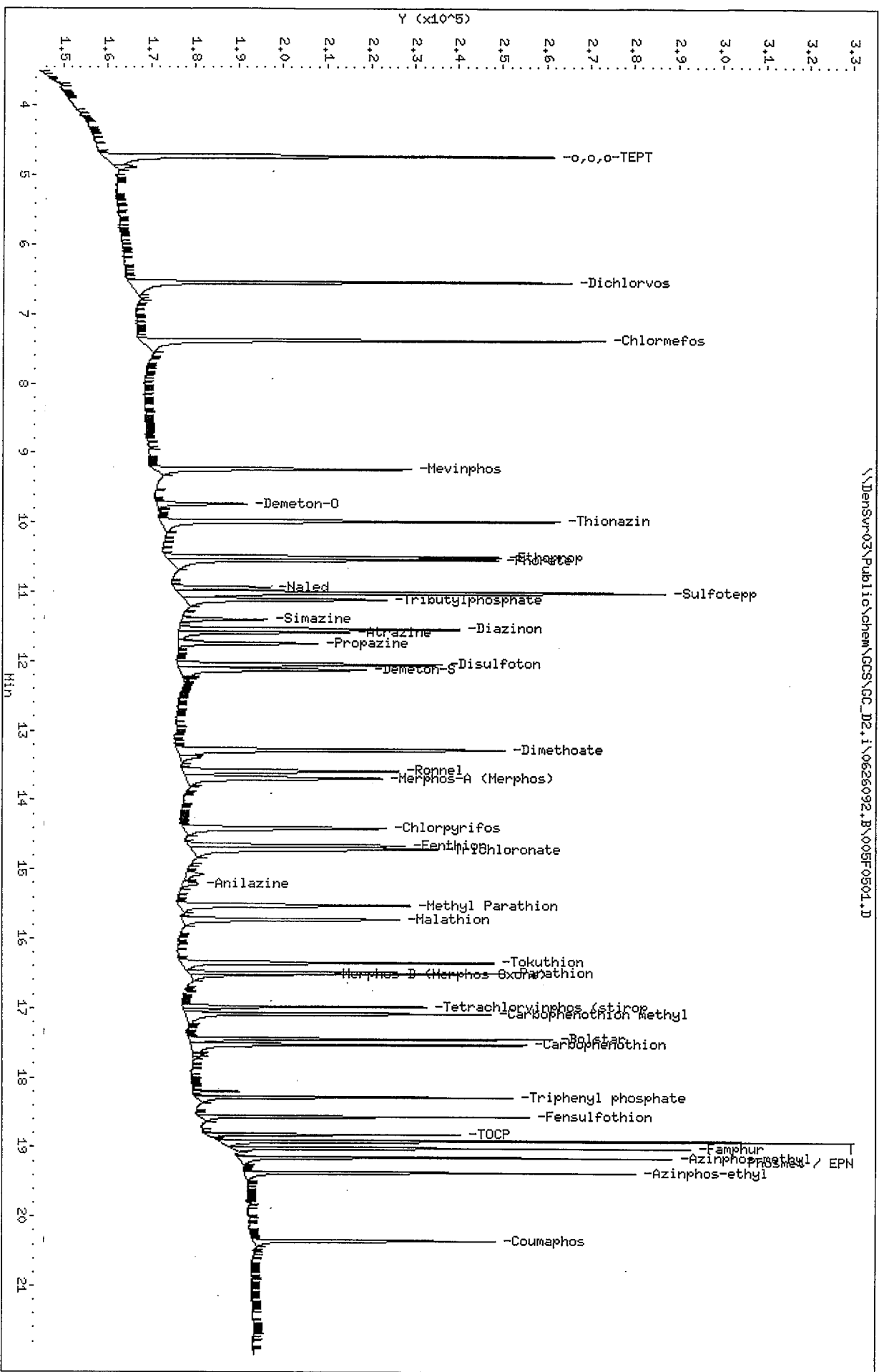
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.00
36 TOCP	18.82	18.32	19.32	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

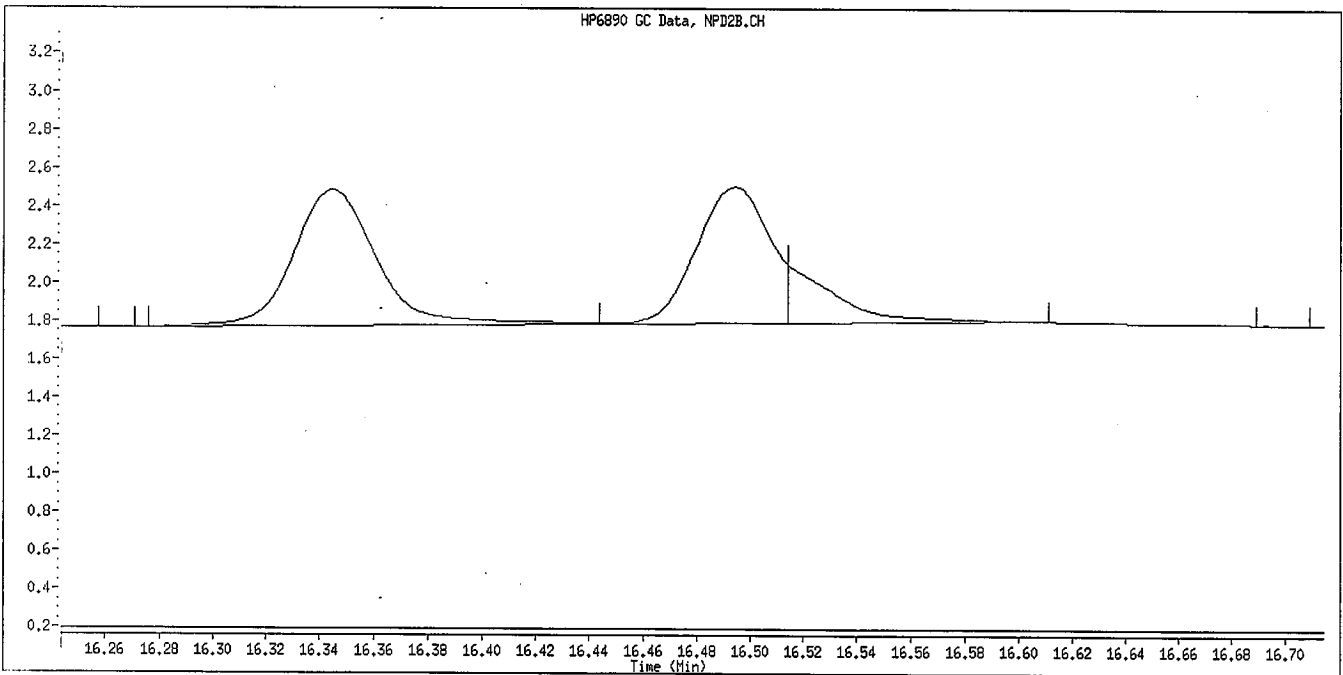
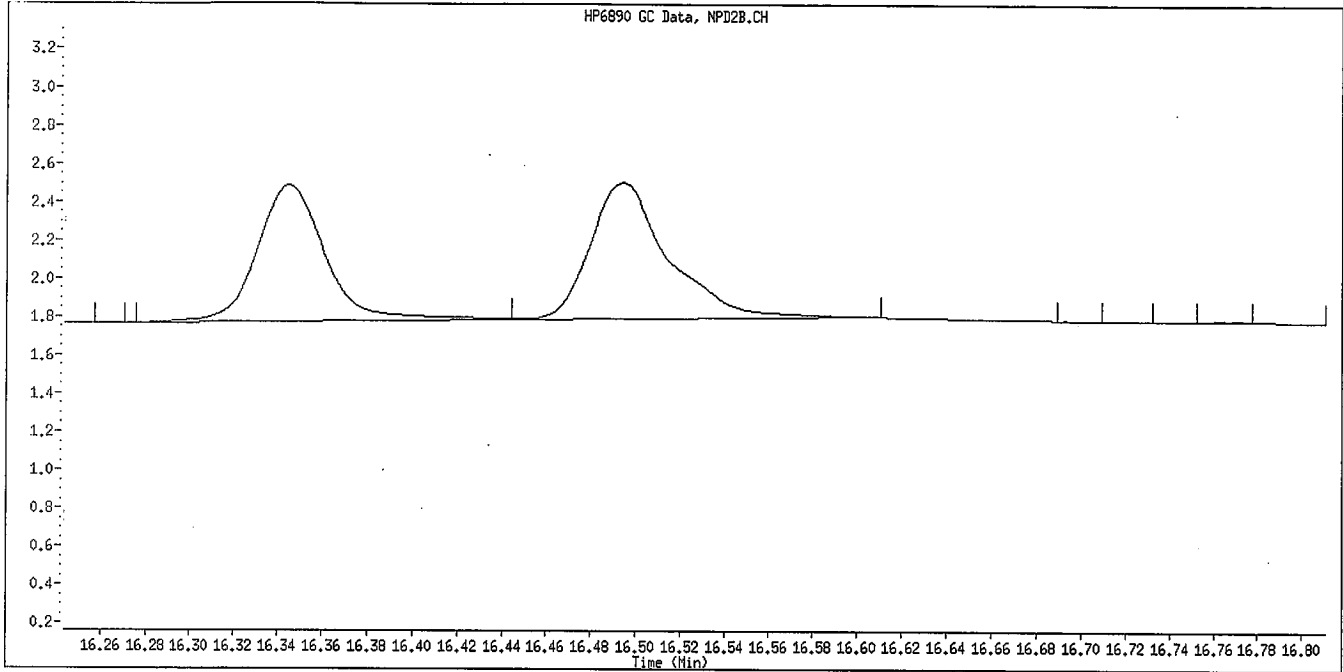
Data File: \\DensSvr-03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0504.D  
 Date: 26-JUN-2009 19:23  
 Client ID: OPP L5 GSV0635  
 Sample Info: OPP L5 GSV0635  
 Column phase: RTx-OPPest

Instrument: GC\_D2.i  
 Operator: MPK/TLM  
 Column diameter: 0.32

\\DensSvr-03\Public\chem\GCS\GC\_D2.i\0626092.B\005F0504.D



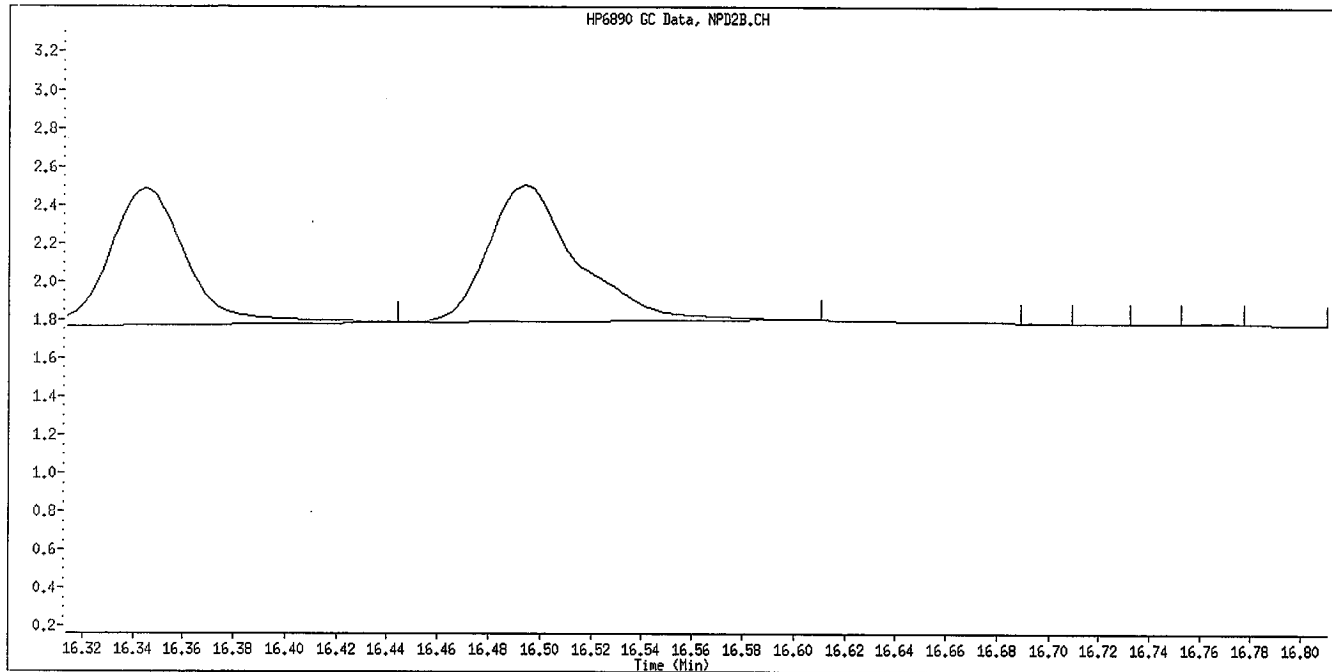
Data File Name: 005F0501.D  
Inj. Date and Time: 26-JUN-2009 19:23  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



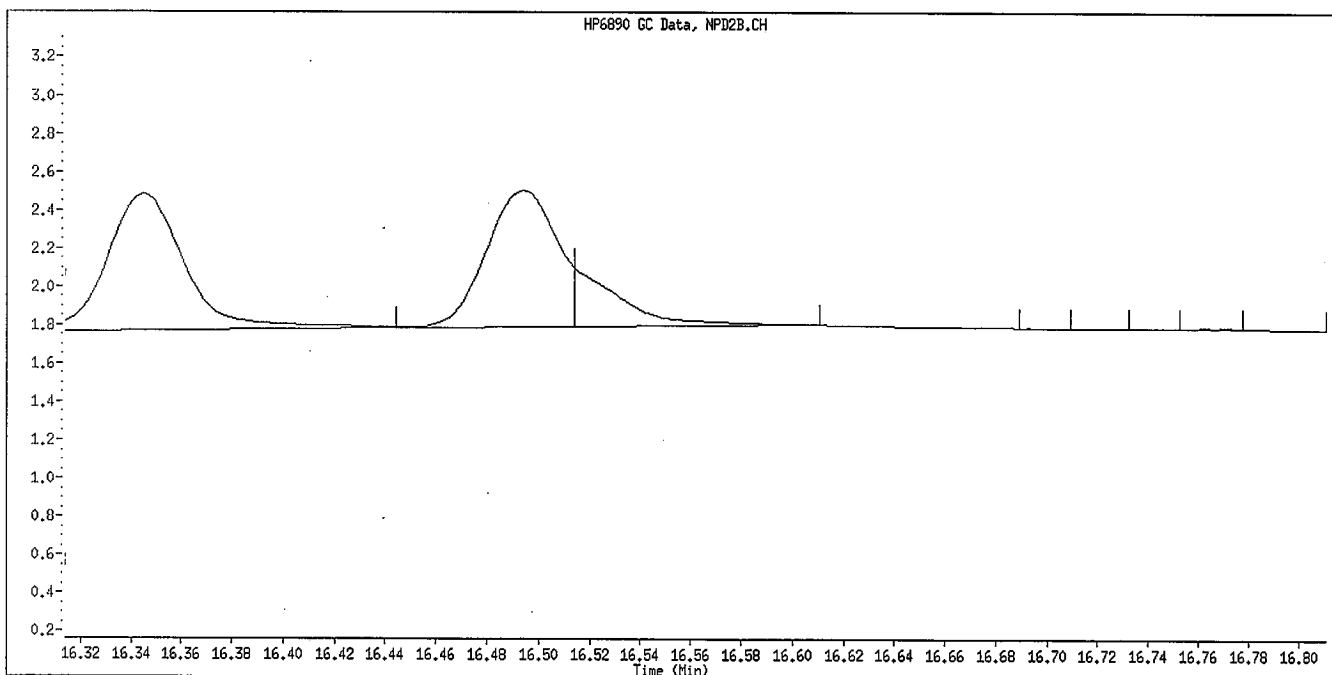
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature:* 8/6 6/30/09

Data File Name: 005F0501.D  
Inj. Date and Time: 26-JUN-2009 19:23  
Instrument ID: GC\_D2.i  
Client ID: OPP L5 GSV0635  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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*6/30/09*



TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Lab Smp Id: OPP L4 GSV0638 Client Smp ID: OPP L4 GSV0638  
 Inj Date : 26-JUN-2009 19:50  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L4 GSV0638  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:23 Cal File: 005F0501.D  
 Als bottle: 6 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.730	4.731	(0.251)	181207	2.00000	2.055
2 Dichlorvos	6.545	6.546	(0.348)	148252	2.00000	2.154
\$ 3 Chlormefos	7.383	7.384	(0.392)	138652	2.00000	2.001
4 Mevinphos	9.233	9.234	(0.491)	98399	2.00000	2.122
5 Demeton-O	9.733	9.734	(0.517)	29742	0.65000	0.6731
6 Thionazin	9.983	9.984	(0.531)	134999	2.00000	1.947
7 Ethoprop	10.498	10.499	(0.558)	103308	2.00000	1.994
8 Phorate	10.537	10.539	(0.560)	115663	2.00000	1.925
9 Naled	10.940	10.939	(0.581)	28010	2.00000	1.943
10 <sup>1</sup> Sulfotepp	11.017	11.017	(0.586)	187497	2.00000	2.069 (A)
* 11 Tributylphosphate	11.115	11.116	(1.000)	126959	2.00000	
12 Simazine	11.398	11.399	(0.606)	26282	2.00000	2.025 (A)
13 Diazinon	11.540	11.541	(0.613)	98649	2.00000	2.033
14 Atrazine	11.582	11.584	(0.616)	49088	2.00000	1.960 (A)
15 Propazine	11.745	11.747	(0.624)	43235	2.00000	1.922
16 Disulfoton	12.050	12.049	(0.640)	96402	2.00000	2.017
17 Demeton-S	12.125	12.124	(0.644)	70921	1.36000	1.296
18 Dimethoate	13.280	13.282	(0.706)	123978	2.00000	1.935
19 Ronnel	13.588	13.587	(0.722)	84095	2.00000	1.950
20 <sup>1</sup> Merphos-A (Merphos)	13.690	13.689	(1.232)	90289	2.00000	1.962 (A)
21 Chlorpyrifos	14.408	14.409	(0.766)	82272	2.00000	1.881
22 Fenthion	14.660	14.662	(0.779)	79190	2.00000	1.952
23 Trichloronate	14.708	14.711	(0.782)	106326	2.00000	1.900
24 Anilazine	15.212	15.216	(0.808)	6899	2.00000	1.843
25 Methyl Parathion	15.520	15.519	(0.825)	91219	2.00000	2.083 (A)
26 Malathion	15.725	15.724	(0.836)	80242	2.00000	1.956
27 Tokuthion	16.345	16.344	(0.869)	92069	2.00000	1.917
28 Parathion	16.493	16.494	(0.877)	84124	2.00000	1.950 (M)
29 Merphos-B (Merphos Oxone)	16.513	16.517	(1.486)	23458	2.00000	1.603 (AM)
30 <sup>1</sup> Tetrachlorvinphos (stirophos)	16.977	16.977	(0.902)	54727	2.00000	1.961
31 Carbophenothion methyl	17.082	17.082	(0.908)	79857	2.00000	1.996
32 Bolstar	17.440	17.440	(0.927)	82203	2.00000	1.951
33 Carbophenothion	17.523	17.524	(0.931)	80431	2.00000	1.941 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.280	18.281	(0.972)	73416	2.00000	2.159
35 Fensulfothion	18.558	18.559	(0.986)	66352	2.00000	2.125
* 36 TOCP	18.815	18.816	(1.000)	68161	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	146012	4.00000	4.177
38 Famphur	19.012	19.011	(1.010)	95300	2.00000	2.132
39 Azinphos-methyl	19.147	19.147	(1.018)	88773	2.00000	2.171
40 Azinphos-ethyl	19.365	19.366	(1.029)	80966	2.00000	2.079
41 Coumaphos	20.347	20.347	(1.081)	61650	2.00000	2.059
S 42 Merphos				113747	2.00000	2.002 (A)
M 43 Total Demeton				100663	2.00000	1.969

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i Calibration Date: 26-JUN-2009  
 Lab File ID: 006F0601.D Calibration Time: 19:50  
 Lab Smp Id: OPP L4 GSV0638 Client Smp ID: OPP L4 GSV0638  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	126959	63480	253918	126959	0.00
36 TOCP	68161	34081	136322	68161	0.00

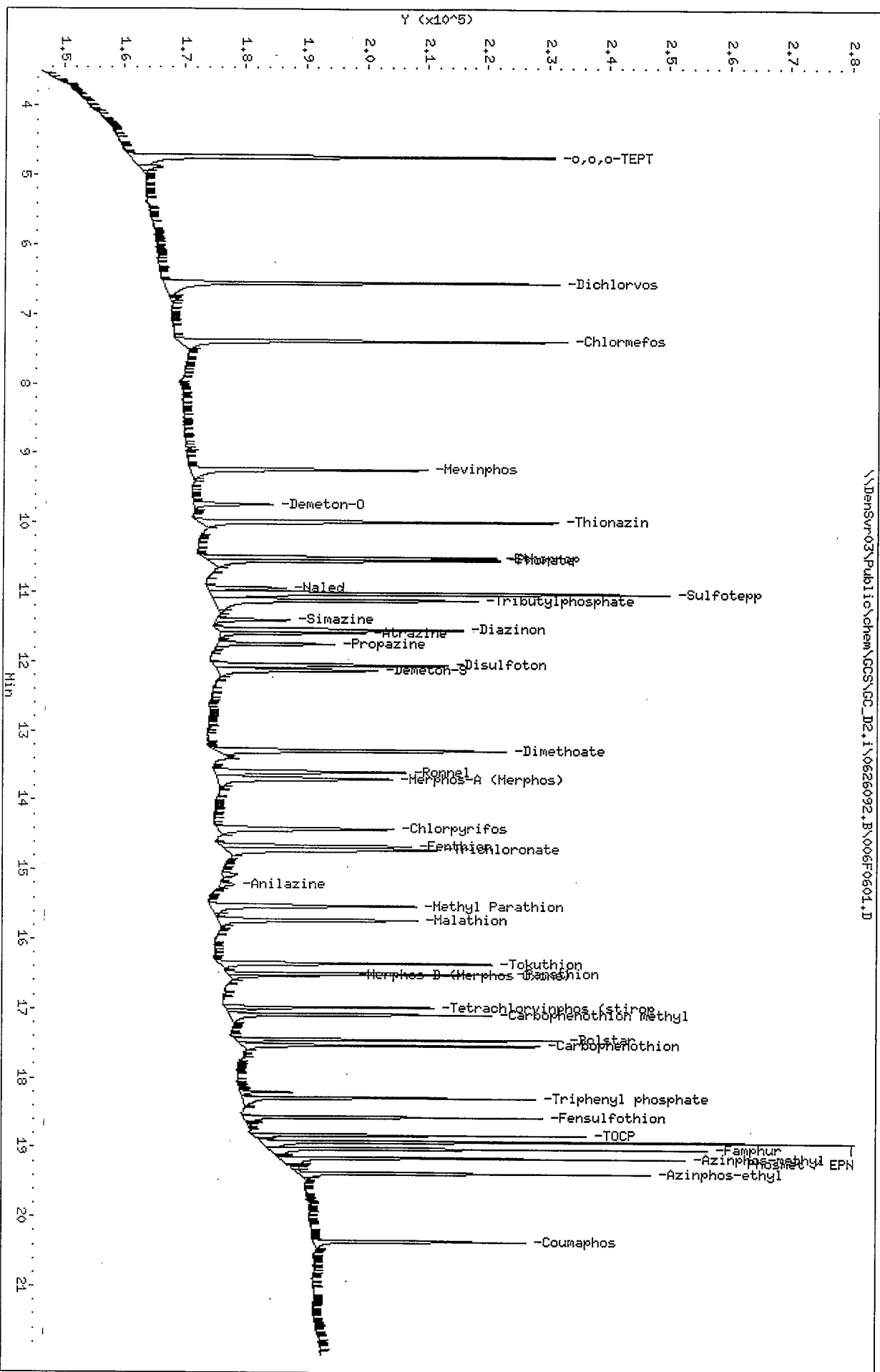
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.00
36 TOCP	18.82	18.32	19.32	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

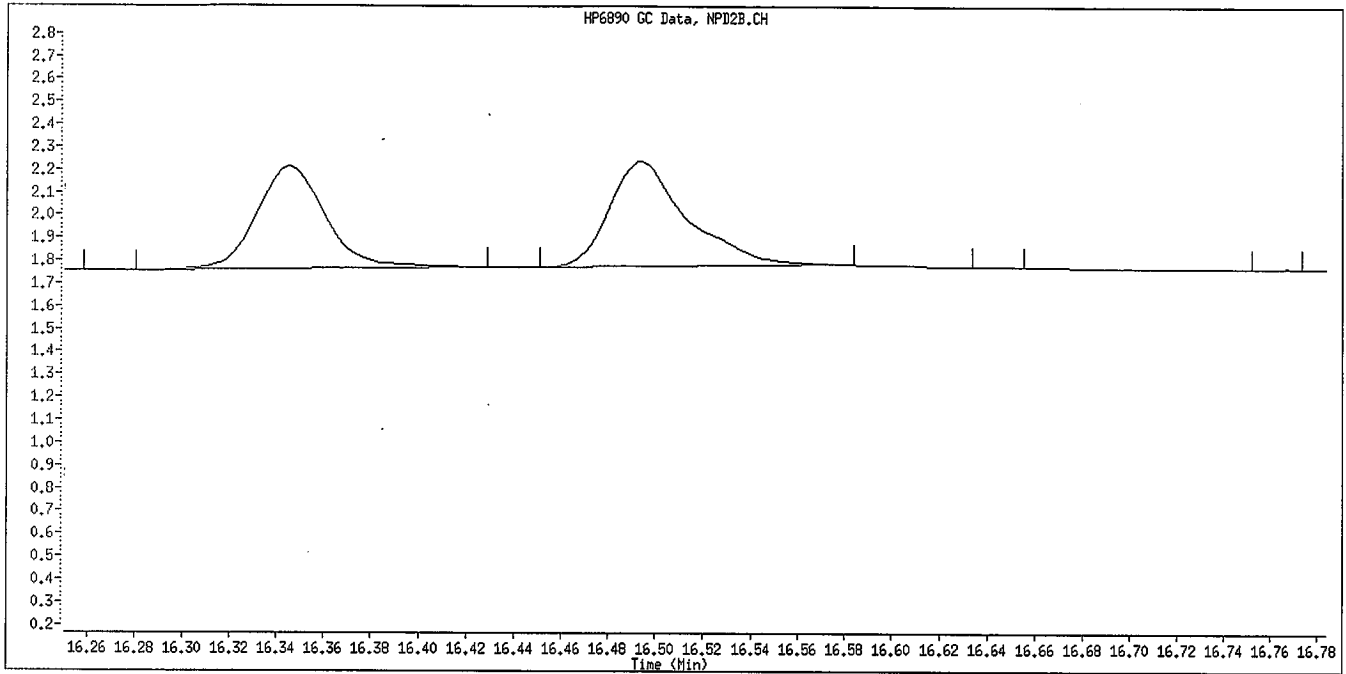
Data File: \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D  
 Date: 26-JUN-2009 19:50  
 Client ID: OPP L4 GSV0638  
 Sample Info: OPP L4 GSV0638  
 Column phase: RTX-OPpest

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32

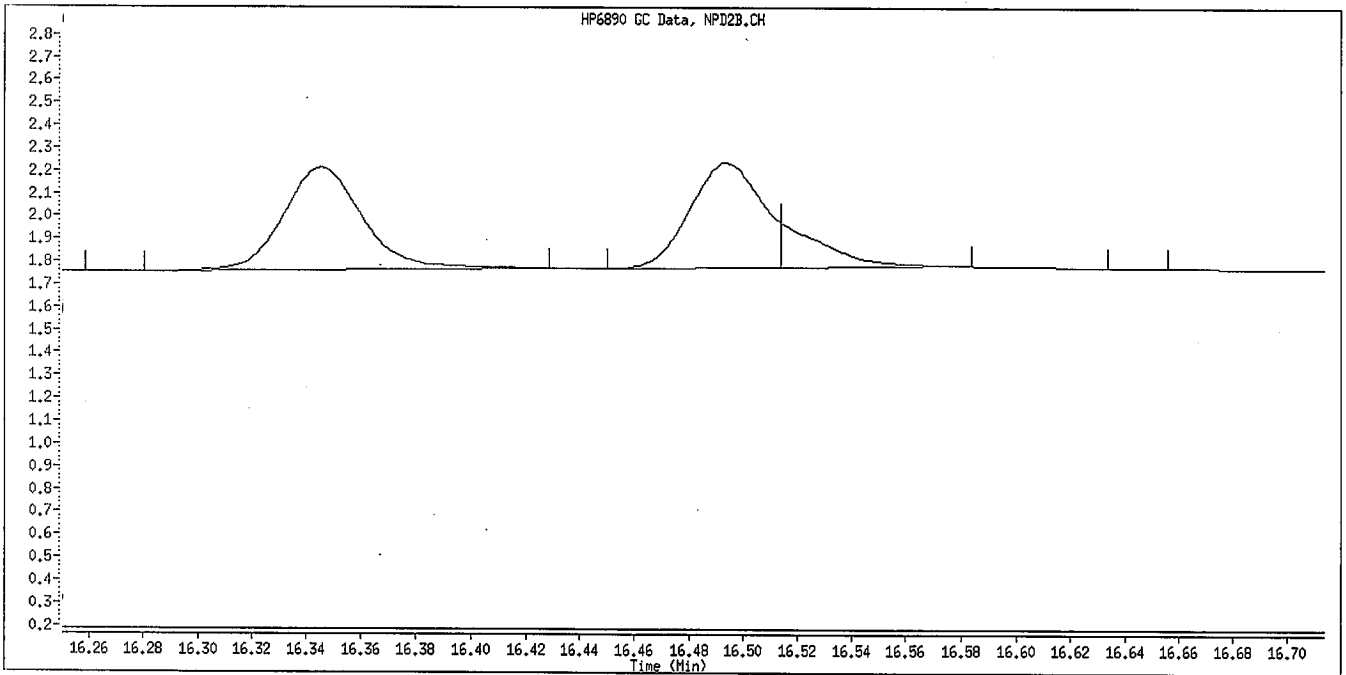
\\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\006F0601.D



Data File Name: 006F0601.D  
Inj. Date and Time: 26-JUN-2009 19:50  
Instrument ID: GC\_D2.i  
Client ID: OPP L4 GSV0638  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

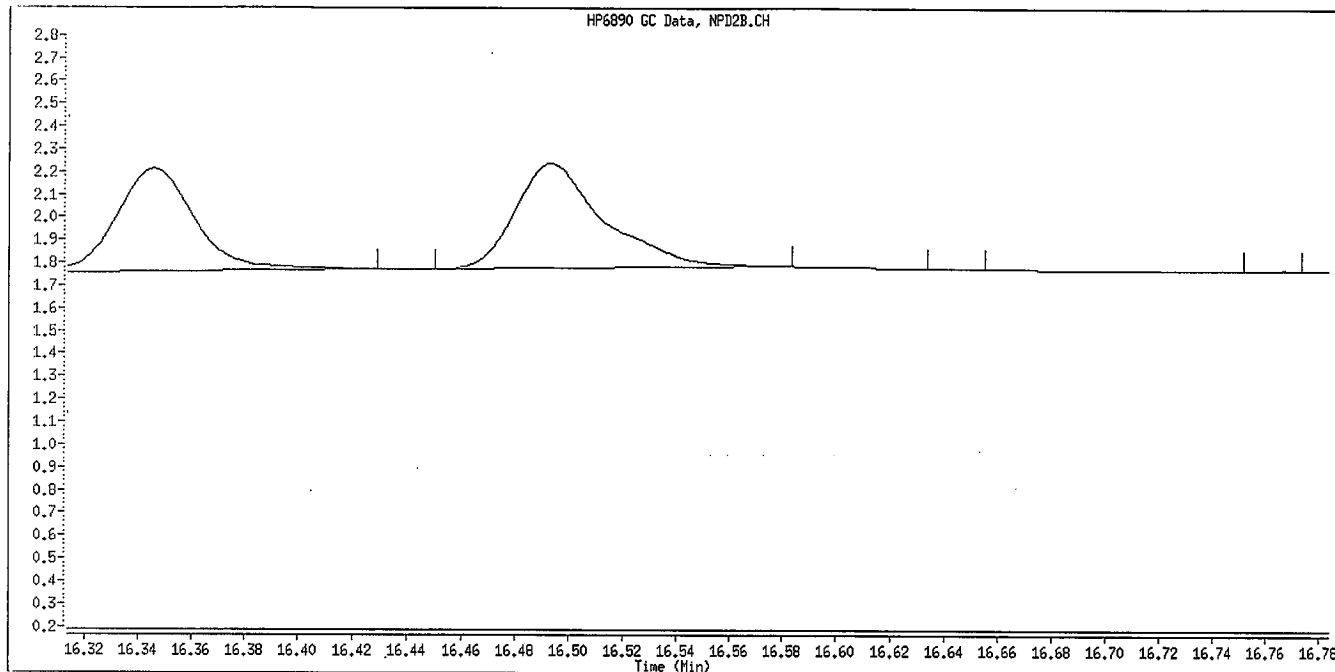


Manual Integration

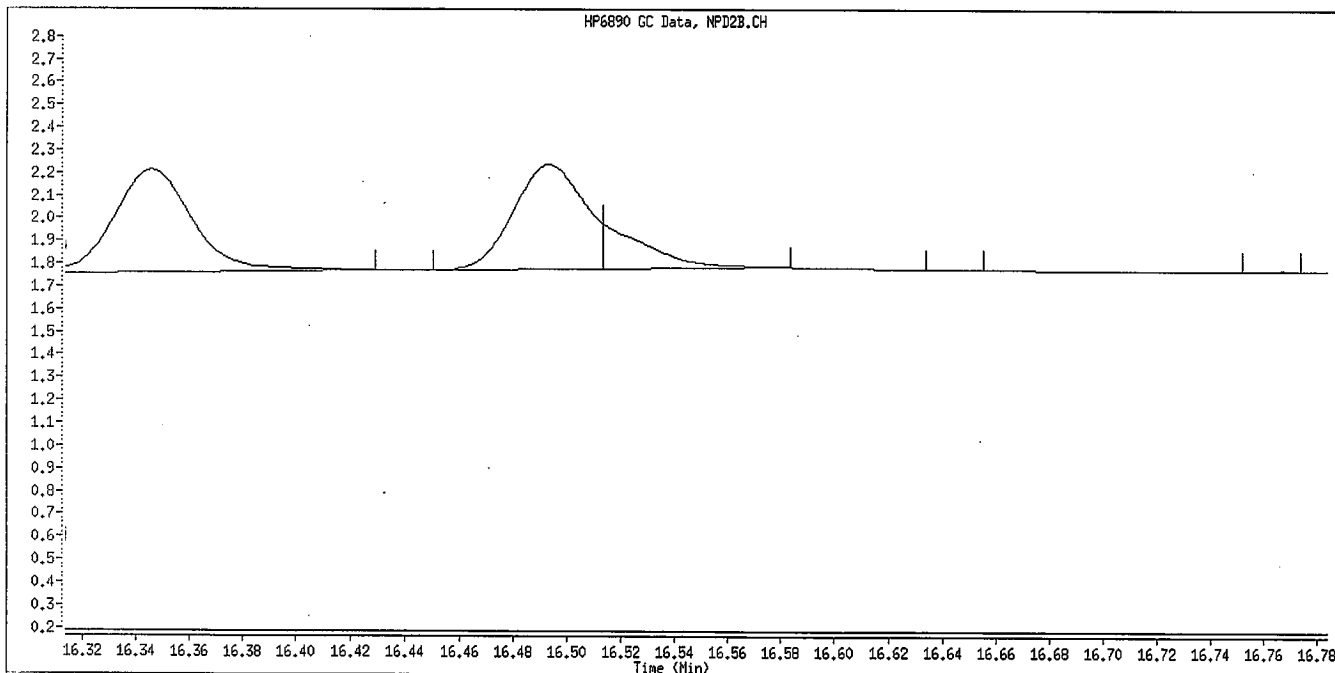
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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Data File Name: 006F0601.D  
Inj. Date and Time: 26-JUN-2009 19:50  
Instrument ID: GC\_D2.i  
Client ID: OPP L4 GSV0638  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\007F0701.D  
 Lab Smp Id: OPP L3 GSV0639 Client Smp ID: OPP L3 GSV0639  
 Inj Date : 26-JUN-2009 20:18  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L3 GSV0639  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 19:50 Cal File: 006F0601.D  
 Als bottle: 7 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.728	4.731	(0.251)	81887	1.00000	0.9107
2 Dichlorvos	6.546	6.546	(0.348)	63970	1.00000	0.9111
\$ 3 Chlormefos	7.383	7.384	(0.392)	61984	1.00000	0.8770
4 Mevinphos	9.235	9.234	(0.491)	42341	1.00000	0.8952
5 Demeton-O	9.733	9.734	(0.517)	13386	0.32500	0.2970
6 Thionazin	9.985	9.984	(0.531)	67347	1.00000	0.9522
7 Ethoprop	10.500	10.499	(0.558)	50288	1.00000	0.9515
8 Phorate	10.536	10.539	(0.560)	55056	1.00000	0.8983
9 Naled	10.941	10.939	(0.582)	10859	1.00000	0.9052
10 Sulfotepp	11.016	11.017	(0.586)	90141	1.00000	0.9752 (A)
* 11 Tributylphosphate	11.116	11.116	(1.000)	109941	2.00000	
12 Simazine	11.398	11.399	(0.606)	12288	1.00000	0.9282 (A)
13 Diazinon	11.541	11.541	(0.613)	49407	1.00000	1.013
14 Atrazine	11.581	11.584	(0.616)	21316	1.00000	0.9678 (A)
15 Propazine	11.746	11.747	(0.624)	20907	1.00000	0.9421
16 Disulfoton	12.050	12.049	(0.640)	47563	1.00000	0.9757
17 Demeton-S	12.126	12.124	(0.645)	33785	0.68000	0.6688
18 Dimethoate	13.283	13.282	(0.706)	60106	1.00000	0.9200
19 Ronnel	13.588	13.587	(0.722)	39845	1.00000	0.9061
20 Merphos-A (Merphos)	13.690	13.689	(1.231)	42032	1.00000	1.055 (A)
21 Chlorpyrifos	14.410	14.409	(0.766)	43430	1.00000	0.9737
22 Fenthion	14.663	14.662	(0.779)	40767	1.00000	0.9854
23 Trichloronate	14.710	14.711	(0.782)	49357	1.00000	0.9220
24 Anilazine	15.218	15.216	(0.809)	3581	1.00000	0.9372 (M)
25 Methyl Parathion	15.520	15.519	(0.825)	42442	1.00000	0.9503
26 Malathion	15.725	15.724	(0.836)	39993	1.00000	0.9559
27 Tokuthion	16.345	16.344	(0.869)	47016	1.00000	0.9598
28 Parathion	16.493	16.494	(0.877)	43405	1.00000	0.9863 (M)
29 Merphos-B (Merphos Oxone)	16.515	16.517	(1.486)	15065	1.00000	1.162 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	25459	1.00000	0.8943
31 Carbophenothion methyl	17.081	17.082	(0.908)	36393	1.00000	0.8919
32 Bolstar	17.441	17.440	(0.927)	41390	1.00000	0.9630
33 Carbophenothion	17.523	17.524	(0.931)	40089	1.00000	0.9485 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====	=====	=====	=====	=====	=====
\$ 34 Triphenyl phosphate	18.280	18.281	(0.972)	31677	1.00000	0.9133
35 Fensulfothion	18.558	18.559	(0.986)	30601	1.00000	0.9609
* 36 TOCP	18.815	18.816	(1.000)	69519	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	68186	2.00000	1.866
38 Famphur	19.010	19.011	(1.010)	41284	1.00000	0.9054
39 Azinphos-methyl	19.145	19.147	(1.018)	37491	1.00000	0.8988
40 Azinphos-ethyl	19.365	19.366	(1.029)	38936	1.00000	0.9801
41 Coumaphos	20.345	20.347	(1.081)	29854	1.00000	0.9774
S 42 Merphos				57097	1.00000	0.9855
M 43 Total Demeton				47171	1.00000	0.9658

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.



TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 007F0701.D  
 Lab Smp Id: OPP L3 GSV0639  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L3 GSV0639  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	126959	63480	253918	109941	-13.40
36 TOCP	68161	34081	136322	69519	1.99

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.01
36 TOCP	18.82	18.32	19.32	18.82	-0.00

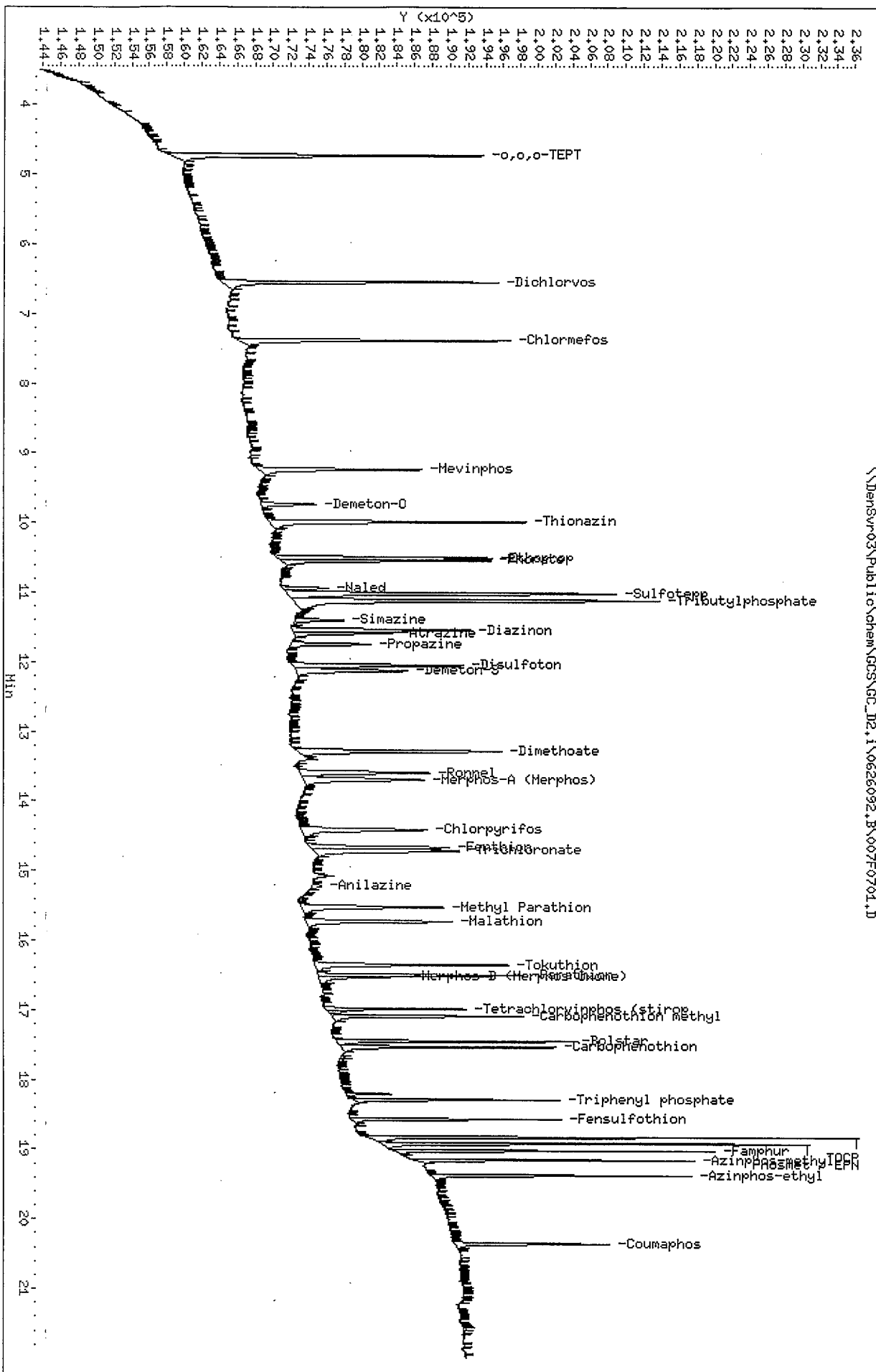
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densur-03\Public\chem\GCS\GC\_D2.1\0626092.B\007F0704.D  
 Date: 26-JUN-2009 20:18  
 Client ID: OPP L3 GSW0639  
 Sample Info: OPP L3 GSW0639

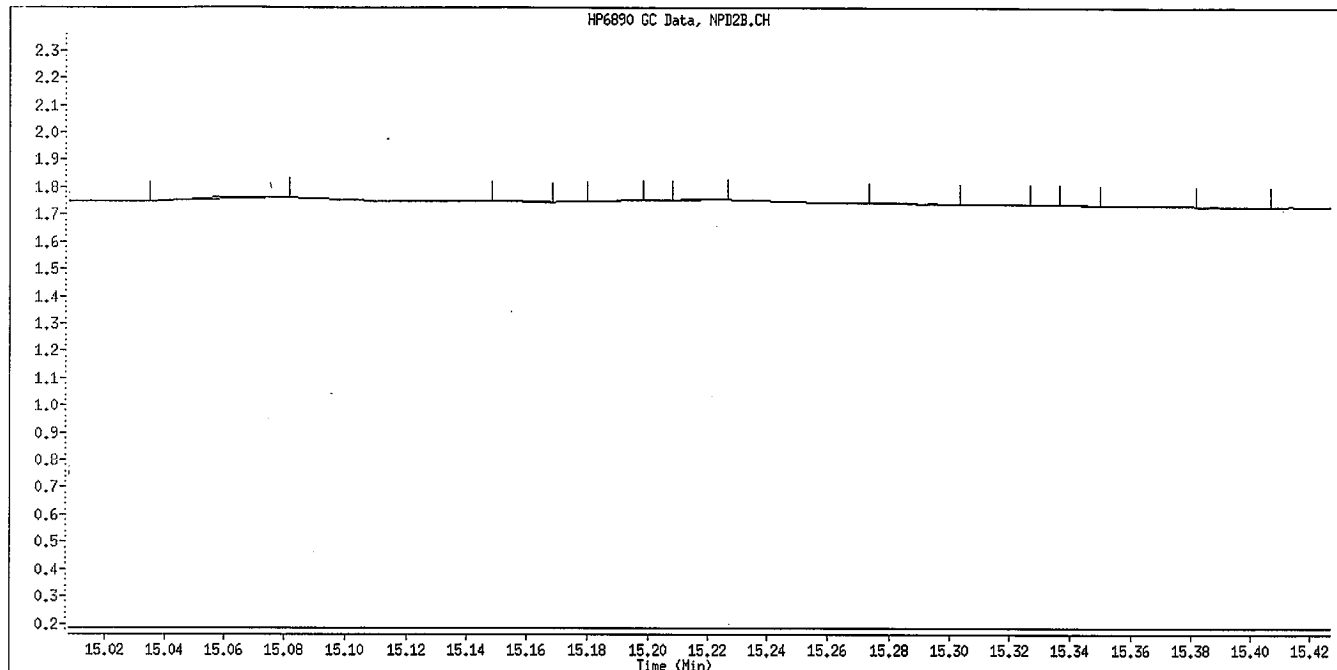
Column phase: RTX-OPPest

Instrument: GC\_D2.1  
 Operator: HPK/TLM  
 Column diameter: 0.32

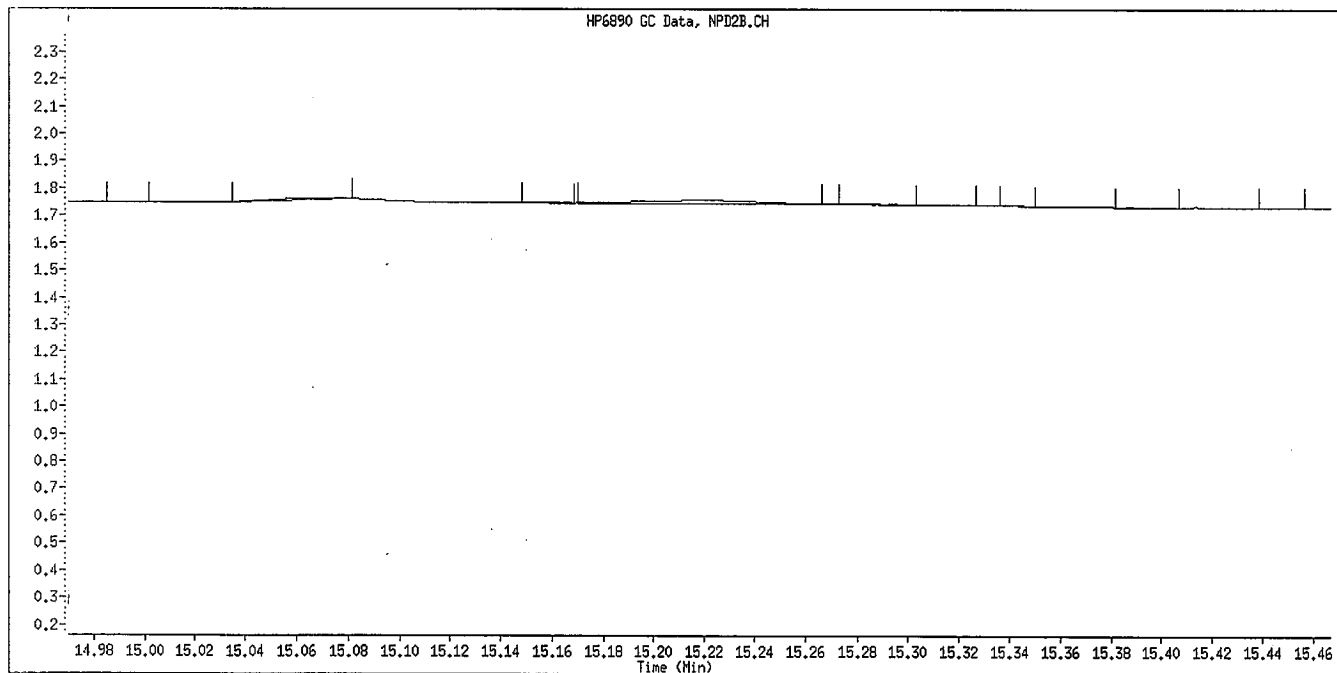
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Data File Name: 007F0701.D  
Inj. Date and Time: 26-JUN-2009 20:18  
Instrument ID: GC\_D2.i  
Client ID: OPP L3 GSV0639  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

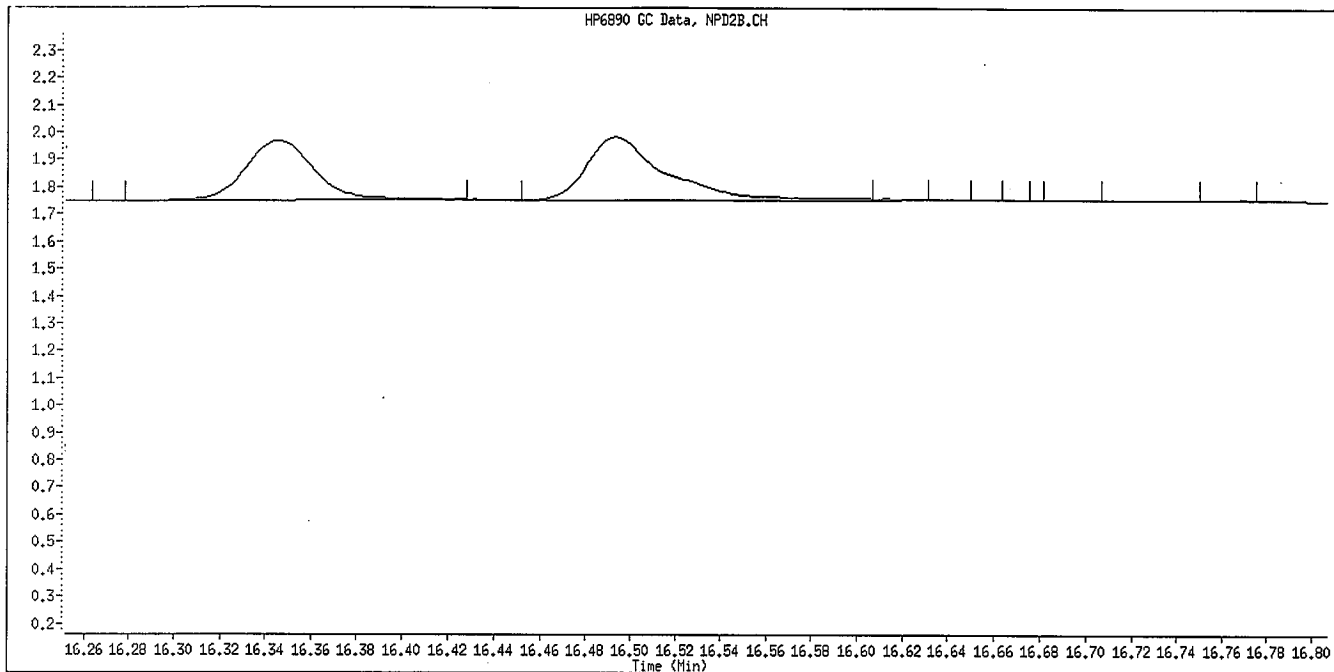


Manual Integration

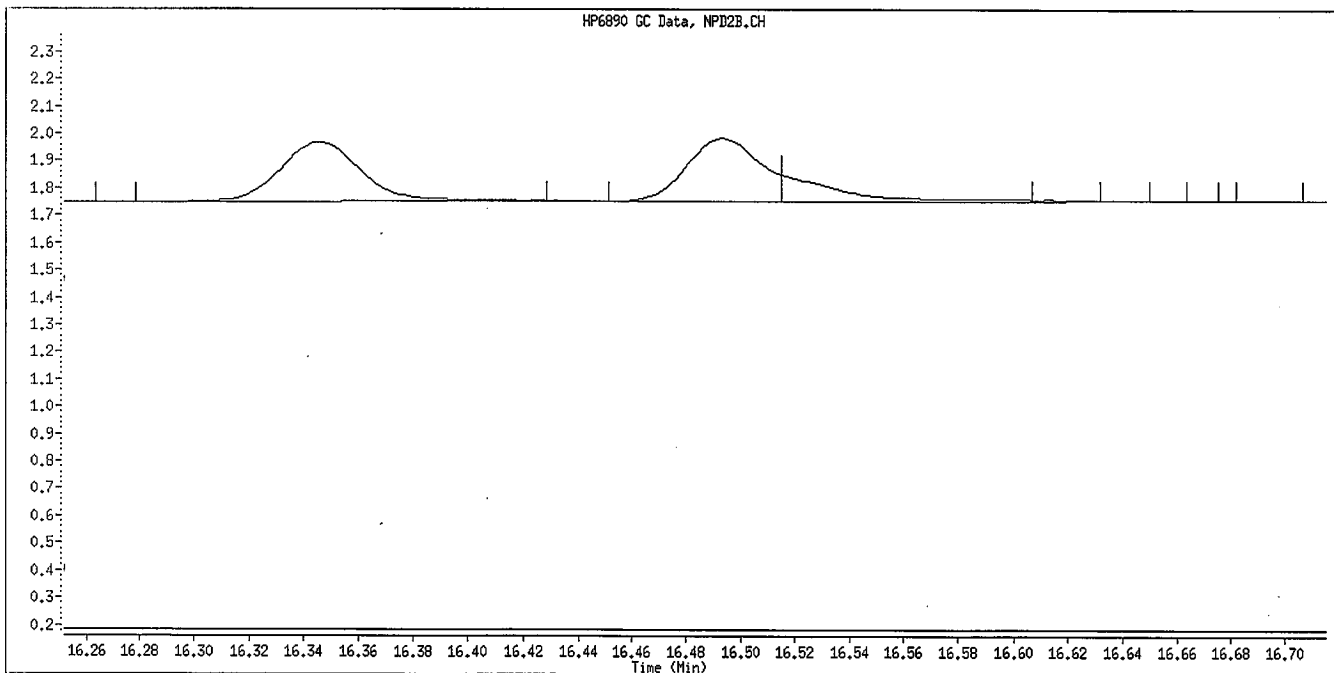
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 007F0701.D  
Inj. Date and Time: 26-JUN-2009 20:18  
Instrument ID: GC\_D2.i  
Client ID: OPP L3 GSV0639  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

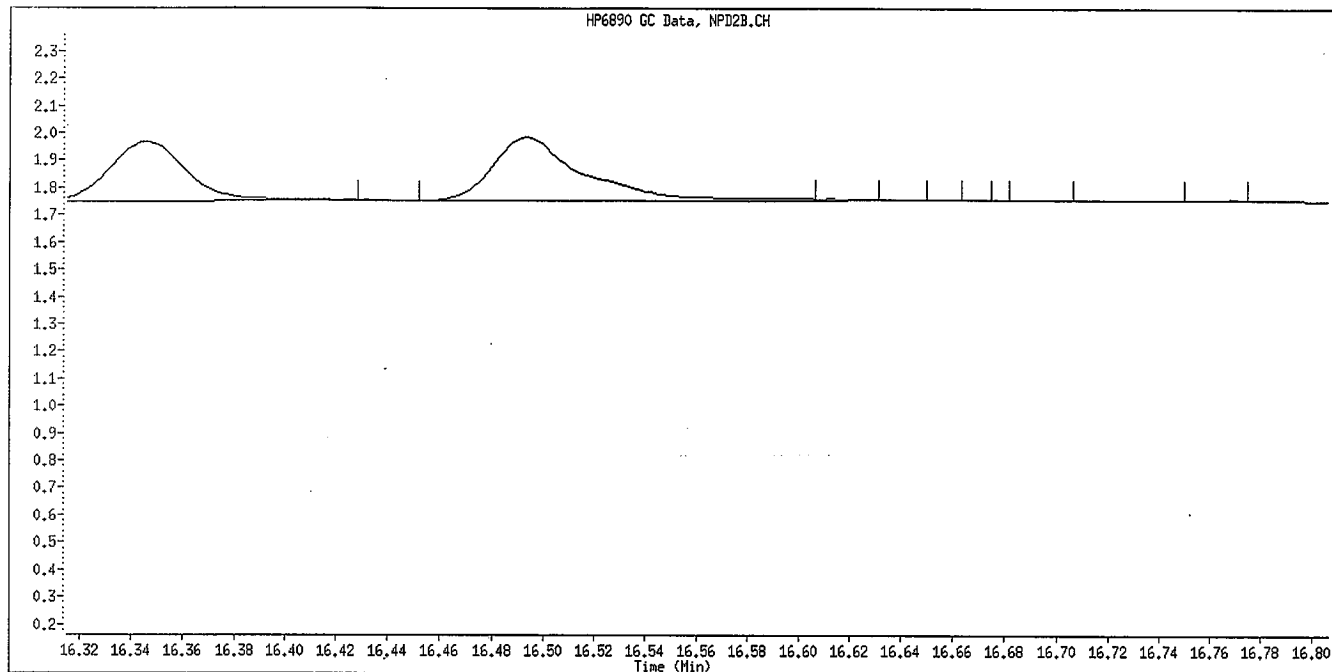


Manual Integration

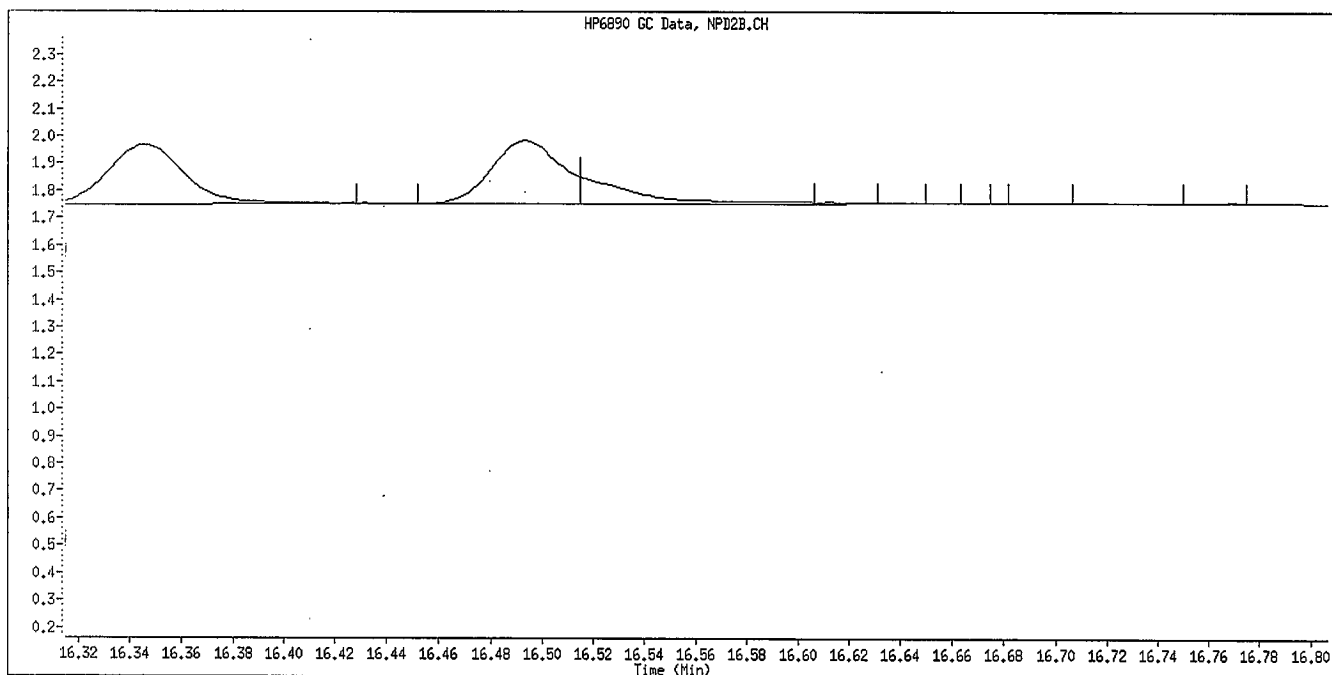
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 007F0701.D  
Inj. Date and Time: 26-JUN-2009 20:18  
Instrument ID: GC\_D2.i  
Client ID: OPP L3 GSV0639  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*WJ*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Lab Smp Id: OPP L2 GSV0640 Client Smp ID: OPP L2 GSV0640  
 Inj Date : 26-JUN-2009 20:45  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L2 GSV0640  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:18 Cal File: 007F0701.D  
 Als. bottle: 8 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.729	4.731	(0.251)	43725	0.50000	0.4721
2 Dichlorvos	6.546	6.546	(0.348)	32623	0.50000	0.4511
\$ 3 Chlormefos	7.383	7.384	(0.392)	32886	0.50000	0.4517
4 Mevinphos	9.233	9.234	(0.491)	22377	0.50000	0.4593
5 Demeton-O	9.734	9.734	(0.517)	7562	0.16250	0.1629
6 Thionazin	9.983	9.984	(0.531)	32975	0.50000	0.4526
7 Ethoprop	10.501	10.499	(0.558)	25261	0.50000	0.4640
8 Phorate	10.538	10.539	(0.560)	28693	0.50000	0.4545
9 Naled	10.934	10.939	(0.581)	1666	0.50000	0.3635
10 Sulfotepp	11.018	11.017	(0.586)	45401	0.50000	0.4768 (A)
* 11 Tributylphosphate	11.118	11.116	(1.000)	107017	2.00000	
12 Simazine	11.401	11.399	(0.606)	6209	0.50000	0.4553 (A)
13 Diazinon	11.541	11.541	(0.613)	15923	0.50000	0.3370
14 Atrazine	11.579	11.584	(0.615)	1231	0.50000	0.2736 (A)
15 Propazine	11.746	11.747	(0.624)	8102	0.50000	0.3907
16 Disulfoton	12.049	12.049	(0.640)	23807	0.50000	0.4741
17 Demeton-S	12.124	12.124	(0.644)	15766	0.34000	0.3681
18 Dimethoate	13.281	13.282	(0.706)	33707	0.50000	0.5009
19 Ronnel	13.588	13.587	(0.722)	19648	0.50000	0.4338
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	19488	0.50000	0.5025 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	20746	0.50000	0.4515
22 Fenthion	14.661	14.662	(0.779)	20747	0.50000	0.4869
23 Trichloronate	14.709	14.711	(0.782)	26053	0.50000	0.5238
24 Anilazine	15.213	15.216	(0.809)	2256	0.50000	0.5727 (M)
25 Methyl Parathion	15.519	15.519	(0.825)	20061	0.50000	0.4361
26 Malathion	15.724	15.724	(0.836)	21428	0.50000	0.4972
27 Tokuthion	16.346	16.344	(0.869)	23462	0.50000	0.4650
28 Parathion	16.493	16.494	(0.877)	20700	0.50000	0.4566 (M)
29 Merphos-B (Merphos Oxone)	16.514	16.517	(1.485)	6271	0.50000	0.4377 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	13089	0.50000	0.4464
31 Carbophenothion methyl	17.081	17.082	(0.908)	18266	0.50000	0.4346
32 Bolstar	17.441	17.440	(0.927)	21910	0.50000	0.4949
33 Carbophenothion	17.521	17.524	(0.931)	20336	0.50000	0.4671 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.279	18.281	(0.972)	15570	0.50000	0.4358
35 Fensulfothion	18.558	18.559	(0.986)	14395	0.50000	0.4388
* 36 TOCP	18.814	18.816	(1.000)	71609	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	35826	1.00000	0.9102
38 Famphur	19.009	19.011	(1.010)	21626	0.50000	0.4604
39 Azinphos-methyl	19.146	19.147	(1.018)	19508	0.50000	0.4540
40 Azinphos-ethyl	19.364	19.366	(1.029)	19984	0.50000	0.4884
41 Coumaphos	20.348	20.347	(1.081)	14618	0.50000	0.4646
S 42 Merphos				25759	0.50000	0.4316
M 43. Total Demeton				23328	0.50000	0.5310

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC\_D2.i  
 Lab File ID: 008F0801.D  
 Lab Smp Id: OPP L2 GSV0640  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L2 GSV0640  
 Level:  
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	126959	63480	253918	107017	-15.71
36 TOCP	68161	34081	136322	71609	5.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.02
36 TOCP	18.82	18.32	19.32	18.81	-0.00

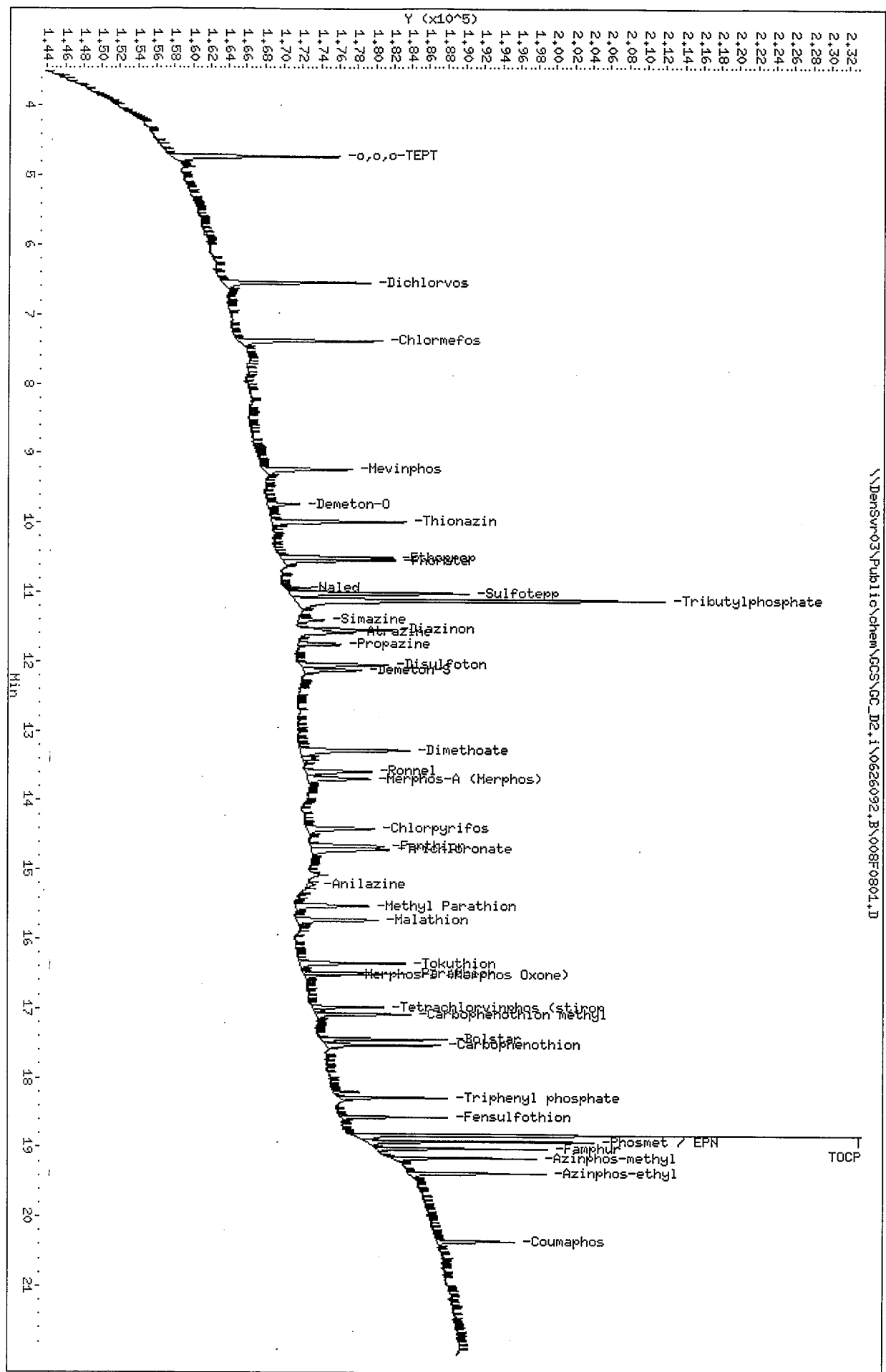
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



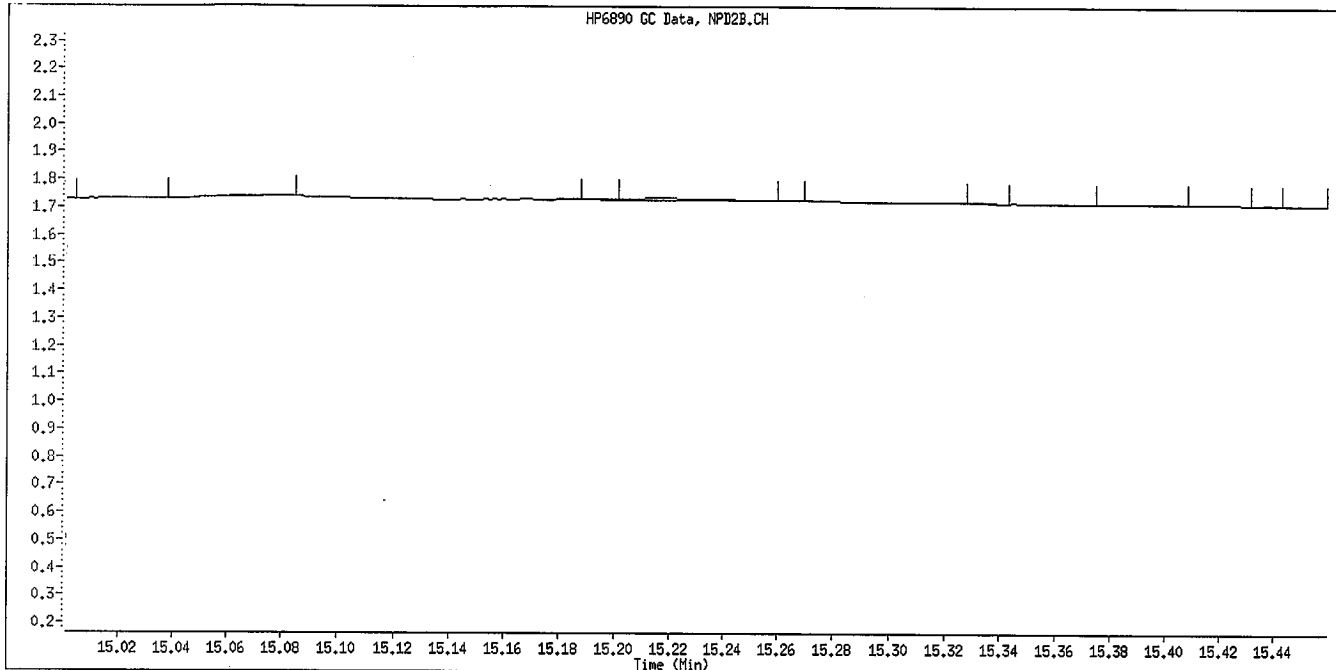
Data File: \\Densur-03\Public\chem\GCS\GC\_D2.i\0626092.B\008F0801.D  
 Date: 26-JUN-2009 20:45  
 Client ID: OPP L2 GSV0640  
 Sample Info: OPP L2 GSV0640

Instrument: GC\_D2.i  
 Operator: MPK/TLW  
 Column diameter: 0.32  
 Column phase: RTX-OPPest

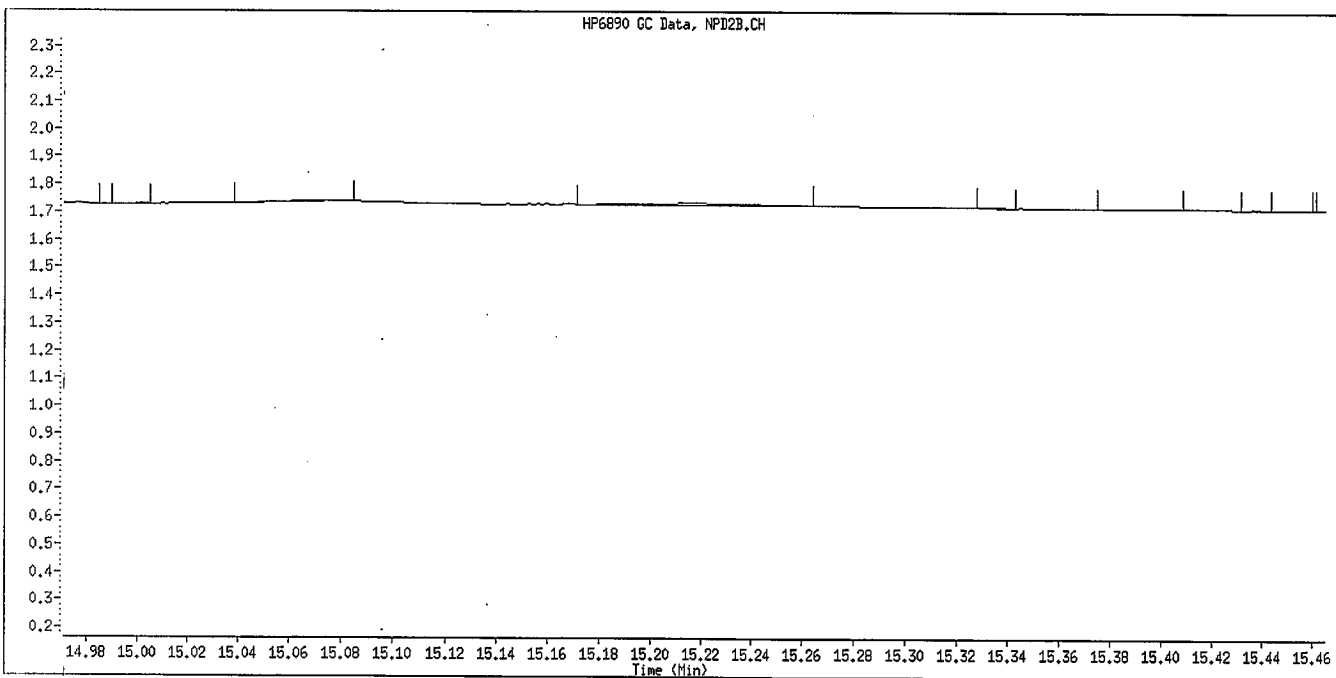
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Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

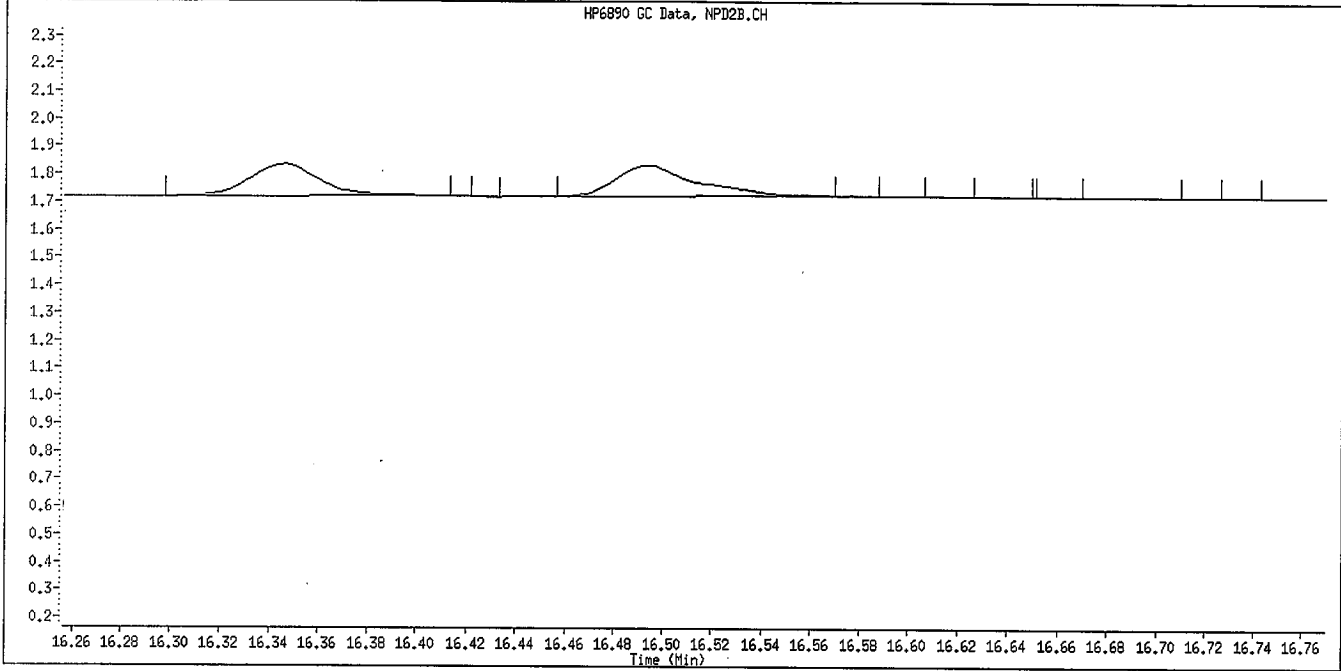


Manual Integration

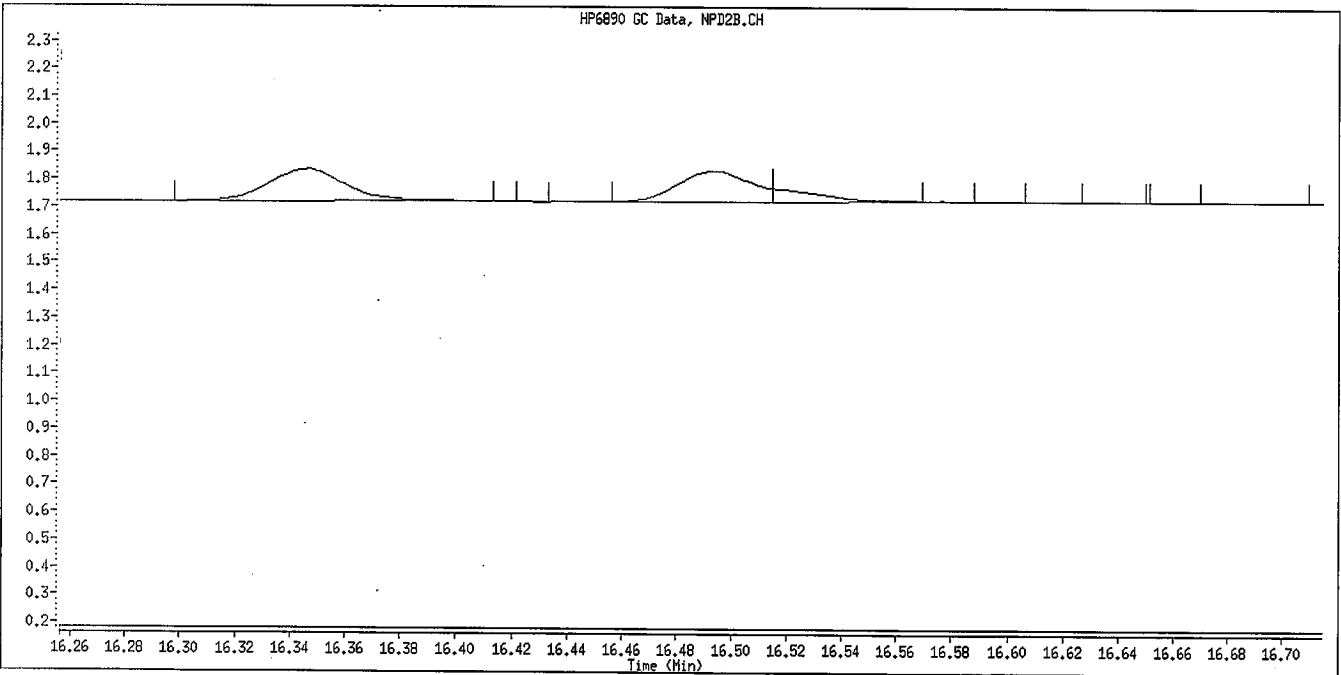
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*JS*  
6/30/09

Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

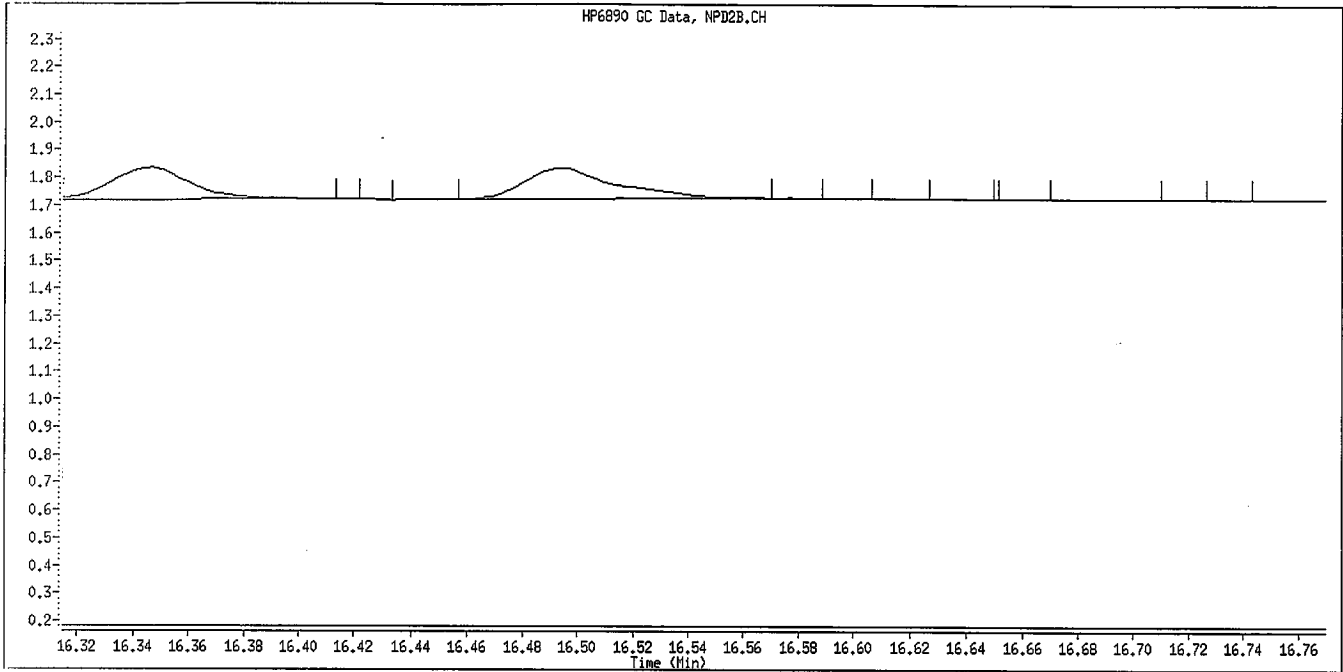


Manual Integration

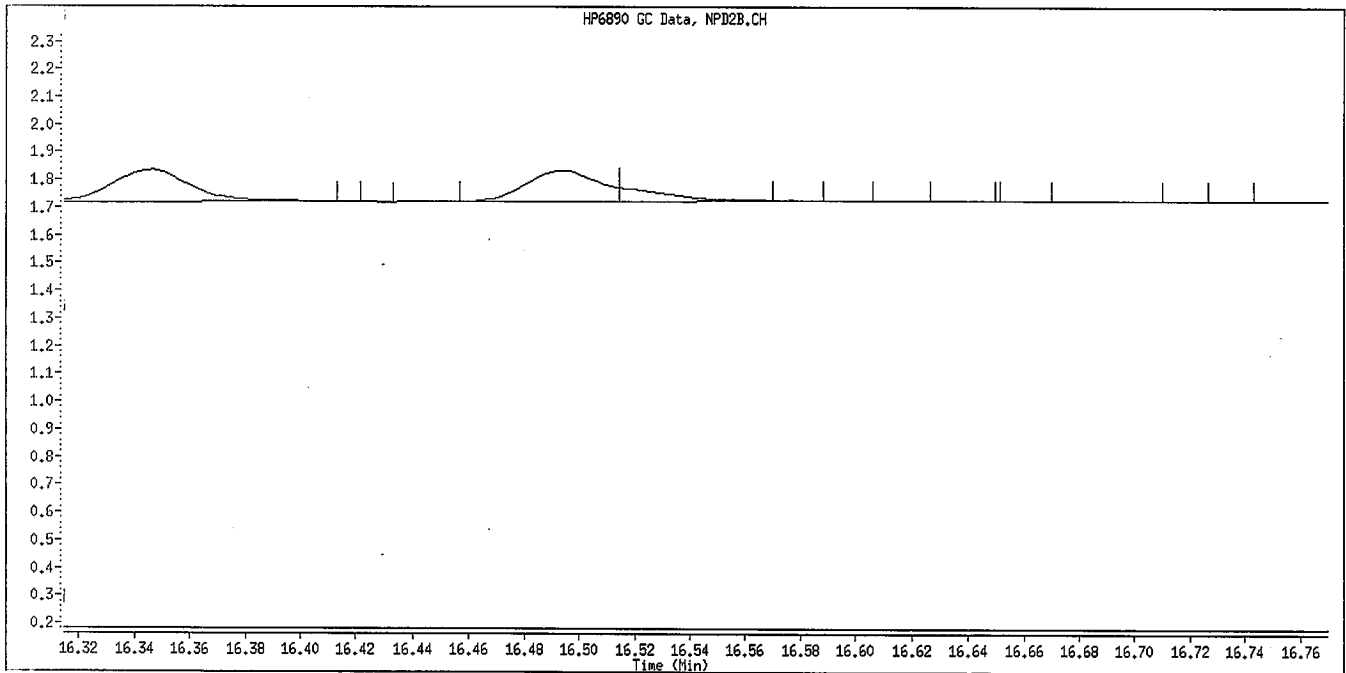
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 008F0801.D  
Inj. Date and Time: 26-JUN-2009 20:45  
Instrument ID: GC\_D2.i  
Client ID: OPP L2 GSV0640  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*WJL*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Lab Smp Id: OPP L1 GSV0641 Client Smp ID: OPP L1 GSV0641  
 Inj Date : 26-JUN-2009 21:13  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP L1 GSV0641  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 12:58 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 20:45 Cal File: 008F0801.D  
 Als bottle: 9 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.731	4.731	(0.251)	21538	0.20000	0.2262
2 Dichlorvos	6.546	6.546	(0.348)	14456	0.20000	0.1945
\$ 3 Chlormefos	7.382	7.384	(0.392)	16155	0.20000	0.2159
4 Mevinphos	9.236	9.234	(0.491)	10624	0.20000	0.2122
5 Demeton-O	9.737	9.734	(0.518)	2866	0.06500	0.06007
6 Thionazin	9.986	9.984	(0.531)	15885	0.20000	0.2121
7 Ethoprop	10.502	10.499	(0.558)	12514	0.20000	0.2237
8 Phorate	10.537	10.539	(0.560)	13936	0.20000	0.2148
9 Naled	10.939	10.939	(0.581)	94	0.20000	0.2739
10 Sulfotepp	11.016	11.017	(0.585)	20595	0.20000	0.2105 (A)
* 11 Tributylphosphate	11.117	11.116	(1.000)	104756	2.00000	
12 Simazine	11.399	11.399	(0.606)	2680	0.20000	0.1912 (A)
13 Diazinon	11.541	11.541	(0.613)	12067	0.20000	0.2561
14 Atrazine	11.581	11.584	(0.615)	5427	0.20000	0.4092 (A)
15 Propazine	11.746	11.747	(0.624)	4880	0.20000	0.2531
16 Disulfoton	12.052	12.049	(0.641)	10273	0.20000	0.1991
17 Demeton-S	12.121	12.124	(0.644)	667	0.13600	0.1293
18 Dimethoate	13.282	13.282	(0.706)	14242	0.20000	0.2059
19 Ronnel	13.587	13.587	(0.722)	10994	0.20000	0.2362
20 Merphos-A (Merphos)	13.689	13.689	(1.231)	7722	0.20000	0.2034 (A)
21 Chlorpyrifos	14.409	14.409	(0.766)	9439	0.20000	0.1999
22 Fenthion	14.661	14.662	(0.779)	8896	0.20000	0.2031
23 Trichloronate	14.709	14.711	(0.782)	6944	0.20000	0.2138
24 Anilazine	15.217	15.216	(0.809)	1634	0.20000	0.4033 (M)
25 Methyl Parathion	15.519	15.519	(0.825)	8934	0.20000	0.1890
26 Malathion	15.724	15.724	(0.836)	9125	0.20000	0.2060
27 Tokuthion	16.344	16.344	(0.869)	11061	0.20000	0.2133
28 Parathion	16.494	16.494	(0.877)	9355	0.20000	0.2008 (M)
29 Merphos-B (Merphos Oxone)	16.512	16.517	(1.485)	3793	0.20000	0.2310 (AM)
30 Tetrachlorvinphos (stirophos)	16.976	16.977	(0.902)	6332	0.20000	0.2101
31 Carbophenothion methyl	17.081	17.082	(0.908)	8575	0.20000	0.1985
32 Bolstar	17.441	17.440	(0.927)	9809	0.20000	0.2156
33 Carbophenothion	17.522	17.524	(0.931)	8717	0.20000	0.1948 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34. Triphenyl phosphate	18.281	18.281	(0.972)	8167	0.20000	0.2224
35 Fensulfothion	18.559	18.559	(0.986)	6502	0.20000	0.1929
* 36 TOCP	18.816	18.816	(1.000)	73597	2.00000	
37 Phosmet / EPN	18.909	18.909	(1.005)	19707	0.40000	0.4475
38 Famphur	19.012	19.011	(1.010)	10711	0.20000	0.2219
39 Azinphos-methyl	19.149	19.147	(1.018)	9243	0.20000	0.2093
40 Azinphos-ethyl	19.367	19.366	(1.029)	8391	0.20000	0.1995
41 Coumaphos	20.349	20.347	(1.081)	5809	0.20000	0.1796
S 42 Merphos				11515	0.20000	0.1877
M 43 Total Demeton				3533	0.20000	0.1894

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC D2.i  
 Lab File ID: 009F0901.D  
 Lab Smp Id: OPP L1 GSV0641  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: MPK/TLW  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Misc Info:

Calibration Date: 26-JUN-2009  
 Calibration Time: 19:50  
 Client Smp ID: OPP L1 GSV0641  
 Level:  
 Sample Type:

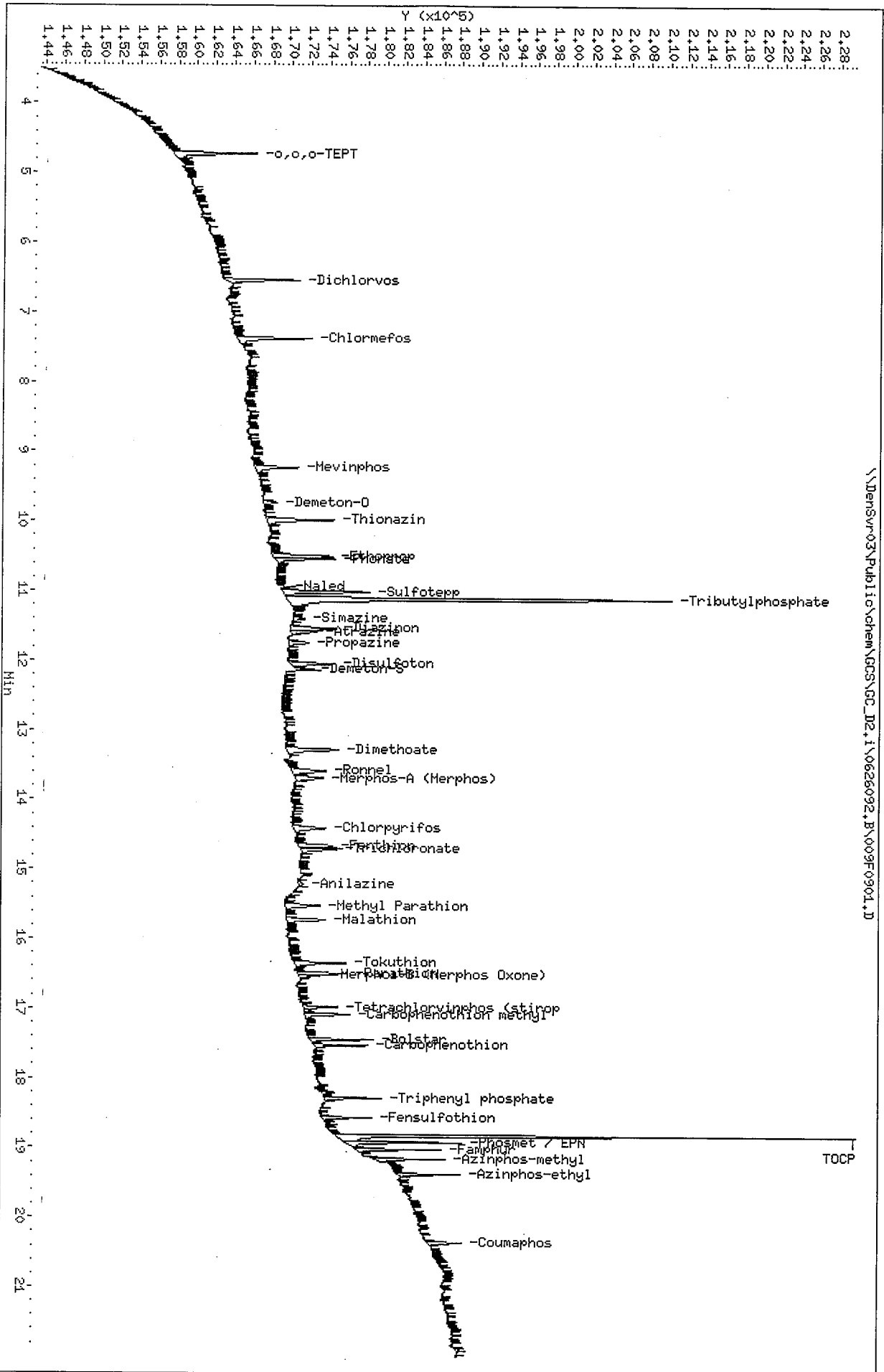
COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	126959	63480	253918	104756	-17.49
36 TOCP	68161	34081	136322	73597	7.98

COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	11.12	10.62	11.62	11.12	0.02
36 TOCP	18.82	18.32	19.32	18.82	0.00

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

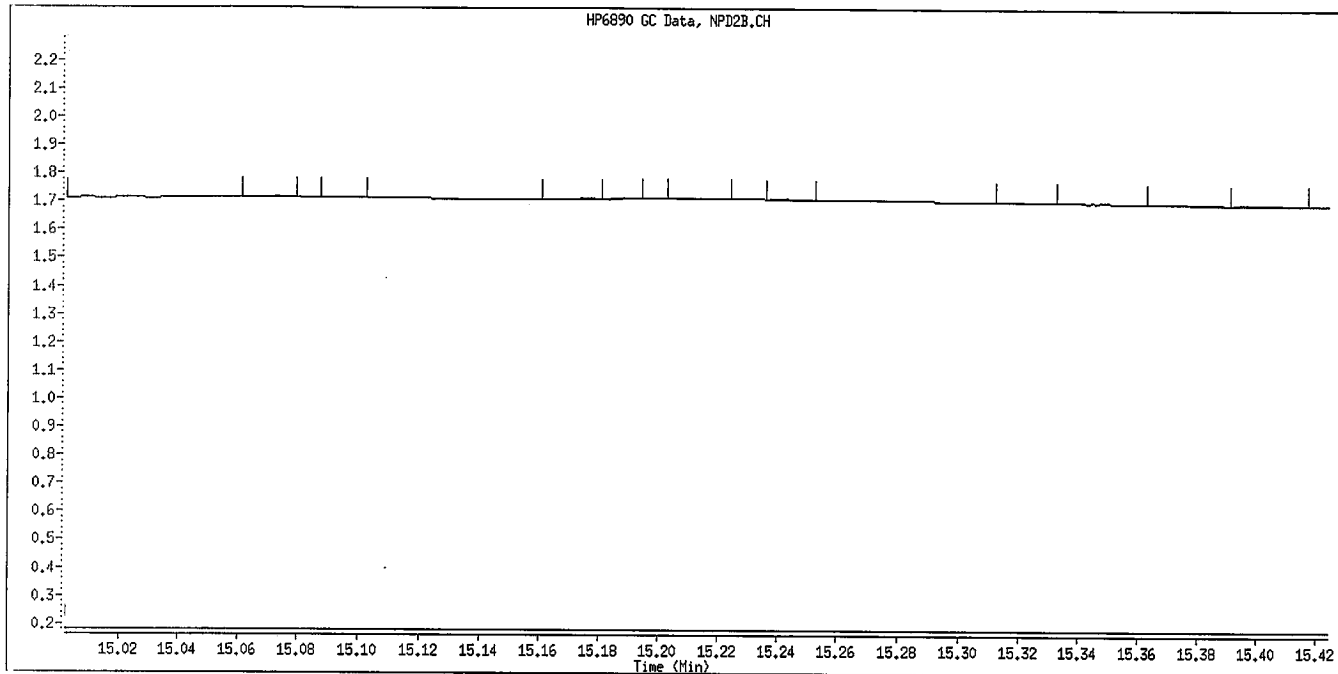
Data File: \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\009F0901.D  
 Date: 26-JUN-2009 21:13  
 Client ID: OPP L1 GSV0641  
 Sample Info: OPP L1 GSV0641  
 Column phase: RTX-OPpest

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32

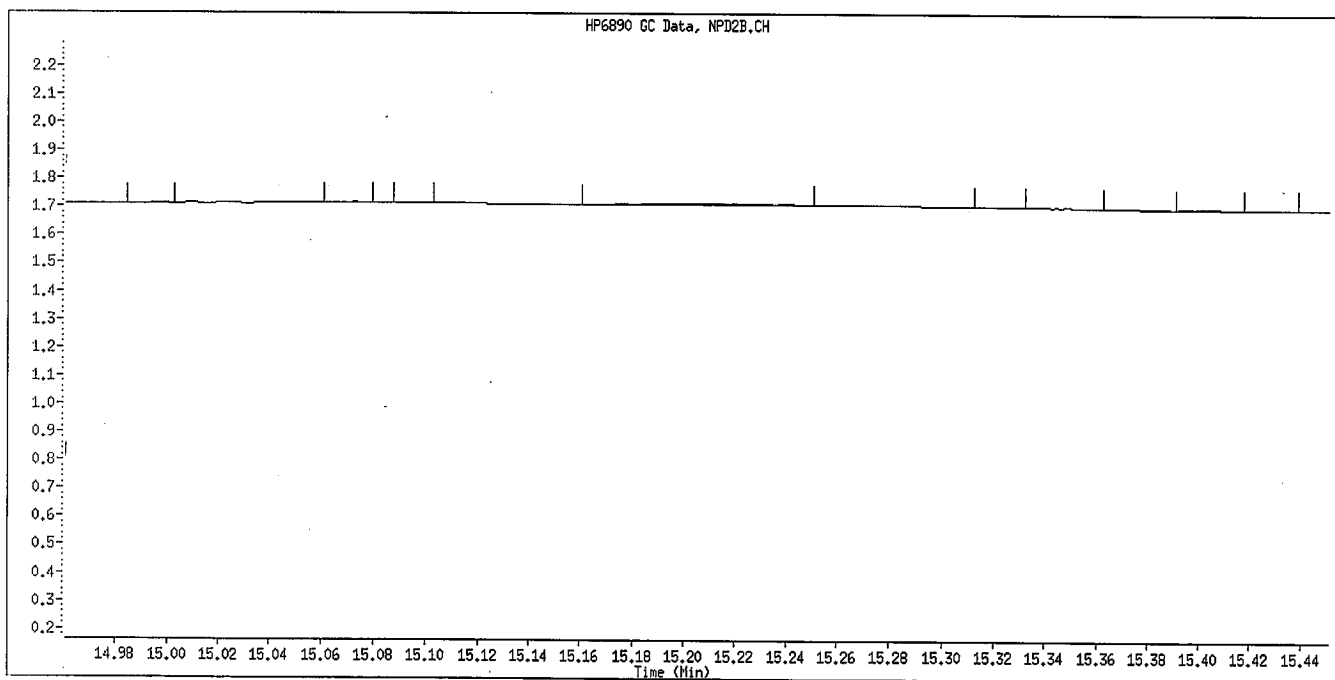




Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration

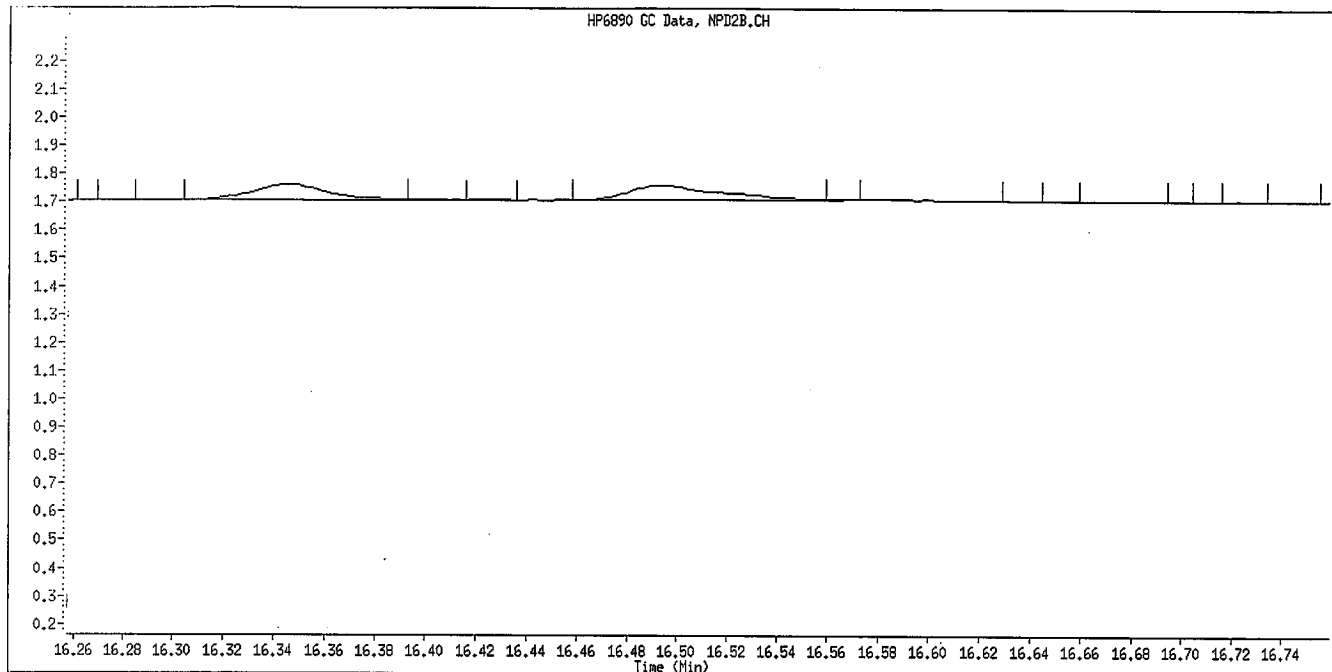


Manual Integration

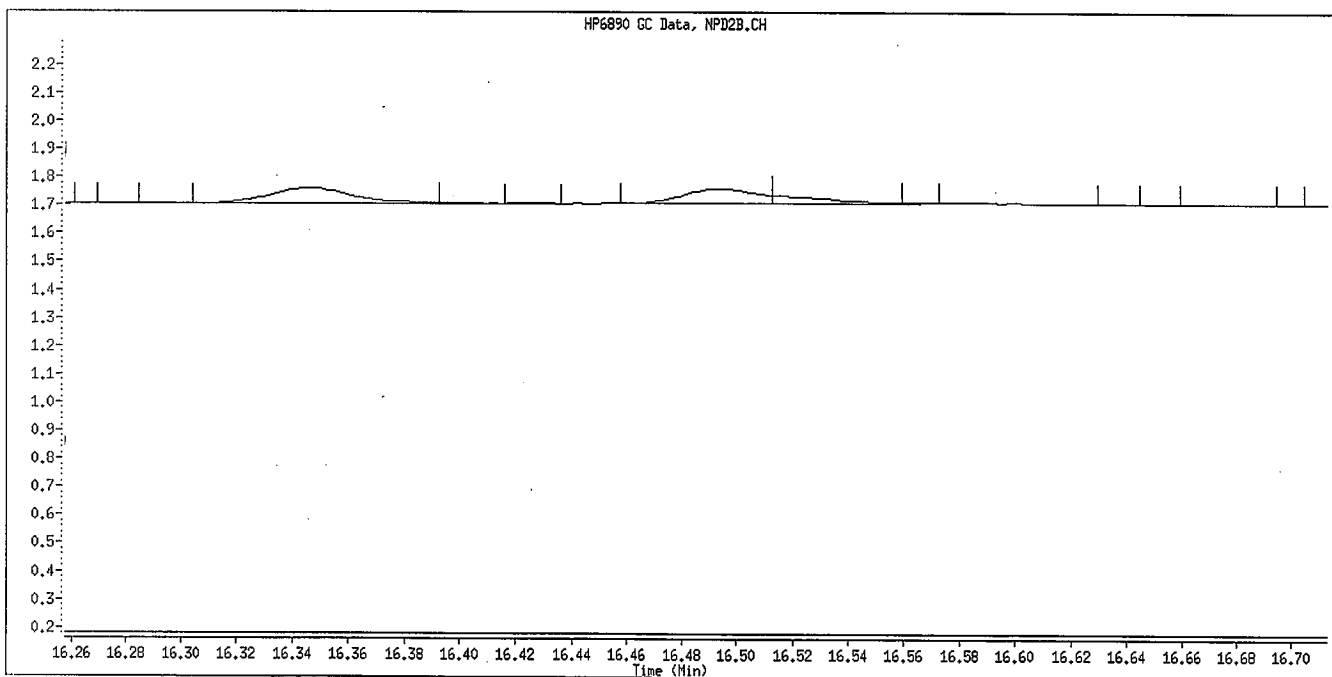
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Parathion  
CAS #:  
Report Date: 06/30/2009



Original Integration

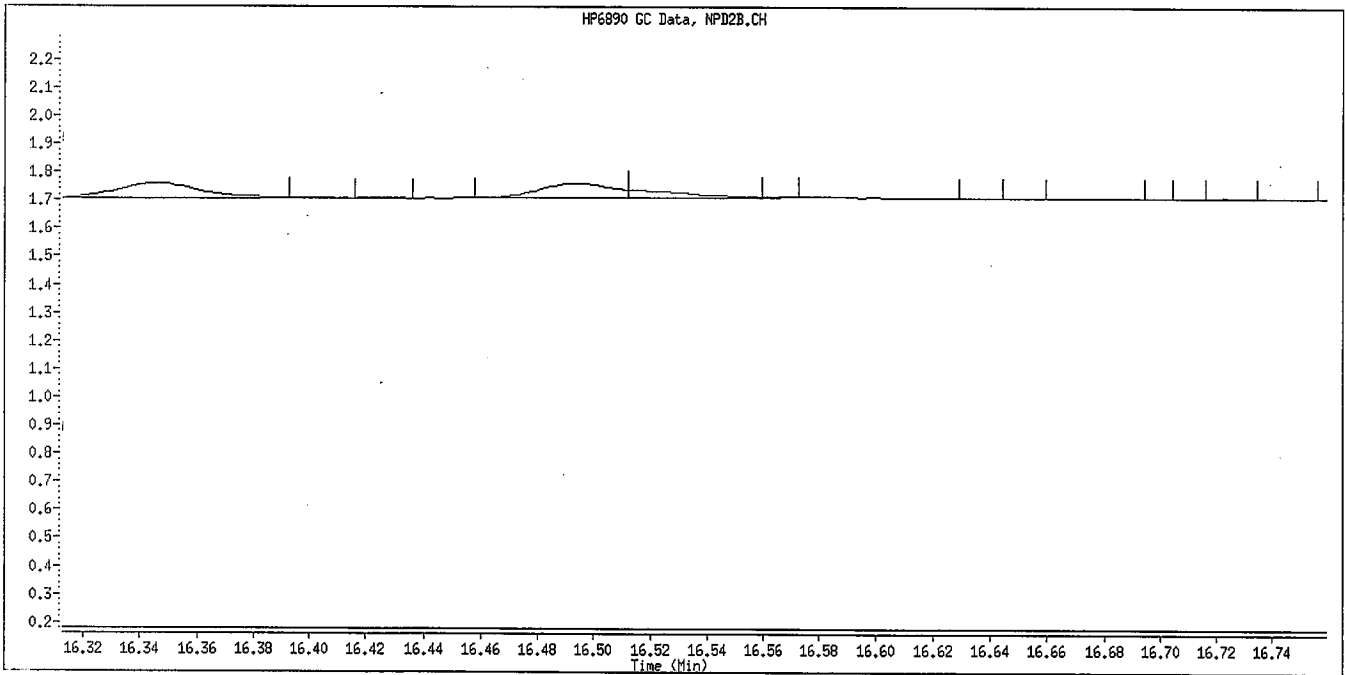
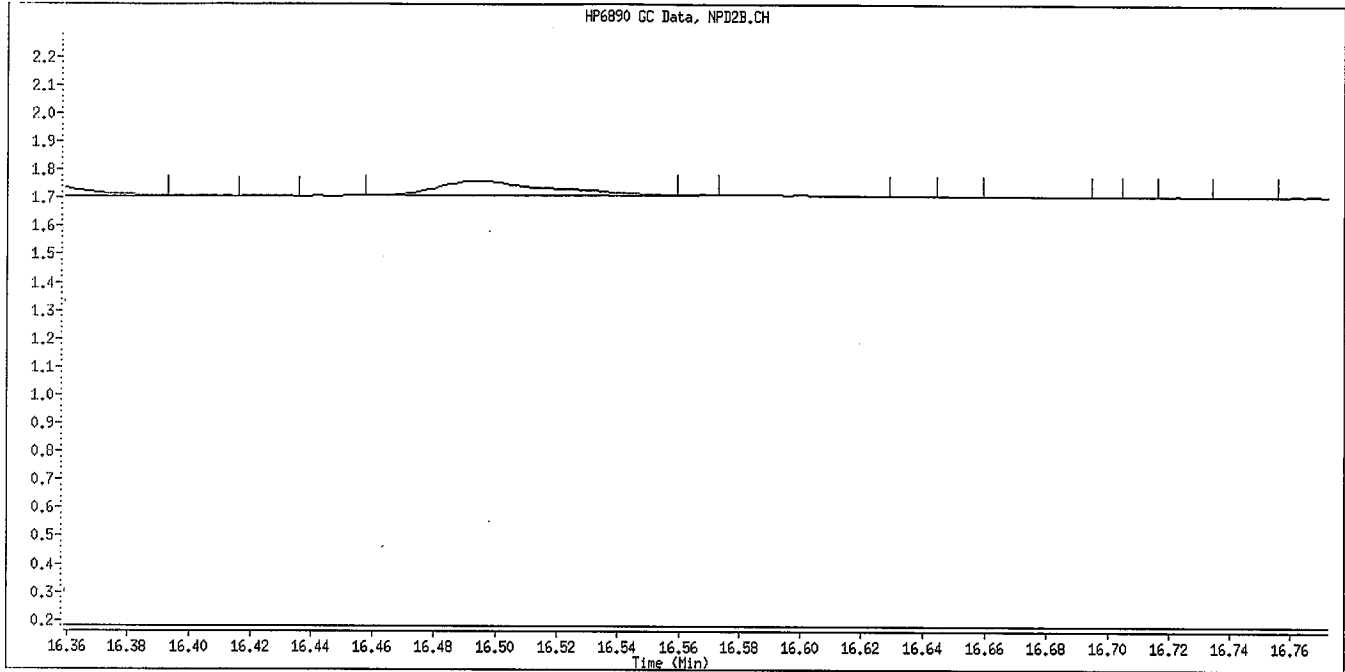


Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

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JL  
6/30/09

Data File Name: 009F0901.D  
Inj. Date and Time: 26-JUN-2009 21:13  
Instrument ID: GC\_D2.i  
Client ID: OPP L1 GSV0641  
Compound Name: Merphos-B (Merphos Oxone)  
CAS #:  
Report Date: 06/30/2009



Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*WJL*  
6/30/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\010F1001.D  
 Lab Smp Id: OPP SS GSV0633 Client Smp ID: OPP SS GSV0633  
 Inj Date : 26-JUN-2009 21:40  
 Operator : MPK/TLW Inst ID: GC\_D2.i  
 Smp Info : OPP SS GSV0633  
 Misc Info :  
 Comment :  
 Method : \\DenSvr03\Public\chem\GCS\GC\_D2.i\0626092.B\8141A-2.m  
 Meth Date : 30-Jun-2009 13:09 GC\_D2.i Quant Type: ISTD  
 Cal Date : 26-JUN-2009 21:13 Cal File: 009F0901.D  
 Als bottle: 10 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 8141A.sub  
 Target Version: 4.14  
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 o,o,o-TEPT	4.728	4.731	(0.251)	178670	2.00000	2.007
2 Dichlorvos	6.545	6.546	(0.348)	123097	2.00000	1.771
\$ 3 Chlormefos	7.383	7.384	(0.392)	118669	2.00000	1.696
4 Mevinphos	9.232	9.234	(0.491)	85996	2.00000	1.836
5 Demeton-O	9.733	9.734	(0.517)	91352	0.65000	2.047
6 Thionazin	9.983	9.984	(0.531)	131360	2.00000	1.876
7 Ethoprop	10.498	10.499	(0.558)	99220	2.00000	1.896
8 Phorate	10.537	10.539	(0.560)	118380	2.00000	1.951
9 Naled	10.938	10.939	(0.581)	13173	2.00000	1.049
10 Sulfotepp	11.017	11.017	(0.586)	156890	2.00000	1.714 (A)
* 11 Tributylphosphate	11.115	11.116	(1.000)	123933	2.00000	
12 Simazine	11.398	11.399	(0.606)	47205	2.00000	3.601 (A)
13 Diazinon	11.540	11.541	(0.613)	101968	2.00000	2.080
14 Atrazine	11.580	11.584	(0.615)	49851	2.00000	1.969 (A)
15 Propazine	11.745	11.747	(0.624)	42529	2.00000	1.874
16 Disulfoton	12.048	12.049	(0.640)	81906	2.00000	1.697 (M)
17 Demeton-S	12.120	12.124	(0.644)	4990	1.36000	0.2011 (M)
18 Dimethoate	13.280	13.282	(0.706)	120970	2.00000	1.870
19 Ronnel	13.587	13.587	(0.722)	87569	2.00000	2.011
20 Merphos-A (Merphos)	13.687	13.689	(1.231)	24019	2.00000	0.5348 (A)
21 Chlorpyrifos	14.410	14.409	(0.766)	93110	2.00000	2.108
22 Fenthion	14.660	14.662	(0.779)	84515	2.00000	2.063
23 Trichloronate	14.708	14.711	(0.782)	105095	2.00000	1.862
24 Anilazine	15.215	15.216	(0.809)	4699	2.00000	1.242 (M)
25 Methyl Parathion	15.517	15.519	(0.825)	89448	2.00000	2.023 (A)
26 Malathion	15.723	15.724	(0.836)	63638	2.00000	1.536
27 Tokuthion	16.345	16.344	(0.869)	91793	2.00000	1.892
28 Parathion	16.493	16.494	(0.877)	92973	2.00000	2.134
29 Merphos-B (Merphos Oxone)	16.518	16.517	(1.486)	68602	2.00000	5.008 (A)
30 Tetrachlorvinphos (stirophos)	16.975	16.977	(0.902)	58667	2.00000	2.081
31 Carbophenothion methyl	17.080	17.082	(0.908)	50362	2.00000	1.246
32 Bolstar	17.440	17.440	(0.927)	88423	2.00000	2.078
33 Carbophenothion	17.522	17.524	(0.931)	73217	2.00000	1.750 (A)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 34 Triphenyl phosphate	18.278	18.281	(0.971)	59320	2.00000	1.727
35 Fensulfothion	18.558	18.559	(0.986)	65657	2.00000	2.082
* 36 TOCP	18.815	18.816	(1.000)	68831	2.00000	
37 Phosmet / EPN	18.908	18.909	(1.005)	122970	4.00000	3.469
38 Famphur	19.010	19.011	(1.010)	79361	2.00000	1.758
39 Azinphos-methyl	19.145	19.147	(1.018)	74782	2.00000	1.811
40 Azinphos-ethyl	19.363	19.366	(1.029)	70726	2.00000	1.798
41 Coumaphos	20.347	20.347	(1.081)	59237	2.00000	1.959
S 42 Merphos				92621	2.00000	1.615
M 43 Total Demeton				96342	2.00000	2.248

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: GC_D2.i	Calibration Date: 27-JUN-2009
Lab File ID: 010F1001.D	Calibration Time: 04:04
Lab Smp Id: OPP SS GSV0633	Client Smp ID: OPP SS GSV0633
Analysis Type: SV	Level:
Quant Type: ISTD	Sample Type:
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0626092.B\8141A-2.m	
Misc Info:	

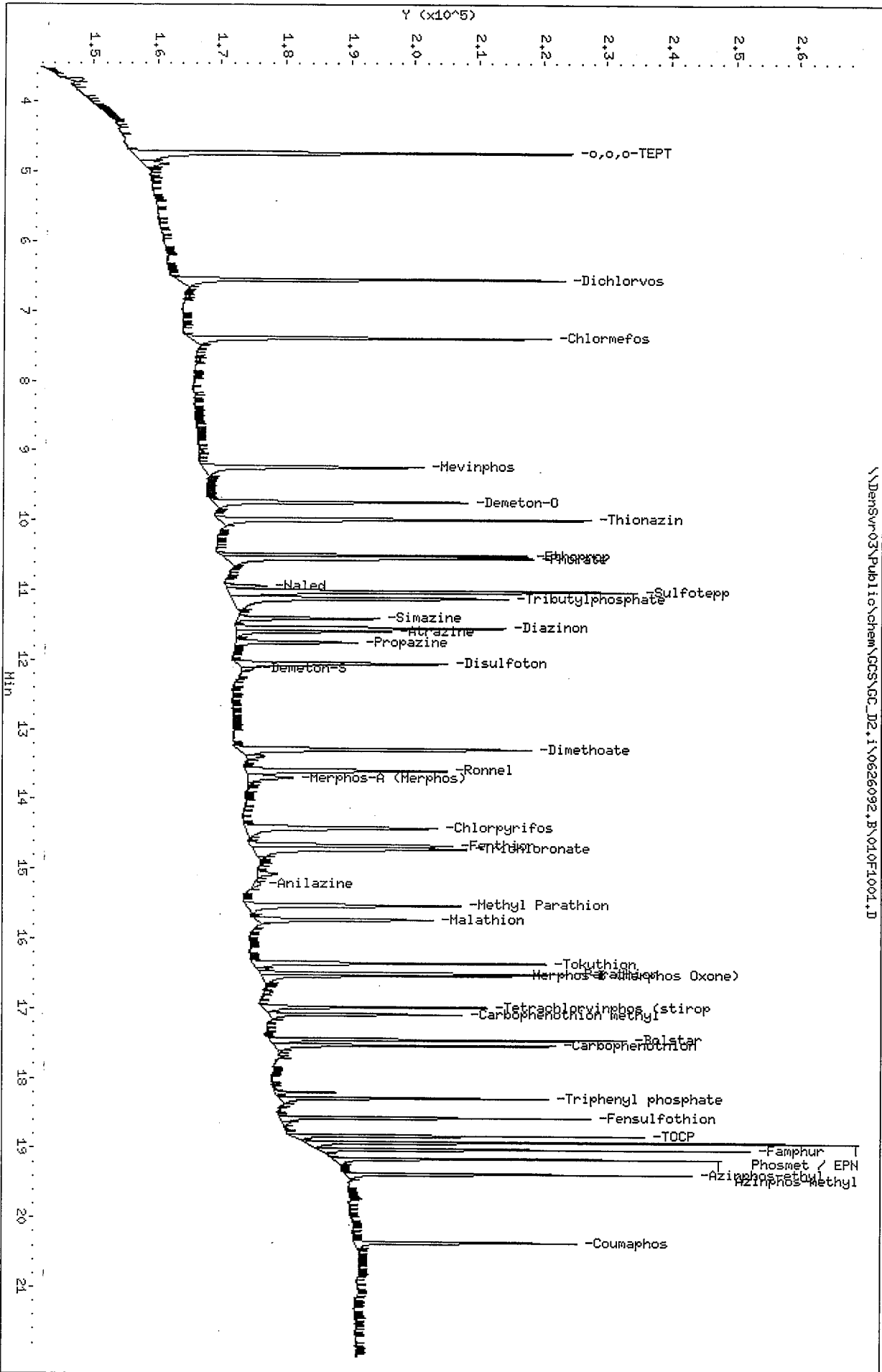
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	143401	71701	286802	123933	-13.58
36 TOCP	69335	34668	138670	68831	-0.73

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	11.12	10.62	11.62	11.12	-0.05
36 TOCP	18.82	18.32	19.32	18.82	-0.01

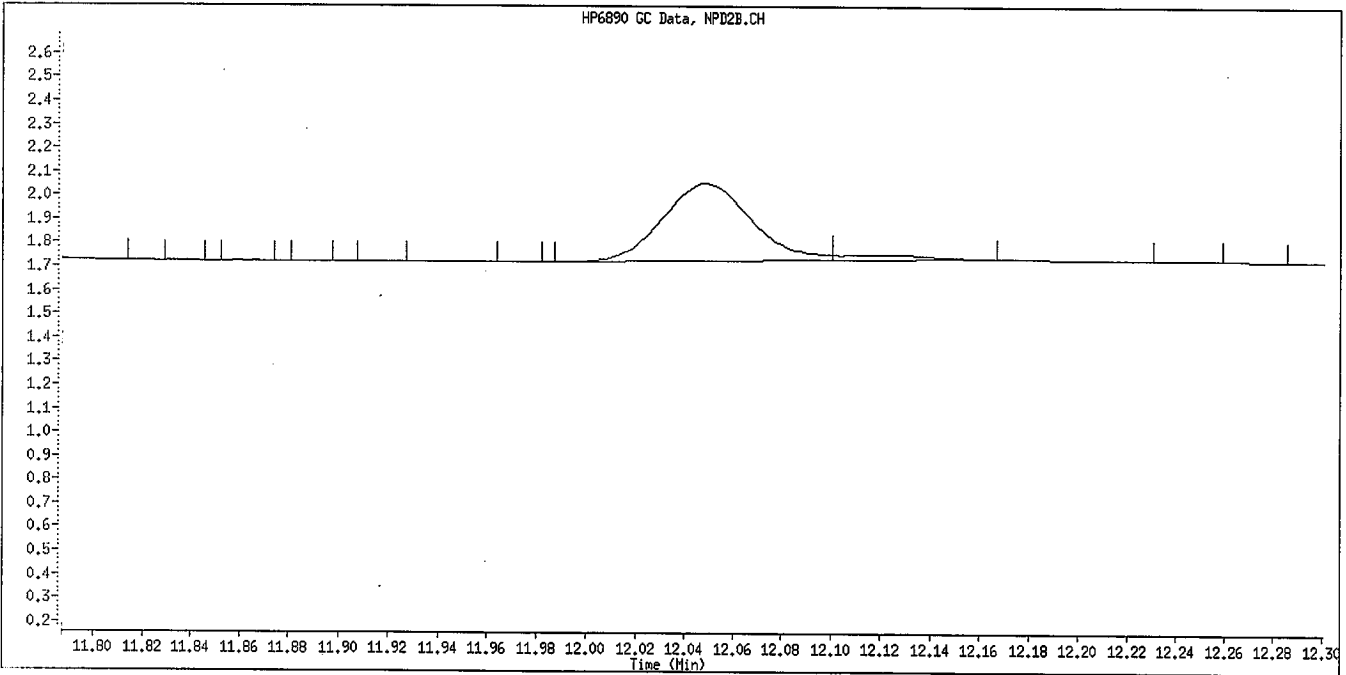
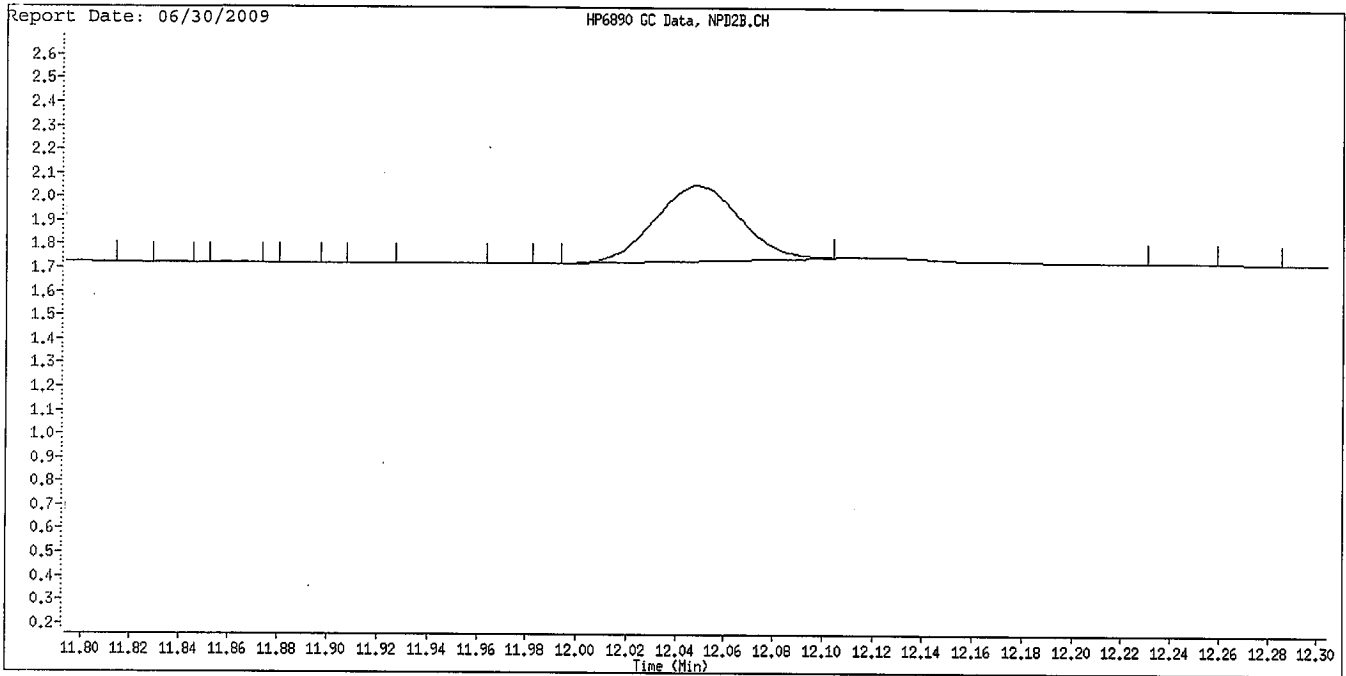
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvr03\Public\chem\GCS\GC\_D2.i\0626092.B\010F1001.D  
 Date: 26-JUN-2009 21:40  
 Client ID: OPP SS GSV0633  
 Sample Info: OPP SS GSV0633  
 Column phase: RTX-OPPest

Instrument: GC\_D2.i  
 Operator: HPK/TLM  
 Column diameter: 0.32



Data File Name: 010F1001.D  
Inj. Date and Time: 26-JUN-2009 21:40  
Instrument ID: GC\_D2.i  
Client ID: OPP SS GSV0633  
Compound Name: Disulfoton  
CAS #: 298-04-4

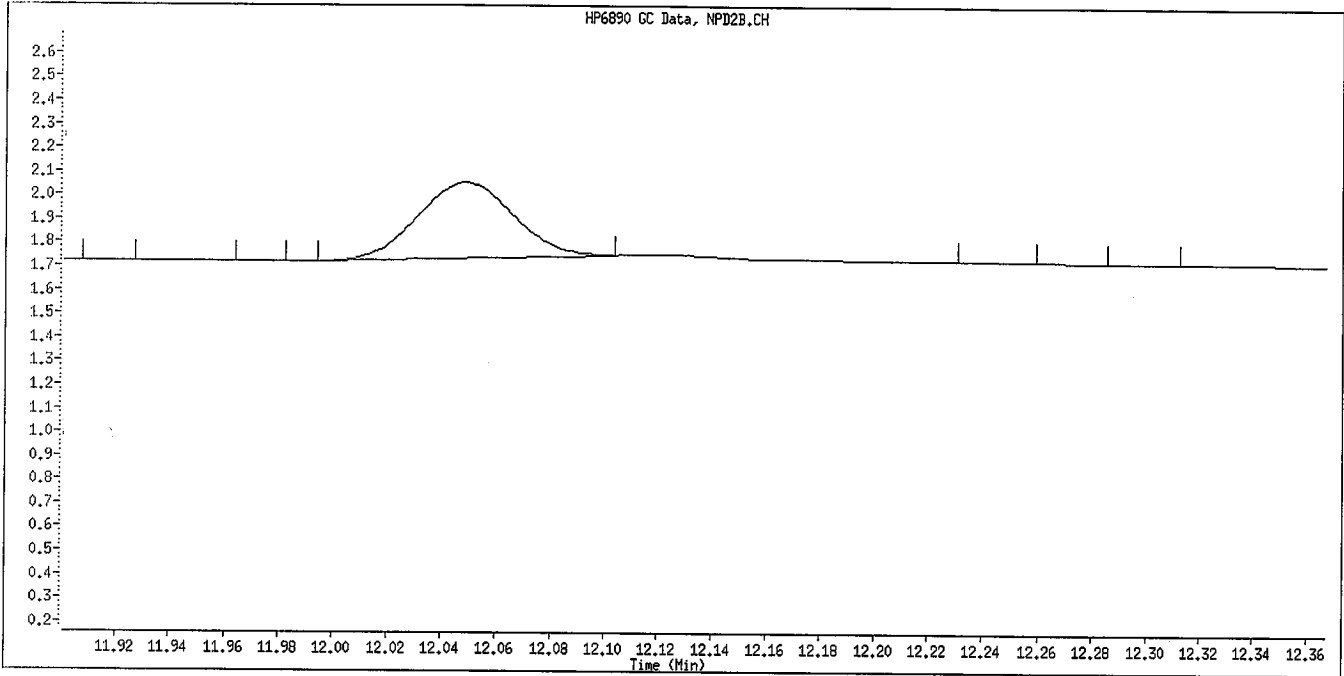


Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

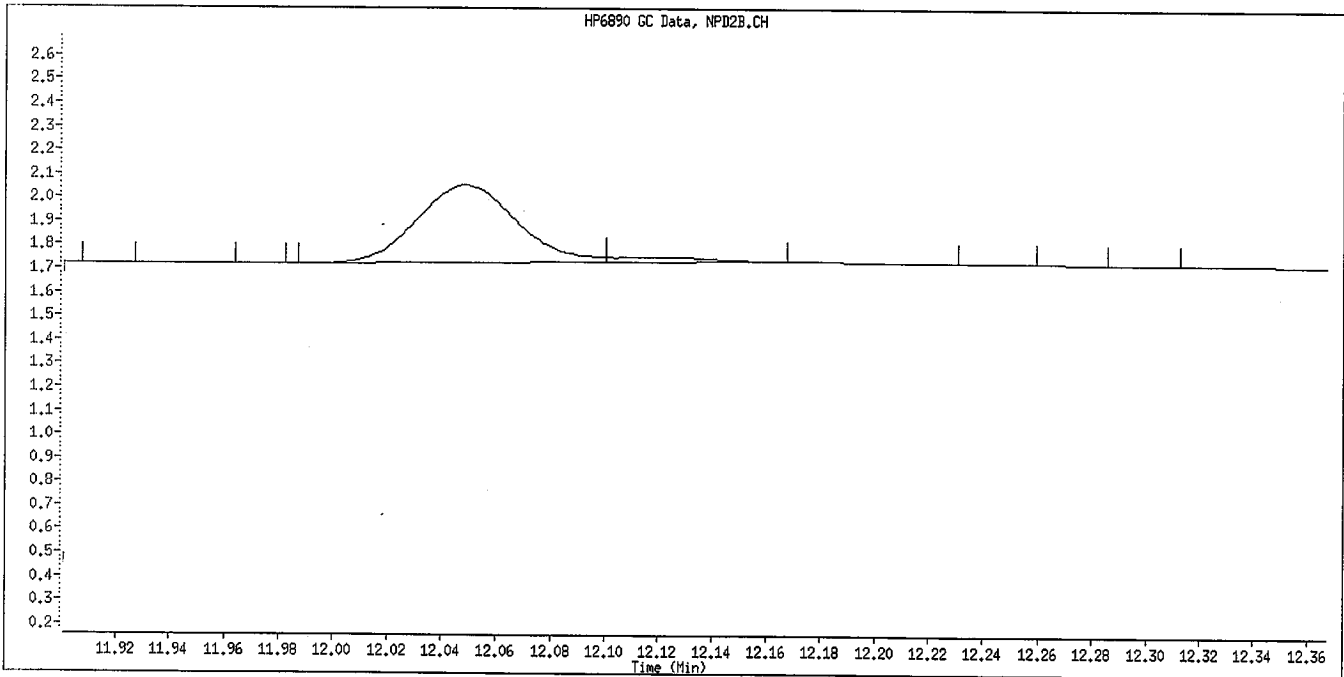
*Handwritten signature and date:*  
6/30/09



Data File Name: 010F1001.D  
Inj. Date and Time: 26-JUN-2009 21:40  
Instrument ID: GC\_D2.i  
Client ID: OPP SS GSV0633  
Compound Name: Demeton-S  
CAS #: 126-75-0  
Report Date: 06/30/2009



Original Integration

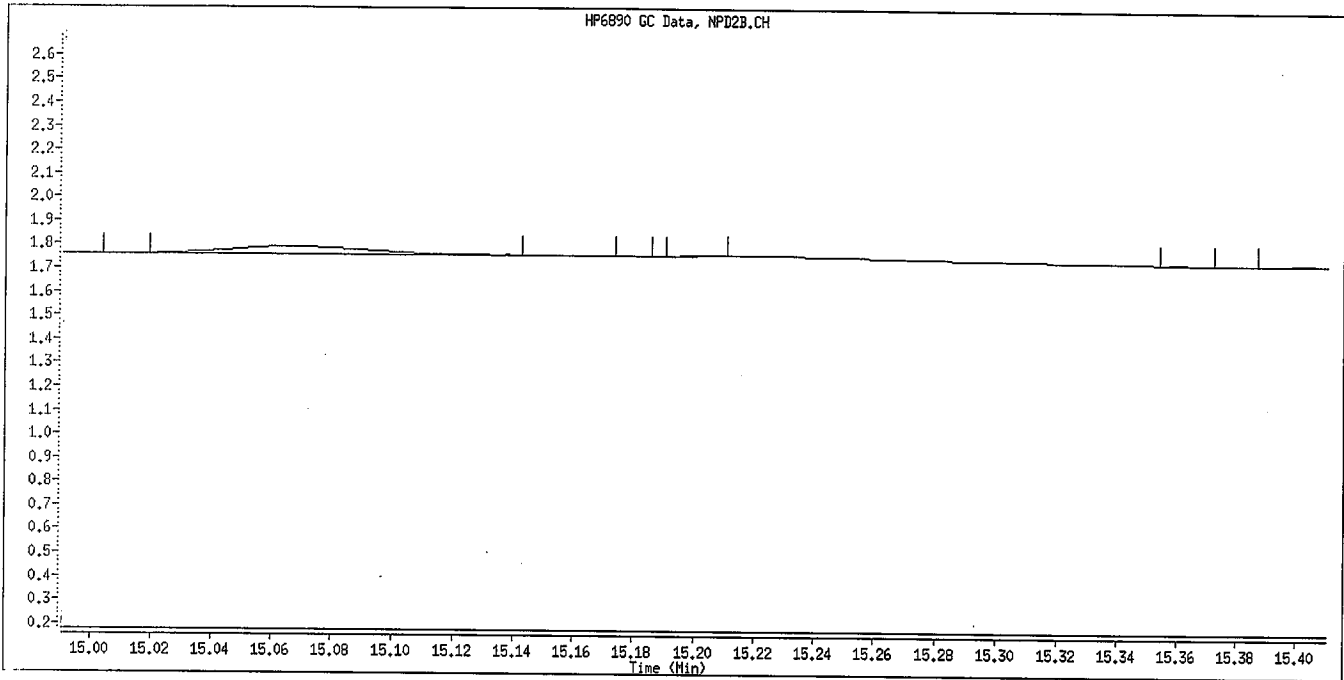


Manual Integration

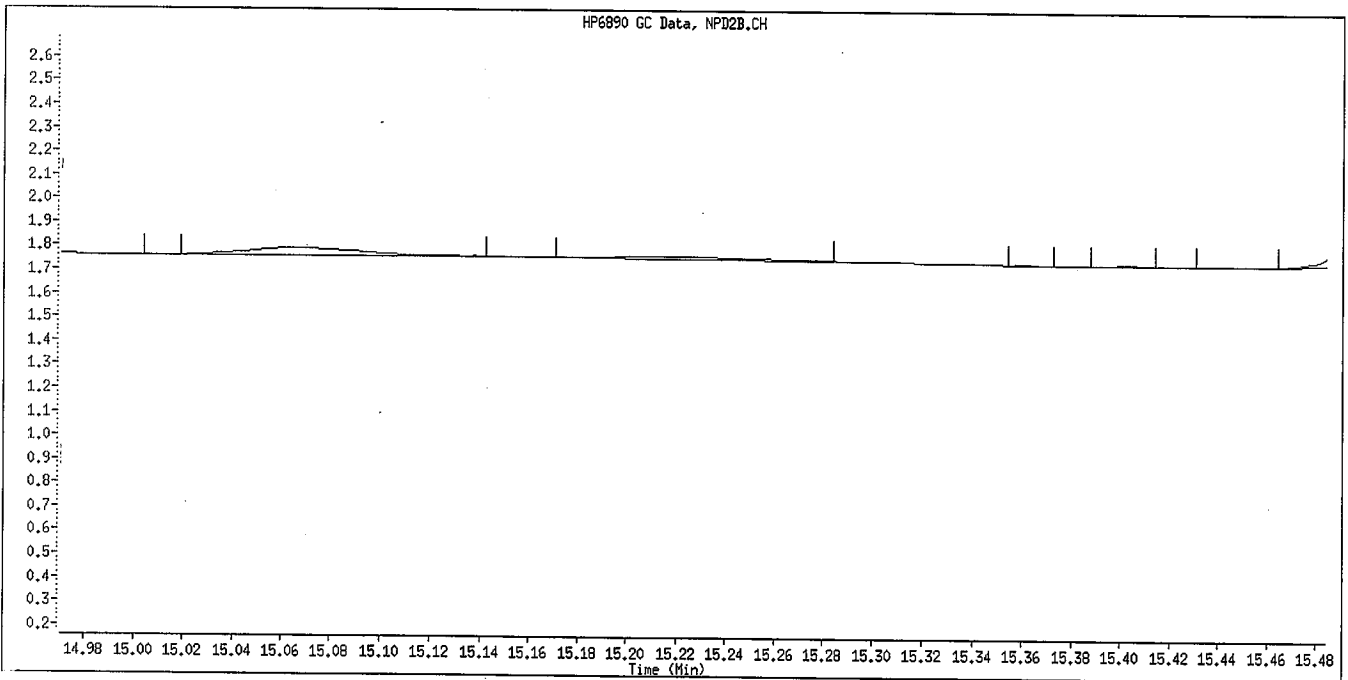
Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*WJL*  
*6/30/09*

Data File Name: 010F1001.D  
Inj. Date and Time: 26-JUN-2009 21:40  
Instrument ID: GC\_D2.i  
Client ID: OPP SS GSV0633  
Compound Name: Anilazine  
CAS #:  
Report Date: 06/30/2009



Original Integration



Manual Integration

Manually Integrated By: williamst  
Manual Integration Reason: Baseline Event

*Handwritten signature and date:*  
yg  
6/30/09

# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

## TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9F200199

Client: Northgate Environmental

Batch(es) #: 9174190

Associated Samples: 1, 2

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date: *[Signature]* 6/25/09

# *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9F200199	1	SE	LFC4P1AC	20090625	6020TOTA	9174190	AG062409G	024
D9F200199	2	SE	LFC4Q1AC	20090625	6020TOTA	9174190	AG062409G	024

**METALS  
PREPARATION LOGS  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

Batch Number: 9174190

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:

JON HARRE

Prep Date: 06/24/09

Due Date: 06/29/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9F230000 Water	LFFFX	B	Due Date: SDG:	<u>50 mL</u>
D9F230000 Water	LFFFX	C	Due Date: SDG:	<u>50 mL</u>
D9F180314 Water	LE709 Total		Due Date: 06/29/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total		Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	S	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F180266 Water	LE7CT Total	D	Due Date: 06/30/09 SDG:	<u>50 mL</u>
D9F190216 Water	LE9PT Total		Due Date: 07/01/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4A Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200196 Water	LFC4D Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4P Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>
D9F200199 Water	LFC4Q Total		Due Date: 07/02/09 SDG: 8304607	<u>50 mL</u>

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

*RT checked  
6/24/09*

*✓  
6/25/09*

**TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)**

BATCH # 9174190  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

**CONSUMABLES USED**

Digestion Cups: Manufacturer: Environmental Express Lot #: A901LS267  
One or more samples were filtered prior to analysis at the instrument.  Yes  No  
If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.  
Analyst(s) Initials:                     

**STANDARDS USED**

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

**REAGENTS USED**

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	3

**TEMPERATURE CYCLES**

Thermometer ID: 3311 Block & Cup #: 1, 11

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO <sub>3</sub>	<u>6:00</u>	<u>95</u>	<u>10:20</u>	<u>95</u>
HNO <sub>3</sub>	<u>10:30</u>	<u>94</u>	<u>11:00</u>	<u>93</u>
HNO <sub>3</sub>				

Samples and QC revolved to: 50 mL Analyst's Initials JKH

**COMMENTS:**

I certify that all information above is correct and complete.

Signature: *Kim Anne*

Date: 6/24/09

**METALS  
SAMPLE DATA  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**



## ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L. Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

### Quality Control Standards

ICV = Initial Calibration Verification (Second Source)      ICB = Initial Calibration Blank  
 CCV = Continuing Calibration Verification                      CCB = Continuing Calibration Blank

# TestAmerica Denver

## Standards Preparation Logbook Record

Jun-24-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008  
Date Expires(1): 10-01-2009 (None)  
Date Expires(2): 10-01-2009 (None)  
(METALS)-Inventory ID: 779

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	1,000.0	1,000.0

### STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008  
Date Expires(1): 12-01-2009 (None)  
Date Expires(2): 12-01-2009 (None)  
(METALS)-Inventory ID: 803

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1,000.0

### STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010  
Solvent: 1% HNO3  
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009  
Date Expires(1): 03-01-2010 (None)  
Date Expires(2): 03-01-2010 (None)  
(METALS)-Inventory ID: 833

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

### STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H02026 Volume (ml): 100.00  
Date Prep./Opened: 04-01-2009  
Date Expires(1): 12-01-2009 (1 Year)  
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1.0000

STD3432-09, ICP-MS (024) INT STD BRC

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-08-2009  
 Date Expires(1): 11-10-2009 (1 Year) ✓  
 Date Expires(2): 12-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Volume (ml): 250.00

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 0.7500  
 Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.2500  
 Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock Aliquot Amount (ml): 0.2500  
 Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ho	1,000.0	1,000.0

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-16-2009  
 Date Expires(1): 10-01-2009 (1 Year) ✓

Volume (ml): 10.000

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	10.000	1.0000

STD3753-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-22-2009

Date Expires(1): 02-01-2010 (1 Year) ✓

Date Expires(2): 02-01-2010 (None)

pipettes: Met 8

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard

Aliquot Amount (ml): 5.0000

Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20,000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20,000	2,000.0

STD3807-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-24-2009

Date Expires(1): 03-01-2010 (1 Year) ✓

Date Expires(2): 03-01-2010 (None)

Date Verified: 12-31--4714 by - (Verification ID: 0)

pipettes: Met 21 and Met 8

Parent Std No.: STD1198-09, 1000 mg/L Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	10.000

STD3808-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 07-24-2009 (1 Month)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 1,000.0

Parent Std No.: STD3806-09, NITRIC ACID

Aliquot Amount (ml): 50.000

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD3809-09, ICP-MS 100 ppb cal

Analyst: DIAZL

Solvent: 5% HNO3  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 06-25-2009 (1 Day)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 20

Lot No.: H12022

Volume (ml): 50.000

Parent Std No.: STD0100-09, Iron Stock

Aliquot Amount (ml): 0.2500

Parent Date Expires(1): 08-01-2009 Parent Date Expires(2): 08-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Fe	1,000.0	5,000.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures

Aliquot Amount (ml): 0.2500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.5000  
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	100.00

STD3810-09, ICP-MS CCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
Date Prep./Opened: 06-24-2009  
Date Expires(1): 06-25-2009 (1 Day)  
Date Verified: 12-31--4714 by - (Verification ID: 0)  
pipettes: Met 20

Volume (ml): 100.00

Parent Std No.: STD0100-09, Iron Stock Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 08-01-2009 Parent Date Expires(2): 08-01-2009

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Fe	1,000.0	2,500.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	50.000
Al	20.000	50.000
As	20.000	50.000
Ba	20.000	50.000
Be	20.000	50.000
Cd	20.000	50.000
Co	20.000	50.000
Cr	20.000	50.000
Cu	20.000	50.000
Mn	20.000	50.000
Ni	20.000	50.000
Pb	20.000	50.000
Se	20.000	50.000
Th	20.000	50.000
Tl	20.000	50.000
U	20.000	50.000
V	20.000	50.000
Zn	20.000	50.000

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500  
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	50.000

Sb 20.000 50.000  
 Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
<u>Sn</u>	<u>10.000</u>	<u>50.000</u>

STD3811-09, ICP-MS RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day) ✓  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
<u>Sn</u>	<u>1.0000</u>	<u>0.0090</u>
1000 Zn	1.0000	0.0090

Parent Std No.: STD3809-09, ICP-MS 100 ppb cal Aliquot Amount (ml): 0.1000  
 Parent Date Expires(1): 06-25-2009 Parent Date Expires(2): 06-25-2009

Component	Initial Conc (ug/L)	Final Conc (mg/L)
<u>Fe</u>	<u>5,000.0</u>	<u>0.0500</u>
Ag	100.00	0.0010
Al	100.00	0.0010
As	100.00	0.0010
Ba	100.00	0.0010
Be	100.00	0.0010
Cd	100.00	0.0010
Co	100.00	0.0010
Cr	100.00	0.0010
Cu	100.00	0.0010
Mn	100.00	0.0010
Ni	100.00	0.0010
Pb	100.00	0.0010
Se	100.00	0.0010
Th	100.00	0.0010
Tl	100.00	0.0010
U	100.00	0.0010
V	100.00	0.0010
Zn	100.00	0.0010
Mo	100.00	0.0010
Sb	100.00	0.0010
<u>Sn</u>	<u>100.00</u>	<u>0.0010</u>

STD3812-09, ICP-MS AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (2 Days) ✓  
 pipettes: Met 20 and Met 8

Volume (ml): 10.000

Parent Std No.: STD3811-09, ICP-MS RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Fe	0.0500	0.0100
Ag	0.0010	0.0002
Al	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002

STD3813-09, ICP-MS ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Verified: 12-31--4714 by - (Verification ID: Q) ✓  
 pipettes: Met 21, Met 20, and Met 8

Volume (ml): 10.000

Parent Std No.: STD1978-09, ICPMS Interferent Check Standard

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000



Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20,000.	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20,000	2,000.0

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.0500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.0500

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	100.00

STD3814-09, ICPMS LR STD 1000 ppb

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-24-2009

Date Expires(1): 06-25-2009 (1 Day)

Date Verified: 12-31--4714 by - (Verification ID: 0)

pipettes: Met 20 and Met 8

Parent Std No.: STD2635-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	20.000	1,000.0
Al	20.000	1,000.0
As	20.000	1,000.0
Ba	20.000	1,000.0
Be	20.000	1,000.0
Cd	20.000	1,000.0
Co	20.000	1,000.0
Cr	20.000	1,000.0
Cu	20.000	1,000.0
Mn	20.000	1,000.0
Ni	20.000	1,000.0
Pb	20.000	1,000.0
Se	20.000	1,000.0
Th	20.000	1,000.0
Tl	20.000	1,000.0
U	20.000	1,000.0
V	20.000	1,000.0
Zn	20.000	1,000.0

Parent Std No.: STD2636-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	20.000	1,000.0
Sb	20.000	1,000.0

Parent Std No.: STD3807-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	1,000.0

STD3815-09, ICPMS ICV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 02-27-2010 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)  
 pipettes: Met 21 and Met 8

Volume (ml): 10.000

Parent Std No.: STD1213-09, ICPMS ICV SOLUTION A (High Purity) Aliquot Amount (ml): 0.0400  
 Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Al	10.000	40.000
As	10.000	40.000
Ba	10.000	40.000
Be	10.000	40.000
Cd	10.000	40.000

Co	10.000	40.000
Cr	10.000	40.000
Cu	10.000	40.000
Fe	250.00	1,000.0
Li	10.000	40.000
Mn	10.000	40.000
Ni	10.000	40.000
Pb	10.000	40.000
Se	10.000	40.000
Th	10.000	40.000
Tl	10.000	40.000
U	10.000	40.000
V	10.000	40.000
Zn	10.000	40.000

Parent Std No.: STD1214-09, ICPMS ICV SOLUTION B (High Purity) Aliquot Amount (ml): 0.0400  
 Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
Ag	10.000	40.000
Mo	10.000	40.000
Sb	10.000	40.000
Sn	10.000	40.000
Zr	10.000	40.000

STD3816-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 pipettes: Met 21 and Met 8

Volume (ml): 50.000

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1.0000	0.0020

STD3817-09, LLCCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-24-2009  
 Date Expires(1): 06-25-2009 (1 Day)  
 Date Expires(2): 05-01-2010 (None)  
 pipettes: Met 20

Volume (ml): 50.000

Parent Std No.: STD3106-09, ICP-MS LLCCV 1

Aliquot Amount (ml): 0.5000

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000

Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By: \_\_\_\_\_

LRD

06/24/2009

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 06/25/09 11:05:10
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File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
2	Cal Blank			1.0	06/24/09 19:07		<input type="checkbox"/>
3	100 ppb			1.0	06/24/09 19:10		<input type="checkbox"/>
4	ICV			1.0	06/24/09 19:13		<input type="checkbox"/>
5	RLIV			1.0	06/24/09 19:17		<input type="checkbox"/>
6	ICB			1.0	06/24/09 19:20		<input type="checkbox"/>
7	RL STD			1.0	06/24/09 19:24		<input type="checkbox"/>
8	AFCEE RL			1.0	06/24/09 19:27		<input type="checkbox"/>
9	ALTSe			1.0	06/24/09 19:30		<input type="checkbox"/>
10	ICSA			1.0	06/24/09 19:34		<input type="checkbox"/>
11	ICSAB			1.0	06/24/09 19:37		<input type="checkbox"/>
12	RINSE			1.0	06/24/09 19:40		<input type="checkbox"/>
13	LR			1.0	06/24/09 19:44		<input type="checkbox"/>
14	RINSE			1.0	06/24/09 19:47		<input type="checkbox"/>
15	CCV			1.0	06/24/09 19:52		<input type="checkbox"/>
16	CCB			1.0	06/24/09 19:55		<input type="checkbox"/>
17	RLCV			1.0	06/24/09 19:58		<input type="checkbox"/>
18	LE7RWB	D9F180000	9169492	MS	1.0	06/24/09 20:02	<input type="checkbox"/>
19	LE7RWC	D9F180000	9169492	MS	1.0	06/24/09 20:05	<input type="checkbox"/>
20	LERAH	D9F110358-9	9169492	MS	1.0	06/24/09 20:09	<input type="checkbox"/>
21	LERAX	D9F110358-20	9169492	MS	1.0	06/24/09 20:12	<input type="checkbox"/>
22	LERA0	D9F110358-21	9169492	MS	1.0	06/24/09 20:15	<input type="checkbox"/>
23	LERA4	D9F110358-24	9169492	MS	1.0	06/24/09 20:19	<input type="checkbox"/>
24	LERA4P5	D9F110358	9169492		5.0	06/24/09 20:22	<input type="checkbox"/>
25	LERA4Z	D9F110358-24	9169492		1.0	06/24/09 20:25	<input type="checkbox"/>
26	LERA4S	D9F110358-24	9169492	MS	1.0	06/24/09 20:29	<input type="checkbox"/>
27	LERA4D	D9F110358-24	9169492	MS	1.0	06/24/09 20:32	<input type="checkbox"/>
28	CCV			1.0	06/24/09 20:36		<input type="checkbox"/>
29	CCB			1.0	06/24/09 20:39		<input type="checkbox"/>
30	RLCV			1.0	06/24/09 20:42		<input type="checkbox"/>
31	ICSA			1.0	06/24/09 20:46		<input type="checkbox"/>
32	ICSAB			1.0	06/24/09 20:49		<input type="checkbox"/>
33	WASH			1.0	06/24/09 20:52		<input type="checkbox"/>
34	CCV			1.0	06/24/09 20:56		<input type="checkbox"/>
35	CCB			1.0	06/24/09 20:59		<input type="checkbox"/>
36	RLCV			1.0	06/24/09 21:03		<input type="checkbox"/>
37	LFFFBCF	D9F230000	9174183	MD	1.0	06/24/09 21:06	<input type="checkbox"/>
38	LFFFCCF	D9F230000	9174183	MD	1.0	06/24/09 21:10	<input type="checkbox"/>
39	LE71EF	D9F180314-2	9174183	MD	1.0	06/24/09 21:13	<input type="checkbox"/>
40	LE71EP5F	D9F180314	9174183		5.0	06/24/09 21:16	<input type="checkbox"/>
41	LE71EZF	D9F180314-2	9174183		1.0	06/24/09 21:20	<input type="checkbox"/>
42	LE71ESF	D9F180314-2	9174183	MD	1.0	06/24/09 21:23	<input type="checkbox"/>
43	LE71EDF	D9F180314-2	9174183	MD	1.0	06/24/09 21:26	<input type="checkbox"/>
44	LFC4CF	D9F200196-2	9174183	MD	1.0	06/24/09 21:30	<input type="checkbox"/>
45	CCV			1.0	06/24/09 21:33		<input type="checkbox"/>
46	CCB			1.0	06/24/09 21:36		<input type="checkbox"/>
47	RLCV			1.0	06/24/09 21:40		<input type="checkbox"/>

Se only. 6/25/09

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
48	RINSE				1.0 06/24/09 21:43		<input type="checkbox"/>
49	RINSE				1.0 06/24/09 21:47		<input type="checkbox"/>
50	RINSE				1.0 06/24/09 21:50		<input type="checkbox"/>
51	RINSE				1.0 06/24/09 21:53		<input type="checkbox"/>
52	RINSE				1.0 06/24/09 21:57		<input type="checkbox"/>
53	RINSE				1.0 06/24/09 22:00		<input type="checkbox"/>
54	CCV				1.0 06/24/09 22:04		<input type="checkbox"/>
55	CCB				1.0 06/24/09 22:07		<input type="checkbox"/>
56	RLCV				1.0 06/24/09 22:10		<input type="checkbox"/>
57	Cal Blank				1.0 06/24/09 22:14		<input type="checkbox"/>
58	Cal Blank				1.0 06/24/09 22:17		<input type="checkbox"/>
59	100 ppb				1.0 06/24/09 22:20		<input type="checkbox"/>
60	CCV				1.0 06/24/09 22:24		<input type="checkbox"/>
61	CCB				1.0 06/24/09 22:27		<input type="checkbox"/>
62	RLCV				1.0 06/24/09 22:31		<input type="checkbox"/>
63	LFFPJBF	D9F230000	9174251	MD	1.0 06/24/09 22:34		<input type="checkbox"/>
64	LFFPJCF	D9F230000	9174251	MD	1.0 06/24/09 22:37		<input type="checkbox"/>
65	LE7RXF	D9F180298-1	9174251	MD	1.0 06/24/09 22:41		<input type="checkbox"/>
66	LE7TDF	D9F180298-2	9174251	MD	1.0 06/24/09 22:44		<input type="checkbox"/>
67	LE7TDP5F	D9F180298	9174251		5.0 06/24/09 22:48		<input type="checkbox"/>
68	LE7TDZF	D9F180298-2	9174251		1.0 06/24/09 22:51		<input type="checkbox"/>
69	LE7TDSF	D9F180298-2	9174251	MD	1.0 06/24/09 22:54		<input type="checkbox"/>
70	CCV				1.0 06/24/09 22:58		<input type="checkbox"/>
71	CCB				1.0 06/24/09 23:01		<input type="checkbox"/>
72	RLCV				1.0 06/24/09 23:05		<input type="checkbox"/>
73	ICSA				1.0 06/24/09 23:08		<input type="checkbox"/>
74	ICSAB				1.0 06/24/09 23:11		<input type="checkbox"/>
75	WASH				1.0 06/24/09 23:15		<input type="checkbox"/>
76	CCV				1.0 06/24/09 23:18		<input type="checkbox"/>
77	CCB				1.0 06/24/09 23:21		<input type="checkbox"/>
78	RLCV				1.0 06/24/09 23:25		<input type="checkbox"/>
79	LE7TDDF	D9F180298-2	9174251	MD	1.0 06/24/09 23:28		<input type="checkbox"/>
80	LE7VVF	D9F180298-3	9174251	MD	1.0 06/24/09 23:32		<input type="checkbox"/>
81	LE7V3F	D9F180298-4	9174251	MD	1.0 06/24/09 23:35		<input type="checkbox"/>
82	LE7V5F	D9F180298-5	9174251	MD	1.0 06/24/09 23:38		<input type="checkbox"/>
83	LE7V8F	D9F180298-6	9174251	MD	1.0 06/24/09 23:42		<input type="checkbox"/>
84	LE7WAF	D9F180298-7	9174251	MD	1.0 06/24/09 23:45		<input type="checkbox"/>
85	LE88DF	D9F190179-1	9174251	MD	1.0 06/24/09 23:49		<input type="checkbox"/>
86	CCV				1.0 06/24/09 23:52		<input type="checkbox"/>
87	CCB				1.0 06/24/09 23:55		<input type="checkbox"/>
88	RLCV				1.0 06/24/09 23:59		<input type="checkbox"/>
89	LE88HF	D9F190179-2	9174251	MD	1.0 06/25/09 00:02		<input type="checkbox"/>
90	LE88JF	D9F190179-3	9174251	MD	1.0 06/25/09 00:06		<input type="checkbox"/>
91	LE88LF	D9F190179-4	9174251	MD	1.0 06/25/09 00:09		<input type="checkbox"/>
92	LE88NF	D9F190179-5	9174251	MD	1.0 06/25/09 00:12		<input type="checkbox"/>
93	LE88QF	D9F190179-6	9174251	MD	1.0 06/25/09 00:16		<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
94	LFEAEF	D9F220120-1	9174251	MD	1.0	06/25/09 00:19	<input type="checkbox"/>
95	LFEA6F	D9F220120-2	9174251	MD	1.0	06/25/09 00:23	<input type="checkbox"/>
96	CCV				1.0	06/25/09 00:26	<input type="checkbox"/>
97	CCB				1.0	06/25/09 00:29	<input type="checkbox"/>
98	RLCV				1.0	06/25/09 00:33	<input type="checkbox"/>
99	LFGFMB	D9F230000	9174418	04	1.0	06/25/09 00:36	<input type="checkbox"/>
100	LFGFMC	D9F230000	9174418	04	1.0	06/25/09 00:40	<input type="checkbox"/>
101	LE4PX	D9F170234-1	9174418	04	1.0	06/25/09 00:43	<input type="checkbox"/>
102	LE4QF	D9F170234-2	9174418	04	1.0	06/25/09 00:46	<input type="checkbox"/>
103	LE4QG	D9F170234-3	9174418	04	1.0	06/25/09 00:50	<input type="checkbox"/>
104	LE4QN	D9F170234-4	9174418	04	1.0	06/25/09 00:53	<input type="checkbox"/>
105	LE63X	D9F180238-1	9174418	04	1.0	06/25/09 00:57	<input type="checkbox"/>
106	LE859	D9F190169-1	9174418	04	1.0	06/25/09 01:00	<input type="checkbox"/>
107	LE862	D9F190169-2	9174418	04	1.0	06/25/09 01:03	<input type="checkbox"/>
108	CCV				1.0	06/25/09 01:07	<input type="checkbox"/>
109	CCB				1.0	06/25/09 01:10	<input type="checkbox"/>
110	RLCV				1.0	06/25/09 01:13	<input type="checkbox"/>
111	LFCHJ	D9F200140-1	9174418	04	1.0	06/25/09 01:17	<input type="checkbox"/>
112	LFCHJP5	D9F200140	9174418		5.0	06/25/09 01:20	<input type="checkbox"/>
113	LFCHJZ	D9F200140-1	9174418		1.0	06/25/09 01:24	<input type="checkbox"/>
114	LFCHJS	D9F200140-1	9174418	04	1.0	06/25/09 01:27	<input type="checkbox"/>
115	LFCHJD	D9F200140-1	9174418	04	1.0	06/25/09 01:30	<input type="checkbox"/>
116	LFCH5	D9F200140-2	9174418	04	1.0	06/25/09 01:34	<input type="checkbox"/>
117	LFCH6	D9F200140-3	9174418	04	1.0	06/25/09 01:37	<input type="checkbox"/>
118	LFCH7	D9F200140-4	9174418	04	1.0	06/25/09 01:41	<input type="checkbox"/>
119	CCV				1.0	06/25/09 01:44	<input type="checkbox"/>
120	CCB				1.0	06/25/09 01:47	<input type="checkbox"/>
121	RLCV				1.0	06/25/09 01:51	<input type="checkbox"/>
122	LFFFXB	D9F230000	9174190	MS	1.0	06/25/09 01:54	<input type="checkbox"/>
123	LFFFXC	D9F230000	9174190	MS	1.0	06/25/09 01:58	<input type="checkbox"/>
124	LE709	D9F180314-1	9174190	MS	1.0	06/25/09 02:01	<input type="checkbox"/>
125	LE7CT	D9F180266-1	9174190	MS	1.0	06/25/09 02:04	<input type="checkbox"/>
126	LE7CTP5	D9F180266	9174190		5.0	06/25/09 02:08	<input type="checkbox"/>
127	LE7CTZ	D9F180266-1	9174190		1.0	06/25/09 02:11	<input type="checkbox"/>
128	LE7CTS	D9F180266-1	9174190	MS	1.0	06/25/09 02:15	<input type="checkbox"/>
129	CCV				1.0	06/25/09 02:18	<input type="checkbox"/>
130	CCB				1.0	06/25/09 02:21	<input type="checkbox"/>
131	RLCV				1.0	06/25/09 02:25	<input type="checkbox"/>
132	LE7CTD	D9F180266-1	9174190	MS	1.0	06/25/09 02:28	<input type="checkbox"/>
133	LE9PT	D9F190216-1	9174190	MS	1.0	06/25/09 02:32	<input type="checkbox"/>
134	LFC4A	D9F200196-1	9174190	MS	1.0	06/25/09 02:35	<input type="checkbox"/>
135	LFC4D	D9F200196-3	9174190	MS	1.0	06/25/09 02:38	<input type="checkbox"/>
136	LFC4P	D9F200199-1	9174190	MS	1.0	06/25/09 02:42	<input type="checkbox"/>
137	LFC4Q	D9F200199-2	9174190	MS	1.0	06/25/09 02:45	<input type="checkbox"/>
138	CCV				1.0	06/25/09 02:48	<input type="checkbox"/>
139	CCB				1.0	06/25/09 02:52	<input type="checkbox"/>

*- See only. AT 6/25/09*

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
140	RLCV				1.0	06/25/09 02:55	<input type="checkbox"/>
141	<del>LF11BF</del>	<del>D9F230000</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 02:59</del>	<input type="checkbox"/>
142	LF11CF	D9F230000	9174270	MD	1.0	06/25/09 03:02	<input type="checkbox"/>
143	LE6C3F	D9F180143-1	9174270	MD	1.0	06/25/09 03:05	<input type="checkbox"/>
144	LE6C7F	D9F180143-2	9174270	MD	1.0	06/25/09 03:09	<input type="checkbox"/>
145	LE6C8F	D9F180143-3	9174270	MD	1.0	06/25/09 03:12	<input type="checkbox"/>
146	LE6C9F	D9F180143-4	9174270	MD	1.0	06/25/09 03:16	<input type="checkbox"/>
147	LE6DAF	D9F180143-5	9174270	MD	1.0	06/25/09 03:19	<input type="checkbox"/>
148	LE6DCF	D9F180143-6	9174270	MD	1.0	06/25/09 03:22	<input type="checkbox"/>
149	LE6DCP5F	D9F180143	9174270		5.0	06/25/09 03:26	<input type="checkbox"/>
150	LE6DCZF	D9F180143-6	9174270		1.0	06/25/09 03:29	<input type="checkbox"/>
151	CCV				1.0	06/25/09 03:33	<input type="checkbox"/>
152	CCB				1.0	06/25/09 03:36	<input type="checkbox"/>
153	RLCV				1.0	06/25/09 03:39	<input type="checkbox"/>
154	LE6DCSF	D9F180143-6	9174270	MD	1.0	06/25/09 03:43	<input type="checkbox"/>
155	LE6DCDF	D9F180143-6	9174270	MD	1.0	06/25/09 03:46	<input type="checkbox"/>
156	LE9GLF	D9F190197-1	9174270	MD	1.0	06/25/09 03:50	<input type="checkbox"/>
157	LFCECF	D9F200122-1	9174270	MD	1.0	06/25/09 03:53	<input type="checkbox"/>
158	LFCEMF	D9F200122-2	9174270	MD	1.0	06/25/09 03:56	<input type="checkbox"/>
159	LFCEMF	D9F200122-3	9174270	MD	1.0	06/25/09 04:00	<input type="checkbox"/>
160	LFCEQF	D9F200122-4	9174270	MD	1.0	06/25/09 04:03	<input type="checkbox"/>
161	LFCERF	D9F200122-5	9174270	MD	1.0	06/25/09 04:07	<input type="checkbox"/>
162	LFCEWF	D9F200122-6	9174270	MD	1.0	06/25/09 04:10	<input type="checkbox"/>
163	LFCEXF	D9F200122-7	9174270	MD	1.0	06/25/09 04:13	<input type="checkbox"/>
164	CCV				1.0	06/25/09 04:17	<input type="checkbox"/>
165	CCB				1.0	06/25/09 04:20	<input type="checkbox"/>
166	RLCV				1.0	06/25/09 04:24	<input type="checkbox"/>
167	RINSE				1.0	06/25/09 04:27	<input type="checkbox"/>
168	RINSE				1.0	06/25/09 04:30	<input type="checkbox"/>
169	RINSE				1.0	06/25/09 04:34	<input type="checkbox"/>
170	RINSE				1.0	06/25/09 04:37	<input type="checkbox"/>
171	RINSE				1.0	06/25/09 04:41	<input type="checkbox"/>
172	RINSE				1.0	06/25/09 04:44	<input type="checkbox"/>
173	Cal Blank				1.0	06/25/09 04:47	<input type="checkbox"/>
174	Cal Blank				1.0	06/25/09 04:51	<input type="checkbox"/>
175	100 ppb				1.0	06/25/09 04:54	<input type="checkbox"/>
176	CCV				1.0	06/25/09 04:57	<input type="checkbox"/>
177	CCB				1.0	06/25/09 05:01	<input type="checkbox"/>
178	RLCV				1.0	06/25/09 05:04	<input type="checkbox"/>
179	MDLV BLANK				1.0	06/25/09 05:08	<input type="checkbox"/>
180	MDLV1				1.0	06/25/09 05:11	<input type="checkbox"/>
181	MDLV2				1.0	06/25/09 05:15	<input type="checkbox"/>
182	CCV				1.0	06/25/09 05:18	<input type="checkbox"/>
183	CCB				1.0	06/25/09 05:21	<input type="checkbox"/>
184	RLCV				1.0	06/25/09 05:25	<input type="checkbox"/>
185	LF11CBF	D9F230000	9174183	MD	1.0	06/25/09 05:28	<input type="checkbox"/>

*Ref 6/25/09 did not use.*

*AS only, Ref 6/25/09*



Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
186	LFFFCCF	D9F230000	9174183	MD	1.0	06/25/09 05:32	<input type="checkbox"/>
187	LE71EF 10X	D9F180314-2	9174183	MD	10.0	06/25/09 05:35	<input type="checkbox"/>
188	LE71EP50F	D9F180314	9174183		50.0	06/25/09 05:38	<input type="checkbox"/>
189	LE71EZ F	D9F180314-2	9174183		1.0	06/25/09 05:42	<input type="checkbox"/>
190	LE71ESF 10	D9F180314-2	9174183	MD	10.0	06/25/09 05:45	<input type="checkbox"/>
191	LE71EDF 10	D9F180314-2	9174183	MD	10.0	06/25/09 05:48	<input type="checkbox"/>
192	LFC4CF 10X	D9F200196-2	9174183	MD	10.0	06/25/09 05:52	<input type="checkbox"/>
193	CCV				1.0	06/25/09 05:55	<input type="checkbox"/>
194	CCB				1.0	06/25/09 05:59	<input type="checkbox"/>
195	RLCV				1.0	06/25/09 06:02	<input type="checkbox"/>
196	D9F120347-1				1.0	06/25/09 06:05	<input type="checkbox"/>
197	CCV				1.0	06/25/09 06:09	<input type="checkbox"/>
198	CCB				1.0	06/25/09 06:12	<input type="checkbox"/>
199	RLCV				1.0	06/25/09 06:16	<input type="checkbox"/>
200	LF FEFB	D9F230000	9174178	MS	1.0	06/25/09 06:19	<input type="checkbox"/>
201	LF FEFC	D9F230000	9174178	MS	1.0	06/25/09 06:22	<input type="checkbox"/>
202	LE9GL	D9F190197-1	9174178	MS	1.0	06/25/09 06:26	<input type="checkbox"/>
203	LE720	D9F180321-1	9174178	MS	1.0	06/25/09 06:29	<input type="checkbox"/>
204	LE721	D9F180321-2	9174178	MS	1.0	06/25/09 06:33	<input type="checkbox"/>
205	LE723	D9F180321-3	9174178	MS	1.0	06/25/09 06:36	<input type="checkbox"/>
206	LE724	D9F180321-4	9174178	MS	1.0	06/25/09 06:39	<input type="checkbox"/>
207	CCV				1.0	06/25/09 06:43	<input type="checkbox"/>
208	CCB				1.0	06/25/09 06:46	<input type="checkbox"/>
209	RLCV				1.0	06/25/09 06:50	<input type="checkbox"/>
210	LFCEC	D9F200122-1	9174178	MS	1.0	06/25/09 06:53	<input type="checkbox"/>
211	LFCEM	D9F200122-2	9174178	MS	1.0	06/25/09 06:56	<input type="checkbox"/>
212	LFCE N	D9F200122-3	9174178	MS	1.0	06/25/09 07:00	<input type="checkbox"/>
213	LFCEQ	D9F200122-4	9174178	MS	1.0	06/25/09 07:03	<input type="checkbox"/>
214	LFCE R	D9F200122-5	9174178	MS	1.0	06/25/09 07:07	<input type="checkbox"/>
215	LFCEW	D9F200122-6	9174178	MS	1.0	06/25/09 07:10	<input type="checkbox"/>
216	LFCEX	D9F200122-7	9174178	MS	1.0	06/25/09 07:13	<input type="checkbox"/>
217	CCV				1.0	06/25/09 07:17	<input type="checkbox"/>
218	CCB				1.0	06/25/09 07:20	<input type="checkbox"/>
219	RLCV				1.0	06/25/09 07:24	<input type="checkbox"/>
220	<del>LFC4W</del>	<del>D9F200200-1</del>	<del>9174178</del>	<del>MS</del>	<del>1.0</del>	<del>06/25/09 07:27</del>	<input type="checkbox"/>
221	LFC4X	D9F200200-2	9174178	MS	1.0	06/25/09 07:31	<input type="checkbox"/>
222	LFC40	D9F200200-3	9174178	MS	1.0	06/25/09 07:34	<input type="checkbox"/>
223	LFC40P5	D9F200200	9174178		5.0	06/25/09 07:37	<input type="checkbox"/>
224	LFC40Z	<del>D9F200200-3</del>	9174178		1.0	06/25/09 07:41	<input type="checkbox"/>
225	LFC40S	D9F200200-3	9174178	MS	1.0	06/25/09 07:44	<input type="checkbox"/>
226	<del>LFC40D</del>	<del>D9F200200-3</del>	<del>9174178</del>	<del>MS</del>	<del>1.0</del>	<del>06/25/09 07:47</del>	<input type="checkbox"/>
227	CCV				1.0	06/25/09 07:51	<input type="checkbox"/>
228	CCB				1.0	06/25/09 07:54	<input type="checkbox"/>
229	RLCV				1.0	06/25/09 07:58	<input type="checkbox"/>
230	LFFV0BF	D9F230000	9174276	MD	1.0	06/25/09 08:01	<input type="checkbox"/>
231	LFFV0CF	D9F230000	9174276	MD	1.0	06/25/09 08:04	<input type="checkbox"/>

As only, 6/25/09

6/25/09 did not use.

Method: 6020 (ICP/MS) ICPMS\_024 (024) Reported: 06/25/09 11:05:10

File ID: AG062409G

Analyst: TEL

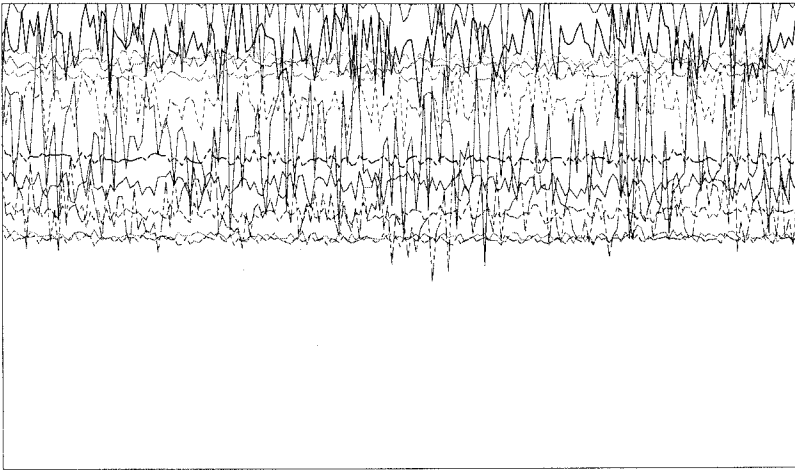
#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
232	LE98FF	D9F190267-1	9174276	MD	1.0	06/25/09 08:08	<input type="checkbox"/>
233	LE98FP5F	D9F190267	9174276		5.0	06/25/09 08:11	<input type="checkbox"/>
234	LE98FZF	D9F190267-1	9174276		1.0	06/25/09 08:15	<input type="checkbox"/>
235	LE98FSF	D9F190267-1	9174276	MD	1.0	06/25/09 08:18	<input type="checkbox"/>
236	LE98FDF	D9F190267-1	9174276	MD	1.0	06/25/09 08:22	<input type="checkbox"/>
237	LE99HF	D9F190267-2	9174276	MD	1.0	06/25/09 08:25	<input type="checkbox"/>
238	LE99RF	D9F190267-3	9174276	MD	1.0	06/25/09 08:28	<input type="checkbox"/>
239	CCV				1.0	06/25/09 08:32	<input type="checkbox"/>
240	CCB				1.0	06/25/09 08:35	<input type="checkbox"/>
241	RLCV				1.0	06/25/09 08:39	<input type="checkbox"/>
242	RINSE				1.0	06/25/09 08:42	<input type="checkbox"/>
243	RINSE				1.0	06/25/09 08:45	<input type="checkbox"/>
244	RINSE				1.0	06/25/09 08:49	<input type="checkbox"/>
245	RINSE				1.0	06/25/09 08:52	<input type="checkbox"/>
246	RINSE				1.0	06/25/09 08:56	<input type="checkbox"/>
247	RINSE				1.0	06/25/09 08:59	<input type="checkbox"/>
248	Cal-Blank				1.0	06/25/09 09:02	<input type="checkbox"/>
249	Cal-Blank				1.0	06/25/09 09:06	<input type="checkbox"/>
250	100 ppb				1.0	06/25/09 09:09	<input type="checkbox"/>
251	CCV				1.0	06/25/09 09:12	<input type="checkbox"/>
252	CCB				1.0	06/25/09 09:16	<input type="checkbox"/>
253	RLCV				1.0	06/25/09 09:19	<input type="checkbox"/>
254	LFFC2B	D9F230000	9174162	MS	1.0	06/25/09 09:23	<input type="checkbox"/>
255	LFFC2C	D9F230000	9174162	MS	1.0	06/25/09 09:26	<input type="checkbox"/>
256	LE6AW 2X	D9F180141-1	9174162	MS	2.0	06/25/09 09:29	<input type="checkbox"/>
257	LE6A1 2X	D9F180141-2	9174162	MS	2.0	06/25/09 09:33	<input type="checkbox"/>
258	LE6A2 2X	D9F180141-3	9174162	MS	2.0	06/25/09 09:36	<input type="checkbox"/>
259	LE81M	D9F190156-1	9174162	MS	1.0	06/25/09 09:40	<input type="checkbox"/>
260	CCV				1.0	06/25/09 09:43	<input type="checkbox"/>
261	CCB				1.0	06/25/09 09:47	<input type="checkbox"/>
262	RLCV				1.0	06/25/09 09:50	<input type="checkbox"/>
263	LE81MP5	D9F190156	9174162		5.0	06/25/09 09:53	<input type="checkbox"/>
264	LE81MZ	D9F190156-1	9174162		1.0	06/25/09 09:57	<input type="checkbox"/>
265	LE81MS	D9F190156-1	9174162	MS	1.0	06/25/09 10:00	<input type="checkbox"/>
266	LE81MD	D9F190156-1	9174162	MS	1.0	06/25/09 10:04	<input type="checkbox"/>
267	LE82G	D9F190156-2	9174162	MS	1.0	06/25/09 10:07	<input type="checkbox"/>
268	CCV				1.0	06/25/09 10:10	<input type="checkbox"/>
269	CCB				1.0	06/25/09 10:14	<input type="checkbox"/>
270	RLCV				1.0	06/25/09 10:17	<input type="checkbox"/>
271	LE6A1	D9F180141-2	9174162	MS	1.0	06/25/09 10:21	<input type="checkbox"/>
272	LE6A2	D9F180141-3	9174162	MS	1.0	06/25/09 10:24	<input type="checkbox"/>
273	LE81M	D9F190156-1	9174162	MS	1.0	06/25/09 10:27	<input type="checkbox"/>
274	CCV				1.0	06/25/09 10:31	<input type="checkbox"/>
275	CCB				1.0	06/25/09 10:34	<input type="checkbox"/>
276	RLCV				1.0	06/25/09 10:38	<input type="checkbox"/>

*Not 6/25/09*

*Not 6/25/09 did not use.*

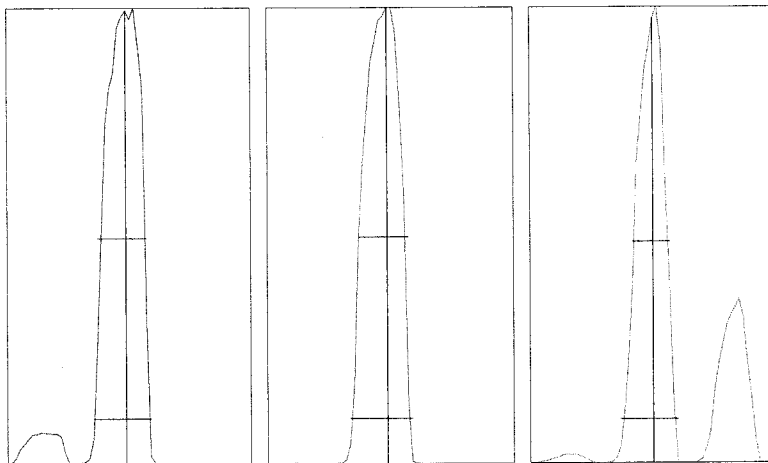
Tune Report

Tune File : NORM.U  
 Comment :



Integration Time: 0.1000 sec  
 Sampling Period: 1.5300 sec  
 n: 200  
 Oxide: 156/140 1.895%  
 Doubly Charged: 70/140 0.993%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1252.0	1210.7	3.15	0.50
7	20,000	17471.0	17359.0	1.29	0.50
59	50,000	24615.0	24727.2	1.47	0.70
63	100	89.0	103.1	10.52	0.60
70	500	416.0	457.8	5.82	1.10
75	100	58.0	68.5	14.27	1.10
78	500	424.0	392.8	5.32	1.10
89	50,000	42041.0	42147.0	1.21	0.80
115	50,000	42683.0	44143.0	1.25	1.10
137	10,000	5345.0	5438.1	2.07	1.50
205	50,000	32275.0	33040.5	1.41	2.80
238	100,000	49874.0	48834.3	1.31	3.20
156/140	5	1.895%	1.914%	4.40	
70/140	2	0.897%	0.986%	5.95	
118	200	104.0	109.9	12.05	1.30



m/z:	7	89	205
Height:	17,515	42,175	35,607
Axis:	7.00	89.00	205.05
W-50%:	0.60	0.60	0.45
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : NORM.U  
Comment :

Tuning Parameters

===Plasma Condition===

RF Power : 1550 W  
RF Matching : 1.7 V  
Smpl Depth : 7.8 mm  
Torch-H : -0.8 mm  
Torch-V : -0.3 mm  
Carrier Gas : 1.03 L/min  
Makeup Gas : 0 L/min  
Optional Gas : --- %  
Nebulizer Pump : 0.1 rps  
Sample Pump : --- rps  
S/C Temp : 2 degC

===Ion Lenses===

Extract 1 : 0 V  
Extract 2 : -175 V  
Omega Bias-ce : -30 V  
Omega Lens-ce : -0.2 V  
Cell Entrance : -30 V  
QP Focus : 5 V  
Cell Exit : -30 V

===Q-Pole Parameters===

AMU Gain : 134  
AMU Offset : 123  
Axis Gain : 1.001  
Axis Offset : -0.05  
QP Bias : -10 V

===Detector Parameters===

Discriminator : 8 mV  
Analog HV : 1740 V  
Pulse HV : 1390 V

===Octopole Parameters===

OctP RF : 180 V  
OctP Bias : -18 V

===Reaction Cell===

Reaction Mode : OFF  
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : --- %

P/A Factor Tuning Report

Acquired: Jun 24 2009 03:49 pm

Mass[amu]	Element	P/A Factor
6	Li	0.056718
7	(Li)	Sensitivity too low
9	Be	0.064016
45	Sc	0.077228
51	V	0.078776
52	Cr	0.082225
53	(Cr)	Sensitivity too low
55	Mn	0.083928
59	Co	0.087112
60	Ni	0.088839
63	Cu	0.091015
66	Zn	0.090699
72	Ge	0.089225
75	As	0.088472
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
95	Mo	0.089221
98	(Mo)	0.089321
99	(Mo)	0.090939
106	(Cd)	0.094970
107	Ag	Sensitivity too low
108	(Cd)	0.095488
111	Cd	0.095962
114	Cd	0.095973
115	In	0.095134
118	Sn	0.094981
121	Sb	0.094672
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
205	Tl	0.104372
206	(Pb)	0.103453
207	(Pb)	0.103546
208	Pb	0.103176
232	Th	0.101788
238	U	0.101858

===Detector Parameters===

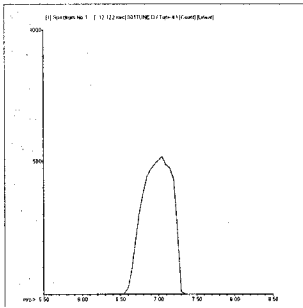
Discriminator: 8.0 mV  
Analog HV: 1740 V  
Pulse HV: 1390 V

### 200.8 QC Tune Report

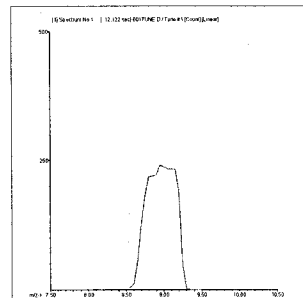
Data File: C:\ICPCHEM\1\DATA\AG062409G.B\001TUNE.D  
 Date Acquired: Jun 24 2009 07:03 pm  
 Acq. Method: tun\_isis.M  
 Operator: TEL  
 Sample Name: 200.8 TUNE  
 Misc Info:  
 Vial Number: 4  
 Current Method: C:\ICPCHEM\1\METHODS\tun\_isis.M

**RSD (%)**

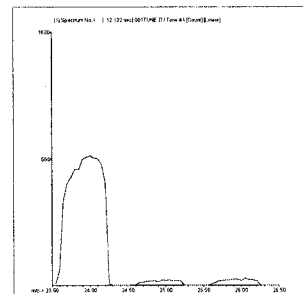
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	10148	10089	10029	10089	10262	10266	2.79	5.00	
9 Be	1755	1771	1805	1760	1707	1730	2.90	5.00	
24 Mg	6955	6982	6967	6851	7035	6938	2.08	5.00	
59 Co	51905	52322	52279	52591	51727	50604	0.94	5.00	
115 In	462597	448980	462469	468100	470802	462631	2.44	5.00	
208 Pb	53885	55337	53878	53810	53372	53027	1.47	5.00	
238 U	106802	108619	107941	107202	105352	104892	2.15	5.00	



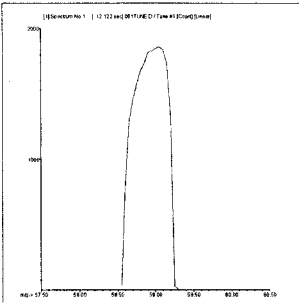
**7 Li**  
**Mass Calib.**  
 Actual: 7.05  
 Required: 6.90 - 7.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**9 Be**  
**Mass Calib.**  
 Actual: 9.05  
 Required: 8.90 - 9.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**24 Mg**  
**Mass Calib.**  
 Actual: 24.00  
 Required: 23.90 - 24.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



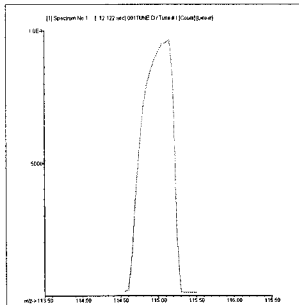
**59 Co**

**Mass Calib.**

Actual: 59.00  
Required: 58.90 - 59.10  
Flag:

**Peak Width**

Actual: 0.60  
Required: 0.90  
Flag:



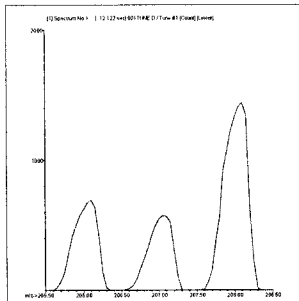
**115 In**

**Mass Calib.**

Actual: 115.05  
Required: 114.90 - 115.10  
Flag:

**Peak Width**

Actual: 0.60  
Required: 0.90  
Flag:



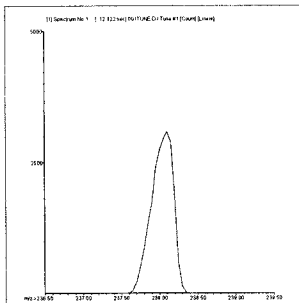
**208 Pb**

**Mass Calib.**

Actual: 208.05  
Required: 207.90 - 208.10  
Flag:

**Peak Width**

Actual: 0.55  
Required: 0.90  
Flag:



**238 U**

**Mass Calib.**

Actual: 238.05  
Required: 237.90 - 238.10  
Flag:

**Peak Width**

Actual: 0.50  
Required: 0.90  
Flag:

**Tune Result:**

Pass

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#  
Date Acquired: Jun 24 2009 07:07 pm  
Acq. Method: NormISIS.M  
Operator: TEL  
Sample Name: Cal Blank  
Misc Info:  
Vial Number: 1101  
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
Last Cal. Update: Jun 24 2009 07:07 pm  
Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
51	V	72	1	-145	123.07
52	Cr	72	1	1567	3.74
55	Mn	72	1	110	47.24
59	Co	72	1	20	50.00
60	Ni	72	1	43	26.65
63	Cu	72	1	230	8.70
66	Zn	72	1	113	10.70
75	As	72	1	13	17.32
78	Se	72	1	53	28.64
95	Mo	72	1	33	75.50
107	Ag	115	1	120	14.43
111	Cd	115	1	-3	618.90
118	Sn	115	1	953	12.52
121	Sb	115	1	104	15.74
137	Ba	115	1	8	65.47
205	Tl	165	1	152	17.70
208	Pb	165	1	132	13.89
232	Th	165	1	447	11.27
238	U	165	1	60	27.78

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	163501	0.15
45	Sc	1	473295	0.64
72	Ge	1	272811	0.59
115	In	1	858259	0.37
165	Ho	1	1824721	0.44

Tune File# 1 c:\icpchem\1\7500\he.u  
Tune File# 2 C:\ICPCHEM\1\7500\  
Tune File# 3 C:\ICPCHEM\1\7500\



**Calibration Standard QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\003ICAL.D\003ICAL.D#  
 Date Acquired: Jun 24 2009 07:10 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:08 pm  
 Sample Type: ICAL

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	33917	0.70
51	V	72	540931	0.60
52	Cr	72	616152	1.28
55	Mn	72	554630	0.77
59	Co	72	886953	1.07
60	Ni	72	209311	2.01
63	Cu	72	528419	1.26
66	Zn	72	103879	1.21
75	As	72	67913	1.40
78	Se	72	9800	4.23
95	Mo	72	251498	1.05
107	Ag	115	802211	1.04
111	Cd	115	141668	1.10
118	Sn	115	351095	0.81
121	Sb	115	419639	0.73
137	Ba	115	157251	1.35
205	Tl	165	1656113	0.72
208	Pb	165	2343099	0.44
232	Th	165	2212844	0.87
238	U	165	2531076	0.95

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	159533	0.97	163501	97.6	30 - 120
45	Sc	1	459619	1.14	473295	97.1	30 - 120
72	Ge	1	266297	0.78	272811	97.6	30 - 120
115	In	1	825142	0.51	858259	96.1	30 - 120
165	Ho	1	1826683	0.51	1824721	100.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

**Initial Calibration Verification (ICV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\004\_ICV.D\004\_ICV.D#  
 Date Acquired: Jun 24 2009 07:13 pm  
 Operator: TEL  
 Sample Name: ICV  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: ICV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	37.74 ppb	2.95	40	94.4	90 - 110	
51	V	72	39.57 ppb	1.14	40	98.9	90 - 110	
52	Cr	72	39.74 ppb	1.46	40	99.4	90 - 110	
55	Mn	72	40.45 ppb	0.97	40	101.1	90 - 110	
59	Co	72	38.83 ppb	0.93	40	97.1	90 - 110	
60	Ni	72	40.85 ppb	1.17	40	102.1	90 - 110	
63	Cu	72	40.59 ppb	0.82	40	101.5	90 - 110	
66	Zn	72	39.58 ppb	0.25	40	99.0	90 - 110	
75	As	72	40.20 ppb	0.49	40	100.5	90 - 110	
78	Se	72	37.76 ppb	5.30	40	94.4	90 - 110	
95	Mo	72	40.09 ppb	1.05	40	100.2	90 - 110	
107	Ag	115	39.56 ppb	1.27	40	98.9	90 - 110	
111	Cd	115	39.92 ppb	0.33	40	99.8	90 - 110	
118	Sn	115	39.19 ppb	1.07	40	98.0	90 - 110	
121	Sb	115	38.41 ppb	0.35	40	96.0	90 - 110	
137	Ba	115	39.27 ppb	1.76	40	98.2	90 - 110	
205	Tl	165	40.47 ppb	1.84	40	101.2	90 - 110	
208	Pb	165	39.45 ppb	1.73	40	98.6	90 - 110	
232	Th	165	41.81 ppb	1.77	40	104.5	90 - 110	
238	U	165	39.37 ppb	1.93	40	98.4	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	162448	0.71	163501	99.4	30 - 120
45	Sc	1	460273	0.72	473295	97.2	30 - 120
72	Ge	1	266258	0.45	272811	97.6	30 - 120
115	In	1	830416	0.73	858259	96.8	30 - 120
165	Ho	1	1855738	0.65	1824721	101.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\005WASH.D\005WASH.D#  
 Date Acquired: Jun 24 2009 07:17 pm  
 Operator: TEL  
 Sample Name: RLIV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.013 ppb	16.38	1.30	
51 V	72	1	5.184 ppb	2.90	6.50	
52 Cr	72	1	2.106 ppb	2.23	2.60	
55 Mn	72	1	1.046 ppb	8.96	1.30	
59 Co	72	1	1.025 ppb	8.15	1.30	
60 Ni	72	1	2.042 ppb	5.81	2.60	
63 Cu	72	1	2.102 ppb	0.72	2.60	
66 Zn	72	1	10.290 ppb	3.26	13.00	
75 As	72	1	5.155 ppb	2.67	6.50	
78 Se	72	1	5.665 ppb	6.46	6.50	
95 Mo	72	1	2.116 ppb	1.68	2.60	
107 Ag	115	1	5.133 ppb	0.57	6.50	
111 Cd	115	1	0.950 ppb	4.09	1.30	
118 Sn	115	1	10.280 ppb	0.78	13.00	
121 Sb	115	1	2.148 ppb	1.25	2.60	
137 Ba	115	1	1.023 ppb	6.59	1.30	
205 Tl	165	1	1.145 ppb	2.23	1.30	
208 Pb	165	1	1.046 ppb	0.72	1.30	
232 Th	165	1	2.354 ppb	2.29	2.60	
238 U	165	1	1.064 ppb	1.46	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	160763	1.63	163501	98.3	30 - 120	
45 Sc	1	471262	0.38	473295	99.6	30 - 120	
72 Ge	1	271755	0.51	272811	99.6	30 - 120	
115 In	1	847415	0.20	858259	98.7	30 - 120	
165 Ho	1	1844156	0.82	1824721	101.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed





**AFCEE RL QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\008AFCE.D\008AFCE.D#  
 Date Acquired: Jun 24 2009 07:27 pm  
 Operator: TEL  
 Sample Name: AFCEE RL  
 Misc Info:  
 Vial Number: 2106  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: AFCEERL  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	0.16 ppb	29.97	0	81.1	80 - 120	
51	V	72	0.22 ppb	21.92	0	112.2	80 - 120	
52	Cr	72	0.16 ppb	14.27	0	86.6	80 - 120	
55	Mn	72	0.21 ppb	4.13	0	107.8	80 - 120	
59	Co	72	0.20 ppb	9.64	0	102.9	80 - 120	
60	Ni	72	0.21 ppb	19.96	0	103.9	80 - 120	
63	Cu	72	0.23 ppb	3.46	0	110.1	80 - 120	
66	Zn	72	2.05 ppb	5.49	2	102.2	80 - 120	
75	As	72	0.20 ppb	11.05	0	106.8	80 - 120	
78	Se	72	0.31 ppb	47.94	0	128.3	80 - 120	
95	Mo	72	0.23 ppb	9.33	0	117.9	80 - 120	
107	Ag	115	0.18 ppb	9.26	0	90.2	80 - 120	
111	Cd	115	0.22 ppb	10.37	0	109.8	80 - 120	
118	Sn	115	2.07 ppb	6.36	2	103.8	80 - 120	
121	Sb	115	0.21 ppb	0.98	0	102.5	80 - 120	
137	Ba	115	0.19 ppb	12.38	0	95.7	80 - 120	
205	Tl	165	0.22 ppb	3.71	0	105.8	80 - 120	
208	Pb	165	0.21 ppb	3.19	0	102.7	80 - 120	
232	Th	165	0.22 ppb	3.83	0	104.1	80 - 120	
238	U	165	0.21 ppb	2.86	0	101.7	80 - 120	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	160158	1.30	163501	98.0	30 - 120
45	Sc	1	466170	0.32	473295	98.5	30 - 120
72	Ge	1	270425	0.78	272811	99.1	30 - 120
115	In	1	841433	0.70	858259	98.0	30 - 120
165	Ho	1	1807963	1.45	1824721	99.1	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\009SMPL.D\009SMPL.D#  
 Date Acquired: Jun 24 2009 07:30 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ALTSe  
 Misc Info: 2 ppb  
 Vial Number: 2107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.00	0.00	ppb	0.00	3600
51	V	72	1	0.02	0.02	ppb	198.41	3600
52	Cr	72	1	-0.04	-0.04	ppb	31.12	3600
55	Mn	72	1	0.00	0.00	ppb	629.93	3600
59	Co	72	1	0.00	0.00	ppb	166.65	3600
60	Ni	72	1	0.00	0.00	ppb	4583.20	3600
63	Cu	72	1	0.01	0.01	ppb	137.68	3600
66	Zn	72	1	0.09	0.09	ppb	14.30	3600
75	As	72	1	0.00	0.00	ppb	161.72	3600
78	Se	72	1	2.12	2.12	ppb	35.07	3600
95	Mo	72	1	-0.01	-0.01	ppb	0.75	3600
107	Ag	115	1	0.00	0.00	ppb	67.28	3600
111	Cd	115	1	0.01	0.01	ppb	30.96	3600
118	Sn	115	1	0.00	0.00	ppb	5718.90	3600
121	Sb	115	1	-0.01	-0.01	ppb	44.60	3600
137	Ba	115	1	0.00	0.00	ppb	70.63	3600
205	Tl	165	1	0.00	0.00	ppb	86.15	3600
208	Pb	165	1	0.00	0.00	ppb	57.78	3600
232	Th	165	1	0.00	0.00	ppb	148.71	1000
238	U	165	1	0.00	0.00	ppb	0.47	3600

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	160785	1.21	163501	98.3	30 - 120
45	Sc	1	472930	1.03	473295	99.9	30 - 120
72	Ge	1	274512	0.51	272811	100.6	30 - 120
115	In	1	854708	0.87	858259	99.6	30 - 120
165	Ho	1	1840765	1.67	1824721	100.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\010ICSA.D\010ICSA.D#  
 Date Acquired: Jun 24 2009 07:34 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

## QC Summary:

Analytes: Pass  
ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9 Be	6	1	0.07 ppb	27.06	1.00	
51 V	72	1	-0.15 ppb	63.76	1.00	
52 Cr	72	1	1.00 ppb	9.52	1.00	
55 Mn	72	1	2.10 ppb	15.02	1.00	
59 Co	72	1	0.04 ppb	12.81	1.00	
60 Ni	72	1	0.77 ppb	16.00	1.00	
63 Cu	72	1	0.36 ppb	16.67	1.00	
66 Zn	72	1	2.79 ppb	14.69	10.00	
75 As	72	1	0.15 ppb	7.74	1.00	
78 Se	72	1	0.45 ppb	30.62	1.00	
95 Mo	72	1	2051.00 ppb	14.59	2000.00	
107 Ag	115	1	0.08 ppb	16.05	1.00	
111 Cd	115	1	0.34 ppb	55.09	1.00	
118 Sn	115	1	0.04 ppb	136.34	10.00	
121 Sb	115	1	0.22 ppb	25.12	1.00	
137 Ba	115	1	1.60 ppb	24.35	1.00	
205 Tl	165	1	0.03 ppb	16.30	1.00	
208 Pb	165	1	0.13 ppb	20.62	1.00	
232 Th	165	1	0.03 ppb	38.59	1.00	
238 U	165	1	0.02 ppb	18.11	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	150867	12.87	163501	92.3	30 - 120	
45 Sc	1	392581	18.49	473295	82.9	30 - 120	
72 Ge	1	224502	13.80	272811	82.3	30 - 120	
115 In	1	685599	16.48	858259	79.9	30 - 120	
165 Ho	1	1658393	18.54	1824721	90.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Nnumber of ISTD Failures Allowed



## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\011ICSB.D\011ICSB.D#  
 Date Acquired: Jun 24 2009 07:37 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	93.43	2.00	100	93.4	80 - 120	
51 V	72	1	99.77	0.22	100	99.8	80 - 120	
52 Cr	72	1	98.34	0.11	100	98.3	80 - 120	
55 Mn	72	1	99.43	0.16	100	99.4	80 - 120	
59 Co	72	1	93.29	0.48	100	93.3	80 - 120	
60 Ni	72	1	92.81	1.09	100	92.8	80 - 120	
63 Cu	72	1	90.62	0.82	100	90.6	80 - 120	
66 Zn	72	1	99.58	0.84	100	99.6	80 - 120	
75 As	72	1	100.90	0.42	100	100.9	80 - 120	
78 Se	72	1	101.10	2.90	100	101.1	80 - 120	
95 Mo	72	1	2139.00	0.51	2100	101.9	80 - 120	
107 Ag	115	1	88.67	1.33	100	88.7	80 - 120	
111 Cd	115	1	97.36	1.12	100	97.4	80 - 120	
118 Sn	115	1	102.70	1.18	100	102.7	80 - 120	
121 Sb	115	1	103.10	0.89	100	103.1	80 - 120	
137 Ba	115	1	104.40	0.34	100	104.4	80 - 120	
205 Tl	165	1	94.16	1.13	100	94.2	80 - 120	
208 Pb	165	1	92.84	0.53	100	92.8	80 - 120	
232 Th	165	1	101.60	2.76	100	101.6	80 - 120	
238 U	165	1	100.30	1.06	100	100.3	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	150818	1.18	163501	92.2	30 - 120	
45 Sc	1	377939	0.23	473295	79.9	30 - 120	
72 Ge	1	213285	0.56	272811	78.2	30 - 120	
115 In	1	664545	0.86	858259	77.4	30 - 120	
165 Ho	1	1659524	0.43	1824721	90.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\012SMPL.D\012SMPL.D#  
 Date Acquired: Jun 24 2009 07:40 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.19	3600	
51 V	72	1	0.06	0.06	ppb	51.17	3600	
52 Cr	72	1	0.00	0.00	ppb	1189.30	3600	
55 Mn	72	1	0.00	0.00	ppb	108.29	3600	
59 Co	72	1	0.01	0.01	ppb	47.32	3600	
60 Ni	72	1	0.00	0.00	ppb	335.34	3600	
63 Cu	72	1	0.04	0.04	ppb	22.27	3600	
66 Zn	72	1	0.00	0.00	ppb	364.94	3600	
75 As	72	1	0.02	0.02	ppb	98.18	3600	
78 Se	72	1	0.03	0.03	ppb	1244.20	3600	
95 Mo	72	1	0.87	0.87	ppb	7.94	3600	
107 Ag	115	1	0.01	0.01	ppb	78.37	3600	
111 Cd	115	1	0.01	0.01	ppb	314.55	3600	
118 Sn	115	1	-0.01	-0.01	ppb	83.03	3600	
121 Sb	115	1	0.01	0.01	ppb	51.11	3600	
137 Ba	115	1	0.00	0.00	ppb	27.64	3600	
205 Tl	165	1	0.00	0.00	ppb	59.27	3600	
208 Pb	165	1	0.01	0.01	ppb	58.23	3600	
232 Th	165	1	0.25	0.25	ppb	23.49	1000	
238 U	165	1	0.01	0.01	ppb	20.75	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	172816	0.10	163501	105.7	30 - 120	
45 Sc	1	449254	0.62	473295	94.9	30 - 120	
72 Ge	1	259990	0.37	272811	95.3	30 - 120	
115 In	1	822615	0.25	858259	95.8	30 - 120	
165 Ho	1	1864559	1.27	1824721	102.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Linear Dynamic Range Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\013\_LR.D\013\_LR.D#  
 Date Acquired: Jun 24 2009 07:44 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LR  
 Misc Info:  
 Vial Number: 2110  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: LR  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**Analyte Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	937.10 ppb	1.11	1000	93.7	90 - 110	
51 V	72	1	932.00 ppb	1.41	1000	93.2	90 - 110	
52 Cr	72	1	964.00 ppb	0.63	1000	96.4	90 - 110	
55 Mn	72	1	969.70 ppb	0.64	1000	97.0	90 - 110	
59 Co	72	1	926.20 ppb	1.18	1000	92.6	90 - 110	
60 Ni	72	1	995.00 ppb	1.85	1000	99.5	90 - 110	
63 Cu	72	1	955.90 ppb	0.71	1000	95.6	90 - 110	
66 Zn	72	1	1020.00 ppb	0.96	1000	102.0	90 - 110	
75 As	72	1	981.30 ppb	0.36	1000	98.1	90 - 110	
78 Se	72	1	950.60 ppb	1.07	1000	95.1	90 - 110	
95 Mo	72	1	1009.00 ppb	1.13	1000	100.9	90 - 110	
107 Ag	115	1	948.10 ppb	2.03	1000	94.8	90 - 110	
111 Cd	115	1	1006.00 ppb	0.95	1000	100.6	90 - 110	
118 Sn	115	1	993.40 ppb	1.10	1000	99.3	90 - 110	
121 Sb	115	1	986.00 ppb	1.37	1000	98.6	90 - 110	
137 Ba	115	1	1008.00 ppb	1.16	1000	100.8	90 - 110	
205 Tl	165	1	957.90 ppb	0.93	1000	95.8	90 - 110	
208 Pb	165	1	967.80 ppb	1.24	1000	96.8	90 - 110	
232 Th	165	1	985.20 ppb	1.85	1000	98.5	90 - 110	
238 U	165	1	979.70 ppb	1.31	1000	98.0	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	167418	0.56	163501	102.4	30 - 120	
45 Sc	1	441840	0.55	473295	93.4	30 - 120	
72 Ge	1	254704	0.98	272811	93.4	30 - 120	
115 In	1	794489	1.38	858259	92.6	30 - 120	
165 Ho	1	1851575	1.22	1824721	101.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\014SMPL.D\014SMPL.D#  
 Date Acquired: Jun 24 2009 07:47 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.06	0.06	ppb	99.58	3600	
51 V	72	1	0.04	0.04	ppb	67.88	3600	
52 Cr	72	1	0.00	0.00	ppb	7422.60	3600	
55 Mn	72	1	0.02	0.02	ppb	39.53	3600	
59 Co	72	1	0.03	0.03	ppb	20.63	3600	
60 Ni	72	1	0.01	0.01	ppb	222.29	3600	
63 Cu	72	1	0.06	0.06	ppb	26.83	3600	
66 Zn	72	1	0.05	0.05	ppb	8.94	3600	
75 As	72	1	0.07	0.07	ppb	35.45	3600	
78 Se	72	1	0.32	0.32	ppb	155.20	3600	
95 Mo	72	1	0.53	0.53	ppb	16.69	3600	
107 Ag	115	1	0.27	0.27	ppb	10.31	3600	
111 Cd	115	1	0.02	0.02	ppb	120.38	3600	
118 Sn	115	1	0.60	0.60	ppb	14.22	3600	
121 Sb	115	1	0.28	0.28	ppb	11.01	3600	
137 Ba	115	1	0.03	0.03	ppb	49.25	3600	
205 Tl	165	1	0.53	0.53	ppb	7.28	3600	
208 Pb	165	1	0.03	0.03	ppb	25.90	3600	
232 Th	165	1	2.47	2.47	ppb	17.39	1000	
238 U	165	1	0.07	0.07	ppb	11.38	3600	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	169206	0.80	163501	103.5	30 - 120	
45 Sc	1	452007	0.24	473295	95.5	30 - 120	
72 Ge	1	264993	0.64	272811	97.1	30 - 120	
115 In	1	831332	0.49	858259	96.9	30 - 120	
165 Ho	1	1852436	0.43	1824721	101.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\015\_CCV.D\015\_CCV.D#  
 Date Acquired: Jun 24 2009 07:52 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	47.95 ppb	1.18	50	95.9	90 - 110	
51	V	72	49.01 ppb	1.26	50	98.0	90 - 110	
52	Cr	72	49.82 ppb	1.43	50	99.6	90 - 110	
55	Mn	72	50.08 ppb	0.46	50	100.2	90 - 110	
59	Co	72	48.73 ppb	1.25	50	97.5	90 - 110	
60	Ni	72	50.21 ppb	0.21	50	100.4	90 - 110	
63	Cu	72	50.36 ppb	0.99	50	100.7	90 - 110	
66	Zn	72	49.28 ppb	1.54	50	98.6	90 - 110	
75	As	72	50.00 ppb	0.87	50	100.0	90 - 110	
78	Se	72	47.07 ppb	6.00	50	94.1	90 - 110	
95	Mo	72	50.70 ppb	0.85	50	101.4	90 - 110	
107	Ag	115	50.22 ppb	0.54	50	100.4	90 - 110	
111	Cd	115	50.43 ppb	0.56	50	100.9	90 - 110	
118	Sn	115	50.40 ppb	1.34	50	100.8	90 - 110	
121	Sb	115	50.22 ppb	0.60	50	100.4	90 - 110	
137	Ba	115	50.22 ppb	0.37	50	100.4	90 - 110	
205	Tl	165	51.87 ppb	0.54	50	103.7	90 - 110	
208	Pb	165	50.22 ppb	0.96	50	100.4	90 - 110	
232	Th	165	48.96 ppb	1.93	50	97.9	90 - 110	
238	U	165	50.55 ppb	1.23	50	101.1	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	168391	0.58	163501	103.0	30 - 120
45	Sc	1	461420	0.74	473295	97.5	30 - 120
72	Ge	1	266462	0.21	272811	97.7	30 - 120
115	In	1	830967	0.55	858259	96.8	30 - 120
165	Ho	1	1872058	0.91	1824721	102.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\016\_CCB.D\016\_CCB.D#  
 Date Acquired: Jun 24 2009 07:55 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.009	ppb	173.20	1.00	
51 V	72	1	-0.038	ppb	90.01	1.00	
52 Cr	72	1	-0.014	ppb	95.55	1.00	
55 Mn	72	1	0.005	ppb	127.19	1.00	
59 Co	72	1	0.001	ppb	291.01	1.00	
60 Ni	72	1	-0.007	ppb	138.82	1.00	
63 Cu	72	1	0.012	ppb	208.41	1.00	
66 Zn	72	1	0.019	ppb	34.41	1.00	
75 As	72	1	-0.001	ppb	1011.90	1.00	
78 Se	72	1	0.391	ppb	70.56	1.00	
95 Mo	72	1	0.103	ppb	32.60	1.00	
107 Ag	115	1	0.079	ppb	22.88	1.00	
111 Cd	115	1	0.008	ppb	45.24	1.00	
118 Sn	115	1	0.134	ppb	39.20	1.00	
121 Sb	115	1	0.034	ppb	13.13	1.00	
137 Ba	115	1	0.000	ppb	1521.40	1.00	
205 Tl	165	1	0.074	ppb	9.57	1.00	
208 Pb	165	1	0.001	ppb	30.04	1.00	
232 Th	165	1	0.704	ppb	20.83	1.00	
238 U	165	1	0.005	ppb	6.54	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	165071	1.73	163501	101.0	30 - 120	
45 Sc	1	458156	2.72	473295	96.8	30 - 120	
72 Ge	1	266323	1.54	272811	97.6	30 - 120	
115 In	1	830225	2.53	858259	96.7	30 - 120	
165 Ho	1	1834045	3.17	1824721	100.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\017WASH.D\017WASH.D#  
 Date Acquired: Jun 24 2009 07:58 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.121 ppb	30.68	1.30	
51 V	72	1	5.154 ppb	3.56	6.50	
52 Cr	72	1	2.061 ppb	5.49	2.60	
55 Mn	72	1	1.001 ppb	1.48	1.30	
59 Co	72	1	1.029 ppb	3.34	1.30	
60 Ni	72	1	2.110 ppb	6.42	2.60	
63 Cu	72	1	2.085 ppb	1.98	2.60	
66 Zn	72	1	10.110 ppb	0.87	13.00	
75 As	72	1	5.183 ppb	1.61	6.50	
78 Se	72	1	4.623 ppb	11.87	6.50	
95 Mo	72	1	2.103 ppb	3.10	2.60	
107 Ag	115	1	5.138 ppb	0.77	6.50	
111 Cd	115	1	1.064 ppb	6.44	1.30	
118 Sn	115	1	10.490 ppb	2.92	13.00	
121 Sb	115	1	1.953 ppb	2.16	2.60	
137 Ba	115	1	1.009 ppb	8.26	1.30	
205 Tl	165	1	1.116 ppb	0.50	1.30	
208 Pb	165	1	1.050 ppb	1.33	1.30	
232 Th	165	1	2.150 ppb	0.71	2.60	
238 U	165	1	1.055 ppb	1.61	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	166616	0.49	163501	101.9	30 - 120	
45 Sc	1	470800	0.34	473295	99.5	30 - 120	
72 Ge	1	271876	0.14	272811	99.7	30 - 120	
115 In	1	848189	0.16	858259	98.8	30 - 120	
165 Ho	1	1850275	0.97	1824721	101.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\028\_CCV.D\028\_CCV.D#  
 Date Acquired: Jun 24 2009 08:36 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.91 ppb	4.06	50	99.8	90 - 110	
51	V	72	49.06 ppb	0.65	50	98.1	90 - 110	
52	Cr	72	49.15 ppb	0.81	50	98.3	90 - 110	
55	Mn	72	49.93 ppb	0.46	50	99.9	90 - 110	
59	Co	72	48.38 ppb	0.71	50	96.8	90 - 110	
60	Ni	72	49.43 ppb	1.21	50	98.9	90 - 110	
63	Cu	72	49.60 ppb	0.61	50	99.2	90 - 110	
66	Zn	72	48.83 ppb	1.38	50	97.7	90 - 110	
75	As	72	50.10 ppb	1.52	50	100.2	90 - 110	
78	Se	72	49.60 ppb	3.25	50	99.2	90 - 110	
95	Mo	72	50.21 ppb	0.79	50	100.4	90 - 110	
107	Ag	115	49.85 ppb	0.71	50	99.7	90 - 110	
111	Cd	115	50.33 ppb	1.36	50	100.7	90 - 110	
118	Sn	115	50.19 ppb	0.61	50	100.4	90 - 110	
121	Sb	115	50.21 ppb	0.46	50	100.4	90 - 110	
137	Ba	115	50.84 ppb	0.59	50	101.7	90 - 110	
205	Tl	165	52.34 ppb	1.90	50	104.7	90 - 110	
208	Pb	165	50.99 ppb	1.78	50	102.0	90 - 110	
232	Th	165	50.26 ppb	1.07	50	100.5	90 - 110	
238	U	165	52.01 ppb	0.60	50	104.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	147649	0.21	163501	90.3	30 - 120
45	Sc	1	427867	0.48	473295	90.4	30 - 120
72	Ge	1	249035	0.40	272811	91.3	30 - 120
115	In	1	786127	0.27	858259	91.6	30 - 120
165	Ho	1	1751379	1.24	1824721	96.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\029\_CCB.D\029\_CCB.D#  
 Date Acquired: Jun 24 2009 08:39 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.011 ppb	173.13	1.00	
51 V	72	1	-0.006 ppb	1394.40	1.00	
52 Cr	72	1	-0.032 ppb	101.03	1.00	
55 Mn	72	1	0.005 ppb	108.60	1.00	
59 Co	72	1	0.000 ppb	1570.50	1.00	
60 Ni	72	1	0.003 ppb	266.11	1.00	
63 Cu	72	1	0.018 ppb	27.46	1.00	
66 Zn	72	1	0.016 ppb	140.14	1.00	
75 As	72	1	0.012 ppb	56.52	1.00	
78 Se	72	1	0.279 ppb	108.79	1.00	
95 Mo	72	1	0.060 ppb	40.02	1.00	
107 Ag	115	1	0.109 ppb	28.36	1.00	
111 Cd	115	1	0.011 ppb	53.34	1.00	
118 Sn	115	1	0.039 ppb	55.82	1.00	
121 Sb	115	1	0.016 ppb	34.99	1.00	
137 Ba	115	1	0.005 ppb	108.69	1.00	
205 Tl	165	1	0.019 ppb	23.84	1.00	
208 Pb	165	1	0.003 ppb	38.29	1.00	
232 Th	165	1	0.728 ppb	16.33	1.00	
238 U	165	1	0.006 ppb	38.81	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	148730	1.56	163501	91.0	30 - 120	
45 Sc	1	439376	0.43	473295	92.8	30 - 120	
72 Ge	1	257637	0.39	272811	94.4	30 - 120	
115 In	1	817368	0.32	858259	95.2	30 - 120	
165 Ho	1	1773917	1.34	1824721	97.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\030WASH.D\030WASH.D#  
 Date Acquired: Jun 24 2009 08:42 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.959 ppb	10.84	1.30	
51 V	72	1	5.001 ppb	2.10	6.50	
52 Cr	72	1	2.073 ppb	2.04	2.60	
55 Mn	72	1	1.037 ppb	1.45	1.30	
59 Co	72	1	1.022 ppb	3.89	1.30	
60 Ni	72	1	1.926 ppb	3.49	2.60	
63 Cu	72	1	1.996 ppb	2.34	2.60	
66 Zn	72	1	10.210 ppb	0.70	13.00	
75 As	72	1	5.174 ppb	2.23	6.50	
78 Se	72	1	4.849 ppb	11.65	6.50	
95 Mo	72	1	2.025 ppb	3.19	2.60	
107 Ag	115	1	5.027 ppb	2.25	6.50	
111 Cd	115	1	1.037 ppb	5.78	1.30	
118 Sn	115	1	10.420 ppb	3.19	13.00	
121 Sb	115	1	1.948 ppb	3.09	2.60	
137 Ba	115	1	1.058 ppb	4.46	1.30	
205 Tl	165	1	1.115 ppb	0.89	1.30	
208 Pb	165	1	1.068 ppb	1.04	1.30	
232 Th	165	1	2.208 ppb	1.16	2.60	
238 U	165	1	1.083 ppb	1.42	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	145582	0.61	163501	89.0	30 - 120	
45 Sc	1	440932	0.10	473295	93.2	30 - 120	
72 Ge	1	258827	0.34	272811	94.9	30 - 120	
115 In	1	817143	0.75	858259	95.2	30 - 120	
165 Ho	1	1779277	0.27	1824721	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\031ICSA.D\031ICSA.D#  
 Date Acquired: Jun 24 2009 08:46 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 07:11 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.06 ppb	69.23	1.00
51	V	72	1	0.00 ppb	12424.00	1.00
52	Cr	72	1	0.90 ppb	6.03	1.00
55	Mn	72	1	2.00 ppb	1.68	1.00
59	Co	72	1	0.04 ppb	13.41	1.00
60	Ni	72	1	0.64 ppb	13.77	1.00
63	Cu	72	1	0.33 ppb	6.75	1.00
66	Zn	72	1	2.66 ppb	1.84	10.00
75	As	72	1	0.17 ppb	16.32	1.00
78	Se	72	1	-0.12 ppb	250.61	1.00
95	Mo	72	1	1987.00 ppb	0.59	2000.00
107	Ag	115	1	0.15 ppb	10.46	1.00
111	Cd	115	1	0.34 ppb	8.22	1.00
118	Sn	115	1	0.07 ppb	56.73	10.00
121	Sb	115	1	0.23 ppb	16.82	1.00
137	Ba	115	1	1.50 ppb	2.17	1.00
205	Tl	165	1	0.04 ppb	13.74	1.00
208	Pb	165	1	0.13 ppb	5.13	1.00
232	Th	165	1	0.14 ppb	15.33	1.00
238	U	165	1	0.02 ppb	10.77	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	142331	0.44	163501	87.1	30 - 120
45	Sc	1	386462	0.70	473295	81.7	30 - 120
72	Ge	1	221252	0.75	272811	81.1	30 - 120
115	In	1	696244	0.46	858259	81.1	30 - 120
165	Ho	1	1655055	0.69	1824721	90.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed



## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\033WASH.D\033WASH.D#  
 Date Acquired: Jun 24 2009 08:52 pm  
 Operator: TEL  
 Sample Name: WASH  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.30	
51 V	72	1	0.032 ppb	259.28	6.50	
52 Cr	72	1	-0.006 ppb	153.20	2.60	
55 Mn	72	1	0.019 ppb	35.08	1.30	
59 Co	72	1	0.012 ppb	60.51	1.30	
60 Ni	72	1	0.027 ppb	77.20	2.60	
63 Cu	72	1	0.042 ppb	16.35	2.60	
66 Zn	72	1	-0.008 ppb	388.99	13.00	
75 As	72	1	0.030 ppb	45.45	6.50	
78 Se	72	1	0.186 ppb	33.94	6.50	
95 Mo	72	1	0.978 ppb	15.36	2.60	
107 Ag	115	1	0.025 ppb	22.42	6.50	
111 Cd	115	1	0.018 ppb	28.54	1.30	
118 Sn	115	1	0.043 ppb	45.64	13.00	
121 Sb	115	1	0.016 ppb	41.20	2.60	
137 Ba	115	1	0.018 ppb	30.15	1.30	
205 Tl	165	1	0.014 ppb	7.58	1.30	
208 Pb	165	1	0.016 ppb	18.72	1.30	
232 Th	165	1	0.583 ppb	15.44	2.60	
238 U	165	1	0.021 ppb	20.17	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153786	0.64	163501	94.1	30 - 120	
45 Sc	1	428807	0.32	473295	90.6	30 - 120	
72 Ge	1	253153	0.93	272811	92.8	30 - 120	
115 In	1	808206	0.62	858259	94.2	30 - 120	
165 Ho	1	1787510	1.50	1824721	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\034\_CCV.D\034\_CCV.D#  
 Date Acquired: Jun 24 2009 08:56 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	49.33 ppb	4.28	50	98.7	90 - 110	
51	V	72	49.34 ppb	1.56	50	98.7	90 - 110	
52	Cr	72	49.38 ppb	1.39	50	98.8	90 - 110	
55	Mn	72	49.99 ppb	0.62	50	100.0	90 - 110	
59	Co	72	48.65 ppb	0.29	50	97.3	90 - 110	
60	Ni	72	49.52 ppb	1.33	50	99.0	90 - 110	
63	Cu	72	50.08 ppb	0.95	50	100.2	90 - 110	
66	Zn	72	49.47 ppb	0.68	50	98.9	90 - 110	
75	As	72	50.32 ppb	0.62	50	100.6	90 - 110	
78	Se	72	51.47 ppb	0.64	50	102.9	90 - 110	
95	Mo	72	50.98 ppb	0.88	50	102.0	90 - 110	
107	Ag	115	49.57 ppb	0.98	50	99.1	90 - 110	
111	Cd	115	49.85 ppb	1.11	50	99.7	90 - 110	
118	Sn	115	50.38 ppb	0.65	50	100.8	90 - 110	
121	Sb	115	50.63 ppb	0.51	50	101.3	90 - 110	
137	Ba	115	51.01 ppb	0.65	50	102.0	90 - 110	
205	Tl	165	52.84 ppb	0.87	50	105.7	90 - 110	
208	Pb	165	51.41 ppb	0.73	50	102.8	90 - 110	
232	Th	165	49.16 ppb	1.12	50	98.3	90 - 110	
238	U	165	51.49 ppb	1.63	50	103.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	153433	0.11	163501	93.8	30 - 120
45	Sc	1	436100	0.76	473295	92.1	30 - 120
72	Ge	1	257738	0.44	272811	94.5	30 - 120
115	In	1	817010	0.44	858259	95.2	30 - 120
165	Ho	1	1819218	1.03	1824721	99.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\035\_CCB.D\035\_CCB.D#  
 Date Acquired: Jun 24 2009 08:59 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.018	ppb	439.98	1.00	
52 Cr	72	1	-0.017	ppb	242.94	1.00	
55 Mn	72	1	0.006	ppb	30.19	1.00	
59 Co	72	1	0.004	ppb	61.30	1.00	
60 Ni	72	1	-0.006	ppb	84.11	1.00	
63 Cu	72	1	0.018	ppb	61.00	1.00	
66 Zn	72	1	0.008	ppb	177.31	1.00	
75 As	72	1	0.008	ppb	117.46	1.00	
78 Se	72	1	-0.050	ppb	316.37	1.00	
95 Mo	72	1	0.116	ppb	15.10	1.00	
107 Ag	115	1	0.031	ppb	18.19	1.00	
111 Cd	115	1	0.011	ppb	40.99	1.00	
118 Sn	115	1	0.034	ppb	141.62	1.00	
121 Sb	115	1	0.012	ppb	57.85	1.00	
137 Ba	115	1	0.004	ppb	56.72	1.00	
205 Tl	165	1	0.020	ppb	5.90	1.00	
208 Pb	165	1	0.004	ppb	51.66	1.00	
232 Th	165	1	0.769	ppb	16.34	1.00	
238 U	165	1	0.006	ppb	15.54	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	154869	1.17	163501	94.7	30 - 120	
45 Sc	1	451661	0.35	473295	95.4	30 - 120	
72 Ge	1	263583	0.11	272811	96.6	30 - 120	
115 In	1	833562	0.51	858259	97.1	30 - 120	
165 Ho	1	1835458	0.28	1824721	100.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\036WASH.D\036WASH.D#  
 Date Acquired: Jun 24 2009 09:03 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 07:11 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.951 ppb	27.10	1.30	
51 V	72	1	4.969 ppb	3.16	6.50	
52 Cr	72	1	2.016 ppb	5.02	2.60	
55 Mn	72	1	0.995 ppb	1.50	1.30	
59 Co	72	1	0.986 ppb	4.94	1.30	
60 Ni	72	1	1.983 ppb	4.74	2.60	
63 Cu	72	1	2.086 ppb	1.02	2.60	
66 Zn	72	1	10.170 ppb	1.36	13.00	
75 As	72	1	5.100 ppb	3.51	6.50	
78 Se	72	1	5.716 ppb	8.09	6.50	
95 Mo	72	1	2.075 ppb	2.35	2.60	
107 Ag	115	1	5.141 ppb	1.32	6.50	
111 Cd	115	1	1.007 ppb	3.99	1.30	
118 Sn	115	1	10.460 ppb	0.61	13.00	
121 Sb	115	1	1.963 ppb	2.86	2.60	
137 Ba	115	1	1.014 ppb	2.28	1.30	
205 Tl	165	1	1.107 ppb	1.78	1.30	
208 Pb	165	1	1.082 ppb	1.57	1.30	
232 Th	165	1	2.251 ppb	0.44	2.60	
238 U	165	1	1.097 ppb	2.16	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153782	1.38	163501	94.1	30 - 120	
45 Sc	1	448278	0.23	473295	94.7	30 - 120	
72 Ge	1	265227	0.76	272811	97.2	30 - 120	
115 In	1	842610	0.68	858259	98.2	30 - 120	
165 Ho	1	1831850	0.33	1824721	100.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\002CALB.D\002CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

...”During the course of an analytical run, the instrument may be “resloped” or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed.”

Analyst: LRD

Date: 06/24/2009

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#  
 Date Acquired: Jun 24 2009 10:17 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:14 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
51	V	72	1	-125	155.01
52	Cr	72	1	1347	3.12
55	Mn	72	1	137	19.15
59	Co	72	1	27	43.97
60	Ni	72	1	33	17.74
63	Cu	72	1	293	31.56
66	Zn	72	1	201	12.52
75	As	72	1	16	32.04
78	Se	72	1	77	62.26
95	Mo	72	1	147	21.43
107	Ag	115	1	107	32.36
111	Cd	115	1	7	50.68
118	Sn	115	1	767	9.91
121	Sb	115	1	64	7.31
137	Ba	115	1	14	52.84
205	Tl	165	1	126	11.03
208	Pb	165	1	148	13.20
232	Th	165	1	913	8.83
238	U	165	1	104	13.31

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	117322	1.68
45	Sc	1	379430	0.45
72	Ge	1	230888	0.98
115	In	1	694252	0.79
165	Ho	1	1482298	0.02

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

**Calibration Standard QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\059ICAL.D\059ICAL.D#  
 Date Acquired: Jun 24 2009 10:20 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:18 pm  
 Sample Type: ICAL

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	25917	2.08
51	V	72	440859	0.40
52	Cr	72	498841	0.38
55	Mn	72	434202	0.35
59	Co	72	693184	0.44
60	Ni	72	170216	0.63
63	Cu	72	436062	0.02
66	Zn	72	90657	0.40
75	As	72	64010	0.60
78	Se	72	8116	1.74
95	Mo	72	212934	0.18
107	Ag	115	641135	1.00
111	Cd	115	113553	0.95
118	Sn	115	285789	0.95
121	Sb	115	375686	0.95
137	Ba	115	133578	0.91
205	Tl	165	1351068	1.18
208	Pb	165	1882489	0.46
232	Th	165	1769191	1.22
238	U	165	2026227	1.62

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range (%)	Flag
6	Li	1	116190	1.75	117322	99.0	30 - 120
45	Sc	1	372196	1.07	379430	98.1	30 - 120
72	Ge	1	228804	0.83	230888	99.1	30 - 120
115	In	1	674227	0.76	694252	97.1	30 - 120
165	Ho	1	1476640	0.84	1482298	99.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\060\_CCV.D\060\_CCV.D#  
 Date Acquired: Jun 24 2009 10:24 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.95 ppb	2.27	50	101.9	90 - 110	
51	V	72	51.38 ppb	1.81	50	102.8	90 - 110	
52	Cr	72	51.09 ppb	1.51	50	102.2	90 - 110	
55	Mn	72	51.40 ppb	0.27	50	102.8	90 - 110	
59	Co	72	51.06 ppb	0.83	50	102.1	90 - 110	
60	Ni	72	51.29 ppb	0.39	50	102.6	90 - 110	
63	Cu	72	51.32 ppb	1.67	50	102.6	90 - 110	
66	Zn	72	50.57 ppb	1.23	50	101.1	90 - 110	
75	As	72	51.06 ppb	0.85	50	102.1	90 - 110	
78	Se	72	48.68 ppb	4.68	50	97.4	90 - 110	
95	Mo	72	51.09 ppb	0.84	50	102.2	90 - 110	
107	Ag	115	50.68 ppb	0.72	50	101.4	90 - 110	
111	Cd	115	51.23 ppb	0.59	50	102.5	90 - 110	
118	Sn	115	50.95 ppb	0.60	50	101.9	90 - 110	
121	Sb	115	50.71 ppb	0.30	50	101.4	90 - 110	
137	Ba	115	50.69 ppb	0.51	50	101.4	90 - 110	
205	Tl	165	52.07 ppb	1.37	50	104.1	90 - 110	
208	Pb	165	51.54 ppb	1.96	50	103.1	90 - 110	
232	Th	165	54.55 ppb	1.65	50	109.1	90 - 110	
238	U	165	52.27 ppb	2.06	50	104.5	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	116863	0.68	117322	99.6	30 - 120
45	Sc	1	367256	0.44	379430	96.8	30 - 120
72	Ge	1	224440	0.68	230888	97.2	30 - 120
115	In	1	667028	1.07	694252	96.1	30 - 120
165	Ho	1	1451654	1.23	1482298	97.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\061\_CCB.D\061\_CCB.D#  
 Date Acquired: Jun 24 2009 10:27 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.013 ppb	173.21	1.00	
51 V	72	1	-0.019 ppb	133.49	1.00	
52 Cr	72	1	0.014 ppb	132.84	1.00	
55 Mn	72	1	-0.003 ppb	205.55	1.00	
59 Co	72	1	0.004 ppb	86.18	1.00	
60 Ni	72	1	-0.002 ppb	376.54	1.00	
63 Cu	72	1	0.006 ppb	281.36	1.00	
66 Zn	72	1	-0.086 ppb	10.54	1.00	
75 As	72	1	0.006 ppb	203.91	1.00	
78 Se	72	1	-0.193 ppb	112.83	1.00	
95 Mo	72	1	0.017 ppb	168.45	1.00	
107 Ag	115	1	0.034 ppb	14.31	1.00	
111 Cd	115	1	0.004 ppb	355.33	1.00	
118 Sn	115	1	0.098 ppb	30.14	1.00	
121 Sb	115	1	0.045 ppb	6.81	1.00	
137 Ba	115	1	0.002 ppb	262.73	1.00	
205 Tl	165	1	0.040 ppb	11.20	1.00	
208 Pb	165	1	0.003 ppb	55.31	1.00	
232 Th	165	1	1.012 ppb	13.11	1.00	Fail
238 U	165	1	0.005 ppb	40.98	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115652	0.56	117322	98.6	30 - 120	
45 Sc	1	370335	1.00	379430	97.6	30 - 120	
72 Ge	1	226326	0.63	230888	98.0	30 - 120	
115 In	1	680142	0.40	694252	98.0	30 - 120	
165 Ho	1	1472058	0.15	1482298	99.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 MR

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\062WASH.D\062WASH.D#  
 Date Acquired: Jun 24 2009 10:31 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.996 ppb	9.75	1.30	
51 V	72	1	5.287 ppb	1.19	6.50	
52 Cr	72	1	2.116 ppb	3.39	2.60	
55 Mn	72	1	1.069 ppb	7.23	1.30	
59 Co	72	1	1.052 ppb	3.77	1.30	
60 Ni	72	1	2.104 ppb	5.43	2.60	
63 Cu	72	1	2.107 ppb	1.94	2.60	
66 Zn	72	1	10.040 ppb	2.06	13.00	
75 As	72	1	5.106 ppb	0.91	6.50	
78 Se	72	1	4.258 ppb	39.17	6.50	
95 Mo	72	1	2.010 ppb	4.56	2.60	
107 Ag	115	1	5.207 ppb	1.30	6.50	
111 Cd	115	1	1.034 ppb	3.49	1.30	
118 Sn	115	1	10.620 ppb	3.50	13.00	
121 Sb	115	1	2.017 ppb	0.23	2.60	
137 Ba	115	1	0.968 ppb	5.29	1.30	
205 Tl	165	1	1.101 ppb	0.72	1.30	
208 Pb	165	1	1.065 ppb	2.60	1.30	
232 Th	165	1	2.307 ppb	1.83	2.60	
238 U	165	1	1.090 ppb	0.82	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	116951	0.50	117322	99.7	30 - 120	
45 Sc	1	372991	0.46	379430	98.3	30 - 120	
72 Ge	1	229458	0.38	230888	99.4	30 - 120	
115 In	1	689440	0.45	694252	99.3	30 - 120	
165 Ho	1	1499228	0.34	1482298	101.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\070\_CCV.D\070\_CCV.D#  
 Date Acquired: Jun 24 2009 10:58 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	51.12	ppb	3.62	50	102.2	90 - 110
51	V	72	1	51.40	ppb	1.66	50	102.8	90 - 110
52	Cr	72	1	51.25	ppb	0.98	50	102.5	90 - 110
55	Mn	72	1	51.36	ppb	0.87	50	102.7	90 - 110
59	Co	72	1	51.15	ppb	0.99	50	102.3	90 - 110
60	Ni	72	1	50.39	ppb	1.61	50	100.8	90 - 110
63	Cu	72	1	50.61	ppb	0.70	50	101.2	90 - 110
66	Zn	72	1	51.11	ppb	0.55	50	102.2	90 - 110
75	As	72	1	51.06	ppb	0.34	50	102.1	90 - 110
78	Se	72	1	47.32	ppb	5.38	50	94.6	90 - 110
95	Mo	72	1	50.76	ppb	2.38	50	101.5	90 - 110
107	Ag	115	1	50.53	ppb	0.97	50	101.1	90 - 110
111	Cd	115	1	51.39	ppb	1.09	50	102.8	90 - 110
118	Sn	115	1	51.03	ppb	0.91	50	102.1	90 - 110
121	Sb	115	1	51.36	ppb	0.80	50	102.7	90 - 110
137	Ba	115	1	50.55	ppb	0.59	50	101.1	90 - 110
205	Tl	165	1	52.58	ppb	0.96	50	105.2	90 - 110
208	Pb	165	1	52.00	ppb	1.19	50	104.0	90 - 110
232	Th	165	1	54.86	ppb	0.65	50	109.7	90 - 110
238	U	165	1	52.77	ppb	0.97	50	105.5	90 - 110

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	109473	1.64	117322	93.3	30 - 120
45	Sc	1	341668	0.27	379430	90.0	30 - 120
72	Ge	1	210335	0.32	230888	91.1	30 - 120
115	In	1	636527	0.76	694252	91.7	30 - 120
165	Ho	1	1399322	0.25	1482298	94.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed





**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\072WASH.D\072WASH.D#  
 Date Acquired: Jun 24 2009 11:05 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.120 ppb	38.53	1.30	
51 V	72	1	5.253 ppb	6.17	6.50	
52 Cr	72	1	2.013 ppb	0.50	2.60	
55 Mn	72	1	1.103 ppb	2.70	1.30	
59 Co	72	1	1.044 ppb	1.08	1.30	
60 Ni	72	1	2.051 ppb	3.00	2.60	
63 Cu	72	1	2.083 ppb	3.23	2.60	
66 Zn	72	1	10.250 ppb	1.58	13.00	
75 As	72	1	5.277 ppb	1.02	6.50	
78 Se	72	1	4.391 ppb	19.94	6.50	
95 Mo	72	1	1.992 ppb	2.34	2.60	
107 Ag	115	1	5.180 ppb	1.30	6.50	
111 Cd	115	1	0.980 ppb	2.57	1.30	
118 Sn	115	1	10.460 ppb	1.31	13.00	
121 Sb	115	1	2.019 ppb	1.37	2.60	
137 Ba	115	1	1.032 ppb	4.47	1.30	
205 Tl	165	1	1.131 ppb	0.96	1.30	
208 Pb	165	1	1.073 ppb	2.39	1.30	
232 Th	165	1	2.336 ppb	3.22	2.60	
238 U	165	1	1.094 ppb	1.33	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	112305	1.24	117322	95.7	30 - 120	
45 Sc	1	353972	0.54	379430	93.3	30 - 120	
72 Ge	1	218407	0.59	230888	94.6	30 - 120	
115 In	1	657406	0.31	694252	94.7	30 - 120	
165 Ho	1	1437398	1.09	1482298	97.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\073ICSA.D\073ICSA.D#  
 Date Acquired: Jun 24 2009 11:08 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	0.07 ppb	91.65	1.00	
51	V	72	-0.45 ppb	43.52	1.00	
52	Cr	72	0.98 ppb	1.45	1.00	
55	Mn	72	2.21 ppb	6.13	1.00	
59	Co	72	0.04 ppb	8.50	1.00	
60	Ni	72	0.62 ppb	10.61	1.00	
63	Cu	72	0.30 ppb	5.61	1.00	
66	Zn	72	2.43 ppb	0.45	10.00	
75	As	72	0.17 ppb	20.25	1.00	
78	Se	72	0.10 ppb	419.65	1.00	
95	Mo	72	1982.00 ppb	1.43	2000.00	
107	Ag	115	0.13 ppb	2.97	1.00	
111	Cd	115	0.32 ppb	49.44	1.00	
118	Sn	115	0.03 ppb	183.17	10.00	
121	Sb	115	0.24 ppb	5.73	1.00	
137	Ba	115	1.43 ppb	4.56	1.00	
205	Tl	165	0.04 ppb	10.19	1.00	
208	Pb	165	0.13 ppb	3.23	1.00	
232	Th	165	0.16 ppb	30.27	1.00	
238	U	165	0.02 ppb	6.46	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	102993	0.56	117322	87.8	30 - 120
45	Sc	1	315475	0.66	379430	83.1	30 - 120
72	Ge	1	191330	0.71	230888	82.9	30 - 120
115	In	1	568291	0.77	694252	81.9	30 - 120
165	Ho	1	1326927	0.41	1482298	89.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\074ICSB.D\074ICSB.D#  
 Date Acquired: Jun 24 2009 11:11 pm  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	98.42	1.66	100	98.4	80 - 120	
51 V	72	1	96.22	1.36	100	96.2	80 - 120	
52 Cr	72	1	96.05	1.46	100	96.1	80 - 120	
55 Mn	72	1	97.87	0.93	100	97.9	80 - 120	
59 Co	72	1	93.49	1.22	100	93.5	80 - 120	
60 Ni	72	1	91.50	1.23	100	91.5	80 - 120	
63 Cu	72	1	90.00	0.13	100	90.0	80 - 120	
66 Zn	72	1	100.10	1.73	100	100.1	80 - 120	
75 As	72	1	100.60	1.10	100	100.6	80 - 120	
78 Se	72	1	98.72	2.59	100	98.7	80 - 120	
95 Mo	72	1	2095.00	0.31	2100	99.8	80 - 120	
107 Ag	115	1	88.72	0.70	100	88.7	80 - 120	
111 Cd	115	1	96.17	1.00	100	96.2	80 - 120	
118 Sn	115	1	103.30	1.29	100	103.3	80 - 120	
121 Sb	115	1	103.00	0.93	100	103.0	80 - 120	
137 Ba	115	1	100.30	0.59	100	100.3	80 - 120	
205 Tl	165	1	90.87	1.62	100	90.9	80 - 120	
208 Pb	165	1	91.64	2.02	100	91.6	80 - 120	
232 Th	165	1	102.90	3.07	100	102.9	80 - 120	
238 U	165	1	98.85	1.74	100	98.9	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	102532	1.32	117322	87.4	30 - 120	
45 Sc	1	309952	0.42	379430	81.7	30 - 120	
72 Ge	1	186383	0.55	230888	80.7	30 - 120	
115 In	1	554517	0.30	694252	79.9	30 - 120	
165 Ho	1	1331587	1.56	1482298	89.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\075WASH.D\075WASH.D#  
 Date Acquired: Jun 24 2009 11:15 pm  
 Operator: TEL  
 Sample Name: WASH  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.30	
51 V	72	1	0.000 ppb	16827.00	6.50	
52 Cr	72	1	-0.023 ppb	135.11	2.60	
55 Mn	72	1	0.004 ppb	210.96	1.30	
59 Co	72	1	0.008 ppb	111.37	1.30	
60 Ni	72	1	0.013 ppb	116.86	2.60	
63 Cu	72	1	0.027 ppb	46.19	2.60	
66 Zn	72	1	0.192 ppb	17.40	13.00	
75 As	72	1	0.024 ppb	27.96	6.50	
78 Se	72	1	-0.127 ppb	238.35	6.50	
95 Mo	72	1	0.798 ppb	6.52	2.60	
107 Ag	115	1	0.000 ppb	1726.50	6.50	
111 Cd	115	1	0.005 ppb	118.57	1.30	
118 Sn	115	1	0.147 ppb	22.53	13.00	
121 Sb	115	1	0.034 ppb	10.48	2.60	
137 Ba	115	1	0.001 ppb	395.61	1.30	
205 Tl	165	1	0.004 ppb	6.00	1.30	
208 Pb	165	1	0.006 ppb	7.58	1.30	
232 Th	165	1	0.653 ppb	15.07	2.60	
238 U	165	1	0.010 ppb	15.03	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	113953	0.31	117322	97.1	30 - 120	
45 Sc	1	355429	0.70	379430	93.7	30 - 120	
72 Ge	1	219786	0.49	230888	95.2	30 - 120	
115 In	1	664242	0.34	694252	95.7	30 - 120	
165 Ho	1	1438883	0.33	1482298	97.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\076 CCV.D\076 CCV.D#  
 Date Acquired: Jun 24 2009 11:18 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	50.29 ppb	5.77	50	100.6	90 - 110	
51	V	72	51.40 ppb	1.30	50	102.8	90 - 110	
52	Cr	72	51.37 ppb	0.97	50	102.7	90 - 110	
55	Mn	72	51.70 ppb	0.40	50	103.4	90 - 110	
59	Co	72	51.77 ppb	1.27	50	103.5	90 - 110	
60	Ni	72	51.93 ppb	1.65	50	103.9	90 - 110	
63	Cu	72	51.29 ppb	1.25	50	102.6	90 - 110	
66	Zn	72	51.42 ppb	0.50	50	102.8	90 - 110	
75	As	72	51.68 ppb	0.43	50	103.4	90 - 110	
78	Se	72	49.46 ppb	1.75	50	98.9	90 - 110	
95	Mo	72	51.58 ppb	1.79	50	103.2	90 - 110	
107	Ag	115	51.17 ppb	0.58	50	102.3	90 - 110	
111	Cd	115	51.68 ppb	0.86	50	103.4	90 - 110	
118	Sn	115	51.39 ppb	0.25	50	102.8	90 - 110	
121	Sb	115	51.72 ppb	0.53	50	103.4	90 - 110	
137	Ba	115	51.33 ppb	0.85	50	102.7	90 - 110	
205	Tl	165	52.42 ppb	1.78	50	104.8	90 - 110	
208	Pb	165	51.82 ppb	2.00	50	103.6	90 - 110	
232	Th	165	53.75 ppb	1.32	50	107.5	90 - 110	
238	U	165	52.40 ppb	0.69	50	104.8	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	114693	0.48	117322	97.8	30 - 120
45	Sc	1	354431	0.24	379430	93.4	30 - 120
72	Ge	1	217392	0.54	230888	94.2	30 - 120
115	In	1	652251	1.03	694252	94.0	30 - 120
165	Ho	1	1447522	1.25	1482298	97.7	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\077\_CCB.D\077\_CCB.D#  
 Date Acquired: Jun 24 2009 11:21 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.013	ppb	173.23	1.00	
51 V	72	1	-0.004	ppb	1282.60	1.00	
52 Cr	72	1	-0.001	ppb	2544.20	1.00	
55 Mn	72	1	0.002	ppb	542.04	1.00	
59 Co	72	1	0.006	ppb	30.06	1.00	
60 Ni	72	1	0.005	ppb	457.64	1.00	
63 Cu	72	1	0.009	ppb	76.99	1.00	
66 Zn	72	1	-0.054	ppb	31.25	1.00	
75 As	72	1	-0.002	ppb	147.68	1.00	
78 Se	72	1	0.031	ppb	1234.80	1.00	
95 Mo	72	1	0.054	ppb	13.57	1.00	
107 Ag	115	1	0.022	ppb	31.63	1.00	
111 Cd	115	1	0.013	ppb	52.64	1.00	
118 Sn	115	1	0.095	ppb	23.21	1.00	
121 Sb	115	1	0.038	ppb	13.98	1.00	
137 Ba	115	1	0.002	ppb	125.37	1.00	
205 Tl	165	1	0.024	ppb	19.58	1.00	
208 Pb	165	1	0.007	ppb	37.52	1.00	
232 Th	165	1	0.910	ppb	18.59	1.00	
238 U	165	1	0.007	ppb	9.99	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115014	0.64	117322	98.0	30 - 120	
45 Sc	1	361067	1.06	379430	95.2	30 - 120	
72 Ge	1	222710	0.47	230888	96.5	30 - 120	
115 In	1	672947	0.24	694252	96.9	30 - 120	
165 Ho	1	1433333	0.55	1482298	96.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\078WASH.D\078WASH.D#  
 Date Acquired: Jun 24 2009 11:25 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.011 ppb	6.56	1.30	
51 V	72	1	5.430 ppb	2.12	6.50	
52 Cr	72	1	2.113 ppb	3.93	2.60	
55 Mn	72	1	1.097 ppb	5.79	1.30	
59 Co	72	1	1.038 ppb	5.34	1.30	
60 Ni	72	1	2.066 ppb	2.52	2.60	
63 Cu	72	1	2.089 ppb	1.78	2.60	
66 Zn	72	1	10.390 ppb	0.65	13.00	
75 As	72	1	5.259 ppb	1.54	6.50	
78 Se	72	1	3.751 ppb	6.47	6.50	
95 Mo	72	1	2.061 ppb	4.03	2.60	
107 Ag	115	1	5.133 ppb	0.84	6.50	
111 Cd	115	1	1.050 ppb	9.77	1.30	
118 Sn	115	1	10.460 ppb	1.81	13.00	
121 Sb	115	1	1.986 ppb	1.56	2.60	
137 Ba	115	1	1.066 ppb	2.14	1.30	
205 Tl	165	1	1.093 ppb	1.63	1.30	
208 Pb	165	1	1.070 ppb	0.11	1.30	
232 Th	165	1	2.286 ppb	1.31	2.60	
238 U	165	1	1.098 ppb	1.34	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	115299	0.91	117322	98.3	30 - 120	
45 Sc	1	365732	0.26	379430	96.4	30 - 120	
72 Ge	1	224138	0.48	230888	97.1	30 - 120	
115 In	1	674529	0.84	694252	97.2	30 - 120	
165 Ho	1	1449277	0.68	1482298	97.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\119\_CCV.D\119\_CCV.D#  
 Date Acquired: Jun 25 2009 01:44 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	53.06 ppb	1.35	50	106.1	90 - 110	
51	V	72	51.93 ppb	1.17	50	103.9	90 - 110	
52	Cr	72	51.30 ppb	1.19	50	102.6	90 - 110	
55	Mn	72	50.14 ppb	1.25	50	100.3	90 - 110	
59	Co	72	51.00 ppb	0.33	50	102.0	90 - 110	
60	Ni	72	50.49 ppb	1.68	50	101.0	90 - 110	
63	Cu	72	50.89 ppb	0.90	50	101.8	90 - 110	
66	Zn	72	51.21 ppb	0.68	50	102.4	90 - 110	
75	As	72	51.99 ppb	0.39	50	104.0	90 - 110	
78	Se	72	49.48 ppb	3.93	50	99.0	90 - 110	
95	Mo	72	50.53 ppb	0.87	50	101.1	90 - 110	
107	Ag	115	50.97 ppb	1.09	50	101.9	90 - 110	
111	Cd	115	51.35 ppb	0.59	50	102.7	90 - 110	
118	Sn	115	51.26 ppb	1.99	50	102.5	90 - 110	
121	Sb	115	52.36 ppb	0.63	50	104.7	90 - 110	
137	Ba	115	50.93 ppb	0.61	50	101.9	90 - 110	
205	Tl	165	52.31 ppb	0.80	50	104.6	90 - 110	
208	Pb	165	51.81 ppb	1.55	50	103.6	90 - 110	
232	Th	165	53.35 ppb	2.41	50	106.7	90 - 110	
238	U	165	53.37 ppb	2.28	50	106.7	90 - 110	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	109303	0.53	117322	93.2	30 - 120
45	Sc	1	343559	0.91	379430	90.5	30 - 120
72	Ge	1	211836	0.13	230888	91.7	30 - 120
115	In	1	621221	0.51	694252	89.5	30 - 120
165	Ho	1	1343613	1.32	1482298	90.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\120\_CCB.D\120\_CCB.D#  
 Date Acquired: Jun 25 2009 01:47 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.009	ppb	570.32	1.00	
52 Cr	72	1	0.016	ppb	107.73	1.00	
55 Mn	72	1	0.005	ppb	175.85	1.00	
59 Co	72	1	0.007	ppb	58.10	1.00	
60 Ni	72	1	-0.005	ppb	150.77	1.00	
63 Cu	72	1	0.002	ppb	203.44	1.00	
66 Zn	72	1	-0.044	ppb	23.48	1.00	
75 As	72	1	0.004	ppb	240.83	1.00	
78 Se	72	1	0.073	ppb	927.59	1.00	
95 Mo	72	1	-0.032	ppb	32.75	1.00	
107 Ag	115	1	0.025	ppb	17.60	1.00	
111 Cd	115	1	0.013	ppb	0.28	1.00	
118 Sn	115	1	0.073	ppb	25.72	1.00	
121 Sb	115	1	0.025	ppb	25.97	1.00	
137 Ba	115	1	0.005	ppb	49.63	1.00	
205 Tl	165	1	0.021	ppb	11.47	1.00	
208 Pb	165	1	0.006	ppb	18.10	1.00	
232 Th	165	1	0.984	ppb	10.20	1.00	
238 U	165	1	0.009	ppb	20.35	1.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range(%)	Flag
6 Li	1	107635	2.40	117322	91.7	30 - 120	
45 Sc	1	349055	0.35	379430	92.0	30 - 120	
72 Ge	1	214206	0.47	230888	92.8	30 - 120	
115 In	1	635845	0.20	694252	91.6	30 - 120	
165 Ho	1	1368926	1.21	1482298	92.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\121WASH.D\121WASH.D#  
Date Acquired: Jun 25 2009 01:51 am  
Operator: TEL  
Sample Name: RLCV  
Misc Info:  
Vial Number: 1204  
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
Last Cal Update: Jun 24 2009 10:21 pm  
Sample Type: WASH  
Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.045 ppb	11.17	1.30	
51 V	72	1	5.301 ppb	4.50	6.50	
52 Cr	72	1	2.110 ppb	4.23	2.60	
55 Mn	72	1	1.145 ppb	1.19	1.30	
59 Co	72	1	1.082 ppb	7.26	1.30	
60 Ni	72	1	2.099 ppb	2.94	2.60	
63 Cu	72	1	2.068 ppb	2.93	2.60	
66 Zn	72	1	10.390 ppb	2.26	13.00	
75 As	72	1	5.406 ppb	3.22	6.50	
78 Se	72	1	5.484 ppb	9.97	6.50	
95 Mo	72	1	2.044 ppb	5.75	2.60	
107 Ag	115	1	5.172 ppb	1.28	6.50	
111 Cd	115	1	1.086 ppb	6.15	1.30	
118 Sn	115	1	10.450 ppb	1.57	13.00	
121 Sb	115	1	2.010 ppb	2.25	2.60	
137 Ba	115	1	1.015 ppb	7.64	1.30	
205 Tl	165	1	1.142 ppb	2.59	1.30	
208 Pb	165	1	1.084 ppb	3.93	1.30	
232 Th	165	1	2.383 ppb	0.38	2.60	
238 U	165	1	1.107 ppb	3.79	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	107337	1.56	117322	91.5	30 - 120	
45 Sc	1	347744	1.00	379430	91.6	30 - 120	
72 Ge	1	215342	0.57	230888	93.3	30 - 120	
115 In	1	635891	0.67	694252	91.6	30 - 120	
165 Ho	1	1362723	1.21	1482298	91.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
Tune File# 2 C:\ICPCHEM\1\7500\  
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\122\_BLK.D\122\_BLK.D#  
Date Acquired: Jun 25 2009 01:54 am  
Operator: TEL  
Sample Name: LFFFXB  
Misc Info: BLANK 9174190 6020  
Vial Number: 2307  
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
Last Cal Update: Jun 24 2009 10:21 pm  
Sample Type: BLK  
Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
51 V	72	1	0.014 ppb	440.81	2.00	
52 Cr	72	1	0.074 ppb	25.76	2.00	
55 Mn	72	1	0.038 ppb	25.17	2.00	
59 Co	72	1	-0.002 ppb	100.51	2.00	
60 Ni	72	1	0.006 ppb	212.92	2.00	
63 Cu	72	1	0.025 ppb	18.07	2.00	
66 Zn	72	1	0.240 ppb	9.93	2.00	
75 As	72	1	-0.011 ppb	29.17	2.00	
78 Se	72	1	-0.238 ppb	123.97	2.00	
95 Mo	72	1	-0.055 ppb	35.60	2.00	
107 Ag	115	1	0.003 ppb	141.92	2.00	
111 Cd	115	1	0.000 ppb	2082.30	2.00	
118 Sn	115	1	0.183 ppb	18.34	2.00	
121 Sb	115	1	0.013 ppb	60.51	2.00	
137 Ba	115	1	0.008 ppb	67.26	2.00	
205 Tl	165	1	0.001 ppb	306.47	2.00	
208 Pb	165	1	0.008 ppb	28.60	2.00	
232 Th	165	1	0.203 ppb	22.71	2.00	
238 U	165	1	-0.002 ppb	20.95	2.00	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	106242	0.31	117322	90.6	30 - 120	
45 Sc	1	344253	1.69	379430	90.7	30 - 120	
72 Ge	1	212816	1.76	230888	92.2	30 - 120	
115 In	1	628767	1.56	694252	90.6	30 - 120	
165 Ho	1	1348506	1.50	1482298	91.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
Tune File# 2 C:\ICPCHEM\1\7500\  
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed







**Dilution Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\126SDIL.D\126SDIL.D#  
 Date Acquired: Jun 25 2009 02:08 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE7CTP5  
 Misc Info: SERIAL DILUTION  
 Vial Number: 2311  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SDIL  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Dilution Ref File: C:\ICPCHEM\1\DATA\AG062409G.B\125AREF.D\125AREF.D#

**QC elements**

Element	IS Ref	Tune	Conc.ppb	RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	1.00 ppb	14.07	0.60	166.3	90 - 110	
51 V	72	1	17.80 ppb	1.40	18.47	96.4	90 - 110	
52 Cr	72	1	8.49 ppb	1.14	8.80	96.5	90 - 110	
55 Mn	72	1	41650.00 ppb	0.44	42640.00	97.7	90 - 110	
59 Co	72	1	4.77 ppb	3.86	4.69	101.6	90 - 110	
60 Ni	72	1	11.82 ppb	2.28	11.76	100.5	90 - 110	
63 Cu	72	1	42.23 ppb	1.35	41.66	101.4	90 - 110	
66 Zn	72	1	16.96 ppb	1.28	16.39	103.5	90 - 110	
75 As	72	1	13.80 ppb	2.18	14.46	95.4	90 - 110	
78 Se	72	1	2.35 ppb	20.06	2.39	98.5	90 - 110	
95 Mo	72	1	0.82 ppb	4.66	0.75	110.0	90 - 110	
107 Ag	115	1	0.00 ppb	139.88	0.02	13.5	90 - 110	
111 Cd	115	1	0.27 ppb	23.26	0.27	102.7	90 - 110	
118 Sn	115	1	0.17 ppb	27.22	0.23	74.0	90 - 110	
121 Sb	115	1	0.05 ppb	19.88	0.05	95.6	90 - 110	
137 Ba	115	1	21.51 ppb	0.84	21.76	98.9	90 - 110	
205 Tl	165	1	0.09 ppb	0.39	0.09	100.7	90 - 110	
208 Pb	165	1	3.15 ppb	1.89	2.99	105.4	90 - 110	
232 Th	165	1	1.65 ppb	1.55	1.71	96.6	90 - 110	
238 U	165	1	3.02 ppb	2.88	2.97	101.8	90 - 110	

**ISTD elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	100153	0.31	117322	85.4	30 - 120	
45 Sc	1	312890	0.77	379430	82.5	30 - 120	
72 Ge	1	192635	0.54	230888	83.4	30 - 120	
115 In	1	560246	0.43	694252	80.7	30 - 120	
165 Ho	1	1236848	1.73	1482298	83.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures  
 0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:08

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTP5

Serial Dilution: 5.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 126

Method 6020\_

Acquired: 06/25/2009 02:08:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 22:17:00

Units: ug/L

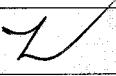
CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	223	4.9960	3.0050	66.3		*	
7440-62-2	Vanadium	51	65967	89.000	92.370	3.65		*	
7440-47-3	Chromium	52	36702	42.470	44.000	3.48		*	
7439-96-5	Manganese	55	52226000	208250	213200	2.32		*	
7440-48-4	Cobalt	59	27835	23.830	23.460	1.58		*	
7440-02-0	Nickel	60	16961	59.100	58.800	0.510		*	
7440-50-8	Copper	63	155193	211.15	208.30	1.37		*	
7440-66-6	Zinc	66	13083	84.800	81.970	3.45		*	
7440-38-2	Arsenic	75	7450	69.000	72.310	4.58	0.21	4.6	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	223	11.755	11.930	1.47	0.70	NC	<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	1593	4.1060	3.7340	9.96		*	
7440-22-4	Silver	107	100	0.01314	0.09698	86.5		*	
7440-43-9	Cadmium	111	265	1.3745	1.3390	2.65		*	
7440-31-5	Tin	118	1027	0.86050	1.1630	26.0		*	
7440-36-0	Antimony	121	201	0.23895	0.24990	4.38		*	
7440-39-3	Barium	137	23881	107.55	108.80	1.15		*	
7440-28-0	Thallium	205	1168	0.46975	0.46630	0.740		*	
7439-92-1	Lead	208	49783	15.750	14.950	5.35		*	
7440-61-1	Uranium	238	51342	15.105	14.840	1.79		*	
7440-29-1	Thorium	232	25169	8.2400	8.5270	3.37		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

\* Analyte not requested for this batch, no MDL

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

*See only*

Reviewed by: 	Date: <i>6/25/09</i>
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Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/25/09 11:06:12

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTZ

Spike Dilution: 1.00

Sample Dilution: 1.00

Instrument: Agilent7500

Channel 272

File: AG062409G # 127

Method 6020\_

Acquired: 06/25/2009 02:11:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/24/2009 22:17:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	40403	172.90	3.0050	84.9	200		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	985902	298.30	92.370	103	200		<input checked="" type="checkbox"/>
7440-47-3	Chromium	52	904878	242.40	44.000	99.2	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	66097000	204700	213200	0.00	200	*	<input type="checkbox"/>
7440-48-4	Cobalt	59	1086600	209.10	23.460	92.8	200		<input type="checkbox"/>
7440-02-0	Nickel	60	295721	231.80	58.800	86.5	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1249950	382.60	208.30	87.2	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	178904	263.60	81.970	90.8	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	142608	297.30	72.310	112	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	14118	233.30	11.930	111	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	323688	202.90	3.7340	99.6	200		<input type="checkbox"/>
7440-22-4	Silver	107	210316	45.750	0.09698	91.3	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	156062	191.70	1.3390	95.2	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	371665	181.60	1.1630	90.2	200		<input type="checkbox"/>
7440-36-0	Antimony	121	565641	210.00	0.24990	105	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	298496	311.70	108.80	101	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	1896680	178.60	0.46630	89.1	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	2805220	189.60	14.950	87.3	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	3169070	198.90	14.840	92.0	200		<input type="checkbox"/>
7440-29-1	Thorium	232	111683	7.9810	8.5270				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

*See only.*

Reviewed by: 

Date: 6/25/09

## Spiked Sample (MS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\128\_MS.D\128\_MS.D#  
 Date Acquired: Jun 25 2009 02:15 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LE7CTS  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2401  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: MS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

Spike Ref. File: ---

## QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	38.86	3.01	ppb	3.64	40	90.4	50 - 150	
51 V	72	1	130.60	92.37	ppb	0.84	40	98.7	50 - 150	
52 Cr	72	1	81.81	44.00	ppb	0.77	40	97.4	50 - 150	
55 Mn	72	1	206700.00	213200.00	ppb	1.15	40	96.9	50 - 150	
59 Co	72	1	59.84	23.46	ppb	0.89	40	94.3	50 - 150	
60 Ni	72	1	93.35	58.80	ppb	1.82	40	94.5	50 - 150	
63 Cu	72	1	241.90	208.30	ppb	0.24	40	97.4	50 - 150	
66 Zn	72	1	120.90	81.97	ppb	0.58	40	99.1	50 - 150	
75 As	72	1	123.60	72.31	ppb	0.52	40	110.1	50 - 150	
78 Se	72	1	55.17	11.93	ppb	3.57	40	106.2	50 - 150	
95 Mo	72	1	40.23	3.73	ppb	2.24	40	92.0	50 - 150	
107 Ag	115	1	37.74	0.10	ppb	0.54	40	94.1	50 - 150	
111 Cd	115	1	40.40	1.34	ppb	1.51	40	97.7	50 - 150	
118 Sn	115	1	1.23	1.16	ppb	3.67	40	3.0	50 - 150	
121 Sb	115	1	27.12	0.25	ppb	1.76	40	67.4	50 - 150	
137 Ba	115	1	148.20	108.80	ppb	0.17	40	99.6	50 - 150	
205 Tl	165	1	37.33	0.47	ppb	0.34	40	92.2	50 - 150	
208 Pb	165	1	50.45	14.95	ppb	0.12	40	91.8	50 - 150	
232 Th	165	1	51.14	8.53	ppb	0.42	40	105.4	50 - 150	
238 U	165	1	53.88	14.84	ppb	0.73	40	98.2	50 - 150	

## ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	100159	5.10	117322	85.4	30 - 120	
45 Sc	1	285071	2.02	379430	75.1	30 - 120	
72 Ge	1	166111	2.56	230888	71.9	30 - 120	
115 In	1	469333	2.74	694252	67.6	30 - 120	
165 Ho	1	1106631	3.49	1482298	74.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures                      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                        0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\129 CC.V.D\129 CC.V.D#  
 Date Acquired: Jun 25 2009 02:18 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	53.09 ppb	2.51	50	106.2	90 - 110	
51	V	72	50.60 ppb	1.29	50	101.2	90 - 110	
52	Cr	72	50.15 ppb	0.51	50	100.3	90 - 110	
55	Mn	72	62.11 ppb	4.59	50	124.2	90 - 110	Fail
59	Co	72	49.51 ppb	0.95	50	99.0	90 - 110	
60	Ni	72	49.92 ppb	2.05	50	99.8	90 - 110	
63	Cu	72	49.89 ppb	0.76	50	99.8	90 - 110	
66	Zn	72	51.56 ppb	0.22	50	103.1	90 - 110	
75	As	72	56.46 ppb	0.80	50	112.9	90 - 110	Fail
78	Se	72	47.87 ppb	8.47	50	95.7	90 - 110	
95	Mo	72	49.48 ppb	1.58	50	99.0	90 - 110	
107	Ag	115	51.19 ppb	0.41	50	102.4	90 - 110	
111	Cd	115	51.57 ppb	0.76	50	103.1	90 - 110	
118	Sn	115	50.57 ppb	1.14	50	101.1	90 - 110	
121	Sb	115	54.19 ppb	0.35	50	108.4	90 - 110	
137	Ba	115	51.68 ppb	0.60	50	103.4	90 - 110	
205	Tl	165	51.27 ppb	0.95	50	102.5	90 - 110	
208	Pb	165	50.76 ppb	1.34	50	101.5	90 - 110	
232	Th	165	53.66 ppb	0.66	50	107.3	90 - 110	
238	U	165	51.64 ppb	1.52	50	103.3	90 - 110	

*Se only  
Z  
6/25/09*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	95230	0.73	117322	81.2	30 - 120
45	Sc	1	313422	0.58	379430	82.6	30 - 120
72	Ge	1	198248	0.34	230888	85.9	30 - 120
115	In	1	569663	0.57	694252	82.1	30 - 120
165	Ho	1	1224221	0.63	1482298	82.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Continuing Calibration Blank (CCB) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\130 CCB.D\130 CCB.D#  
 Date Acquired: Jun 25 2009 02:21 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9	Be	6	1	0.031	ppb	86.64	1.00
51	V	72	1	0.015	ppb	356.57	1.00
52	Cr	72	1	-0.022	ppb	32.80	1.00
55	Mn	72	1	1.154	ppb	9.63	1.00
59	Co	72	1	0.007	ppb	47.21	1.00
60	Ni	72	1	-0.004	ppb	78.43	1.00
63	Cu	72	1	0.010	ppb	66.25	1.00
66	Zn	72	1	-0.046	ppb	9.11	1.00
75	As	72	1	0.016	ppb	46.36	1.00
78	Se	72	1	0.276	ppb	258.45	1.00
95	Mo	72	1	-0.014	ppb	169.57	1.00
107	Ag	115	1	0.037	ppb	29.34	1.00
111	Cd	115	1	-0.002	ppb	267.68	1.00
118	Sn	115	1	0.151	ppb	30.44	1.00
121	Sb	115	1	0.056	ppb	16.97	1.00
137	Ba	115	1	0.003	ppb	141.19	1.00
205	Tl	165	1	0.024	ppb	18.45	1.00
208	Pb	165	1	0.008	ppb	17.07	1.00
232	Th	165	1	0.507	ppb	20.87	1.00
238	U	165	1	0.010	ppb	3.22	1.00

Fail *NR*

*Sealy*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	98014	2.78	117322	83.5	30 - 120
45	Sc	1	332388	3.50	379430	87.6	30 - 120
72	Ge	1	209164	1.84	230888	90.6	30 - 120
115	In	1	601113	3.43	694252	86.6	30 - 120
165	Ho	1	1265864	3.01	1482298	85.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\131WASH.D\131WASH.D#  
 Date Acquired: Jun 25 2009 02:25 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.077 ppb	12.16	1.30	
51 V	72	1	5.388 ppb	1.37	6.50	
52 Cr	72	1	2.011 ppb	3.93	2.60	
55 Mn	72	1	1.546 ppb	2.77	1.30	
59 Co	72	1	1.025 ppb	3.50	1.30	
60 Ni	72	1	2.012 ppb	5.31	2.60	
63 Cu	72	1	1.958 ppb	3.07	2.60	
66 Zn	72	1	10.420 ppb	1.68	13.00	
75 As	72	1	5.473 ppb	1.30	6.50	
78 Se	72	1	5.100 ppb	13.03	6.50	
95 Mo	72	1	1.985 ppb	1.74	2.60	
107 Ag	115	1	5.139 ppb	1.41	6.50	
111 Cd	115	1	0.982 ppb	4.15	1.30	
118 Sn	115	1	10.200 ppb	2.21	13.00	
121 Sb	115	1	2.036 ppb	2.72	2.60	
137 Ba	115	1	1.037 ppb	5.24	1.30	
205 Tl	165	1	1.070 ppb	2.16	1.30	
208 Pb	165	1	1.029 ppb	1.25	1.30	
232 Th	165	1	2.182 ppb	1.85	2.60	
238 U	165	1	1.050 ppb	1.79	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	98628	1.73	117322	84.1	30 - 120	
45 Sc	1	345052	0.13	379430	90.9	30 - 120	
72 Ge	1	213318	0.12	230888	92.4	30 - 120	
115 In	1	620168	0.41	694252	89.3	30 - 120	
165 Ho	1	1292111	1.49	1482298	87.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed







**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\134SMPL.D\134SMPL.D#  
 Date Acquired: Jun 25 2009 02:35 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4A  
 Misc Info: D9F200196  
 Vial Number: 2404  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.06	0.06	ppb	98.60	3600
51	V	72	1	31.59	31.59	ppb	1.21	3600
52	Cr	72	1	44.85	44.85	ppb	0.55	3600
55	Mn	72	1	37.81	37.81	ppb	0.83	3600
59	Co	72	1	0.73	0.73	ppb	2.48	3600
60	Ni	72	1	2.33	2.33	ppb	1.30	3600
63	Cu	72	1	2.06	2.06	ppb	4.66	3600
66	Zn	72	1	7.75	7.75	ppb	1.70	3600
75	As	72	1	108.70	108.70	ppb	0.93	3600
78	Se	72	1	3.59	3.59	ppb	33.00	3600
95	Mo	72	1	22.14	22.14	ppb	0.75	3600
107	Ag	115	1	0.00	0.00	ppb	656.30	3600
111	Cd	115	1	0.08	0.08	ppb	45.12	3600
118	Sn	115	1	-0.08	-0.08	ppb	13.91	3600
121	Sb	115	1	0.18	0.18	ppb	12.52	3600
137	Ba	115	1	33.03	33.03	ppb	1.42	3600
205	Tl	165	1	0.04	0.04	ppb	4.42	3600
208	Pb	165	1	0.98	0.98	ppb	1.27	3600
232	Th	165	1	0.93	0.93	ppb	4.43	1000
238	U	165	1	20.15	20.15	ppb	1.06	3600

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	73024	2.47	117322	62.2	30 - 120
45	Sc	1	223543	4.10	379430	58.9	30 - 120
72	Ge	1	138814	3.61	230888	60.1	30 - 120
115	In	1	386216	4.07	694252	55.6	30 - 120
165	Ho	1	871332	4.13	1482298	58.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\135SMPL.D\135SMPL.D#  
 Date Acquired: Jun 25 2009 02:38 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4D  
 Misc Info: D9F200196  
 Vial Number: 2405  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.02	0.02	ppb	173.20	3600	
51 V	72	1	2.42	2.42	ppb	11.14	3600	
52 Cr	72	1	5.83	5.83	ppb	2.47	3600	
55 Mn	72	1	673.20	673.20	ppb	0.76	3600	
59 Co	72	1	0.70	0.70	ppb	2.97	3600	
60 Ni	72	1	7.59	7.59	ppb	7.70	3600	
63 Cu	72	1	1.56	1.56	ppb	2.51	3600	
66 Zn	72	1	1.96	1.96	ppb	4.90	3600	
75 As	72	1	176.10	176.10	ppb	0.94	3600	
78 Se	72	1	0.02	0.02	ppb	4714.30	3600	
95 Mo	72	1	41.80	41.80	ppb	1.07	3600	
107 Ag	115	1	0.07	0.07	ppb	37.37	3600	
111 Cd	115	1	0.05	0.05	ppb	56.17	3600	
118 Sn	115	1	0.94	0.94	ppb	26.26	3600	
121 Sb	115	1	0.38	0.38	ppb	4.61	3600	
137 Ba	115	1	20.72	20.72	ppb	1.08	3600	
205 Tl	165	1	0.05	0.05	ppb	17.95	3600	
208 Pb	165	1	0.26	0.26	ppb	5.52	3600	
232 Th	165	1	0.00	0.00	ppb	236.28	1000	
238 U	165	1	95.46	95.46	ppb	0.11	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62661	3.83	117322	53.4	30 - 120	
45 Sc	1	177196	0.63	379430	46.7	30 - 120	
72 Ge	1	108258	1.32	230888	46.9	30 - 120	
115 In	1	296194	0.80	694252	42.7	30 - 120	
165 Ho	1	678678	1.49	1482298	45.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\136SMPL.D\136SMPL.D#  
 Date Acquired: Jun 25 2009 02:42 am  
 Acq. Method: NormISIS.M  
 Operator: TEL  
 Sample Name: LEC4P  
 Misc Info: D9F200199  
 Vial Number: 2406  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal. Update: Jun 24 2009 10:21 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	57.39	57.39	ppb	3.12	3600	
52 Cr	72	1	349.90	349.90	ppb	1.02	3600	
55 Mn	72	1	6.67	6.67	ppb	1.52	3600	
59 Co	72	1	5.81	5.81	ppb	2.23	3600	
60 Ni	72	1	10.65	10.65	ppb	3.94	3600	
63 Cu	72	1	0.42	0.42	ppb	10.37	3600	
66 Zn	72	1	0.37	0.37	ppb	17.83	3600	
75 As	72	1	185.40	185.40	ppb	0.41	3600	
78 Se	72	1	3.11	3.11	ppb	6.12	3600	
95 Mo	72	1	149.20	149.20	ppb	1.12	3600	
107 Ag	115	1	0.41	0.41	ppb	8.65	3600	
111 Cd	115	1	0.02	0.02	ppb	414.43	3600	
118 Sn	115	1	-0.16	-0.16	ppb	15.48	3600	
121 Sb	115	1	0.16	0.16	ppb	14.52	3600	
137 Ba	115	1	29.80	29.80	ppb	0.71	3600	
205 Tl	165	1	0.04	0.04	ppb	29.43	3600	
208 Pb	165	1	0.03	0.03	ppb	11.59	3600	
232 Th	165	1	-0.03	-0.03	ppb	8.27	1000	
238 U	165	1	18.30	18.30	ppb	1.57	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62647	1.05	117322	53.4	30 - 120	
45 Sc	1	203182	1.32	379430	53.5	30 - 120	
72 Ge	1	126133	1.09	230888	54.6	30 - 120	
115 In	1	345279	1.28	694252	49.7	30 - 120	
165 Ho	1	781819	0.44	1482298	52.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed



**Continuing Calibration Verification (CCV) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\138\_CCV.D\138\_CCV.D#  
 Date Acquired: Jun 25 2009 02:48 am  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag	
9	Be	6	1	61.15 ppb	3.08	50	122.3	90 - 110	Fail
51	V	72	1	50.08 ppb	0.58	50	100.2	90 - 110	
52	Cr	72	1	50.30 ppb	1.06	50	100.6	90 - 110	
55	Mn	72	1	48.83 ppb	1.06	50	97.7	90 - 110	
59	Co	72	1	48.38 ppb	1.21	50	96.8	90 - 110	
60	Ni	72	1	48.87 ppb	2.44	50	97.7	90 - 110	
63	Cu	72	1	49.38 ppb	1.21	50	98.8	90 - 110	
66	Zn	72	1	54.84 ppb	0.57	50	109.7	90 - 110	
75	As	72	1	65.05 ppb	0.95	50	130.1	90 - 110	Fail
78	Se	72	1	45.79 ppb	2.17	50	91.6	90 - 110	
95	Mo	72	1	49.19 ppb	1.32	50	98.4	90 - 110	
107	Ag	115	1	52.65 ppb	0.53	50	105.3	90 - 110	
111	Cd	115	1	53.13 ppb	2.07	50	106.3	90 - 110	
118	Sn	115	1	51.40 ppb	0.48	50	102.8	90 - 110	
121	Sb	115	1	59.54 ppb	0.35	50	119.1	90 - 110	Fail
137	Ba	115	1	55.08 ppb	0.33	50	110.2	90 - 110	Fail
205	Tl	165	1	52.98 ppb	0.52	50	106.0	90 - 110	
208	Pb	165	1	52.54 ppb	0.96	50	105.1	90 - 110	
232	Th	165	1	54.85 ppb	0.72	50	109.7	90 - 110	
238	U	165	1	53.25 ppb	0.99	50	106.5	90 - 110	

*Scandy*  
*Z*  
*6/25/09*

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	61254	1.77	117322	52.2	30 - 120
45	Sc	1	206162	0.78	379430	54.3	30 - 120
72	Ge	1	134977	0.81	230888	58.5	30 - 120
115	In	1	368867	0.74	694252	53.1	30 - 120
165	Ho	1	784294	0.88	1482298	52.9	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\139\_CCB.D\139\_CCB.D#  
 Date Acquired: Jun 25 2009 02:52 am  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
51 V	72	1	0.036	ppb	333.79	1.00	
52 Cr	72	1	0.483	ppb	10.99	1.00	
55 Mn	72	1	0.422	ppb	8.18	1.00	
59 Co	72	1	0.007	ppb	105.78	1.00	
60 Ni	72	1	0.016	ppb	67.80	1.00	
63 Cu	72	1	0.044	ppb	36.71	1.00	
66 Zn	72	1	-0.013	ppb	298.88	1.00	
75 As	72	1	0.099	ppb	47.87	1.00	
78 Se	72	1	0.394	ppb	211.54	1.00	
95 Mo	72	1	-0.012	ppb	356.35	1.00	
107 Ag	115	1	0.008	ppb	73.56	1.00	
111 Cd	115	1	0.013	ppb	81.55	1.00	
118 Sn	115	1	0.147	ppb	29.98	1.00	
121 Sb	115	1	0.053	ppb	29.90	1.00	
137 Ba	115	1	0.016	ppb	74.67	1.00	
205 Tl	165	1	0.022	ppb	12.48	1.00	
208 Pb	165	1	0.008	ppb	19.60	1.00	
232 Th	165	1	0.852	ppb	11.35	1.00	
238 U	165	1	0.011	ppb	22.33	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	62733	1.68	117322	53.5	30 - 120	
45 Sc	1	215967	0.80	379430	56.9	30 - 120	
72 Ge	1	140696	1.49	230888	60.9	30 - 120	
115 In	1	383814	0.78	694252	55.3	30 - 120	
165 Ho	1	815818	0.65	1482298	55.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062409G.B\140WASH.D\140WASH.D#  
 Date Acquired: Jun 25 2009 02:55 am  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M  
 Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C  
 Last Cal Update: Jun 24 2009 10:21 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
**Analytes: Pass**  
**ISTD: Pass**

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.124 ppb	10.47	1.30	
51 V	72	1	5.159 ppb	1.59	6.50	
52 Cr	72	1	2.387 ppb	8.34	2.60	
55 Mn	72	1	1.403 ppb	6.80	1.30	
59 Co	72	1	1.050 ppb	4.80	1.30	
60 Ni	72	1	2.138 ppb	4.37	2.60	
63 Cu	72	1	2.028 ppb	1.54	2.60	
66 Zn	72	1	11.320 ppb	2.17	13.00	
75 As	72	1	6.770 ppb	6.25	6.50	
78 Se	72	1	4.702 ppb	13.58	6.50	
95 Mo	72	1	1.954 ppb	10.98	2.60	
107 Ag	115	1	5.358 ppb	1.39	6.50	
111 Cd	115	1	1.122 ppb	13.99	1.30	
118 Sn	115	1	10.880 ppb	3.97	13.00	
121 Sb	115	1	2.328 ppb	1.99	2.60	
137 Ba	115	1	1.092 ppb	9.09	1.30	
205 Tl	165	1	1.094 ppb	2.88	1.30	
208 Pb	165	1	1.061 ppb	2.52	1.30	
232 Th	165	1	2.313 ppb	0.58	2.60	
238 U	165	1	1.092 ppb	1.45	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	63763	0.94	117322	54.3	30 - 120	
45 Sc	1	220434	0.22	379430	58.1	30 - 120	
72 Ge	1	142718	0.10	230888	61.8	30 - 120	
115 In	1	392669	0.48	694252	56.6	30 - 120	
165 Ho	1	824043	0.50	1482298	55.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062409G.B\058CALB.D\058CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

# Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

## TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING


Lot ID: D9F200199

Client: Northgate Environmental

Batch(es) #: 9174190

Associated Samples: 1,2

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date:  6/29/99



## *Metals Raw Data RoadMap*

---

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9F200199	1	AS	LFC4P1AA	20090625	6020TOTA	9174190	AG062509	024
D9F200199	2	AS	LFC4Q1AA	20090625	6020TOTA	9174190	AG062509	024

**METALS  
PREPARATION LOGS  
ICP-MS**

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

Batch Number: 9174190

# TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:  
JON HARRE

Prep Date: 06/24/09  
Due Date: 06/29/09

Lot	Work Order		Due Date: SDG:	Initial Weight/Volume
D9F230000 Water	LFFFX	B	Due Date: SDG:	50 mL
D9F230000 Water	LFFFX	C	Due Date: SDG:	50 mL
D9F180314 Water	LE709 Total		Due Date: 06/29/09 SDG:	50 mL
D9F180266 Water	LE7CT Total		Due Date: 06/30/09 SDG:	50 mL
D9F180266 Water	LE7CT	S	Due Date: 06/30/09 SDG:	50 mL
D9F180266 Water	LE7CT Total	D	Due Date: 06/30/09 SDG:	50 mL
D9F190216 Water	LE9PT Total		Due Date: 07/01/09 SDG: 8304607	50 mL
D9F200196 Water	LFC4A Total		Due Date: 07/02/09 SDG: 8304607	50 mL
D9F200196 Water	LFC4D Total		Due Date: 07/02/09 SDG: 8304607	50 mL
D9F200199 Water	LFC4P Total		Due Date: 07/02/09 SDG: 8304607	50 mL
D9F200199 Water	LFC4Q Total		Due Date: 07/02/09 SDG: 8304607	50 mL

✓

**Comments:**

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:  
AS SE

*Ref checked  
6/24/09*

✓  
2  
*6/29/09*

**TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)**

BATCH # 9174190  
PREP DATE: 6/24/2009

ALLIQUOTTED BY: JRW  
DIGESTED BY: JKH

CONSUMABLES USED	
Digestion Cups: Manufacturer: <u>Environmental Express</u>	Lot #: <u>A901LS267</u>
One or more samples were filtered prior to analysis at the instrument. <input type="checkbox"/> Yes <input type="checkbox"/> No	
If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.	
Analyst(s) Initials: <u>                    </u>	

STANDARDS USED				
Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-2634-09	5/1/10	100uL	15
2008Cal-2	STD-2635-09	5/1/10	100uL	15

REAGENTS USED			
Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO <sub>3</sub>	JT Baker	H12022	3

TEMPERATURE CYCLES				
Thermometer ID: <u>3311</u>		Block & Cup #: <u>1,11</u>		
Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO <sub>3</sub>	<u>6:00</u>	<u>95</u>	<u>10:20</u>	<u>95</u>
HNO <sub>3</sub>	<u>10:30</u>	<u>94</u>	<u>11:00</u>	<u>95</u>
HNO <sub>3</sub>				
Samples and QC revolved to: <u>50</u> mL		Analyst's Initials <u>JKH</u>		

COMMENTS:

I certify that all information above is correct and complete.

Signature: *[Handwritten Signature]*

Date: 6/24/09

**METALS  
SAMPLE DATA  
ICP-MS**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

## ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	200
Thallium	100	40	50		100	40	40	50
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L. Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

### Quality Control Standards

ICV = Initial Calibration Verification (Second Source)      ICB = Initial Calibration Blank  
 CCV = Continuing Calibration Verification                      CCB = Continuing Calibration Blank

# TestAmerica Denver

## Standards Preparation Logbook Record

Jun-26-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008  
Date Expires(1): 10-01-2009 (None)  
Date Expires(2): 10-01-2009 (None)  
(METALS)-Inventory ID: 779

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Zn	1,000.0	1,000.0

### STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009  
Solvent: 2% HNO3  
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008  
Date Expires(1): 12-01-2009 (None)  
Date Expires(2): 12-01-2009 (None)  
(METALS)-Inventory ID: 803

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1,000.0	1,000.0

### STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010  
Solvent: 1% HNO3  
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009  
Date Expires(1): 03-01-2010 (None)  
Date Expires(2): 03-01-2010 (None)  
(METALS)-Inventory ID: 833

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

### STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H02026 Volume (ml): 100.0  
Date Prep./Opened: 04-01-2009  
Date Expires(1): 12-01-2009 (1 Year)  
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3609-09, ICP-MS 10 ppm Zn

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-16-2009

Date Expires(1): 10-01-2009 (1 Year)

Date Expires(2): 10-01-2009 (None)

Parent Std No.: STD4841-08, 1000 Zn (Inorganic Ventures)

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	10.000

STD3610-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-16-2009

Date Expires(1): 03-01-2010 (1 Year)

Date Expires(2): 03-01-2010 (None)

Date Verified: 12-31--4714 by - (Verification ID: 0)

pipettes: Met 21 and Met 8

Parent Std No.: STD1198-09, 1000 mg/L Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	10.000

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-16-2009

Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000



STD3662-09, ICP-MS (024) INT STD BRC-HIGH

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 250.00

Date Prep./Opened: 06-17-2009

Date Expires(1): 11-10-2009 (1 Year)

Date Expires(2): 12-01-2009 (None)

Date Verified: 12-31--4714 by - (Verification ID: 0)

pipettes: Met 20

Parent Std No.: STD1469-09, Germanium Stock

Aliquot Amount (ml): 1.2000

Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	4,800.0

Parent Std No.: STD1972-09, Lithium 6 Stock

Aliquot Amount (ml): 1.5000

Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	6,000.0

Parent Std No.: STD1973-09, Indium Stock

Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,600.0

Parent Std No.: STD6317-08, Scandium Stock

Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	1,600.0

Parent Std No.: STD6318-08, Holmium Stock

Aliquot Amount (ml): 0.4000

Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,600.0

STD3839-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Cu and Ag 1000 ppb

Parent Std No.: STD0749-09, 1000 ppm Ag

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
1000 ppm Ag	1,000.0	1.0000

Parent Std No.: STD2485-09, 1000 Cu

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Cu	1,000.0	1.0000

STD3841-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water

Volume (ml): 1,000.0

Date Prep./Opened: 06-25-2009

Date Expires(1): 07-25-2009 (1 Month)

Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD3840-09, NITRIC ACID

Aliquot Amount (ml): 50.000

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD3842-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Date Expires(2): 03-01-2010 (None)

Date Verified: 12-31--4714 by - (Verification ID: 0)

pipettes: Met 21 and Met 8

Parent Std No.: STD1198-09, 1000 mg/L Sn

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	10.000

STD3843-09, ICP-MS HIGH CAL STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000

Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Al	2,000.0	10.000
Ca	2,000.0	10.000
Fe	2,000.0	10.000
K	2,000.0	10.000
Mg	2,000.0	10.000
Na	2,000.0	10.000

STD3844-09, ICP-MS HIGH CCV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 100.00

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	0.0500
As	20.000	0.0500
Ba	20.000	0.0500
Be	20.000	0.0500
Cd	20.000	0.0500
Co	20.000	0.0500
Cr	20.000	0.0500
Cu	20.000	0.0500
Mn	20.000	0.0500
Ni	20.000	0.0500
Pb	20.000	0.0500
Se	20.000	0.0500
Th	20.000	0.0500
Tl	20.000	0.0500
U	20.000	0.0500
V	20.000	0.0500
Zn	20.000	0.0500

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.0500
Sb	20.000	0.0500
Sn	20.000	0.0500

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.2500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Al	2,000.0	5.0000
Ca	2,000.0	5.0000
Fe	2,000.0	5.0000
K	2,000.0	5.0000
Mg	2,000.0	5.0000
Na	2,000.0	5.0000

STD3845-09, ICP-MS HIGH RL STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 10.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD3843-09, ICP-MS HIGH CAL STD

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	0.1000	0.0010
As	0.1000	0.0010
Ba	0.1000	0.0010
Be	0.1000	0.0010
Cd	0.1000	0.0010
Co	0.1000	0.0010
Cr	0.1000	0.0010
Cu	0.1000	0.0010
Mn	0.1000	0.0010
Ni	0.1000	0.0010
Pb	0.1000	0.0010
Se	0.1000	0.0010
Th	0.1000	0.0010
Tl	0.1000	0.0010
U	0.1000	0.0010
V	0.1000	0.0010
Zn	0.1000	0.0010
Mo	0.1000	0.0010

Sb	0.1000	0.0010
Sn	0.1000	0.0010
Al	10.000	0.1000
Ca	10.000	0.1000
Fe	10.000	0.1000
K	10.000	0.1000
Mg	10.000	0.1000
Na	10.000	0.1000

STD3846-09, ICP-MS HIGH AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3                      Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3845-09, ICP-MS HIGH RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Ag	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002
Al	0.1000	0.0200
Ca	0.1000	0.0200
Fe	0.1000	0.0200
K	0.1000	0.0200
Mg	0.1000	0.0200
Na	0.1000	0.0200

STD3847-09, ICP-MS ICESA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 07-25-2009 (1 Month)  
 Date Expires(2): 02-01-2010 (None)  
 pipettes: Met 8

Volume (ml): 50.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/L)
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD3848-09, ICP-MS HIGH ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
Al	1,000.0	100.00
C	2,000.0	200.00
Ca	1,000.0	100.00
Cl	10,000	1,000.0
Fe	1,000.0	100.00
K	1,000.0	100.00
Mg	1,000.0	100.00
Mo	20.000	2.0000
Na	1,000.0	100.00
P	1,000.0	100.00
S	1,000.0	100.00
Ti	20.000	2.0000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
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Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

STD3849-09, ICP-MS HIGH LR STD

Analyst: DIAZL

Solvent: 5% HNO3                      Lot No.: H12022  
 Date Prep./Opened: 06-25-2009  
 Date Expires(1): 06-26-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	1.0000
As	20.000	1.0000
Ba	20.000	1.0000
Be	20.000	1.0000
Cd	20.000	1.0000
Co	20.000	1.0000
Cr	20.000	1.0000
Cu	20.000	1.0000
Mn	20.000	1.0000
Ni	20.000	1.0000
Pb	20.000	1.0000
Se	20.000	1.0000
Th	20.000	1.0000
Tl	20.000	1.0000
U	20.000	1.0000
V	20.000	1.0000
Zn	20.000	1.0000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Mo	20.000	1.0000
Sb	20.000	1.0000
Sn	20.000	1.0000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

STD3850-09, ICP-MS HIGH ICV STD

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Parent Std No.: STD3113-09, ICP-MS TA ICV A

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
As	20.000	0.0400
Ba	20.000	0.0400
Be	20.000	0.0400
Cd	20.000	0.0400
Co	20.000	0.0400
Cr	20.000	0.0400
Cu	20.000	0.0400
Mn	20.000	0.0400
Ni	20.000	0.0400
Pb	20.000	0.0400
Se	20.000	0.0400
Th	20.000	0.0400
Tl	20.000	0.0400
U	20.000	0.0400
V	20.000	0.0400
Zn	20.000	0.0400

Parent Std No.: STD3114-09, ICP-MS TA ICV B

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Ag	20.000	0.0400
Mo	20.000	0.0400
Sb	20.000	0.0400
Sn	20.000	0.0400



Parent Std No.: STD3115-09, ICP-MS TA ICV Alt

Aliquot Amount (ml): 0.1000

Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	4.0000
Ca	2,000.0	4.0000
Fe	2,000.0	4.0000
K	2,000.0	4.0000
Mg	2,000.0	4.0000
Na	2,000.0	4.0000

STD3851-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 50.000

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

STD3852-09, LLCCV/RLICV

Analyst: DIAZL

Solvent: 5% HNO3

Lot No.: H12022

Volume (ml): 100.00

Date Prep./Opened: 06-25-2009

Date Expires(1): 06-26-2009 (1 Day)

Date Expires(2): 05-01-2010 (None)

pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1

Aliquot Amount (ml): 1.0000

Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000
Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000

Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2

Aliquot Amount (ml): 1.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By: \_\_\_\_\_

*R. Hill* 6/26/09

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
2	Cal Blank			1.0	06/25/09 17:43		<input type="checkbox"/>
3	Cal Blank			1.0	06/25/09 17:47		<input type="checkbox"/>
4	Cal Blank			1.0	06/25/09 17:50		<input type="checkbox"/>
5	100 ppb			1.0	06/25/09 17:54		<input type="checkbox"/>
6	ICV			1.0	06/25/09 17:57		<input type="checkbox"/>
7	RLIV			1.0	06/25/09 18:01		<input type="checkbox"/>
8	ICB			1.0	06/25/09 18:04		<input type="checkbox"/>
9	RL STD			1.0	06/25/09 18:08		<input type="checkbox"/>
10	AFCEE RL			1.0	06/25/09 18:11		<input type="checkbox"/>
11	ALTSe			1.0	06/25/09 18:15		<input type="checkbox"/>
12	ICSA			1.0	06/25/09 18:18		<input type="checkbox"/>
13	ICSAB			1.0	06/25/09 18:21		<input type="checkbox"/>
14	RINSE			1.0	06/25/09 18:25		<input type="checkbox"/>
15	LR			1.0	06/25/09 18:28		<input type="checkbox"/>
16	RINSE			1.0	06/25/09 18:32		<input type="checkbox"/>
17	ALTLR			1.0	06/25/09 18:35		<input type="checkbox"/>
18	RINSE			1.0	06/25/09 18:39		<input type="checkbox"/>
19	CCV			1.0	06/25/09 18:42		<input type="checkbox"/>
20	CCB			1.0	06/25/09 18:46		<input type="checkbox"/>
21	RLCV			1.0	06/25/09 18:49		<input type="checkbox"/>
22	<del>LE3WPB</del>	<del>D9F170000</del>	<del>9168244</del>	<del>04</del>	<del>1.0</del>	<del>06/25/09 18:53</del>	<input type="checkbox"/>
23	LE3WPC	D9F170000	9168244	04	1.0	06/25/09 18:56	<input type="checkbox"/>
24	LE3WPL	D9F170000	9168244	04	1.0	06/25/09 19:00	<input type="checkbox"/>
25	LEPAF	D9F110137-1	9168244	04	1.0	06/25/09 19:03	<input type="checkbox"/>
26	LEPAFP5	D9F110137	9168244	5.0	06/25/09 19:07		<input type="checkbox"/>
27	LEPAFZ	D9F110137-1	9168244	1.0	06/25/09 19:10		<input type="checkbox"/>
28	LEPCC	D9F110137-3	9168257	1.0	06/25/09 19:13		<input type="checkbox"/>
29	LEPCK	D9F110137-4	9168257	1.0	06/25/09 19:17		<input type="checkbox"/>
30	CCV			1.0	06/25/09 19:21		<input type="checkbox"/>
31	CCB			1.0	06/25/09 19:24		<input type="checkbox"/>
32	RLCV			1.0	06/25/09 19:28		<input type="checkbox"/>
33	LE35QB	D9F170000	9168263	04	1.0	06/25/09 19:31	<input type="checkbox"/>
34	LE35QC	D9F170000	9168263	04	1.0	06/25/09 19:35	<input type="checkbox"/>
35	LE35QL	D9F170000	9168263	04	1.0	06/25/09 19:38	<input type="checkbox"/>
36	LEPC5	D9F110137-7	9168263	04	1.0	06/25/09 19:42	<input type="checkbox"/>
37	LEPC5P5	D9F110137	9168263	5.0	06/25/09 19:45		<input type="checkbox"/>
38	<del>LEPC5Z</del>	<del>D9F110137-7</del>	<del>9168263</del>	<del>1.0</del>	<del>06/25/09 19:49</del>	<i>At 6/26/09 did not use.</i>	<input type="checkbox"/>
39	CCV			1.0	06/25/09 19:52		<input type="checkbox"/>
40	CCB			1.0	06/25/09 19:55		<input type="checkbox"/>
41	RLCV			1.0	06/25/09 19:59		<input type="checkbox"/>
42	LFFFXB	D9F230000	9174190	MS	1.0	06/25/09 20:02	<input type="checkbox"/>
43	LFFFXC	D9F230000	9174190	MS	1.0	06/25/09 20:06	<input type="checkbox"/>
44	LE709 10X	D9F180314-1	9174190	MS	10.0	06/25/09 20:09	<input type="checkbox"/>
45	LE7CT 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:13	<input type="checkbox"/>
46	LE7CTP25	D9F180266	9174190		25.0	06/25/09 20:16	<input type="checkbox"/>
47	LE7CTZ	D9F180266-1	9174190		1.0	06/25/09 20:20	<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	DF	Analyzed Date	Comment	Q
48	LE7CTS 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:23		<input type="checkbox"/>
49	CCV				1.0	06/25/09 20:27		<input type="checkbox"/>
50	CCB				1.0	06/25/09 20:30		<input type="checkbox"/>
51	RLCV				1.0	06/25/09 20:34		<input type="checkbox"/>
52	LE7CTD 5X	D9F180266-1	9174190	MS	5.0	06/25/09 20:37		<input type="checkbox"/>
53	LE9PT 5X	D9F190216-1	9174190	MS	5.0	06/25/09 20:41		<input type="checkbox"/>
54	LFC4A 5X	D9F200196-1	9174190	MS	5.0	06/25/09 20:44		<input type="checkbox"/>
55	LFC4D 5X	D9F200196-3	9174190	MS	5.0	06/25/09 20:48		<input type="checkbox"/>
56	LFC4P 5X	D9F200199-1	9174190	MS	5.0	06/25/09 20:51		<input type="checkbox"/>
57	LFC4Q 5X	D9F200199-2	9174190	MS	5.0	06/25/09 20:55		<input type="checkbox"/>
58	CCV				1.0	06/25/09 20:58		<input type="checkbox"/>
59	CCB				1.0	06/25/09 21:02		<input type="checkbox"/>
60	RLCV				1.0	06/25/09 21:05		<input type="checkbox"/>
61	<del>LFFT1BF</del>	<del>D9F230000</del>	<del>9174270</del>	<del>MD</del>	<del>1.0</del>	<del>06/25/09 21:09</del>		<input type="checkbox"/>
62	LFFT1CF	D9F230000	9174270	MD	1.0	06/25/09 21:12		<input type="checkbox"/>
63	RINSE				1.0	06/25/09 21:16		<input type="checkbox"/>
64	RINSE				1.0	06/25/09 21:19		<input type="checkbox"/>
65	RINSE				1.0	06/25/09 21:23		<input type="checkbox"/>
66	RINSE				1.0	06/25/09 21:26		<input type="checkbox"/>
67	RINSE				1.0	06/25/09 21:30		<input type="checkbox"/>
68	RINSE				1.0	06/25/09 21:33		<input type="checkbox"/>
69	<del>Gal-Blank</del>				<del>1.0</del>	<del>06/25/09 21:37</del>	<i>did not use.</i>	<input type="checkbox"/>
70	Cal Blank				1.0	06/25/09 21:40		<input type="checkbox"/>
71	100 ppb				1.0	06/25/09 21:43		<input type="checkbox"/>
72	CCV				1.0	06/25/09 21:47		<input type="checkbox"/>
73	CCB				1.0	06/25/09 21:50		<input type="checkbox"/>
74	RLCV				1.0	06/25/09 21:54		<input type="checkbox"/>
75	ICSA				1.0	06/25/09 21:57		<input type="checkbox"/>
76	ICSAB				1.0	06/25/09 22:01		<input type="checkbox"/>
77	WASH				1.0	06/25/09 22:04		<input type="checkbox"/>
78	CCV				1.0	06/25/09 22:08		<input type="checkbox"/>
79	CCB				1.0	06/25/09 22:11		<input type="checkbox"/>
80	RLCV				1.0	06/25/09 22:15		<input type="checkbox"/>
81	LFFT1BF	D9F230000	9174270	MD	1.0	06/25/09 22:18		<input type="checkbox"/>
82	LFFT1CF	D9F230000	9174270	MD	1.0	06/25/09 22:22		<input type="checkbox"/>
83	LE6C3F	D9F180143-1	9174270	MD	1.0	06/25/09 22:25		<input type="checkbox"/>
84	LE6C7F	D9F180143-2	9174270	MD	1.0	06/25/09 22:29		<input type="checkbox"/>
85	LE6C8F	D9F180143-3	9174270	MD	1.0	06/25/09 22:32		<input type="checkbox"/>
86	LE6C9F	D9F180143-4	9174270	MD	1.0	06/25/09 22:36		<input type="checkbox"/>
87	LE6DAF	D9F180143-5	9174270	MD	1.0	06/25/09 22:39		<input type="checkbox"/>
88	LE6DCF	D9F180143-6	9174270	MD	1.0	06/25/09 22:43		<input type="checkbox"/>
89	LE6DCP5F	D9F180143	9174270		5.0	06/25/09 22:46		<input type="checkbox"/>
90	<del>LE6DCZF</del>	<del>D9F180143-6</del>	<del>9174270</del>		<del>1.0</del>	<del>06/25/09 22:50</del>	<i>did not use.</i>	<input type="checkbox"/>
91	CCV				1.0	06/25/09 22:53		<input type="checkbox"/>
92	CCB				1.0	06/25/09 22:57		<input type="checkbox"/>
93	RLCV				1.0	06/25/09 23:00		<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
94	LE6DCSF	D9F180143-6	9174270	MD	1.0	06/25/09 23:04	<input type="checkbox"/>
95	LE6DCDF	D9F180143-6	9174270	MD	1.0	06/25/09 23:07	<input type="checkbox"/>
96	LE9GLF	D9F190197-1	9174270	MD	1.0	06/25/09 23:11	<input type="checkbox"/>
97	LFCECF	D9F200122-1	9174270	MD	1.0	06/25/09 23:14	<input type="checkbox"/>
98	LFCEMF	D9F200122-2	9174270	MD	1.0	06/25/09 23:18	<input type="checkbox"/>
99	LFCEMF	D9F200122-3	9174270	MD	1.0	06/25/09 23:21	<input type="checkbox"/>
100	LFCEQF	D9F200122-4	9174270	MD	1.0	06/25/09 23:25	<input type="checkbox"/>
101	LFCERF	D9F200122-5	9174270	MD	1.0	06/25/09 23:28	<input type="checkbox"/>
102	LFCEWF	D9F200122-6	9174270	MD	1.0	06/25/09 23:32	<input type="checkbox"/>
103	LFCEXF	D9F200122-7	9174270	MD	1.0	06/25/09 23:35	<input type="checkbox"/>
104	CCV				1.0	06/25/09 23:39	<input type="checkbox"/>
105	CCB				1.0	06/25/09 23:42	<input type="checkbox"/>
106	RLCV				1.0	06/25/09 23:46	<input type="checkbox"/>
107	<del>LE6DCZF</del>	<del>D9F180143-6</del>	<del>9174270</del>		<del>1.0</del>	<del>06/25/09 23:49</del>	<input type="checkbox"/>
108	LFC4W 2X	D9F200200-1	9174178	MS	2.0	06/25/09 23:53	<input type="checkbox"/>
109	LFC4X 2X	D9F200200-2	9174178	MS	2.0	06/25/09 23:56	<input type="checkbox"/>
110	LFC40 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:00	<input type="checkbox"/>
111	LFC40P10	D9F200200	9174178		10.0	06/26/09 00:03	<input type="checkbox"/>
112	LFC40Z	D9F200200-3	9174178		1.0	06/26/09 00:07	<input type="checkbox"/>
113	LFC40S 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:10	<input type="checkbox"/>
114	LFC40D 2X	D9F200200-3	9174178	MS	2.0	06/26/09 00:14	<input type="checkbox"/>
115	CCV				1.0	06/26/09 00:17	<input type="checkbox"/>
116	CCB				1.0	06/26/09 00:21	<input type="checkbox"/>
117	RLCV				1.0	06/26/09 00:24	<input type="checkbox"/>
118	LFFC2B	D9F230000	9174162	MS	1.0	06/26/09 00:28	<input type="checkbox"/>
119	LFFC2C	D9F230000	9174162	MS	1.0	06/26/09 00:31	<input type="checkbox"/>
120	LE6AW 2X	D9F180141-1	9174162	MS	2.0	06/26/09 00:35	<input type="checkbox"/>
121	LE6A1 2X	D9F180141-2	9174162	MS	2.0	06/26/09 00:38	<input type="checkbox"/>
122	LE6A2 2X	D9F180141-3	9174162	MS	2.0	06/26/09 00:42	<input type="checkbox"/>
123	LE81M	D9F190156-1	9174162	MS	1.0	06/26/09 00:45	<input type="checkbox"/>
124	CCV				1.0	06/26/09 00:49	<input type="checkbox"/>
125	CCB				1.0	06/26/09 00:52	<input type="checkbox"/>
126	RLCV				1.0	06/26/09 00:56	<input type="checkbox"/>
127	LE81MP5	D9F190156	9174162		5.0	06/26/09 01:00	<input type="checkbox"/>
128	LE81MZ	D9F190156-1	9174162		1.0	06/26/09 01:03	<input type="checkbox"/>
129	LE81MS	D9F190156-1	9174162	MS	1.0	06/26/09 01:07	<input type="checkbox"/>
130	LE81MD	D9F190156-1	9174162	MS	1.0	06/26/09 01:10	<input type="checkbox"/>
131	LE82G	D9F190156-2	9174162	MS	1.0	06/26/09 01:14	<input type="checkbox"/>
132	CCV				1.0	06/26/09 01:17	<input type="checkbox"/>
133	CCB				1.0	06/26/09 01:21	<input type="checkbox"/>
134	RLCV				1.0	06/26/09 01:24	<input type="checkbox"/>
135	RINSE				1.0	06/26/09 01:28	<input type="checkbox"/>
136	RINSE				1.0	06/26/09 01:31	<input type="checkbox"/>
137	RINSE				1.0	06/26/09 01:35	<input type="checkbox"/>
138	RINSE				1.0	06/26/09 01:38	<input type="checkbox"/>
139	RINSE				1.0	06/26/09 01:41	<input type="checkbox"/>

*AT 6/26/09 did not use.*

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
140	RINSE			1.0	06/26/09 01:45		<input type="checkbox"/>
141	Cal Blank			1.0	06/26/09 01:49		<input type="checkbox"/>
142	Cal Blank			1.0	06/26/09 01:52		<input type="checkbox"/>
143	100 ppb			1.0	06/26/09 01:56		<input type="checkbox"/>
144	CCV			1.0	06/26/09 01:59		<input type="checkbox"/>
145	CCB			1.0	06/26/09 02:03		<input type="checkbox"/>
146	RLCV			1.0	06/26/09 02:06		<input type="checkbox"/>
147	LFE9NBF	D9F230000	9174124	MD	06/26/09 02:10		<input type="checkbox"/>
148	LFE9NCF	D9F230000	9174124	MD	06/26/09 02:13		<input type="checkbox"/>
149	LE9ANF	D9F190184-1	9174124	MD	06/26/09 02:17		<input type="checkbox"/>
150	LE9CVF	D9F190184-2	9174124	MD	06/26/09 02:20		<input type="checkbox"/>
151	LE9CWF	D9F190184-3	9174124	MD	06/26/09 02:24		<input type="checkbox"/>
152	LE9CXF	D9F190184-4	9174124	MD	06/26/09 02:27		<input type="checkbox"/>
153	LE9C0F	D9F190184-5	9174124	MD	06/26/09 02:31		<input type="checkbox"/>
154	LE9C1F	D9F190184-6	9174124	MD	06/26/09 02:34		<input type="checkbox"/>
155	CCV			1.0	06/26/09 02:38		<input type="checkbox"/>
156	CCB			1.0	06/26/09 02:41		<input type="checkbox"/>
157	RLCV			1.0	06/26/09 02:45		<input type="checkbox"/>
158	LE9H7F	D9F190204-1	9174124	MD	06/26/09 02:48		<input type="checkbox"/>
159	LE9JMF	D9F190204-2	9174124	MD	06/26/09 02:52		<input type="checkbox"/>
160	LE9JNF	D9F190204-3	9174124	MD	06/26/09 02:55		<input type="checkbox"/>
161	LE9JPF	D9F190204-4	9174124	MD	06/26/09 02:59		<input type="checkbox"/>
162	LE9JQF	D9F190204-5	9174124	MD	06/26/09 03:03		<input type="checkbox"/>
163	LE9JQP5F	D9F190204	9174124		5.0	06/26/09 03:06	<input type="checkbox"/>
164	LE9JQZF	D9F190204-5	9174124		1.0	06/26/09 03:10	<input type="checkbox"/>
165	LE9JQSF	D9F190204-5	9174124	MD	1.0	06/26/09 03:13	<input type="checkbox"/>
166	CCV			1.0	06/26/09 03:17		<input type="checkbox"/>
167	CCB			1.0	06/26/09 03:20		<input type="checkbox"/>
168	RLCV			1.0	06/26/09 03:24		<input type="checkbox"/>
169	LE9JQDF	D9F190204-5	9174124	MD	1.0	06/26/09 03:27	<input type="checkbox"/>
170	LE9KJF	D9F190204-6	9174124	MD	1.0	06/26/09 03:31	<input type="checkbox"/>
171	LE9KMF	D9F190204-7	9174124	MD	1.0	06/26/09 03:34	<input type="checkbox"/>
172	LE9KPF	D9F190204-8	9174124	MD	1.0	06/26/09 03:38	<input type="checkbox"/>
173	LE9KRF	D9F190204-9	9174124	MD	1.0	06/26/09 03:41	<input type="checkbox"/>
174	LE9KXF	D9F190204-10	9174124	MD	1.0	06/26/09 03:45	<input type="checkbox"/>
175	LE9K1F	D9F190204-11	9174124	MD	1.0	06/26/09 03:48	<input type="checkbox"/>
176	CCV			1.0	06/26/09 03:52		<input type="checkbox"/>
177	CCB			1.0	06/26/09 03:55		<input type="checkbox"/>
178	RLCV			1.0	06/26/09 03:59		<input type="checkbox"/>
179	LFE9JB	D9F230000	9174123	MS	1.0	06/26/09 04:02	<input type="checkbox"/>
180	LFE9JC	D9F230000	9174123	MS	1.0	06/26/09 04:06	<input type="checkbox"/>
181	LE9AN	D9F190184-1	9174123	MS	1.0	06/26/09 04:09	<input type="checkbox"/>
182	LE9CV	D9F190184-2	9174123	MS	1.0	06/26/09 04:13	<input type="checkbox"/>
183	LE9CW	D9F190184-3	9174123	MS	1.0	06/26/09 04:16	<input type="checkbox"/>
184	LE9CX	D9F190184-4	9174123	MS	1.0	06/26/09 04:20	<input type="checkbox"/>
185	LE9C0	D9F190184-5	9174123	MS	1.0	06/26/09 04:24	<input type="checkbox"/>

*Ref. 6/26/09 D.S. not used*

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
186	<del>LE9G1</del>	<del>D9F190184-6</del>	<del>9174123</del>	<del>MS</del>	<del>1.0</del>	<del>06/26/09 04:27</del>	<input type="checkbox"/>
187	CCV				1.0	06/26/09 04:31	<input type="checkbox"/>
188	CCB				1.0	06/26/09 04:34	<input type="checkbox"/>
189	RLCV				1.0	06/26/09 04:38	<input type="checkbox"/>
190	LE9H7	D9F190204-1	9174123	MS	1.0	06/26/09 04:41	<input type="checkbox"/>
191	LE9H7P5	D9F190204	9174123		5.0	06/26/09 04:45	<input type="checkbox"/>
192	LE9H7Z	D9F190204-1	9174123		1.0	06/26/09 04:48	<input type="checkbox"/>
193	LE9H7S	D9F190204-1	9174123	MS	1.0	06/26/09 04:52	<input type="checkbox"/>
194	LE9H7D	D9F190204-1	9174123	MS	1.0	06/26/09 04:55	<input type="checkbox"/>
195	LE9JM	D9F190204-2	9174123	MS	1.0	06/26/09 04:59	<input type="checkbox"/>
196	LE9JN	D9F190204-3	9174123	MS	1.0	06/26/09 05:02	<input type="checkbox"/>
197	LE9JP	D9F190204-4	9174123	MS	1.0	06/26/09 05:06	<input type="checkbox"/>
198	CCV				1.0	06/26/09 05:09	<input type="checkbox"/>
199	CCB				1.0	06/26/09 05:13	<input type="checkbox"/>
200	RLCV				1.0	06/26/09 05:16	<input type="checkbox"/>
201	LE9JQ	D9F190204-5	9174123	MS	1.0	06/26/09 05:20	<input type="checkbox"/>
202	LE9KJ	D9F190204-6	9174123	MS	1.0	06/26/09 05:23	<input type="checkbox"/>
203	LE9KM	D9F190204-7	9174123	MS	1.0	06/26/09 05:27	<input type="checkbox"/>
204	LE9KP	D9F190204-8	9174123	MS	1.0	06/26/09 05:31	<input type="checkbox"/>
205	LE9KR	D9F190204-9	9174123	MS	1.0	06/26/09 05:34	<input type="checkbox"/>
206	LE9KX	D9F190204-10	9174123	MS	1.0	06/26/09 05:38	<input type="checkbox"/>
207	LE9K1	D9F190204-11	9174123	MS	1.0	06/26/09 05:41	<input type="checkbox"/>
208	CCV				1.0	06/26/09 05:45	<input type="checkbox"/>
209	CCB				1.0	06/26/09 05:48	<input type="checkbox"/>
210	RLCV				1.0	06/26/09 05:52	<input type="checkbox"/>
211	RINSE				1.0	06/26/09 05:55	<input type="checkbox"/>
212	RINSE				1.0	06/26/09 05:59	<input type="checkbox"/>
213	RINSE				1.0	06/26/09 06:02	<input type="checkbox"/>
214	RINSE				1.0	06/26/09 06:06	<input type="checkbox"/>
215	RINSE				1.0	06/26/09 06:09	<input type="checkbox"/>
216	RINSE				1.0	06/26/09 06:13	<input type="checkbox"/>
217	<del>Cal Blank</del>				<del>1.0</del>	<del>06/26/09 06:16</del> <i>not used</i>	<input type="checkbox"/>
218	Cal Blank				1.0	06/26/09 06:20	<input type="checkbox"/>
219	100 ppb				1.0	06/26/09 06:23	<input type="checkbox"/>
220	CCV				1.0	06/26/09 06:27	<input type="checkbox"/>
221	CCB				1.0	06/26/09 06:30	<input type="checkbox"/>
222	RLCV				1.0	06/26/09 06:34	<input type="checkbox"/>
223	LFHREBF	D9F240000	9175213	MD	1.0	06/26/09 06:37	<input type="checkbox"/>
224	LFHRECF	D9F240000	9175213	MD	1.0	06/26/09 06:41	<input type="checkbox"/>
225	LFFPKF	D9F230156-1	9175213	MD	1.0	06/26/09 06:44	<input type="checkbox"/>
226	LFFPTF	D9F230156-2	9175213	MD	1.0	06/26/09 06:48	<input type="checkbox"/>
227	LFFP0F	D9F230156-3	9175213	MD	1.0	06/26/09 06:51	<input type="checkbox"/>
228	LFFP2F	D9F230156-4	9175213	MD	1.0	06/26/09 06:55	<input type="checkbox"/>
229	LFFP4F	D9F230156-5	9175213	MD	1.0	06/26/09 06:58	<input type="checkbox"/>
230	LFFP5F	D9F230156-6	9175213	MD	1.0	06/26/09 07:02	<input type="checkbox"/>
231	CCV				1.0	06/26/09 07:05	<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
232	CCB				1.0 06/26/09 07:09		<input type="checkbox"/>
233	RLCV				1.0 06/26/09 07:12		<input type="checkbox"/>
234	LFFP5P5F	D9F230156	9175213		5.0 06/26/09 07:16		<input type="checkbox"/>
235	LFFP5ZF	D9F230156-6	9175213		1.0 06/26/09 07:20		<input type="checkbox"/>
236	LFFP5SF	D9F230156-6	9175213	MD	1.0 06/26/09 07:23		<input type="checkbox"/>
237	LFFP5DF	D9F230156-6	9175213	MD	1.0 06/26/09 07:27		<input type="checkbox"/>
238	LFFP6F	D9F230156-7	9175213	MD	1.0 06/26/09 07:30		<input type="checkbox"/>
239	LFFQAF	D9F230156-8	9175213	MD	1.0 06/26/09 07:34		<input type="checkbox"/>
240	LFFQEF	D9F230156-9	9175213	MD	1.0 06/26/09 07:37		<input type="checkbox"/>
241	LFFQGF	D9F230156-10	9175213	MD	1.0 06/26/09 07:41		<input type="checkbox"/>
242	CCV				1.0 06/26/09 07:44		<input type="checkbox"/>
243	CCB				1.0 06/26/09 07:48		<input type="checkbox"/>
244	RLCV				1.0 06/26/09 07:51		<input type="checkbox"/>
245	LFHP2B	D9F240000	9175194	04	1.0 06/26/09 07:55		<input type="checkbox"/>
246	LFHP2C	D9F240000	9175194	04	1.0 06/26/09 07:58		<input type="checkbox"/>
247	LFFPK	D9F230156-1	9175194	04	1.0 06/26/09 08:02		<input type="checkbox"/>
248	LFFPT	D9F230156-2	9175194	04	1.0 06/26/09 08:06		<input type="checkbox"/>
249	LFFPTP5	D9F230156	9175194		5.0 06/26/09 08:09		<input type="checkbox"/>
250	LFFPTZ	D9F230156-2	9175194		1.0 06/26/09 08:13		<input type="checkbox"/>
251	LFFPTS	D9F230156-2	9175194	04	1.0 06/26/09 08:16		<input type="checkbox"/>
252	LFFPTD	D9F230156-2	9175194	04	1.0 06/26/09 08:20		<input type="checkbox"/>
253	CCV				1.0 06/26/09 08:23		<input type="checkbox"/>
254	CCB				1.0 06/26/09 08:27		<input type="checkbox"/>
255	RLCV				1.0 06/26/09 08:30		<input type="checkbox"/>
256	LFFP0	D9F230156-3	9175194	04	1.0 06/26/09 08:34		<input type="checkbox"/>
257	LFFP2	D9F230156-4	9175194	04	1.0 06/26/09 08:37		<input type="checkbox"/>
258	LFFP4	D9F230156-5	9175194	04	1.0 06/26/09 08:41		<input type="checkbox"/>
259	LFFP5	D9F230156-6	9175194	04	1.0 06/26/09 08:44		<input type="checkbox"/>
260	LFFP6	D9F230156-7	9175194	04	1.0 06/26/09 08:48		<input type="checkbox"/>
261	LFFQA	D9F230156-8	9175194	04	1.0 06/26/09 08:52		<input type="checkbox"/>
262	LFFQE	D9F230156-9	9175194	04	1.0 06/26/09 08:55		<input type="checkbox"/>
263	LFFQG	D9F230156-10	9175194	04	1.0 06/26/09 08:59		<input type="checkbox"/>
264	CCV				1.0 06/26/09 09:02		<input type="checkbox"/>
265	CCB				1.0 06/26/09 09:06		<input type="checkbox"/>
266	RLCV				1.0 06/26/09 09:09		<input type="checkbox"/>
267	<del>RINSE</del>				<del>1.0 06/26/09 09:13</del>		<input type="checkbox"/>
268	RINSE				1.0 06/26/09 09:16		<input type="checkbox"/>
269	RINSE				1.0 06/26/09 09:20		<input type="checkbox"/>
270	RINSE				1.0 06/26/09 09:23		<input type="checkbox"/>
271	RINSE				1.0 06/26/09 09:27		<input type="checkbox"/>
272	RINSE				1.0 06/26/09 09:30		<input type="checkbox"/>
273	Cal Blank				1.0 06/26/09 09:34		<input type="checkbox"/>
274	Cal Blank				1.0 06/26/09 09:37		<input type="checkbox"/>
275	100 ppb				1.0 06/26/09 09:41		<input type="checkbox"/>
276	CCV				1.0 06/26/09 09:44		<input type="checkbox"/>
277	<del>OCB</del>				<del>1.0 06/26/09 09:48</del>	<i>AL c/p/09 did not use.</i>	<input type="checkbox"/>



Method: 6020 (ICP/MS)

ICPMS\_024 (024)

Reported: 06/26/09 15:07:10

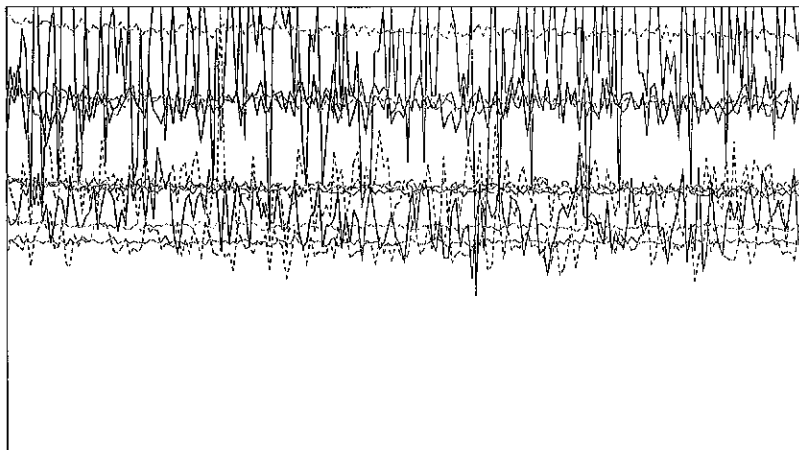
File ID: AG062509

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
278	<del>RLCV</del>			1.0	<del>06/26/09 09:51</del>		<input type="checkbox"/>
279	RINSE			1.0	06/26/09 09:55		<input type="checkbox"/>
280	RINSE			1.0	06/26/09 09:58		<input type="checkbox"/>
281	RINSE			1.0	06/26/09 10:02		<input type="checkbox"/>
282	RINSE			1.0	06/26/09 10:05		<input type="checkbox"/>
283	RINSE			1.0	06/26/09 10:09		<input type="checkbox"/>
284	RINSE			1.0	06/26/09 10:12		<input type="checkbox"/>
285	<del>Cal Blank</del>			1.0	<del>06/26/09 10:16</del>	<i>W.F. 6/26/09 did not use.</i>	<input type="checkbox"/>
286	Cal Blank			1.0	06/26/09 10:19		<input type="checkbox"/>
287	100 ppb			1.0	06/26/09 10:22		<input type="checkbox"/>
288	CCV			1.0	06/26/09 10:26		<input type="checkbox"/>
289	CCB			1.0	06/26/09 10:30		<input type="checkbox"/>
290	RLCV			1.0	06/26/09 10:33		<input type="checkbox"/>
291	SOLUTION 1			1.0	06/26/09 10:37		<input type="checkbox"/>
292	SOLUTION 2			1.0	06/26/09 10:40		<input type="checkbox"/>
293	CCV			1.0	06/26/09 10:44		<input type="checkbox"/>
294	CCB			1.0	06/26/09 10:47		<input type="checkbox"/>
295	RLCV			1.0	06/26/09 10:51		<input type="checkbox"/>

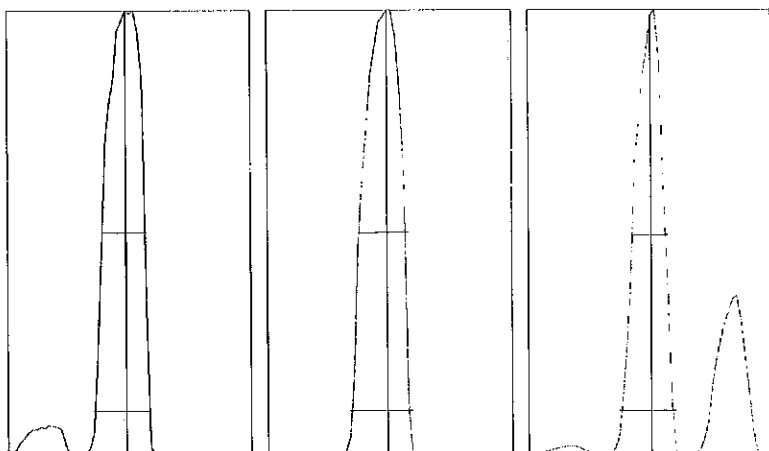
Tune Report

Tune File : NORM.U  
 Comment :



Integration Time: 0.1000 sec  
 Sampling Period: 1.5300 sec  
 n: 200  
 Oxide: 156/140 2.141%  
 Doubly Charged: 70/140 1.504%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1567.0	1571.1	2.71	0.50
7	50,000	23737.0	23564.8	1.07	1.00
59	50,000	29124.0	29753.3	1.34	0.40
63	200	101.0	106.3	10.73	1.00
70	1,000	813.0	782.6	4.46	1.00
75	20	27.0	18.5	23.81	0.50
78	500	209.0	233.2	6.87	1.00
89	50,000	46745.0	47248.3	1.21	0.50
115	100,000	50611.0	50646.2	1.25	1.10
118	200	116.0	119.4	14.11	1.20
137	10,000	5876.0	5968.3	1.81	1.30
205	50,000	38277.0	39401.7	1.44	1.70
238	100,000	57456.0	58700.9	1.39	1.90
156/140	5	2.093%	2.176%	4.33	
70/140	2	1.583%	1.498%	4.63	



m/z:	7	89	205
Height:	23,730	47,034	42,849
Axis:	7.00	89.00	205.05
W-50%:	0.55	0.60	0.45
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : NORM.U  
Comment :

Tuning Parameters

===Plasma Condition===

RF Power : 1550 W  
RF Matching : 1.7 V  
Smpl Depth : 7 mm  
Torch-H : -0.8 mm  
Torch-V : -0.3 mm  
Carrier Gas : 0.83 L/min  
Makeup Gas : 0.2 L/min  
Optional Gas : --- %  
Nebulizer Pump : 0.1 rps  
Sample Pump : --- rps  
S/C Temp : 2 degC

===Ion Lenses===

Extract 1 : 0 V  
Extract 2 : -175 V  
Omega Bias-ce : -30 V  
Omega Lens-ce : -0.2 V  
Cell Entrance : -30 V  
QP Focus : 5 V  
Cell Exit : -30 V

===Q-Pole Parameters===

AMU Gain : 134  
AMU Offset : 123  
Axis Gain : 1.001  
Axis Offset : -0.05  
QP Bias : -10 V

===Detector Parameters===

Discriminator : 8 mV  
Analog HV : 1720 V  
Pulse HV : 1390 V

===Octopole Parameters===

OctP RF : 180 V  
OctP Bias : -18 V

===Reaction Cell===

Reaction Mode : OFF  
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : --- %

P/A Factor Tuning Report

Acquired: Jun 25 2009 05:11 pm

Mass[amu]	Element	P/A Factor
6	Li	0.060527
7	(Li)	Sensitivity too low
9	Be	0.068096
23	Na	0.076001
24	Mg	0.079086
27	Al	0.081496
39	K	0.080983
43	Ca	Sensitivity too low
45	Sc	0.081632
51	V	0.083426
52	Cr	0.086119
53	(Cr)	Sensitivity too low
55	Mn	0.088056
57	Fe	Sensitivity too low
59	Co	0.091535
60	Ni	0.092666
63	Cu	0.094952
66	Zn	0.094596
72	Ge	0.093381
75	As	0.092696
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
93	Nb	Sensitivity too low
95	Mo	0.094000
98	(Mo)	0.093591
99	(Mo)	0.095200
105	Pd	0.098595
106	(Cd)	0.098492
107	Ag	Sensitivity too low
108	(Cd)	0.099270
111	Cd	0.099751
114	Cd	0.099467
115	In	0.098711
118	Sn	0.098622
121	Sb	0.098489
137	Ba	Sensitivity too low
165	Hg	Sensitivity too low
182	W	Sensitivity too low
195	Pt	Sensitivity too low
205	Tl	0.108051
206	(Pb)	0.106587
207	(Pb)	0.106712
208	Pb	0.106080
232	Th	0.104987
238	U	0.105110

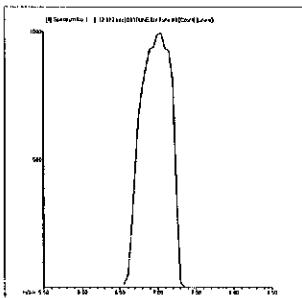
===Detector Parameters===

Discriminator: 8.0 mV  
Analog HV: 1720 V  
Pulse HV: 1390 V

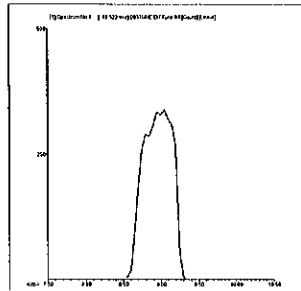
### 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\001TUNE.D  
 Date Acquired: Jun 25 2009 05:39 pm  
 Acq. Method: tun\_isis.M  
 Operator: TEL  
 Sample Name: 200.8 TUNE  
 Misc Info:  
 Vial Number: 4  
 Current Method: C:\ICPCHEM\1\METHODS\tun\_isis.M

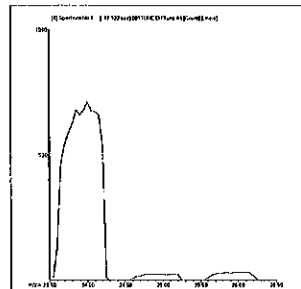
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	19878	20379	19597	20102	19795	19515	4.04	5.00	
9 Be	2433	2425	2477	2473	2415	2369	4.86	5.00	
24 Mg	9547	9717	9719	9432	9511	9352	1.95	5.00	
59 Co	66184	67525	66235	66635	65306	65215	2.98	5.00	
115 In	801383	798461	799262	802155	805195	801843	0.56	5.00	
208 Pb	66140	67999	66838	66447	65254	64161	2.50	5.00	
238 U	133648	138099	133760	136158	133050	127171	2.46	5.00	



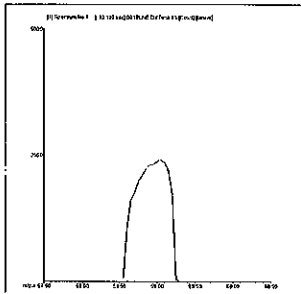
7 Li  
 Mass Calib.  
 Actual: 7.00  
 Required: 6.90 - 7.10  
 Flag:  
 Peak Width  
 Actual: 0.60  
 Required: 0.90  
 Flag:



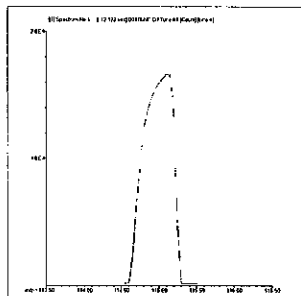
9 Be  
 Mass Calib.  
 Actual: 9.00  
 Required: 8.90 - 9.10  
 Flag:  
 Peak Width  
 Actual: 0.60  
 Required: 0.90  
 Flag:



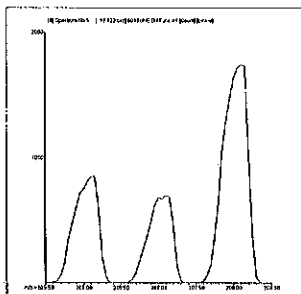
24 Mg  
 Mass Calib.  
 Actual: 23.95  
 Required: 23.90 - 24.10  
 Flag:  
 Peak Width  
 Actual: 0.60  
 Required: 0.90  
 Flag:



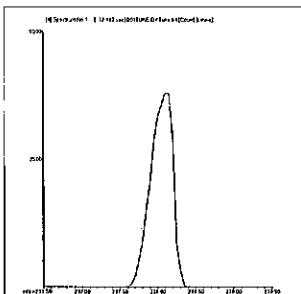
59 Co  
 Mass Calib.  
     Actual: 59.00  
     Required: 58.90     -     59.10  
     Flag:  
 Peak Width  
     Actual: 0.60  
     Required: 0.90  
     Flag:



115 In  
 Mass Calib.  
     Actual: 115.05  
     Required: 114.90     -     115.10  
     Flag:  
 Peak Width  
     Actual: 0.60  
     Required: 0.90  
     Flag:



208 Pb  
 Mass Calib.  
     Actual: 208.05  
     Required: 207.90     -     208.10  
     Flag:  
 Peak Width  
     Actual: 0.50  
     Required: 0.90  
     Flag:



238 U  
 Mass Calib.  
     Actual: 238.10  
     Required: 237.90     -     238.10  
     Flag:  
 Peak Width  
     Actual: 0.50  
     Required: 0.90  
     Flag:

Tune Result: Pass





**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\003CALB.D\003CALB.D#  
 Date Acquired: Jun 25 2009 05:47 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 2101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:44 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	189918	0.74
24	Mg	6	1	1133	11.24
27	Al	45	1	913	20.38
39	K	45	1	58259	0.95
43	Ca	45	1	10	0.00
51	V	72	1	-84	139.39
52	Cr	72	1	1820	7.39
55	Mn	72	1	237	19.97
57	Fe	72	1	137	27.70
59	Co	72	1	150	23.09
60	Ni	72	1	47	24.74
63	Cu	72	1	253	23.79
66	Zn	72	1	183	12.02
75	As	72	1	23	20.38
78	Se	72	1	47	61.86
93	Nb	72	1	30	33.33
95	Mo	72	1	43	13.32
105	Pd	115	1	7	86.60
107	Ag	115	1	10	100.00
111	Cd	115	1	13	41.66
114	Cd	115	1	20	50.00
118	Sn	115	1	290	24.14
121	Sb	115	1	20	60.09
137	Ba	115	1	18	28.64
182	W	165	1	633	2.41
195	Pt	165	1	130	13.32
205	Tl	165	1	116	4.41
208	Pb	165	1	160	10.42
232	Th	165	1	227	34.27
238	U	165	1	39	40.51

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	363199	0.55
45	Sc	1	874110	1.41
72	Ge	1	487846	0.60
115	In	1	1544466	0.77
165	Ho	1	3433480	0.31

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4



**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#  
 Date Acquired: Jun 25 2009 05:50 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: Cal Blank  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:48 pm  
 Sample Type: CalBlk

**QC Elements**

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	0	0.00
23	Na	6	1	191865	0.94
24	Mg	6	1	1784	7.57
27	Al	45	1	1073	3.77
39	K	45	1	58125	1.03
43	Ca	45	1	27	94.37
51	V	72	1	-38	239.76
52	Cr	72	1	1850	4.71
55	Mn	72	1	257	23.48
57	Fe	72	1	160	6.25
59	Co	72	1	133	37.75
60	Ni	72	1	23	49.49
63	Cu	72	1	237	25.47
66	Zn	72	1	114	10.96
75	As	72	1	25	25.38
78	Se	72	1	37	78.73
93	Nb	72	1	23	24.74
95	Mo	72	1	53	54.13
105	Pd	115	1	3	173.21
107	Ag	115	1	10	0.00
111	Cd	115	1	7	214.83
114	Cd	115	1	20	100.00
118	Sn	115	1	183	13.73
121	Sb	115	1	13	0.00
137	Ba	115	1	12	15.75
182	W	165	1	607	8.13
195	Pt	165	1	167	6.93
205	Tl	165	1	98	32.22
208	Pb	165	1	150	12.37
232	Th	165	1	253	8.22
238	U	165	1	31	32.73

**Internal Standard Elements**

Element	Tune	CPS Mean	RSD(%)	
6	Li	1	357213	0.40
45	Sc	1	874931	1.37
72	Ge	1	488215	0.57
115	In	1	1536240	0.42
165	Ho	1	3429199	0.67

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\005ICAL.D\005ICAL.D#  
 Date Acquired: Jun 25 2009 05:54 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: 100 ppb  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:51 pm  
 Sample Type: ICAL

QC Elements

Element	IS Ref	Tune	CPS Mean	RSD(%)	
9	Be	6	1	42650	2.23
23	Na	6	1	22137830	1.26
24	Mg	6	1	13459580	1.82
27	Al	45	1	9369846	1.21
39	K	45	1	13259470	1.08
43	Ca	45	1	38262	2.23
51	V	72	1	598158	1.83
52	Cr	72	1	689748	2.55
55	Mn	72	1	638890	2.13
57	Fe	72	1	1807362	0.63
59	Co	72	1	1008589	1.15
60	Ni	72	1	234051	1.72
63	Cu	72	1	572259	1.72
66	Zn	72	1	105421	1.99
75	As	72	1	65236	1.81
78	Se	72	1	9877	1.90
93	Nb	72	1	27	78.06
95	Mo	72	1	279637	1.61
105	Pd	115	1	0	0.00
107	Ag	115	1	893174	0.92
111	Cd	115	1	152087	1.51
114	Cd	115	1	378939	1.78
118	Sa	115	1	376011	1.54
121	Sb	115	1	395949	1.95
137	Ba	115	1	162196	1.45
182	W	165	1	710	25.86
195	Pt	165	1	133	31.23
205	Tl	165	1	1868558	0.59
208	Pb	165	1	2558274	1.39
232	Th	165	1	2293497	2.15
238	U	165	1	2787945	1.82

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range(%)	Flag
6	Li	1	320724	0.42	357213	89.8	30 - 120
45	Sc	1	770897	0.81	874931	88.1	30 - 120
72	Ge	1	429302	0.56	488215	87.9	30 - 120
115	In	1	1391234	0.81	1536240	90.6	30 - 120
165	Ho	1	3180719	0.71	3429199	92.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0  
 0 :ISTD Failures 0

## Initial Calibration Verification (ICV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\006\_ICV.D\006\_ICV.D#  
 Date Acquired: Jun 25 2009 05:57 pm  
 Operator: TEL  
 Sample Name: ICV  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: ICV  
 Total Dil Factor: 1.00

## QC Summary:

Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	39.75 ppb	2.80	40	99.4	90 - 110	
23	Na	6	4085.00 ppb	0.24	4000	102.1	90 - 110	
24	Mg	6	4111.00 ppb	0.68	4000	102.8	90 - 110	
27	Al	45	4073.00 ppb	2.77	4000	101.8	90 - 110	
39	K	45	4042.00 ppb	0.14	4000	101.1	90 - 110	
43	Ca	45	4148.00 ppb	2.36	4000	103.7	90 - 110	
51	V	72	40.09 ppb	1.19	40	100.2	90 - 110	
52	Cr	72	40.31 ppb	1.75	40	100.8	90 - 110	
55	Mn	72	40.51 ppb	1.75	40	101.3	90 - 110	
57	Fe	72	3935.00 ppb	1.52	4000	98.4	90 - 110	
59	Co	72	39.44 ppb	1.35	40	98.6	90 - 110	
60	Ni	72	40.53 ppb	1.57	40	101.3	90 - 110	
63	Cu	72	40.58 ppb	2.44	40	101.5	90 - 110	
66	Zn	72	40.34 ppb	0.93	40	100.9	90 - 110	
75	As	72	39.60 ppb	1.65	40	99.0	90 - 110	
78	Se	72	43.02 ppb	5.00	40	107.6	90 - 110	
93	Nb	72	391.30 ppb	47.23	80	489.1	90 - 110	Fail
95	Mo	72	39.48 ppb	1.37	40	98.7	90 - 110	
105	Pd	115	-333.30 ppb	112.60	40	-833.3	90 - 110	Fail
107	Ag	115	40.36 ppb	0.80	40	100.9	90 - 110	
111	Cd	115	40.01 ppb	2.07	40	100.0	90 - 110	
114	Cd	115	40.05 ppb	1.99	40	100.1	90 - 110	
118	Sn	115	39.80 ppb	2.35	40	99.5	90 - 110	
121	Sb	115	39.76 ppb	1.08	40	99.4	90 - 110	
137	Ba	115	39.85 ppb	2.24	40	99.6	90 - 110	
182	W	165	68.18 ppb	38.84	40	170.5	90 - 110	Fail
195	Pt	165	184.90 ppb	39.28	40	462.3	90 - 110	Fail
205	Tl	165	40.23 ppb	1.26	40	100.6	90 - 110	
208	Pb	165	40.64 ppb	1.99	40	101.6	90 - 110	
232	Th	165	43.42 ppb	2.47	40	108.6	90 - 110	
238	U	165	40.14 ppb	3.18	40	100.4	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	323232	1.00	357213	90.5	30 - 120	
45	Sc	774515	0.09	874931	88.5	30 - 120	
72	Ge	437599	0.33	488215	89.6	30 - 120	
115	In	1425273	0.39	1536240	92.8	30 - 120	
165	Ho	3229420	0.55	3429199	94.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\007WASH.D\007WASH.D#  
 Date Acquired: Jun 25 2009 06:01 pm  
 Operator: TEL  
 Sample Name: RLIV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.977 ppb	4.24	1.30	
23 Na	6	1	53.510 ppb	2.95	65.00	
24 Mg	6	1	54.110 ppb	1.89	65.00	
27 Al	45	1	33.130 ppb	1.77	39.00	
39 K	45	1	108.400 ppb	1.67	130.00	
43 Ca	45	1	45.830 ppb	20.04	65.00	
51 V	72	1	4.957 ppb	2.39	6.50	
52 Cr	72	1	2.042 ppb	5.22	2.60	
55 Mn	72	1	1.027 ppb	2.14	1.30	
57 Fe	72	1	50.840 ppb	4.93	65.00	
59 Co	72	1	1.002 ppb	3.94	1.30	
60 Ni	72	1	2.068 ppb	8.40	2.60	
63 Cu	72	1	2.074 ppb	0.92	2.60	
66 Zn	72	1	10.100 ppb	2.93	13.00	
75 As	72	1	5.072 ppb	3.39	6.50	
78 Se	72	1	5.194 ppb	10.40	6.50	
93 Nb	72	1	336.500 ppb	222.08	52.00	
95 Mo	72	1	1.973 ppb	8.51	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.422 ppb	2.72	6.50	
111 Cd	115	1	0.969 ppb	6.76	1.30	
114 Cd	115	1	1.247 ppb	2.67	1.30	
118 Sn	115	1	10.200 ppb	3.75	13.00	
121 Sb	115	1	2.180 ppb	2.06	2.60	
137 Ba	115	1	1.043 ppb	5.61	1.30	
182 W	165	1	-74.470 ppb	68.07	6.50	
195 Pt	165	1	86.750 ppb	91.57	1.30	
205 Tl	165	1	1.195 ppb	3.14	1.30	
208 Pb	165	1	1.064 ppb	1.16	1.30	
232 Th	165	1	2.959 ppb	5.89	2.60	
238 U	165	1	1.057 ppb	2.95	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	331015	0.78	357213	92.7	30 - 120	
45 Sc	1	802941	1.50	874931	91.8	30 - 120	
72 Ge	1	460777	0.36	488215	94.4	30 - 120	
115 In	1	1472933	0.62	1536240	95.9	30 - 120	
165 Ho	1	3274766	0.20	3429199	95.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\008\_ICB.D\008\_ICB.D#  
 Date Acquired: Jun 25 2009 06:04 pm  
 Operator: TEL  
 Sample Name: ICB  
 Misc Info:  
 Vial Number: 2104  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: ICB  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.00	ppb	0.00	1.00	
23 Na	6	1	1.71	ppb	14.06	20.00	
24 Mg	6	1	-0.27	ppb	34.31	20.00	
27 Al	45	1	1.89	ppb	6.01	20.00	
39 K	45	1	1.04	ppb	51.68	20.00	
43 Ca	45	1	1.08	ppb	229.99	20.00	
51 V	72	1	0.03	ppb	65.24	1.00	
52 Cr	72	1	0.00	ppb	1791.30	1.00	
55 Mn	72	1	0.02	ppb	24.11	1.00	
57 Fe	72	1	1.10	ppb	23.04	20.00	
59 Co	72	1	0.00	ppb	70.81	1.00	
60 Ni	72	1	0.03	ppb	25.62	1.00	
63 Cu	72	1	0.02	ppb	29.19	1.00	
66 Zn	72	1	0.42	ppb	3.86	10.00	
75 As	72	1	0.01	ppb	35.82	1.00	
78 Se	72	1	0.23	ppb	122.79	1.00	
93 Nb	72	1	-366.30	ppb	79.47	2.00	
95 Mo	72	1	0.01	ppb	35.90	1.00	
105 Pd	115	1	-104.90	ppb	169.30	1.00	
107 Ag	115	1	0.01	ppb	19.03	1.00	
111 Cd	115	1	0.00	ppb	109.19	1.00	
114 Cd	115	1	0.01	ppb	69.09	1.00	
118 Sn	115	1	0.15	ppb	10.76	10.00	
121 Sb	115	1	0.12	ppb	14.14	1.00	
137 Ba	115	1	0.00	ppb	436.17	1.00	
182 W	165	1	-0.24	ppb	13902.00	5.00	
195 Pt	165	1	53.50	ppb	224.30	1.00	Fail
205 Tl	165	1	0.07	ppb	9.22	1.00	
208 Pb	165	1	0.01	ppb	16.20	1.00	
232 Th	165	1	0.33	ppb	11.31	2.00	
238 U	165	1	0.01	ppb	7.92	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	336355	0.88	357213	94.2	30 - 120	
45 Sc	1	844778	1.23	874931	96.6	30 - 120	
72 Ge	1	472720	0.34	488215	96.8	30 - 120	
115 In	1	1510792	1.49	1536240	98.3	30 - 120	
165 Ho	1	3335348	0.98	3429199	97.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

RL STD QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\009RLST.D\009RLST.D#  
 Date Acquired: Jun 25 2009 06:08 pm  
 Operator: TEL  
 Sample Name: RL STD  
 Misc Info:  
 Vial Number: 2105  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: RLSTD  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1.21 ppb	4.23	1	121.2	50 - 150	
23	Na	6	110.70 ppb	1.38	100	110.7	50 - 150	
24	Mg	6	109.40 ppb	2.04	100	109.4	50 - 150	
27	Al	45	101.80 ppb	2.06	100	101.8	50 - 150	
39	K	45	104.90 ppb	2.43	100	104.9	50 - 150	
43	Ca	45	116.80 ppb	13.38	100	116.8	50 - 150	
51	V	72	0.94 ppb	9.10	1	94.3	50 - 150	
52	Cr	72	0.98 ppb	5.86	1	97.8	50 - 150	
55	Mn	72	1.01 ppb	1.74	1	100.8	50 - 150	
57	Fe	72	97.96 ppb	4.59	100	98.0	50 - 150	
59	Co	72	0.99 ppb	0.59	1	99.1	50 - 150	
60	Ni	72	0.95 ppb	3.90	1	94.6	50 - 150	
63	Cu	72	1.05 ppb	4.45	1	105.4	50 - 150	
66	Zn	72	10.09 ppb	1.64	10	100.9	50 - 150	
75	As	72	0.98 ppb	8.48	1	97.5	50 - 150	
78	Se	72	0.80 ppb	24.01	1	80.1	50 - 150	
93	Nb	72	-272.70 ppb	161.42	2	-13635.0	50 - 150	Fail
95	Mo	72	0.98 ppb	5.51	1	97.7	50 - 150	
105	Pd	115	-1.88 ppb	9378.30	1	-188.2	50 - 150	Fail
107	Ag	115	1.04 ppb	1.36	1	103.9	50 - 150	
111	Cd	115	1.05 ppb	2.12	1	105.0	50 - 150	
114	Cd	115	1.23 ppb	4.06	1	122.8	50 - 150	
118	Sn	115	10.02 ppb	3.19	10	100.2	50 - 150	
121	Sb	115	1.02 ppb	2.63	1	101.8	50 - 150	
137	Ba	115	1.01 ppb	2.94	1	100.7	50 - 150	
182	W	165	-41.51 ppb	182.32	1	-4151.0	50 - 150	Fail
195	Pt	165	39.80 ppb	171.68	1	3980.0	50 - 150	Fail
205	Tl	165	1.09 ppb	0.74	1	108.8	50 - 150	
208	Pb	165	1.04 ppb	4.08	1	103.9	50 - 150	
232	Th	165	1.11 ppb	4.83	1	111.2	50 - 150	
238	U	165	1.03 ppb	4.18	1	103.2	50 - 150	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	339022	0.49	357213	94.9	30 - 120
45	Sc	1	852135	1.34	874931	97.4	30 - 120
72	Ge	1	476660	0.24	488215	97.6	30 - 120
115	In	1	1520028	0.32	1536240	98.9	30 - 120
165	Ho	1	3339304	0.06	3429199	97.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

AFCEE RL QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\010AFCE.D\010AFCE.D#  
 Date Acquired: Jun 25 2009 06:11 pm  
 Operator: TEL  
 Sample Name: AFCEE RL  
 Misc Info: 2106  
 Vial Number: 2106  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: AFCEERL  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	0.16 ppb	55.69	0	66.1	80 - 120
23	Na	6	1	21.12 ppb	7.64	22	95.4	80 - 120
24	Mg	6	1	21.04 ppb	2.07	22	96.2	80 - 120
27	Al	45	1	20.09 ppb	3.29	20	98.7	80 - 120
39	K	45	1	19.53 ppb	2.60	21	93.1	80 - 120
43	Ca	45	1	14.96 ppb	41.57	23	64.0	80 - 120
51	V	72	1	0.16 ppb	28.81	0	84.3	80 - 120
52	Cr	72	1	0.18 ppb	14.01	0	89.6	80 - 120
55	Mn	72	1	0.22 ppb	6.94	0	106.7	80 - 120
57	Fe	72	1	19.31 ppb	5.38	20	98.6	80 - 120
59	Co	72	1	0.20 ppb	2.85	0	99.2	80 - 120
60	Ni	72	1	0.19 ppb	14.26	0	101.5	80 - 120
63	Cu	72	1	0.21 ppb	13.15	0	99.3	80 - 120
66	Zn	72	1	2.00 ppb	2.14	2	99.3	80 - 120
75	As	72	1	0.19 ppb	9.98	0	98.2	80 - 120
78	Se	72	1	0.13 ppb	141.98	0	80.1	80 - 120
93	Nb	72	1	-465.60 ppb	35.61	-55	853.7	80 - 120
95	Mo	72	1	0.19 ppb	2.79	0	97.7	80 - 120
105	Pd	115	1	-0.41 ppb	#####	0	109.6	80 - 120
107	Ag	115	1	0.21 ppb	3.68	0	102.2	80 - 120
111	Cd	115	1	0.19 ppb	4.76	0	89.8	80 - 120
114	Cd	115	1	0.23 ppb	3.51	0	92.6	80 - 120
118	Sn	115	1	2.05 ppb	2.53	2	102.2	80 - 120
121	Sb	115	1	0.23 ppb	9.88	0	114.9	80 - 120
137	Ba	115	1	0.20 ppb	9.47	0	97.6	80 - 120
182	W	165	1	34.11 ppb	187.07	-8	-410.9	80 - 120
195	Pt	165	1	-103.40 ppb	490.33	8	-1299.0	80 - 120
205	Tl	165	1	0.24 ppb	3.62	0	109.9	80 - 120
208	Pb	165	1	0.21 ppb	7.52	0	99.3	80 - 120
232	Th	165	1	0.29 ppb	2.64	0	132.6	80 - 120
238	U	165	1	0.20 ppb	1.11	0	97.7	80 - 120

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	342755	1.03	357213	96.0	30 - 120
45	Sc	1	861526	0.65	874931	98.5	30 - 120
72	Ge	1	478472	0.23	488215	98.0	30 - 120
115	In	1	1533251	0.39	1536240	99.8	30 - 120
165	Ho	1	3354225	0.41	3429199	97.8	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\011SMPL.D\011SMPL.D#  
 Date Acquired: Jun 25 2009 06:15 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ALTSe  
 Misc Info: 2 ppb  
 Vial Number: 2107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.15	3600	
23 Na	6	1	-2.72	-2.72	ppb	35.07	100000	
24 Mg	6	1	-0.23	-0.23	ppb	34.31	100000	
27 Al	45	1	0.07	0.07	ppb	190.36	100000	
39 K	45	1	-0.91	-0.91	ppb	72.91	100000	
43 Ca	45	1	-2.90	-2.90	ppb	95.45	100000	
51 V	72	1	0.01	0.01	ppb	223.13	3600	
52 Cr	72	1	0.00	0.00	ppb	7708.20	3600	
55 Mn	72	1	0.01	0.01	ppb	9.84	18000	
57 Fe	72	1	0.38	0.38	ppb	33.95	100000	
59 Co	72	1	0.00	0.00	ppb	14.94	3600	
60 Ni	72	1	0.01	0.01	ppb	1.12	3600	
63 Cu	72	1	0.01	0.01	ppb	63.93	3600	
66 Zn	72	1	0.22	0.22	ppb	8.65	3600	
75 As	72	1	-0.01	-0.01	ppb	267.90	3600	
78 Se	72	1	2.25	2.25	ppb	28.36	3600	
93 Nb	72	1	-269.80	-269.80	ppb	61.42	2000	
95 Mo	72	1	0.00	0.00	ppb	168.98	3600	
105 Pd	115	1	-3.63	-3.63	ppb	4951.70	1000	
107 Ag	115	1	0.00	0.00	ppb	49.26	3600	
111 Cd	115	1	0.00	0.00	ppb	112.48	3600	
114 Cd	115	1	0.00	0.00	ppb	411.65	3600	
118 Sn	115	1	0.05	0.05	ppb	19.24	3600	
121 Sb	115	1	0.03	0.03	ppb	5.22	3600	
137 Ba	115	1	0.00	0.00	ppb	6.71	3600	
182 W	165	1	12.60	12.60	ppb	341.90	1000	
195 Pt	165	1	43.17	43.17	ppb	426.92	1000	
205 Tl	165	1	0.02	0.02	ppb	9.18	3600	
208 Pb	165	1	0.00	0.00	ppb	1333.90	3600	
232 Th	165	1	0.05	0.05	ppb	12.59	1000	
238 U	165	1	0.00	0.00	ppb	154.20	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	340404	1.39	357213	95.3	30 - 120	
45 Sc	1	847853	1.60	874931	96.9	30 - 120	
72 Ge	1	473050	0.49	488215	96.9	30 - 120	
115 In	1	1500983	0.70	1536240	97.7	30 - 120	
165 Ho	1	3355885	0.06	3429199	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



**Interference Check Solution A (ICS-A) QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\012ICSA.D\012ICSA.D#  
 Date Acquired: Jun 25 2009 06:18 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ICSA  
 Misc Info:  
 Vial Number: 2108  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

QC Summary:  
Analytes: Pass  
ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.03 ppb	43.08	1.00
23	Na	6	1	97230.00 ppb	0.72	100.00
24	Mg	6	1	93340.00 ppb	0.79	100.00
27	Al	45	1	97800.00 ppb	1.32	100.00
39	K	45	1	99100.00 ppb	0.76	100.00
43	Ca	45	1	104700.00 ppb	0.16	100.00
51	V	72	1	0.06 ppb	5.46	1.00
52	Cr	72	1	1.03 ppb	1.36	1.00
55	Mn	72	1	2.12 ppb	3.28	1.00
57	Fe	72	1	95700.00 ppb	1.69	100.00
59	Co	72	1	0.03 ppb	13.42	1.00
60	Ni	72	1	0.81 ppb	2.92	1.00
63	Cu	72	1	0.29 ppb	5.15	1.00
66	Zn	72	1	2.72 ppb	3.00	10.00
75	As	72	1	0.14 ppb	12.60	1.00
78	Se	72	1	0.18 ppb	133.62	1.00
93	Nb	72	1	2807.00 ppb	39.79	2.00
95	Mo	72	1	2033.00 ppb	0.43	2000.00
105	Pd	115	1	-2323.00 ppb	24.79	1.00
107	Ag	115	1	0.08 ppb	11.81	1.00
111	Cd	115	1	0.37 ppb	47.15	1.00
114	Cd	115	1	1.63 ppb	2.40	1.00
118	Sn	115	1	0.18 ppb	19.11	10.00
121	Sb	115	1	0.25 ppb	7.11	1.00
137	Ba	115	1	1.54 ppb	3.53	1.00
182	W	165	1	1072.00 ppb	2.44	5.00
195	Pt	165	1	-66.66 ppb	355.69	1.00
205	Tl	165	1	0.04 ppb	18.29	1.00
208	Pb	165	1	0.14 ppb	1.55	1.00
232	Th	165	1	0.09 ppb	20.92	2.00
238	U	165	1	0.02 ppb	5.32	1.00

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	303415	1.10	357213	84.9	30 - 120
45	Sc	1	684272	0.87	874931	78.2	30 - 120
72	Ge	1	370154	0.61	488215	75.8	30 - 120
115	In	1	1209203	0.34	1536240	78.7	30 - 120
165	Ho	1	2887854	0.72	3429199	84.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Nnumber of ISTD Failures Allowed

## Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\013ICSB.D\013ICSB.D#  
 Date Acquired: Jun 25 2009 06:21 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ICSAB  
 Misc Info:  
 Vial Number: 2109  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

**QC Summary:**  
**Analytes: Fail**  
**ISTD: Pass**

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	91.16	2.22	100	91.2	80 - 120	
23 Na	6	1	92920.00	1.17	110000	84.5	80 - 120	
24 Mg	6	1	89260.00	0.64	110000	81.1	80 - 120	
27 Al	45	1	96070.00	1.20	110000	87.3	80 - 120	
39 K	45	1	97200.00	0.15	110000	88.4	80 - 120	
43 Ca	45	1	101800.00	0.52	110000	92.5	80 - 120	
51 V	72	1	102.90	0.54	100	102.9	80 - 120	
52 Cr	72	1	101.40	1.69	100	101.4	80 - 120	
55 Mn	72	1	101.80	1.23	100	101.8	80 - 120	
57 Fe	72	1	95920.00	1.70	110000	87.2	80 - 120	
59 Co	72	1	96.01	1.02	100	96.0	80 - 120	
60 Ni	72	1	94.40	1.62	100	94.4	80 - 120	
63 Cu	72	1	91.91	1.58	100	91.9	80 - 120	
66 Zn	72	1	98.35	1.28	100	98.4	80 - 120	
75 As	72	1	98.91	0.32	100	98.9	80 - 120	
78 Se	72	1	106.20	2.22	100	106.2	80 - 120	
93 Nb	72	1	2529.00	16.76	200	1264.5	80 - 120	Fail
95 Mo	72	1	2131.00	0.55	2100	101.5	80 - 120	
105 Pd	115	1	-1182.00	37.04	100	-1182.0	80 - 120	Fail
107 Ag	115	1	85.93	1.82	100	85.9	80 - 120	
111 Cd	115	1	94.86	2.62	100	94.9	80 - 120	
114 Cd	115	1	96.58	2.43	100	96.6	80 - 120	
118 Sn	115	1	100.90	2.48	100	100.9	80 - 120	
121 Sb	115	1	101.00	2.28	100	101.0	80 - 120	
137 Ba	115	1	105.80	2.32	100	105.8	80 - 120	
182 W	165	1	983.20	13.21	100	983.2	80 - 120	Fail
195 Pt	165	1	42.84	198.95	100	42.8	80 - 120	Fail
205 Tl	165	1	95.91	1.96	100	95.9	80 - 120	
208 Pb	165	1	95.76	3.19	100	95.8	80 - 120	
232 Th	165	1	104.60	3.31	100	104.6	80 - 120	
238 U	165	1	100.80	2.04	100	100.8	80 - 120	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	307006	0.95	357213	85.9	30 - 120	
45 Sc	1	670438	0.67	874931	76.6	30 - 120	
72 Ge	1	359634	0.80	488215	73.7	30 - 120	
115 In	1	1201588	1.19	1536240	78.2	30 - 120	
165 Ho	1	2919411	1.34	3429199	85.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 Tune File# 4 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\014SMPL.D\014SMPL.D#  
 Date Acquired: Jun 25 2009 06:25 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.01	0.01	ppb	173.23	3600
23	Na	6	1	-8.58	-8.58	ppb	7.89	100000
24	Mg	6	1	4.37	4.37	ppb	30.17	100000
27	Al	45	1	5.73	5.73	ppb	24.18	100000
39	K	45	1	-0.43	-0.43	ppb	122.93	100000
43	Ca	45	1	1.38	1.38	ppb	185.59	100000
51	V	72	1	0.01	0.01	ppb	219.58	3600
52	Cr	72	1	-0.01	-0.01	ppb	64.73	3600
55	Mn	72	1	0.02	0.02	ppb	47.43	18000
57	Fe	72	1	6.70	6.70	ppb	26.58	100000
59	Co	72	1	0.00	0.00	ppb	144.50	3600
60	Ni	72	1	0.00	0.00	ppb	212.11	3600
63	Cu	72	1	0.02	0.02	ppb	43.54	3600
66	Zn	72	1	-0.01	-0.01	ppb	135.79	3600
75	As	72	1	-0.01	-0.01	ppb	108.15	3600
78	Se	72	1	0.12	0.12	ppb	169.69	3600
93	Nb	72	1	44.28	44.28	ppb	387.31	2000
95	Mo	72	1	0.81	0.81	ppb	15.82	3600
105	Pd	115	1	100.00	100.00	ppb	0.00	1000
107	Ag	115	1	0.01	0.01	ppb	25.35	3600
111	Cd	115	1	0.01	0.01	ppb	74.61	3600
114	Cd	115	1	0.01	0.01	ppb	65.01	3600
118	Sn	115	1	0.08	0.08	ppb	24.06	3600
121	Sb	115	1	0.22	0.22	ppb	14.68	3600
137	Ba	115	1	0.01	0.01	ppb	104.19	3600
182	W	165	1	-57.75	-57.75	ppb	78.44	1000
195	Pt	165	1	134.90	134.90	ppb	262.49	1000
205	Tl	165	1	0.00	0.00	ppb	16.64	3600
208	Pb	165	1	0.00	0.00	ppb	65.83	3600
232	Th	165	1	0.64	0.64	ppb	16.36	1000
238	U	165	1	0.01	0.01	ppb	20.54	3600

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	357808	0.97	357213	100.2	30 - 120
45	Sc	1	809505	1.74	874931	92.5	30 - 120
72	Ge	1	457515	0.32	488215	93.7	30 - 120
115	In	1	1476245	0.56	1536240	96.1	30 - 120
165	Ho	1	3374873	0.57	3429199	98.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

## Linear Dynamic Range Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\015\_LR.D\015\_LR.D#  
 Date Acquired: Jun 25 2009 06:28 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LR  
 Misc Info:  
 Vial Number: 2110  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: LR  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## Analyte Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	953.30 ppb	0.22	1000	95.3	90 - 110	
23 Na	6	1	98630.00 ppb	0.26	100000	98.6	90 - 110	
24 Mg	6	1	96030.00 ppb	0.17	100000	96.0	90 - 110	
27 Al	45	1	98370.00 ppb	1.10	100000	98.4	90 - 110	
39 K	45	1	98300.00 ppb	0.70	100000	98.3	90 - 110	
43 Ca	45	1	101000.00 ppb	1.07	100000	101.0	90 - 110	
51 V	72	1	998.30 ppb	0.99	1000	99.8	90 - 110	
52 Cr	72	1	978.80 ppb	0.23	1000	97.9	90 - 110	
55 Mn	72	1	957.00 ppb	0.35	1000	95.7	90 - 110	
57 Fe	72	1	94190.00 ppb	0.74	100000	94.2	90 - 110	
59 Co	72	1	924.80 ppb	0.80	1000	92.5	90 - 110	
60 Ni	72	1	946.10 ppb	0.17	1000	94.6	90 - 110	
63 Cu	72	1	885.80 ppb	0.34	1000	88.6	90 - 110	Fail
66 Zn	72	1	900.10 ppb	0.36	1000	90.0	90 - 110	
75 As	72	1	944.80 ppb	0.23	1000	94.5	90 - 110	
78 Se	72	1	952.60 ppb	0.74	1000	95.3	90 - 110	
93 Nb	72	1	1009.00 ppb	80.16	2000	50.5	90 - 110	Fail
95 Mo	72	1	1030.00 ppb	1.00	1000	103.0	90 - 110	
105 Pd	115	1	-435.80 ppb	212.96	1000	-43.6	90 - 110	Fail
107 Ag	115	1	854.10 ppb	0.64	1000	85.4	90 - 110	Fail
111 Cd	115	1	945.50 ppb	0.54	1000	94.6	90 - 110	
114 Cd	115	1	915.50 ppb	1.23	1000	91.6	90 - 110	
118 Sn	115	1	979.20 ppb	0.53	1000	97.9	90 - 110	
121 Sb	115	1	956.50 ppb	0.90	1000	95.7	90 - 110	
137 Ba	115	1	1031.00 ppb	1.12	1000	103.1	90 - 110	
182 W	165	1	427.60 ppb	30.57	1000	42.8	90 - 110	Fail
195 Pt	165	1	64.52 ppb	171.11	1000	6.5	90 - 110	Fail
205 Tl	165	1	918.90 ppb	0.78	1000	91.9	90 - 110	
208 Pb	165	1	904.20 ppb	1.29	1000	90.4	90 - 110	
232 Th	165	1	1008.00 ppb	0.97	1000	100.8	90 - 110	
238 U	165	1	960.30 ppb	0.95	1000	96.0	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	273131	1.16	357213	76.5	30 - 120	
45 Sc	1	662136	0.98	874931	75.7	30 - 120	
72 Ge	1	359007	1.26	488215	73.5	30 - 120	
115 In	1	1161475	0.75	1536240	75.6	30 - 120	
165 Ho	1	2712036	0.16	3429199	79.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

6 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\016SMPL.D\016SMPL.D#  
 Date Acquired: Jun 25 2009 06:32 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.09	0.09	ppb	66.20	3600
23	Na	6	1	-8.50	-8.50	ppb	13.36	100000
24	Mg	6	1	5.46	5.46	ppb	25.68	100000
27	Al	45	1	6.62	6.62	ppb	19.82	100000
39	K	45	1	3.69	3.69	ppb	48.73	100000
43	Ca	45	1	2.13	2.13	ppb	69.09	100000
51	V	72	1	0.05	0.05	ppb	84.99	3600
52	Cr	72	1	0.04	0.04	ppb	80.39	3600
55	Mn	72	1	0.07	0.07	ppb	17.95	18000
57	Fe	72	1	6.43	6.43	ppb	16.34	100000
59	Co	72	1	0.05	0.05	ppb	40.82	3600
60	Ni	72	1	0.07	0.07	ppb	57.75	3600
63	Cu	72	1	0.07	0.07	ppb	39.17	3600
66	Zn	72	1	0.07	0.07	ppb	38.37	3600
75	As	72	1	0.09	0.09	ppb	26.24	3600
78	Se	72	1	0.24	0.24	ppb	104.69	3600
93	Nb	72	1	-657.00	-657.00	ppb	0.00	2000
95	Mo	72	1	0.52	0.52	ppb	19.40	3600
105	Pd	115	1	100.00	100.00	ppb	0.00	1000
107	Ag	115	1	0.21	0.21	ppb	14.70	3600
111	Cd	115	1	0.05	0.05	ppb	26.97	3600
114	Cd	115	1	0.07	0.07	ppb	19.92	3600
118	Sn	115	1	1.60	1.60	ppb	1.04	3600
121	Sb	115	1	1.68	1.68	ppb	0.28	3600
137	Ba	115	1	0.05	0.05	ppb	27.11	3600
182	W	165	1	-5.77	-5.77	ppb	633.86	1000
195	Pt	165	1	123.40	123.40	ppb	79.53	1000
205	Tl	165	1	0.06	0.06	ppb	12.35	3600
208	Pb	165	1	0.05	0.05	ppb	26.05	3600
232	Th	165	1	3.33	3.33	ppb	18.24	1000
238	U	165	1	0.10	0.10	ppb	18.51	3600

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	340395	1.02	357213	95.3	30 - 120
45	Sc	1	816743	1.50	874931	93.3	30 - 120
72	Ge	1	460813	0.55	488215	94.4	30 - 120
115	In	1	1470258	0.55	1536240	95.7	30 - 120
165	Ho	1	3230684	1.43	3429199	94.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\017SMPL.D\017SMPL.D#  
 Date Acquired: Jun 25 2009 06:35 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: ALTLR  
 Misc Info: Cu/Ag  
 Vial Number: 2112  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	-10.40	-10.40	ppb	13.28	100000	
24 Mg	6	1	0.26	0.26	ppb	14.72	100000	
27 Al	45	1	0.79	0.79	ppb	10.38	100000	
39 K	45	1	0.36	0.36	ppb	574.75	100000	
43 Ca	45	1	-0.61	-0.61	ppb	905.75	100000	
51 V	72	1	0.02	0.02	ppb	94.18	3600	
52 Cr	72	1	0.00	0.00	ppb	819.92	3600	
55 Mn	72	1	0.01	0.01	ppb	59.46	18000	
57 Fe	72	1	0.82	0.82	ppb	33.30	100000	
59 Co	72	1	0.00	0.00	ppb	34.40	3600	
60 Ni	72	1	0.02	0.02	ppb	76.27	3600	
63 Cu	72	1	996.30	996.30	ppb	1.52	3600	
66 Zn	72	1	0.63	0.63	ppb	9.90	3600	
75 As	72	1	0.02	0.02	ppb	51.68	3600	
78 Se	72	1	0.07	0.07	ppb	79.35	3600	
93 Nb	72	1	-370.60	-370.60	ppb	133.86	2000	
95 Mo	72	1	0.16	0.16	ppb	12.92	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	975.90	975.90	ppb	0.71	3600	
111 Cd	115	1	0.00	0.00	ppb	1105.30	3600	
114 Cd	115	1	0.03	0.03	ppb	46.03	3600	
118 Sn	115	1	0.56	0.56	ppb	2.47	3600	
121 Sb	115	1	0.50	0.50	ppb	3.79	3600	
137 Ba	115	1	0.00	0.00	ppb	113.29	3600	
182 W	165	1	-63.64	-63.64	ppb	19.36	1000	
195 Pt	165	1	307.40	307.40	ppb	7.19	1000	
205 Tl	165	1	0.03	0.03	ppb	5.64	3600	
208 Pb	165	1	0.01	0.01	ppb	21.53	3600	
232 Th	165	1	0.72	0.72	ppb	9.80	1000	
238 U	165	1	0.01	0.01	ppb	10.70	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	354196	0.62	357213	99.2	30 - 120	
45 Sc	1	862724	1.88	874931	98.6	30 - 120	
72 Ge	1	479843	0.09	488215	98.3	30 - 120	
115 In	1	1531712	0.37	1536240	99.7	30 - 120	
165 Ho	1	3344703	0.85	3429199	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\018SMPL.D\018SMPL.D#  
 Date Acquired: Jun 25 2009 06:39 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: RINSE  
 Misc Info:  
 Vial Number: 1101  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.22	3600	
23 Na	6	1	-10.39	-10.39	ppb	3.61	100000	
24 Mg	6	1	1.17	1.17	ppb	3.69	100000	
27 Al	45	1	1.11	1.11	ppb	10.45	100000	
39 K	45	1	1.24	1.24	ppb	31.26	100000	
43 Ca	45	1	0.03	0.03	ppb	12568.00	100000	
51 V	72	1	0.00	0.00	ppb	5400.60	3600	
52 Cr	72	1	0.00	0.00	ppb	253.53	3600	
55 Mn	72	1	0.01	0.01	ppb	99.44	18000	
57 Fe	72	1	1.12	1.12	ppb	16.65	100000	
59 Co	72	1	0.00	0.00	ppb	76.82	3600	
60 Ni	72	1	0.01	0.01	ppb	130.49	3600	
63 Cu	72	1	0.06	0.06	ppb	67.02	3600	
66 Zn	72	1	0.00	0.00	ppb	508.31	3600	
75 As	72	1	0.02	0.02	ppb	23.95	3600	
78 Se	72	1	0.18	0.18	ppb	30.38	3600	
93 Nb	72	1	-283.10	-283.10	ppb	151.82	2000	
95 Mo	72	1	0.10	0.10	ppb	2.68	3600	
105 Pd	115	1	100.00	100.00	ppb	0.00	1000	
107 Ag	115	1	0.24	0.24	ppb	8.63	3600	
111 Cd	115	1	0.01	0.01	ppb	76.94	3600	
114 Cd	115	1	0.01	0.01	ppb	109.12	3600	
118 Sn	115	1	0.23	0.23	ppb	12.19	3600	
121 Sb	115	1	0.25	0.25	ppb	6.97	3600	
137 Ba	115	1	0.01	0.01	ppb	34.84	3600	
182 W	165	1	-67.79	-67.79	ppb	62.44	1000	
195 Pt	165	1	301.50	301.50	ppb	28.67	1000	
205 Tl	165	1	0.02	0.02	ppb	7.48	3600	
208 Pb	165	1	0.01	0.01	ppb	18.53	3600	
232 Th	165	1	0.19	0.19	ppb	3.15	1000	
238 U	165	1	0.01	0.01	ppb	6.76	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	362228	0.42	357213	101.4	30 - 120	
45 Sc	1	876024	0.49	874931	100.1	30 - 120	
72 Ge	1	491767	0.49	488215	100.7	30 - 120	
115 In	1	1554411	0.14	1536240	101.2	30 - 120	
165 Ho	1	3412353	1.00	3429199	99.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\019\_CCV.D\019\_CCV.D#  
 Date Acquired: Jun 25 2009 06:42 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	48.58 ppb	2.20	50	97.2	90 - 110	
23	Na	6	5001.00 ppb	0.59	5000	100.0	90 - 110	
24	Mg	6	5011.00 ppb	0.56	5000	100.2	90 - 110	
27	Al	45	4937.00 ppb	2.02	5000	98.7	90 - 110	
39	K	45	4984.00 ppb	1.24	5000	99.7	90 - 110	
43	Ca	45	4970.00 ppb	1.82	5000	99.4	90 - 110	
51	V	72	49.44 ppb	1.06	50	98.9	90 - 110	
52	Cr	72	49.74 ppb	2.48	50	99.5	90 - 110	
55	Mn	72	49.52 ppb	0.83	50	99.0	90 - 110	
57	Fe	72	4995.00 ppb	1.86	5000	99.9	90 - 110	
59	Co	72	49.00 ppb	1.67	50	98.0	90 - 110	
60	Ni	72	50.51 ppb	1.39	50	101.0	90 - 110	
63	Cu	72	50.24 ppb	1.17	50	100.5	90 - 110	
66	Zn	72	48.96 ppb	2.02	50	97.9	90 - 110	
75	As	72	49.45 ppb	2.04	50	98.9	90 - 110	
78	Se	72	49.79 ppb	10.19	50	99.6	90 - 110	
93	Nb	72	35.06 ppb	1941.80	100	35.1	90 - 110	Fail
95	Mo	72	48.76 ppb	0.79	50	97.5	90 - 110	
105	Pd	115	-4.58 ppb	3958.50	50	-9.2	90 - 110	Fail
107	Ag	115	50.76 ppb	1.84	50	101.5	90 - 110	
111	Cd	115	50.03 ppb	2.59	50	100.1	90 - 110	
114	Cd	115	50.35 ppb	3.13	50	100.7	90 - 110	
118	Sn	115	50.06 ppb	2.76	50	100.1	90 - 110	
121	Sb	115	49.62 ppb	2.41	50	99.2	90 - 110	
137	Ba	115	50.23 ppb	2.69	50	100.5	90 - 110	
182	W	165	18.42 ppb	393.27	50	36.8	90 - 110	Fail
195	Pt	165	210.80 ppb	30.63	50	421.6	90 - 110	Fail
205	Tl	165	51.19 ppb	0.47	50	102.4	90 - 110	
208	Pb	165	50.67 ppb	1.48	50	101.3	90 - 110	
232	Th	165	49.85 ppb	2.04	50	99.7	90 - 110	
238	U	165	50.88 ppb	1.59	50	101.8	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	340882	1.15	357213	95.4	30 - 120
45	Sc	1	840133	1.14	874931	96.0	30 - 120
72	Ge	1	461797	0.67	488215	94.6	30 - 120
115	In	1	1479459	0.67	1536240	96.3	30 - 120
165	Ho	1	3292289	0.82	3429199	96.0	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\020\_CCB.D\020\_CCB.D#  
 Date Acquired: Jun 25 2009 06:46 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
23 Na	6	1	-9.712 ppb	11.08	20.00	
24 Mg	6	1	0.032 ppb	282.86	20.00	
27 Al	45	1	0.481 ppb	14.31	20.00	
39 K	45	1	1.447 ppb	38.74	20.00	
43 Ca	45	1	-0.079 ppb	4470.80	20.00	
51 V	72	1	-0.021 ppb	102.29	1.00	
52 Cr	72	1	-0.017 ppb	131.43	1.00	
55 Mn	72	1	0.005 ppb	157.12	1.00	
57 Fe	72	1	0.806 ppb	40.67	20.00	
59 Co	72	1	-0.002 ppb	122.24	1.00	
60 Ni	72	1	0.009 ppb	130.87	1.00	
63 Cu	72	1	0.010 ppb	73.11	1.00	
66 Zn	72	1	0.078 ppb	15.01	10.00	
75 As	72	1	0.022 ppb	42.84	1.00	
78 Se	72	1	0.088 ppb	210.00	1.00	
93 Nb	72	1	184.700 ppb	150.79	2.00	Fail
95 Mo	72	1	0.059 ppb	16.78	1.00	
105 Pd	115	1	100.000 ppb	0.00	1.00	Fail
107 Ag	115	1	0.085 ppb	8.72	1.00	
111 Cd	115	1	0.008 ppb	68.72	1.00	
114 Cd	115	1	0.009 ppb	88.24	1.00	
118 Sn	115	1	0.379 ppb	9.21	10.00	
121 Sb	115	1	0.306 ppb	3.89	1.00	
137 Ba	115	1	0.006 ppb	51.20	1.00	
182 W	165	1	-31.270 ppb	258.43	5.00	
195 Pt	165	1	194.000 ppb	63.14	1.00	Fail
205 Tl	165	1	0.028 ppb	10.97	1.00	
208 Pb	165	1	0.006 ppb	61.36	1.00	
232 Th	165	1	0.942 ppb	12.21	2.00	
238 U	165	1	0.007 ppb	17.32	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	351044	0.31	357213	98.3	30 - 120	
45 Sc	1	870719	0.52	874931	99.5	30 - 120	
72 Ge	1	489985	0.29	488215	100.4	30 - 120	
115 In	1	1542513	0.43	1536240	100.4	30 - 120	
165 Ho	1	3382584	1.10	3429199	98.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Wash QC Report**

Data File: C:\ICPCHEM\1\DATA\AG062509.B\021WASH.D\021WASH.D#  
 Date Acquired: Jun 25 2009 06:49 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

**QC Summary:**  
 Analytes: Pass  
 ISTD: Pass

**QC Elements**

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.987 ppb	7.94	1.30	
23 Na	6	1	48.090 ppb	0.41	65.00	
24 Mg	6	1	55.170 ppb	0.72	65.00	
27 Al	45	1	32.880 ppb	2.12	39.00	
39 K	45	1	109.000 ppb	0.31	130.00	
43 Ca	45	1	41.610 ppb	19.24	65.00	
51 V	72	1	4.981 ppb	0.96	6.50	
52 Cr	72	1	2.047 ppb	1.06	2.60	
55 Mn	72	1	1.018 ppb	5.61	1.30	
57 Fe	72	1	50.580 ppb	3.06	65.00	
59 Co	72	1	1.013 ppb	0.70	1.30	
60 Ni	72	1	2.131 ppb	2.18	2.60	
63 Cu	72	1	2.131 ppb	0.79	2.60	
66 Zn	72	1	10.090 ppb	1.76	13.00	
75 As	72	1	5.116 ppb	0.62	6.50	
78 Se	72	1	5.418 ppb	10.91	6.50	
93 Nb	72	1	-376.200 ppb	74.40	52.00	
95 Mo	72	1	2.020 ppb	2.50	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.478 ppb	3.31	6.50	
111 Cd	115	1	1.035 ppb	3.59	1.30	
114 Cd	115	1	1.235 ppb	4.10	1.30	
118 Sn	115	1	10.680 ppb	4.31	13.00	
121 Sb	115	1	2.091 ppb	2.57	2.60	
137 Ba	115	1	1.062 ppb	5.70	1.30	
182 W	165	1	16.610 ppb	312.04	6.50	
195 Pt	165	1	62.090 ppb	366.08	1.30	
205 Tl	165	1	1.091 ppb	1.71	1.30	
208 Pb	165	1	1.075 ppb	0.94	1.30	
232 Th	165	1	2.390 ppb	1.59	2.60	
238 U	165	1	1.067 ppb	1.95	1.30	

**ISTD Elements**

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range (%)	Flag
6 Li	1	348321	0.99	357213	97.5	30 - 120	
45 Sc	1	873127	0.27	874931	99.8	30 - 120	
72 Ge	1	488285	0.57	488215	100.0	30 - 120	
115 In	1	1545065	1.13	1536240	100.6	30 - 120	
165 Ho	1	3375135	0.62	3429199	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\039\_CCV.D\039\_CCV.D#  
 Date Acquired: Jun 25 2009 07:52 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	48.74 ppb	4.12	50	97.5	90 - 110	
23	Na	6	5153.00 ppb	0.86	5000	103.1	90 - 110	
24	Mg	6	5072.00 ppb	1.94	5000	101.4	90 - 110	
27	Al	45	4915.00 ppb	2.34	5000	98.3	90 - 110	
39	K	45	4996.00 ppb	1.58	5000	99.9	90 - 110	
43	Ca	45	4810.00 ppb	0.73	5000	96.2	90 - 110	
51	V	72	48.92 ppb	1.25	50	97.8	90 - 110	
52	Cr	72	49.33 ppb	1.69	50	98.7	90 - 110	
55	Mn	72	49.68 ppb	1.09	50	99.4	90 - 110	
57	Fe	72	5031.00 ppb	0.66	5000	100.6	90 - 110	
59	Co	72	48.40 ppb	1.58	50	96.8	90 - 110	
60	Ni	72	49.73 ppb	1.30	50	99.5	90 - 110	
63	Cu	72	49.94 ppb	1.47	50	99.9	90 - 110	
66	Zn	72	48.82 ppb	1.93	50	97.6	90 - 110	
75	As	72	50.37 ppb	0.68	50	100.7	90 - 110	
78	Se	72	52.13 ppb	3.30	50	104.3	90 - 110	
93	Nb	72	295800.00 ppb	5.56	100	295800.0	90 - 110	Fail
95	Mo	72	49.19 ppb	0.34	50	98.4	90 - 110	
105	Pd	115	-211.50 ppb	147.47	50	-423.0	90 - 110	Fail
107	Ag	115	50.00 ppb	0.62	50	100.0	90 - 110	
111	Cd	115	49.20 ppb	0.81	50	98.4	90 - 110	
114	Cd	115	49.01 ppb	2.23	50	98.0	90 - 110	
118	Sn	115	50.08 ppb	1.79	50	100.2	90 - 110	
121	Sb	115	49.29 ppb	0.98	50	98.6	90 - 110	
137	Ba	115	49.35 ppb	1.14	50	98.7	90 - 110	
182	W	165	108.50 ppb	10.66	50	217.0	90 - 110	Fail
195	Pt	165	31.96 ppb	171.50	50	63.9	90 - 110	Fail
205	Tl	165	51.02 ppb	1.55	50	102.0	90 - 110	
208	Pb	165	50.70 ppb	2.07	50	101.4	90 - 110	
232	Th	165	50.71 ppb	2.43	50	101.4	90 - 110	
238	U	165	51.28 ppb	3.53	50	102.6	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	332857	0.23	357213	93.2	30 - 120	
45	Sc	839245	1.10	874931	95.9	30 - 120	
72	Ge	458159	0.61	488215	93.8	30 - 120	
115	In	1489019	0.31	1536240	96.9	30 - 120	
165	Ho	3302067	1.05	3429199	96.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\040\_CCB.D\040\_CCB.D#  
 Date Acquired: Jun 25 2009 07:55 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	10.720	ppb	12.16	20.00	
24 Mg	6	1	-0.161	ppb	28.66	20.00	
27 Al	45	1	0.312	ppb	37.01	20.00	
39 K	45	1	4.319	ppb	17.62	20.00	
43 Ca	45	1	-3.018	ppb	43.61	20.00	
51 V	72	1	-0.014	ppb	211.30	1.00	
52 Cr	72	1	-0.002	ppb	504.97	1.00	
55 Mn	72	1	0.002	ppb	254.01	1.00	
57 Fe	72	1	0.537	ppb	24.58	20.00	
59 Co	72	1	-0.002	ppb	152.30	1.00	
60 Ni	72	1	0.005	ppb	43.20	1.00	
63 Cu	72	1	0.014	ppb	31.27	1.00	
66 Zn	72	1	0.074	ppb	29.04	10.00	
75 As	72	1	0.002	ppb	220.68	1.00	
78 Se	72	1	0.358	ppb	28.47	1.00	
93 Nb	72	1	200100.000	ppb	9.95	2.00	Fail
95 Mo	72	1	0.049	ppb	28.99	1.00	
105 Pd	115	1	-98.540	ppb	174.55	1.00	
107 Ag	115	1	0.566	ppb	15.16	1.00	
111 Cd	115	1	0.009	ppb	43.15	1.00	
114 Cd	115	1	0.012	ppb	18.99	1.00	
118 Sn	115	1	0.457	ppb	2.92	10.00	
121 Sb	115	1	0.229	ppb	3.57	1.00	
137 Ba	115	1	0.007	ppb	56.18	1.00	
182 W	165	1	16.890	ppb	120.07	5.00	Fail
195 Pt	165	1	191.000	ppb	114.71	1.00	Fail
205 Tl	165	1	0.041	ppb	3.35	1.00	
208 Pb	165	1	0.010	ppb	17.05	1.00	
232 Th	165	1	0.843	ppb	14.20	2.00	
238 U	165	1	0.009	ppb	8.50	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	342068	0.36	357213	95.8	30 - 120	
45 Sc	1	870331	1.04	874931	99.5	30 - 120	
72 Ge	1	487820	0.23	488215	99.9	30 - 120	
115 In	1	1552133	0.84	1536240	101.0	30 - 120	
165 Ho	1	3356175	0.82	3429199	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\041WASH.D\041WASH.D#  
 Date Acquired: Jun 25 2009 07:59 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.826 ppb	13.06	1.30	
23 Na	6	1	62.380 ppb	2.41	65.00	
24 Mg	6	1	54.380 ppb	2.62	65.00	
27 Al	45	1	31.990 ppb	0.56	39.00	
39 K	45	1	107.900 ppb	0.32	130.00	
43 Ca	45	1	43.640 ppb	18.66	65.00	
51 V	72	1	4.998 ppb	2.61	6.50	
52 Cr	72	1	1.932 ppb	3.77	2.60	
55 Mn	72	1	1.035 ppb	1.40	1.30	
57 Fe	72	1	50.580 ppb	1.61	65.00	
59 Co	72	1	1.014 ppb	3.12	1.30	
60 Ni	72	1	2.108 ppb	1.75	2.60	
63 Cu	72	1	2.068 ppb	0.35	2.60	
66 Zn	72	1	9.893 ppb	2.70	13.00	
75 As	72	1	5.025 ppb	2.69	6.50	
78 Se	72	1	5.913 ppb	10.41	6.50	
93 Nb	72	1	153600.000 ppb	9.09	52.00	
95 Mo	72	1	1.943 ppb	7.32	2.60	
105 Pd	115	1	100.000 ppb	0.00	1.30	
107 Ag	115	1	5.551 ppb	1.79	6.50	
111 Cd	115	1	0.983 ppb	4.98	1.30	
114 Cd	115	1	1.217 ppb	3.90	1.30	
118 Sn	115	1	10.280 ppb	1.85	13.00	
121 Sb	115	1	2.014 ppb	1.23	2.60	
137 Ba	115	1	1.031 ppb	3.47	1.30	
182 W	165	1	7.650 ppb	132.16	6.50	
195 Pt	165	1	51.680 ppb	213.43	1.30	
205 Tl	165	1	1.107 ppb	1.98	1.30	
208 Pb	165	1	1.054 ppb	3.41	1.30	
232 Th	165	1	2.297 ppb	2.11	2.60	
238 U	165	1	1.087 ppb	2.74	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	342745	1.04	357213	95.9	30 - 120	
45 Sc	1	878289	0.18	874931	100.4	30 - 120	
72 Ge	1	486801	0.25	488215	99.7	30 - 120	
115 In	1	1569368	0.39	1536240	102.2	30 - 120	
165 Ho	1	3398464	0.55	3429199	99.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\042\_BLK.D\042\_BLK.D#  
 Date Acquired: Jun 25 2009 08:02 pm  
 Operator: TEL  
 Sample Name: LFFFFXB  
 Misc Info: BLANK 9174190 6020  
 Vial Number: 2201  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: BLK  
 Total Dil Factor: 1.00

## QC Summary:

Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
23 Na	6	1	7.942 ppb	6.98	40.00	
24 Mg	6	1	-0.024 ppb	514.36	40.00	
27 Al	45	1	0.692 ppb	36.17	40.00	
39 K	45	1	1.278 ppb	17.27	40.00	
43 Ca	45	1	0.715 ppb	631.38	40.00	
51 V	72	1	0.008 ppb	168.52	2.00	
52 Cr	72	1	0.033 ppb	79.93	2.00	
55 Mn	72	1	0.025 ppb	20.91	2.00	
57 Fe	72	1	0.789 ppb	15.39	40.00	
59 Co	72	1	-0.008 ppb	56.98	2.00	
60 Ni	72	1	0.025 ppb	39.31	2.00	
63 Cu	72	1	0.033 ppb	24.37	2.00	
66 Zn	72	1	0.287 ppb	3.10	20.00	
75 As	72	1	0.005 ppb	213.46	2.00	
78 Se	72	1	0.093 ppb	203.92	2.00	
93 Nb	72	1	141200.000 ppb	11.37	4.00	Fail
95 Mo	72	1	0.006 ppb	111.04	2.00	
105 Pd	115	1	-192.400 ppb	150.88	2.00	
107 Ag	115	1	0.058 ppb	7.02	2.00	
111 Cd	115	1	0.007 ppb	180.74	2.00	
114 Cd	115	1	0.017 ppb	27.48	2.00	
118 Sn	115	1	0.402 ppb	6.81	20.00	
121 Sb	115	1	0.072 ppb	10.34	2.00	
137 Ba	115	1	0.014 ppb	54.61	2.00	
182 W	165	1	23.290 ppb	253.41	10.00	Fail
195 Pt	165	1	171.000 ppb	118.19	2.00	Fail
205 Tl	165	1	0.013 ppb	34.54	2.00	
208 Pb	165	1	0.012 ppb	11.64	2.00	
232 Th	165	1	0.191 ppb	12.10	4.00	
238 U	165	1	0.002 ppb	12.09	2.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range (%)	Flag
6 Li	1	344167	0.94	357213	96.3	30 - 120	
45 Sc	1	884330	0.77	874931	101.1	30 - 120	
72 Ge	1	484832	0.72	488215	99.3	30 - 120	
115 In	1	1573611	1.19	1536240	102.4	30 - 120	
165 Ho	1	3426259	1.24	3429199	99.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Laboratory Control Spike (LCS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\043\_LCS.D\043\_LCS.D#  
 Date Acquired: Jun 25 2009 08:06 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LFFFXC  
 Misc Info: LCS  
 Vial Number: 2202  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: LCS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	39.77	1.53	40	99.4	80 - 120	
23 Na	6	1	12.94	6.33	4000	0.3	80 - 120	
24 Mg	6	1	0.20	13.52	4000	0.0	80 - 120	
27 Al	45	1	45.13	1.04	4000	1.1	80 - 120	
39 K	45	1	4.48	36.17	4000	0.1	80 - 120	
43 Ca	45	1	0.16	#####	4000	0.0	80 - 120	
51 V	72	1	40.53	0.89	40	101.3	80 - 120	
52 Cr	72	1	41.13	1.04	40	102.8	80 - 120	
55 Mn	72	1	41.09	0.97	40	102.7	80 - 120	
57 Fe	72	1	0.60	62.76	4000	0.0	80 - 120	
59 Co	72	1	40.36	0.57	40	100.9	80 - 120	
60 Ni	72	1	41.39	1.35	40	103.5	80 - 120	
63 Cu	72	1	42.61	0.81	40	106.5	80 - 120	
66 Zn	72	1	39.66	1.04	40	99.2	80 - 120	
75 As	72	1	39.61	0.74	40	99.0	80 - 120	
78 Se	72	1	42.53	5.78	40	106.3	80 - 120	
93 Nb	72	1	112100.00	10.70	80	140125.0	80 - 120	
95 Mo	72	1	39.82	0.81	40	99.6	80 - 120	
105 Pd	115	1	-105.00	169.14	40	-262.5	80 - 120	
107 Ag	115	1	41.84	0.59	40	104.6	80 - 120	
111 Cd	115	1	40.03	0.80	40	100.1	80 - 120	
114 Cd	115	1	38.89	1.19	40	97.2	80 - 120	
118 Sn	115	1	0.13	14.91	40	0.3	80 - 120	
121 Sb	115	1	40.17	1.14	40	100.4	80 - 120	
137 Ba	115	1	41.28	1.04	40	103.2	80 - 120	
182 W	165	1	46.31	58.80	40	115.8	80 - 120	
195 Pt	165	1	-226.10	65.90	40	-565.3	80 - 120	
205 Tl	165	1	42.48	0.49	40	106.2	80 - 120	
208 Pb	165	1	42.34	0.96	40	105.9	80 - 120	
232 Th	165	1	44.02	1.58	40	110.1	80 - 120	
238 U	165	1	41.40	1.08	40	103.5	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	334934	1.49	357213	93.8	30 - 120	
45 Sc	1	857273	1.95	874931	98.0	30 - 120	
72 Ge	1	466043	1.48	488215	95.5	30 - 120	
115 In	1	1511830	1.47	1536240	98.4	30 - 120	
165 Ho	1	3344089	0.94	3429199	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\044SMPL.D\044SMPL.D#  
 Date Acquired: Jun 25 2009 08:09 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE709 10X  
 Misc Info: D9F180314  
 Vial Number: 2203  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 10.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 10.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.15	0.01	ppb	86.56	3600	
23 Na	6	1	1,173,000.00	117300.00	ppb	0.72	100000	>LDR
24 Mg	6	1	253,500.00	25350.00	ppb	0.72	100000	
27 Al	45	1	1,034.00	103.40	ppb	2.53	100000	
39 K	45	1	24,450.00	2445.00	ppb	3.05	100000	
43 Ca	45	1	459,700.00	45970.00	ppb	3.07	100000	
51 V	72	1	15.94	1.59	ppb	6.55	3600	
52 Cr	72	1	825.90	82.59	ppb	1.14	3600	
55 Mn	72	1	173.50	17.35	ppb	2.04	18000	
57 Fe	72	1	1,659.00	165.90	ppb	2.29	100000	
59 Co	72	1	0.81	0.08	ppb	11.83	3600	
60 Ni	72	1	5.28	0.53	ppb	9.91	3600	
63 Cu	72	1	2.04	0.20	ppb	14.72	3600	
66 Zn	72	1	4.58	0.46	ppb	8.59	3600	
75 As	72	1	111.90	11.19	ppb	0.44	3600	
78 Se	72	1	6.75	0.67	ppb	92.84	3600	
93 Nb	72	1	1,021,000.00	102100.00	ppb	4.18	2000	>LDR
95 Mo	72	1	109.20	10.92	ppb	1.21	3600	
105 Pd	115	1	-427,200.00	-42720.00	ppb	1.89	1000	
107 Ag	115	1	0.49	0.05	ppb	1.88	3600	
111 Cd	115	1	0.17	0.02	ppb	99.41	3600	
114 Cd	115	1	0.24	0.02	ppb	89.21	3600	
118 Sn	115	1	2.10	0.21	ppb	11.20	3600	
121 Sb	115	1	0.85	0.08	ppb	1.17	3600	
137 Ba	115	1	31.01	3.10	ppb	3.75	3600	
182 W	165	1	880,600.00	88060.00	ppb	1.70	1000	>LDR
195 Pt	165	1	-5,452.00	-545.20	ppb	34.65	1000	
205 Tl	165	1	0.26	0.03	ppb	17.83	3600	
208 Pb	165	1	0.60	0.06	ppb	8.40	3600	
232 Th	165	1	7.87	0.79	ppb	16.35	1000	
238 U	165	1	27.94	2.79	ppb	2.79	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	336376	1.15	357213	94.2	30 - 120	
45 Sc	1	816474	3.44	874931	93.3	30 - 120	
72 Ge	1	435413	0.15	488215	89.2	30 - 120	
115 In	1	1412428	0.78	1536240	91.9	30 - 120	
165 Ho	1	3242351	1.05	3429199	94.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\045AREF.D\045AREF.D#  
 Date Acquired: Jun 25 2009 08:13 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CT 5X  
 Misc Info: D9F180266  
 Vial Number: 2204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: AllRef  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	3.74	0.75	ppb	21.68	3600	
23 Na	6	1	125,650.00	25130.00	ppb	0.29	100000	
24 Mg	6	1	368,700.00	73740.00	ppb	0.94	100000	
27 Al	45	1	21,970.00	4394.00	ppb	1.27	100000	
39 K	45	1	43,265.00	8653.00	ppb	1.15	100000	
43 Ca	45	1	586,000.00	117200.00	ppb	1.52	100000	>LDR NR
51 V	72	1	92.10	18.42	ppb	1.84	3600	
52 Cr	72	1	45.09	9.02	ppb	3.58	3600	
55 Mn	72	1	217,150.00	43430.00	ppb	0.90	18000	>LDR NR
57 Fe	72	1	18,695.00	3739.00	ppb	1.33	100000	
59 Co	72	1	24.33	4.87	ppb	2.79	3600	
60 Ni	72	1	60.90	12.18	ppb	0.23	3600	
63 Cu	72	1	218.35	43.67	ppb	1.02	3600	
66 Zn	72	1	86.50	17.30	ppb	1.27	3600	
75 As	72	1	63.90	12.78	ppb	2.51	3600	
78 Se	72	1	13.62	2.72	ppb	17.64	3600	
93 Nb	72	1	1,028,000.00	205600.00	ppb	4.14	2000	>LDR NR
95 Mo	72	1	3.63	0.73	ppb	8.20	3600	
105 Pd	115	1	-329,600.00	-65920.00	ppb	9.60	1000	
107 Ag	115	1	0.12	0.02	ppb	11.98	3600	
111 Cd	115	1	1.11	0.22	ppb	1.75	3600	
114 Cd	115	1	1.14	0.23	ppb	12.53	3600	
118 Sn	115	1	2.18	0.44	ppb	2.42	3600	
121 Sb	115	1	0.39	0.08	ppb	4.81	3600	
137 Ba	115	1	107.25	21.45	ppb	2.83	3600	
182 W	165	1	20,790.00	4158.00	ppb	1.92	1000	>LDR NR
195 Pt	165	1	-6,630.00	-1326.00	ppb	38.91	1000	
205 Tl	165	1	0.52	0.10	ppb	3.36	3600	
208 Pb	165	1	15.46	3.09	ppb	1.85	3600	
232 Th	165	1	9.64	1.93	ppb	3.08	1000	
238 U	165	1	15.12	3.02	ppb	2.38	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	345442	0.63	357213	96.7	30 - 120	
45 Sc	1	796186	0.82	874931	91.0	30 - 120	
72 Ge	1	418901	1.00	488215	85.8	30 - 120	
115 In	1	1390221	0.99	1536240	90.5	30 - 120	
165 Ho	1	3262596	0.18	3429199	95.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



Denver

SERIAL DILUTION

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/26/09 15:10:48

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTP25

Serial Dilution: 25.00

Sample Dilution: 5.00

Instrument: Agilent7500  
File: AG062509 # 46  
Acquired: 06/25/2009 20:16:00  
Calibrated: 06/25/2009 17:50:00

Channel 272  
Method 6020\_  
ICPMS\_024  
Matrix: AQUEOUS  
Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	60	3.3490	3.7380	10.4		*	
7440-62-2	Vanadium	51	21815	88.800	92.120	3.60		*	
7440-47-3	Chromium	52	14214	44.305	45.080	1.72		*	
7439-96-5	Manganese	55	57118700	217400	217100	0.138		*	
7440-48-4	Cobalt	59	9990	23.795	24.330	2.20		*	
7440-02-0	Nickel	60	6382	66.050	60.910	8.44		*	
7440-50-8	Copper	63	53954	228.35	218.30	4.60		*	
7440-66-6	Zinc	66	5079	114.85	86.490	32.8		*	
7440-38-2	Arsenic	75	1744	64.150	63.880	0.423	0.21	NC	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	107	18.160	13.610	33.4	0.70	NC	<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	537	4.2470	3.6270	17.1		*	
7440-22-4	Silver	107	97	0.23790	0.12380	92.2		*	
7440-43-9	Cadmium	111	108	1.6145	1.1080	45.7		*	
7440-31-5	Tin	118	1160	6.3750	2.1760	193		*	
7440-36-0	Antimony	121	188	1.0730	0.39350	173		*	
7440-39-3	Barium	137	7731	115.40	107.20	7.65		*	
7440-28-0	Thallium	205	560	0.60800	0.52160	16.6		*	
7439-92-1	Lead	208	18607	17.560	15.460	13.6		*	
7440-61-1	Uranium	238	18539	16.155	15.120	6.85		*	
7440-23-5	Sodium	23	12327400	131550	125600	4.74		*	
7439-95-4	Magnesium	24	22301600	394150	368700	6.90		*	
7429-90-5	Aluminum	27	951927	24665	21970	12.3		*	
7440-09-7	Potassium	39	2536740	45700	43260	5.64		*	
7440-70-2	Calcium	43	95680	608000	586200	3.72		*	
7439-89-6	Iron	57	141690	19040	18700	1.82		*	
7440-03-1	Niobium	93	2754	2128500	1028000	107		*	
7440-05-3	Palladium	105	453	-363200	-329600			*	
7440-43-9	Cadmium	114	200	1.1585	1.1430	1.36		*	
7440-33-7	Tungsten	182	2060	24490	20790	17.8		*	
7440-06-4	Platinum	195	437	-31535	-6633.0			*	
7440-29-1	Thorium	232	9537	9.8650	9.6390	2.34		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

*AS only*  
*Z*  
*6/29/09*

\* Analyte not requested for this batch, no MDL  
NC : Serial dilution concentration < 100 X MDL  
E : Difference greater than Limit (10%)

Reviewed by: *Z* Date: *6/29/09*

## Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\047PDS.D\047PDS.D#  
 Date Acquired: Jun 25 2009 08:20 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CTZ  
 Misc Info: POST DIGESTION SPIKE  
 Vial Number: 2206  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: PDS  
 Prep Dil. Factor: 1.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

Spike Ref. File: ----

## QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	177.30	0.75	ppb	2.77	200	88.3	75 - 125	
23 Na	6	1	24490.00	25130.00	ppb	1.30	200000	10.9	75 - 125	
24 Mg	6	1	72400.00	73740.00	ppb	1.98	200000	26.4	75 - 125	
27 Al	45	1	4388.00	4394.00	ppb	1.87	200000	2.1	75 - 125	
39 K	45	1	8484.00	8653.00	ppb	1.98	200000	4.1	75 - 125	
43 Ca	45	1	115900.00	117200.00	ppb	2.58	200000	36.5	75 - 125	
51 V	72	1	224.30	18.42	ppb	1.22	200	102.7	75 - 125	
52 Cr	72	1	212.70	9.02	ppb	0.72	200	101.8	75 - 125	
55 Mn	72	1	43400.00	43430.00	ppb	1.20	200	99.5	75 - 125	
57 Fe	72	1	3673.00	3739.00	ppb	2.50	200000	1.8	75 - 125	
59 Co	72	1	194.30	4.86	ppb	1.29	200	94.8	75 - 125	
60 Ni	72	1	199.60	12.18	ppb	1.78	200	94.1	75 - 125	
63 Cu	72	1	231.90	43.67	ppb	1.42	200	95.2	75 - 125	
66 Zn	72	1	203.30	17.30	ppb	1.50	200	93.6	75 - 125	
75 As	72	1	211.60	12.78	ppb	1.55	200	99.4	75 - 125	
78 Se	72	1	220.90	2.72	ppb	2.26	200	109.0	75 - 125	
93 Nb	72	1	178100.00	205600.00	ppb	1.71	400	86.5	75 - 125	
95 Mo	72	1	202.70	0.73	ppb	1.67	200	101.0	75 - 125	
105 Pd	115	1	-70340.00	-65920.00	ppb	15.70	200	107.0	75 - 125	
107 Ag	115	1	45.21	0.02	ppb	2.20	50	90.4	75 - 125	
111 Cd	115	1	188.30	0.22	ppb	2.54	200	94.0	75 - 125	
114 Cd	115	1	188.20	0.23	ppb	2.32	200	94.0	75 - 125	
118 Sn	115	1	179.30	0.44	ppb	2.95	200	89.5	75 - 125	
121 Sb	115	1	196.50	0.08	ppb	2.73	200	98.2	75 - 125	
137 Ba	115	1	222.40	21.45	ppb	2.36	200	100.4	75 - 125	
182 W	165	1	4078.00	4158.00	ppb	1.49	200	93.6	75 - 125	
195 Pt	165	1	-301.40	-1326.00	ppb	84.44	200	26.8	75 - 125	
205 Tl	165	1	189.30	0.10	ppb	2.01	200	94.6	75 - 125	
208 Pb	165	1	191.10	3.09	ppb	2.14	200	94.1	75 - 125	
232 Th	165	1	1.74	1.93	ppb	4.46	200	0.9	75 - 125	
238 U	165	1	197.90	3.02	ppb	2.62	200	97.5	75 - 125	

## ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	325497	1.29	357213	91.1	30 - 120	
45 Sc	1	739834	1.32	874931	84.6	30 - 120	
72 Ge	1	393784	0.94	488215	80.7	30 - 120	
115 In	1	1321729	1.38	1536240	86.0	30 - 120	
165 Ho	1	3104206	1.60	3429199	90.5	30 - 120	

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 Tune File

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS)

ICPMS\_024

Reported: 06/26/09 15:10:55

Department: 090 (Metals)

Source: Spreadsheet

Sample: LE7CTZ

Spike Dilution: 1.00

Sample Dilution: 5.00

Instrument: Agilent7500

Channel 272

File: AG062509 # 47

Method 6020\_

Acquired: 06/25/2009 20:20:00

ICPMS\_024

Matrix: AQUEOUS

Calibrated: 06/25/2009 17:50:00

Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	76738	177.30	0.74760	88.3	200		☑
7440-62-2	Vanadium	51	1230350	224.30	18.424	103	200		☑
7440-47-3	Chromium	52	1344140	212.70	9.0160	102	200		☑
7439-96-5	Manganese	55	54232000	43400	43420	0.00	200	*	☐
7440-48-4	Cobalt	59	1797210	194.30	4.8660	94.7	200		☑
7440-02-0	Nickel	60	428374	199.60	12.182	93.7	200		☑
7440-50-8	Copper	63	1216920	231.90	43.660	94.1	200		☑
7440-66-6	Zinc	66	196464	203.30	17.298	93.0	200		☑
7440-38-2	Arsenic	75	126586	211.60	12.776	99.4	200		☑
7782-49-2	Selenium	78	19985	220.90	2.7220	109	200		☑
7439-98-7	Molybdenum	95	519946	202.70	0.72540	101	200		☑
7440-22-4	Silver	107	383551	45.210	0.02476	90.4	50.0		☑
7440-43-9	Cadmium	111	271982	188.30	0.22160	94.0	200		☑
7440-31-5	Tin	118	640204	179.30	0.43520	89.4	200		☑
7440-36-0	Antimony	121	738908	196.50	0.07870	98.2	200		☑
7440-39-3	Barium	137	342571	222.40	21.440	100	200		☑
7440-28-0	Thallium	205	3451230	189.30	0.10432	94.6	200		☑
7439-92-1	Lead	208	4771140	191.10	3.0920	94.0	200		☑
7440-61-1	Uranium	238	5382990	197.90	3.0240	97.4	200		☑
7440-23-5	Sodium	23	54755500	24490	25120				
7439-95-4	Magnesium	24	98863900	72400	73740				
7429-90-5	Aluminum	27	3945430	4388.0	4394.0				
7440-09-7	Potassium	39	10801400	8484.0	8652.0				
7440-70-2	Calcium	43	425172	115900	117240				
7439-89-6	Iron	57	608947	3673.0	3740.0				
7440-03-1	Niobium	93	5118	178100	205600				
7440-05-3	Palladium	105	2014	-70340	-65920				
7440-43-9	Cadmium	114	677452	188.20	0.22860				
7440-33-7	Tungsten	182	6408	4078.0	4158.0				
7440-06-4	Platinum	195	213	-301.40	-1326.6				
7440-29-1	Thorium	232	39034	1.7350	1.9278				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

As only  
Z  
b/26/09

Reviewed by:

Date:

6/26/09

## Spiked Sample (MS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\048\_MS.D\048\_MS.D#  
 Date Acquired: Jun 25 2009 08:23 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CTS 5X  
 Misc Info: MATRIX SPIKE  
 Vial Number: 2207  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: MS  
 Prep Dil. Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

Spike Ref. File: ---

## QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	7.97	0.75	ppb	3.99	40	19.6	50 - 150	
23 Na	6	1	25030.00	25130.00	ppb	0.83	4000	85.9	50 - 150	
24 Mg	6	1	73470.00	73740.00	ppb	0.54	4000	94.5	50 - 150	
27 Al	45	1	4311.00	4394.00	ppb	0.64	4000	51.4	50 - 150	
39 K	45	1	8675.00	8653.00	ppb	0.53	4000	68.6	50 - 150	
43 Ca	45	1	118500.00	117200.00	ppb	1.70	4000	97.8	50 - 150	
51 V	72	1	26.52	18.42	ppb	2.45	40	45.4	50 - 150	
52 Cr	72	1	17.10	9.02	ppb	2.28	40	34.9	50 - 150	
55 Mn	72	1	44050.00	43430.00	ppb	1.14	40	101.3	50 - 150	
57 Fe	72	1	3646.00	3739.00	ppb	1.97	4000	47.1	50 - 150	
59 Co	72	1	12.68	4.86	ppb	2.27	40	28.3	50 - 150	
60 Ni	72	1	20.55	12.18	ppb	2.00	40	39.4	50 - 150	
63 Cu	72	1	51.57	43.67	ppb	2.01	40	61.6	50 - 150	
66 Zn	72	1	24.36	17.30	ppb	1.63	40	42.5	50 - 150	
75 As	72	1	21.28	12.78	ppb	1.81	40	40.3	50 - 150	
78 Se	72	1	10.86	2.72	ppb	2.35	40	25.4	50 - 150	
93 Nb	72	1	161600.00	205600.00	ppb	10.07	80	78.6	50 - 150	
95 Mo	72	1	8.46	0.73	ppb	2.87	40	20.8	50 - 150	
105 Pd	115	1	-68210.00	-65920.00	ppb	3.76	40	103.5	50 - 150	
107 Ag	115	1	7.51	0.02	ppb	2.32	40	18.8	50 - 150	
111 Cd	115	1	7.95	0.22	ppb	3.58	40	19.8	50 - 150	
114 Cd	115	1	7.96	0.23	ppb	4.85	40	19.8	50 - 150	
118 Sn	115	1	0.63	0.44	ppb	1.13	40	1.6	50 - 150	
121 Sb	115	1	5.15	0.08	ppb	3.28	40	12.8	50 - 150	
137 Ba	115	1	29.40	21.45	ppb	1.66	40	47.8	50 - 150	
182 W	165	1	4791.00	4158.00	ppb	4.03	40	114.1	50 - 150	
195 Pt	165	1	-69.05	-1326.00	ppb	308.47	40	5.4	50 - 150	
205 Tl	165	1	8.06	0.10	ppb	1.13	40	20.1	50 - 150	
208 Pb	165	1	11.07	3.09	ppb	0.91	40	25.7	50 - 150	
232 Th	165	1	10.80	1.93	ppb	0.11	40	25.8	50 - 150	
238 U	165	1	11.75	3.02	ppb	2.01	40	27.3	50 - 150	

## ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	323919	0.57	357213	90.7	30 - 120	
45 Sc	1	736519	0.41	874931	84.2	30 - 120	
72 Ge	1	389833	0.42	488215	79.8	30 - 120	
115 In	1	1316916	0.66	1536240	85.7	30 - 120	
165 Ho	1	3129832	0.72	3429199	91.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures                    0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                      0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\049\_CCV.D\049\_CCV.D#  
 Date Acquired: Jun 25 2009 08:27 pm  
 Operator: TEL  
 Sample Name: CCV  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

## QC Summary:

Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.82 ppb	2.13	50	97.6	90 - 110	
23 Na	6	1	4933.00 ppb	1.71	5000	98.7	90 - 110	
24 Mg	6	1	4918.00 ppb	0.84	5000	98.4	90 - 110	
27 Al	45	1	5066.00 ppb	2.97	5000	101.3	90 - 110	
39 K	45	1	5082.00 ppb	1.15	5000	101.6	90 - 110	
43 Ca	45	1	5010.00 ppb	3.12	5000	100.2	90 - 110	
51 V	72	1	48.91 ppb	0.74	50	97.8	90 - 110	
52 Cr	72	1	49.14 ppb	1.46	50	98.3	90 - 110	
55 Mn	72	1	51.28 ppb	1.62	50	102.6	90 - 110	
57 Fe	72	1	4869.00 ppb	1.55	5000	97.4	90 - 110	
59 Co	72	1	48.40 ppb	0.47	50	96.8	90 - 110	
60 Ni	72	1	49.65 ppb	1.40	50	99.3	90 - 110	
63 Cu	72	1	49.63 ppb	1.77	50	99.3	90 - 110	
66 Zn	72	1	49.29 ppb	1.14	50	98.6	90 - 110	
75 As	72	1	49.70 ppb	1.61	50	99.4	90 - 110	
78 Se	72	1	54.83 ppb	7.13	50	109.7	90 - 110	
93 Nb	72	1	46450.00 ppb	0.87	100	46450.0	90 - 110	Fail
95 Mo	72	1	49.80 ppb	1.31	50	99.6	90 - 110	
105 Pd	115	1	-15.41 ppb	1297.20	50	-30.8	90 - 110	Fail
107 Ag	115	1	49.41 ppb	2.33	50	98.8	90 - 110	
111 Cd	115	1	49.45 ppb	2.43	50	98.9	90 - 110	
114 Cd	115	1	49.48 ppb	2.69	50	99.0	90 - 110	
118 Sn	115	1	50.34 ppb	3.61	50	100.7	90 - 110	
121 Sb	115	1	49.58 ppb	2.29	50	99.2	90 - 110	
137 Ba	115	1	51.06 ppb	3.52	50	102.1	90 - 110	
182 W	165	1	48.41 ppb	105.21	50	96.8	90 - 110	
195 Pt	165	1	32.31 ppb	513.15	50	64.6	90 - 110	Fail
205 Tl	165	1	52.37 ppb	2.92	50	104.7	90 - 110	
208 Pb	165	1	52.02 ppb	3.21	50	104.0	90 - 110	
232 Th	165	1	53.43 ppb	2.83	50	106.9	90 - 110	
238 U	165	1	53.19 ppb	2.85	50	106.4	90 - 110	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	303437	0.40	357213	84.9	30 - 120	
45 Sc	1	722820	0.93	874931	82.6	30 - 120	
72 Ge	1	411767	0.43	488215	84.3	30 - 120	
115 In	1	1366274	1.88	1536240	88.9	30 - 120	
165 Ho	1	3094805	1.50	3429199	90.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures  
 0 :ISTD Failures

0 :Max. Number of Failures Allowed  
 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\050\_CCB.D\050\_CCB.D#  
 Date Acquired: Jun 25 2009 08:30 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	1.00	
23 Na	6	1	2.259 ppb	79.28	20.00	
24 Mg	6	1	0.333 ppb	44.49	20.00	
27 Al	45	1	0.355 ppb	20.80	20.00	
39 K	45	1	-1.224 ppb	43.93	20.00	
43 Ca	45	1	-2.622 ppb	153.32	20.00	
51 V	72	1	0.010 ppb	279.56	1.00	
52 Cr	72	1	0.002 ppb	1526.30	1.00	
55 Mn	72	1	0.213 ppb	8.90	1.00	
57 Fe	72	1	0.625 ppb	32.17	20.00	
59 Co	72	1	-0.001 ppb	150.25	1.00	
60 Ni	72	1	0.009 ppb	66.92	1.00	
63 Cu	72	1	0.013 ppb	36.81	1.00	
66 Zn	72	1	0.077 ppb	36.59	10.00	
75 As	72	1	0.013 ppb	176.36	1.00	
78 Se	72	1	0.389 ppb	94.30	1.00	
93 Nb	72	1	37730.000 ppb	8.04	2.00	Fail
95 Mo	72	1	0.047 ppb	49.00	1.00	
105 Pd	115	1	-6.045 ppb	3038.90	1.00	
107 Ag	115	1	0.025 ppb	12.20	1.00	
111 Cd	115	1	0.010 ppb	64.21	1.00	
114 Cd	115	1	0.011 ppb	14.30	1.00	
118 Sn	115	1	0.354 ppb	4.10	10.00	
121 Sb	115	1	0.204 ppb	5.95	1.00	
137 Ba	115	1	0.005 ppb	2.62	1.00	
182 W	165	1	29.380 ppb	321.14	5.00	Fail
195 Pt	165	1	29.030 ppb	1396.80	1.00	Fail
205 Tl	165	1	0.025 ppb	10.38	1.00	
208 Pb	165	1	0.008 ppb	20.25	1.00	
232 Th	165	1	0.725 ppb	16.47	2.00	
238 U	165	1	0.010 ppb	8.79	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	314692	0.96	357213	88.1	30 - 120	
45 Sc	1	774211	1.50	874931	88.5	30 - 120	
72 Ge	1	445434	1.20	488215	91.2	30 - 120	
115 In	1	1458822	1.10	1536240	95.0	30 - 120	
165 Ho	1	3220969	0.39	3429199	93.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\051WASH.D\051WASH.D#  
 Date Acquired: Jun 25 2009 08:34 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.968 ppb	20.57	1.30	
23 Na	6	1	74.820 ppb	1.20	65.00	
24 Mg	6	1	54.680 ppb	1.88	65.00	
27 Al	45	1	32.120 ppb	4.18	39.00	
39 K	45	1	107.900 ppb	6.65	130.00	
43 Ca	45	1	47.630 ppb	11.17	65.00	
51 V	72	1	4.824 ppb	3.33	6.50	
52 Cr	72	1	1.943 ppb	5.37	2.60	
55 Mn	72	1	1.160 ppb	2.99	1.30	
57 Fe	72	1	48.730 ppb	5.04	65.00	
59 Co	72	1	0.934 ppb	3.48	1.30	
60 Ni	72	1	2.093 ppb	5.93	2.60	
63 Cu	72	1	2.039 ppb	2.01	2.60	
66 Zn	72	1	10.090 ppb	1.80	13.00	
75 As	72	1	5.097 ppb	1.59	6.50	
78 Se	72	1	5.262 ppb	16.62	6.50	
93 Nb	72	1	31530.000 ppb	5.93	52.00	
95 Mo	72	1	1.930 ppb	3.14	2.60	
105 Pd	115	1	1.546 ppb	11028.00	1.30	
107 Ag	115	1	5.128 ppb	1.68	6.50	
111 Cd	115	1	1.054 ppb	6.59	1.30	
114 Cd	115	1	1.238 ppb	3.21	1.30	
118 Sn	115	1	10.090 ppb	2.87	13.00	
121 Sb	115	1	2.001 ppb	2.65	2.60	
137 Ba	115	1	1.078 ppb	7.43	1.30	
182 W	165	1	54.400 ppb	118.68	6.50	
195 Pt	165	1	103.500 ppb	226.57	1.30	
205 Tl	165	1	1.111 ppb	2.11	1.30	
208 Pb	165	1	1.085 ppb	2.00	1.30	
232 Th	165	1	2.323 ppb	2.05	2.60	
238 U	165	1	1.079 ppb	2.97	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	329086	0.64	357213	92.1	30 - 120	
45 Sc	1	836283	3.25	874931	95.6	30 - 120	
72 Ge	1	478794	0.67	488215	98.1	30 - 120	
115 In	1	1553843	0.98	1536240	101.1	30 - 120	
165 Ho	1	3364785	0.21	3429199	98.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\052\_MSD.D\052\_MSD.D#  
 Date Acquired: Jun 25 2009 08:37 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE7CTD 5X  
 Misc Info: MATRIX SPIKE DUPLICATE  
 Vial Number: 2208  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: MSD  
 Dilution Factor: 5.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG062509.B\048\_MS.D\048\_MS.D#

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	8.56 ppb	4.89	7.97	7.15	20	
23 Na	6	1	26090.00 ppb	0.85	25030.00	4.15	20	
24 Mg	6	1	77520.00 ppb	1.80	73470.00	5.36	20	
27 Al	45	1	4321.00 ppb	1.81	4311.00	0.23	20	
39 K	45	1	8935.00 ppb	0.29	8675.00	2.95	20	
43 Ca	45	1	123000.00 ppb	1.45	118500.00	3.73	20	
51 V	72	1	26.80 ppb	0.58	26.52	1.05	20	
52 Cr	72	1	17.03 ppb	2.62	17.10	0.41	20	
55 Mn	72	1	44420.00 ppb	1.38	44050.00	0.84	20	
57 Fe	72	1	3582.00 ppb	1.80	3646.00	1.77	20	
59 Co	72	1	12.57 ppb	1.45	12.68	0.87	20	
60 Ni	72	1	20.33 ppb	2.91	20.55	1.08	20	
63 Cu	72	1	52.05 ppb	2.86	51.57	0.93	20	
66 Zn	72	1	24.82 ppb	0.71	24.36	1.87	20	
75 As	72	1	21.94 ppb	1.03	21.28	3.05	20	
78 Se	72	1	10.89 ppb	5.14	10.86	0.28	20	
93 Nb	72	1	133500.00 ppb	8.67	161600.00	19.04	20	
95 Mo	72	1	8.61 ppb	3.58	8.46	1.76	20	
105 Pd	115	1	-71220.00 ppb	9.57	-68210.00	-4.32	20	
107 Ag	115	1	7.74 ppb	0.66	7.51	3.03	20	
111 Cd	115	1	8.48 ppb	1.14	7.95	6.48	20	
114 Cd	115	1	8.04 ppb	1.83	7.95	1.06	20	
118 Sn	115	1	0.48 ppb	7.14	0.63	27.82	20	
121 Sb	115	1	5.41 ppb	1.57	5.15	4.87	20	
137 Ba	115	1	29.73 ppb	1.75	29.40	1.12	20	
182 W	165	1	4763.00 ppb	4.36	4791.00	0.59	20	
195 Pt	165	1	-145.30 ppb	148.80	-69.05	-71.15	20	
205 Tl	165	1	8.33 ppb	2.26	8.06	3.27	20	
208 Pb	165	1	11.24 ppb	2.15	11.07	1.52	20	
232 Th	165	1	11.25 ppb	2.31	10.80	4.08	20	
238 U	165	1	11.84 ppb	3.05	11.75	0.76	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	324438	1.16	357213	90.8	30 - 120	
45 Sc	1	761049	0.04	874931	87.0	30 - 120	
72 Ge	1	409345	0.59	488215	83.8	30 - 120	
115 In	1	1343378	0.37	1536240	87.4	30 - 120	
165 Ho	1	3141154	0.75	3429199	91.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\053SMPL.D\053SMPL.D#  
 Date Acquired: Jun 25 2009 08:41 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LE9PT 5X  
 Misc Info: D9F190216  
 Vial Number: 2209  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.04	0.01	ppb	173.16	3600
23	Na	6	1	1,565,000.00	313000.00	ppb	0.95	100000 >LDR
24	Mg	6	1	318,700.00	63740.00	ppb	1.22	100000
27	Al	45	1	135.35	27.07	ppb	2.77	100000
39	K	45	1	40,080.00	8016.00	ppb	0.35	100000
43	Ca	45	1	694,000.00	138800.00	ppb	1.62	100000 >LDR
51	V	72	1	-529.50	-105.90	ppb	5.98	3600
52	Cr	72	1	12,865.00	2573.00	ppb	1.13	3600
55	Mn	72	1	137.40	27.48	ppb	2.67	18000
57	Fe	72	1	834.50	166.90	ppb	1.28	100000
59	Co	72	1	0.77	0.15	ppb	2.29	3600
60	Ni	72	1	4.20	0.84	ppb	7.58	3600
63	Cu	72	1	1.14	0.23	ppb	5.43	3600
66	Zn	72	1	6.43	1.29	ppb	6.51	3600
75	As	72	1	92.35	18.47	ppb	2.41	3600
78	Se	72	1	6.20	1.24	ppb	29.25	3600
93	Nb	72	1	240,400.00	48080.00	ppb	10.26	2000 >LDR
95	Mo	72	1	12.75	2.55	ppb	4.20	3600
105	Pd	115	1	-703,500.00	-140700.00	ppb	3.80	1000
107	Ag	115	1	0.97	0.19	ppb	3.09	3600
111	Cd	115	1	0.44	0.09	ppb	33.06	3600
114	Cd	115	1	0.50	0.10	ppb	14.54	3600
118	Sn	115	1	2.06	0.41	ppb	9.53	3600
121	Sb	115	1	0.47	0.09	ppb	9.81	3600
137	Ba	115	1	47.03	9.41	ppb	0.76	3600
182	W	165	1	7,290.00	1458.00	ppb	8.94	1000 >LDR
195	Pt	165	1	-19,215.00	-3843.00	ppb	20.42	1000
205	Tl	165	1	0.35	0.07	ppb	7.56	3600
208	Pb	165	1	2.30	0.46	ppb	0.78	3600
232	Th	165	1	0.62	0.12	ppb	20.51	1000
238	U	165	1	49.48	9.90	ppb	2.64	3600

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	294713	0.96	357213	82.5	30 - 120
45	Sc	1	705797	0.90	874931	80.7	30 - 120
72	Ge	1	371019	1.02	488215	76.0	30 - 120
115	In	1	1204244	0.79	1536240	78.4	30 - 120
165	Ho	1	2851906	0.77	3429199	83.2	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\054SMPL.D\054SMPL.D#  
 Date Acquired: Jun 25 2009 08:44 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4A 5X  
 Misc Info: D9F200196  
 Vial Number: 2210  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.08	0.02	ppb	86.58	3600	
23 Na	6	1	366,900.00	73380.00	ppb	1.20	100000	
24 Mg	6	1	117,400.00	23480.00	ppb	2.00	100000	
27 Al	45	1	2,350.50	470.10	ppb	1.65	100000	
39 K	45	1	13,685.00	2737.00	ppb	0.95	100000	
43 Ca	45	1	257,200.00	51440.00	ppb	0.37	100000	
51 V	72	1	30.92	6.18	ppb	1.51	3600	
52 Cr	72	1	45.38	9.08	ppb	3.05	3600	
55 Mn	72	1	40.35	8.07	ppb	3.81	18000	
57 Fe	72	1	1,896.50	379.30	ppb	2.65	100000	
59 Co	72	1	0.74	0.15	ppb	13.15	3600	
60 Ni	72	1	3.29	0.66	ppb	8.25	3600	
63 Cu	72	1	2.02	0.40	ppb	3.61	3600	
66 Zn	72	1	7.95	1.59	ppb	1.53	3600	
75 As	72	1	89.15	17.83	ppb	1.67	3600	
78 Se	72	1	4.50	0.90	ppb	41.40	3600	
93 Nb	72	1	253,700.00	50740.00	ppb	5.41	2000	>LDR
95 Mo	72	1	22.84	4.57	ppb	2.99	3600	
105 Pd	115	1	-261,850.00	-52370.00	ppb	14.61	1000	
107 Ag	115	1	0.04	0.01	ppb	49.50	3600	
111 Cd	115	1	0.11	0.02	ppb	21.35	3600	
114 Cd	115	1	0.07	0.01	ppb	33.88	3600	
118 Sn	115	1	0.79	0.16	ppb	15.83	3600	
121 Sb	115	1	0.24	0.05	ppb	11.51	3600	
137 Ba	115	1	32.43	6.49	ppb	1.44	3600	
182 W	165	1	4,502.00	900.40	ppb	3.36	1000	
195 Pt	165	1	-130.75	-26.15	ppb	586.62	1000	
205 Tl	165	1	0.06	0.01	ppb	11.98	3600	
208 Pb	165	1	1.05	0.21	ppb	6.47	3600	
232 Th	165	1	1.07	0.21	ppb	2.39	1000	
238 U	165	1	20.72	4.14	ppb	2.85	3600	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	313678	1.26	357213	87.8	30 - 120	
45 Sc	1	749905	0.67	874931	85.7	30 - 120	
72 Ge	1	414942	0.40	488215	85.0	30 - 120	
115 In	1	1323413	0.98	1536240	86.1	30 - 120	
165 Ho	1	3110668	0.67	3429199	90.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\055SMPL.D\055SMPL.D#  
 Date Acquired: Jun 25 2009 08:48 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4D 5X  
 Misc Info: D9F200196  
 Vial Number: 2211  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	2,868,000.00	573600.00	ppb	0.68	100000	>LDR
24 Mg	6	1	479,700.00	95940.00	ppb	0.98	100000	
27 Al	45	1	45.24	9.05	ppb	6.31	100000	
39 K	45	1	23,780.00	4756.00	ppb	0.24	100000	
43 Ca	45	1	695,000.00	139000.00	ppb	2.13	100000	>LDR
51 V	72	1	3.59	0.72	ppb	2.61	3600	
52 Cr	72	1	5.91	1.18	ppb	8.39	3600	
55 Mn	72	1	701.00	140.20	ppb	2.11	18000	
57 Fe	72	1	1,035.50	207.10	ppb	1.82	100000	
59 Co	72	1	0.69	0.14	ppb	5.27	3600	
60 Ni	72	1	8.88	1.78	ppb	0.56	3600	
63 Cu	72	1	1.76	0.35	ppb	2.60	3600	
66 Zn	72	1	2.04	0.41	ppb	5.59	3600	
75 As	72	1	138.05	27.61	ppb	1.78	3600	
78 Se	72	1	3.24	0.65	ppb	56.51	3600	
93 Nb	72	1	159,000.00	31800.00	ppb	11.87	2000	>LDR
95 Mo	72	1	44.34	8.87	ppb	0.97	3600	
105 Pd	115	1	-779,500.00	-155900.00	ppb	6.90	1000	
107 Ag	115	1	0.24	0.05	ppb	9.00	3600	
111 Cd	115	1	0.14	0.03	ppb	70.91	3600	
114 Cd	115	1	0.15	0.03	ppb	8.91	3600	
118 Sn	115	1	0.99	0.20	ppb	20.61	3600	
121 Sb	115	1	0.41	0.08	ppb	11.22	3600	
137 Ba	115	1	20.36	4.07	ppb	4.99	3600	
182 W	165	1	58,900.00	11780.00	ppb	2.51	1000	>LDR
195 Pt	165	1	-93.70	-18.74	ppb	831.38	1000	
205 Tl	165	1	0.07	0.01	ppb	13.14	3600	
208 Pb	165	1	0.30	0.06	ppb	9.54	3600	
232 Th	165	1	0.10	0.02	ppb	7.15	1000	
238 U	165	1	94.65	18.93	ppb	3.46	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	278841	0.87	357213	78.1	30 - 120	
45 Sc	1	691092	1.07	874931	79.0	30 - 120	
72 Ge	1	357390	0.11	488215	73.2	30 - 120	
115 In	1	1150906	1.54	1536240	74.9	30 - 120	
165 Ho	1	2740570	0.15	3429199	79.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\056SMPL.D\056SMPL.D#  
 Date Acquired: Jun 25 2009 08:51 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4P 5X  
 Misc Info: D9F200199  
 Vial Number: 2212  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.04	0.01	ppb	173.20	3600
23	Na	6	1	814,500.00	162900.00	ppb	0.97	100000 >LDR
24	Mg	6	1	108,900.00	21780.00	ppb	1.79	100000
27	Al	45	1	3.62	0.72	ppb	4.77	100000
39	K	45	1	7,935.00	1587.00	ppb	1.28	100000
43	Ca	45	1	262,850.00	52570.00	ppb	1.91	100000
51	V	72	1	51.80	10.36	ppb	7.76	3600
52	Cr	72	1	341.95	68.39	ppb	1.93	3600
55	Mn	72	1	7.91	1.58	ppb	2.86	18000
57	Fe	72	1	300.65	60.13	ppb	4.05	100000
59	Co	72	1	5.81	1.16	ppb	6.19	3600
60	Ni	72	1	11.05	2.21	ppb	5.48	3600
63	Cu	72	1	0.55	0.11	ppb	19.76	3600
66	Zn	72	1	0.81	0.16	ppb	12.52	3600
75	As	72	1	146.70	29.34	ppb	2.20	3600
78	Se	72	1	4.22	0.84	ppb	91.45	3600
93	Nb	72	1	141,800.00	28360.00	ppb	17.85	2000 >LDR
95	Mo	72	1	149.25	29.85	ppb	2.97	3600
105	Pd	115	1	-234,350.00	-46870.00	ppb	16.99	1000
107	Ag	115	1	0.41	0.08	ppb	1.61	3600
111	Cd	115	1	0.00	0.00	ppb	1735.60	3600
114	Cd	115	1	0.19	0.04	ppb	34.09	3600
118	Sn	115	1	0.73	0.15	ppb	18.63	3600
121	Sb	115	1	0.25	0.05	ppb	14.34	3600
137	Ba	115	1	28.90	5.78	ppb	1.29	3600
182	W	165	1	1,602,000.00	320400.00	ppb	2.91	1000 >LDR
195	Pt	165	1	-4,069.50	-813.90	ppb	36.65	1000
205	Tl	165	1	0.06	0.01	ppb	7.95	3600
208	Pb	165	1	0.09	0.02	ppb	7.64	3600
232	Th	165	1	0.05	0.01	ppb	35.00	1000
238	U	165	1	18.26	3.65	ppb	3.65	3600

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	291354	0.40	357213	81.6	30 - 120
45	Sc	1	721576	0.67	874931	82.5	30 - 120
72	Ge	1	396818	0.23	488215	81.3	30 - 120
115	In	1	1273603	0.82	1536240	82.9	30 - 120
165	Ho	1	2964594	0.72	3429199	86.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\057SMPL.D\057SMPL.D#  
 Date Acquired: Jun 25 2009 08:55 pm  
 Acq. Method: 6020isis.M  
 Operator: TEL  
 Sample Name: LEC4Q 5X  
 Misc Info: D9F200199  
 Vial Number: 2301  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal. Update: Jun 25 2009 05:54 pm  
 Sample Type: SA  
 Dilution Factor: 5.00  
 Autodil Factor: Undiluted  
 Final Dil Factor: 5.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	6	1	0.05	0.01	ppb	173.24	3600
23	Na	6	1	1,590,500.00	318100.00	ppb	0.47	100000 >LDR
24	Mg	6	1	303,700.00	60740.00	ppb	1.06	100000
27	Al	45	1	56.25	11.25	ppb	10.95	100000
39	K	45	1	37,510.00	7502.00	ppb	1.53	100000
43	Ca	45	1	667,500.00	133500.00	ppb	2.40	100000 >LDR
51	V	72	1	-703.00	-140.60	ppb	12.99	3600
52	Cr	72	1	14,700.00	2940.00	ppb	0.51	3600
55	Mn	72	1	107.30	21.46	ppb	1.15	18000
57	Fe	72	1	701.00	140.20	ppb	3.77	100000
59	Co	72	1	0.66	0.13	ppb	6.32	3600
60	Ni	72	1	5.47	1.09	ppb	1.47	3600
63	Cu	72	1	0.61	0.12	ppb	17.73	3600
66	Zn	72	1	2.73	0.55	ppb	9.59	3600
75	As	72	1	90.70	18.14	ppb	0.89	3600
78	Se	72	1	8.45	1.69	ppb	51.42	3600
93	Nb	72	1	127,550.00	25510.00	ppb	19.88	2000 >LDR
95	Mo	72	1	16.10	3.22	ppb	3.46	3600
105	Pd	115	1	-630,500.00	-126100.00	ppb	1.47	1000
107	Ag	115	1	0.09	0.02	ppb	19.62	3600
111	Cd	115	1	-0.05	-0.01	ppb	230.16	3600
114	Cd	115	1	0.02	0.00	ppb	137.56	3600
118	Sn	115	1	0.69	0.14	ppb	3.96	3600
121	Sb	115	1	0.32	0.06	ppb	13.16	3600
137	Ba	115	1	37.89	7.58	ppb	4.70	3600
182	W	165	1	10,335.00	2067.00	ppb	8.25	1000 >LDR
195	Pt	165	1	-10,095.00	-2019.00	ppb	18.26	1000
205	Tl	165	1	0.17	0.03	ppb	17.92	3600
208	Pb	165	1	0.12	0.02	ppb	23.68	3600
232	Th	165	1	0.01	0.00	ppb	168.83	1000
238	U	165	1	22.29	4.46	ppb	3.50	3600

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	274896	0.70	357213	77.0	30 - 120
45	Sc	1	691626	1.11	874931	79.0	30 - 120
72	Ge	1	368140	0.68	488215	75.4	30 - 120
115	In	1	1193874	1.54	1536240	77.7	30 - 120
165	Ho	1	2764719	1.17	3429199	80.6	30 - 120

Tune File# 1 c:\icpchem\1\7500\be.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\  
 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\058\_CCV.D\058\_CCV.D#  
Date Acquired: Jun 25 2009 08:58 pm  
Operator: TEL  
Sample Name: CCV  
Misc Info:  
Vial Number: 1107  
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
Last Cal Update: Jun 25 2009 05:54 pm  
Sample Type: CCV  
Total Dil Factor: 1.00

QC Summary:  
Analytes: Fail  
ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9	Be	6	1	50.61 ppb	2.55	50	101.2	90 - 110
23	Na	6	1	5100.00 ppb	0.23	5000	102.0	90 - 110
24	Mg	6	1	5067.00 ppb	1.05	5000	101.3	90 - 110
27	Al	45	1	4927.00 ppb	1.07	5000	98.5	90 - 110
39	K	45	1	5054.00 ppb	1.17	5000	101.1	90 - 110
43	Ca	45	1	4895.00 ppb	4.24	5000	97.9	90 - 110
51	V	72	1	48.02 ppb	2.07	50	96.0	90 - 110
52	Cr	72	1	47.76 ppb	1.53	50	95.5	90 - 110
55	Mn	72	1	48.02 ppb	0.90	50	96.0	90 - 110
57	Fe	72	1	4661.00 ppb	1.54	5000	93.2	90 - 110
59	Co	72	1	47.02 ppb	1.84	50	94.0	90 - 110
60	Ni	72	1	48.38 ppb	2.45	50	96.8	90 - 110
63	Cu	72	1	48.44 ppb	1.61	50	96.9	90 - 110
66	Zn	72	1	48.80 ppb	1.20	50	97.6	90 - 110
75	As	72	1	50.87 ppb	1.41	50	101.7	90 - 110
78	Se	72	1	51.05 ppb	4.16	50	102.1	90 - 110
93	Nb	72	1	18090.00 ppb	20.25	100	18090.0	90 - 110
95	Mo	72	1	48.16 ppb	1.97	50	96.3	90 - 110
105	Pd	115	1	-245.40 ppb	243.81	50	-490.8	90 - 110
107	Ag	115	1	48.85 ppb	0.76	50	97.7	90 - 110
111	Cd	115	1	49.41 ppb	1.52	50	98.8	90 - 110
114	Cd	115	1	49.52 ppb	1.72	50	99.0	90 - 110
118	Sn	115	1	49.28 ppb	1.30	50	98.6	90 - 110
121	Sb	115	1	50.80 ppb	1.55	50	101.6	90 - 110
137	Ba	115	1	50.17 ppb	1.04	50	100.3	90 - 110
182	W	165	1	191.20 ppb	23.15	50	382.4	90 - 110
195	Pt	165	1	144.60 ppb	84.37	50	289.2	90 - 110
205	Tl	165	1	50.85 ppb	0.31	50	101.7	90 - 110
208	Pb	165	1	50.59 ppb	1.02	50	101.2	90 - 110
232	Th	165	1	51.25 ppb	1.79	50	102.5	90 - 110
238	U	165	1	50.79 ppb	1.22	50	101.6	90 - 110

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	279400	1.14	357213	78.2	30 - 120
45	Sc	1	699197	1.61	874931	79.9	30 - 120
72	Ge	1	406164	1.34	488215	83.2	30 - 120
115	In	1	1330655	0.78	1536240	86.6	30 - 120
165	Ho	1	3000836	0.97	3429199	87.5	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
Tune File# 2 C:\ICPCHEM\1\7500\  
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed



## Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\059\_CCB.D\059\_CCB.D#  
 Date Acquired: Jun 25 2009 09:02 pm  
 Operator: TEL  
 Sample Name: CCB  
 Misc Info:  
 Vial Number: 1307  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Fail  
 ISTD: Pass

## QC Elements

Element	IS	Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9	Be	6	1	0.000	ppb	0.00	1.00	
23	Na	6	1	81.710	ppb	1.43	20.00	Fail
24	Mg	6	1	1.502	ppb	4.94	20.00	
27	Al	45	1	0.588	ppb	36.53	20.00	
39	K	45	1	12.860	ppb	6.53	20.00	
43	Ca	45	1	1.168	ppb	481.25	20.00	
51	V	72	1	0.013	ppb	154.99	1.00	
52	Cr	72	1	0.041	ppb	12.59	1.00	
55	Mn	72	1	0.285	ppb	8.11	1.00	
57	Fe	72	1	0.653	ppb	57.75	20.00	
59	Co	72	1	-0.005	ppb	23.06	1.00	
60	Ni	72	1	0.013	ppb	68.36	1.00	
63	Cu	72	1	0.009	ppb	72.12	1.00	
66	Zn	72	1	0.073	ppb	15.38	10.00	
75	As	72	1	0.011	ppb	85.14	1.00	
78	Se	72	1	0.446	ppb	103.23	1.00	
93	Nb	72	1	14650.000	ppb	8.77	2.00	Fail
95	Mo	72	1	0.031	ppb	29.87	1.00	
105	Pd	115	1	-13.020	ppb	1503.80	1.00	
107	Ag	115	1	0.021	ppb	25.03	1.00	
111	Cd	115	1	0.002	ppb	755.78	1.00	
114	Cd	115	1	0.012	ppb	14.27	1.00	
118	Sn	115	1	0.326	ppb	8.80	10.00	
121	Sb	115	1	0.177	ppb	0.87	1.00	
137	Ba	115	1	0.006	ppb	97.17	1.00	
182	W	165	1	128.200	ppb	42.67	5.00	Fail
195	Pt	165	1	94.370	ppb	299.46	1.00	Fail
205	Tl	165	1	0.020	ppb	12.98	1.00	
208	Pb	165	1	0.010	ppb	3.71	1.00	
232	Th	165	1	0.701	ppb	20.66	2.00	
238	U	165	1	0.008	ppb	14.11	1.00	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	287197	0.27	357213	80.4	30 - 120
45	Sc	1	735910	1.07	874931	84.1	30 - 120
72	Ge	1	431276	0.66	488215	88.3	30 - 120
115	In	1	1381851	1.05	1536240	90.0	30 - 120
165	Hc	1	3064484	1.48	3429199	89.4	30 - 120

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG062509.B\060WASH.D\060WASH.D#  
 Date Acquired: Jun 25 2009 09:05 pm  
 Operator: TEL  
 Sample Name: RLCV  
 Misc Info:  
 Vial Number: 1204  
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M  
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C  
 Last Cal Update: Jun 25 2009 05:54 pm  
 Sample Type: WASH  
 Total Dil Factor: 1.00

QC Summary:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.940 ppb	14.16	1.30	
23 Na	6	1	123.200 ppb	2.27	65.00	
24 Mg	6	1	56.030 ppb	1.02	65.00	
27 Al	45	1	32.480 ppb	0.93	39.00	
39 K	45	1	116.500 ppb	1.30	130.00	
43 Ca	45	1	48.640 ppb	16.92	65.00	
51 V	72	1	4.965 ppb	3.94	6.50	
52 Cr	72	1	2.002 ppb	3.01	2.60	
55 Mn	72	1	1.240 ppb	2.14	1.30	
57 Fe	72	1	47.620 ppb	3.41	65.00	
59 Co	72	1	0.956 ppb	1.25	1.30	
60 Ni	72	1	1.982 ppb	2.59	2.60	
63 Cu	72	1	1.999 ppb	2.25	2.60	
66 Zn	72	1	9.950 ppb	1.60	13.00	
75 As	72	1	4.942 ppb	2.31	6.50	
78 Se	72	1	4.864 ppb	18.14	6.50	
93 Nb	72	1	17410.000 ppb	15.71	52.00	
95 Mo	72	1	1.946 ppb	5.02	2.60	
105 Pd	115	1	-8.990 ppb	2100.10	1.30	
107 Ag	115	1	5.029 ppb	3.29	6.50	
111 Cd	115	1	1.044 ppb	2.01	1.30	
114 Cd	115	1	1.215 ppb	2.12	1.30	
118 Sn	115	1	10.030 ppb	3.73	13.00	
121 Sb	115	1	2.068 ppb	3.51	2.60	
137 Ba	115	1	1.080 ppb	4.55	1.30	
182 W	165	1	81.170 ppb	89.69	6.50	
195 Pt	165	1	174.300 ppb	71.08	1.30	
205 Tl	165	1	1.098 ppb	0.91	1.30	
208 Pb	165	1	1.083 ppb	3.24	1.30	
232 Th	165	1	2.294 ppb	2.95	2.60	
238 U	165	1	1.070 ppb	1.06	1.30	

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	287559	1.38	357213	80.5	30 - 120	
45 Sc	1	748913	0.52	874931	85.6	30 - 120	
72 Ge	1	434028	0.21	488215	88.9	30 - 120	
115 In	1	1413851	1.58	1536240	92.0	30 - 120	
165 Ho	1	3076772	0.46	3429199	89.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u  
 Tune File# 2 C:\ICPCHEM\1\7500\  
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG062509.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed