

January 12, 2010

Analytical Report for Service Request No: R0907070

Janice Jaeger
Columbia Analytical Services
1 Mustard St.
Suite 250
Rochester, NY 14609-0859

RE: Tronox LLC Henderson/2027.001


Dear Janice:

Enclosed are the results of the samples submitted to our laboratory on December 15, 2009. For your reference, these analyses have been assigned our service request number R0907070.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3291. You may also contact me via Email at EWallace@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.
Ed Wallace
Project Chemist

EW/lb

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Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL or LOQ but greater than or equal to the MDL or LOD. The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* :
- U Analyte was not detected and is reported as less than the LOD or as defined by the project. The LOD has been adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD has been elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated concentration that is less than the MRL or LOQ but greater than or equal to the MDL or LOD.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA). The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* :
- U Analyte was not detected and is reported as less than the LOD or as defined by the project. The LOD has been adjusted for any dilution or
 - W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD has been elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results. The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* :
- U Analyte was not detected and is reported as less than the LOD or as defined by the project. The LOD has been adjusted for any dilution or
 - i The MRL/MDL or LOQ/LOD has been elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc.
Kelso, WA
State Certifications, Accreditations, and Licenses

Program	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Colorado DPHE	-
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DHS	WA200001
South Carolina DHEC	61002
Utah DOH	COLU
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-



Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Northgate Environmental
Project: Tronox LLC Henderson
Sample Matrix: Soil and Water

Service Request No.: R0907070
Date Received: 12/15-16/09

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Twenty soil samples and two water blanks were received for analysis at Columbia Analytical Services on 12/15-16/09. Sample SA49009-1.5BR was received broken, but the contents were not compromised and were contained. Otherwise, the samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

Perchlorate by EPA 314.0:

The control criteria for matrix spike recovery of perchlorate for sample SA49-1BR were not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

The upper control criterion was exceeded for perchlorate in Laboratory Control Sample (LCS). The analyte in question was detected in the associated field samples. The error associated with elevated recovery indicated a high bias. The result is within the manufactures criteria of 76-124. The sample data was not significantly affected. No further corrective action was appropriate.

Approved by _____ Date 1/12/10

Chain of Custody Documentation

CAS Contact: **Janice Jaeger**

Project Name: Tronox LLC Henderson
Project Number: 2027.001
Project Manager: Derrick Willis
Company: Northgate Environmental

Lab Code	Client Sample ID	# of Cont.	Matrix	Sample			Send To	
				Date	Time	Date Received		
R0907070-006	SA86-1BR	1	Soil	12/15/09	0830	12/16/09	KELSO	CIO4 314.0
R0907070-007	SA86-1.5BR	1	Soil	12/15/09	0835	12/16/09	KELSO	
R0907070-010	SA49-1BR	3	Soil	12/15/09	1000	12/16/09	KELSO	
R0907070-011	SA49-1.5BR	1	Soil	12/15/09	1005	12/16/09	KELSO	
R0907070-012	SA49009-1.5BR	1	Soil	12/15/09	1005	12/16/09	KELSO	
R0907070-017	EB121509-SO1-A2	1	Water	12/15/09	1215	12/16/09	KELSO	

Special Instructions/Comments	
Turnaround Requirements _____ RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 _____ STANDARD Requested FAX Date: _____ Requested Report Date: 01/06/10	Report Requirements _____ I. Results Only _____ II. Results + QC Summaries _____ III. Results + QC and Calibration Summaries <input checked="" type="checkbox"/> IV. Data Validation Report with Raw Data PQL/MDL/1 _____ Y _____ EDD _____ Y _____
Invoice Information PO# R0907070 Bill to _____	

Relinquished By: Matt Cum 12117109
 Received By: RJ 12/18/09 1030
 Airbill Number: _____
 Page _____

**Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form**

PC EA

Client / Project: CAS / Rochester Service Request K09 RO907070

Received: 12/18/09 Opened: 12/18/09 By: Boyd

- Samples were received via? *US Mail* *Fed Ex* *UPS* *DHL* *GH* *GS* *PDX* *Courier* *Hand Delivered*
- Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* *NA*
- Were custody seals on coolers? *NA* *Y* *N* If yes, how many and where? 1 front
If present, were custody seals intact? *Y* *N* If present, were they signed and dated? *Y* *N*
- Is shipper's air-bill filed? If not, record air-bill number: 1217W4381349632118 *NA* *Y* *N*

5. Temperature of cooler(s) upon receipt (°C): -0.2
Temperature Blank (°C): N/A
Thermometer ID: 270

6. If applicable, list Chain of Custody Numbers: _____
7. Packing material used. *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Sleeves* *Other* _____

- Were custody papers properly filled out (ink, signed, etc.)? *NA* *Y* *N*
- Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* *NA* *Y* *N*
- Were all sample labels complete (i.e analysis, preservation, etc.)? *NA* *Y* *N*
- Did all sample labels and tags agree with custody papers? *Indicate in the table below.* *NA* *Y* *N*
- Were appropriate bottles/containers and volumes received for the tests indicated? *NA* *Y* *N*
- Were the pH-preserved bottles tested* received at the appropriate pH? *Indicate in the table below.* *NA* *Y* *N*
- Were VOA vials received without headspace? *Indicate in the table below.* *NA* *Y* *N*
- Are CWA Microbiology samples received with >1/2 the 24hr. hold time remaining from collection? *Y* *N*
- Was C12/Res negative? *Y* *N*

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
SA49009-1.SBR	402	jar			X					Boyd	

*Does not include all pH preserved sample aliquots received. See sample receiving SOP (SMO-GEN).
Additional Notes, Discrepancies, & Resolutions: Transferred contents of jar that was broken into another one. Sample not compromised. per 12/18/09
* Did not receive SA187-IBR-ID. #15 for SR # RO907070

General Chemistry Parameters

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Northgate Environmental
Project Name : Tronox LLC Henderson
Project Number : 2027.001
Sample Matrix : SOIL

Service Request : R0907070
Date Collected : 12/15/09
Date Received : 12/16/09

Perchlorate

Prep Method : CAS SOP
Analysis Method : 314.0M
Test Notes :

Units : ug/Kg
Basis : Dry

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Result	Result Notes
SA86-1BR	R0907070-006	21000	17000	2000	1/4/2010	01/05/10	181000	
SA86-1.5BR	R0907070-007	21000	17000	2000	1/4/2010	01/05/10	219000	
SA49-1BR	R0907070-010	53000	42000	5000	1/4/2010	01/05/10	707000	
SA49-1.5BR	R0907070-011	53000	43000	5000	1/4/2010	01/05/10	509000	
SA49009-1.5BR	R0907070-012	53000	43000	5000	1/4/2010	01/05/10	713000	
Method Blank	R0907070-MB	11	9	1	1/4/2010	01/05/10	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Northgate Environmental
Project Name : Tronox LLC Henderson
Project Number : 2027.001
Sample Matrix : SOIL

Service Request : R0907070
Date Collected : 12/15/2009
Date Received : 12/16/2009
Date Prepared : 01/04/10
Date Analyzed : 01/05/10

Duplicate Summary
 Inorganic Parameters

Sample Name : SA49-1BR
Lab Code : R0907070-010DUP
Test Notes :

Units : ug/Kg
Basis : Dry

Analyte	Prep Method	Analysis Method	MRL	Sample Result	Duplicate		Relative Percent Difference	Result Notes
					Sample Result	Average		
Perchlorate	CAS SOP	314.0M	53000	707000	674000	691000	5	

COLUMBIA ANALYTICAL SERVICES, INC.
QA/QC Report

Client : Northgate Environmental
Project Name : Tronox LLC Henderson
Project Number : 2027.001
Sample Matrix : SOIL

Service Request : R0907070
Date Collected : 12/15/2009
Date Received : 12/16/2009
Date Prepared : 01/04/10
Date Analyzed : 01/05/10

Matrix Spike/Duplicate Matrix Spike Summary

Sample Name : SA49-1BR Units : ug/Kg
Lab Code : R0907070-010MS R0907070-010DMS Basis : Dry
Test Notes :

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Spike Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
Perchlorate	CAS SOP	314.0M	53000	1050	1040	707000	671000	678000	NA	NA	80-120	<1	*

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Northgate Environmental
Project Name : Tronox LLC Henderson
Project Number : 2027.001
Sample Matrix : SOIL

Service Request : R0907070
Date Collected : NA
Date Received : NA
Date Prepared : 01/04/10
Date Analyzed : 01/05/10

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Lab Control Sample
Lab Code : R0907070-LCS
Test Notes :

Units : ug/Kg
Basis : Dry

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Perchlorate	CAS SOP	314.0M	176	205	116	85-115	*

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0907070
Date Collected: NA
Date Received: NA
Date Analyzed: 1/5/2010

Perchlorate
EPA Method 314.0M
Units: ug/L (ppb)

INITIAL CALIBRATION CHECK STANDARD (ICCS)

	True Value	Measured Value	Percent Recovery
ICCS Result	1.0	1.1	110

CONTINUING CALIBRATION VERIFICATION (CCV)

	True Value	Measured Value	Percent Recovery
CCV 1 Result	10.0	10.9	109
CCV 2 Result	10.0	10.9	109
CCV 3 Result	10.0	10.6	106

ENDING CALIBRATION VERIFICATION (ECCV)

	True Value	Measured Value	Percent Recovery
ECCV Result	25.0	27.5	110

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Northgate Environmental
Project Name : Tronox LLC Henderson
Project Number : 2027.001
Sample Matrix : WATER

Service Request : R0907070
Date Collected : 12/15/09
Date Received : 12/16/09

Perchlorate

Analysis Method 314.0
Test Notes :

Units : ug/L
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
EB121509-SO2A	R0907070-017	1.0	0.4	1	12/29/09	1.4	
Method Blank	R0907070-MB	1.0	0.4	1	12/29/09	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Northgate Environmental
Project Name : Tronox LLC Henderson
Project Number : 2027.001
Sample Matrix : WATER

Service Request : R0907070
Date Collected : NA
Date Received : NA
Date Prepared : NA
Date Analyzed : 12/29/09

Duplicate Summary
Inorganic Parameters

Sample Name : Batch QC
Lab Code : K0912161-008DUP
Test Notes :

Units : ug/L
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Perchlorate	314.0	1.0	ND	ND	ND	-	

COLUMBIA ANALYTICAL SERVICES, INC.
QA/QC Report

Client : Northgate Environmental
Project Name : Tronox LLC Henderson
Project Number : 2027.001
Sample Matrix : WATER

Service Request : R0907070
Date Collected : NA
Date Received : NA
Date Prepared : NA
Date Analyzed : 12/29/09

Matrix Spike/Duplicate Matrix Spike Summary

Sample Name : Batch QC Units : ug/L
Lab Code : K0912161-008MS K0912161-008DMS Basis : NA
Test Notes :

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Spike Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
Perchlorate	NONE	314.0	1.0	20.0	20.0	ND	20.8	22.3	104	112	80-120	7	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Northgate Environmental
Project Name : Tronox LLC Henderson
Project Number : 2027.001
Sample Matrix : WATER

Service Request : R0907070
Date Collected : NA
Date Received : NA
Date Prepared : NA
Date Analyzed : 12/29/09

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Lab Control Sample
Lab Code : R0907070-LCS
Test Notes :

Units : ug/L
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Result Notes
						Percent Recovery Acceptance Limits	
Perchlorate	NONE	314.0	15.6	14.8	95	85-115	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Northgate Environmental
Project: Tronox LLC Henderson/2027.001

Service Request: R0907070
Date Collected: NA
Date Received: NA
Date Analyzed: 12/29/2009

Perchlorate
EPA Method 314.0
Units: ug/L (ppb)

INITIAL CALIBRATION CHECK STANDARD (ICCS)

	True Value	Measured Value	Percent Recovery
ICCS Result	1.0	0.9	90

CONTINUING CALIBRATION VERIFICATION (CCV)

	True Value	Measured Value	Percent Recovery
CCV 1 Result	10.0	10.3	103
CCV 2 Result	10.0	10.5	105

ENDING CALIBRATION VERIFICATION (ECCV)

	True Value	Measured Value	Percent Recovery
ECCV Result	25.0	28.5	114

105147

Work Order #: _____

Method: 314.0M

Analysis: Perchlorate

Date Prepared	Sample Name Lab Code	Initial Wt./Vol. (g) or (ml)	Final Volume (ml)	ug/L (in solution)	ug/L - ug/kg As Rec'd	% Solids	ug/kg Dry Wt.	Dilution	Date Analyzed	MRL	MDL
1/4/2010	MB	2.5	25.0	<2	<20						
1/4/2010	LCS	2.5	25.0	20.4617	205						
1/4/2010	R7070-6	2.505	25.0	17554.5166	175201.7705	96.8	181000	2000		20661.157	16528.926
1/4/2010	R7070-7	2.500	25.0	20958.1346	209564.5808	95.8	219000	2000		20876.827	16701.461
1/4/2010	R7070-10	2.508	25.0	67860.3973	676331.4992	95.6	707000	5000		52301.255	41841.004
1/4/2010	R7070-10 dup	2.503	25.0	64531.1252	644460.5641	95.6	674000	5000		52301.255	41841.004
1/4/2010	R7070-10 ms	2.502	25.0	64206.5472	641500.9512	95.6	671000	5000		52301.255	41841.004
1/4/2010	R7070-10 msd	2.507	25.0	65006.4627	648249.5283	95.6	678000	5000		52301.255	41841.004
1/4/2010	R7070-11	2.509	25.0	48377.2561	481960.3899	94.7	509000	5000		52798.31	42238.648
1/4/2010	R7070-12	2.501	25.0	68218.53	682021.6148	95.7	713000	5000		52246.604	41797.283
1/4/2010	R7146-1	2.5029	25.0	474362.0081	4738123.8573	94.5	5010000	50000		529100.53	423280.42
1/4/2010	R7146-2	2.5048	25.0	325049.3096	3244264.1089	92.9	3490000	50000		538213.13	430570.51
1/4/2010	R7171-11	2.502	25.0	1410.0596	14089.3245	83.8	16800	100		1193.3174	954.65394
1/4/2010	R7171-12	2.5025	25.0	3444.1836	34407.4286	84.6	40700	200		2364.0662	1891.253
1/4/2010	LOD/LOQ	2.5	25.0	2.5104	25.1040	100	25.1NK				
1/4/2010	LOD/LOQ	2.5	25.0	2.4558	24.5580	100	24.6				

R7070-10/10dup X = 691000 RPD = 5%

MS = (2.5mL*1000ug/L)/(2.502g*0.956g) = 1050 mg/Kg %REC = <1%

MSD = (2.5mL*1000ug/L)/(2.507g*0.956g) = 1040 mg/Kg %REC = <1%

Spike n/s due to sample conc being higher than spike conc

LCS: Perchlorate in Soil ERA#05125 C.V. 176ug/Kg %REC = 116%

LCS is outside method requirements of 85-115 percent. However the percent recovery is within manuf. criteria of 76-124 percent. O.K. to report per P.C.

Comments: 1K CLO4 spike std. ID# AN3-33-W

NOTE: ug/L (in solution) = water MDL X dilution factor

ug/Kg (as Rec'd) = soil MDL X dilution factor

Prepared By: <i>gc</i>	Date Prepared: <i>1/4/10</i>
Analyzed By: <i>gc</i>	Date Analyzed: <i>1/5/10</i>
Reviewed By: <i>BA</i>	Date Reviewed: <i>1/8/09</i>

COLUMBIA ANALYTICAL SERVICES, INC.

Work Order #: _____

Method: _____

Analysis: _____

Date Prepared	Sample Name Lab Code	Initial Wt./Vol. (g) or (ml)	Final Volume (ml)	mg/L (in solution)	mg/L - mg/kg As Rec'd	% Solids	mg/kg Dry Wt.	Dilution Factor
1/4/10	MB	2.5000	25					
	LCS	2.5004						
	R7070-6	2.5049				96.8		
	-7	2.5002				95.8		
	-10	2.5084				95.46		
	-10d	2.5033						
	-10ms	2.5077						
	-10msd	2.5070						
	-11	2.5094				94.7		
	↓ -12	2.5006				95.7		
	R7146-1	2.5027				94.5		
	↓ -2	2.5048				92.9		
	R7171-11	2.5020				83.8		
	↓ -12	2.5025				84.6		

MS= _____

MSD= _____

X= _____

RPD= _____

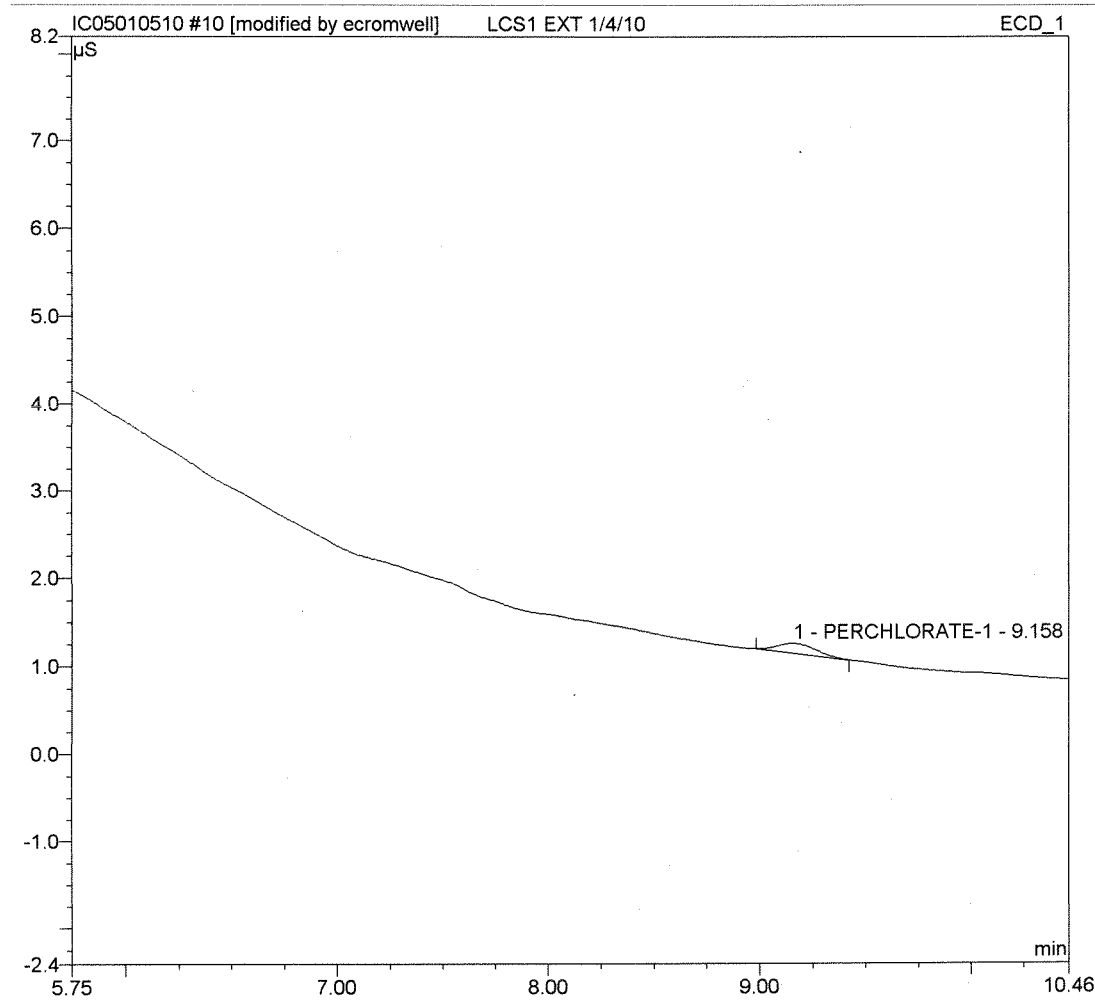
STD ID # = _____

Comments: _____

Prepared By: <i>GL</i>	Date Prepared: 1/4/10 10:00
Analyzed By: <i>GL</i>	Date Analyzed: 1/5/10
Reviewed By: <i>BA</i>	Date Reviewed: 1/8/10

Sample Name:	LCS1 EXT 1/4/10	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	2.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 13:52	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.16	PERCHLORATE-1	0.113	0.024	20.4617



After Initials _____

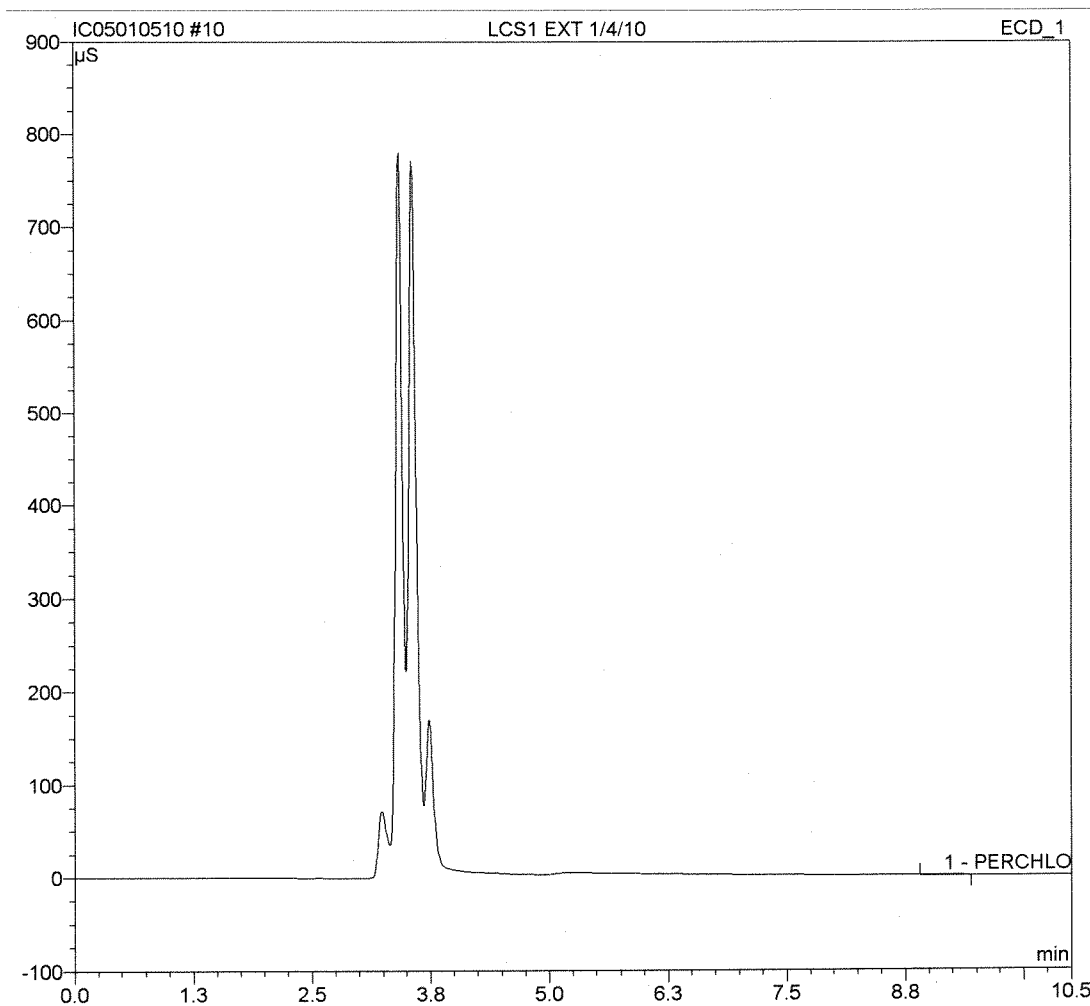
JAN 05 2010

Dr 1/5/10 2:30 PM

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other *ecrom*

Sample Name:	LCS1 EXT 1/4/10	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	2.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 13:52	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.16	PERCHLORATE-1	0.119	0.027	22.4092

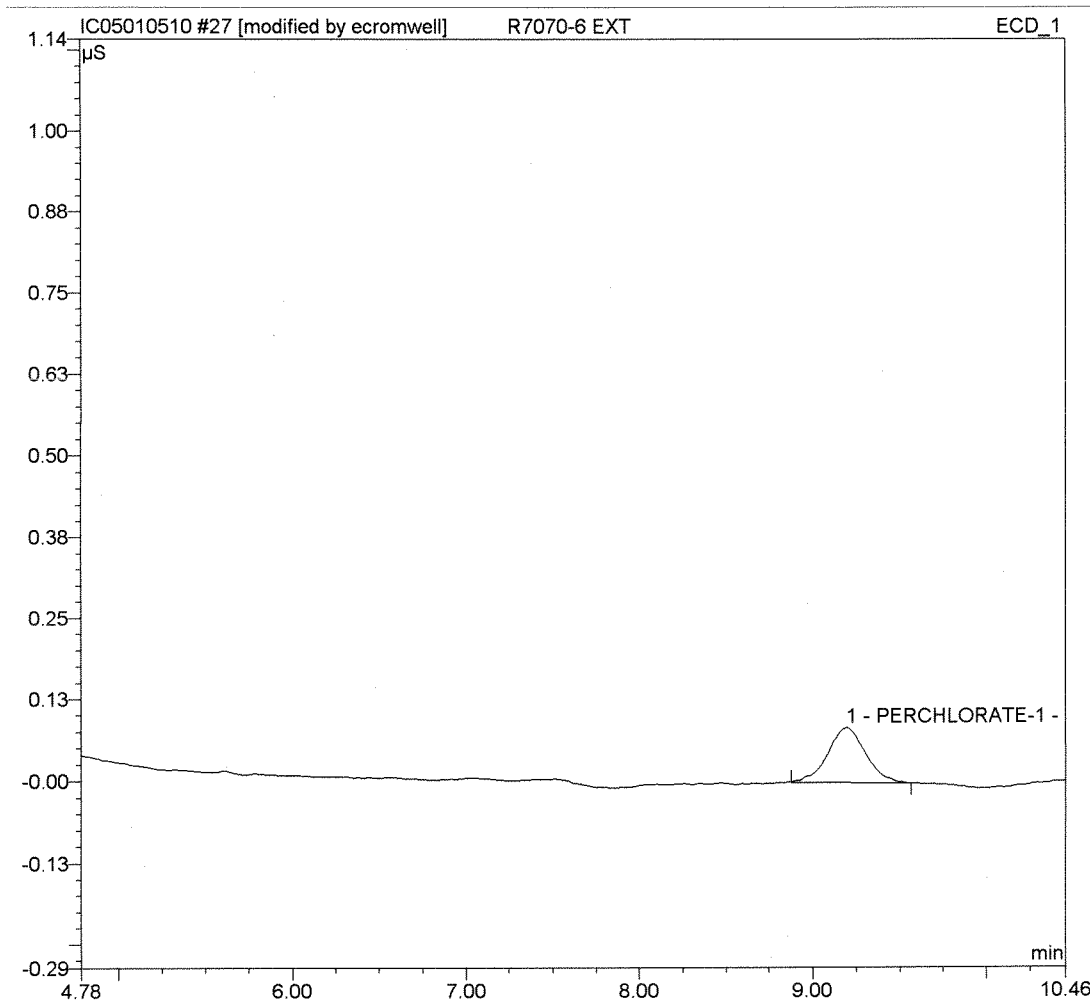


Before

JAN 05 2010

Sample Name:	R7070-6 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	2000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 17:31	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
1	9.19	PERCHLORATE-1	0.083	0.021	17554.5166



After Initials EC

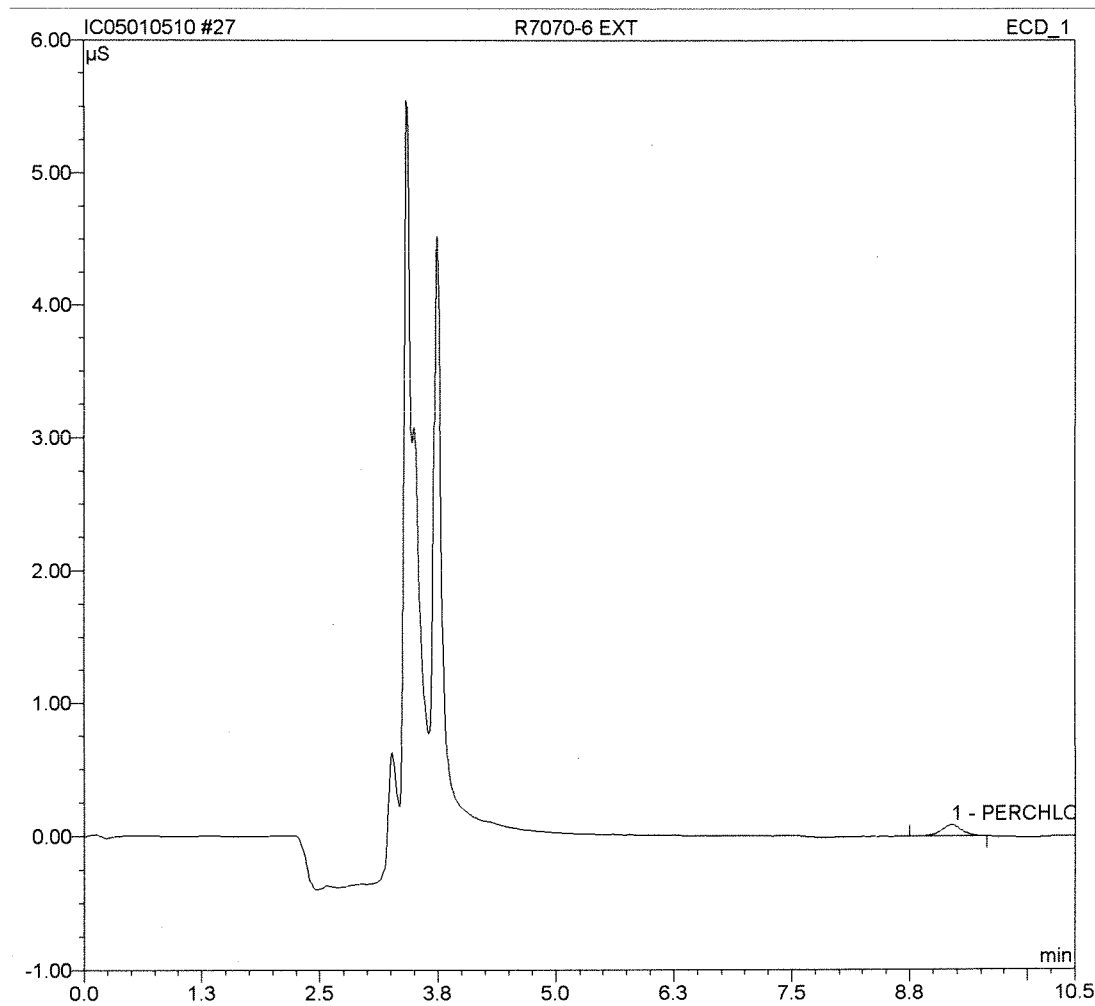
Handwritten: 01/05/10

JAN 05 2010

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other EC

Sample Name:	R7070-6 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	2000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 17:31	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.19	PERCHLORATE-1	0.084	0.022	18251.6828

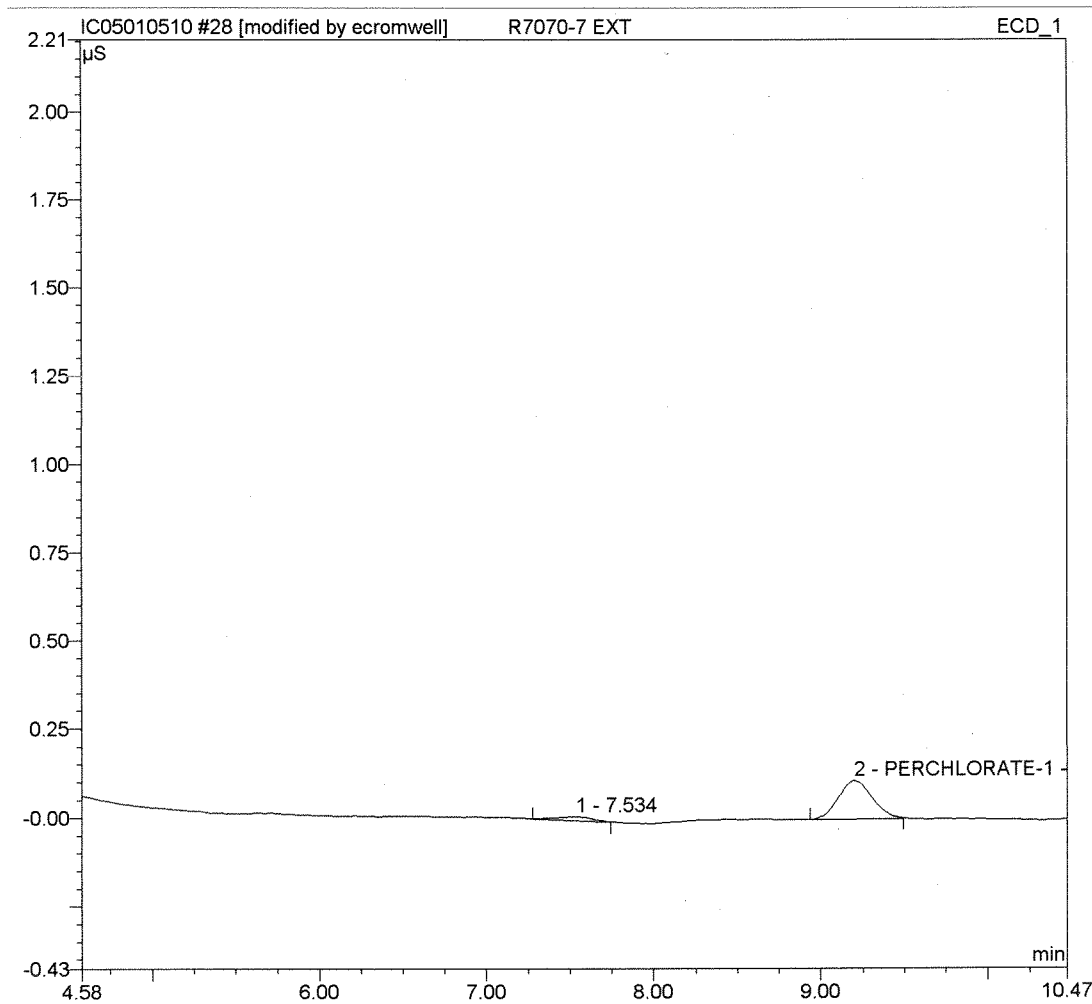


Before

JAN 05 2010

Sample Name:	R7070-7 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	2000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 17:44	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
2	9.20	PERCHLORATE-1	0.106	0.025	20958.1346



After Initials *ll*

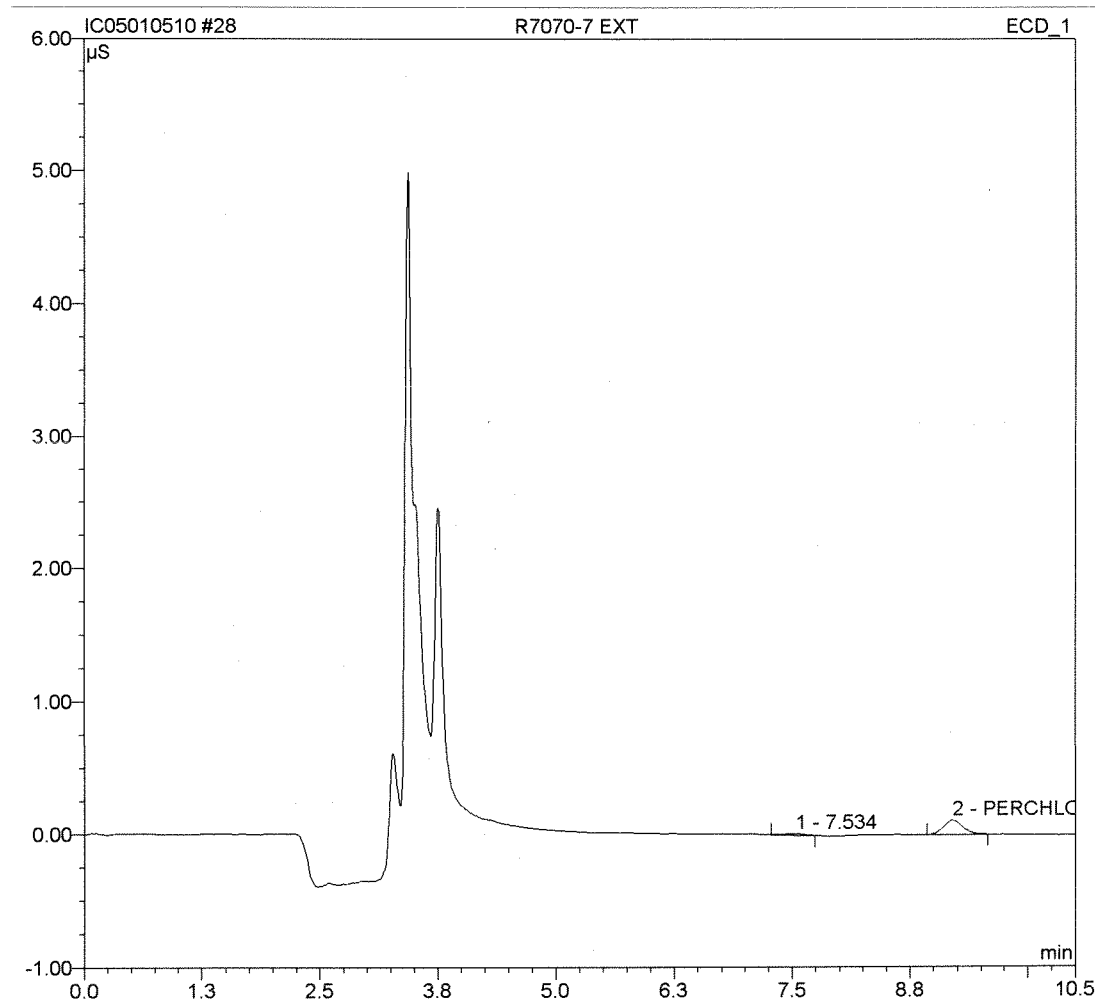
B. H. 1/5/10

JAN 05 2010

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other *ecm*

Sample Name:	R7070-7 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	2000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 17:44	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
2	9.20	PERCHLORATE-1	0.108	0.026	21758.9472

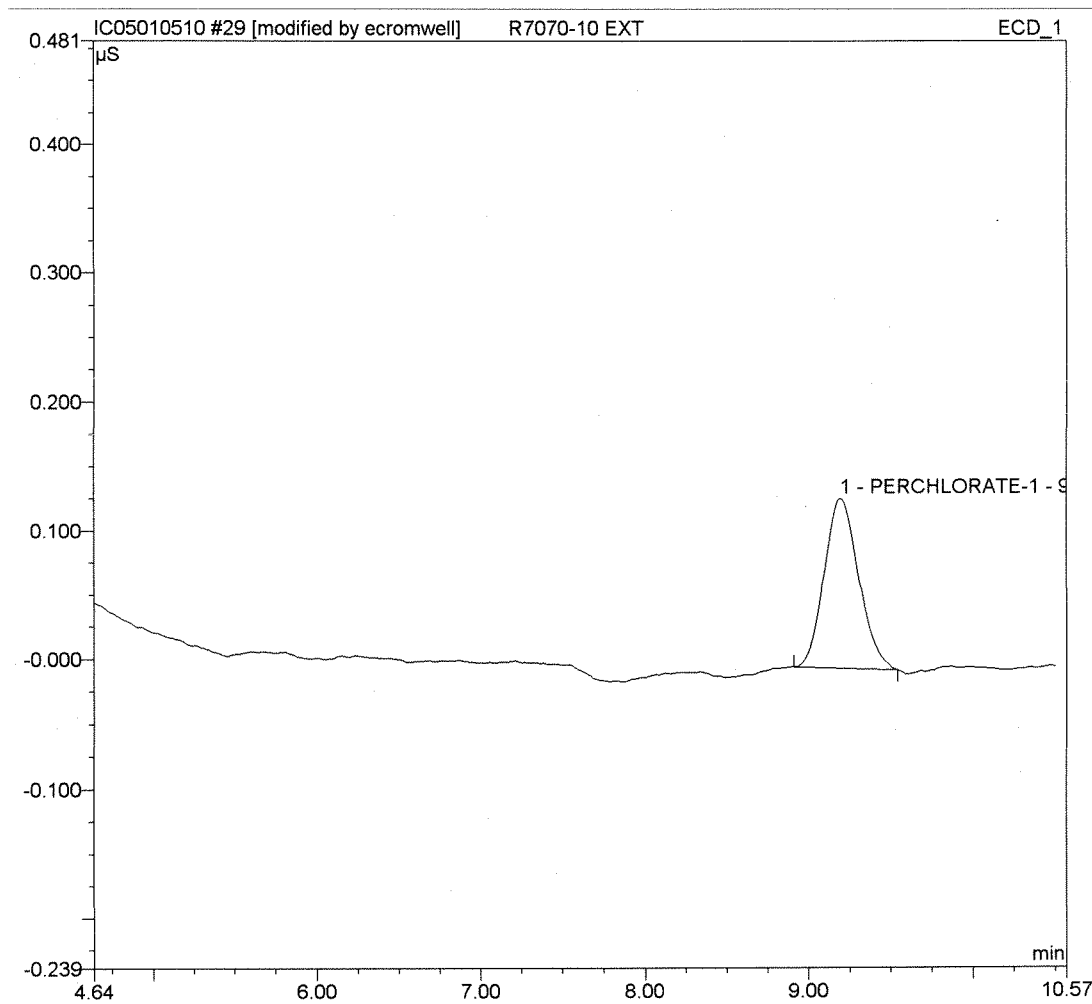


Before

JAN 05 2010

Sample Name:	R7070-10 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 17:57	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
1	9.19	PERCHLORATE-1	0.132	0.032	67860.3973



After Initials ge

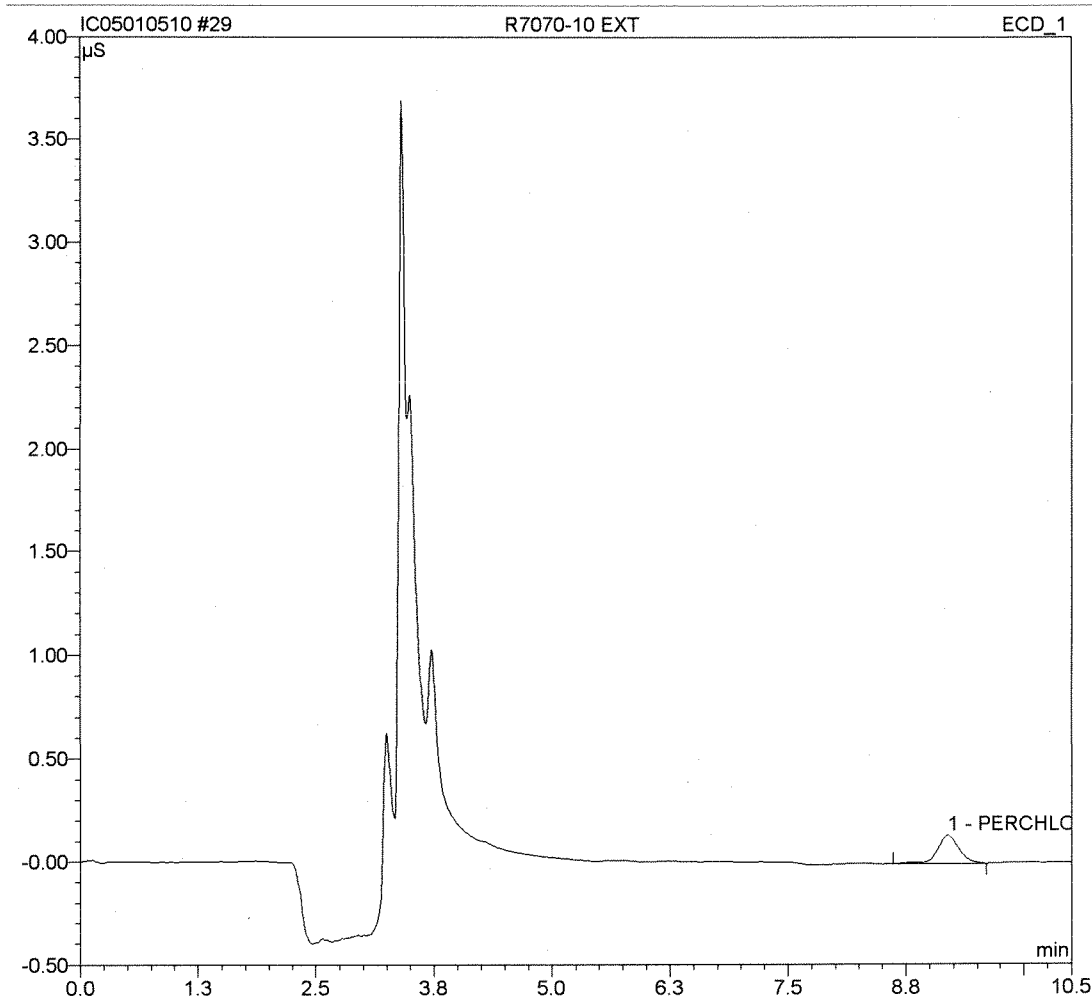
JAN 05 2010

Wrong Peak/Peak not Found
 Baseline/shoulder Incorrect
 Other ECM

6.7 11/2/10

Sample Name:	R7070-10 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 17:57	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.19	PERCHLORATE-1	0.138	0.037	76911.7841

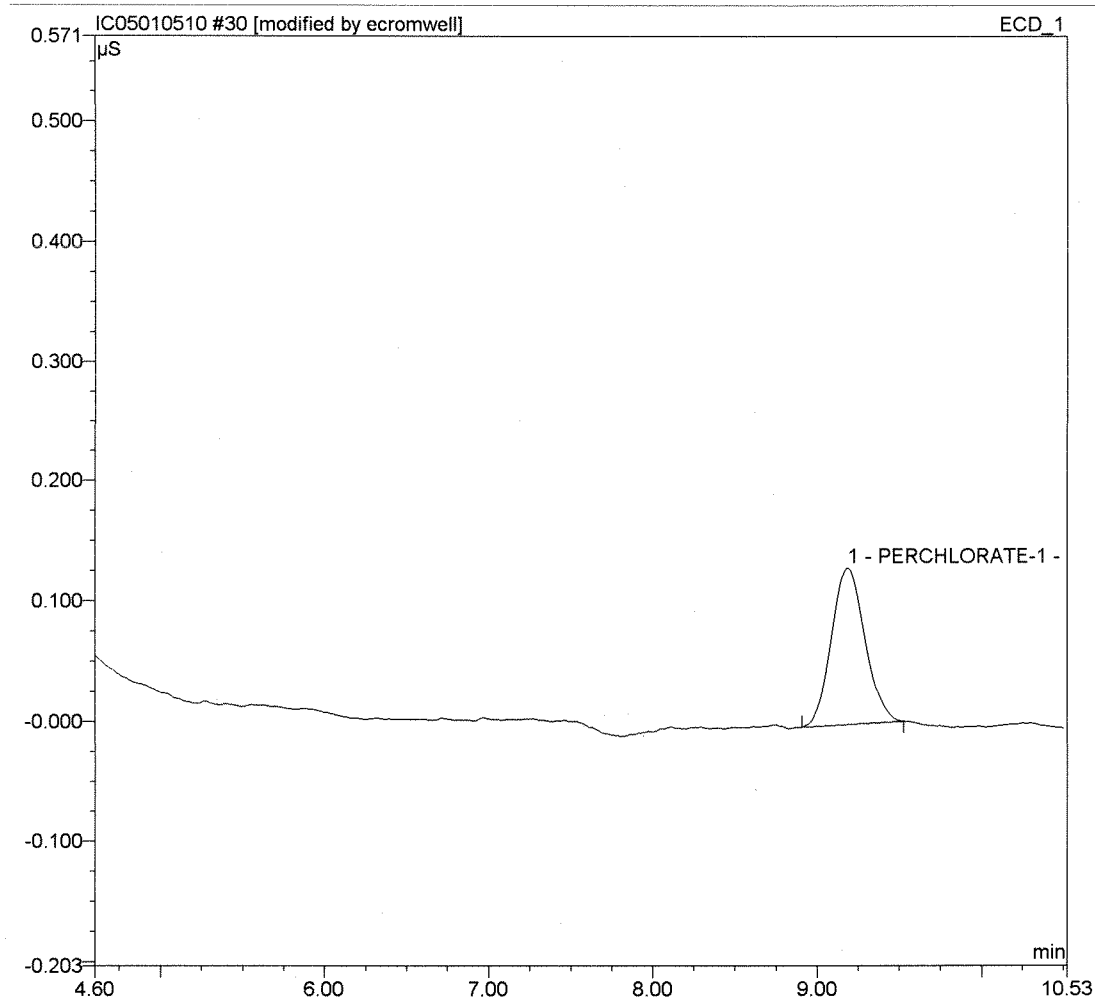


Before

JAN 05 2010

Sample Name:	R7070-10 DUP EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 18:10	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
1	9.18	PERCHLORATE-1	0.130	0.031	64531.1252



After Initials

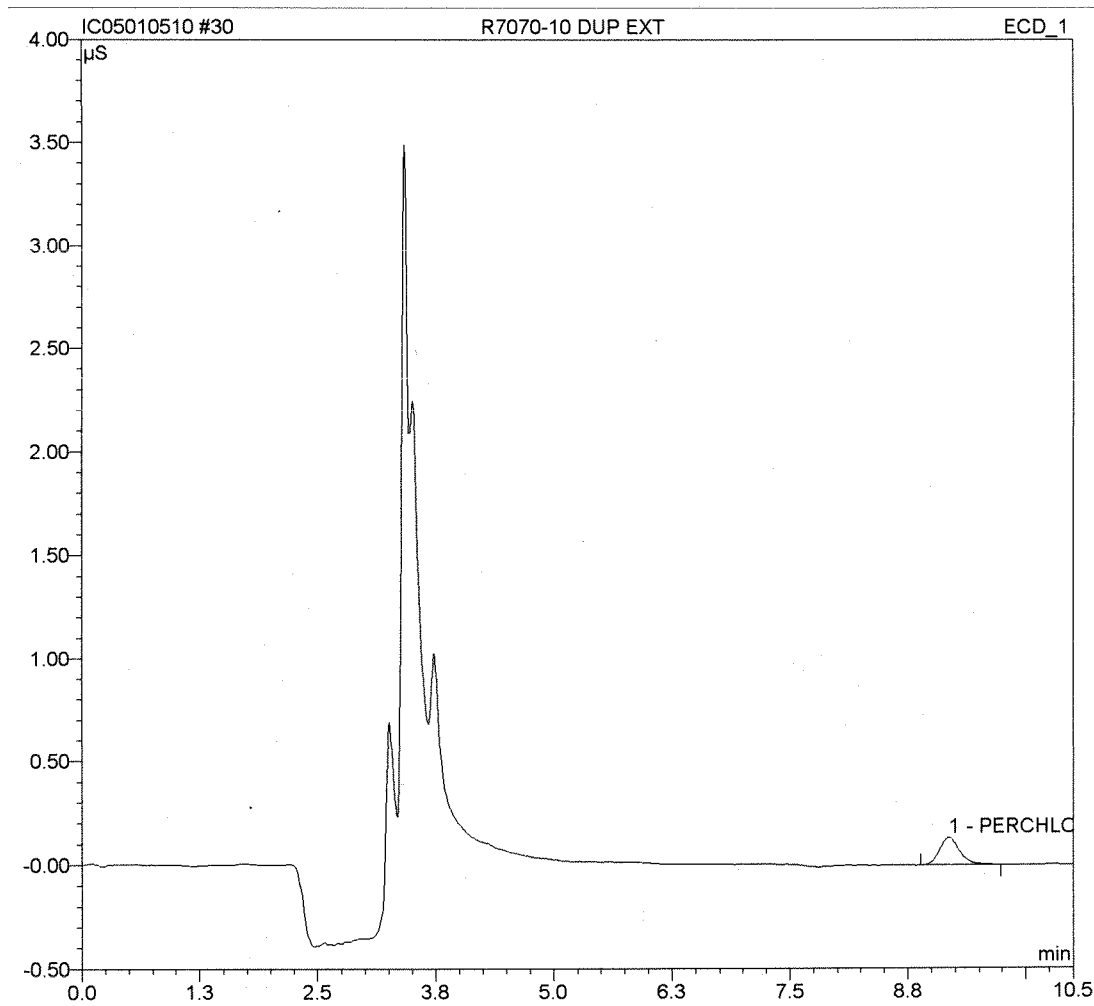
JAN 05 2010

BH 1/5/10

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other

Sample Name:	R7070-10 DUP EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 18:10	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.18	PERCHLORATE-1	0.132	0.033	68587.7891

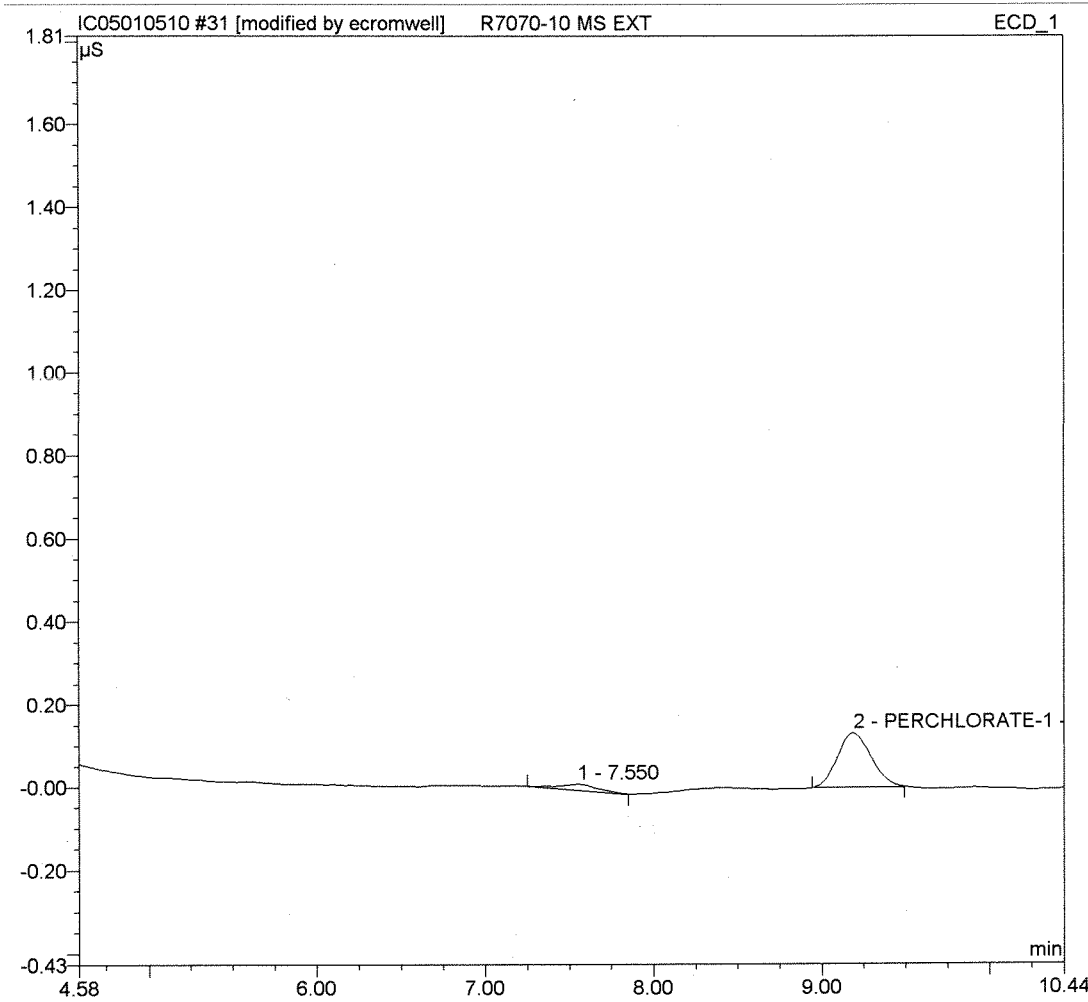


Before

JAN 05 2010

Sample Name:	R7070-10 MS EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 18:23	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
2	9.19	PERCHLORATE-1	0.132	0.031	64206.5472



After Initials *EC*

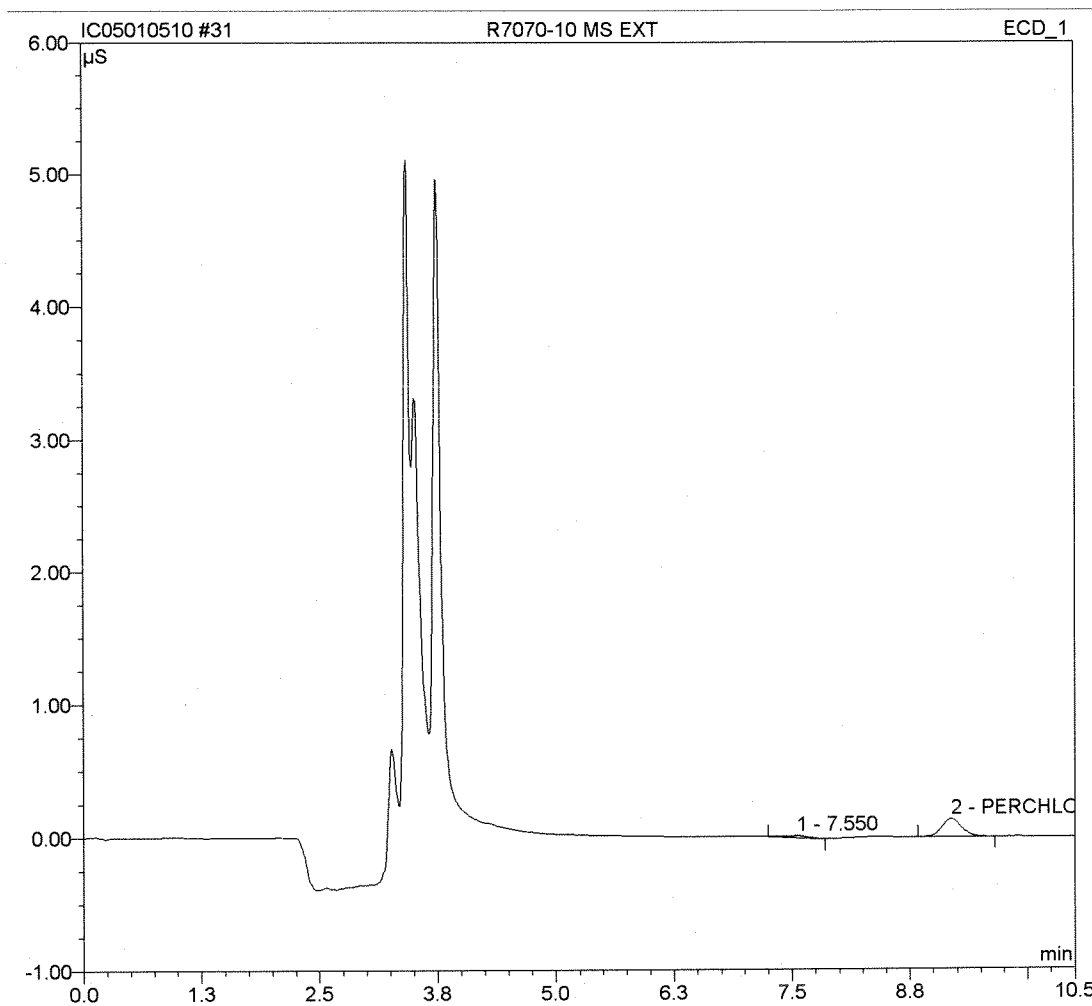
EM 1/5/10

JAN 05 2010

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other *EM*

Sample Name:	R7070-10 MS EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 18:23	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
2	9.19	PERCHLORATE-1	0.136	0.033	69718.1699

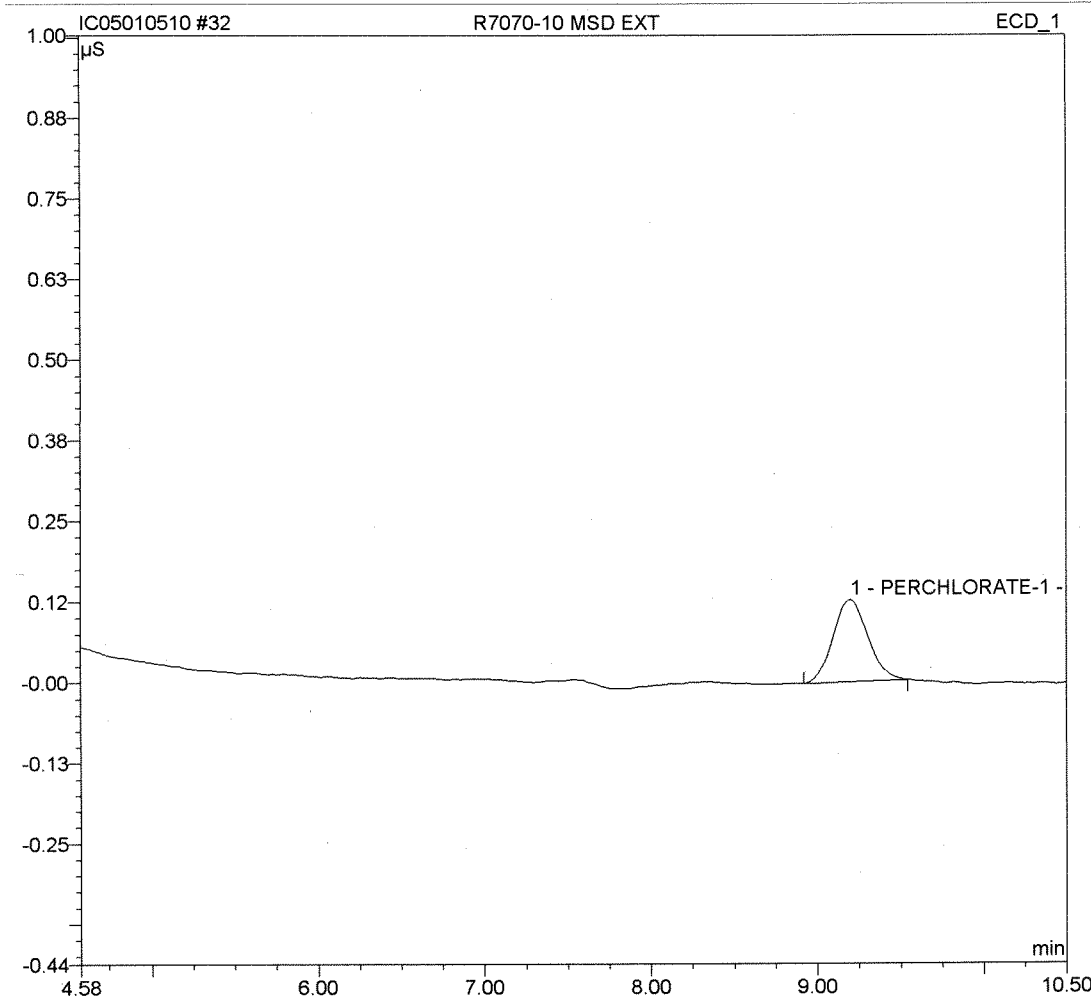


Before

JAN 05 2010

Sample Name:	R7070-10 MSD EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 18:36	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.20	PERCHLORATE-1	0.127	0.031	65006.4627



After Initials EM

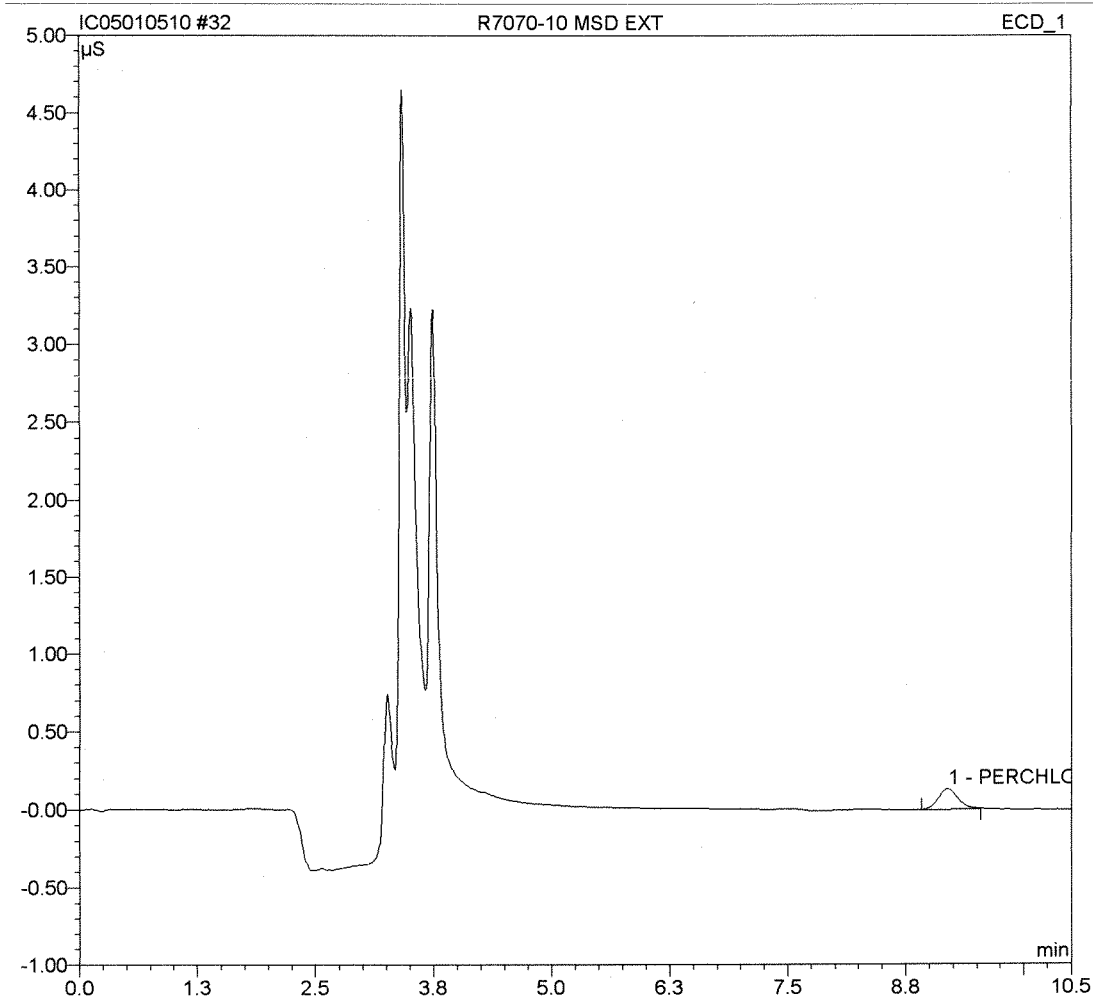
JAN 05 2010

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other: EM

BA 1/5/10

Sample Name:	R7070-10 MSD EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 18:36	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
1	9.20	PERCHLORATE-1	0.127	0.031	65006.4627

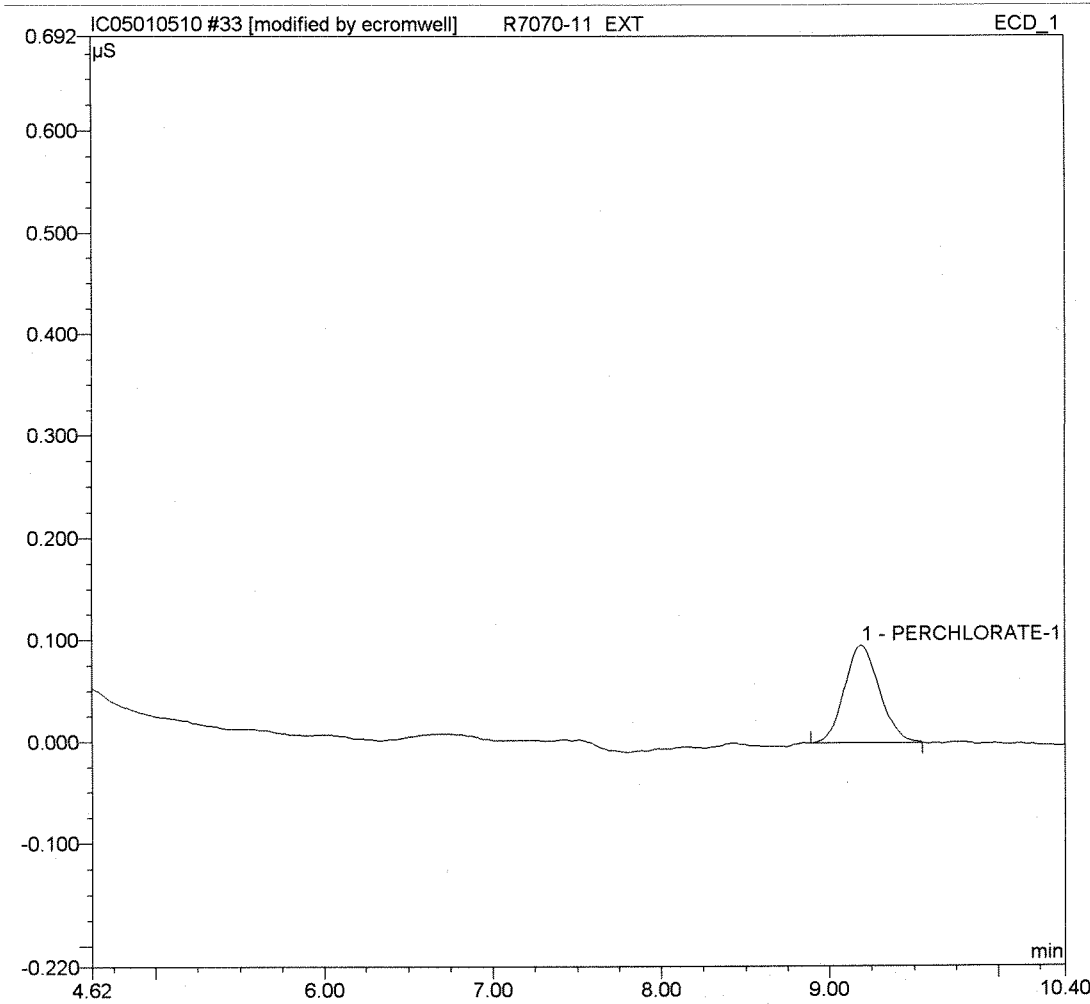


Before

JAN 05 2010

Sample Name:	R7070-11 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 18:49	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
1	9.19	PERCHLORATE-1	0.096	0.023	48377.2561



After Initials EL

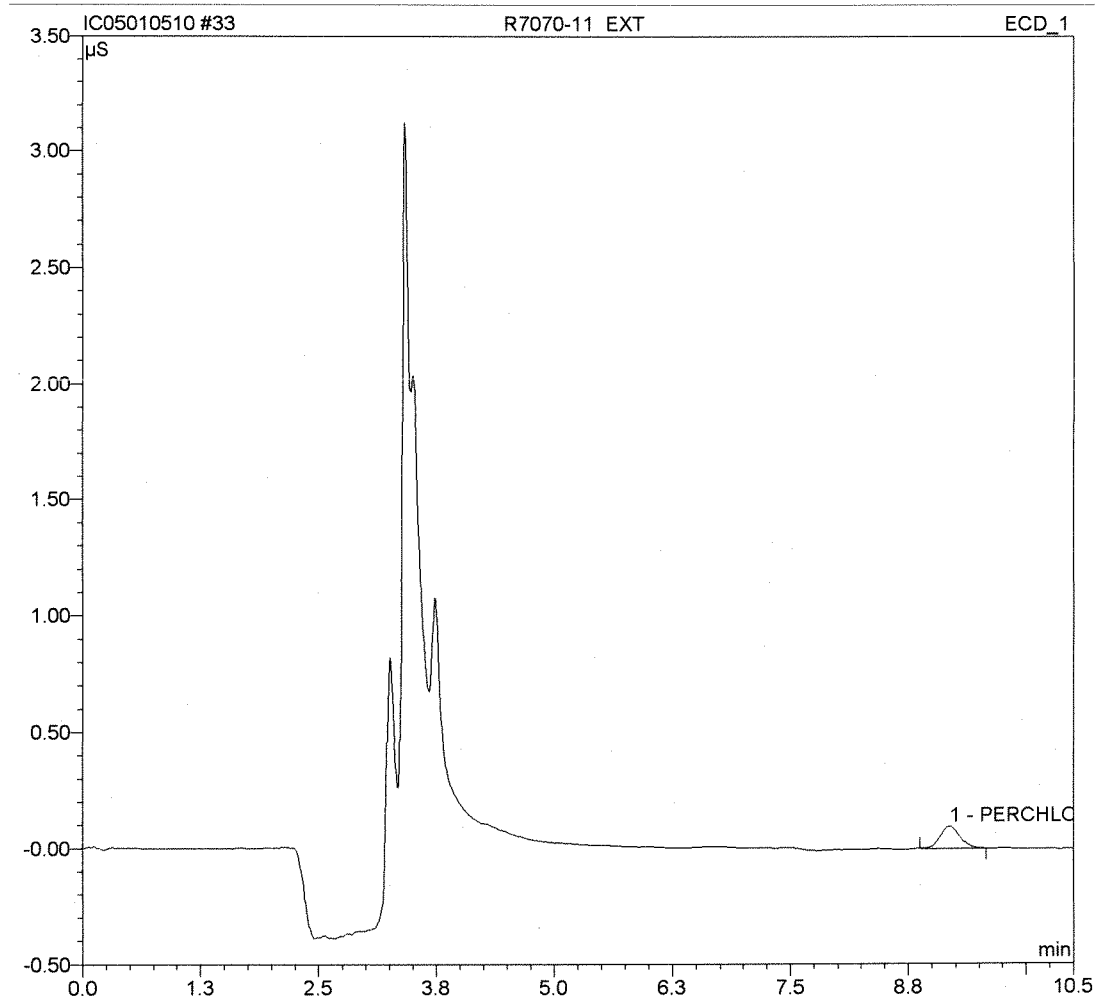
3/1/10

JAN 05 2010

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other EL

Sample Name:	R7070-11 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 18:49	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
1	9.19	PERCHLORATE-1	0.096	0.023	49282.0759

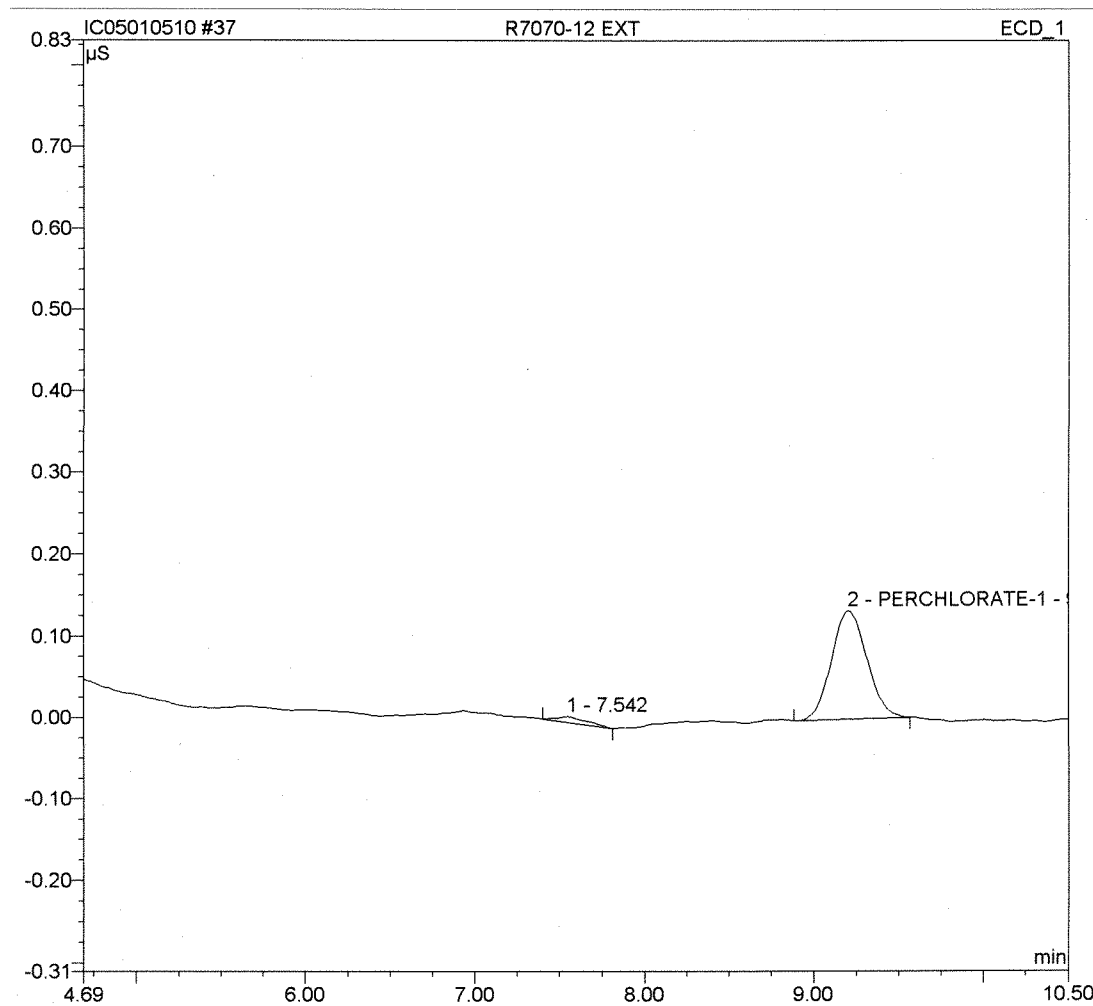


Before

JAN 05 2010

Sample Name:	R7070-12 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 19:41	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
2	9.20	PERCHLORATE-1	0.133	0.032	68218.5300



After Initials

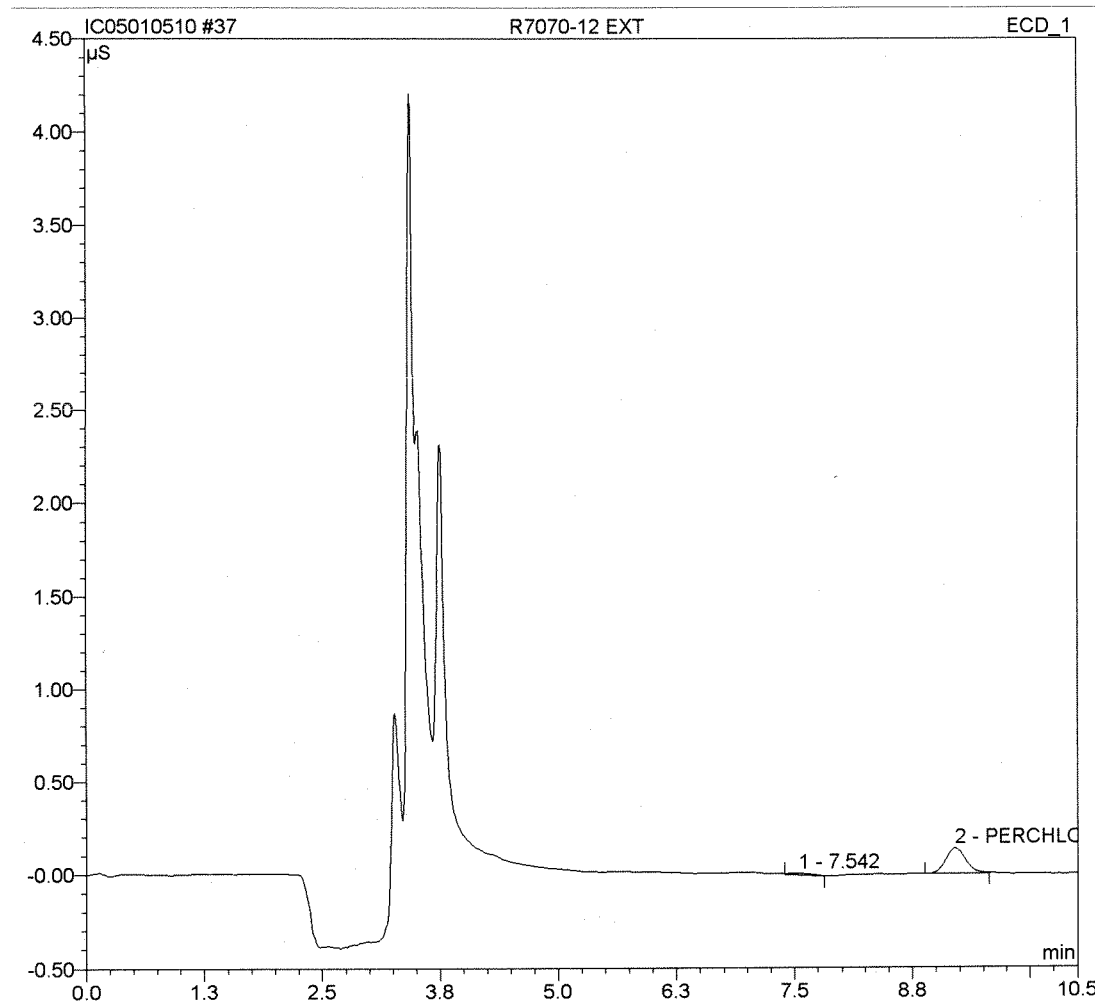
JAN 05 2010

Wrong Peak/Peak not Found
 Baseline/shoulder Incorrect
 Other ecow

6A 11/9/09

Sample Name:	R7070-12 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.	5000.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 19:41	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
2	9.20	PERCHLORATE-1	0.133	0.032	68218.5300

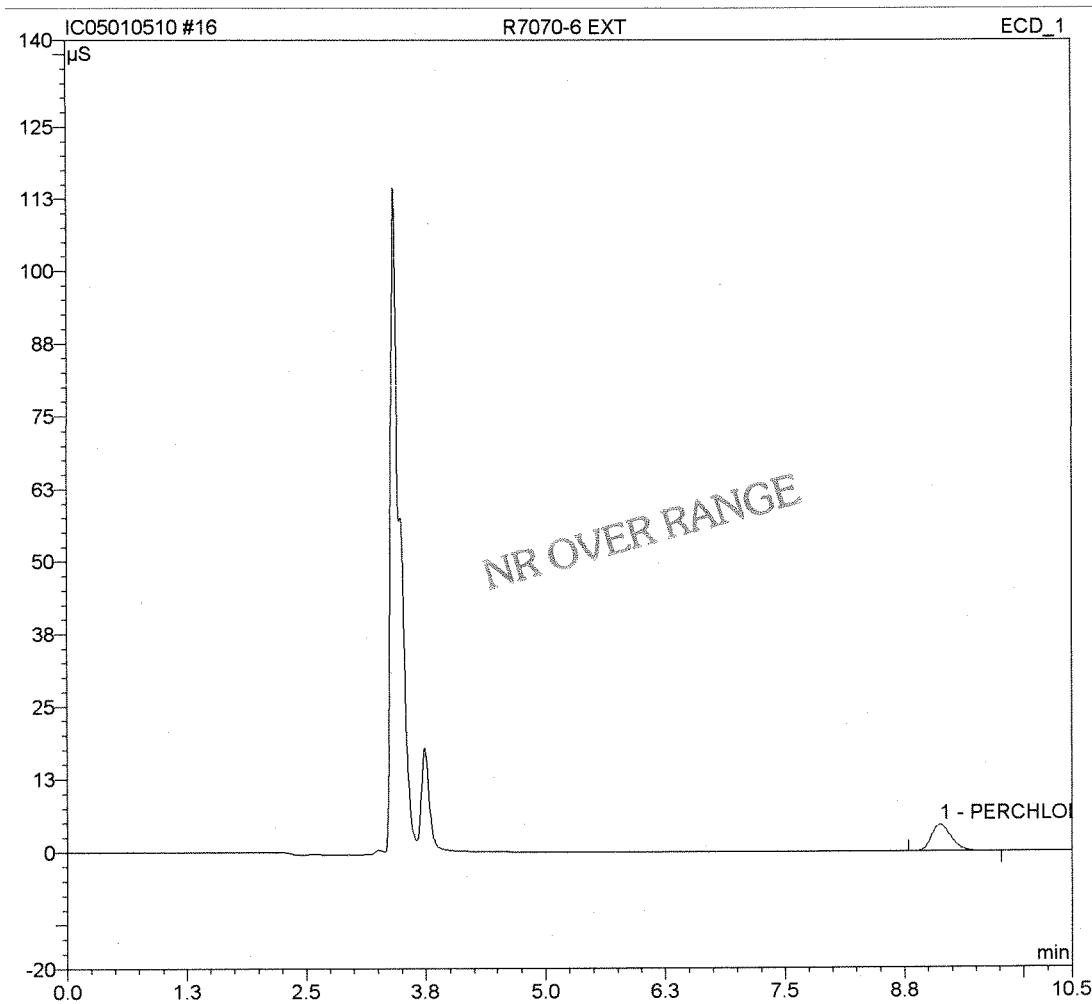


Before

JAN 05 2010

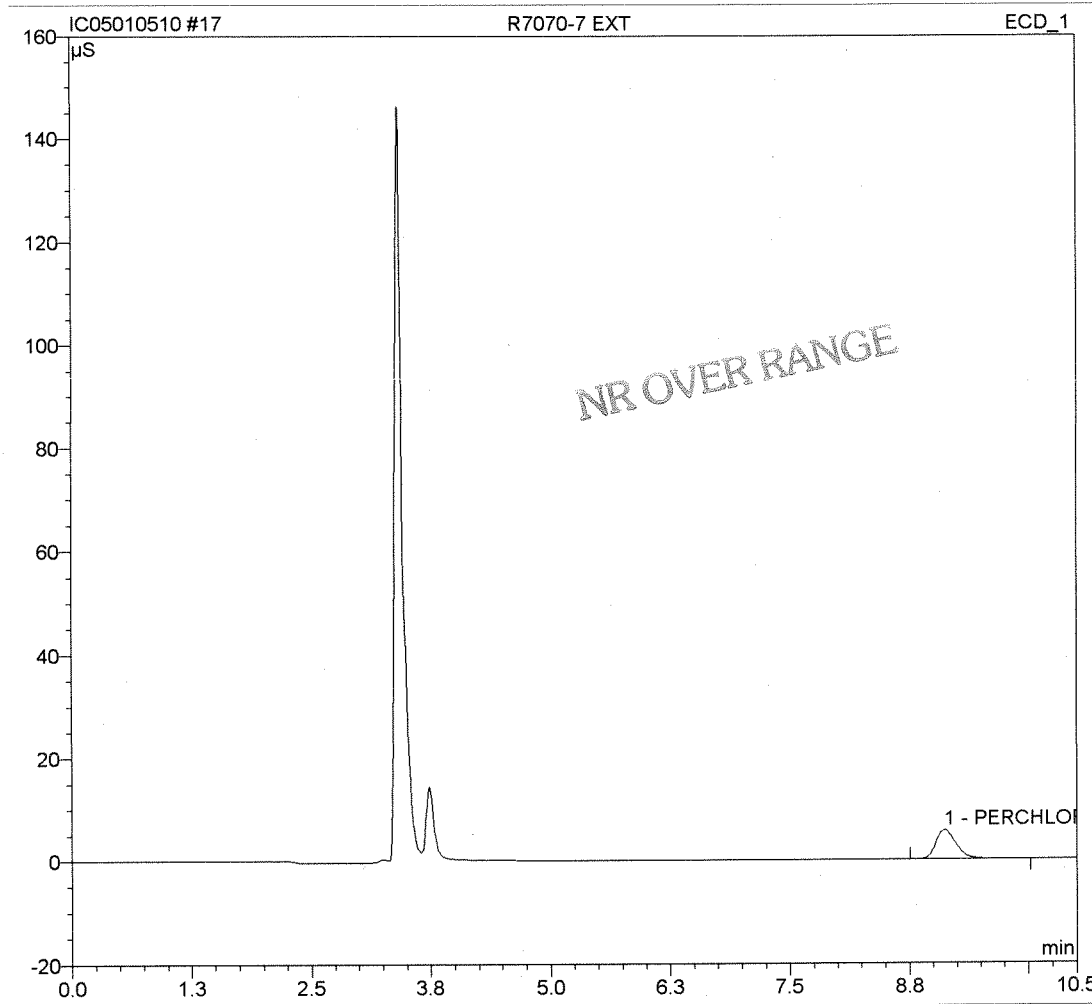
Sample Name:	R7070-6 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	50.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 15:09	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.13	PERCHLORATE-1	4.612	1.119	23522.7148



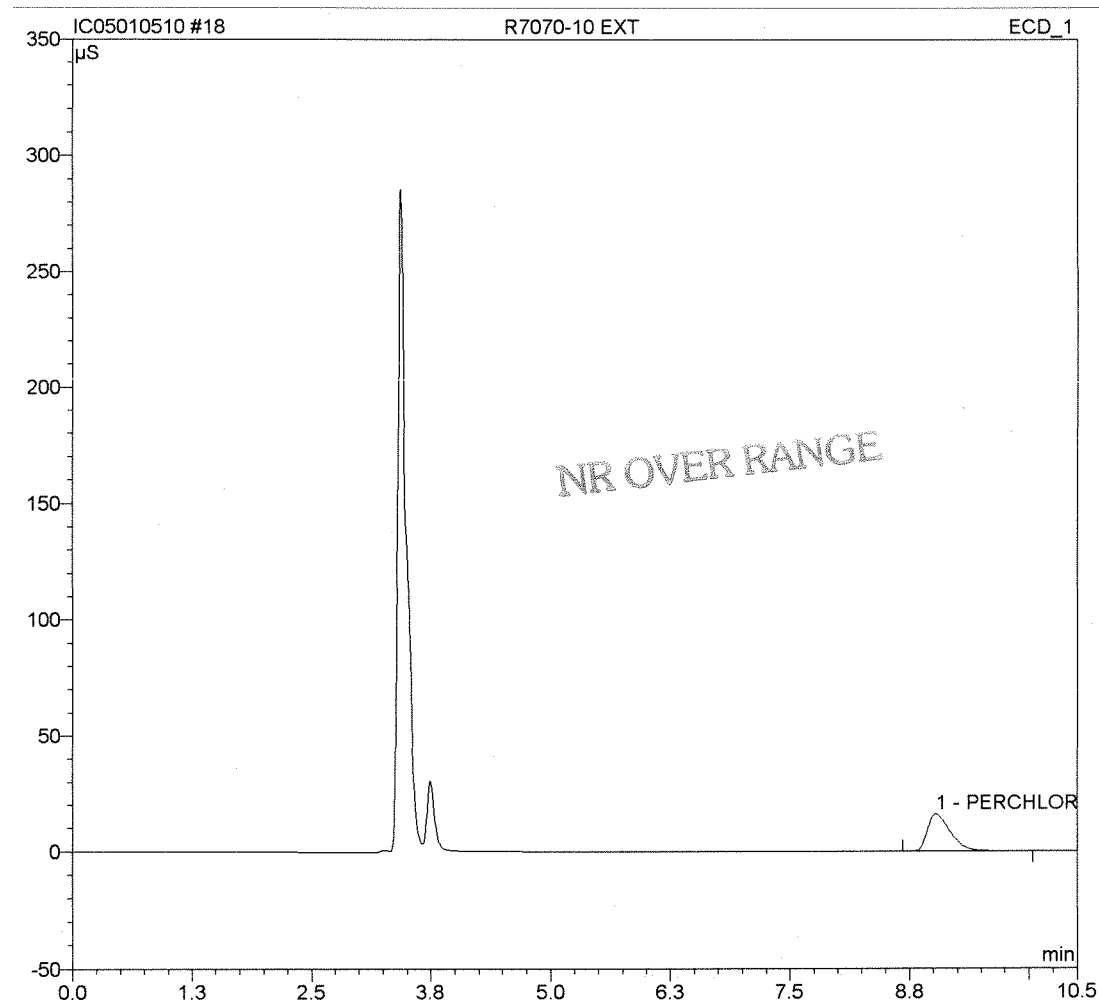
Sample Name:	R7070-7 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	50.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 15:22	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.12	PERCHLORATE-1	5.737	1.411	29659.1185



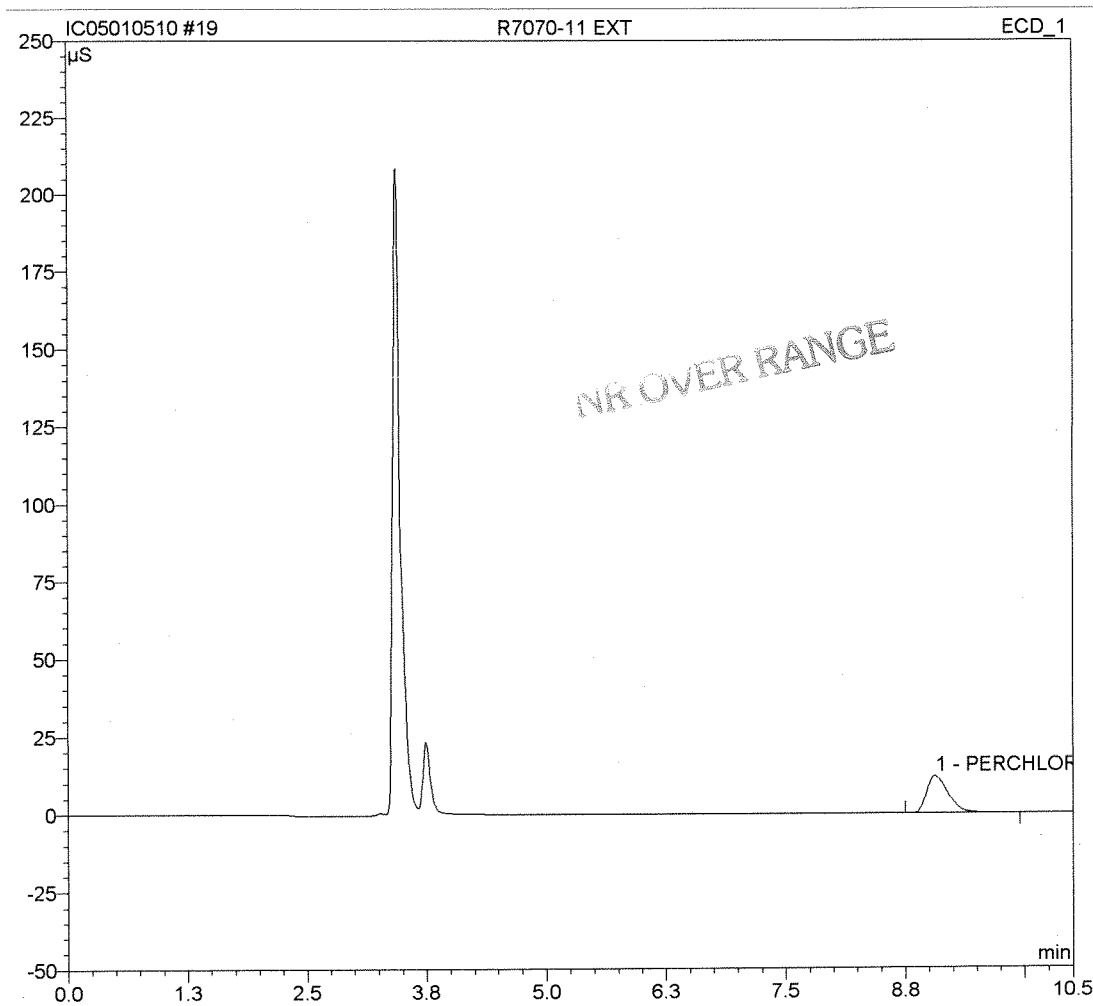
Sample Name:	R7070-10 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	50.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 15:35	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
1	9.03	PERCHLORATE-1	16.004	4.379	92072.0083



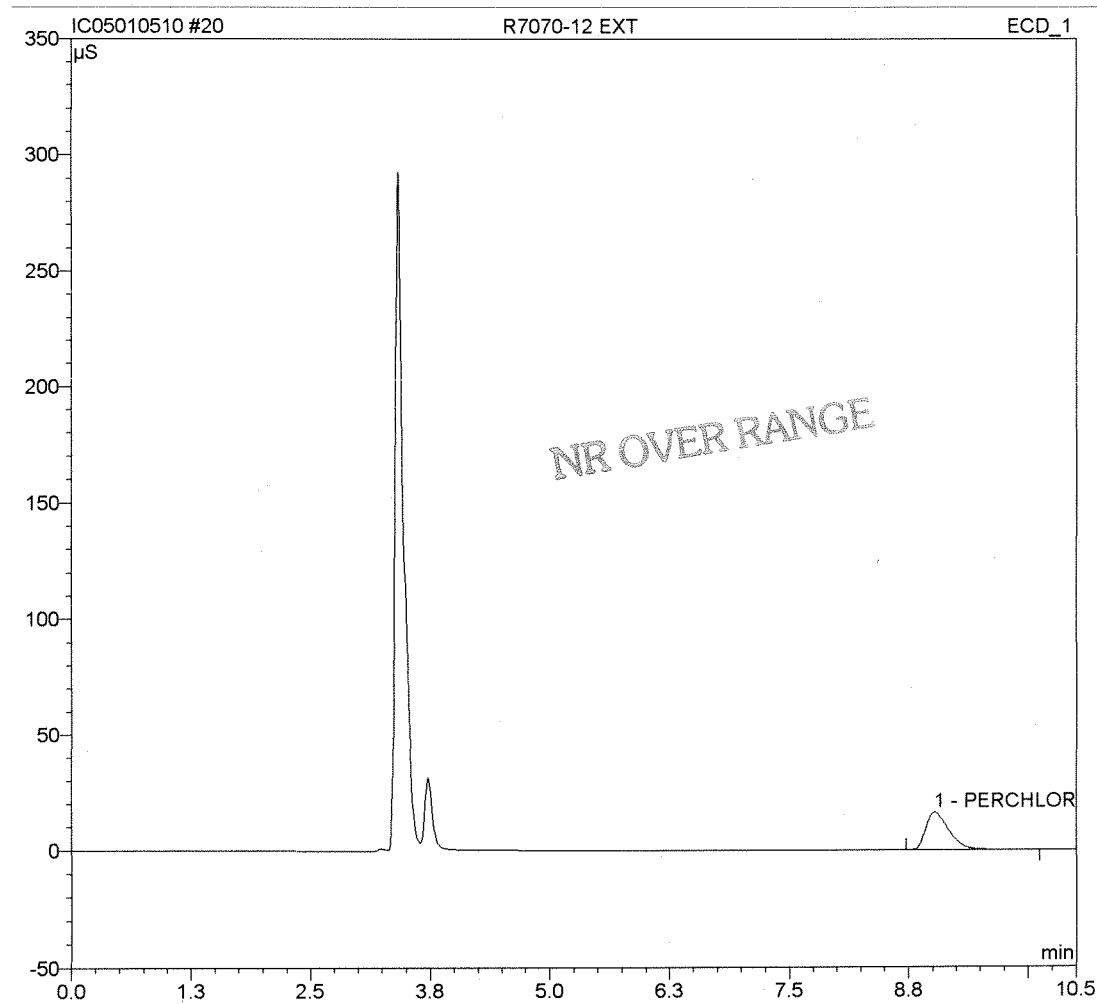
Sample Name:	R7070-11 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	50.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 15:48	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.07	PERCHLORATE-1	11.899	3.105	65286.0351



Sample Name:	R7070-12 EXT	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	50.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 16:01	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
1	9.02	PERCHLORATE-1	16.255	4.476	94110.6404



185147

**Ion Chromatography Data Quality Report
Perchlorate
Inorganics**

- 1. Holding times met for all samples analyzed? yes/no/NA
- 2. Are all chromatograms signed and dated? yes/no/NA
- 3. Are dilutions within upper limits of the curve? yes/no/NA
- 4. Are analysis/extraction stickers included on report? yes/no/NA
- 5. Are detection limits reported correctly? yes/no/NA
- 6. Are all quality control criteria met? yes/no/NA
 - a. Method Blanks, CCV's, CCB's, LCS's, Dups, and Spikes analyzed at the proper frequency? yes/no/NA
 - b. Are CCV's and CCB's all within acceptance limits? yes/no/NA
 - c. Are results for Method Blanks all ND? yes/no/NA
 - d. Are all QC samples within acceptance criteria? (LCS% rec, MS% rec, Duplicate RPD's, etc.) yes/no/NA
 - e. Are all exceptions explained? yes/no/NA
- 8. Are all samples labelled correctly? yes/no/NA

CAS Standard Identification Codes and Abbreviated Footnotes for Chromatograms

- G1 Sample was analyzed past the end of recommended holding time. See Nonconformity sheet.
- G2 Sample was reanalyzed past holding time. Initial analysis was performed within recommended holding time.
- G4 Sample was received past the end of recommended holding time.
- R1 High RPD is because the duplicate sample results are less than three times the method reporting limit.
- D MRL is elevated because of matrix interferences and the sample required diluting.
- F Sample filtered primary to analysis.

IPC			
Perchlorate	True Value = 25.0 ppb	CAS ID# = <u>AW3-46-F</u>	Expires: <u>1/5/10</u>
ICCS			
Perchlorate	True Value = 1.0 ppb	CAS ID# = <u>AW3-46-B</u>	Expires: <u>1/5/10</u>
CCV			
Perchlorate	True Value = 10.0 ppb	CAS ID# = <u>AW3-46-C</u>	Expires: <u>1/5/10</u>
Spike			
Perchlorate	True Value = 1000 ppb	CAS ID# = <u>AW3-46-E</u>	Expires: <u>1/5/10</u>
ECCV			
Perchlorate	True Value = 25.0 ppb	CAS ID# = <u>AW3-46-D</u>	Expires: <u>1/5/10</u>
LCS			
Perchlorate	True Value = 15.6 ppb	CAS ID# = <u>AN3-41-U</u>	Expires: 5/2012

Analyst: RL Date: 1/5/09
 First Review: RL Date: 1/6/09
 Final Review: BH Date: 1/8/09

6.D. Spike NA due to sample conc being higher than spike
 LCS is outside method requirements of 85-115 percent. However the percent recovery is within ~~method~~ criteria of 96-124 percent. O.K. to report per P.C.

Sequence: IC05010510
Operator: ecromwell

Page 1 of 4
Printed: 1/6/2010 8:42:04 AM

Title:
Datasource: ACQWET10_local
Location:
Timebase: ICS2500
#Samples: 43
Created: 1/5/2010 11:13:28 AM by ACQWET10
Last Update: 1/5/2010 7:49:46 PM by ACQWET10

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	STD1/LVL1	Standard	1	1000.0	PERCHLORATE	PERCHLORATE	Finished
2	STD2/LVL2	Standard	2	1000.0	PERCHLORATE	PERCHLORATE	Finished
3	STD3/LVL3	Standard	3	1000.0	PERCHLORATE	PERCHLORATE	Finished
4	STD4/LVL4	Standard	4	1000.0	PERCHLORATE	PERCHLORATE	Finished
5	STD5/LVL5	Standard	5	1000.0	PERCHLORATE	PERCHLORATE	Finished
6	STD6/LVL6	Standard	6	1000.0	PERCHLORATE	PERCHLORATE	Finished
7	IPC1	Unknown	IPC:7	1000.0	PERCHLORATE	PERCHLORATE	Finished
8	MB1	Unknown	IPC:8	1000.0	PERCHLORATE	PERCHLORATE	Finished
9	ICCS1	Unknown	IPC:9	1000.0	PERCHLORATE	PERCHLORATE	Finished
10	LCS1 EXT 1/4/10	Unknown	IPC:10	1000.0	PERCHLORATE	PERCHLORATE	Finished
11	LCS1	Unknown	IPC:11	1000.0	PERCHLORATE	PERCHLORATE	Finished
12	CCV	Unknown	IPC:12	1000.0	PERCHLORATE	PERCHLORATE	Finished
13	LOD W	Unknown	IPC:13	1000.0	PERCHLORATE	PERCHLORATE	Finished
14	LOQ W	Unknown	IPC:14	1000.0	PERCHLORATE	PERCHLORATE	Finished
15	LOD/LOQ S	Unknown	IPC:15	1000.0	PERCHLORATE	PERCHLORATE	Finished
16	R7070-6 EXT	Unknown	IPC:16	1000.0	PERCHLORATE	PERCHLORATE	Finished
17	R7070-7 EXT	Unknown	IPC:17	1000.0	PERCHLORATE	PERCHLORATE	Finished
18	R7070-10 EXT	Unknown	IPC:18	1000.0	PERCHLORATE	PERCHLORATE	Finished
19	R7070-11 EXT	Unknown	IPC:19	1000.0	PERCHLORATE	PERCHLORATE	Finished
20	R7070-12 EXT	Unknown	IPC:20	1000.0	PERCHLORATE	PERCHLORATE	Finished
21	R7146-1 EXT	Unknown	IPC:21	1000.0	PERCHLORATE	PERCHLORATE	Finished
22	R7146-2 EXT	Unknown	IPC:22	1000.0	PERCHLORATE	PERCHLORATE	Finished
23	RB	Unknown	IPC:23	1000.0	PERCHLORATE	PERCHLORATE	Finished
24	CCV2	Unknown	IPC:24	1000.0	PERCHLORATE	PERCHLORATE	Finished
25	R7171-11 EXT	Unknown	IPC:25	1000.0	PERCHLORATE	PERCHLORATE	Finished
26	R7171-12 EXT	Unknown	IPC:26	1000.0	PERCHLORATE	PERCHLORATE	Finished
27	R7070-6 EXT	Unknown	IPC:27	1000.0	PERCHLORATE	PERCHLORATE	Finished
28	R7070-7 EXT	Unknown	IPC:28	1000.0	PERCHLORATE	PERCHLORATE	Finished
29	R7070-10 EXT	Unknown	IPC:29	1000.0	PERCHLORATE	PERCHLORATE	Finished
30	R7070-10 DUP EXT	Unknown	IPC:30	1000.0	PERCHLORATE	PERCHLORATE	Finished
31	R7070-10 MS EXT	Unknown	IPC:31	1000.0	PERCHLORATE	PERCHLORATE	Finished
32	R7070-10 MSD EXT	Unknown	IPC:32	1000.0	PERCHLORATE	PERCHLORATE	Finished
33	R7070-11 EXT	Unknown	IPC:33	1000.0	PERCHLORATE	PERCHLORATE	Finished
34	LOD/LOQ S	Unknown	IPC:34	1000.0	PERCHLORATE	PERCHLORATE	Finished
35	RB	Unknown	IPC:35	1000.0	PERCHLORATE	PERCHLORATE	Finished
36	CCV3	Unknown	IPC:36	1000.0	PERCHLORATE	PERCHLORATE	Finished
37	R7070-12 EXT	Unknown	IPC:37	1000.0	PERCHLORATE	PERCHLORATE	Finished
38	R7146-1 EXT	Unknown	IPC:38	1000.0	PERCHLORATE	PERCHLORATE	Finished
39	R7146-2 EXT	Unknown	IPC:39	1000.0	PERCHLORATE	PERCHLORATE	Finished
40	R7171-11 EXT	Unknown	IPC:40	1000.0	PERCHLORATE	PERCHLORATE	Finished
41	R7171-12 EXT	Unknown	IPC:41	1000.0	PERCHLORATE	PERCHLORATE	Finished
42	RB	Unknown	IPC:42	1000.0	PERCHLORATE	PERCHLORATE	Finished

Sequence: IC05010510
Operator: ecromwell

Title:
Datasource: ACQWET10_local
Location:
Timebase: ICS2500
#Samples: 43


Created: 1/5/2010 11:13:28 AM by ACQWET10
Last Update: 1/5/2010 7:49:46 PM by ACQWET10

No.	Name	Inj. Date/Time	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID	Comment
1	STD1/LVL1	12/4/2009 11:15:02 AM	1.0000	1.0000	1.0000		02	
2	STD2/LVL2	12/4/2009 11:27:58 AM	1.0000	1.0000	1.0000		03	
3	STD3/LVL3	12/4/2009 11:40:53 AM	1.0000	1.0000	1.0000		04	
4	STD4/LVL4	12/4/2009 11:53:49 AM	1.0000	1.0000	1.0000		05	
5	STD5/LVL5	12/4/2009 12:06:46 PM	1.0000	1.0000	1.0000		05	
6	STD6/LVL6	12/4/2009 12:19:42 PM	1.0000	1.0000	1.0000		05	
7	IPC1	1/5/2010 1:13:16 PM	1.0000	1.0000	1.0000		IPC	IPC
8	MB1	1/5/2010 1:26:12 PM	1.0000	1.0000	1.0000		IPC	IPC
9	ICCS1	1/5/2010 1:39:07 PM	1.0000	1.0000	1.0000		IPC	IPC
10	LCS1 EXT 1/4/10	1/5/2010 1:52:03 PM	1.0000	2.0000	1.0000		IPC	IPC
11	LCS1	1/5/2010 2:04:58 PM	1.0000	1.0000	1.0000		IPC	IPC
12	CCV	1/5/2010 2:17:54 PM	1.0000	1.0000	1.0000		IPC	IPC
13	LOD W	1/5/2010 2:30:49 PM	1.0000	1.0000	1.0000		IPC	IPC
14	LOQ W	1/5/2010 2:43:45 PM	1.0000	1.0000	1.0000		IPC	IPC
15	LOD/LOQ S	1/5/2010 2:56:40 PM	1.0000	1.0000	1.0000		IPC	IPC
16	R7070-6 EXT	1/5/2010 3:09:35 PM	1.0000	50.0000	1.0000		IPC	IPC
17	R7070-7 EXT	1/5/2010 3:22:31 PM	1.0000	50.0000	1.0000		IPC	IPC
18	R7070-10 EXT	1/5/2010 3:35:26 PM	1.0000	50.0000	1.0000		IPC	IPC
19	R7070-11 EXT	1/5/2010 3:48:22 PM	1.0000	50.0000	1.0000		IPC	IPC
20	R7070-12 EXT	1/5/2010 4:01:19 PM	1.0000	50.0000	1.0000		IPC	IPC
21	R7146-1 EXT	1/5/2010 4:14:15 PM	1.0000	50.0000	1.0000		IPC	IPC
22	R7146-2 EXT	1/5/2010 4:27:10 PM	1.0000	50.0000	1.0000		IPC	IPC
23	RB	1/5/2010 4:40:06 PM	1.0000	1.0000	1.0000		IPC	IPC
24	CCV2	1/5/2010 4:53:02 PM	1.0000	1.0000	1.0000		IPC	IPC
25	R7171-11 EXT	1/5/2010 5:05:57 PM	1.0000	50.0000	1.0000		IPC	IPC
26	R7171-12 EXT	1/5/2010 5:18:53 PM	1.0000	50.0000	1.0000		IPC	IPC
27	R7070-6 EXT	1/5/2010 5:31:49 PM	1.0000	2000.0000	1.0000		IPC	IPC
28	R7070-7 EXT	1/5/2010 5:44:44 PM	1.0000	2000.0000	1.0000		IPC	IPC
29	R7070-10 EXT	1/5/2010 5:57:40 PM	1.0000	5000.0000	1.0000		IPC	IPC
30	R7070-10 DUP EXT	1/5/2010 6:10:35 PM	1.0000	5000.0000	1.0000		IPC	IPC
31	R7070-10 MS EXT	1/5/2010 6:23:31 PM	1.0000	5000.0000	1.0000		IPC	IPC
32	R7070-10 MSD EXT	1/5/2010 6:36:26 PM	1.0000	5000.0000	1.0000		IPC	IPC
33	R7070-11 EXT	1/5/2010 6:49:22 PM	1.0000	5000.0000	1.0000		IPC	IPC
34	LOD/LOQ S	1/5/2010 7:02:17 PM	1.0000	1.0000	1.0000		IPC	IPC
35	RB	1/5/2010 7:15:13 PM	1.0000	1.0000	1.0000		IPC	IPC
36	CCV3	1/5/2010 7:28:08 PM	1.0000	1.0000	1.0000		IPC	IPC
37	R7070-12 EXT	1/5/2010 7:41:04 PM	1.0000	5000.0000	1.0000		IPC	IPC
38	R7146-1 EXT	1/5/2010 7:53:59 PM	1.0000	50000.0000	1.0000		IPC	IPC
39	R7146-2 EXT	1/5/2010 8:06:55 PM	1.0000	50000.0000	1.0000		IPC	IPC
40	R7171-11 EXT	1/5/2010 8:19:50 PM	1.0000	100.0000	1.0000		IPC	IPC
41	R7171-12 EXT	1/5/2010 8:32:46 PM	1.0000	200.0000	1.0000		IPC	IPC
42	RB	1/5/2010 8:45:41 PM	1.0000	1.0000	1.0000		IPC	IPC

Sequence: IC05010510
Operator: ecromwell

Title:
Datasource: ACQWET10_local
Location:
Timebase: ICS2500
#Samples: 43

Created: 1/5/2010 11:13:28 AM by ACQWET10
Last Update: 1/5/2010 7:49:46 PM by ACQWET10

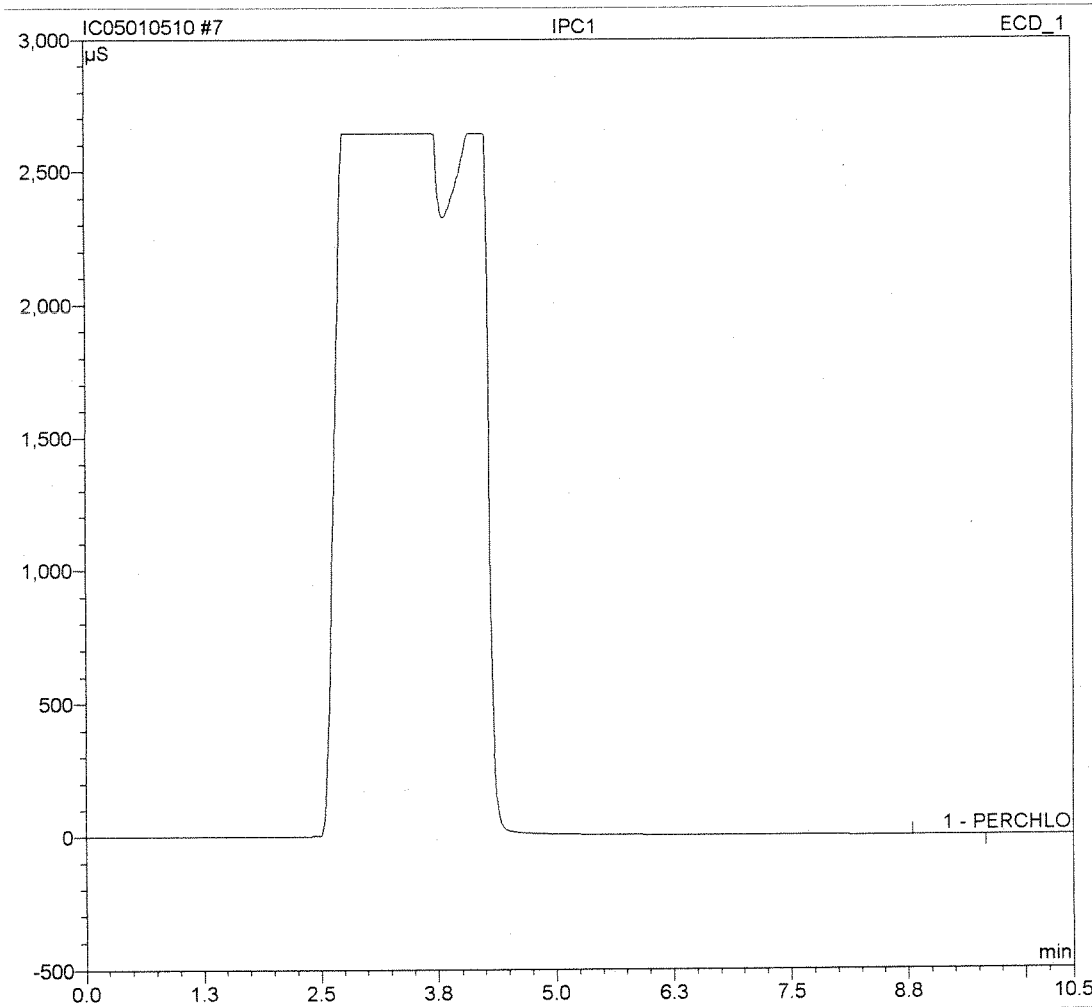
No.	Name	Inj. Date/Time	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID	Comment
43	 ECCV	1/5/2010 8:58:37 PM	1.0000	1.0000	1.0000		IPC	IPC

Service Request	Tier	QC	Hold Time	Due Date	Anions	Initial	Final	Done?
LOD					F			
					Cl			
					NO2			
					Br			
					NO3			
W = 1.0 S = 0.05 * 1000 ÷ 2.5 = 20 ppb					SO4			
					F			
					Cl			
					NO2			
					Br			
LOQ					NO3			
					SO4			
					F			
					Cl			
					NO2			
W = 2.0 S = 0.05 * 1000 ÷ 2.5 = 20 ppb ≈ 1 cu instrument					Br			
					NO3			
					SO4			
					F			
					Cl			
R7070-6					NO2	50x	2000x •	✓
					Br		✓100 ⇒ ✓20	
					NO3			
					SO4			
					F			
-7					Cl		2000x •	✓
					NO2		✓100 ⇒ ✓20	
					Br			
					NO3			
					SO4			
-10		X			F			
					Cl		5000x •	✓
					NO2		✓100 ⇒ ✓20 ⁴⁰	
					Br			
					NO3			
-11					SO4			
					F			
					Cl		5000x •	✓
					NO2		✓100 ⇒ ✓50	
					Br			
-12					NO3			
					SO4			
					F			
					Cl		5000x •	✓
					NO2		✓100 ⇒ ✓50	
R7146-1					Br			
					NO3			
					SO4			
					F			
					Cl		50,000x •	✓
-2					NO2		✓100 ⇒ ✓100 ⇒ ✓5	
					Br			
					NO3			
					SO4			
					F			
R7177-11					Cl	✓	100x	✓
					NO2			
					Br			
					NO3			
					SO4			

Service Request	Tier	QC	Hold Time	Due Date	Anions	Initial	Final	Done?
R7171-12					F			
					Cl	50x	200x	✓
					NO2			
					Br			
					NO3			
				SO4				
				F				
				Cl				
				NO2				
				Br				
				NO3				
				SO4				
				F				
				Cl				
				NO2				
				Br				
				NO3				
				SO4				
				F				
				Cl				
				NO2				
				Br				
				NO3				
				SO4				
				F				
				Cl				
				NO2				
				Br				
				NO3				
				SO4				
				F				
				Cl				
				NO2				
				Br				
				NO3				
				SO4				

Sample Name:	IPC1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 13:13	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.12	PERCHLORATE-1	0.196	0.055	22.9452

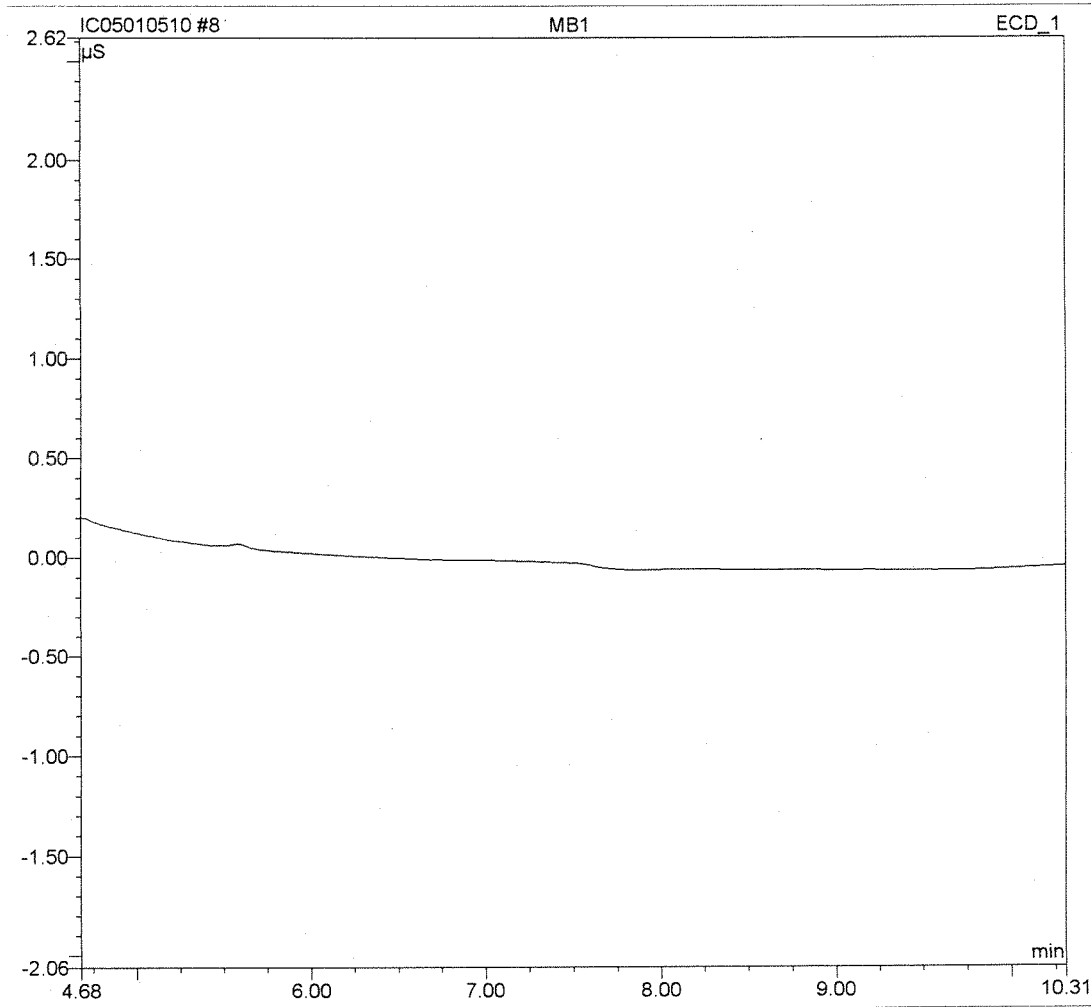


Before

JAN 05 2010

Sample Name:	MB1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 13:26	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
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After Initials EC

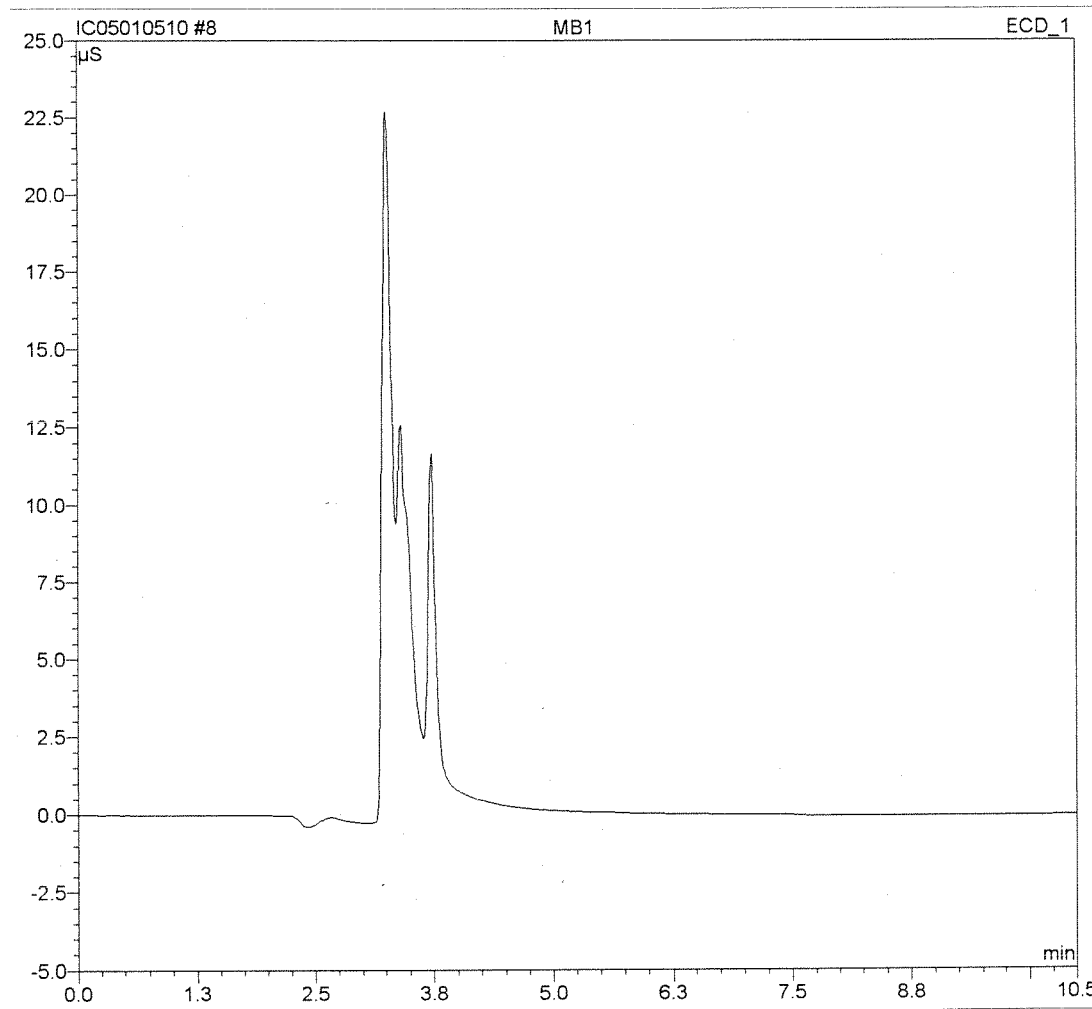
JAN 05 2010

8.11.10 13:44:10

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other: ECM

Sample Name:	MB1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 13:26	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
-----	-----------------------------	-----------	-------------------	---------------------	---------------



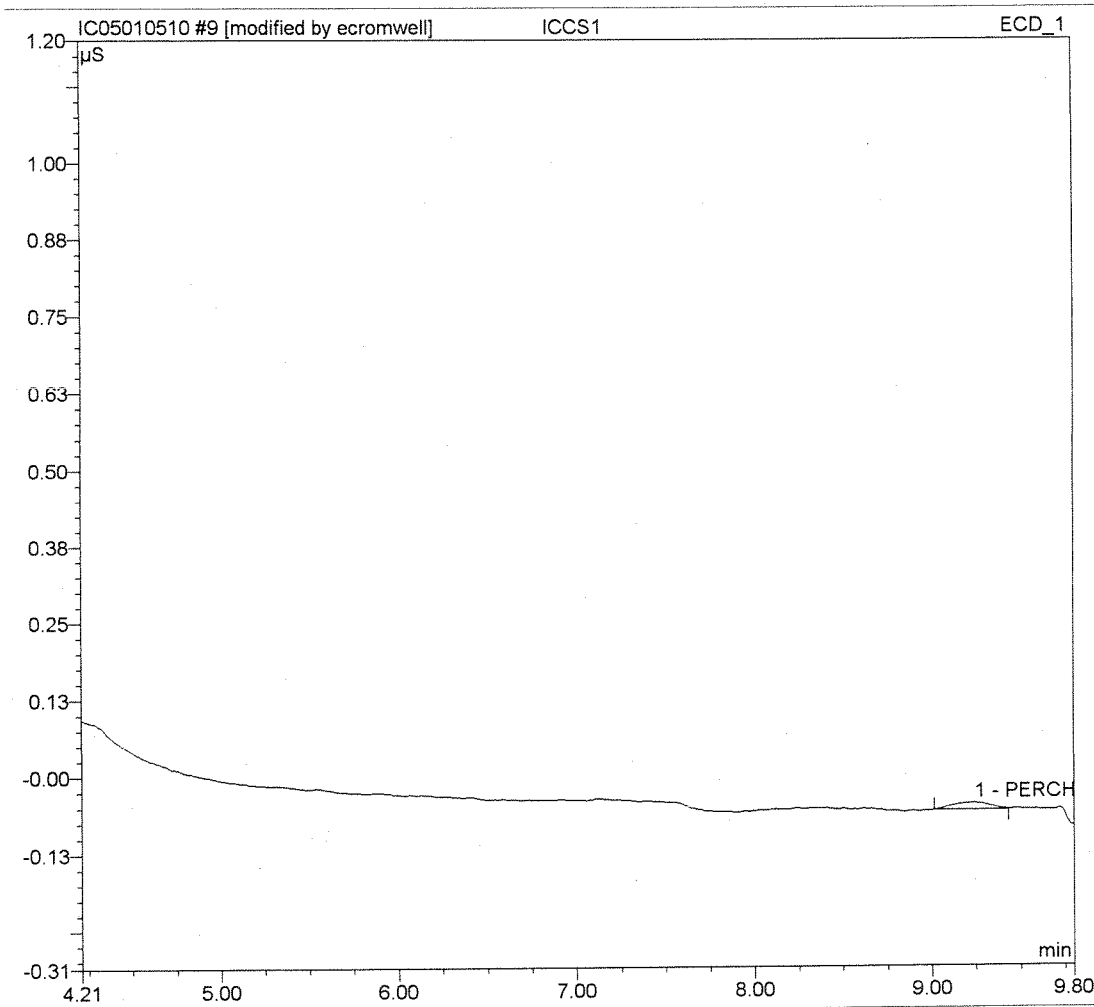
Before

JAN 05 2010

Sample Name:	ICCS1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 13:39	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.24	PERCHLORATE-1	0.011	0.003	1.0992

110%



After Initials EL

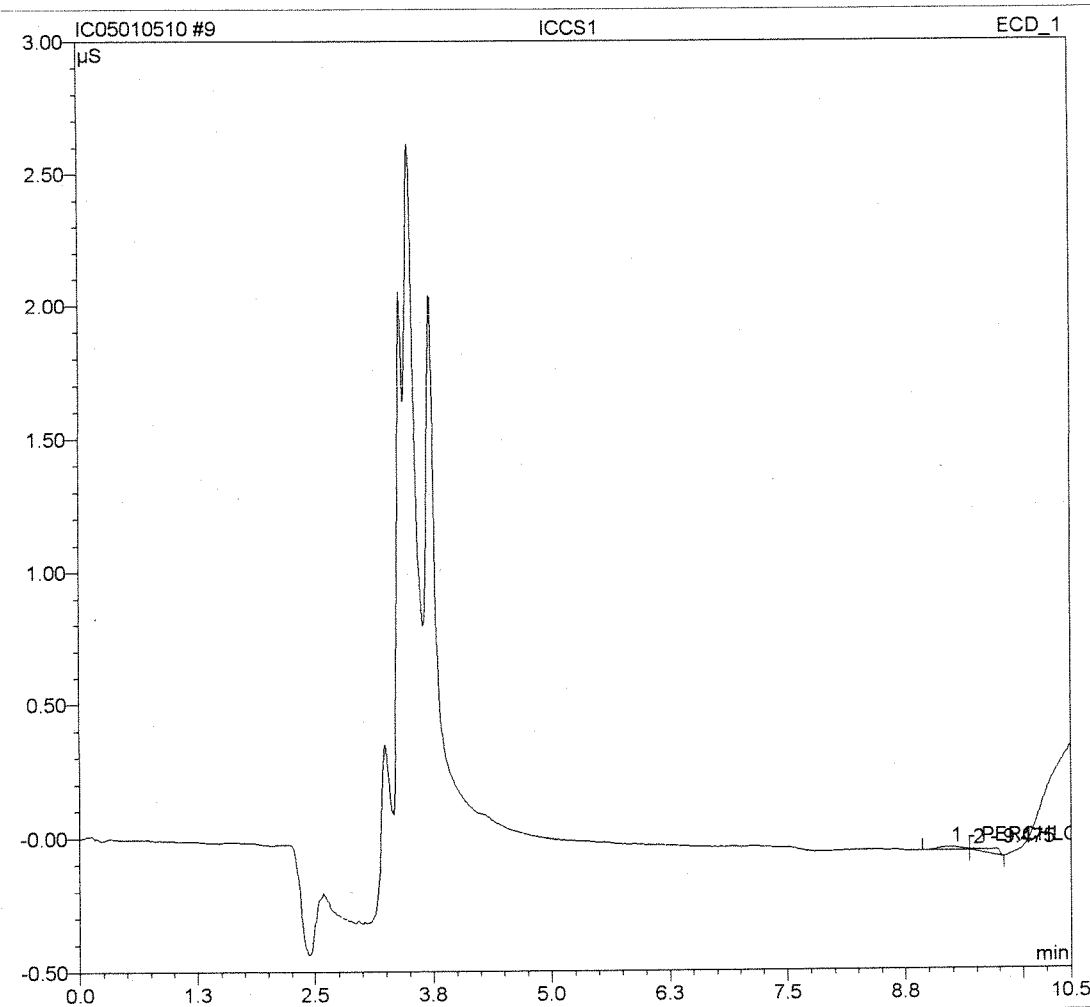
64 11/9/10

JAN 05 2010

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other: LOAM

Sample Name:	ICCS1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 13:39	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.24	PERCHLORATE-1	0.011	0.003	1.2197



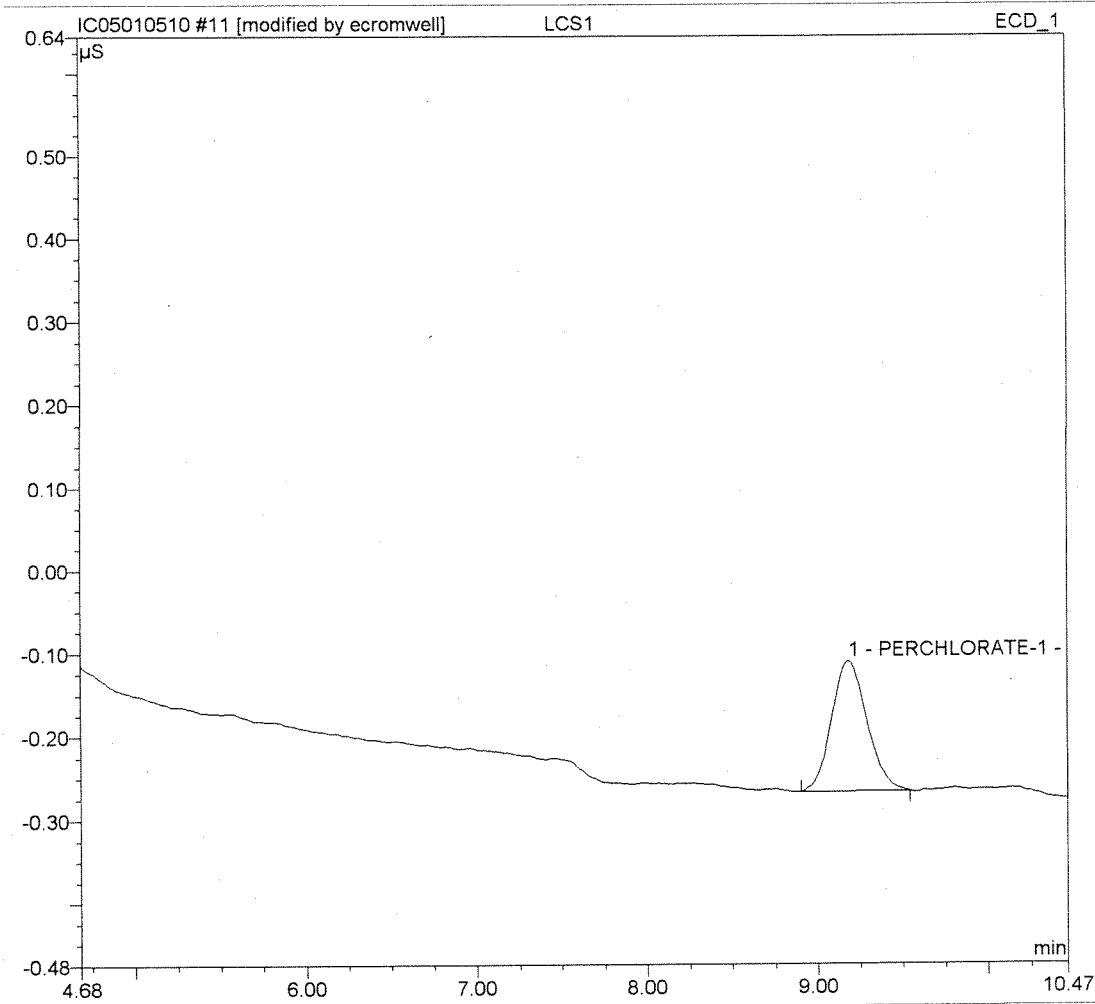
Before

JAN 05 2010

Sample Name:	LCS1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 14:04	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.18	PERCHLORATE-1	0.156	0.038	15.7928

TU = 15.6
%Rec = 101



After Initials EU

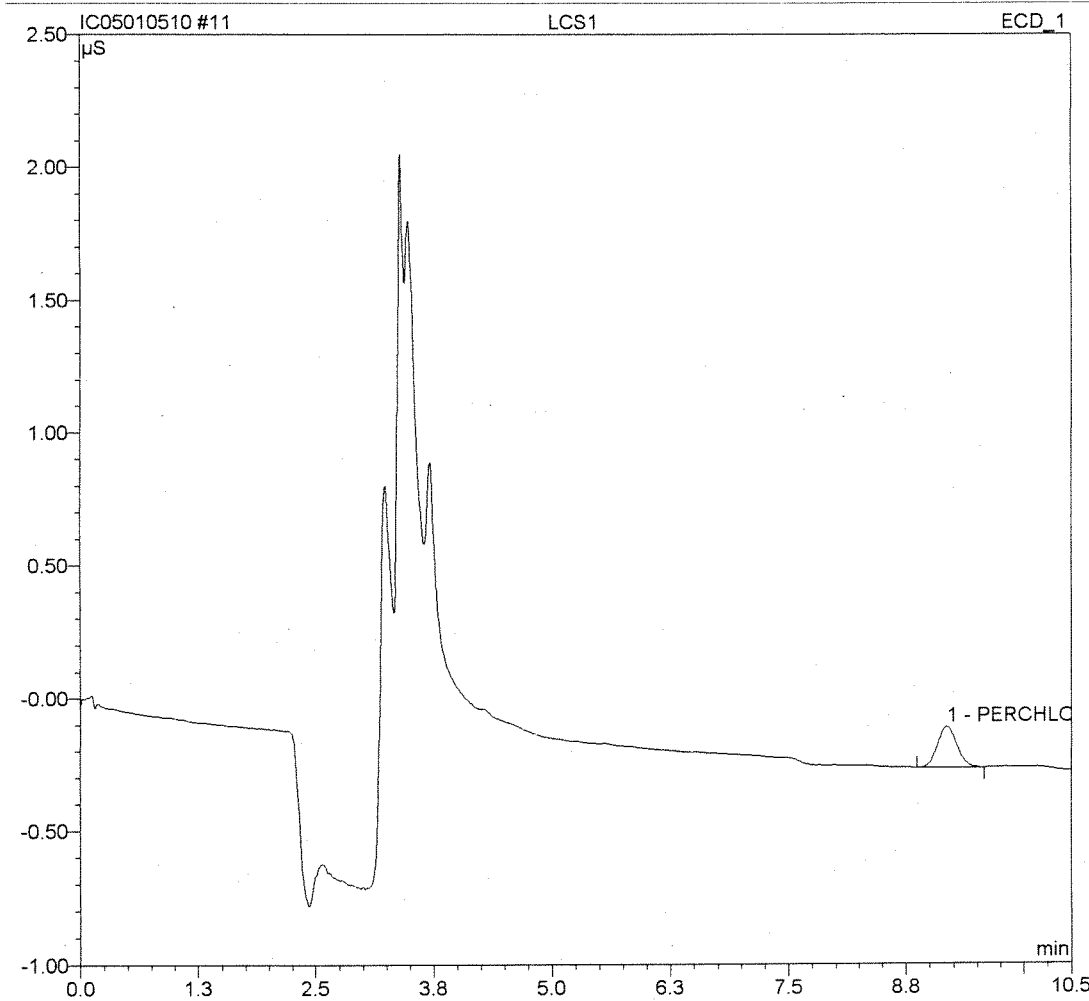
JAN 05 2010

DATE 1/5/2010

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other EM

Sample Name:	LCS1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 14:04	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.18	PERCHLORATE-1	0.157	0.038	16.1001



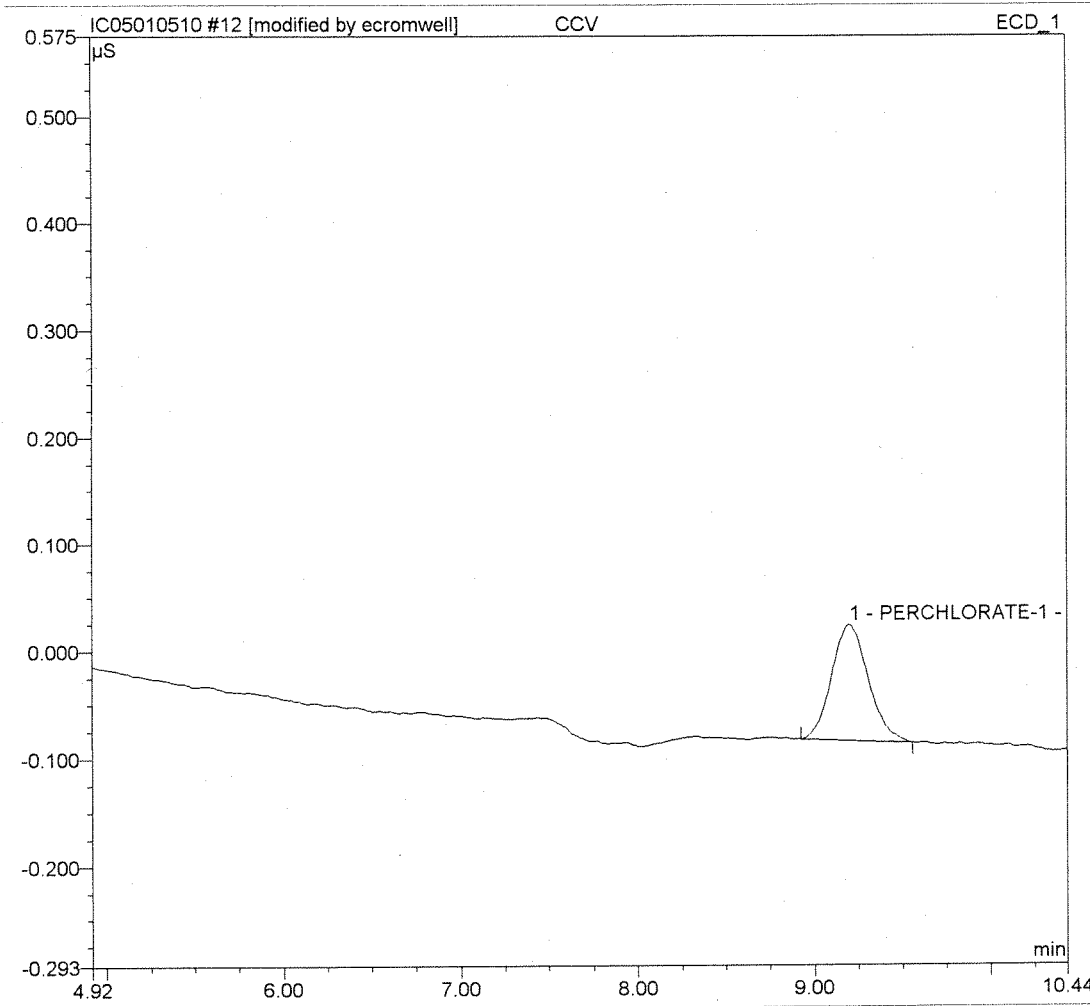
Before

JAN 05 2010

Sample Name:	CCV	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 14:17	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.20	PERCHLORATE-1	0.107	0.026	10.9380

109%



After Initials EC

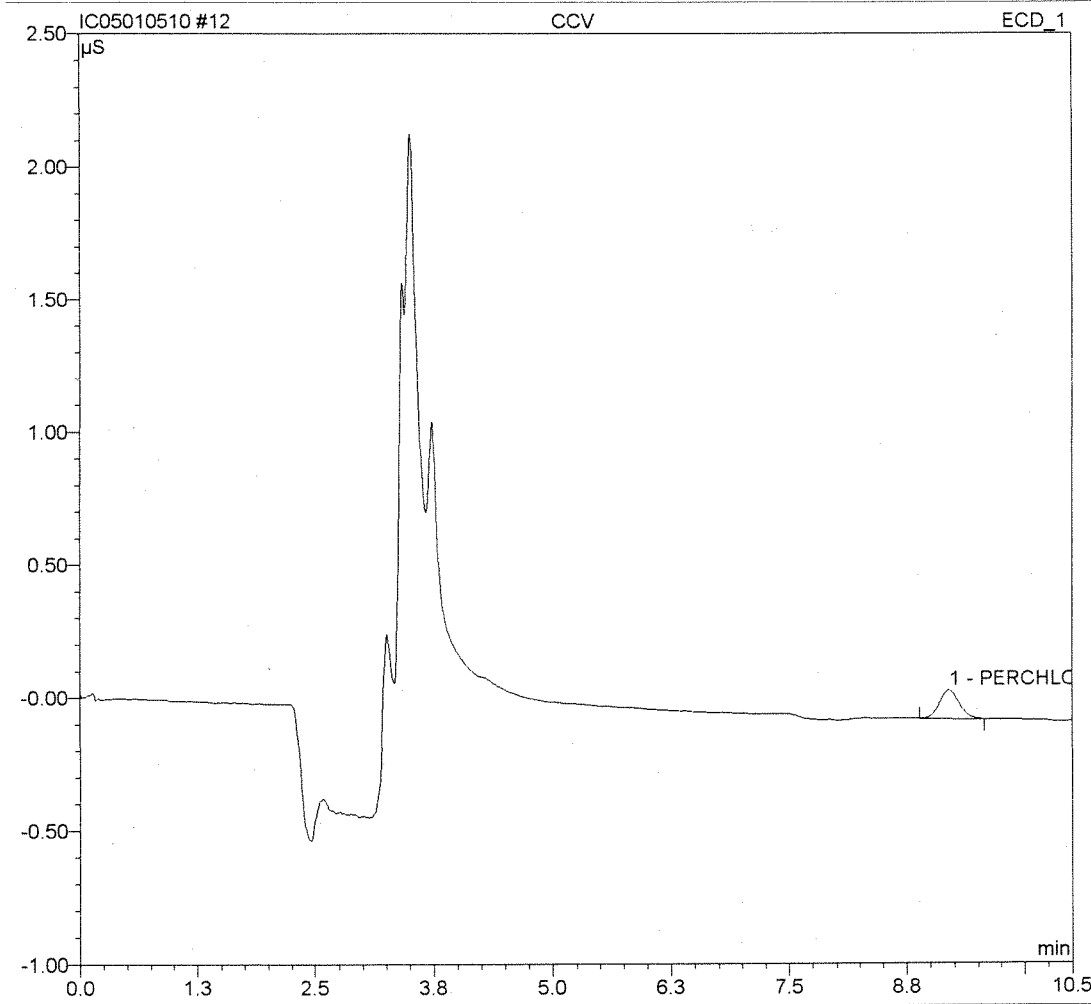
JAN 05 2010

DATE TIME

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other lean

Sample Name:	CCV	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 14:17	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.20	PERCHLORATE-1	0.108	0.026	11.0607

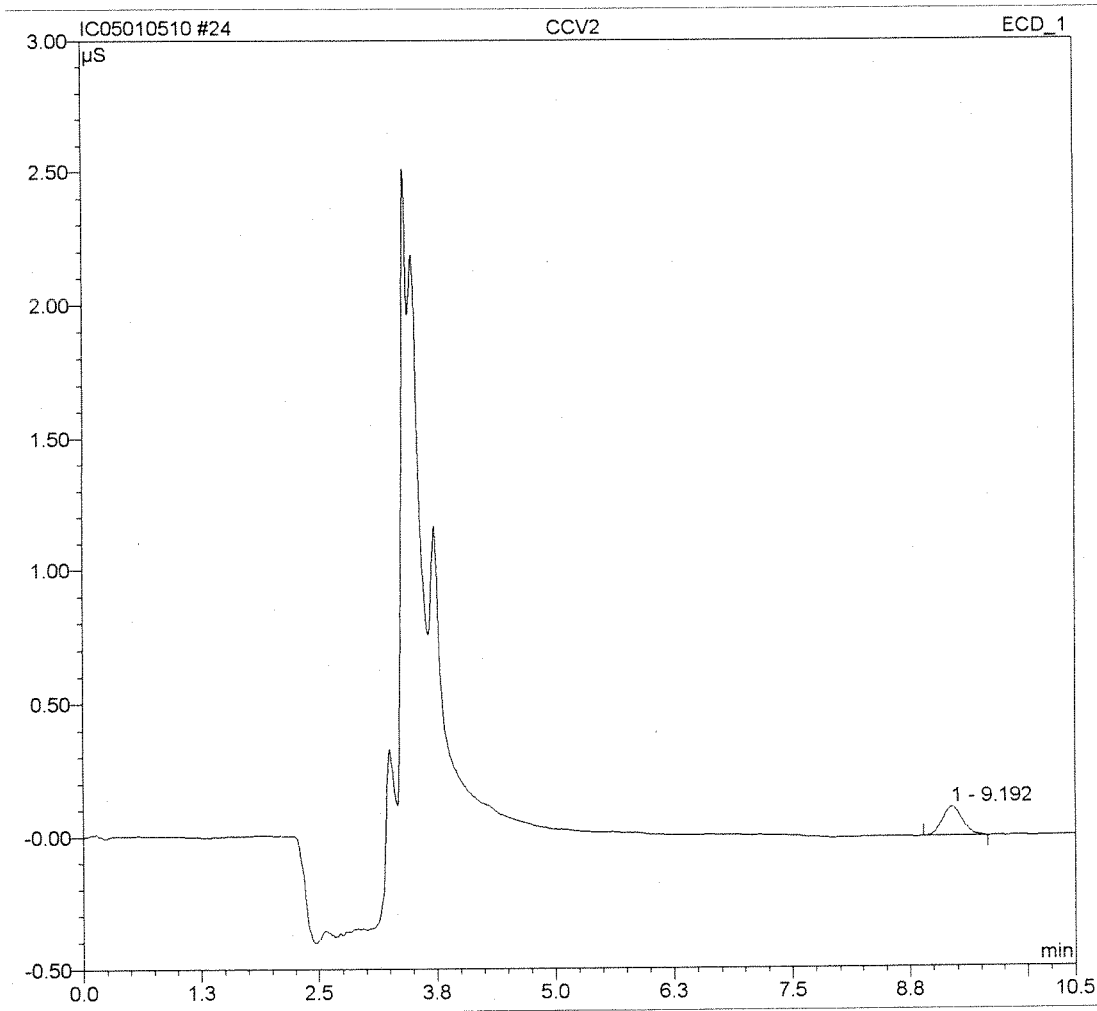


Before

JAN 05 2010

Sample Name:	CCV2	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 16:53	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
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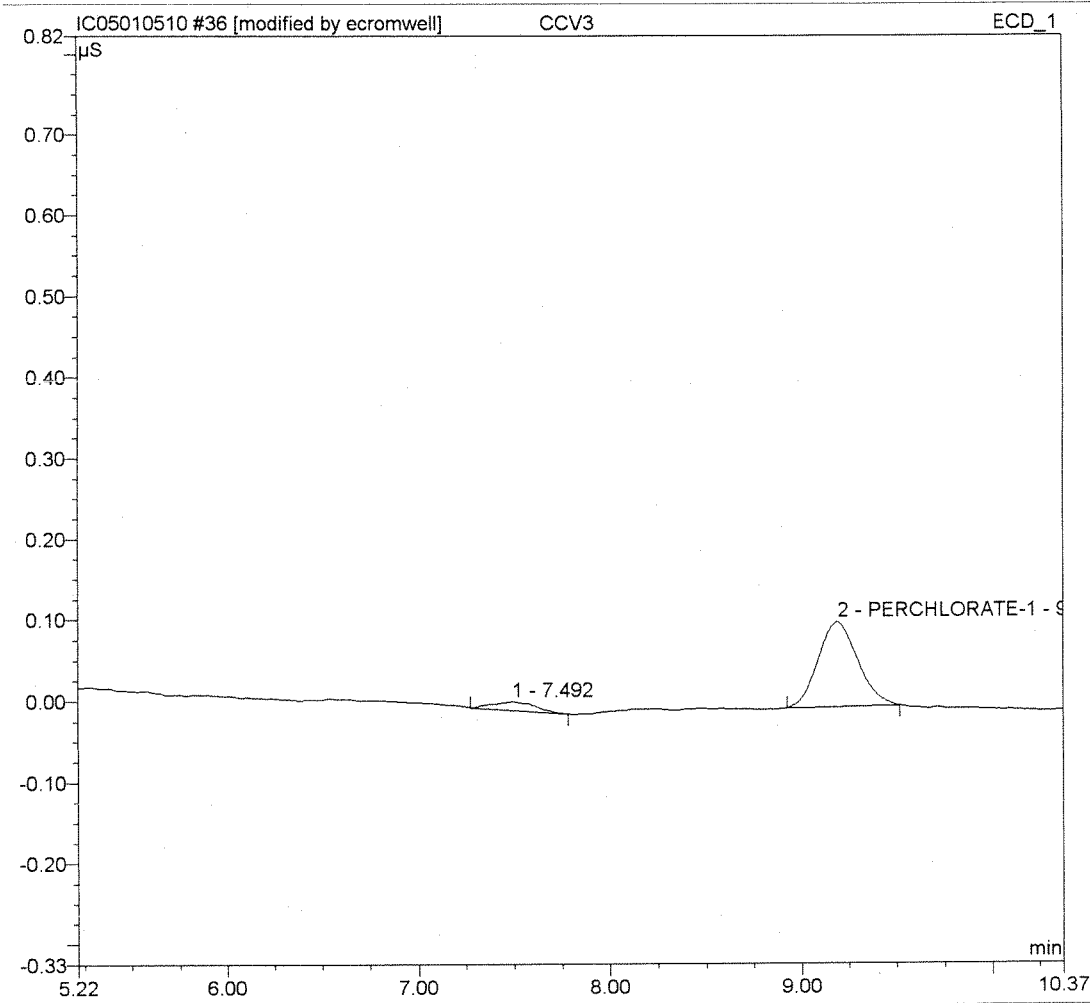
Before

JAN 05 2010

Sample Name:	CCV3	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 19:28	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
2	9.19	PERCHLORATE-1	0.104	0.025	10.5994

106



After Initials ec

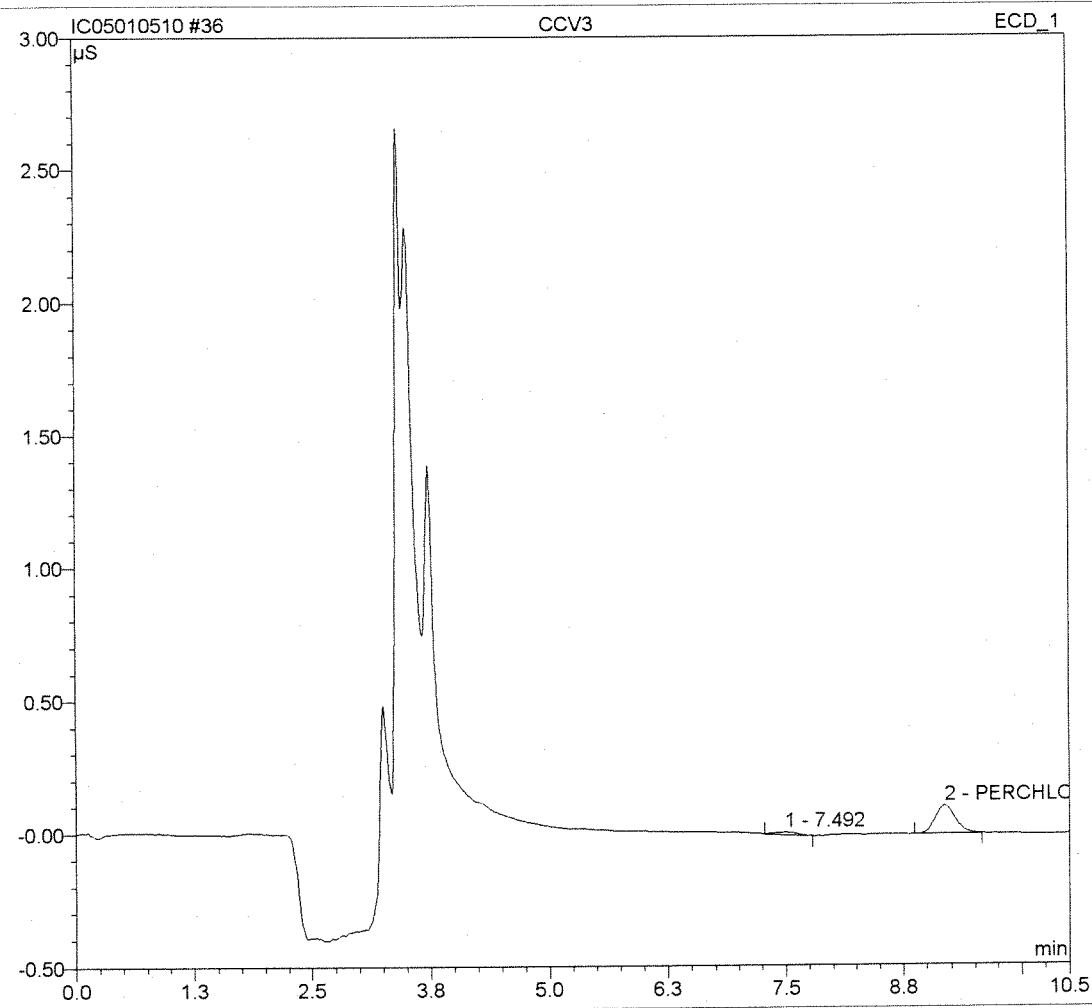
JAN 05 2010

Wrong Peak/Peak not Found
 Baseline/shoulder Incorrect
 Other ec

0-11/3/09

Sample Name:	CCV3	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 19:28	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
2	9.19	PERCHLORATE-1	0.106	0.026	11.1050



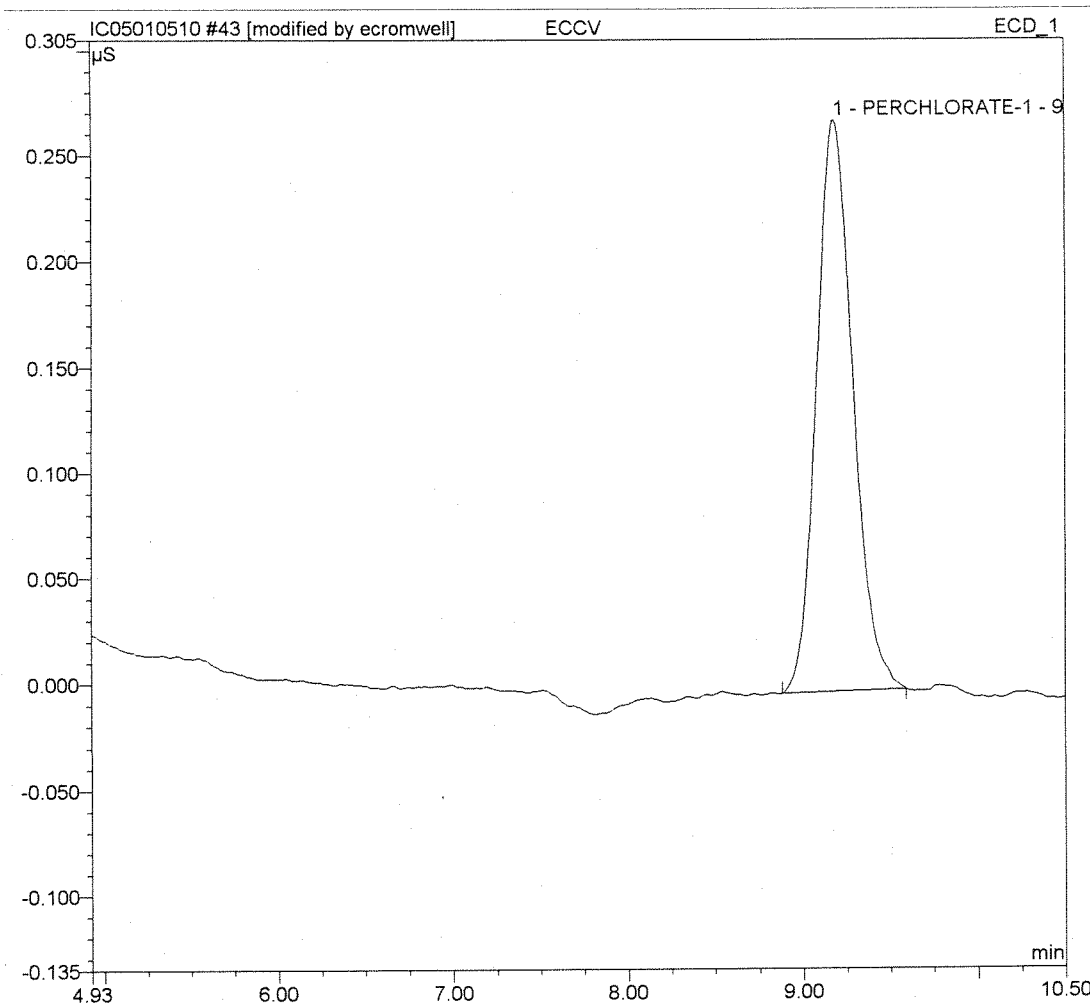
Before

JAN 05 2010

Sample Name:	ECCV	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 20:58	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.18	PERCHLORATE-1	0.270	0.065	27.4700

110%



After Initials EL

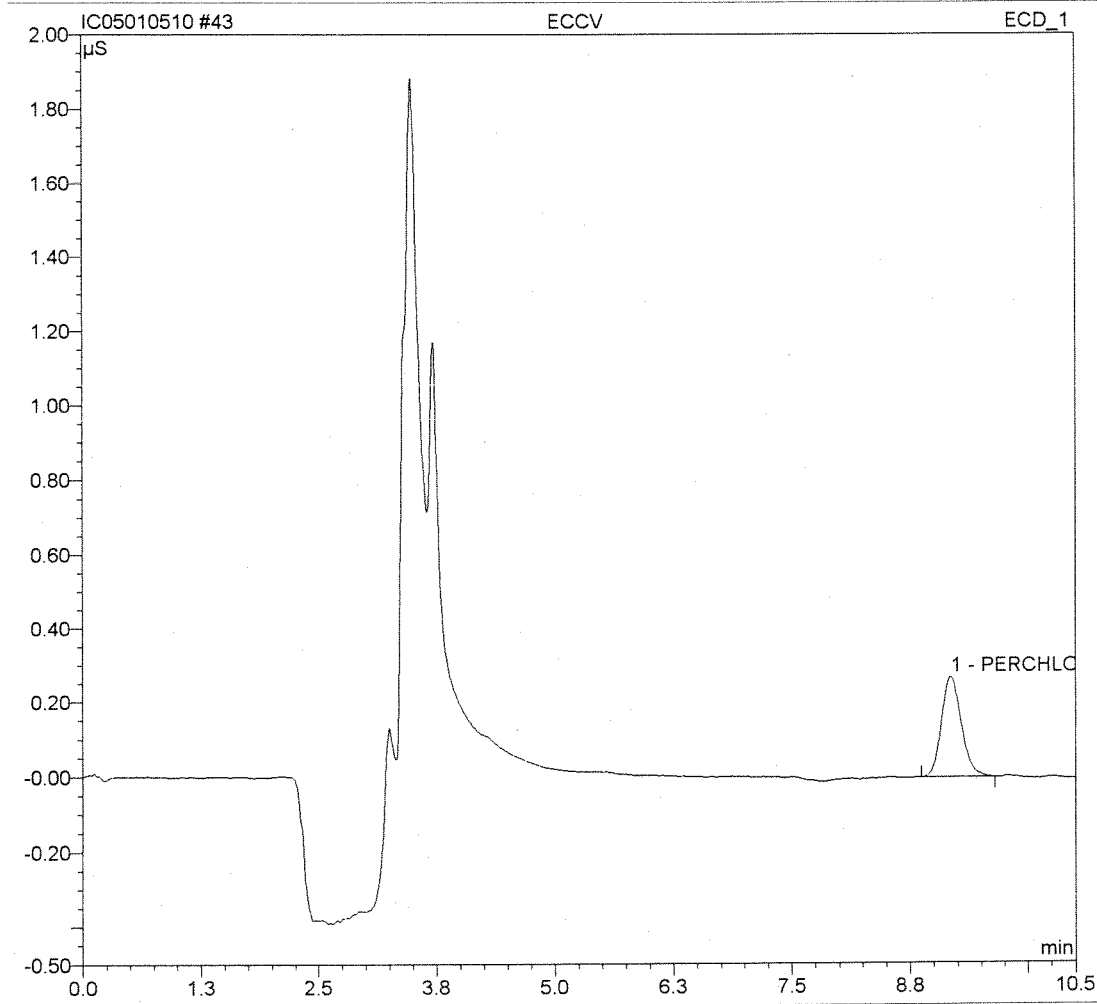
BH/AM

JAN 05 2010

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other COOL

Sample Name:	ECCV	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto,	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	05.01.10 20:58	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.18	PERCHLORATE-1	0.271	0.066	27.7064



Before

JAN 05 2010

COLUMBIA ANALYTICAL SERVICES, INC.

Ion Chromatography Calibration Data

Sequence: IC055120409c

12/4/2009

Anion	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Corr.Coeff.	Slope
CL04	1.0	2.0	5.0	10.0	25.0	0.0	99.9880	0.0024

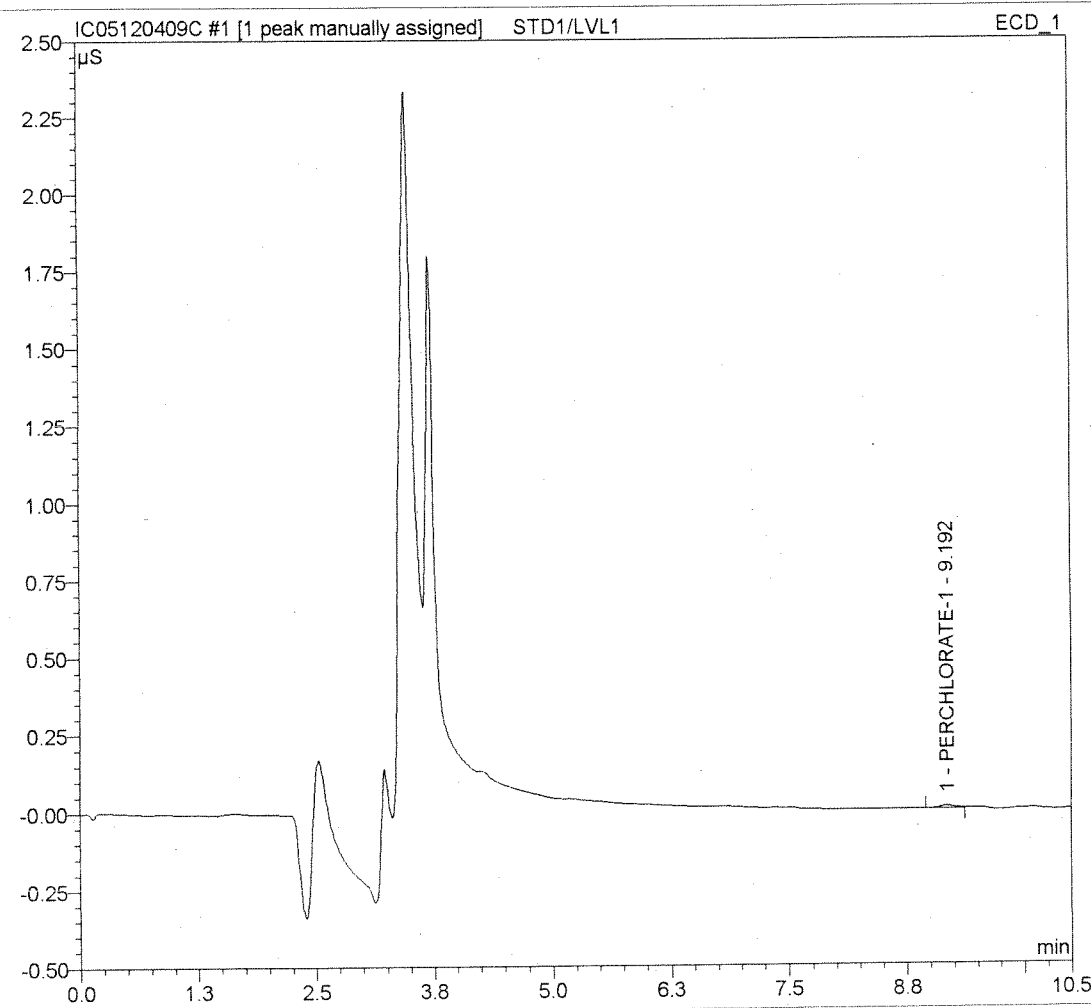
STD ID#: AN3-46-N AN3-46-S AN3-46-T AN3-46-O AN3-46-P

All calibration standard concentrations are in ug/L unless otherwise noted.
Zero point forced through zero.

12/17/09

Sample Name:	STD1/LVL1	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:15	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.19	PERCHLORATE-1	0.007	0.001	0.5445



After Initials

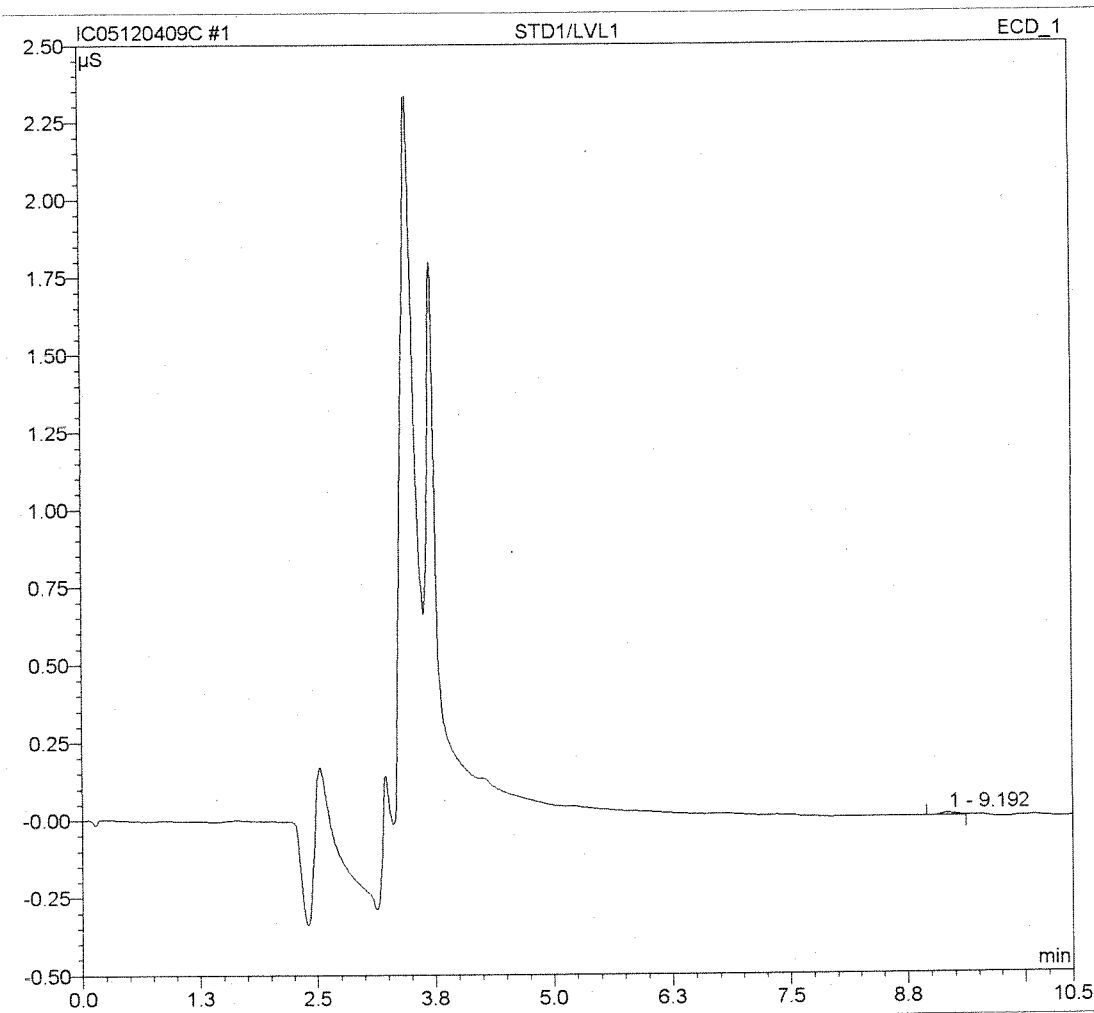
EC

DEC 17 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other _____

Sample Name:	STD1/LVL1	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:15	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
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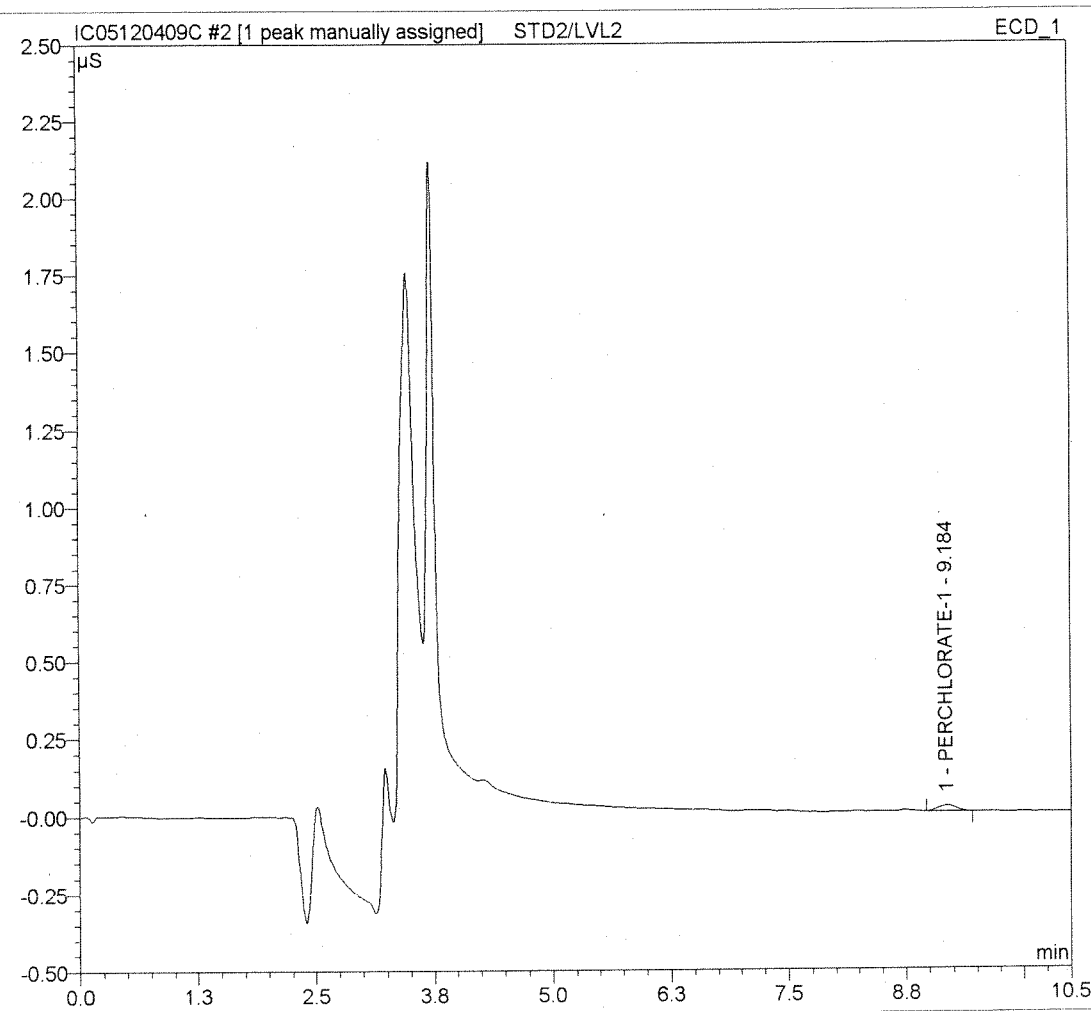


Before

DEC 17 2009

Sample Name:	STD2/LVL2	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:27	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.18	PERCHLORATE-1	0.019	0.004	1.7917



After Initials

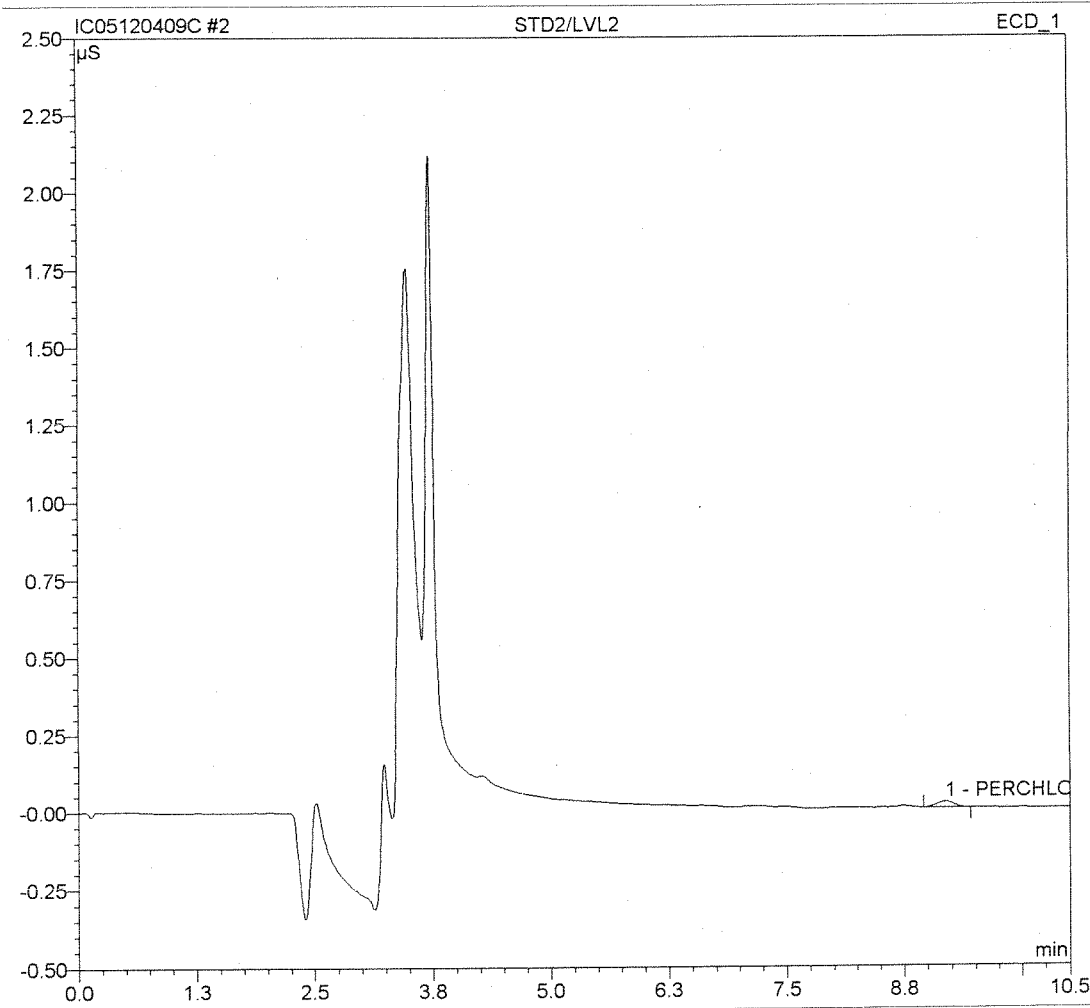
al

DEC 17 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other

Sample Name:	STD2/LVL2	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:27	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.18	PERCHLORATE-1	0.019	0.004	1.7917

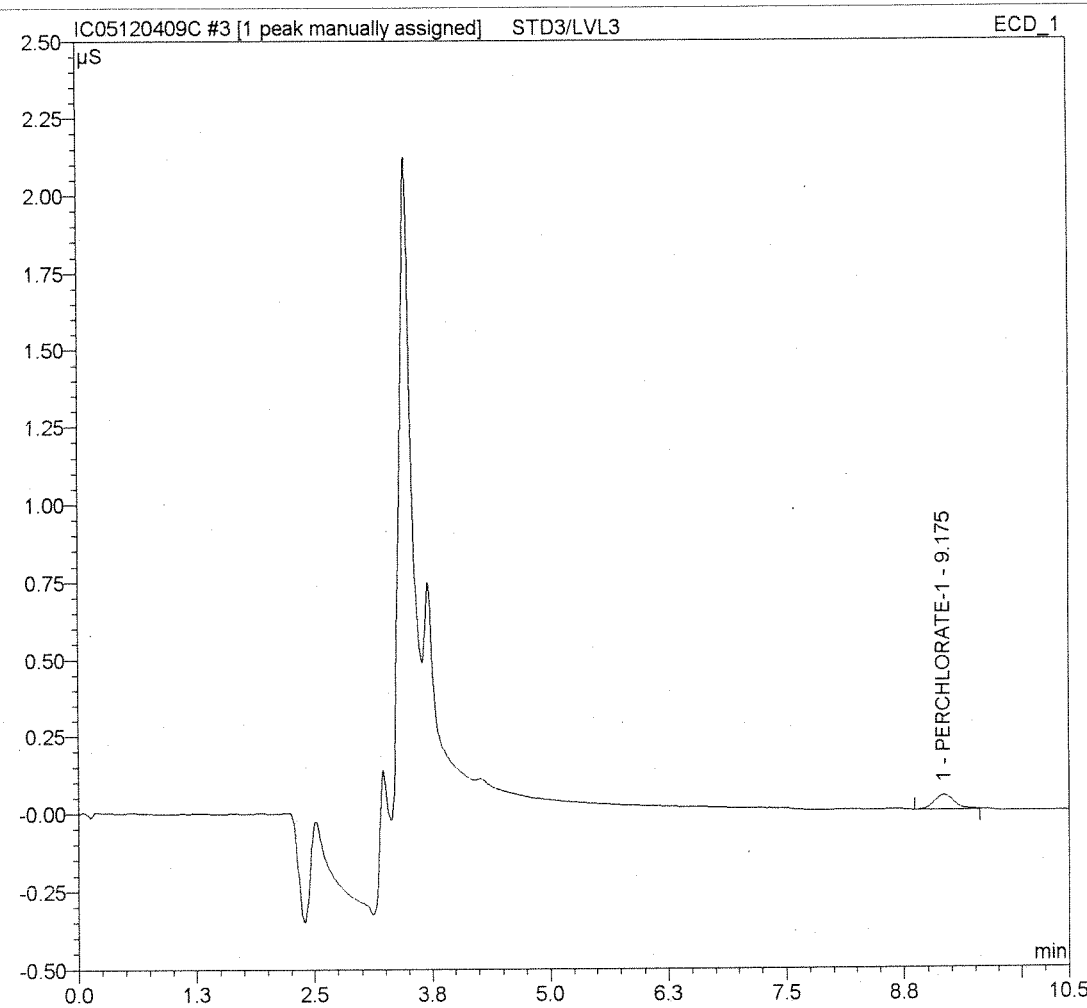


Before

DEC 17 2009

Sample Name:	STD3/LVL3	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:40	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.18	PERCHLORATE-1	0.046	0.011	4.7144



After
Initials

EC

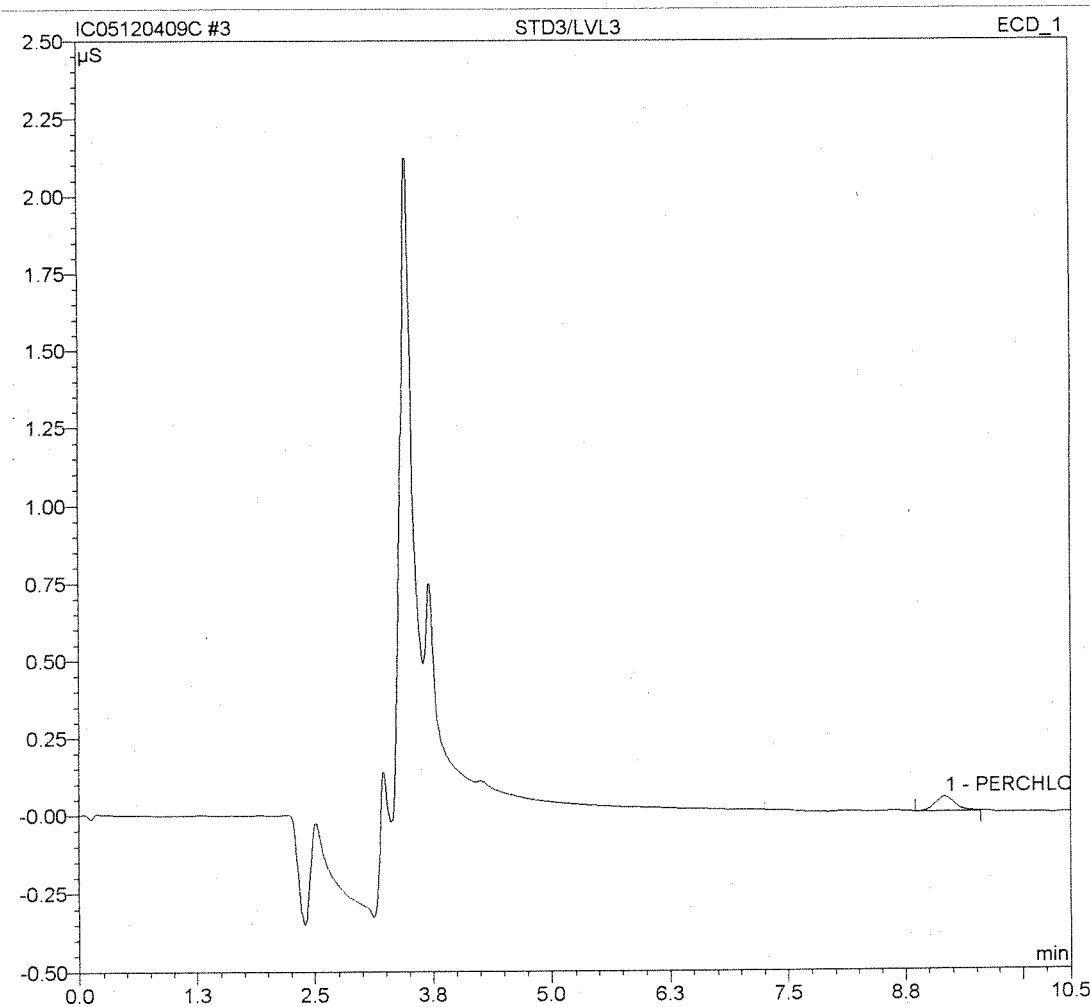
SAID/MS

DEC 17 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other _____

Sample Name:	STD3/LVL3	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:40	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.18	PERCHLORATE-1	0.046	0.011	4.7144

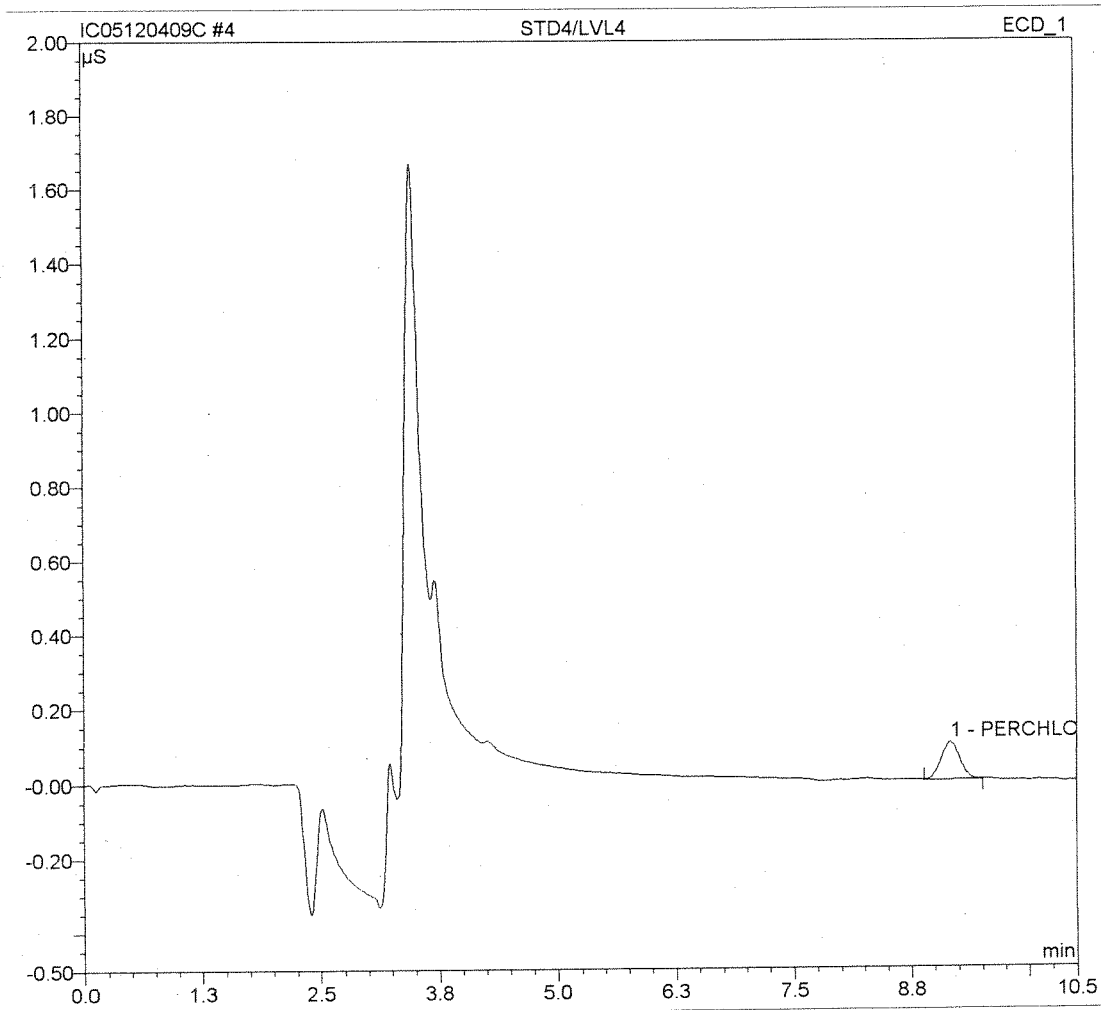


Before

DEC 17 2009

Sample Name:	STD4/LVL4	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:53	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.17	PERCHLORATE-1	0.100	0.023	9.5738

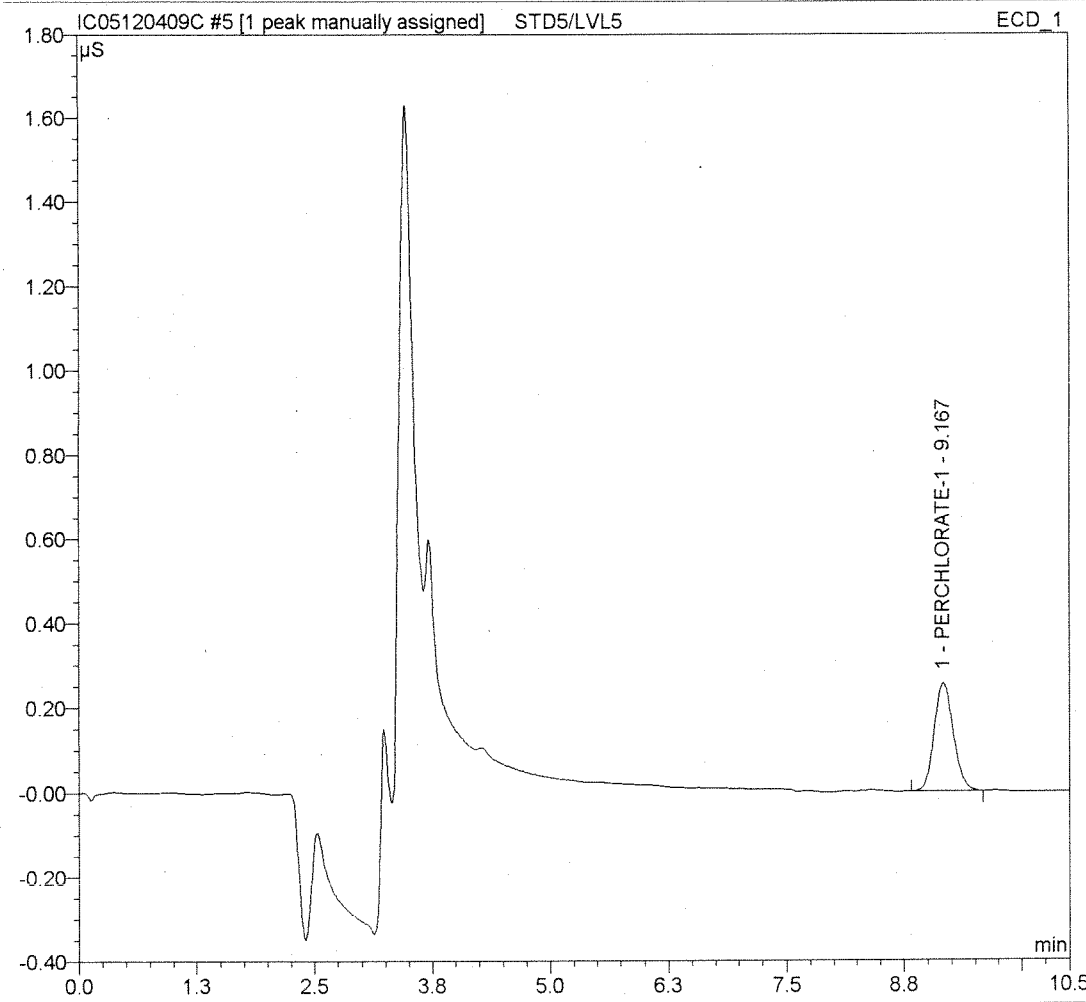


Before

DEC 17 2009

Sample Name:	STD5/LVL5	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 12:06	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.17	PERCHLORATE-1	0.256	0.060	25.2625



After Initials

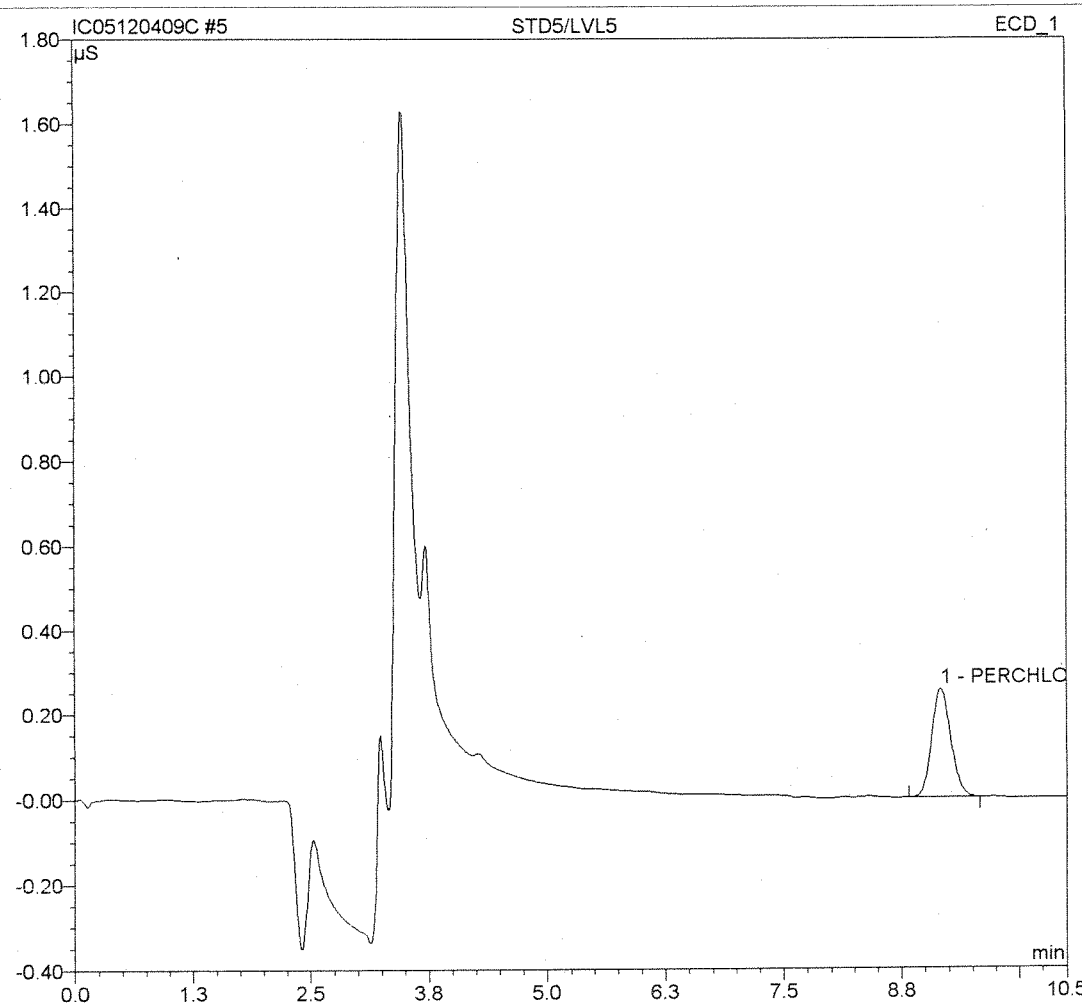
BA 12/17/09

DEC 17 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other _____

Sample Name:	STD5/LVL5	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 12:06	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.17	PERCHLORATE-1	0.256	0.060	25.2625

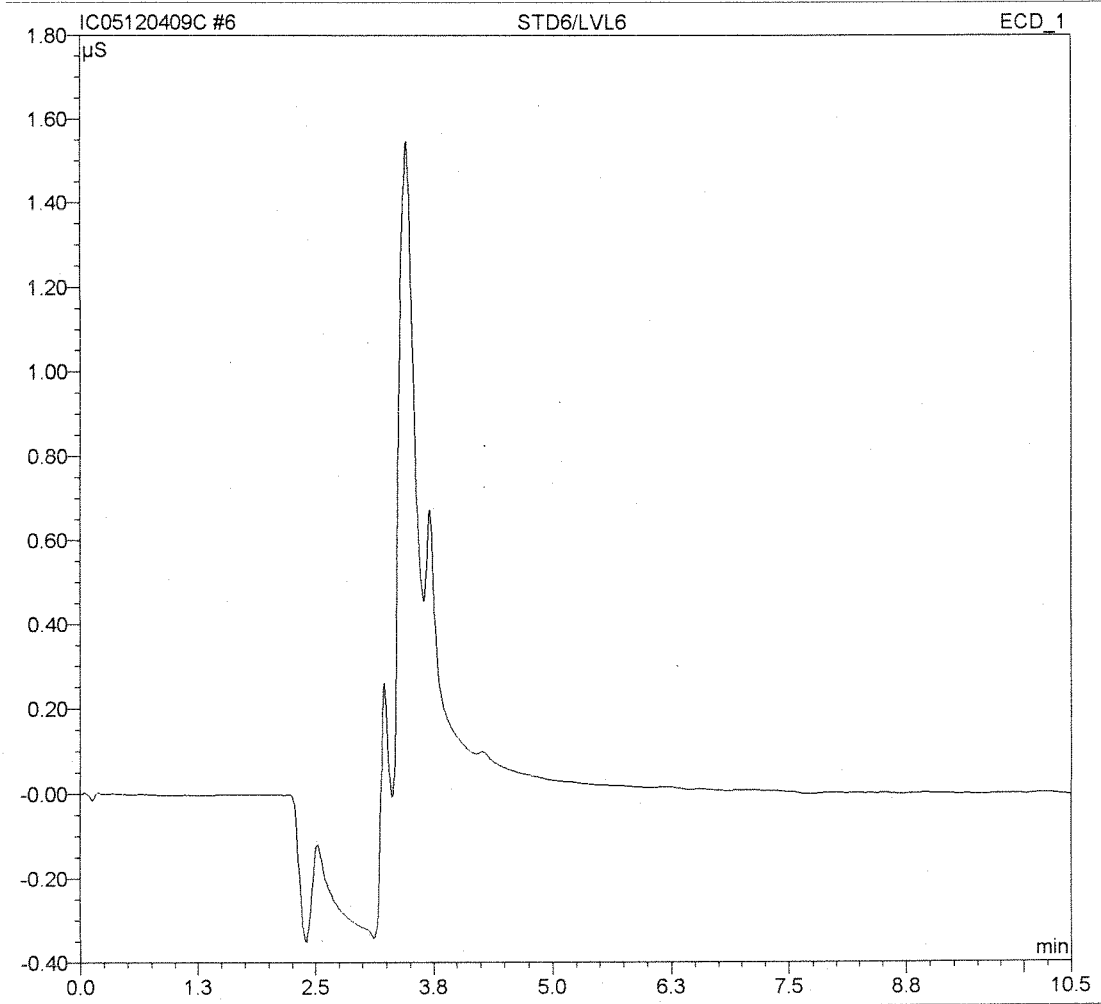


Before

DEC 17 2009

Sample Name:	STD6/LVL6	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 12:19	TIME:	10.50

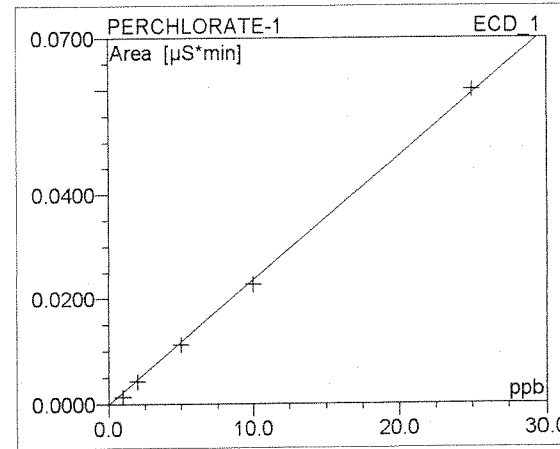
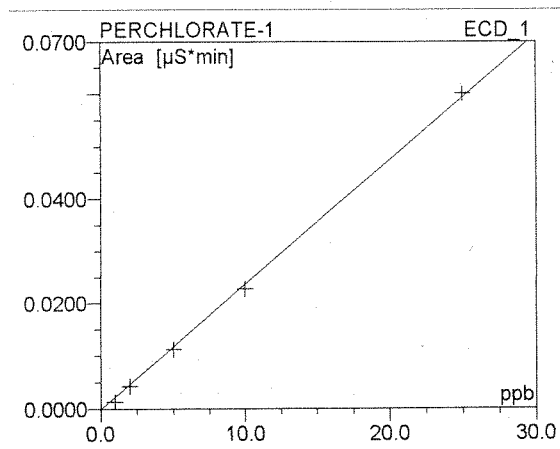
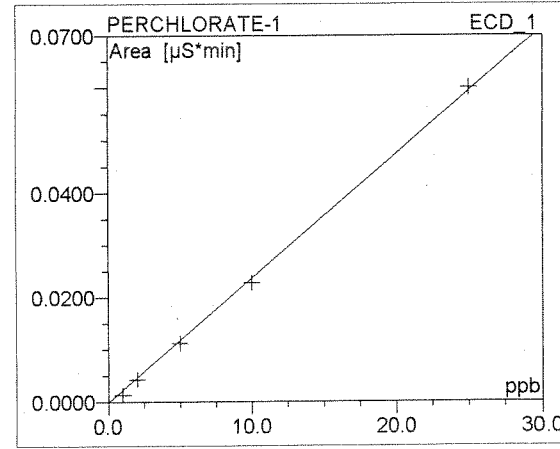
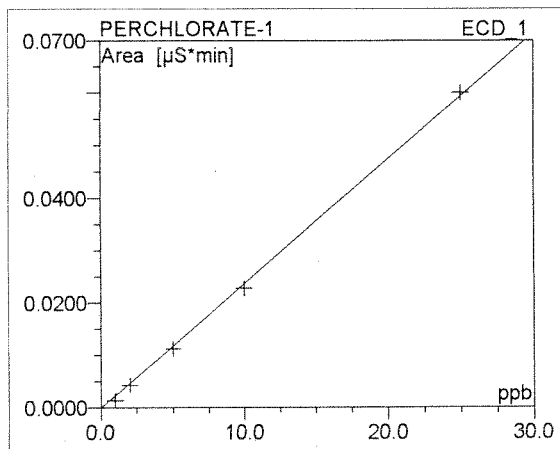
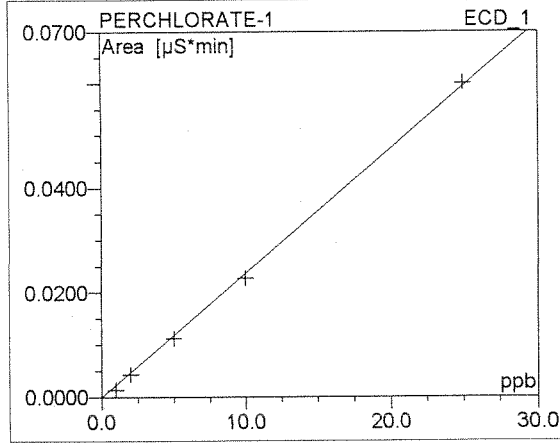
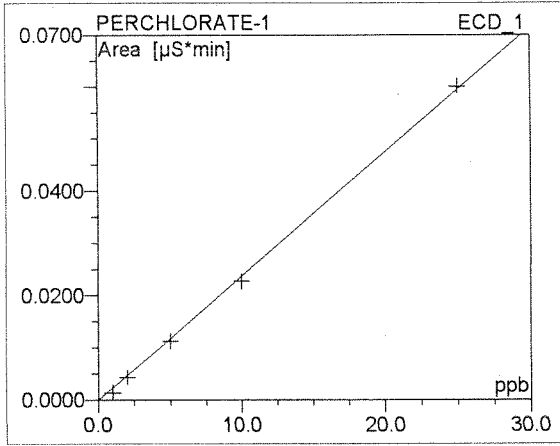
No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
-----	-----------------------------	-----------	-------------------	---------------------	---------------



8/12/09

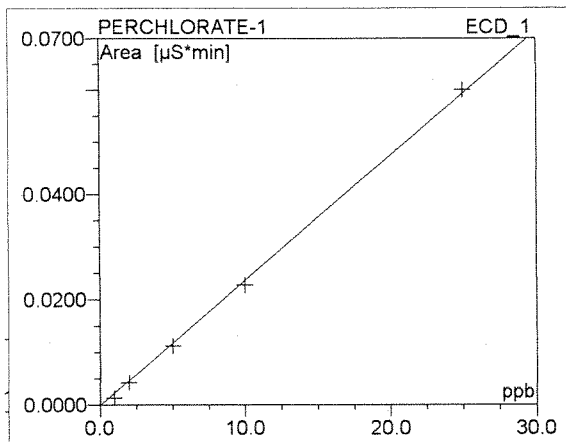
Calibration Batch Report

Sequence: IC05120409C	Inj. Vol.: 1000.0
Program: PERCHLORATE	Operator: KE-GEN-19
Inj. Date/Time: 12/04/09 12:19	Run Time: 10.50



3A 12/17/09

Sequence:	IC05120409C	Inj. Vol.:	1000.0
Program:	PERCHLORATE	Operator:	n.a.
Inj. Date/Time:	12/04/09 12:19	Run Time:	10.50

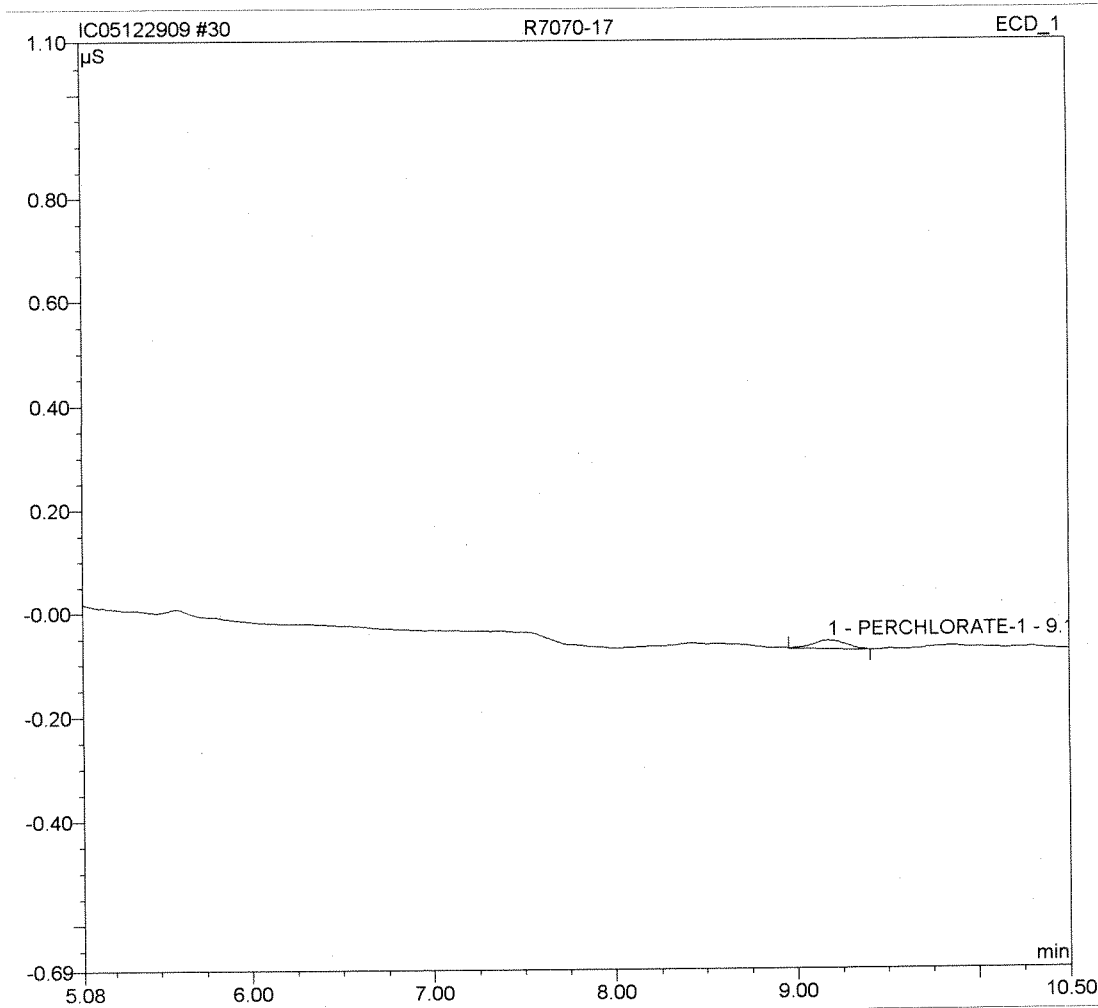


No.	Ret. Time min	Peak Name	Cal. Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Corr. Coeff. %
AVERAGE:					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Amplitude

Sample Name:	R7070-17	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 15:18	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.18	PERCHLORATE-1	0.016	0.003	1.3935



After Initials

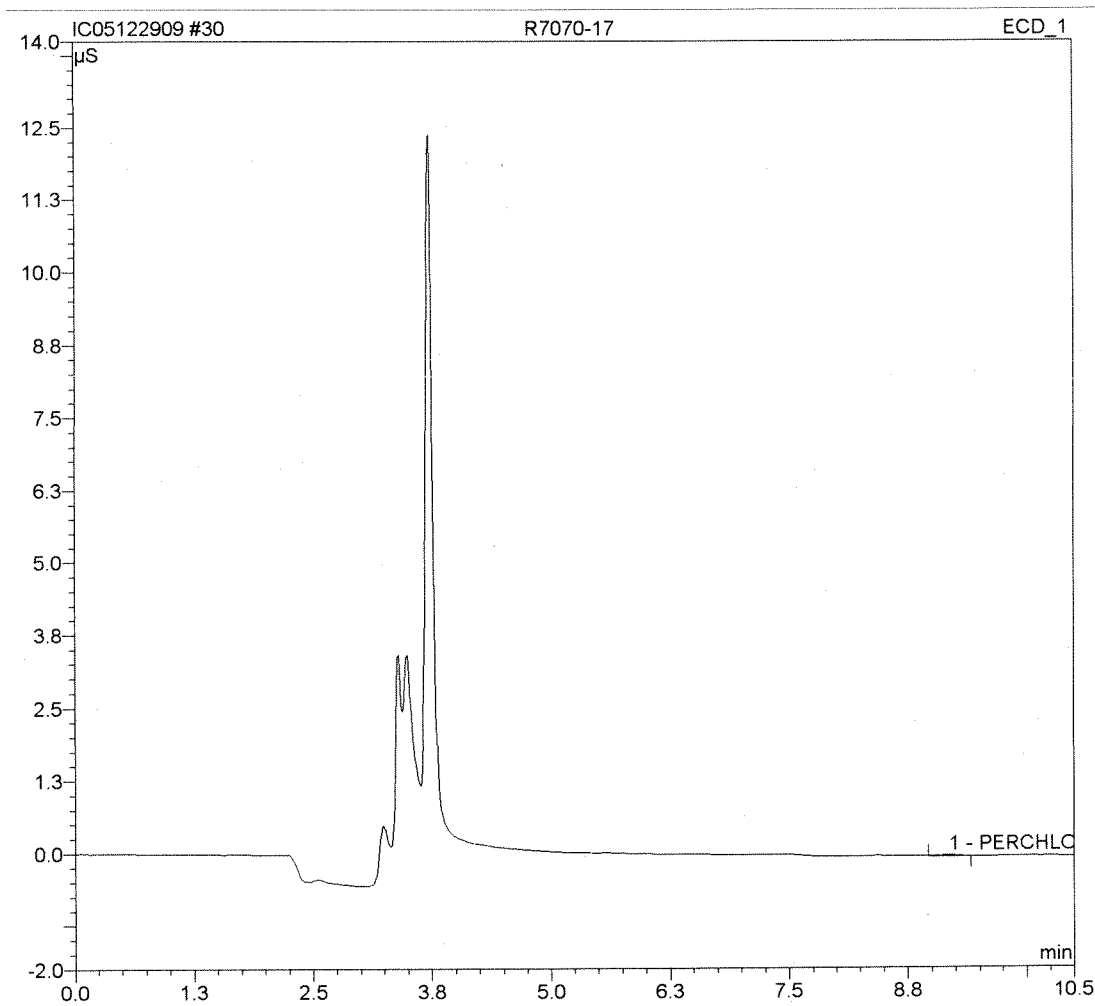
DEC 29 2009

6-12-2009

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other

Sample Name:	R7070-17	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 15:18	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.18	PERCHLORATE-1	0.016	0.003	1.3935

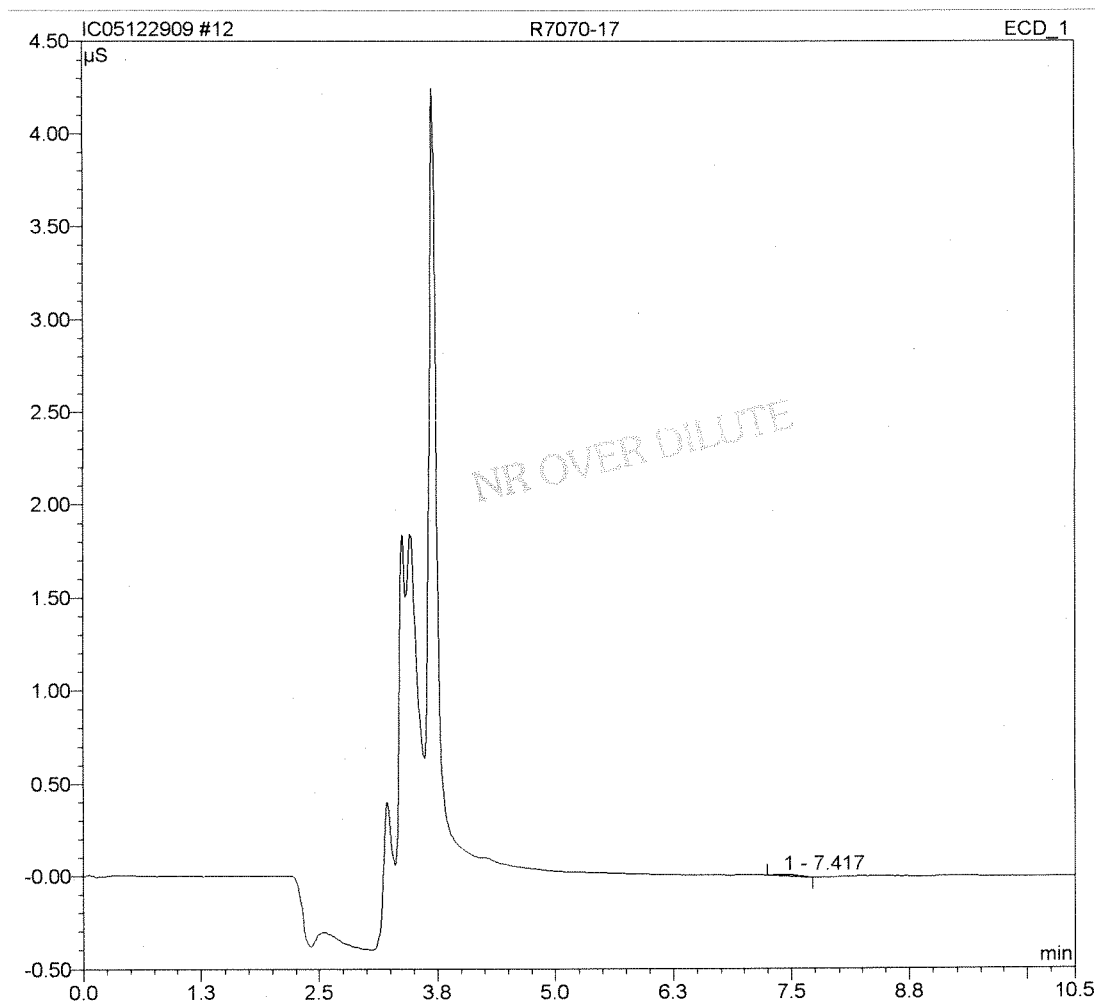


Before

DEC 29 2009

Sample Name:	R7070-17	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	10.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 11:26	TIME:	10.50

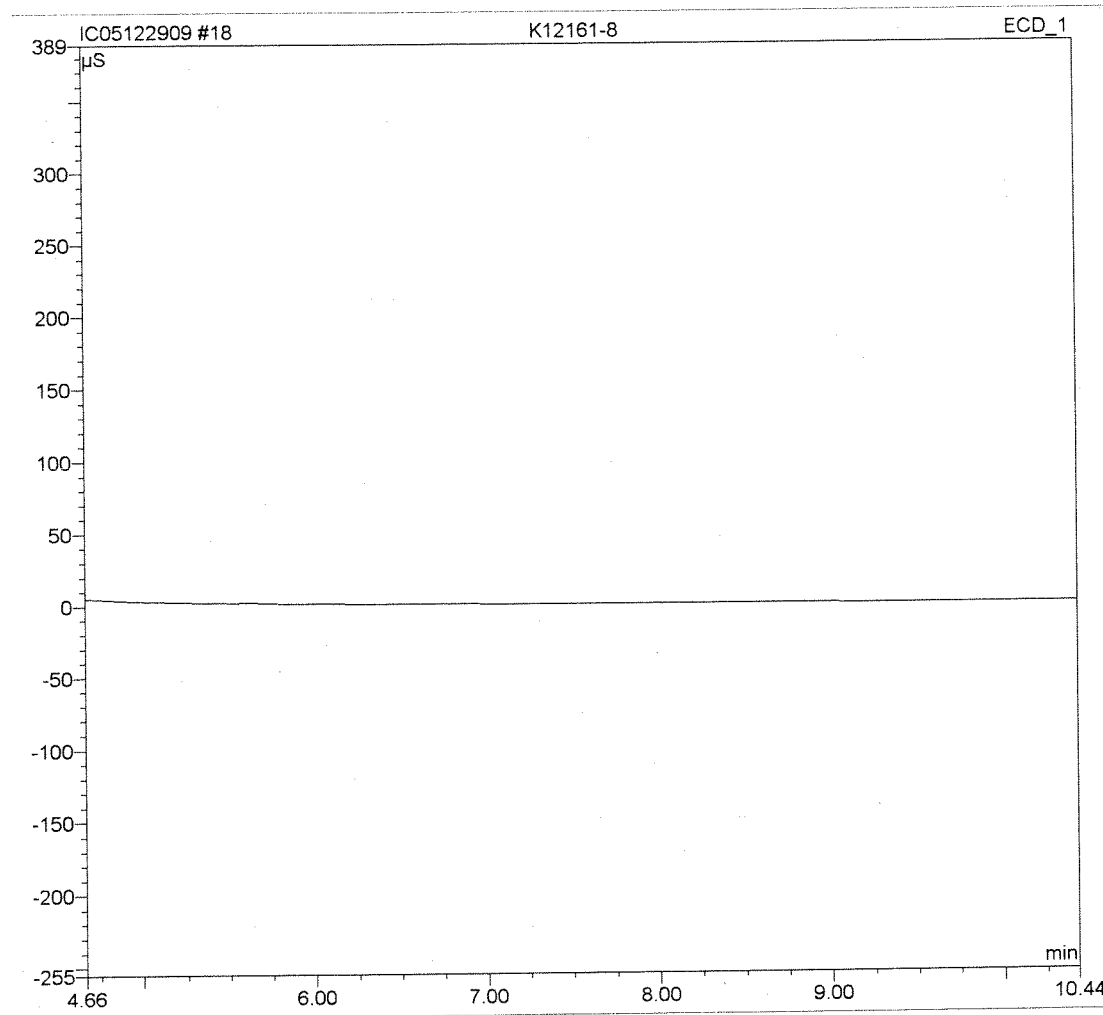
No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
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Baton

Sample Name:	K12161-8	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 12:43	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
-----	----------------------------	-----------	-------------------	---------------------	---------------



ClO₄ 0.4

X=ND RPD=

After Initials *ell*

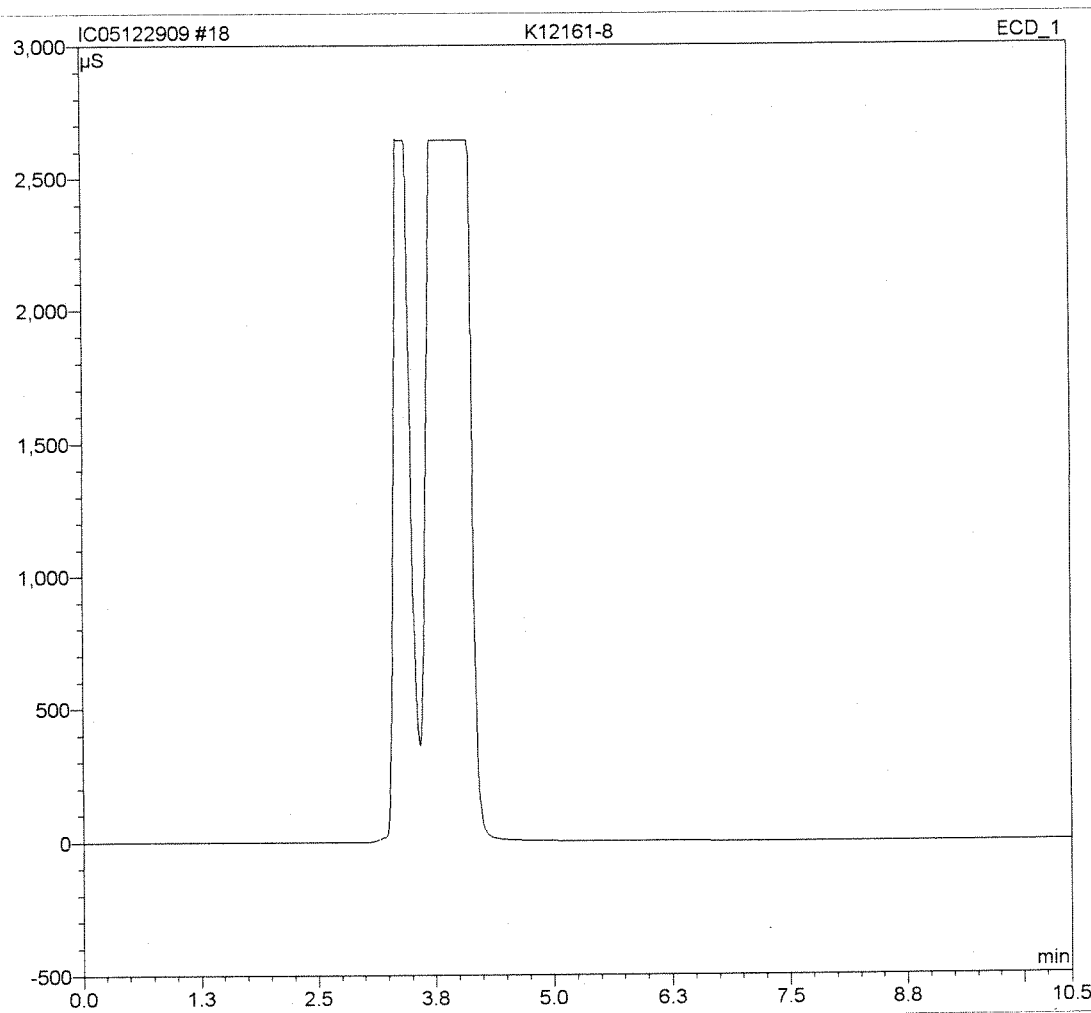
BAW (12/29/09)

DEC 29 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other: *lean*

Sample Name:	K12161-8	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 12:43	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
-----	----------------------------	-----------	-------------------	---------------------	---------------

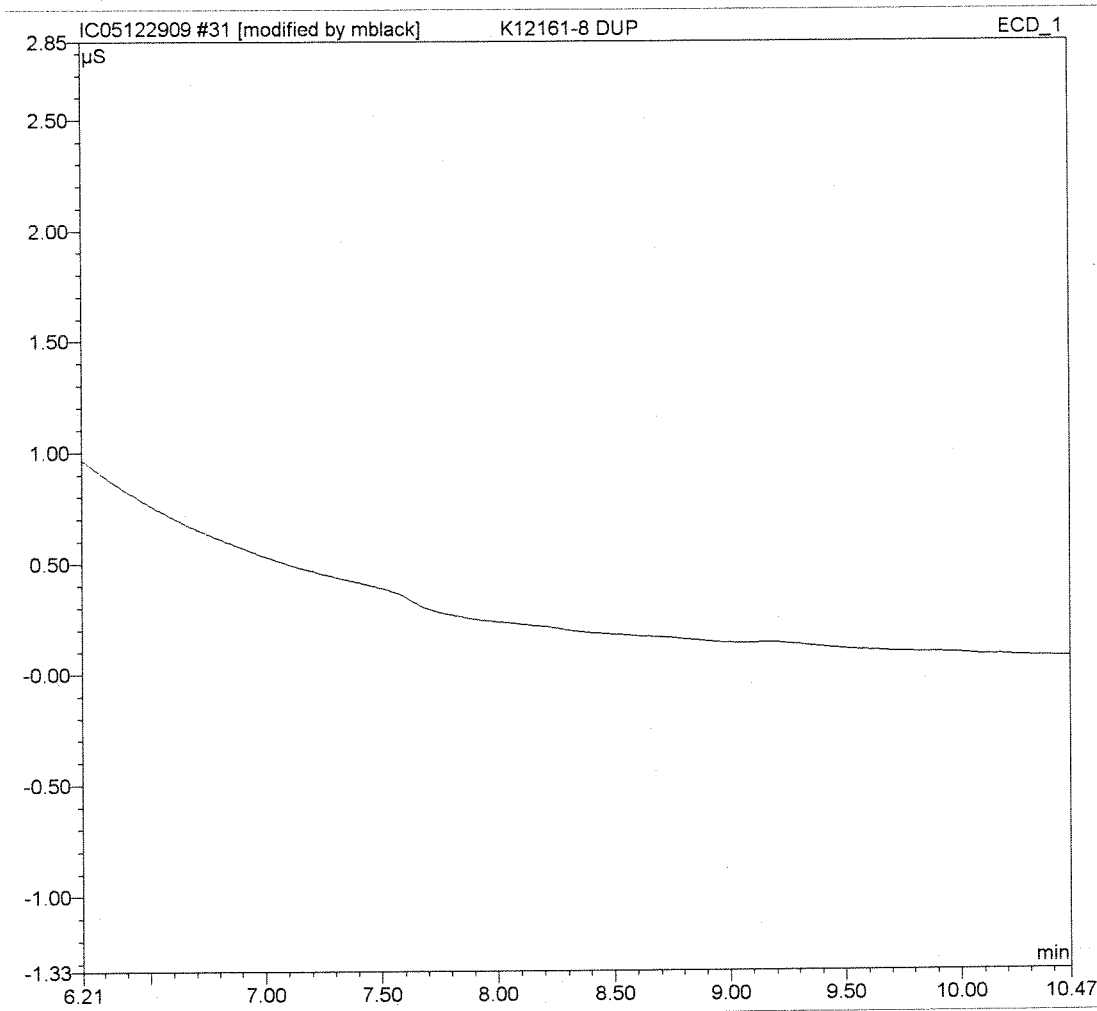


Before

DEC 29 2009

Sample Name:	K12161-8 DUP	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 15:31	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
-----	----------------------------	-----------	--------------	----------------	---------------



ClOy 20.4

After Initials *gl*

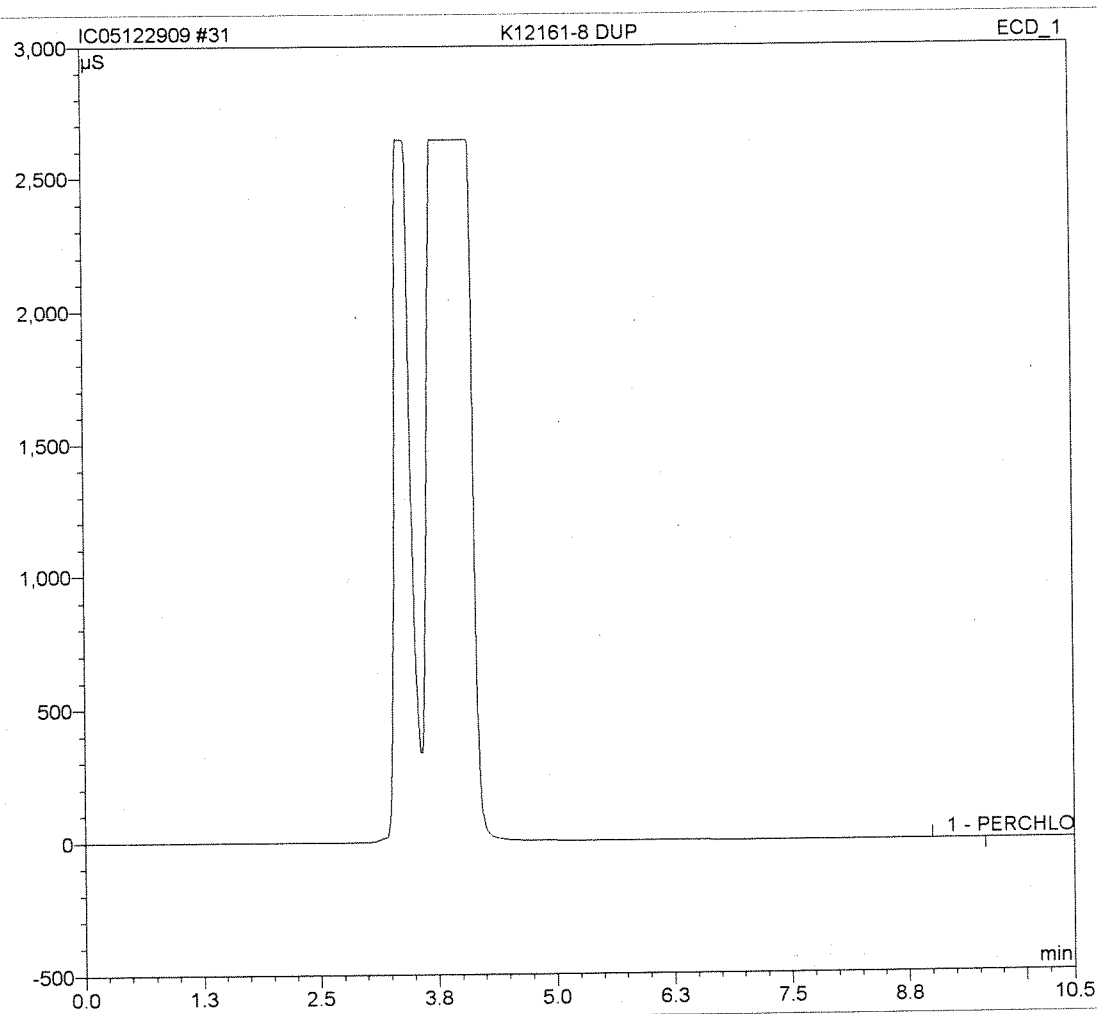
6/12/10/9

DEC 29 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other *too*

Sample Name:	K12161-8 DUP	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 15:31	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.15	PERCHLORATE-1	0.010	0.003	1.2735

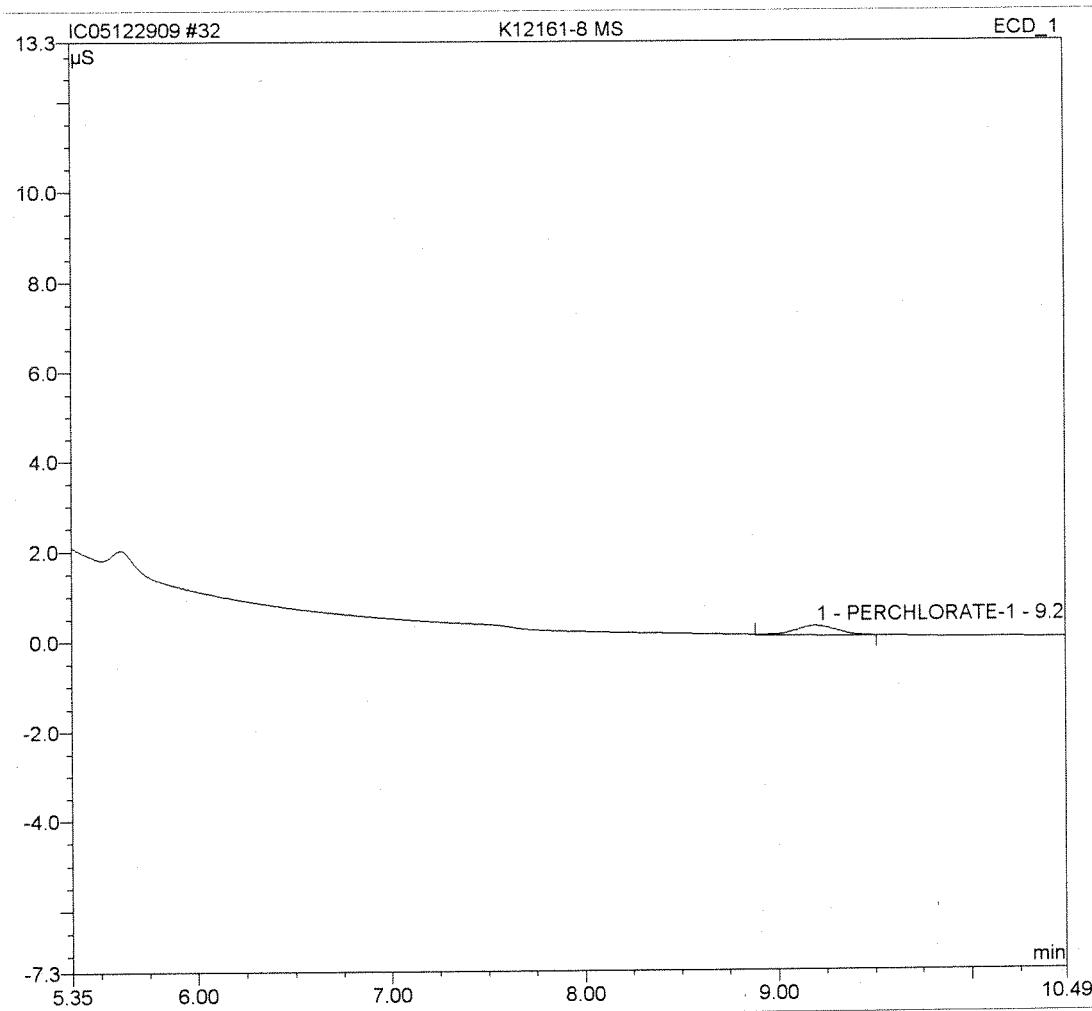


Before
DEC 29 2009

Sample Name:	K12161-8 MS	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 15:44	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.20	PERCHLORATE-1	0.205	0.049	20.8035

Spk Vol = 20
104% Rec



After Initials gc

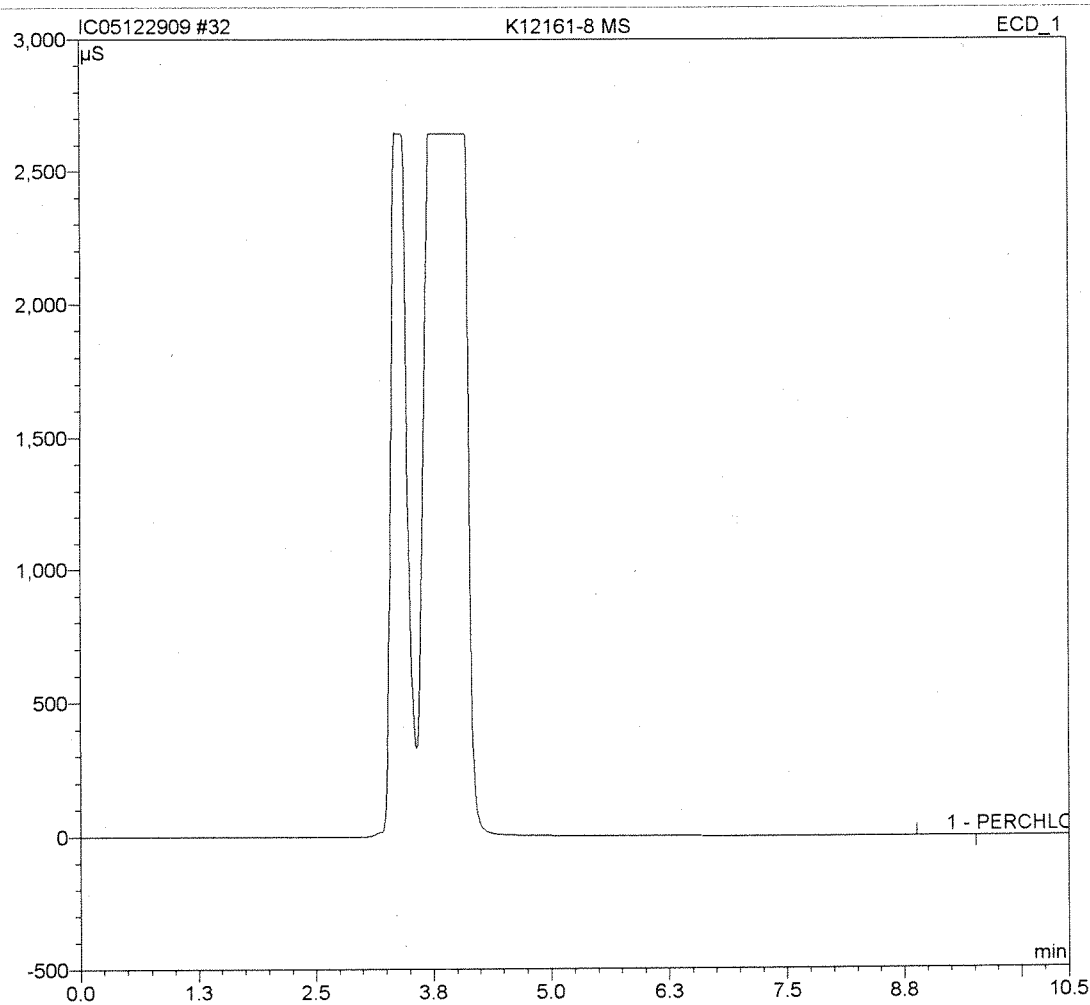
DEC 29 2009

6112130/11

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other: foo

Sample Name:	K12161-8 MS	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 15:44	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.20	PERCHLORATE-1	0.205	0.049	20.8035



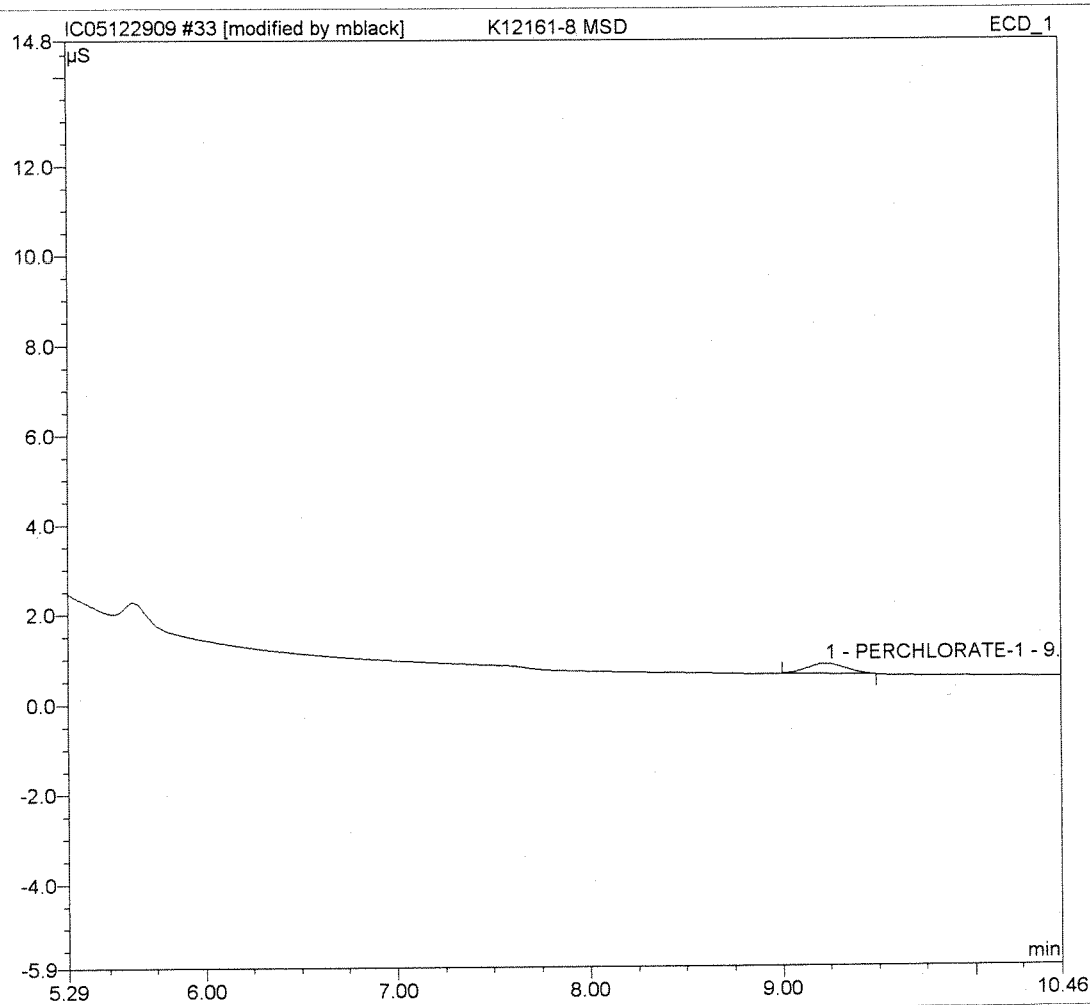
Before

DEC 29 2009

Sample Name:	K12161-8 MSD	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 15:57	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.23	PERCHLORATE-1	0.224	0.053	22.3443

ser id = 20
112% Rec



After Initials *gl*

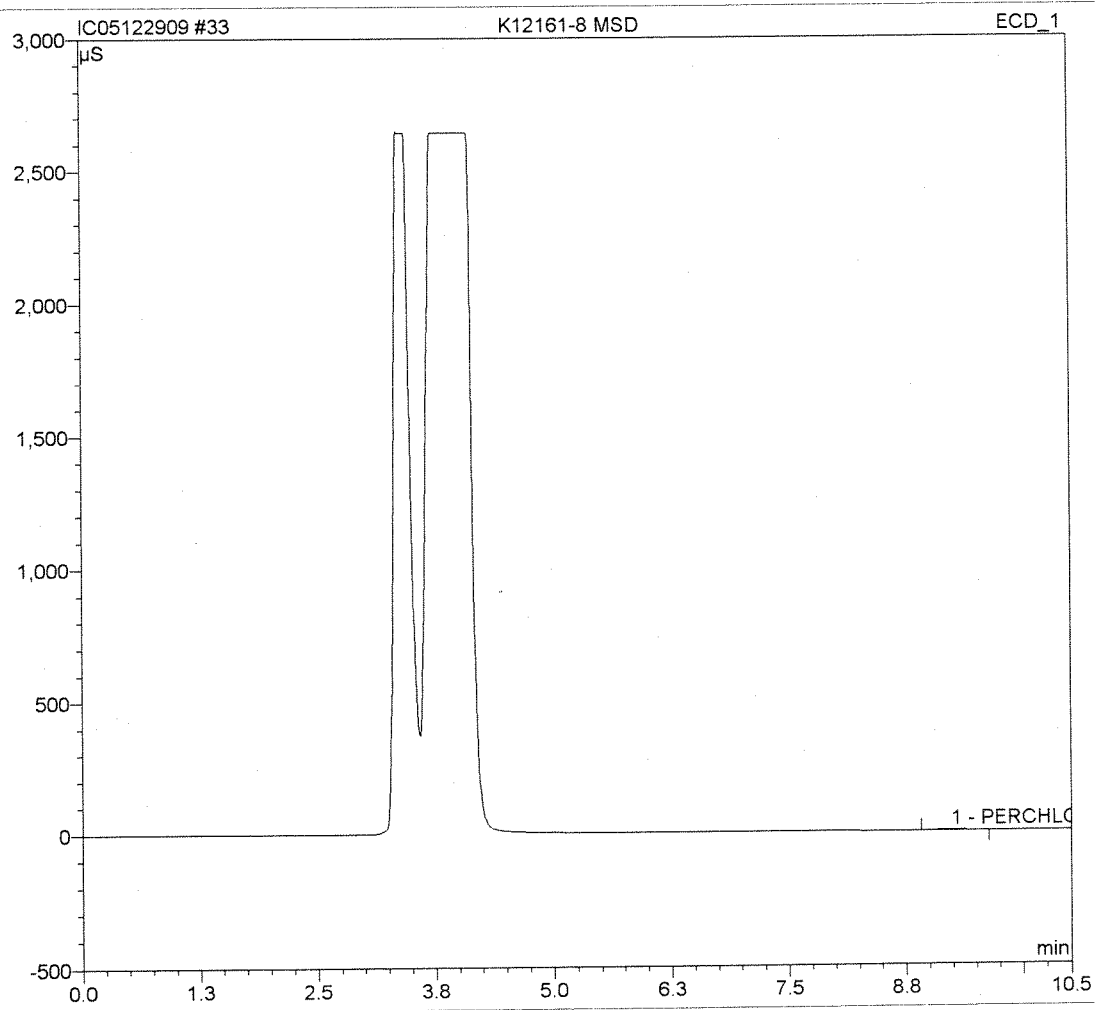
DEC 29 2009

01/11/10/01

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other *coln*

Sample Name:	K12161-8 MSD	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 15:57	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.23	PERCHLORATE-1	0.238	0.061	25.5675



Before

DEC 29 2009

184656

**Ion Chromatography Data Quality Report
Perchlorate
Inorganics**

- 1. Holding times met for all samples analyzed? yes/no/NA
- 2. Are all chromatograms signed and dated? yes/no/NA
- 3. Are dilutions within upper limits of the curve? yes/no/NA
- 4. Are analysis/extraction stickers included on report? yes/no/NA
- 5. Are detection limits reported correctly? yes/no/NA
- 6. Are all quality control criteria met? yes/no/NA
 - a. Method Blanks, CCV's, CCB's, LCS's, Dups. and Spikes analyzed at the proper frequency? yes/no/NA
 - b. Are CCV's and CCB's all within acceptance limits? yes/no/NA
 - c. Are results for Method Blanks all ND? yes/no/NA
 - d. Are all QC samples within acceptance criteria? (LCS% rec, MS% rec, Duplicate RPD's, etc.) yes/no/NA
 - e. Are all exceptions explained? yes/no/NA
- 8. Are all samples labelled correctly? yes/no/NA

CAS Standard Identification Codes and Abbreviated Footnotes for Chromatograms

- G1 Sample was analyzed past the end of recommended holding time. See Nonconformity sheet.
- G2 Sample was reanalyzed past holding time. Initial analysis was performed within recommended holding time.
- G4 Sample was received past the end of recommended holding time.
- R1 High RPD is because the duplicate sample results are less than three times the method reporting limit.
- D MRL is elevated because of matrix interferences and the sample required diluting.
- F Sample filtered primary to analysis.

IPC Perchlorate	True Value = 25.0 ppb	CAS ID# = <u>AW3-46-F</u>	Expires: <u>11/10/09</u> ^{EC} 1/5/10
ICCS Perchlorate	True Value = 1.0 ppb	CAS ID# = <u>AW3-46-B</u>	Expires: 1/5/10
CCV Perchlorate	True Value = 10.0 ppb	CAS ID# = <u>AW3-46-C</u>	Expires: 1/5/10
Spike Perchlorate	True Value = 1000 ppb	CAS ID# = <u>AW3-46-E</u>	Expires: 1/5/10
ECCV Perchlorate	True Value = 25.0 ppb	CAS ID# = <u>AW3-46-D</u>	Expires: 1/5/10
LCS Perchlorate	True Value = 15.6 ppb	CAS ID# = <u>AN3-41-U</u>	Expires: 5/2012

Analyst: EC Date: 12/29/09
 First Review: EC Date: 12/29/09
 Final Review: BH Date: 12/30/09

Sequence: IC05122909
Operator: mblack

Page 1 of 2
Printed: 12/30/2009 8:18:36 AM

Title:
Datasource: ACQWET10_local
Location:
Timebase: ICS2500
#Samples: 35

Created: 12/28/2009 9:21:43 AM by ACQWET10
Last Update: 12/29/2009 4:41:29 PM by ACQWET10

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	STD1/LVL1	Standard	1	1000.0	PERCHLORATE	PERCHLORATE	Finished
2	STD2/LVL2	Standard	2	1000.0	PERCHLORATE	PERCHLORATE	Finished
3	STD3/LVL3	Standard	3	1000.0	PERCHLORATE	PERCHLORATE	Finished
4	STD4/LVL4	Standard	4	1000.0	PERCHLORATE	PERCHLORATE	Finished
5	STD5/LVL5	Standard	5	1000.0	PERCHLORATE	PERCHLORATE	Finished
6	STD6/LVL6	Standard	6	1000.0	PERCHLORATE	PERCHLORATE	Finished
7	IPC1	Unknown	IPC:7	1000.0	PERCHLORATE	PERCHLORATE	Finished
8	MB1	Unknown	IPC:8	1000.0	PERCHLORATE	PERCHLORATE	Finished
9	ICCS1	Unknown	IPC:9	1000.0	PERCHLORATE	PERCHLORATE	Finished
10	LCS1	Unknown	IPC:10	1000.0	PERCHLORATE	PERCHLORATE	Finished
11	CCV	Unknown	IPC:12	1000.0	PERCHLORATE	PERCHLORATE	Finished
12	R7070-17	Unknown	IPC:13	1000.0	PERCHLORATE	PERCHLORATE	Finished
13	K12161-2	Unknown	IPC:14	1000.0	PERCHLORATE	PERCHLORATE	Finished
14	K12161-3	Unknown	IPC:15	1000.0	PERCHLORATE	PERCHLORATE	Finished
15	K12161-4	Unknown	IPC:16	1000.0	PERCHLORATE	PERCHLORATE	Finished
16	K12161-6	Unknown	IPC:17	1000.0	PERCHLORATE	PERCHLORATE	Finished
17	K12161-7	Unknown	IPC:18	1000.0	PERCHLORATE	PERCHLORATE	Finished
18	K12161-8	Unknown	IPC:19	1000.0	PERCHLORATE	PERCHLORATE	Finished
19	K12226-2	Unknown	IPC:20	1000.0	PERCHLORATE	PERCHLORATE	Finished
20	K12226-3	Unknown	IPC:21	1000.0	PERCHLORATE	PERCHLORATE	Finished
21	K12226-4	Unknown	IPC:22	1000.0	PERCHLORATE	PERCHLORATE	Finished
22	RB	Unknown	IPC:23	1000.0	PERCHLORATE	PERCHLORATE	Finished
23	CCV2	Unknown	IPC:24	1000.0	PERCHLORATE	PERCHLORATE	Finished
24	K12419-1	Unknown	IPC:25	1000.0	PERCHLORATE	PERCHLORATE	Finished
25	K12419-2	Unknown	IPC:26	1000.0	PERCHLORATE	PERCHLORATE	Finished
26	K12419-3	Unknown	IPC:27	1000.0	PERCHLORATE	PERCHLORATE	Finished
27	K12419-4	Unknown	IPC:28	1000.0	PERCHLORATE	PERCHLORATE	Finished
28	K12419-5	Unknown	IPC:29	1000.0	PERCHLORATE	PERCHLORATE	Finished
29	K12419-6	Unknown	IPC:30	1000.0	PERCHLORATE	PERCHLORATE	Finished
30	R7070-17	Unknown	IPC:31	1000.0	PERCHLORATE	PERCHLORATE	Finished
31	K12161-8 DUP	Unknown	IPC:32	1000.0	PERCHLORATE	PERCHLORATE	Finished
32	K12161-8 MS	Unknown	IPC:33	1000.0	PERCHLORATE	PERCHLORATE	Finished
33	K12161-8 MSD	Unknown	IPC:34	1000.0	PERCHLORATE	PERCHLORATE	Finished
34	RB	Unknown	IPC:35	1000.0	PERCHLORATE	PERCHLORATE	Finished
35	ECCV	Unknown	IPC:36	1000.0	PERCHLORATE	PERCHLORATE	Finished

Sequence: IC05122909
Operator: mblack

Page 2 of 2
Printed: 12/30/2009 8:18:36 AM

Title:
Datasource: ACQWET10_local
Location:
Timebase: ICS2500
#Samples: 35

Created: 12/28/2009 9:21:43 AM by ACQWET10
Last Update: 12/29/2009 4:41:29 PM by ACQWET10

No.	Name	Inj. Date/Time	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID	Comment
1	STD1/LVL1	12/4/2009 11:15:02 AM	1.0000	1.0000	1.0000		02	
2	STD2/LVL2	12/4/2009 11:27:58 AM	1.0000	1.0000	1.0000		03	
3	STD3/LVL3	12/4/2009 11:40:53 AM	1.0000	1.0000	1.0000		04	
4	STD4/LVL4	12/4/2009 11:53:49 AM	1.0000	1.0000	1.0000		05	
5	STD5/LVL5	12/4/2009 12:06:46 PM	1.0000	1.0000	1.0000		05	
6	STD6/LVL6	12/4/2009 12:19:42 PM	1.0000	1.0000	1.0000		05	
7	IPC1	12/29/2009 10:21:33 AM	1.0000	1.0000	1.0000		IPC	IPC
8	MB1	12/29/2009 10:34:28 AM	1.0000	1.0000	1.0000		IPC	IPC
9	ICCS1	12/29/2009 10:47:24 AM	1.0000	1.0000	1.0000		IPC	IPC
10	LCS1	12/29/2009 11:00:20 AM	1.0000	1.0000	1.0000		IPC	IPC
11	CCV	12/29/2009 11:13:15 AM	1.0000	1.0000	1.0000		IPC	IPC
12	R7070-17	12/29/2009 11:26:10 AM	1.0000	10.0000	1.0000		IPC	IPC
13	K12161-2	12/29/2009 11:39:06 AM	1.0000	1.0000	1.0000		IPC	IPC
14	K12161-3	12/29/2009 11:52:01 AM	1.0000	1.0000	1.0000		IPC	IPC
15	K12161-4	12/29/2009 12:04:57 PM	1.0000	1.0000	1.0000		IPC	IPC
16	K12161-6	12/29/2009 12:17:52 PM	1.0000	1.0000	1.0000		IPC	IPC
17	K12161-7	12/29/2009 12:30:48 PM	1.0000	1.0000	1.0000		IPC	IPC
18	K12161-8	12/29/2009 12:43:43 PM	1.0000	1.0000	1.0000		IPC	IPC
19	K12226-2	12/29/2009 12:56:39 PM	1.0000	1.0000	1.0000		IPC	IPC
20	K12226-3	12/29/2009 1:09:35 PM	1.0000	1.0000	1.0000		IPC	IPC
21	K12226-4	12/29/2009 1:22:30 PM	1.0000	1.0000	1.0000		IPC	IPC
22	RB	12/29/2009 1:35:26 PM	1.0000	1.0000	1.0000		IPC	IPC
23	CCV2	12/29/2009 1:48:21 PM	1.0000	1.0000	1.0000		IPC	IPC
24	K12419-1	12/29/2009 2:01:17 PM	1.0000	1.0000	1.0000		IPC	IPC
25	K12419-2	12/29/2009 2:14:12 PM	1.0000	1.0000	1.0000		IPC	IPC
26	K12419-3	12/29/2009 2:27:07 PM	1.0000	1.0000	1.0000		IPC	IPC
27	K12419-4	12/29/2009 2:40:03 PM	1.0000	1.0000	1.0000		IPC	IPC
28	K12419-5	12/29/2009 2:52:58 PM	1.0000	1.0000	1.0000		IPC	IPC
29	K12419-6	12/29/2009 3:05:53 PM	1.0000	1.0000	1.0000		IPC	IPC
30	R7070-17	12/29/2009 3:18:49 PM	1.0000	1.0000	1.0000		IPC	IPC
31	K12161-8 DUP	12/29/2009 3:31:45 PM	1.0000	1.0000	1.0000		IPC	IPC
32	K12161-8 MS	12/29/2009 3:44:40 PM	1.0000	1.0000	1.0000		IPC	IPC
33	K12161-8 MSD	12/29/2009 3:57:36 PM	1.0000	1.0000	1.0000		IPC	IPC
34	RB	12/29/2009 4:10:31 PM	1.0000	1.0000	1.0000		IPC	IPC
35	ECCV	12/29/2009 4:41:29 PM	1.0000	1.0000	1.0000		IPC	IPC

Service Request	Tier	QC	Hold Time	Due Date	Anions	Initial	Final	Done?
R0907070-17					F ClO ₄	10X	5/5	✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄			
K12161-2					F ClO ₄	5/5		✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄			
-3					F ClO ₄			✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄			
-4					F ClO ₄			✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄			
-6					F ClO ₄			✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄			
-7					F ClO ₄			✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄			
-8		X			F ClO ₄			✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄			
K12226-2					F ClO ₄			✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄			
-3					F ClO ₄			✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄			
-4					F ClO ₄			✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄			

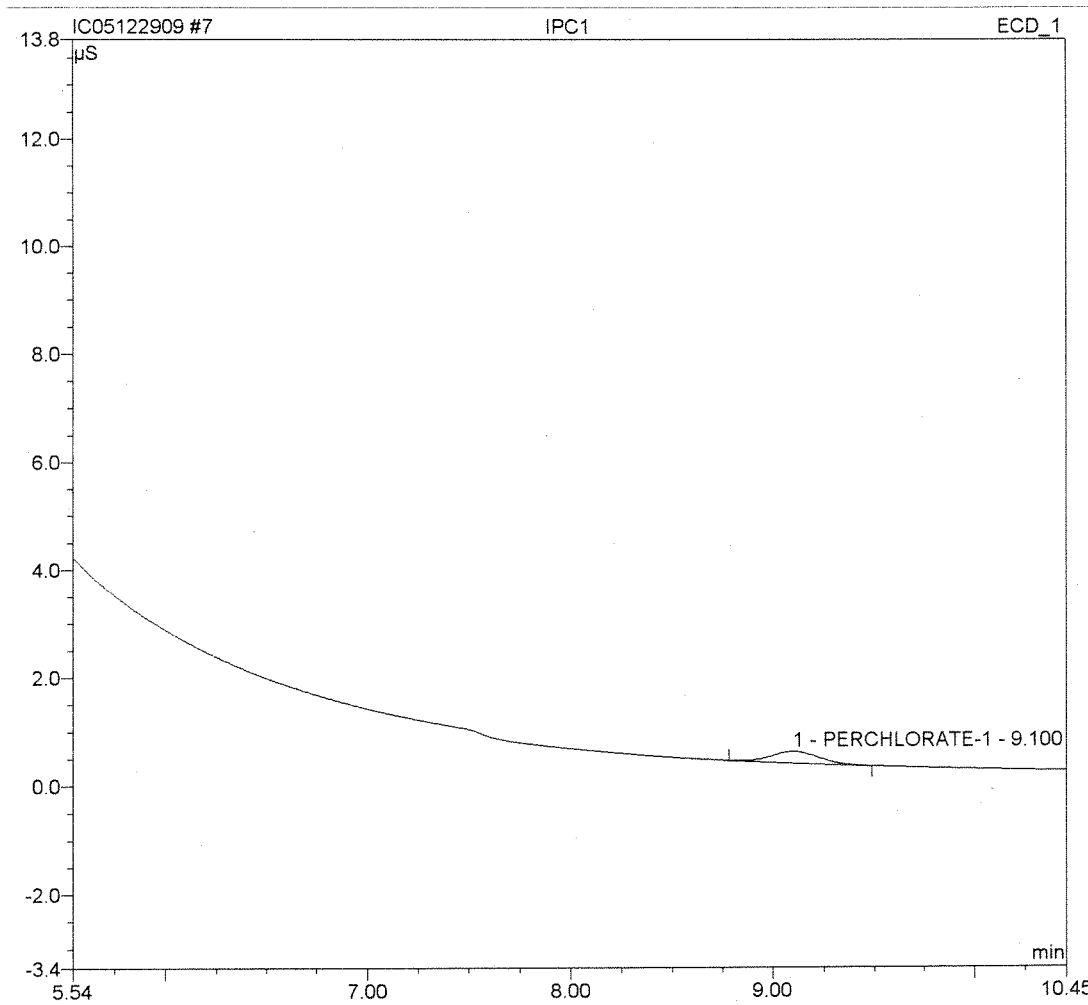
ClO₄ 0.1 * 1000 ÷ 5 = 20

Service Request	Tier	QC	Hold Time	Due Date	Anions	Initial	Final	Done?
K12419-1					F Cl _{16y}	3/5		✓
					NO2 Br NO3 SO4			
-2					F Cl _{16y}			✓
					NO2 Br NO3 SO4			
-3					F Cl _{16y}			✓
					NO2 Br NO3 SO4			
-4					F Cl _{16y}			✓
					NO2 Br NO3 SO4			
-5					F Cl _{16y}			✓
					NO2 Br NO3 SO4			
-6					F Cl _{16y}			✓
					NO2 Br NO3 SO4			
					F Cl			
					NO2 Br NO3 SO4			
					F Cl			
					NO2 Br NO3 SO4			
					F Cl			
					NO2 Br NO3 SO4			

Sample Name:	IPC1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 10:21	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.10	PERCHLORATE-1	0.211	0.057	24.1630

971



After Initials EL

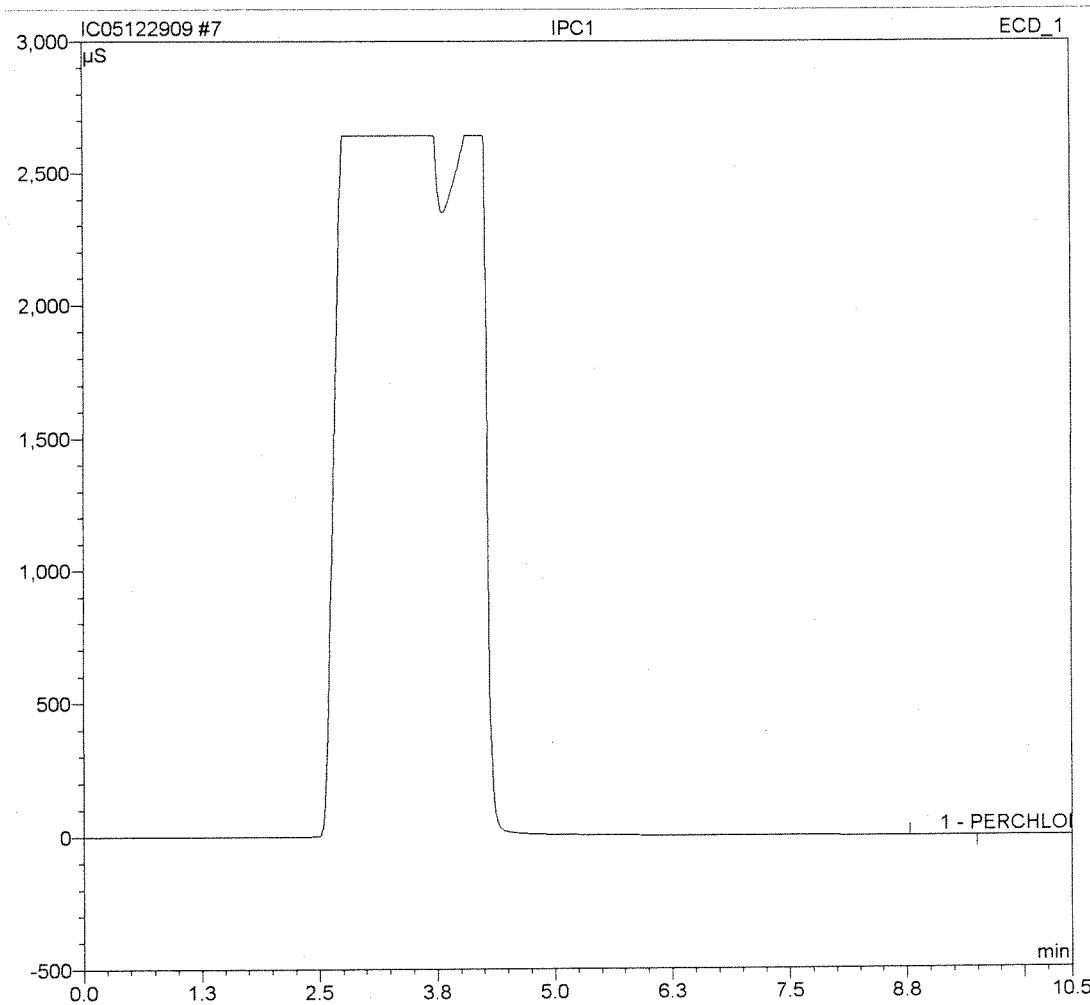
DEC 29 2009

24/12/2009

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other EL

Sample Name:	IPC1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 10:21	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.10	PERCHLORATE-1	0.211	0.057	24.1630

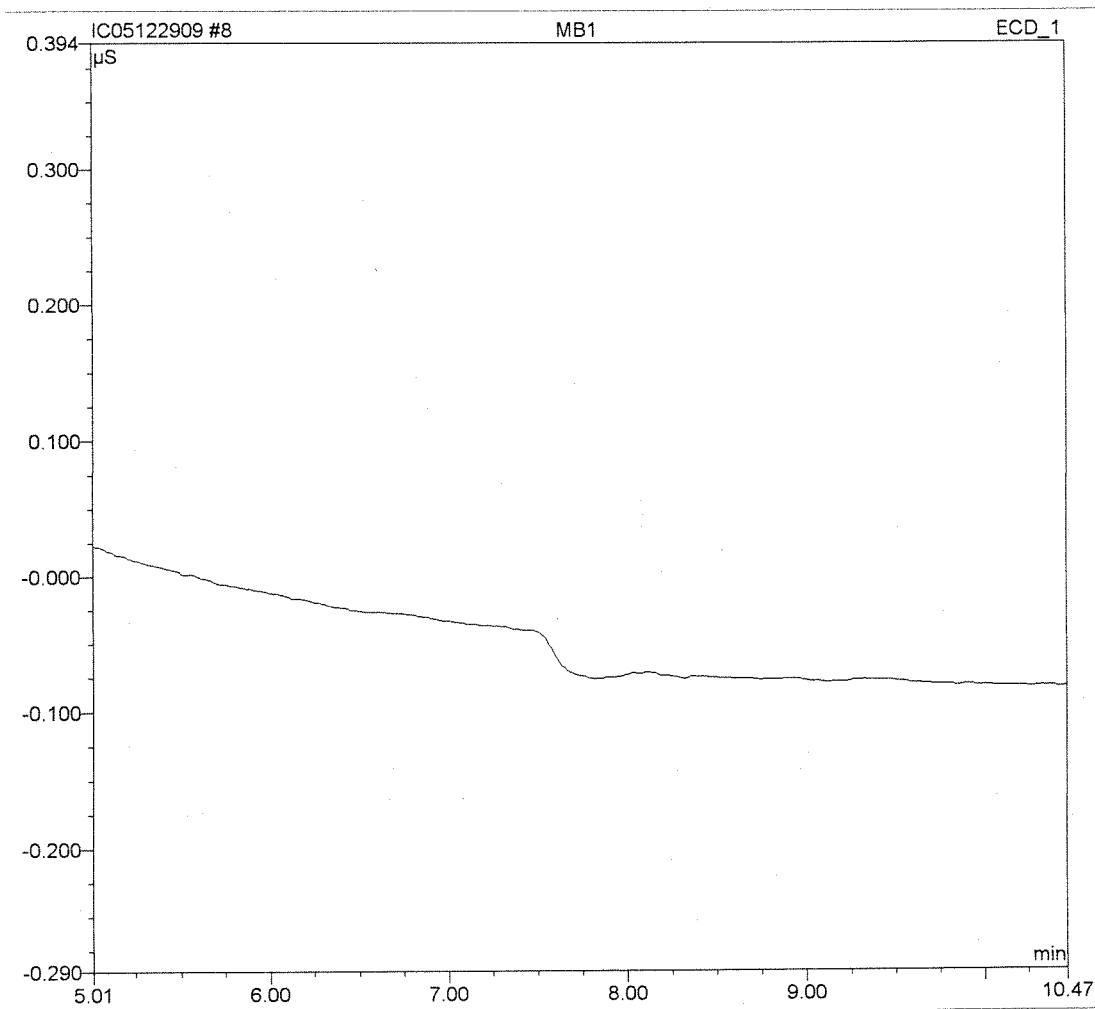


Before

DEC 29 2009

Sample Name:	MB1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 10:34	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
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After Initials ll

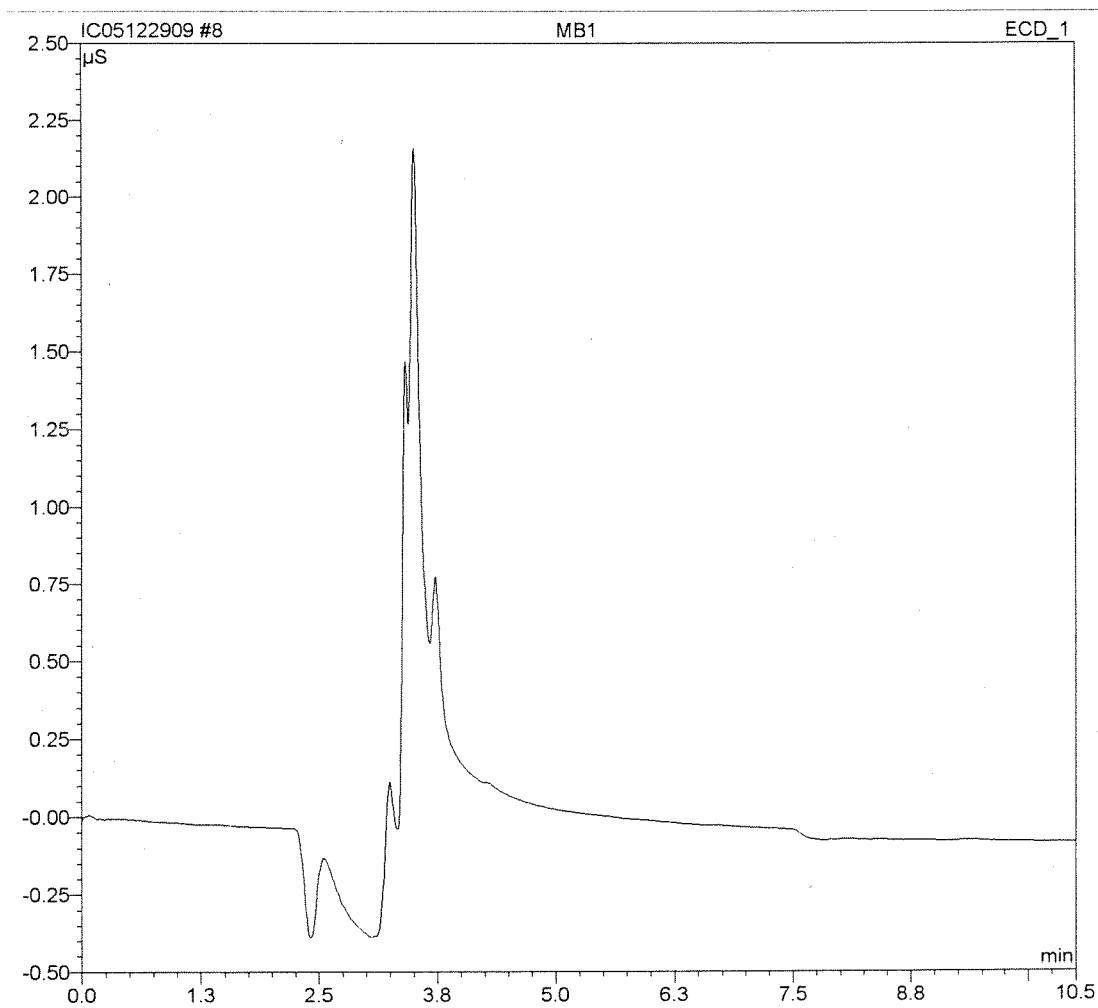
DEC 29 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other cam

5/12/2010

Sample Name:	MB1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 10:34	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
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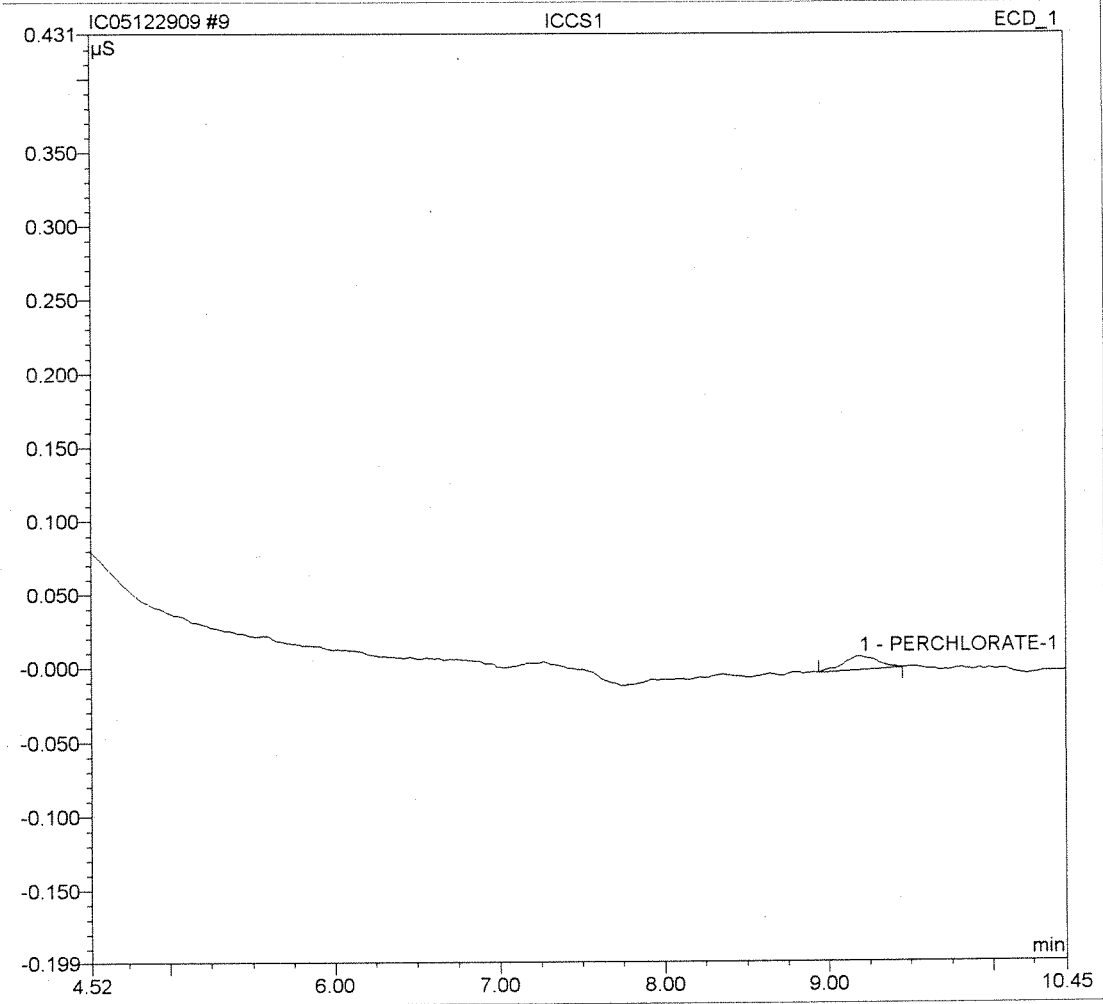
Before

DEC 29 2009

Sample Name:	ICCS1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 10:47	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.19	PERCHLORATE-1	0.009	0.002	0.9304

93%



After Initials ic

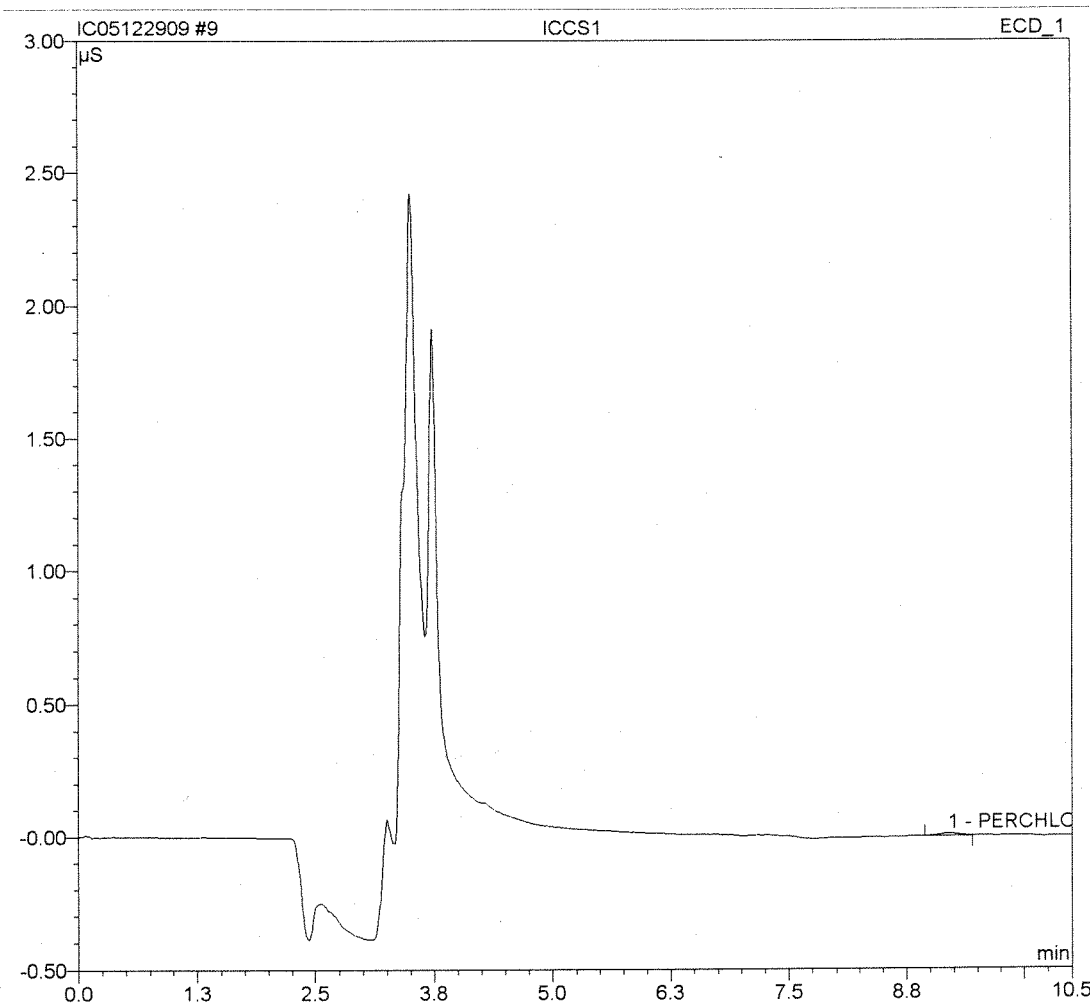
DEC 29 2009

244130/09

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other EM

Sample Name:	ICCS1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 10:47	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area $\mu\text{S}\cdot\text{min}$	Amount ppb
1	9.19	PERCHLORATE-1	0.009	0.002	0.9304



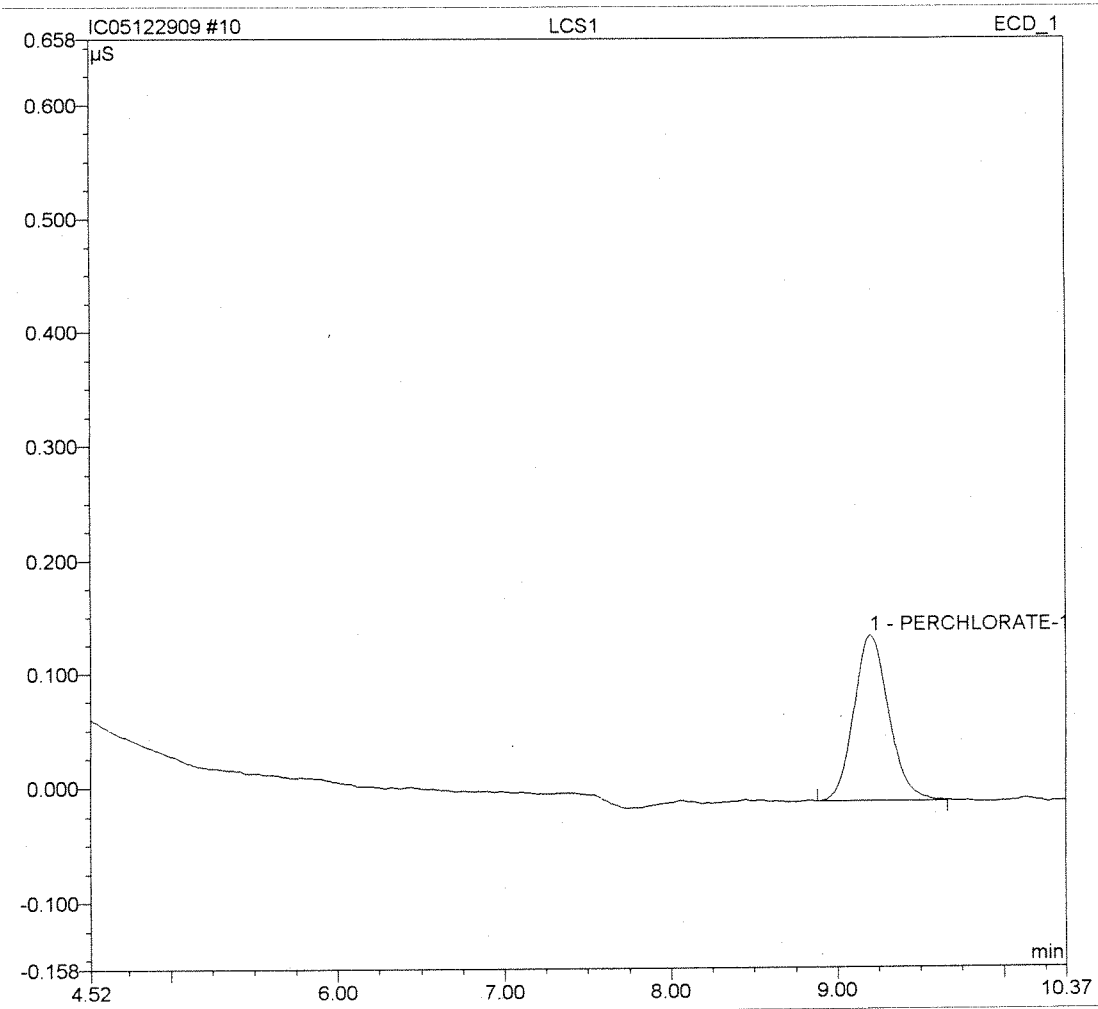
Before

DEC 29 2009

Sample Name:	LCS1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 11:00	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.20	PERCHLORATE-1	0.145	0.035	14.8216

TV = 15.6
95%



After Initials EM

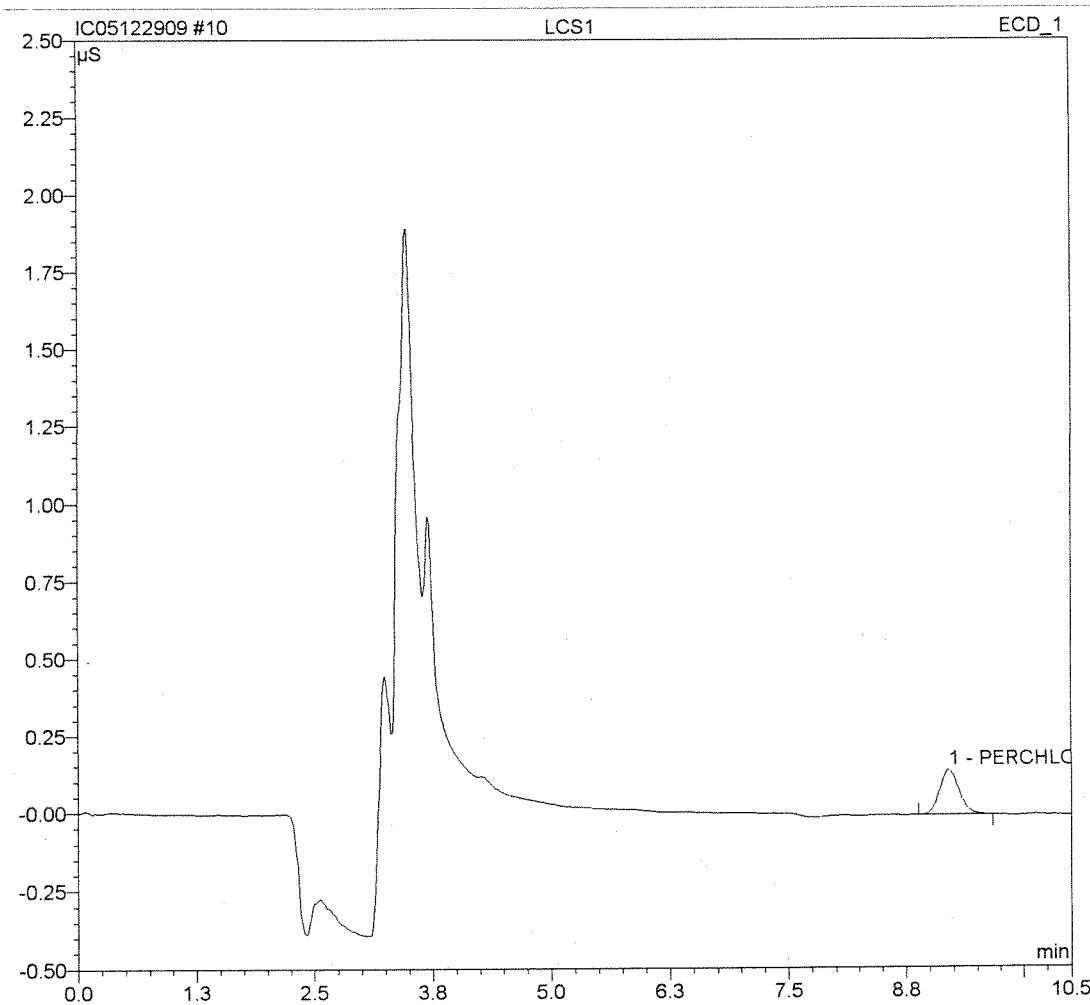
DEC 29 2009

5-12/31/09

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other EM

Sample Name:	LCS1	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 11:00	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.20	PERCHLORATE-1	0.145	0.035	14.8216



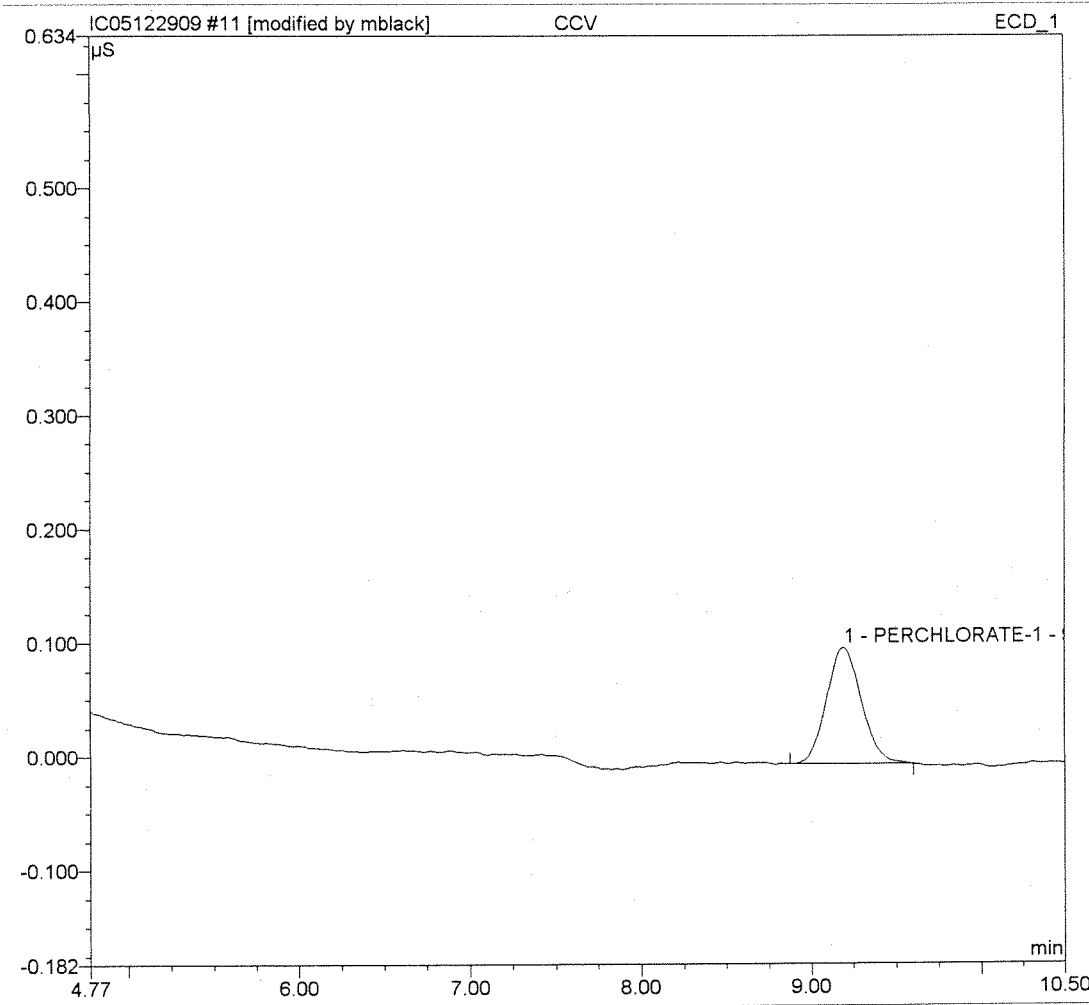
Before

DEC 29 2009

Sample Name:	CCV	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 11:13	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.19	PERCHLORATE-1	0.102	0.025	10.3392

103



After Initials al

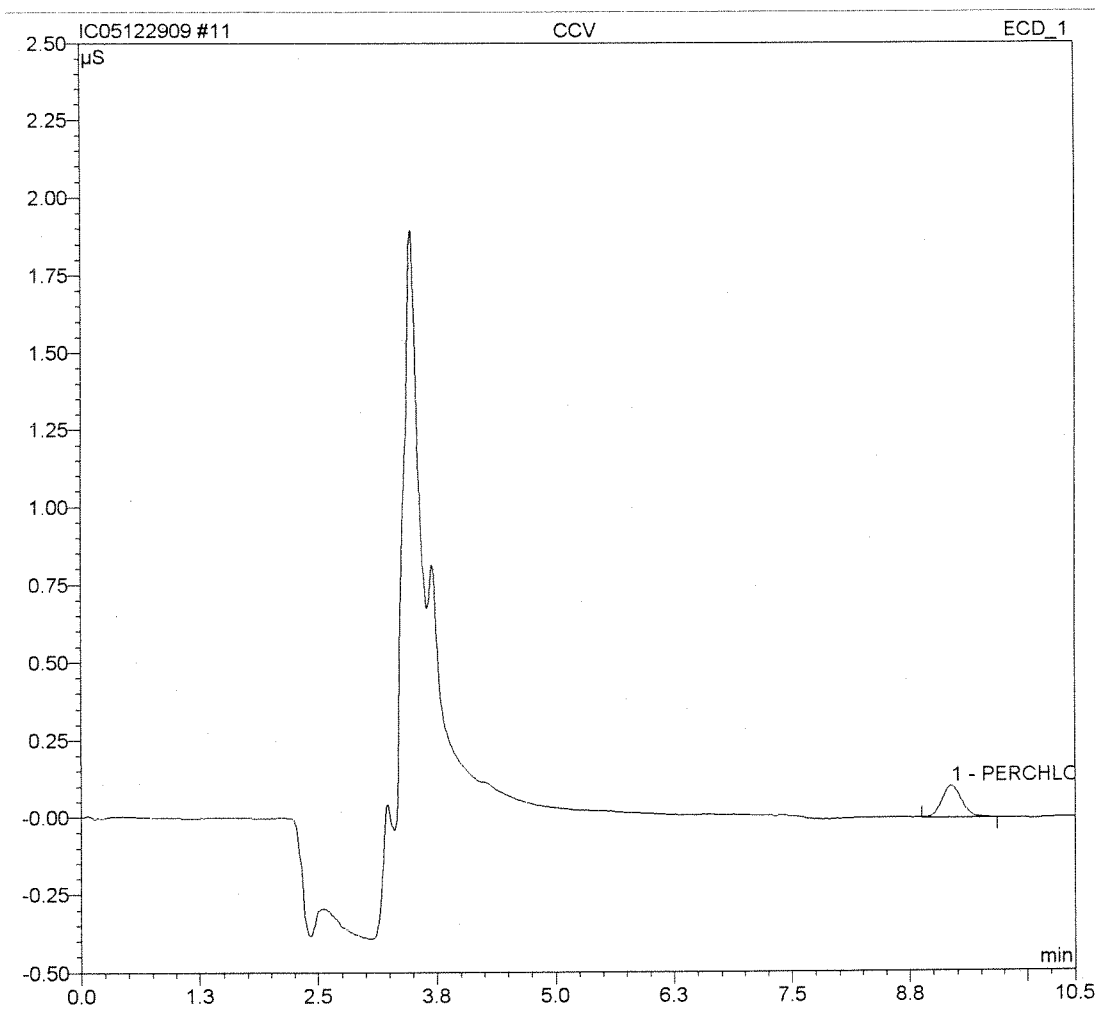
DEC 29 2009

12/29/09

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other zoom

Sample Name:	CCV	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 11:13	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.19	PERCHLORATE-1	0.103	0.025	10.5920



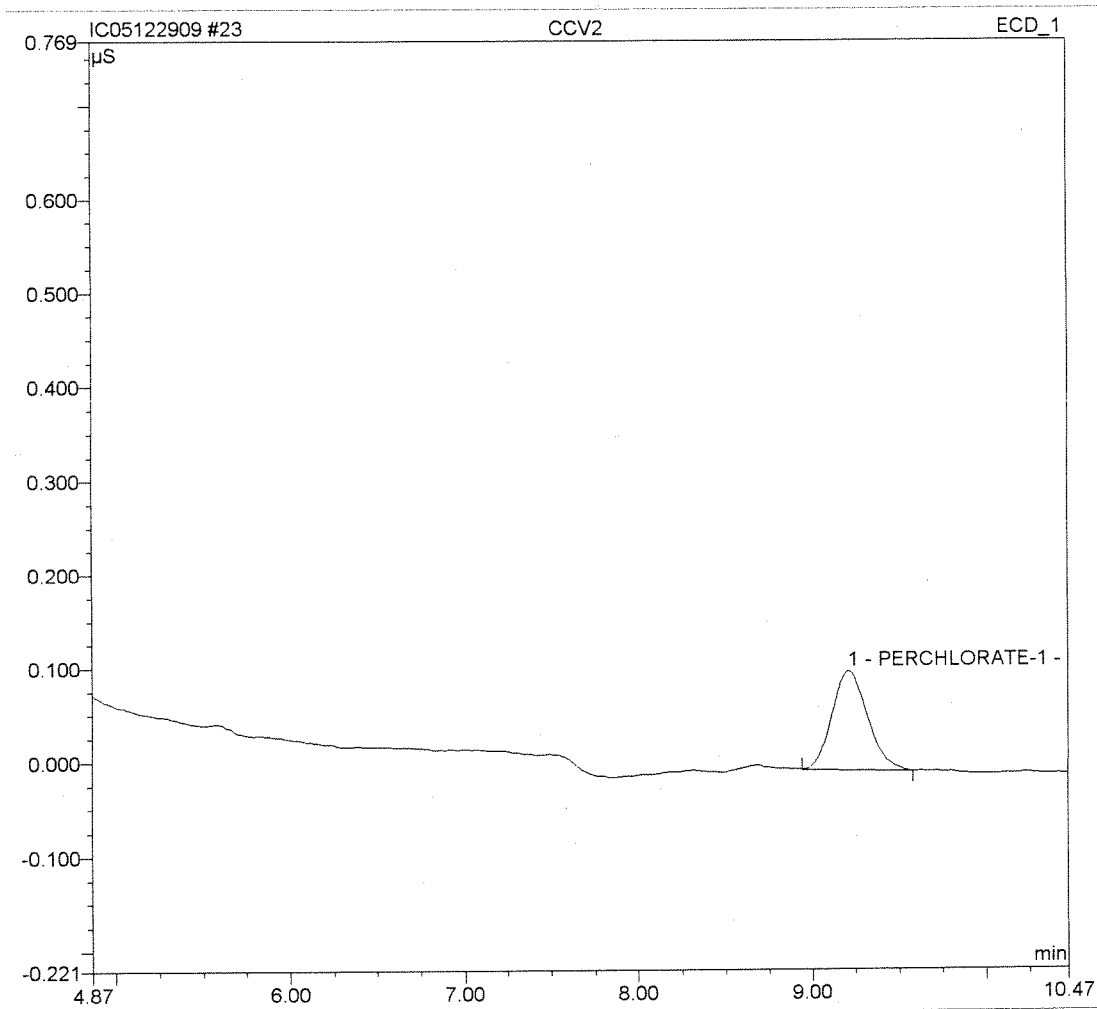
Before

DEC 29 2009

Sample Name:	CCV2	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 13:48	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.21	PERCHLORATE-1	0.105	0.025	10.4844

105



After Initials *EL*

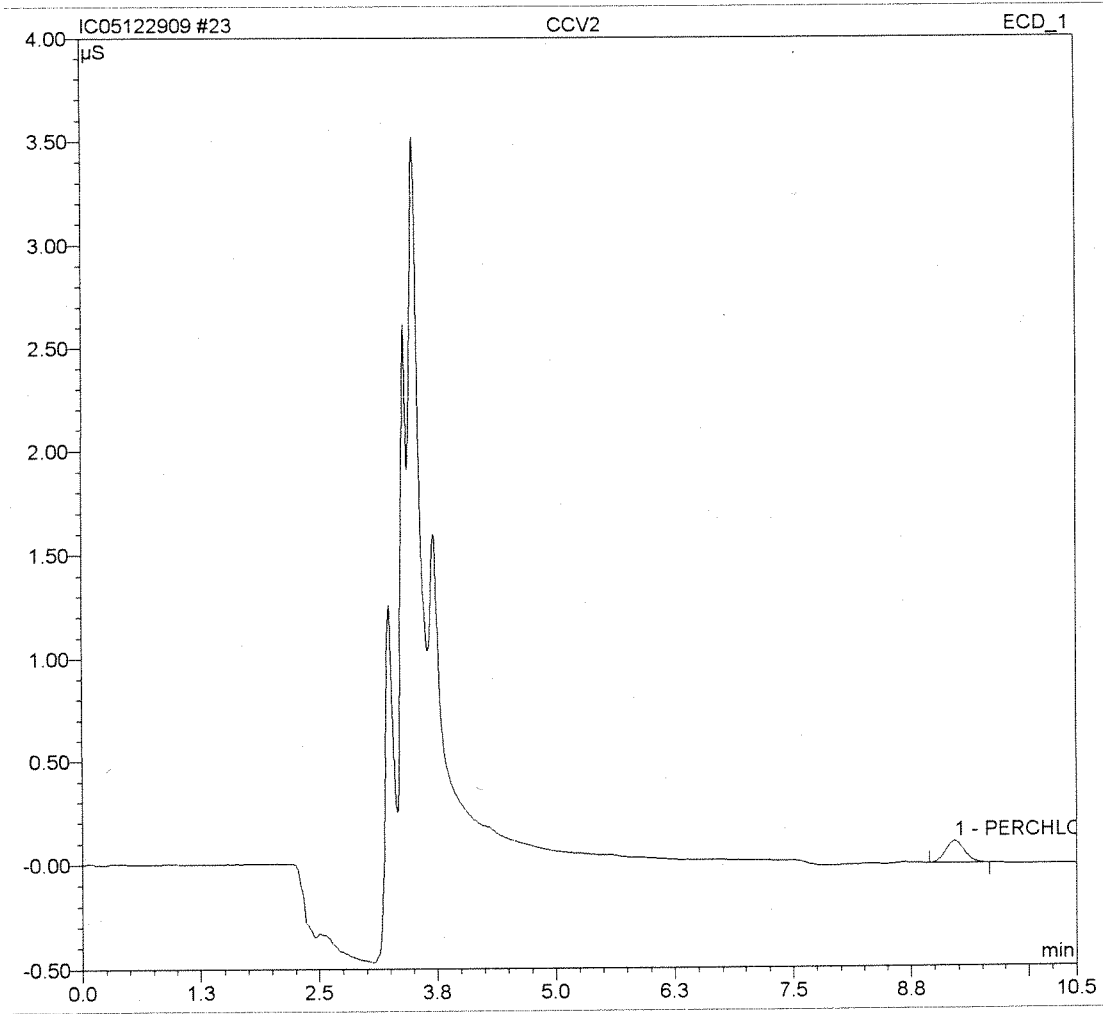
6/11/10/09

DEC 29 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other *EL*

Sample Name:	CCV2	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 13:48	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.21	PERCHLORATE-1	0.105	0.025	10.4844



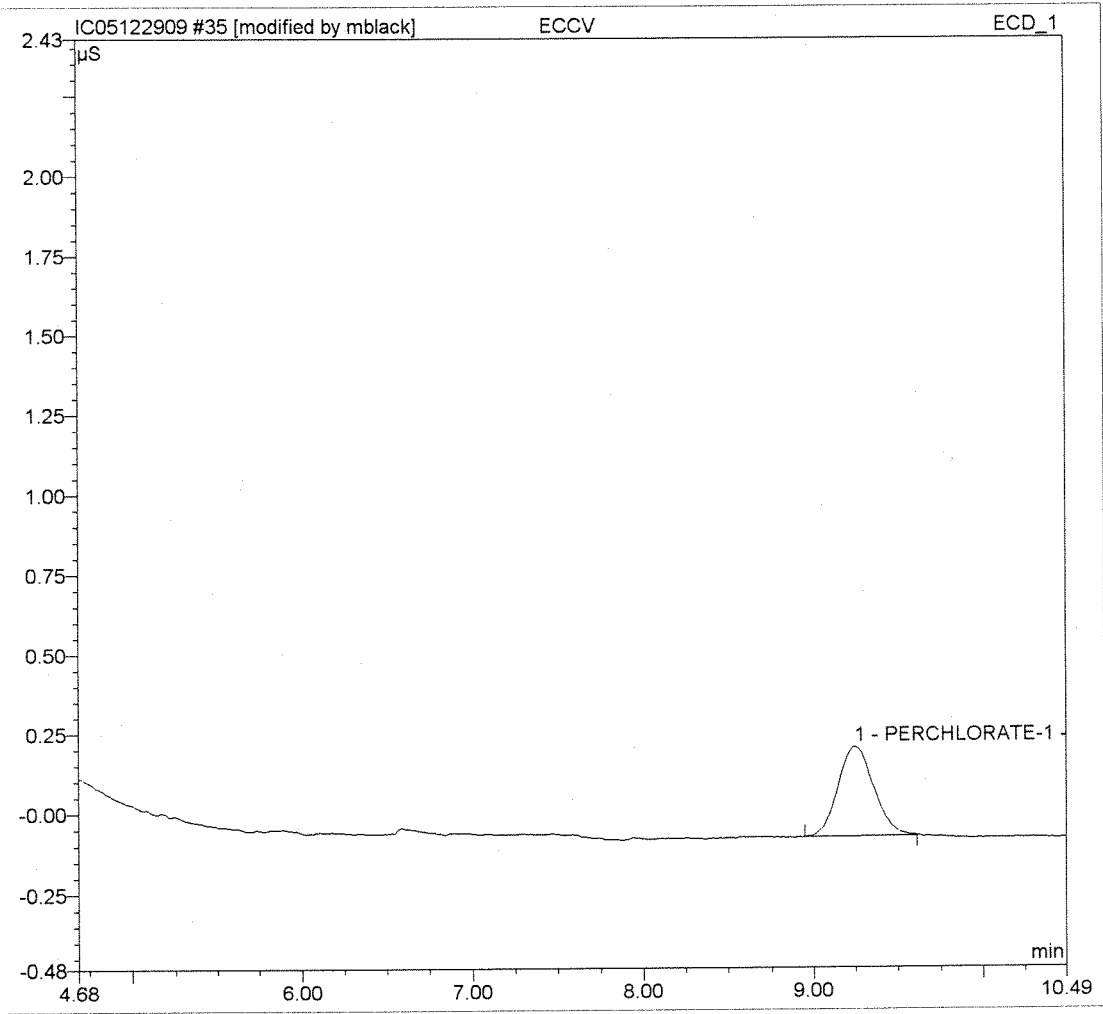
Before

DEC 29 2009

Sample Name:	ECCV	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 16:41	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.24	PERCHLORATE-1	0.280	0.068	28.4554

1147



After Initials GC

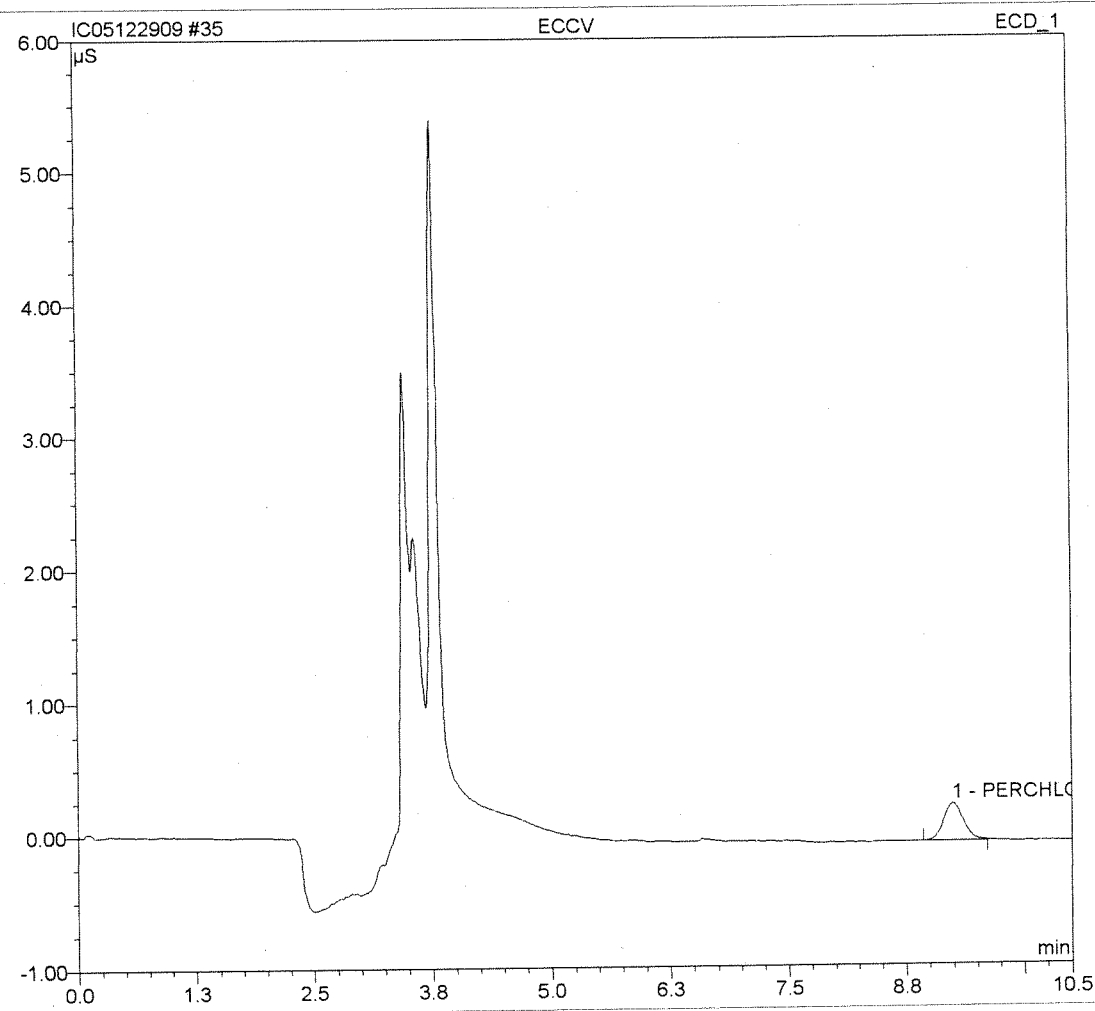
DEC 29 2009

5/11/13/11/1

Wrong Peak/Peak not Found
 Baseline/shoulder Incorrect
 Other GC

Sample Name:	ECCV	Inj. Vol.:	1000.0
Sample Type:	unknown	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	29.12.09 16:41	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.24	PERCHLORATE-1	0.280	0.068	28.5929



Before

DEC 29 2009

COLUMBIA ANALYTICAL SERVICES, INC.

Ion Chromatography Calibration Data

Sequence: IC055120409c

12/4/2009

Anion	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Corr.Coeff.	Slope
CL04	1.0	2.0	5.0	10.0	25.0	0.0	99.9880	0.0024

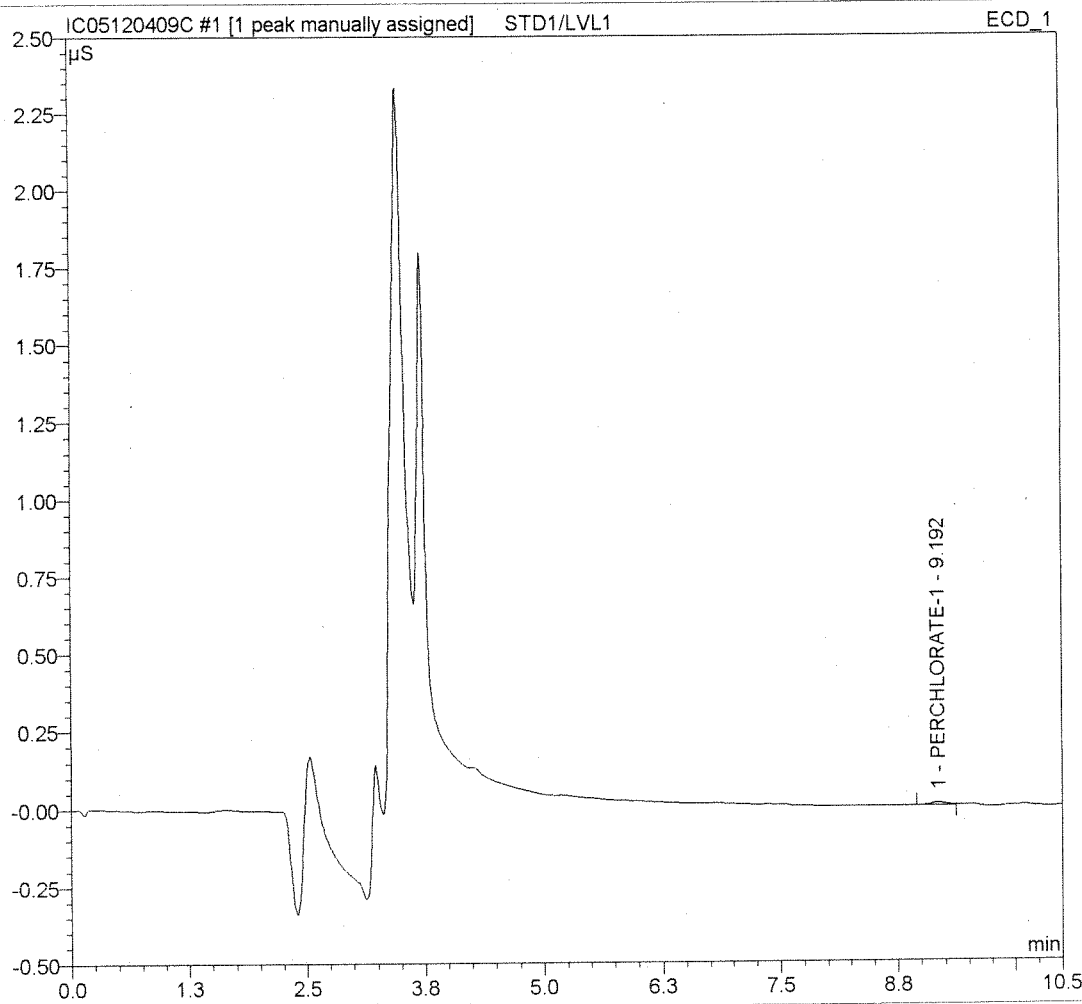
STD ID#: AN3-46-N AN3-46-S AN3-46-T AN3-46-O AN3-46-P

All calibration standard concentrations are in ug/L unless otherwise noted.
Zero point forced through zero.

AN3-46-P

Sample Name:	STD1/LVL1	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:15	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.19	PERCHLORATE-1	0.007	0.001	0.5445



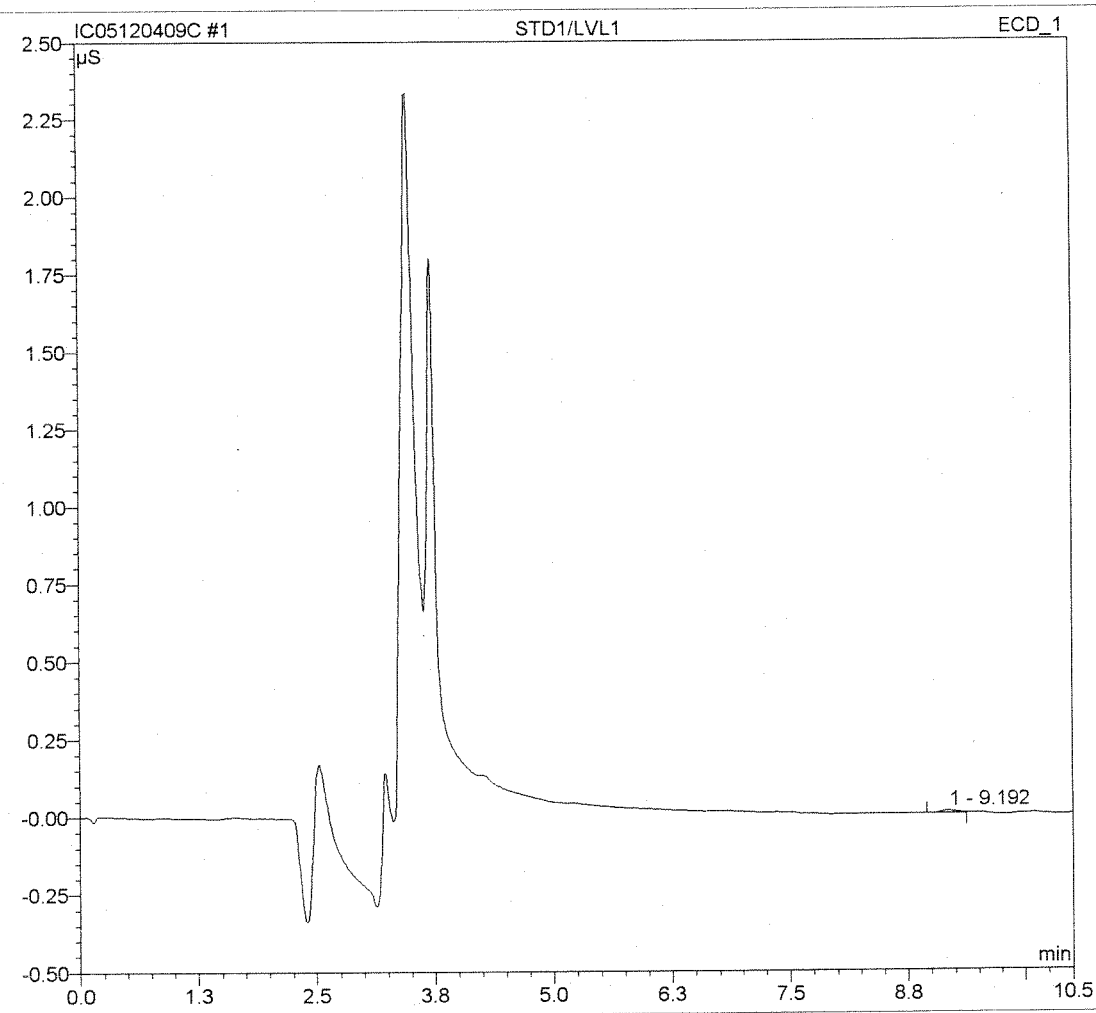
After Initials *EM*

DEC 17 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder incorrect
- Other _____

Sample Name:	STD1/LVL1	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:15	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
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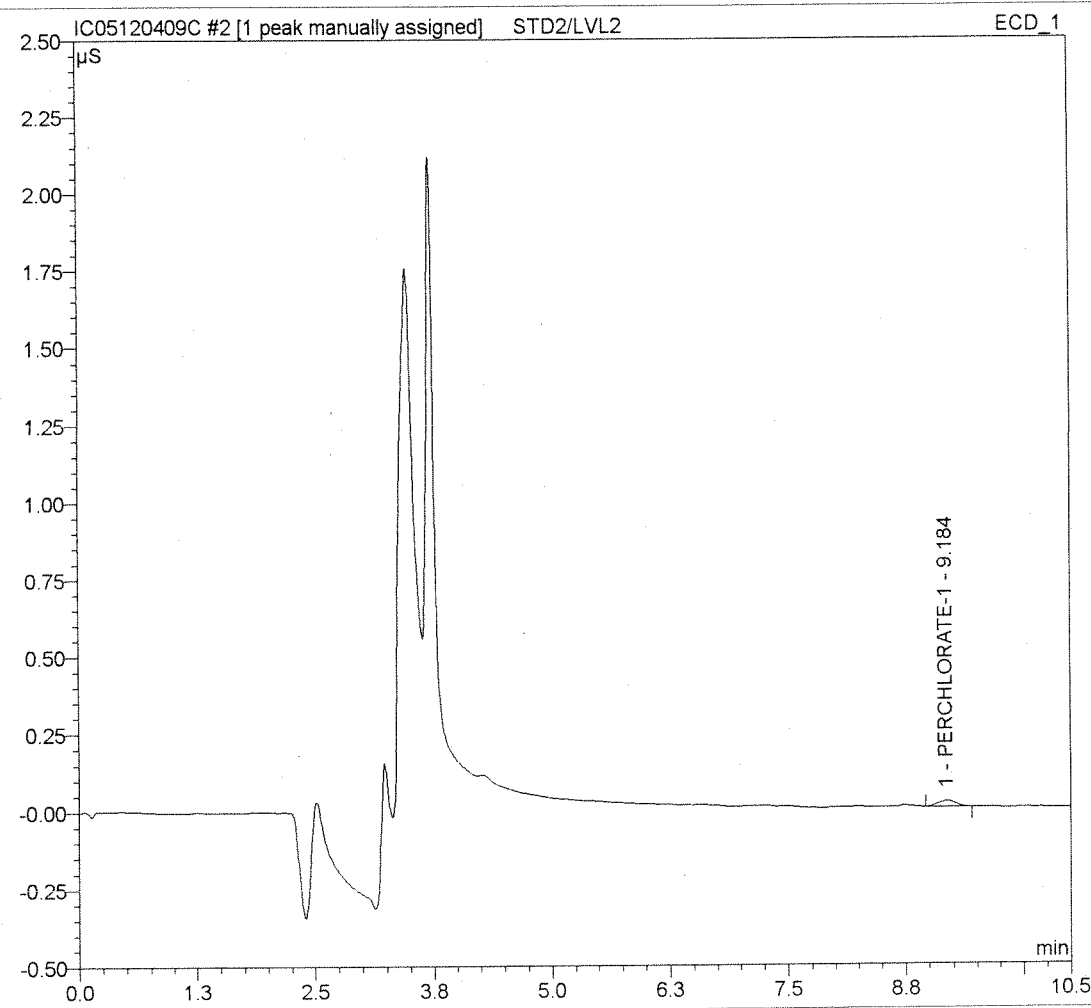


Before

DEC 17 2009

Sample Name:	STD2/LVL2	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:27	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.18	PERCHLORATE-1	0.019	0.004	1.7917



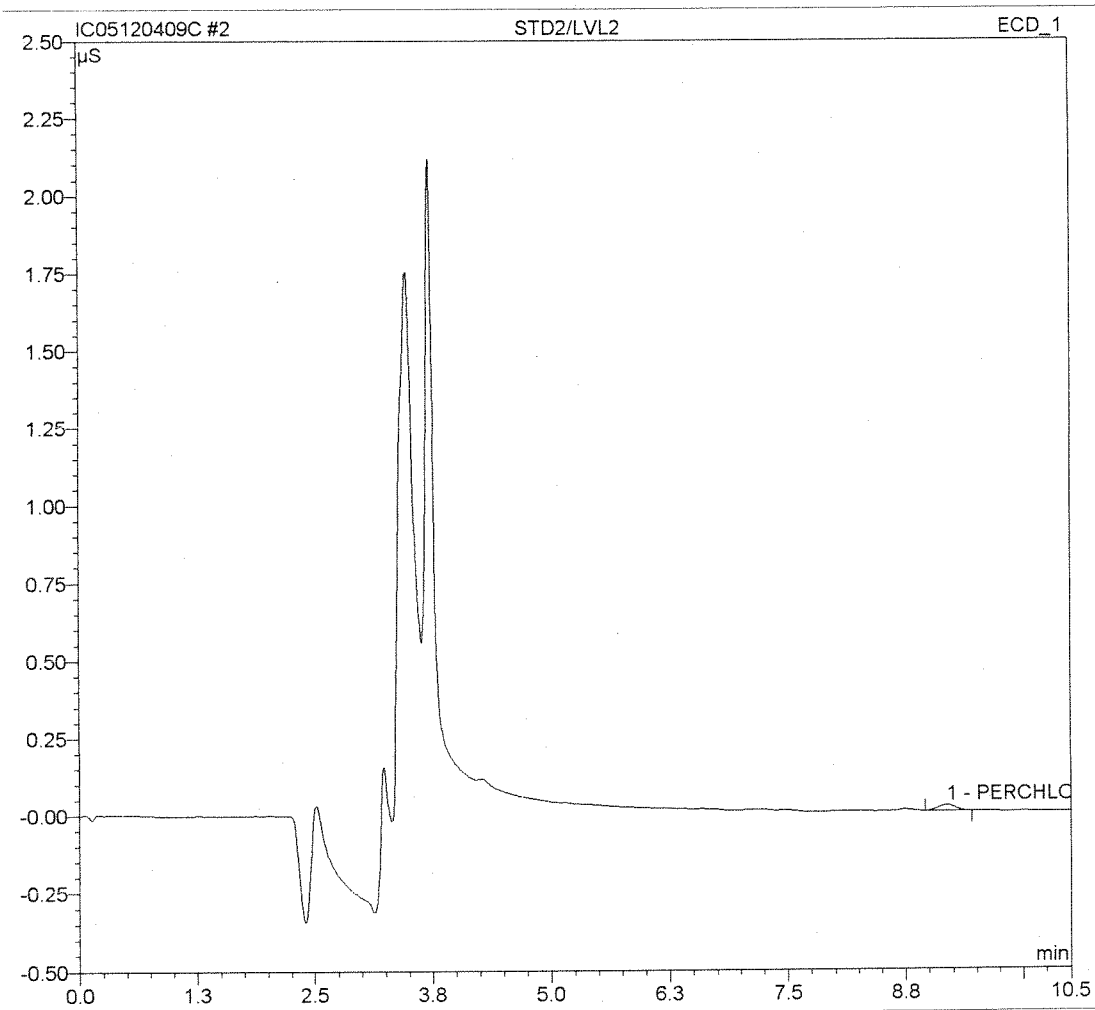
After Initials EL

DEC 17 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other _____

Sample Name:	STD2/LVL2	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:27	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.18	PERCHLORATE-1	0.019	0.004	1.7917

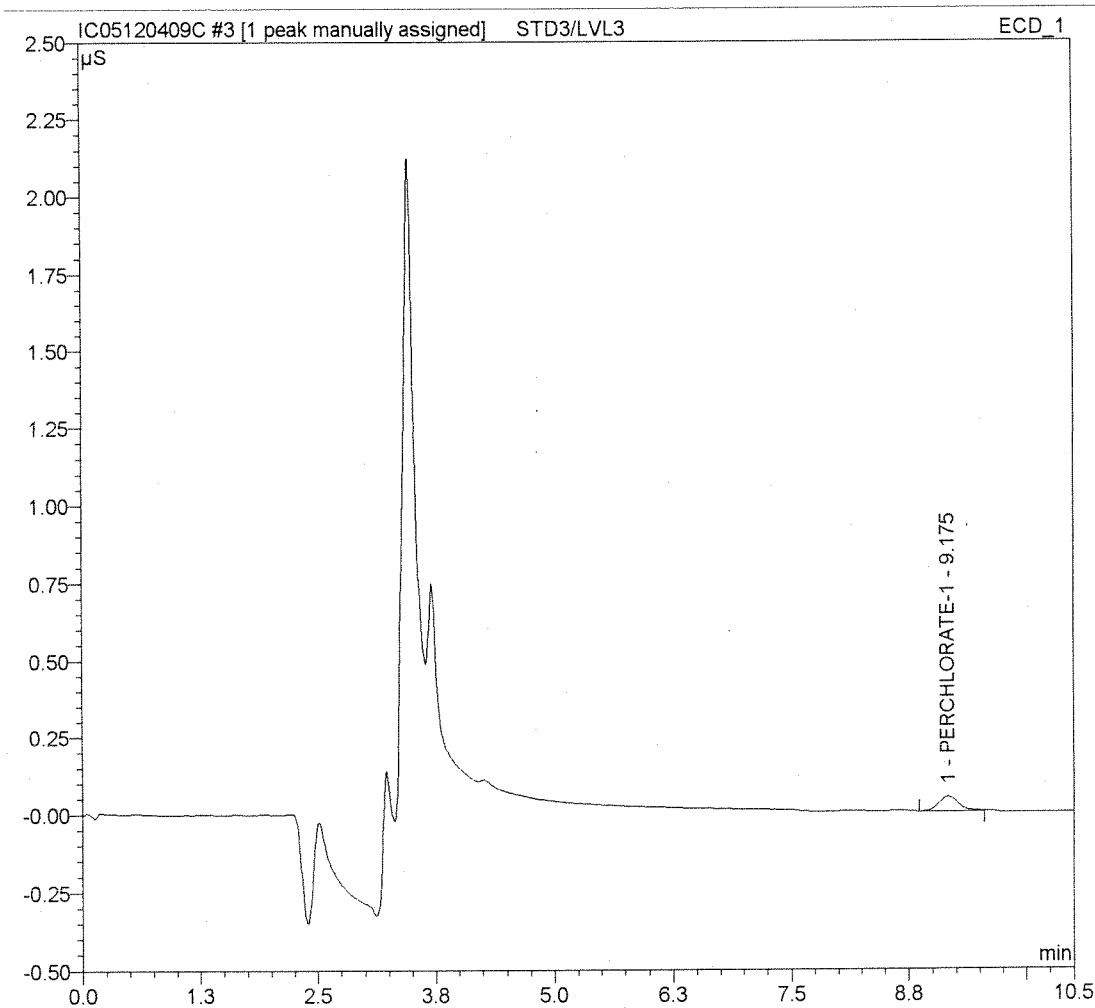


Before

DEC 17 2009

Sample Name:	STD3/LVL3	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:40	TIME:	10.50

No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.18	PERCHLORATE-1	0.046	0.011	4.7144



After Initials

EC

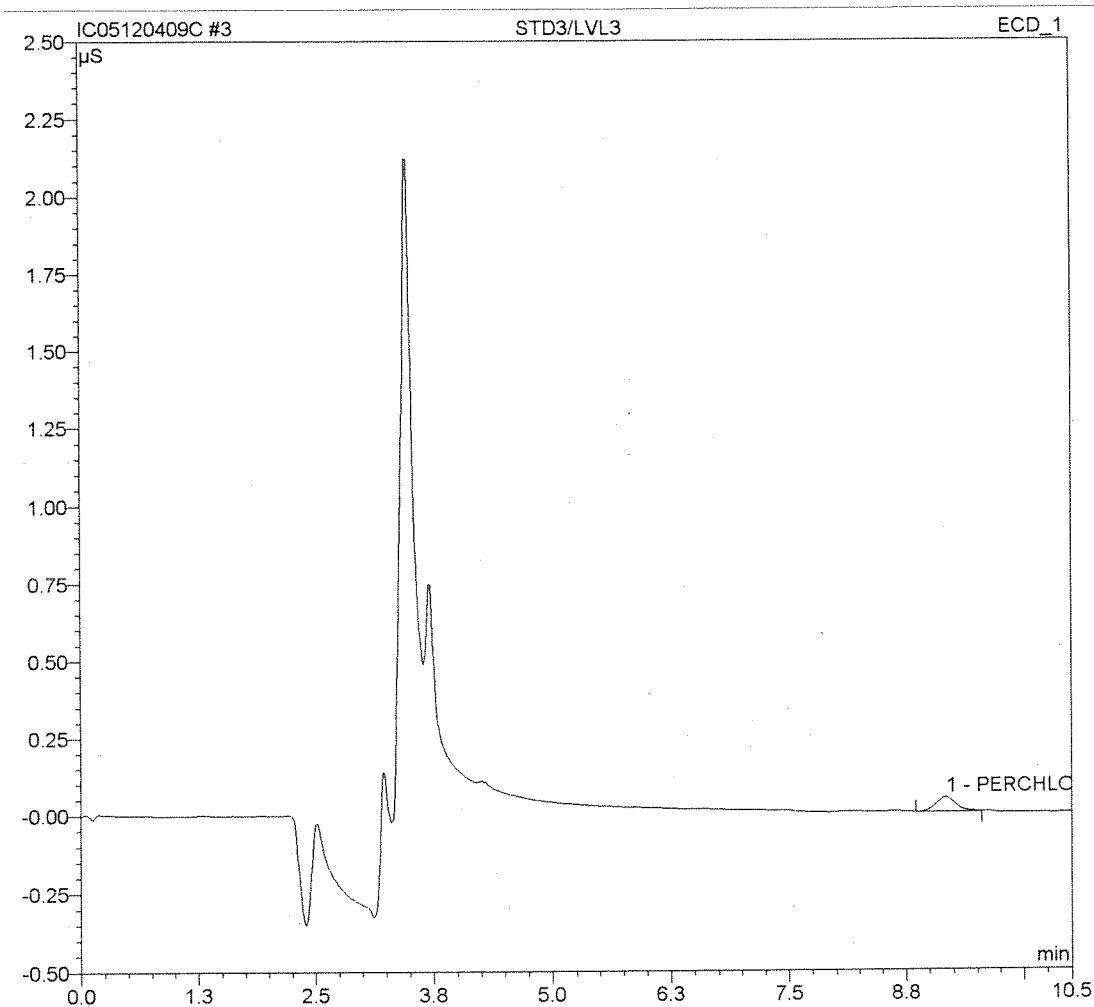
3/12/2010

DEC 17 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other _____

Sample Name:	STD3/LVL3	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:40	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.18	PERCHLORATE-1	0.046	0.011	4.7144

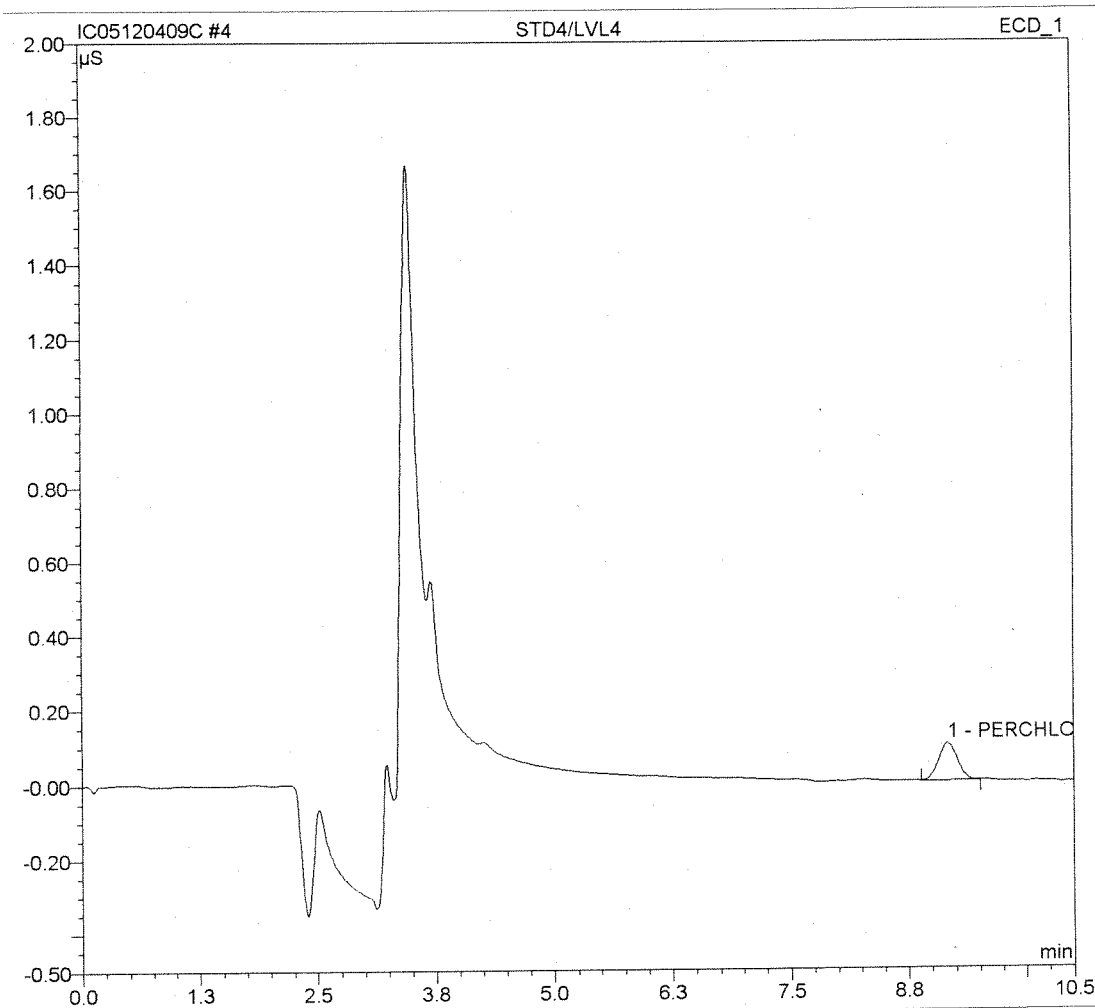


Before

DEC 17 2009

Sample Name:	STD4/LVL4	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Facto.:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 11:53	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
1	9.17	PERCHLORATE-1	0.100	0.023	9.5738

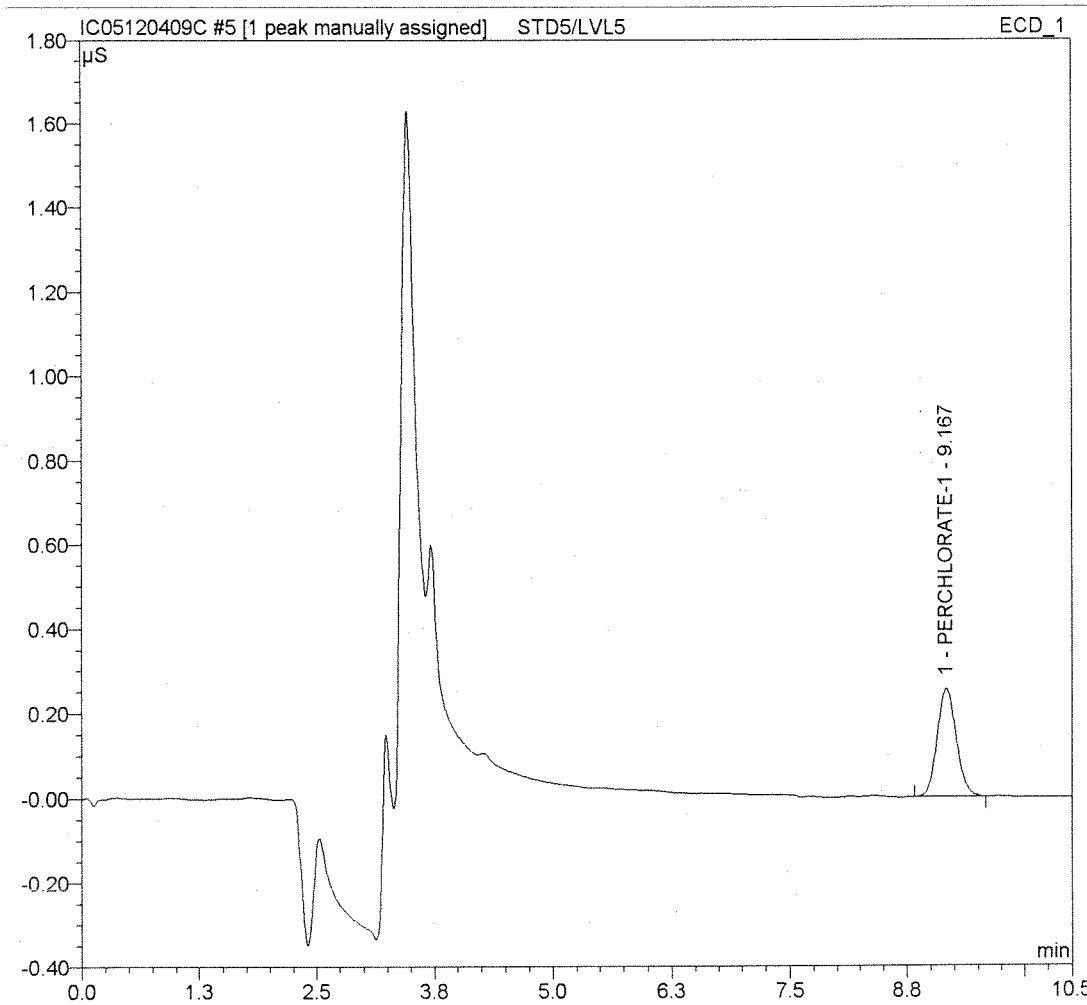


Before

DEC 17 2009

Sample Name:	STD5/LVL5	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 12:06	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height µS	Area µS*min	Amount ppb
1	9.17	PERCHLORATE-1	0.256	0.060	25.2625



After Initials

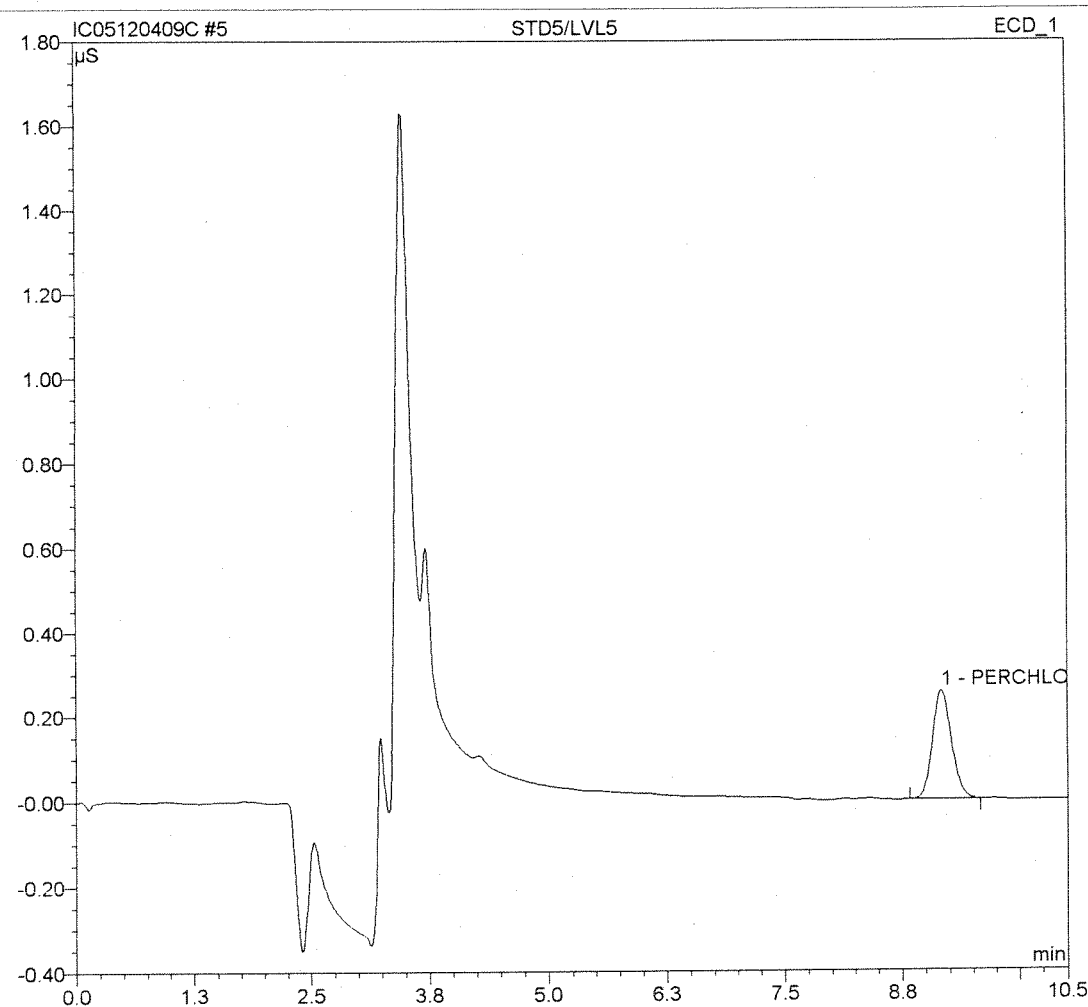
BA 12/17/09

DEC 17 2009

- Wrong Peak/Peak not Found
- Baseline/shoulder Incorrect
- Other _____

Sample Name:	STD5/LVL5	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Facto:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 12:06	TIME:	10.50

No.	Ret.Time (detected) min	Peak Name	Height μS	Area μS*min	Amount ppb
1	9.17	PERCHLORATE-1	0.256	0.060	25.2625

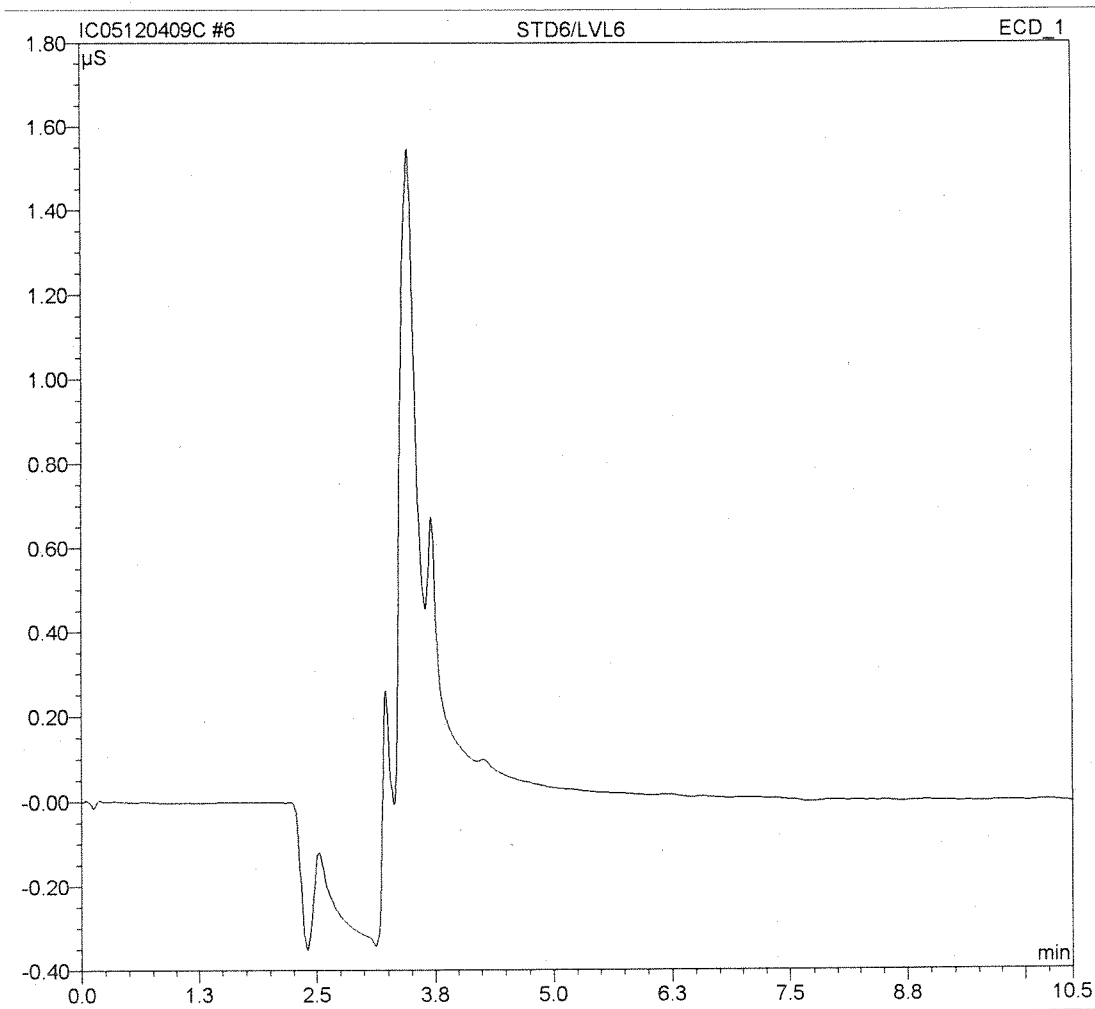


Before

DEC 17 2009

Sample Name:	STD6/LVL6	Inj. Vol.:	1000.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	PERCHLORATE	Operator:	EM
Inj. Date/Time:	04.12.09 12:19	TIME:	10.50

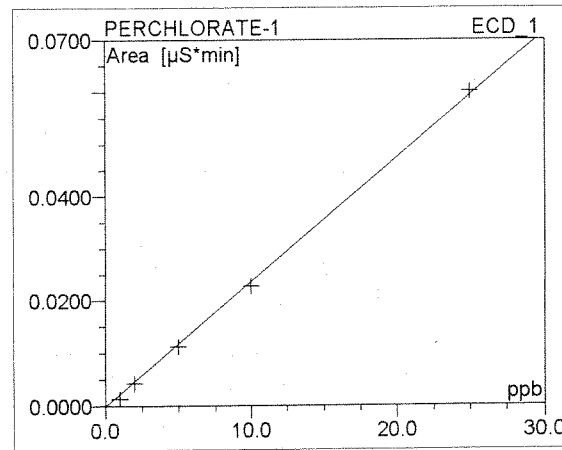
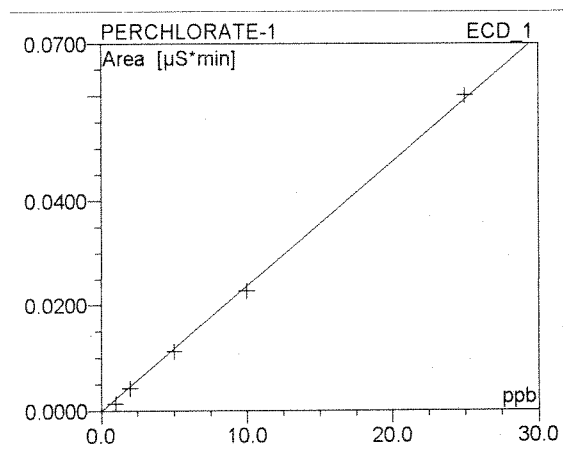
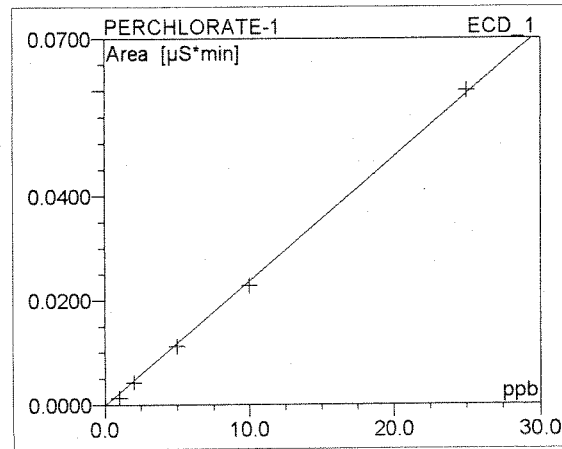
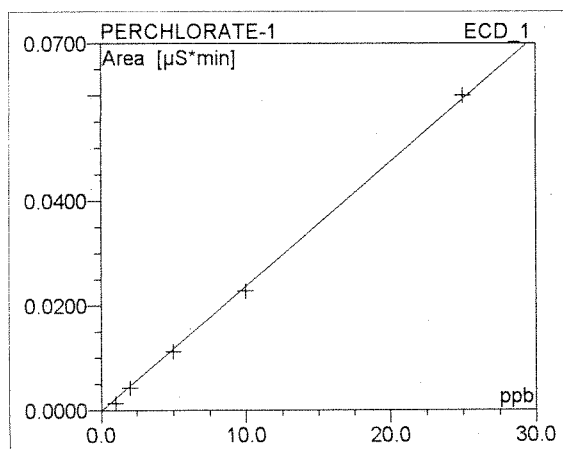
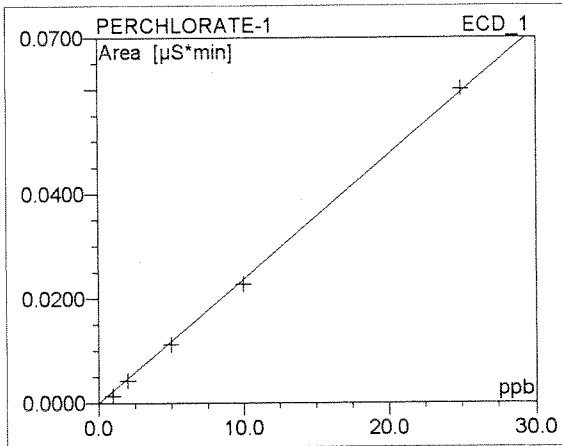
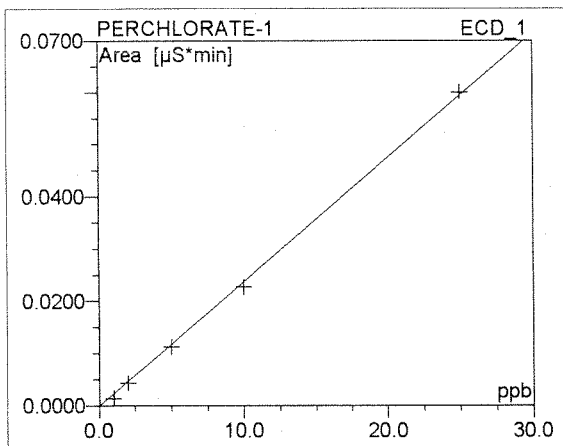
No.	Ret. Time (detected) min	Peak Name	Height μ S	Area μ S*min	Amount ppb
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EA 12/17/09

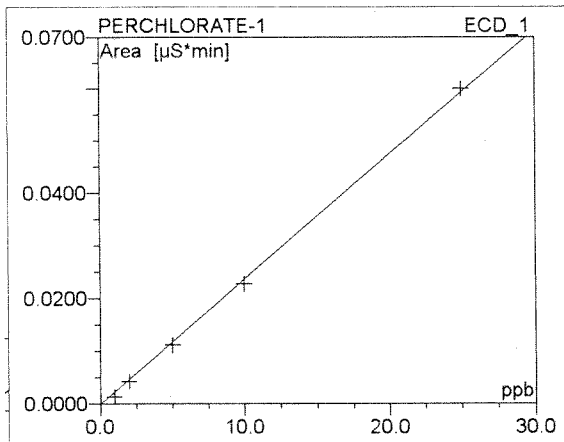
Calibration Batch Report

Sequence: IC05120409C	Inj. Vol.: 1000.0
Program: PERCHLORATE	Operator: KE-GEN-19
Inj. Date/Time: 12/04/09 12:19	Run Time: 10.50



3A 12/17/09

Sequence:	IC05120409C	Inj. Vol.:	1000.0
Program:	PERCHLORATE	Operator:	n.a.
Inj. Date/Time:	12/04/09 12:19	Run Time:	10.50



No.	Ret. Time min	Peak Name	Cal. Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Corr. Coeff. %
AVERAGE:					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Sample