

February 23, 2011

Analytical Report for Service Request No: K1100661

Melissa Kleven
Exponent
15375 Southeast 30th Place, Suite 250
Bellevue, WA 98007

RE: Heglar Kronquist/0907194.000.0901

Dear Melissa:

Enclosed are the results of the samples submitted to our laboratory on January 25, 2011. For your reference, these analyses have been assigned our service request number K1100661.

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 3281. You may also contact me via Email at MShelton@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.



Mike Shelton
Project Chemist

MS/ln

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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 as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value that was detected outside the quantitation range.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.1 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H In accordance with the 2007 EPA Methods Update Rule published in the Federal Register, the holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value that was detected outside the quantitation range.
- 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).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.1 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- 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 is 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 as defined by the DOD or NELAC standards.
- 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 value that was detected outside the quantitation range.
- 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.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.1 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is 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
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
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-

Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Exponent
Project: Heglar Kronquist
Sample Matrix: water

Service Request No.: K1100661
Date Received: 1/25/11

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 IV 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

Seven water samples were received for analysis at Columbia Analytical Services on 1/25/11. 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

No anomalies associated with the analysis of these samples were observed.

Dissolved Metals

Matrix Spike Recovery Exceptions:

The control criteria for matrix spike recovery of Calcium and Sodium for sample MW-1 were not applicable. The analyzed concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

Approved by Mike Shelt Date 2/23/11

Chain of Custody



**Columbia
Analytical Services** INC.

CHAIN OF CUSTODY

1317 South 13th Ave, Kelso, WA 98626 | 360.577.7222 | 800.695.7222 | 360.636.1068 (fax)

SR#: K1100661
COC#

PROJECT NAME	Heglar Kronquist											
PROJECT NUMBER	0907194.DOB.0901											
PROJECT MANAGER	melissa kleeven											
COMPANY/ADDRESS	15375 SE 30th Pl Suite 250											
CITY/STATE/ZIP	Bellevue, WA 98007											
E-MAIL ADDRESS	mkleeven@exponent.com											
PHONE #	425-519-8774 FAX: 425-519-8799											
SAMPLER'S SIGNATURE	Keri Whetter											
SAMPLE T.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS						REMARKS	
mw-1	1/24/11	1315		L	5						run	
mw-2	1/24/11	910		L	5						NO ₃ and NO ₂	
mw-3	(1/24-10)										ASAP	
mw-4	1/24/11	1500		L	5						within 48-hr hold time	
mw-5	1/23/11	1450		L	5							
mw-6	1/23/11	1215		L	5							
mw-7	(1/24-10)											
EB-0123/11	1/23/11	1745		L	5							
EB-0124/11	1/24/11	1553		L	5							
EB-0125/11	(mw-1-24-10)											
Semivolatile Organics by GC/MS 625 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270LL <input type="checkbox"/> Volatile Organics 824 <input type="checkbox"/> 8260 <input type="checkbox"/> Hydrocarbons (*see below) 8021 <input type="checkbox"/> BTEX <input type="checkbox"/> Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Fuel Fingerprint (FFQ) <input type="checkbox"/> Oil & HClD Screen <input type="checkbox"/> 1664 TRPH <input type="checkbox"/> PCBs 1664 HEM <input type="checkbox"/> 1664 SGT <input type="checkbox"/> Aroclors <input type="checkbox"/> Pesticides/Herbicides <input type="checkbox"/> 608 <input type="checkbox"/> 8081A <input type="checkbox"/> Chlorophenolics 8141A <input type="checkbox"/> Tri <input type="checkbox"/> Tetra <input type="checkbox"/> PCP <input type="checkbox"/> PAHS 8310 <input type="checkbox"/> SIM <input type="checkbox"/> Metals, Total or Dissolved (See list below) <input type="checkbox"/> Cyanide <input type="checkbox"/> pH, Cond., Cl, SO ₄ , PO ₄ , TSS, TDS, F, NO ₂ NH ₃ -N, COD, DOC, Total-P, TKN, TOC, TOX 9020 <input type="checkbox"/> Alkalinity <input type="checkbox"/> NO ₂ +NO ₃ <input type="checkbox"/> AOX 1650 <input type="checkbox"/> 506 <input type="checkbox"/>												

REPORT REQUIREMENTS

I. Routine Report: Method Blank, Surrogate, as received

II. Report Dup., MS, MSD as required

III. Data Validation Report (includes all raw data)

IV. CLP Deliverable Report

V. EDD

INVOICE INFORMATION

P.O. #

Bill To: Same as above

TURNAROUND REQUIREMENTS

24 hr. 48 hr.

5 Day

Standard (10-15 working days)

Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

- 500 mL w/ H_2SO_4 , 1 L unpreserved, and
500 mL w/ HNO_3 are field-filtered

Sample Shipment contains USDA regulated soil samples (check box if applicable)

RELINQUISHED BY:
Keri Whetter 1/24/11, 1930
Signature Date/Time
Printed Name Firm

		RECEIVED BY:
<i>Sky</i>	<i>1/15/16</i>	<i>0840</i>
Signature	Date/Time	
<i>SCHOKKINS</i>	<i>CAS</i>	
Printed Name	Firm	

RELINQUISHED BY:

RECEIVED BY:

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

PC MS

Client / Project: Exponent

Service Request *K11*

Ole

Received: 1/25/11 Opened: 1/25/11 By: SAC Unloaded: 1/25/11 By: SAC

1. Samples were received via? *Mail* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*

2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* *NA*

3. Were custody seals on coolers? *NA* *Y* *N* If yes, how many and where? *One, front*

If present, were custody seals intact? *Y* *N* If present, were they signed and dated? *Y* *N*

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID	NA	Tracking Number	NA	Filed
-0.5	2.6	297			9455 3633 8852		
0.7	9.0	306			81684 6000 9294		

7. Packing material used. *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Sleeves* *Other* _____

8. Were custody papers properly filled out (ink, signed, etc.)? NA Y N

9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N

10. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N

11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N

12. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N

13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N

14. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N

15. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Notes, Discrepancies, & Resolutions:

General Chemistry Parameters

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/2011
Date Received: 1/25/2011

Chloride, Dissolved

Prep Method: NONE

Units: mg/L (ppm)

Analysis Method: 300.0

Basis: NA

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
MW-1	K1100661-001	2.0	0.3	10	1/25/2011	70.7	
MW-2	K1100661-002	2.0	0.3	10	1/26/2011	55.6	
MW-4	K1100661-003	20	3	100	1/25/2011	445	
MW-5	K1100661-004	1.0	0.2	5	1/25/2011	17.9	
MW-6	K1100661-005	1.0	0.2	5	1/25/2011	19.0	
EB-012311	K1100661-006	0.40	0.06	2	1/25/2011	0.38	
EB-012411	K1100661-007	0.40	0.06	2	1/25/2011	0.11	
Method Blank	K1100661-MB	0.20	0.03	1	1/25/2011	ND	
Method Blank	K1100661-MB	0.20	0.03	1	1/26/2011	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 1/26/2011

**Duplicate Summary
Inorganic Parameters**

Sample Name: Batch QC **Units:** mg/L (ppm)
Lab Code: K1100699-001DUP **Basis:** NA
Test Notes:

Analyte	Prep Method	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chloride, Dissolved	NONE	300.0	0.40	13.9	14.0	14.0	< 1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 1/25/2011

Matrix Spike Summary
Inorganic Parameters

Sample Name: Batch QC Units: mg/L (ppm)
Lab Code: K1100699-001MS Basis: NA
Test Notes:

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	CAS Percent Recovery			Result Notes
							Percent Recovery	Acceptance Limits	Notes	
Chloride, Dissolved	NONE	300	0.40	17.5	13.9	17.7	90	80-120		

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
LCS Matrix: Water

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 1/25/2011

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name: Lab Control Sample Units: mg/L (ppm)
Lab Code: K1100661-LCS Basis: NA
Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Acceptance Limits	Result Notes
						Percent Recovery		
Chloride, Dissolved	NONE	300	5.00	4.73	95		90-110	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Analyzed: 1/25/2011

Chloride, Dissolved
EPA Method 300.0
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	True Value	Measured Value	Percent Recovery
CCV 1 Result	5.00	4.68	94
CCV 2 Result	5.00	4.68	94
CCV 3 Result	5.00	4.66	93
CCV 4 Result	5.00	4.70	94
CCV 5 Result	5.00	4.68	94
CCV 6 Result	5.00	4.72	94
CCV 7 Result	5.00	4.72	94
CCV 8 Result	5.00	4.75	95
CCV 9 Result	5.00	4.72	94
CCV 10 Result	5.00	4.79	96
CCV 11 Result	5.00	4.79	96
CCV 12 Result	5.00	4.75	95
CCV 13 Result	5.00	4.79	96

CONTINUING CALIBRATION BLANK (CCB)

	MRL	Blank Value
CCB 1 Result	0.20	ND
CCB 2 Result	0.20	ND
CCB 3 Result	0.20	ND
CCB 4 Result	0.20	ND
CCB 5 Result	0.20	ND
CCB 6 Result	0.20	ND
CCB 7 Result	0.20	ND
CCB 8 Result	0.20	ND
CCB 9 Result	0.20	ND
CCB 10 Result	0.20	ND
CCB 11 Result	0.20	ND
CCB 12 Result	0.20	ND
CCB 13 Result	0.20	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/2011
Date Received: 1/25/2011

Fluoride, Dissolved

Prep Method: NONE

Units: mg/L (ppm)

Analysis Method: 300.0

Basis: NA

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
MW-1	K1100661-001	0.40	0.006	2	1/25/2011	0.39	
MW-2	K1100661-002	0.40	0.006	2	1/25/2011	0.32	
MW-4	K1100661-003	0.40	0.006	2	1/25/2011	0.17	
MW-5	K1100661-004	0.40	0.006	2	1/25/2011	0.44	
MW-6	K1100661-005	0.40	0.006	2	1/25/2011	0.30	
EB-012311	K1100661-006	0.40	0.006	2	1/25/2011	ND	
EB-012411	K1100661-007	0.40	0.006	2	1/25/2011	ND	
Method Blank	K1100661-MB	0.20	0.003	1	1/25/2011	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 1/25/2011

Duplicate Summary Inorganic Parameters

Sample Name: Batch QC Units: mg/L (ppm)
Lab Code: K1100681-001DUP Basis: NA
Test Notes:

Analyte	Prep	Analysis	MRL	Sample Result	Duplicate		Relative Percent Difference	Result Notes
	Method	Method			Sample Result	Average		
Fluoride, Dissolved	NONE	300.0	0.40	0.71	0.72	0.72	1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 1/25/2011

Matrix Spike Summary Inorganic Parameters

Sample Name: Batch QC Units: mg/L (ppm)
Lab Code: K1100681-001MS Basis: NA
Test Notes:

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	CAS Percent Recovery	Acceptance Limits	Result Notes
							Percent Recovery		
Fluoride, Dissolved	NONE	300.0	0.40	4.80	0.71	4.82	102	80-120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
LCS Matrix: Water

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 1/25/2011

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name: Lab Control Sample
Lab Code: K1100661-LCS
Test Notes:

Units: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Acceptance Limits	Result Notes
						Percent Recovery		
Fluoride, Dissolved	NONE	300.0	11.0	10.5	96		90-110	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Analyzed: 1/25/2011

Fluoride, Dissolved
EPA Method 300.0
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	True Value	Measured Value	Percent Recovery
CCV 1 Result	5.00	5.03	101
CCV 2 Result	5.00	4.95	99
CCV 3 Result	5.00	5.00	100
CCV 4 Result	5.00	5.05	101
CCV 5 Result	5.00	5.04	101
CCV 6 Result	5.00	5.08	102

CONTINUING CALIBRATION BLANK (CCB)

	MRL	Blank Value
CCB 1 Result	0.20	ND
CCB 2 Result	0.20	ND
CCB 3 Result	0.20	ND
CCB 4 Result	0.20	ND
CCB 5 Result	0.20	ND
CCB 6 Result	0.20	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/2011
Date Received: 1/25/2011

Sulfate, Dissolved

Prep Method: NONE

Units: mg/L (ppm)

Analysis Method: 300.0

Basis: NA

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
MW-1	K1100661-001	2.0	0.1	10	1/25/2011	31.4	
MW-2	K1100661-002	2.0	0.1	10	1/26/2011	37.1	
MW-4	K1100661-003	2.0	0.1	10	1/25/2011	45.1	
MW-5	K1100661-004	1.0	0.05	5	1/25/2011	39.5	
MW-6	K1100661-005	1.0	0.05	5	1/25/2011	36.7	
EB-012311	K1100661-006	0.40	0.02	2	1/25/2011	ND	
EB-012411	K1100661-007	0.40	0.02	2	1/25/2011	0.04	J
Method Blank	K1100661-MB	0.20	0.01	1	1/25/2011	ND	
Method Blank	K1100661-MB	0.20	0.01	1	1/26/2011	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 1/25/2011

Duplicate Summary Inorganic Parameters

Sample Name: Batch QC Units: mg/L (ppm)
Lab Code: K1100699-001DUP Basis: NA
Test Notes:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Exponent	Service Request:	K1100661
Project:	Heglar Kronquist/0907194.000.0901	Date Collected:	NA
Sample Matrix:	Water	Date Received:	NA
		Date Extracted:	NA
		Date Analyzed:	1/25/2011

Matrix Spike Summary
Inorganic Parameters

Sample Name:	Batch QC	Units:	mg/L (ppm)
Lab Code:	K1100699-001MS	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	CAS Percent Recovery			Result Notes
							Percent Recovery	Acceptance Limits	Notes	
Sulfate, Dissolved	NONE	300.0	0.40	9.22	5.08	9.19	104	80-120		

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
LCS Matrix: Water

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 1/25/2011

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name: Lab Control Sample
Lab Code: K1100661-LCS
Test Notes:

Units: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Acceptance Limits	Result Notes
						Percent Recovery		
Sulfate, Dissolved	NONE	300.0	5.00	4.61	92		90-110	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Analyzed: 1/25/2011

Sulfate, Dissolved
EPA Method 300.0
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	True Value	Measured Value	Percent Recovery
CCV 1 Result	5.00	4.75	95
CCV 2 Result	5.00	4.74	95
CCV 3 Result	5.00	4.72	94
CCV 4 Result	5.00	4.77	95
CCV 5 Result	5.00	4.63	93
CCV 6 Result	5.00	4.79	96
CCV 7 Result	5.00	4.75	95
CCV 8 Result	5.00	4.82	96
CCV 9 Result	5.00	4.71	94
CCV 10 Result	5.00	4.78	96
CCV 11 Result	5.00	4.75	95
CCV 12 Result	5.00	4.75	95
CCV 13 Result	5.00	4.81	96

CONTINUING CALIBRATION BLANK (CCB)

	MRL	Blank Value
CCB 1 Result	0.20	ND
CCB 2 Result	0.20	ND
CCB 3 Result	0.20	ND
CCB 4 Result	0.20	ND
CCB 5 Result	0.20	ND
CCB 6 Result	0.20	ND
CCB 7 Result	0.20	ND
CCB 8 Result	0.20	ND
CCB 9 Result	0.20	ND
CCB 10 Result	0.20	ND
CCB 11 Result	0.20	ND
CCB 12 Result	0.20	ND
CCB 13 Result	0.20	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/23/11 - 1/24/11
Date Received: 1/25/11

Analysis Method: 350.1

Units: mg/L
Basis: NA

Ammonia as Nitrogen, Dissolved

Sample Name	Lab Code	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
MW-1	K1100661-001	ND U	0.050	0.020	1	NA	1/26/11 12:51	
MW-2	K1100661-002	ND U	0.050	0.020	1	NA	1/26/11 12:51	
MW-4	K1100661-003	2.31	0.050	0.020	1	NA	1/26/11 12:51	
MW-5	K1100661-004	ND U	0.050	0.020	1	NA	1/26/11 12:51	
MW-6	K1100661-005	ND U	0.050	0.020	1	NA	1/26/11 12:51	
EB-012311	K1100661-006	ND U	0.050	0.020	1	NA	1/26/11 12:51	
EB-012411	K1100661-007	ND U	0.050	0.020	1	NA	1/26/11 12:51	
Method Blank	K1100661-MB1	ND U	0.050	0.020	1	NA	1/26/11 12:51	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/11
Date Received: 1/25/11
Date Analyzed: 1/26/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW-1 **Units:** mg/L
Lab Code: K1100661-001 **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	Duplicate Sample		RPD	RPD Limit
					MW-1DUP	K1100661-001DUP4		
Ammonia as Nitrogen, Dissolved	350.1	0.050	0.020	ND U	ND U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/11
Date Received: 1/25/11
Date Analyzed: 1/26/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: MW-1
Lab Code: K1100661-001

Units: mg/L
Basis: NA

Analytical Method: 350.1

Analyte Name	Sample Result	MW-1MS			MW-1DMS			% Rec Limits	RPD	RPD Limit
		Matrix Spike K1100661-001MS2	Spike Amount	% Rec	Matrix Spike K1100661-001DMS2	Spike Amount	% Rec			
Ammonia as Nitrogen, Dissolved	ND	1.95	2.00	97	1.96	2.00	98	90 - 110	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Analyzed: 1/26/11

**Lab Control Sample Summary
General Chemistry Parameters**

Units: mg/L
Basis: NA

Lab Control Sample

K1100661-LCS1

Analyte Name	Method	Spike			% Rec	Limits
		Result	Amount	% Rec		
Ammonia as Nitrogen, Dissolved	350.1	2.87	2.81	102	90 - 110	

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901

Service Request: K1100661**Continuing Calibration Verification (CCV) Summary**
Ammonia as Nitrogen, Dissolved**Analytical Method:** 350.1**Units:** mg/L

Analysis	Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	233907	KQ1100751-09	1/26/11 12:51	2.00	1.97	98	90 - 110
CCV2	233907	KQ1100751-10	1/26/11 12:51	2.00	1.96	98	90 - 110
CCV3	233907	KQ1100751-11	1/26/11 12:51	2.00	1.96	98	90 - 110
CCV4	233907	KQ1100751-12	1/26/11 12:51	2.00	1.96	98	90 - 110
CCV5	233907	KQ1100751-13	1/26/11 12:51	2.00	1.96	98	90 - 110
CCV6	233907	KQ1100751-14	1/26/11 12:51	2.00	1.96	98	90 - 110

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901

Service Request: K1100661**Continuing Calibration Blank (CCB) Summary**
Ammonia as Nitrogen, Dissolved**Analytical Method:** 350.1**Units:** mg/L

Analysis		Date		Result	Q
Lot	Lab Code	Analyzed	MRL		
CCB1	233907	KQ1100751-03	1/26/11 12:51	0.050	ND U
CCB2	233907	KQ1100751-04	1/26/11 12:51	0.050	ND U
CCB3	233907	KQ1100751-05	1/26/11 12:51	0.050	ND U
CCB4	233907	KQ1100751-06	1/26/11 12:51	0.050	ND U
CCB5	233907	KQ1100751-07	1/26/11 12:51	0.050	ND U
CCB6	233907	KQ1100751-08	1/26/11 12:51	0.050	ND U

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/23-24/2011
Date Received: 1/25/2011

Nitrite as Nitrogen, Dissolved

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
MW-1	K1100661-001	0.050	0.005	1	1/25/2011	ND	
MW-2	K1100661-002	0.050	0.005	1	1/25/2011	0.032	
MW-4	K1100661-003	0.050	0.005	1	1/25/2011	0.021	
MW-5	K1100661-004	0.050	0.005	1	1/25/2011	0.012	
MW-6	K1100661-005	0.050	0.005	1	1/25/2011	0.011	
EB-012311	K1100661-006	0.050	0.005	1	1/25/2011	0.010	J
EB-012411	K1100661-007	0.050	0.005	1	1/25/2011	0.010	J
Method Blank	K1100661-MB	0.050	0.005	1	1/25/2011	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/2011
Date Received: 1/25/2011
Date Extracted: NA
Date Analyzed: 1/25/2011

Duplicate Summary
Inorganic Parameters

Sample Name: MW-1 Units: mg/L (ppm)
Lab Code: K1100661-001DUP Basis: NA
Test Notes:

Analyte	Prep Method	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Nitrite as Nitrogen, Dissolved	NONE	353.2	0.050	ND	0.008	NC	NC	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/2011
Date Received: 1/25/2011
Date Extracted: NA
Date Analyzed: 1/25/2011

Matrix Spike Summary
Inorganic Parameters

Sample Name: MW-1 Units: mg/L (ppm)
Lab Code: K1100661-001MS Basis: NA
Test Notes:

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	CAS	Percent Recovery	Acceptance Limits	Result Notes
							Percent Recovery			
Nitrite as Nitrogen, Dissolved	NONE	353.2	0.050	2.00	ND	2.04	102	90-110		

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
LCS Matrix: Water

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 1/25/2011

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name: Lab Control Sample
Lab Code: K1100661-LCS
Test Notes:

Units: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery	Acceptance Limits	Result Notes
						Recovery		
Nitrite as Nitrogen, Dissolved	NONE	353.2	4.00	4.03	101		90-110	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901

Service Request: K1100661
Date Collected: NA
Date Received: NA
Date Analyzed: 1/25/2011

Nitrite as Nitrogen, Dissolved
EPA Method 300.0
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	True Value	Measured Value	Percent Recovery
CCV 1 Result	2.00	1.98	99
CCV 2 Result	2.00	2.01	100
CCV 3 Result	2.00	2.01	100

CONTINUING CALIBRATION BLANK (CCB)

	MRL	Blank Value
CCB 1 Result	0.050	ND
CCB 2 Result	0.050	ND
CCB 3 Result	0.050	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/2011
Date Received: 1/25/2011

Nitrate as Nitrogen

Prep Method: Calculation
Analysis Method: 353.2/353.2
Test Notes:

Units: mg/kg
Basis: Dry

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Prepped	Date Analyzed	Result	Result Notes
MW-1	K1100661-001	0.50	0.09	10	NA	1/27/2011	17.9	
MW-2	K1100661-002	0.50	0.09	10	NA	1/27/2011	9.33	
MW-4	K1100661-003	1.0	0.2	20	NA	1/27/2011	53.8	
MW-5	K1100661-004	0.50	0.09	10	NA	1/27/2011	14.2	
MW-6	K1100661-005	0.25	0.05	5	NA	1/27/2011	7.04	
EB-012311	K1100661-006	0.050	0.009	1	NA	1/27/2011	ND	
EB-012411	K1100661-007	0.050	0.009	1	NA	1/27/2011	0.136	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/23/11 - 1/24/11
Date Received: 1/25/11

Analysis Method: 353.2

Units: mg/L
Basis: NA

Nitrate+Nitrite as Nitrogen

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
MW-1	K1100661-001	17.9		0.50	0.09	10	NA	1/27/11 10:30	
MW-2	K1100661-002	9.36		0.50	0.09	10	NA	1/27/11 10:30	
MW-4	K1100661-003	53.8		1.0	0.2	20	NA	1/31/11 13:22	
MW-5	K1100661-004	14.2		0.50	0.09	10	NA	1/31/11 13:22	
MW-6	K1100661-005	7.05		0.25	0.05	5	NA	1/27/11 10:30	
EB-012311	K1100661-006	ND	U	0.050	0.009	1	NA	1/27/11 10:30	
EB-012411	K1100661-007	0.146		0.050	0.009	1	NA	1/27/11 10:30	
Method Blank	K1100661-MB1	ND	U	0.050	0.009	1	NA	1/27/11 10:30	
Method Blank	K1100661-MB2	0.017	J	0.050	0.009	1	NA	1/31/11 13:22	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/11
Date Received: 1/25/11
Date Analyzed: 1/27/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW-1 **Units:** mg/L
Lab Code: K1100661-001 **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-1DUP		RPD	RPD Limit
					Duplicate Sample	K1100661-001DUP4		
Nitrate+Nitrite as Nitrogen	353.2	0.50	0.09	17.9	18.1	18.0	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/11
Date Received: 1/25/11
Date Analyzed: 1/27/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: MW-1
Lab Code: K1100661-001

Units: mg/L
Basis: NA

Analytical Method: 353.2

Analyte Name	MW-1MS				MW-1DMS				% Rec Limits	RPD	Limit			
	Matrix Spike		Duplicate Matrix Spike											
	K1100661-001MS2	K1100661-001DMS2	Result	Result	Spike Amount	Spike Amount	% Rec							
Nitrate+Nitrite as Nitrogen	17.9	38.4	20.0	102	38.2	20.0	101	86 - 117	<1	20				

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Analyzed: 1/27/11

**Lab Control Sample Summary
General Chemistry Parameters**

Units: mg/L
Basis: NA

**Lab Control Sample
K1100661-LCS1**

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Nitrate+Nitrite as Nitrogen	353.2	15.4	15.2	101	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Analyzed: 1/31/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Lab Control Sample
K1100661-LCS2

Analyte Name	Method	Spike		% Rec	
		Result	Amount	% Rec	Limits
Nitrate+Nitrite as Nitrogen	353.2	15.5	15.2	102	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901

Service Request: K1100661**Continuing Calibration Verification (CCV) Summary**
Nitrate+Nitrite as Nitrogen**Analytical Method:** 353.2**Units:** mg/L

Analysis	Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	234048	KQ1100789-15	1/27/11 10:30	2.00	1.98	99	90 - 110
CCV2	234048	KQ1100789-16	1/27/11 10:30	2.00	1.99	99	90 - 110
CCV3	234048	KQ1100789-17	1/27/11 10:30	2.00	1.98	99	90 - 110
CCV4	234048	KQ1100789-18	1/27/11 10:30	2.00	1.98	99	90 - 110
CCV5	234048	KQ1100789-19	1/27/11 10:30	2.00	1.98	99	90 - 110
CCV6	234048	KQ1100789-20	1/27/11 10:30	2.00	1.96	98	90 - 110
CCV7	234379	KQ1100875-03	1/31/11 13:22	2.00	1.99	100	90 - 110
CCV8	234379	KQ1100875-04	1/31/11 13:22	2.00	1.99	100	90 - 110
CCV9	234379	KQ1100875-05	1/31/11 13:22	2.00	1.97	98	90 - 110
CCV10	234379	KQ1100875-06	1/31/11 13:22	2.00	2.02	101	90 - 110
CCV11	234379	KQ1100875-07	1/31/11 13:22	2.00	1.97	98	90 - 110

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901

Service Request: K1100661**Continuing Calibration Blank (CCB) Summary**
Nitrate+Nitrite as Nitrogen**Analytical Method:** 353.2**Units:** mg/L

Analysis	Lot	Lab Code	Date Analyzed	MRL	Result	Q
CCB1	234048	KQ1100789-09	1/27/11 10:30	0.050	ND	U
CCB2	234048	KQ1100789-10	1/27/11 10:30	0.050	ND	U
CCB3	234048	KQ1100789-11	1/27/11 10:30	0.050	ND	U
CCB4	234048	KQ1100789-12	1/27/11 10:30	0.050	ND	U
CCB5	234048	KQ1100789-13	1/27/11 10:30	0.050	ND	U
CCB6	234048	KQ1100789-14	1/27/11 10:30	0.050	ND	U
CCB7	234379	KQ1100875-08	1/31/11 13:22	0.050	ND	U
CCB8	234379	KQ1100875-09	1/31/11 13:22	0.050	ND	U
CCB9	234379	KQ1100875-10	1/31/11 13:22	0.050	ND	U
CCB10	234379	KQ1100875-11	1/31/11 13:22	0.050	ND	U
CCB11	234379	KQ1100875-12	1/31/11 13:22	0.050	ND	U

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/23/11 - 1/24/11
Date Received: 1/25/11

Analysis Method: SM 2540 C

Units: mg/L
Basis: NA

Solids, Total Dissolved

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
MW-1	K1100661-001	532		10	10	1	NA	1/26/11 08:00	
MW-2	K1100661-002	457		10	10	1	NA	1/26/11 08:00	
MW-4	K1100661-003	1550		14	14	1	NA	1/26/11 08:00	
MW-5	K1100661-004	500		10	10	1	NA	1/26/11 08:00	
MW-6	K1100661-005	425		10	10	1	NA	1/26/11 08:00	
EB-012311	K1100661-006	ND U		5.0	5.0	1	NA	1/26/11 08:00	
EB-012411	K1100661-007	6.0		5.0	5.0	1	NA	1/26/11 08:00	
Method Blank	K1100661-MB1	ND U		5.0	5.0	1	NA	1/26/11 08:00	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/11
Date Received: 1/25/11
Date Analyzed: 1/26/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW-4 **Units:** mg/L
Lab Code: K1100661-003 **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	Duplicate Sample			RPD	RPD Limit
					MW-4DUP	K1100661-003DUP6	Average		
Solids, Total Dissolved	SM 2540 C	14	14	1550	1590	1570	3	10	

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Analyzed: 1/26/11

**Lab Control Sample Summary
General Chemistry Parameters**

Units: mg/L
Basis: NA

**Lab Control Sample
K1100661-LCS1**

Analyte Name	Method	Spike		% Rec	
		Result	Amount	% Rec	Limits
Solids, Total Dissolved	SM 2540 C	1050	1090	96	83 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/23/11 - 1/24/11
Date Received: 1/25/11

Analysis Method: SM 2320 B

Units: mg/L
Basis: NA

Alkalinity as CaCO₃, Total

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
MW-1	K1100661-001	196		9.0	3.0	1	NA	1/26/11 11:44	
MW-2	K1100661-002	268		9.0	3.0	1	NA	1/26/11 11:44	
MW-4	K1100661-003	206		9.0	3.0	1	NA	1/26/11 11:44	
MW-5	K1100661-004	274		9.0	3.0	1	NA	1/26/11 11:44	
MW-6	K1100661-005	218		9.0	3.0	1	NA	1/26/11 11:44	
EB-012311	K1100661-006	ND	U	2.0	1.0	1	NA	1/26/11 13:00	
EB-012411	K1100661-007	1.4	J	2.0	1.0	1	NA	1/26/11 13:00	
Method Blank	K1100661-MB1	ND	U	2.0	1.0	1	NA	1/26/11 13:00	
Method Blank	K1100661-MB2	5.5	J	9.0	3.0	1	NA	1/26/11 11:44	
Method Blank	K1100661-MB3	5.9	J	9.0	3.0	1	NA	1/26/11 11:44	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/11
Date Received: 1/25/11
Date Analyzed: 1/26/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW-2 **Units:** mg/L
Lab Code: K1100661-002 **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	Duplicate Sample			RPD	RPD Limit
					MW-2DUP	K1100661-002DUP5	Average		
Alkalinity as CaCO ₃ , Total	SM 2320 B	9.0	3.0	268	252	260	260	6	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Analyzed: 1/26/11

**Lab Control Sample Summary
General Chemistry Parameters**

Units: mg/L
Basis: NA

**Lab Control Sample
K1100661-LCS1**

Analyte Name	Method	Result	Spike	% Rec	
			Amount	% Rec	Limits
Alkalinity as CaCO ₃ , Total	SM 2320 B	79.8	80.0	100	94 - 106

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Analyzed: 1/26/11

**Lab Control Sample Summary
General Chemistry Parameters**

Units: mg/L
Basis: NA

**Lab Control Sample
K1100661-LCS2**

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity as CaCO ₃ , Total	SM 2320 B	81.9	80.0	102	94 - 106

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Analyzed: 1/26/11

**Lab Control Sample Summary
General Chemistry Parameters**

Units: mg/L
Basis: NA

**Lab Control Sample
K1100661-LCS3**

Analyte Name	Method	Result	Spike	% Rec	
			Amount	% Rec	Limits
Alkalinity as CaCO ₃ , Total	SM 2320 B	78.0	80.0	98	94 - 106

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/23/11 - 1/24/11
Date Received: 1/25/11

Analysis Method: SM 2320 B

Units: mg/L
Basis: NA

Bicarbonate as CaCO₃

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
MW-1	K1100661-001	196		9.0	3.0	1	NA	1/26/11 11:44	
MW-2	K1100661-002	268		9.0	3.0	1	NA	1/26/11 11:44	
MW-4	K1100661-003	206		9.0	3.0	1	NA	1/26/11 11:44	
MW-5	K1100661-004	274		9.0	3.0	1	NA	1/26/11 11:44	
MW-6	K1100661-005	218		9.0	3.0	1	NA	1/26/11 11:44	
EB-012311	K1100661-006	ND	U	2.0	1.0	1	NA	1/26/11 13:00	
EB-012411	K1100661-007	1.4	J	2.0	1.0	1	NA	1/26/11 13:00	
Method Blank	K1100661-MB1	ND		2.0	1.0	1	NA	1/26/11 13:00	
Method Blank	K1100661-MB2	5.5	J	9.0	3.0	1	NA	1/26/11 11:44	
Method Blank	K1100661-MB3	5.9	J	9.0	3.0	1	NA	1/26/11 11:44	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/24/11
Date Received: 1/25/11
Date Analyzed: 1/26/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW-2 **Units:** mg/L
Lab Code: K1100661-002 **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-2DUP			RPD	RPD Limit
					Duplicate Sample	K1100661-002DUP5	Average		
Bicarbonate as CaCO ₃	SM 2320 B	9.0	3.0	268	252	260	6	20	

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/23/11 - 1/24/11
Date Received: 1/25/11

Analysis Method: SM 2320 B

Units: mg/L
Basis: NA

Carbonate as CaCO₃

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
MW-1	K1100661-001	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
MW-2	K1100661-002	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
MW-4	K1100661-003	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
MW-5	K1100661-004	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
MW-6	K1100661-005	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
EB-012311	K1100661-006	ND	U	2.0	1.0	1	NA	1/26/11 13:00	
EB-012411	K1100661-007	ND	U	2.0	1.0	1	NA	1/26/11 13:00	
Method Blank	K1100661-MB1	ND		2.0	1.0	1	NA	1/26/11 13:00	
Method Blank	K1100661-MB2	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
Method Blank	K1100661-MB3	ND	U	9.0	3.0	1	NA	1/26/11 11:44	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
 Project: Heglar Kronquist/0907194.000.0901
 Sample Matrix: Water

Service Request: K1100661
 Date Collected: 1/24/11
 Date Received: 1/25/11
 Date Analyzed: 1/26/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW-2 Units: mg/L
 Lab Code: K1100661-002 Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-2DUP		RPD Limit
					Duplicate Sample Result	K1100661-002DUP5 Average	
Carbonate as CaCO ₃	SM 2320 B	9.0	3.0	ND U	ND U	NC	NC 20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Exponent
Project: Heglar Kronquist/0907194.000.0901
Sample Matrix: Water

Service Request: K1100661
Date Collected: 1/23/11 - 1/24/11
Date Received: 1/25/11

Analysis Method: SM 2320 B

Units: mg/L
Basis: NA

Hydroxide as CaCO₃

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
MW-1	K1100661-001	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
MW-2	K1100661-002	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
MW-4	K1100661-003	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
MW-5	K1100661-004	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
MW-6	K1100661-005	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
EB-012311	K1100661-006	ND	U	2.0	1.0	1	NA	1/26/11 13:00	
EB-012411	K1100661-007	ND	U	2.0	1.0	1	NA	1/26/11 13:00	
Method Blank	K1100661-MB1	ND		2.0	1.0	1	NA	1/26/11 13:00	
Method Blank	K1100661-MB2	ND	U	9.0	3.0	1	NA	1/26/11 11:44	
Method Blank	K1100661-MB3	ND	U	9.0	3.0	1	NA	1/26/11 11:44	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent
 Project: Heglar Kronquist/0907194.000.0901
 Sample Matrix: Water

Service Request: K1100661
 Date Collected: 1/24/11
 Date Received: 1/25/11
 Date Analyzed: 1/26/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW-2 Units: mg/L
 Lab Code: K1100661-002 Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-2DUP		RPD	Limit
					Duplicate Sample K1100661-002DUP5	Average		
Hydroxide as CaCO3	SM 2320 B	9.0	3.0	ND U	ND U	NC	NC	20

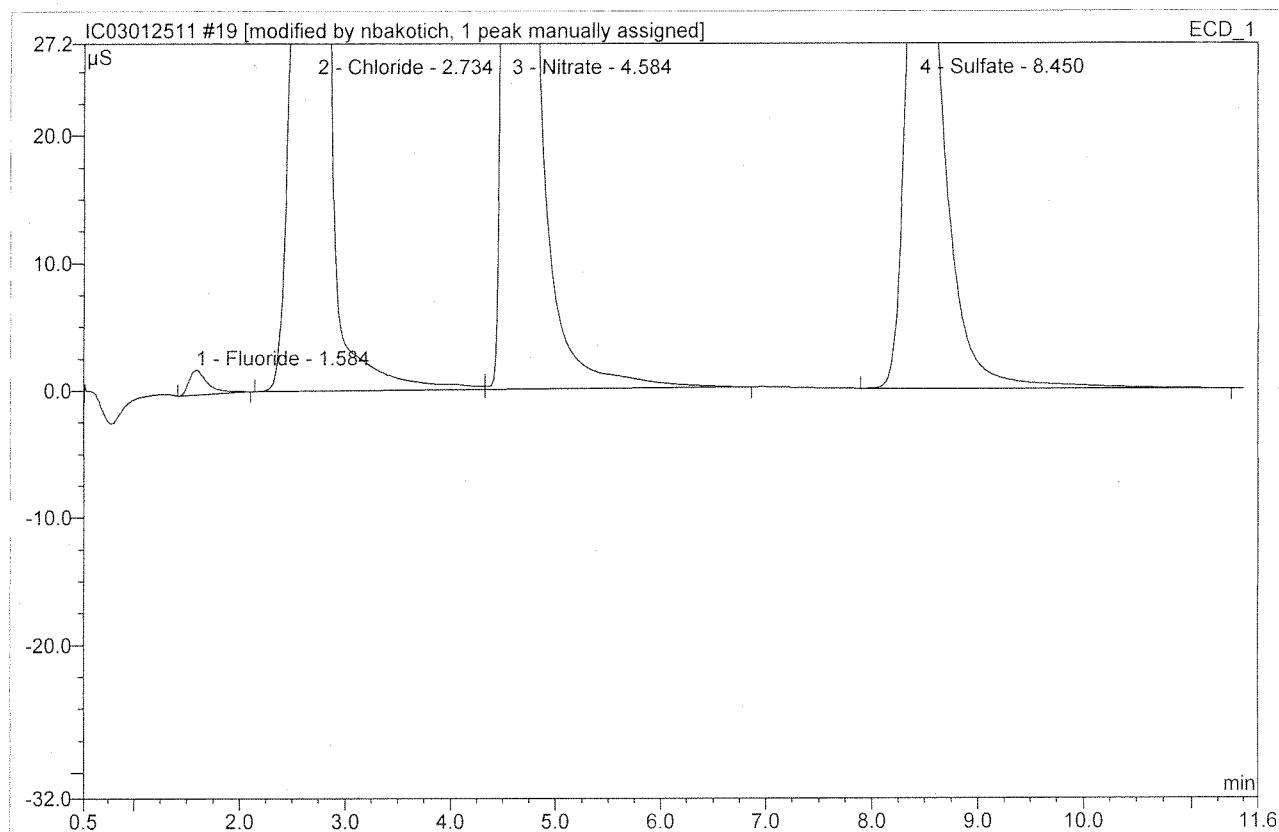
Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

19 K1100661-001

Sample Name:	K1100661-001	Injection Volume:	200.0
Vial Number:	21	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 12:01	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	1.923	0.396	0.34	0.393	BMB*
2	2.73	Chloride	266.343	59.102	51.41	80.331	BM *^
3	4.58	Nitrate	142.394	37.393	32.53	20.776	MB*
4	8.45	Sulfate	47.493	18.068	15.72	38.091	BMB
Total:			458.153	114.959	100.00	139.591	

After
Initials *M*

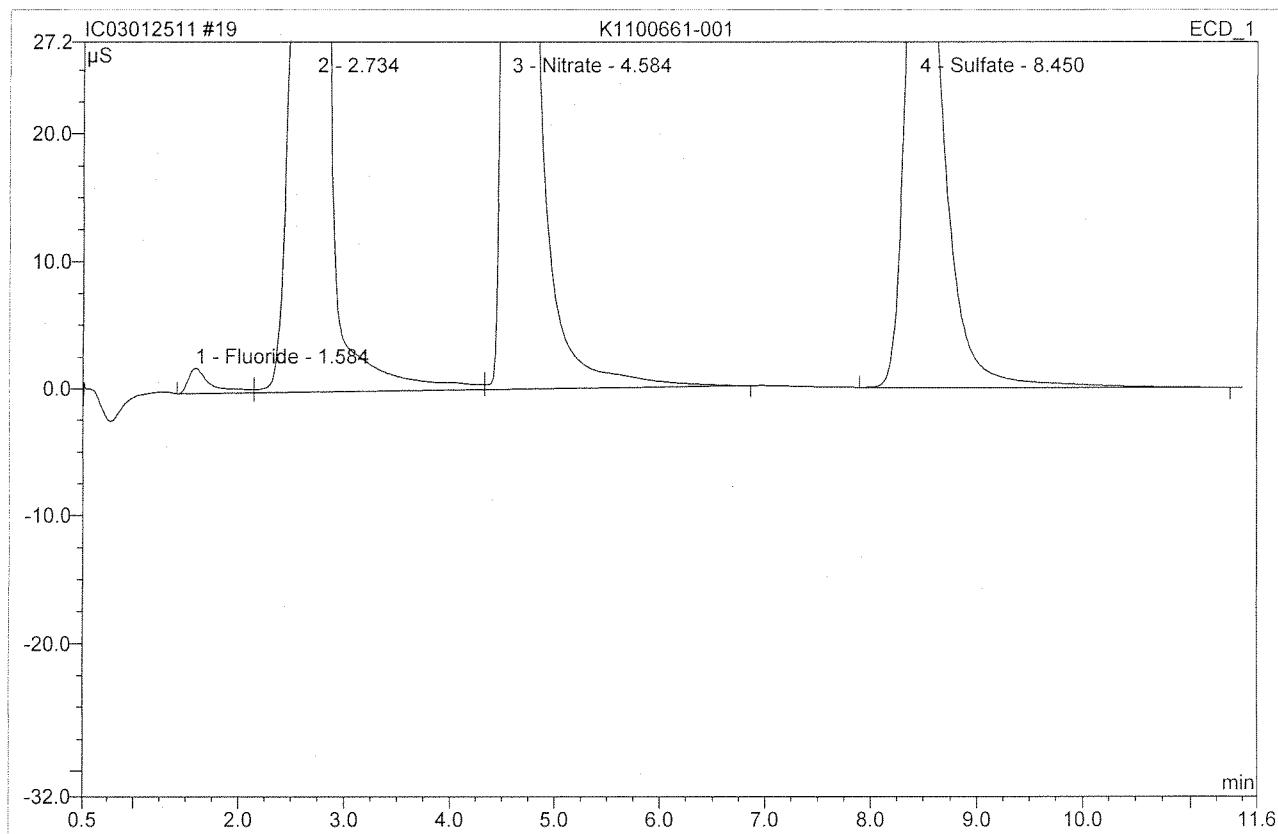
64113711

JAN 25 2011

Wrong Peak/Peak not Found
Baseline/shoulder Incorrect
Other

19 K1100661-001

Sample Name:	K1100661-001	Injection Volume:	200.0
Vial Number:	21	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 12:01	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

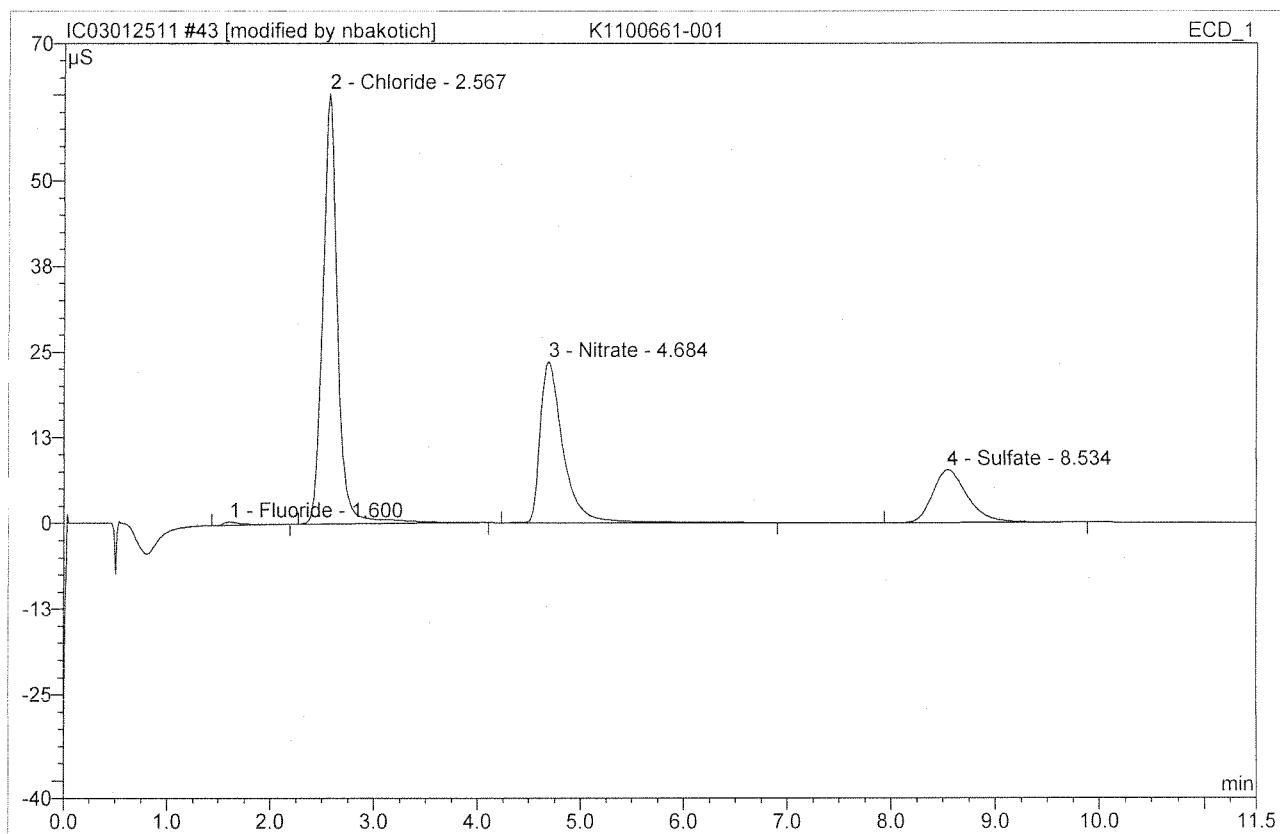


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	1.988	0.501	0.43	0.497	BM
2	2.73	n.a.	266.566	59.528	51.47	n.a.	M
3	4.58	Nitrate	142.517	37.566	32.48	20.872	MB
4	8.45	Sulfate	47.493	18.068	15.62	38.091	BMB
Total:			458.565	115.663	100.00	59.460	

*Before**JAN 25 2011*

43 K1100661-001

Sample Name:	K1100661-001	Injection Volume:	200.0
Vial Number:	45	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	1/25/2011 18:00	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	0.481	0.109	0.56	0.540	BMB*
2	2.57	Chloride	62.773	10.405	53.24	70.712	BMB*
3	4.68	Nitrate	23.496	6.050	30.96	16.807	BMB*
4	8.53	Sulfate	7.680	2.979	15.24	31.397	BMB
Total:			94.430	19.542	100.00	119.456	

After
Initials *[Signature]*

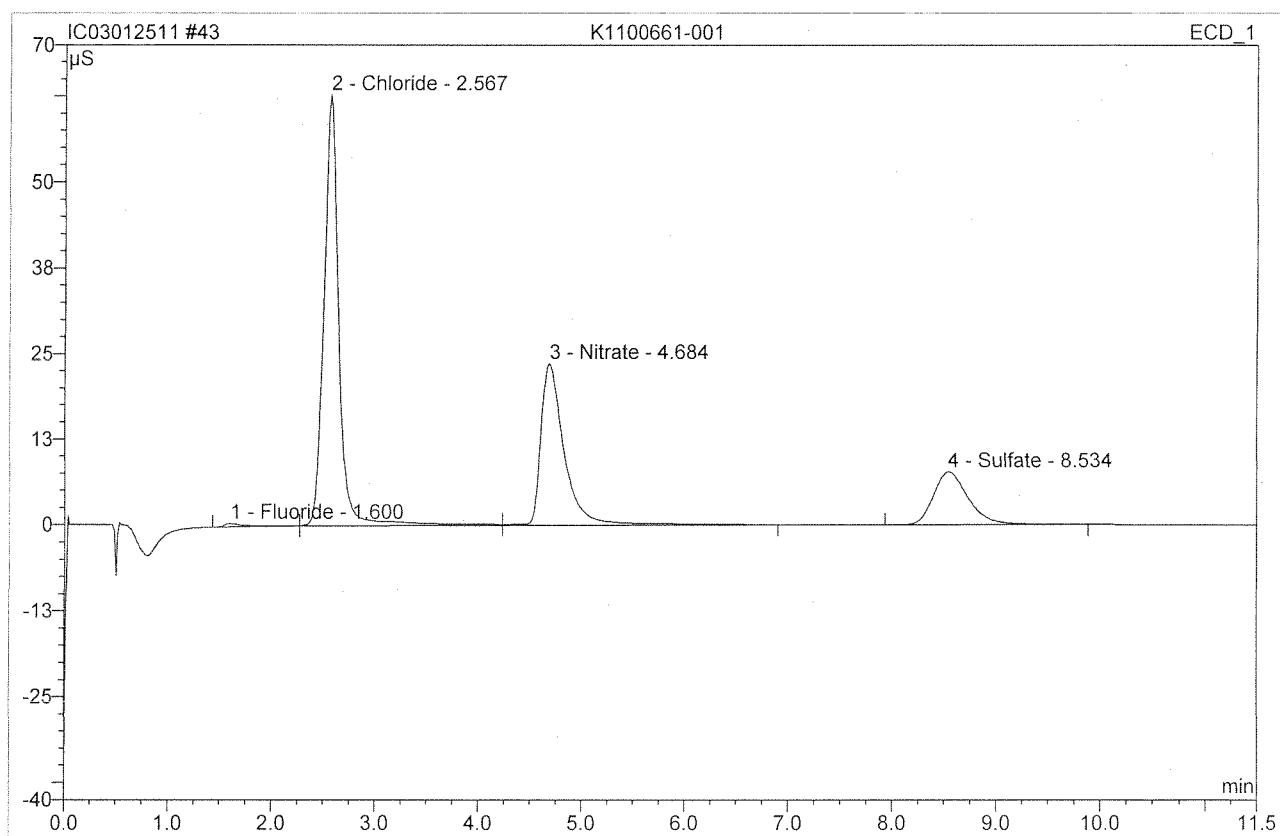
JAN 26 2011

APR 18 2011

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

43 K1100661-001

Sample Name:	K1100661-001	Injection Volume:	200.0
Vial Number:	45	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	1/25/2011 18:00	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



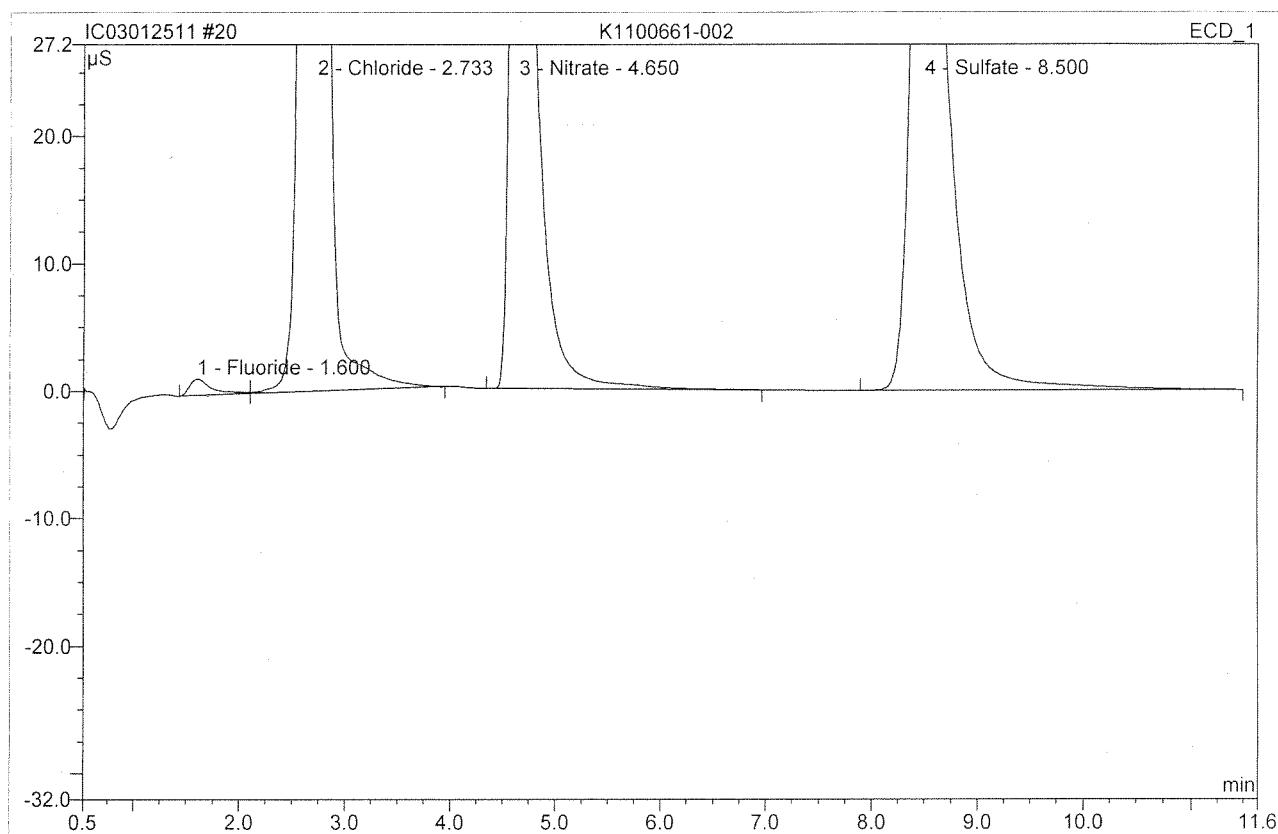
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	0.488	0.121	0.61	0.599	BMB
2	2.57	Chloride	62.797	10.559	53.14	71.760	bM
3	4.68	Nitrate	23.596	6.211	31.26	17.256	MB
4	8.53	Sulfate	7.680	2.979	14.99	31.397	BMB
Total:			94.561	19.870	100.00	121.012	

Before

JAN 26 2011

20 K1100661-002

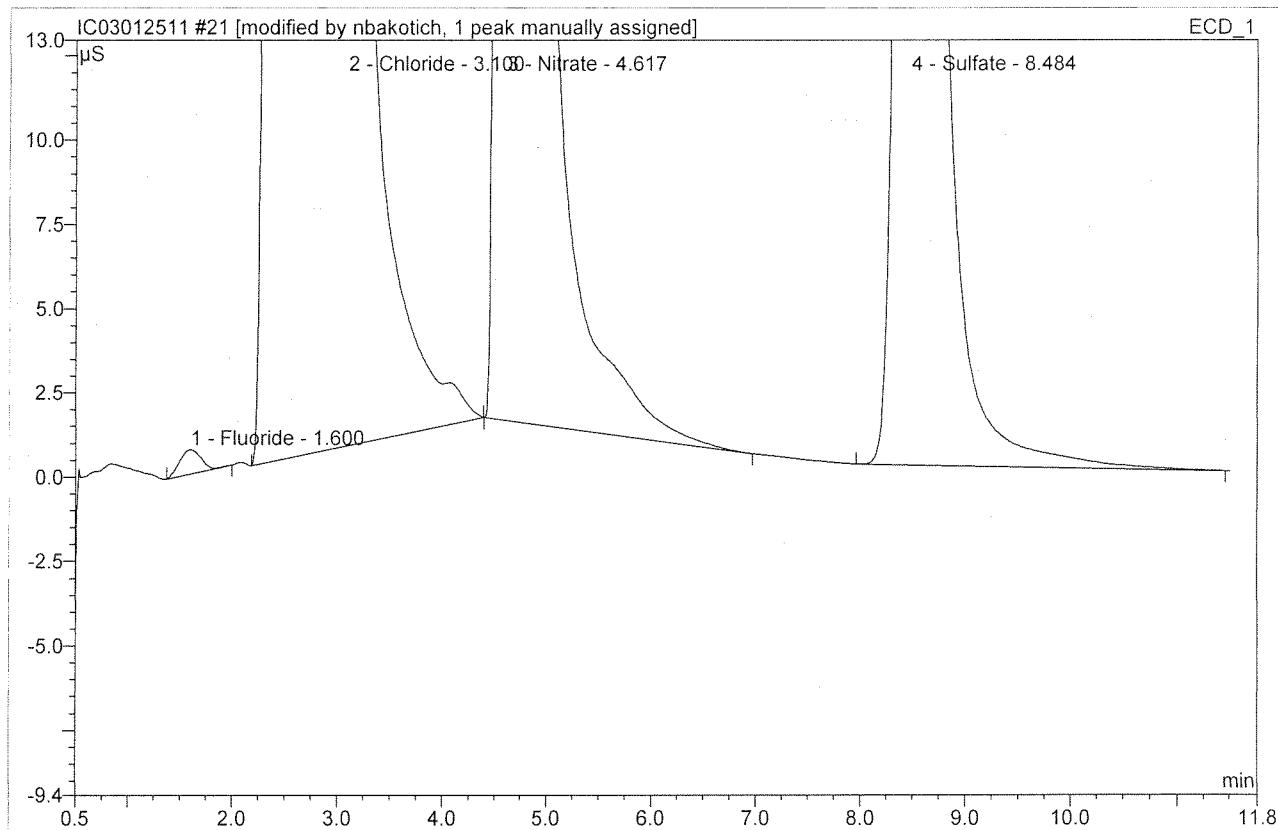
Sample Name:	K1100661-002	Injection Volume:	200.0
Vial Number:	22	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 12:15	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	1.302	0.324	0.38	0.322	BM
2	2.73	Chloride	243.122	46.737	54.20	63.525	MB
3	4.65	Nitrate	71.117	18.127	21.02	10.071	BMB
4	8.50	Sulfate	54.350	21.034	24.40	44.345	BMB
Total:			369.891	86.223	100.00	118.264	

21 K1100661-003

Sample Name:	K1100661-003	Injection Volume:	200.0
Vial Number:	23	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 12:29	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	0.718	0.171	0.03	0.170	BMB*
2	3.10	Chloride	691.861	403.199	74.48	548.027	BMB*^
3	4.62	Nitrate	454.198	112.154	20.72	62.313	bMB
4	8.48	Sulfate	66.597	25.822	4.77	54.439	BMB
Total:			1213.374	541.346	100.00	664.949	

After
initials

nb

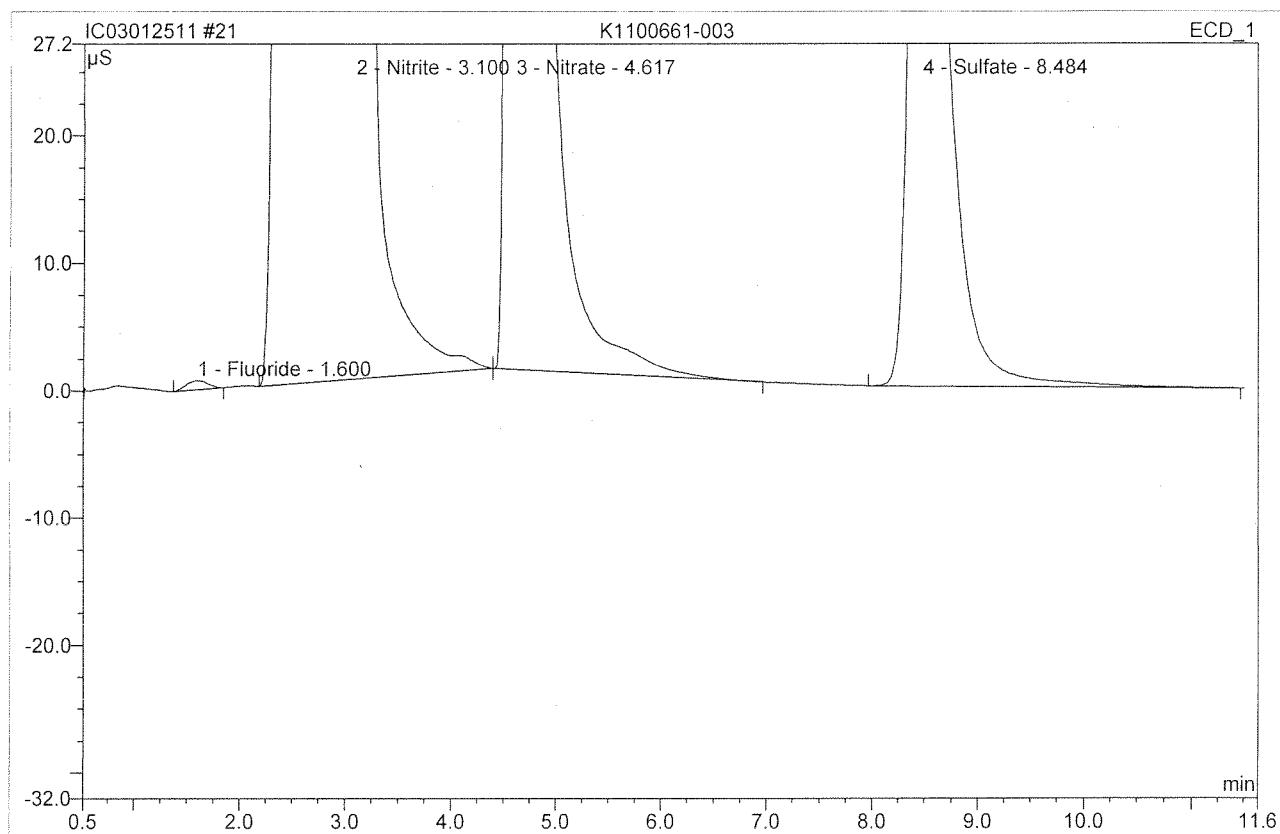
JAN 25 2011

1/25/2011

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

21 K1100661-003

Sample Name:	K1100661-003	Injection Volume:	200.0
Vial Number:	23	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 12:29	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

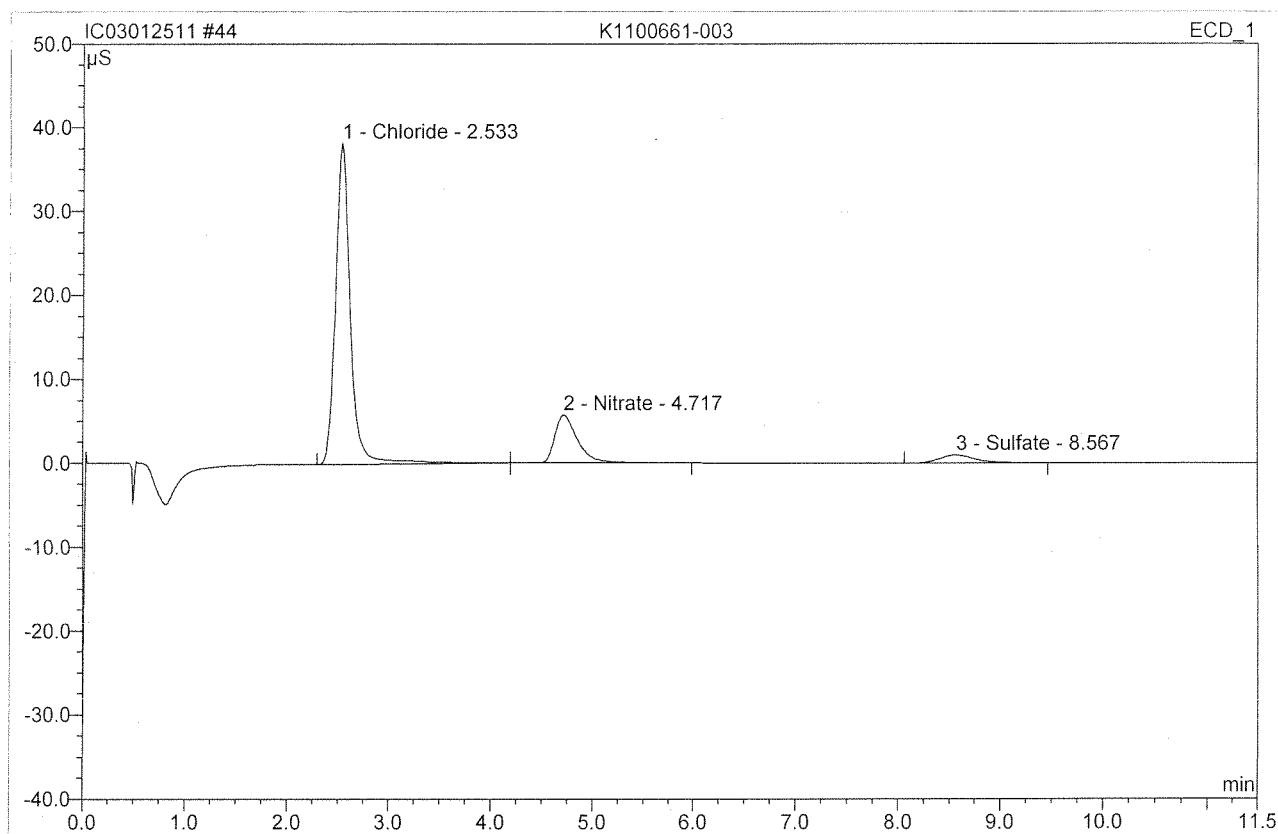


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	0.717	0.171	0.03	0.169	BMB
2	3.10	Nitrite	691.861	403.199	74.48	280.959	BMB
3	4.62	Nitrate	454.198	112.154	20.72	62.313	bMB
4	8.48	Sulfate	66.597	25.822	4.77	54.439	BMB
Total:			1213.374	541.345	100.00	397.880	

Before**JAN 25 2011**

44 K1100661-003

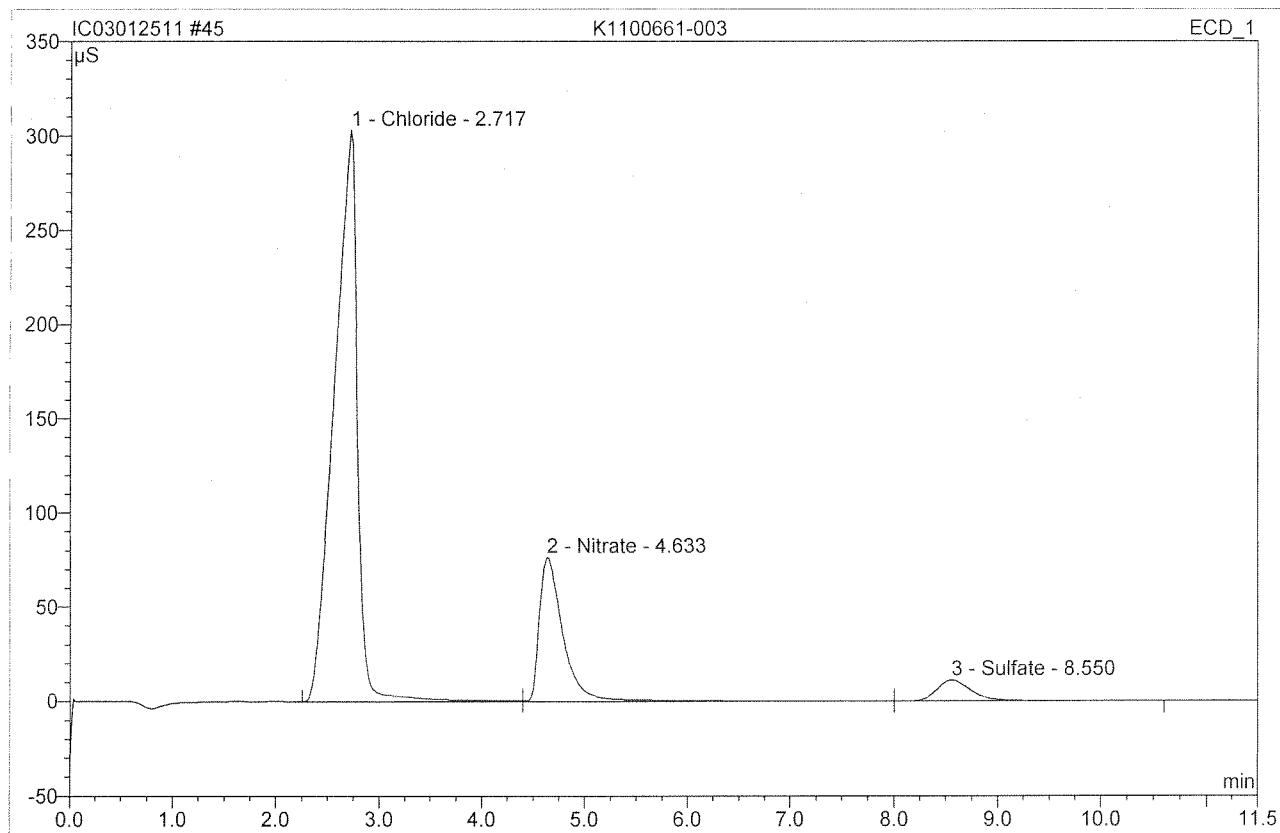
Sample Name:	K1100661-003	Injection Volume:	200.0
Vial Number:	46	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	100.0000
Recording Time:	1/25/2011 18:14	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	2.53	Chloride	38.357	6.547	77.67	444.954	BMb
2	4.72	Nitrate	5.694	1.484	17.60	41.215	bMB
3	8.57	Sulfate	0.978	0.399	4.73	42.067	BMB
Total:			45.029	8.430	100.00	528.235	

45 K1100661-003

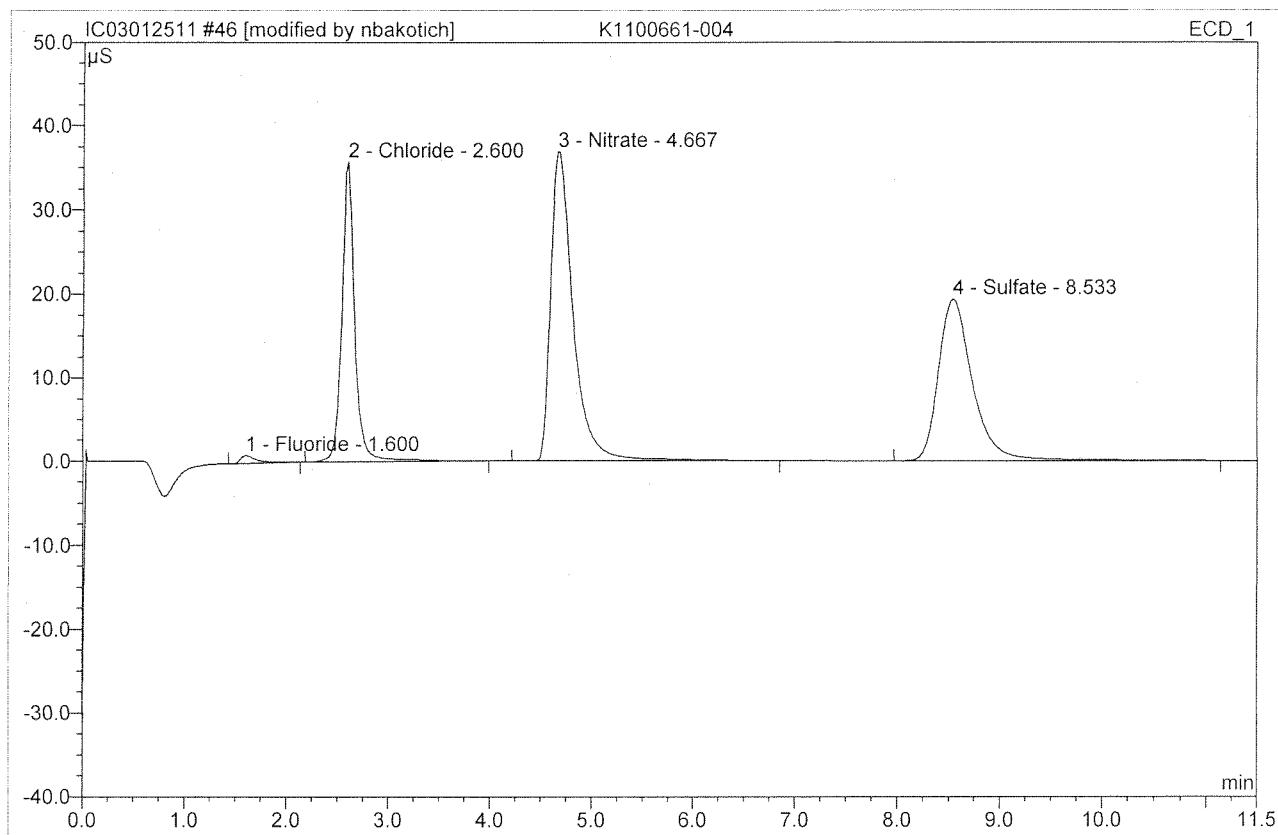
Sample Name:	K1100661-003	Injection Volume:	200.0
Vial Number:	47	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	1/25/2011 18:28	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.72	Chloride	303.135	79.417	76.17	539.715	BM
2	4.63	Nitrate	76.368	20.565	19.72	57.129	Mb
3	8.55	Sulfate	11.140	4.279	4.10	45.106	bMB
Total:			390.643	104.260	100.00	641.950	

46 K1100661-004

Sample Name:	K1100661-004	Injection Volume:	200.0
Vial Number:	48	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	5.0000
Recording Time:	1/25/2011 18:42	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	0.994	0.193	0.86	0.480	BMB*
2	2.60	Chloride	35.774	5.267	23.44	17.896	BMB*
3	4.67	Nitrate	36.937	9.520	42.37	13.224	BMB*
4	8.53	Sulfate	19.377	7.487	33.32	39.461	BMB
Total:			93.082	22.468	100.00	71.061	

After
Initials nb

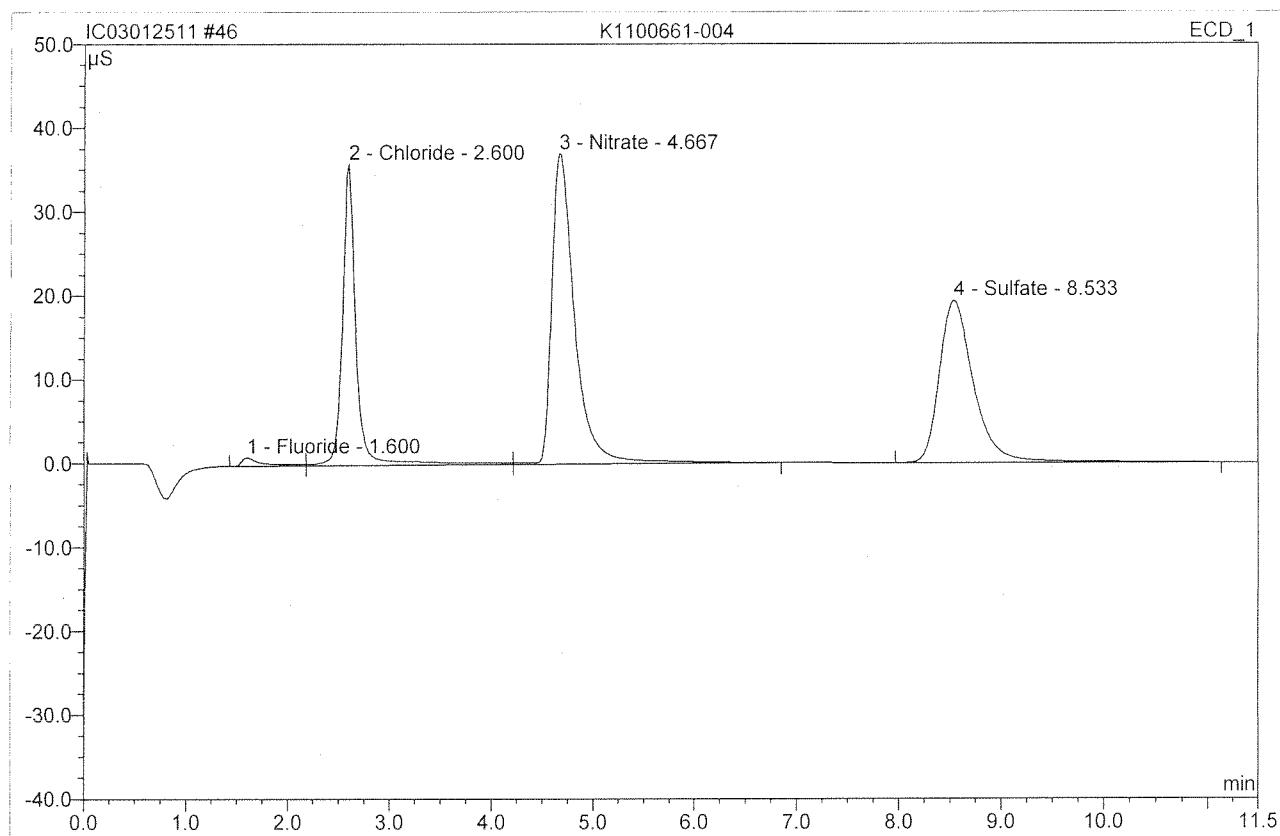
JAN 26 2011

6-18-11

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

46 K1100661-004

Sample Name:	K1100661-004	Injection Volume:	200.0
Vial Number:	48	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	5.0000
Recording Time:	1/25/2011 18:42	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

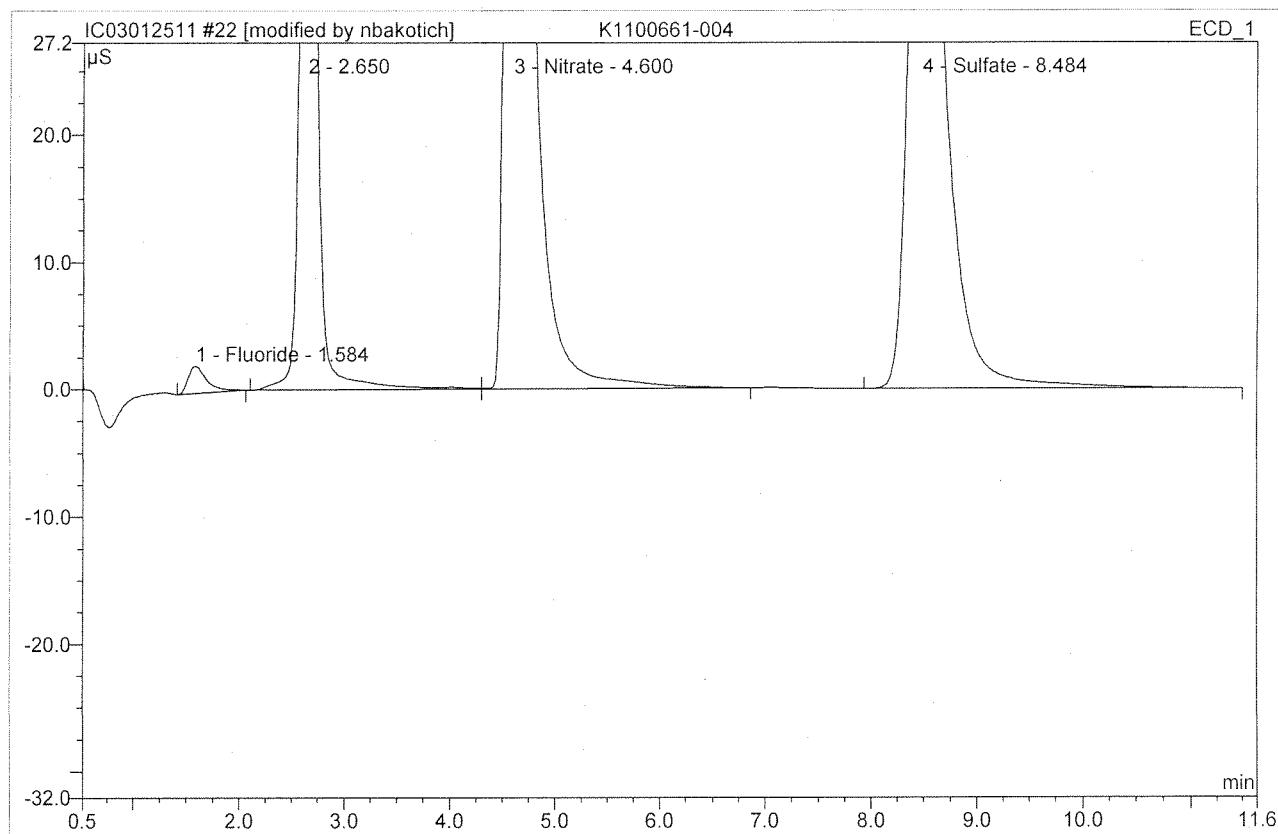


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	1.040	0.272	1.17	0.674	BM
2	2.60	Chloride	35.969	5.683	24.50	19.312	M
3	4.67	Nitrate	37.086	9.757	42.06	13.553	MB
4	8.53	Sulfate	19.377	7.487	32.27	39.461	BMB
Total:			93.473	23.199	100.00	73.000	

Before**JAN 26 2011**

22 K1100661-004

Sample Name:	K1100661-004	Injection Volume:	200.0
Vial Number:	24	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 12:43	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	2.154	0.444	0.71	0.440	BMB*
2	2.65	n.a.	105.781	14.842	23.63	n.a.	BM *
3	4.60	Nitrate	102.531	26.614	42.37	14.787	MB*
4	8.48	Sulfate	54.378	20.918	33.30	44.099	BMB
Total:			264.844	62.818	100.00	59.326	

After
Initials AB

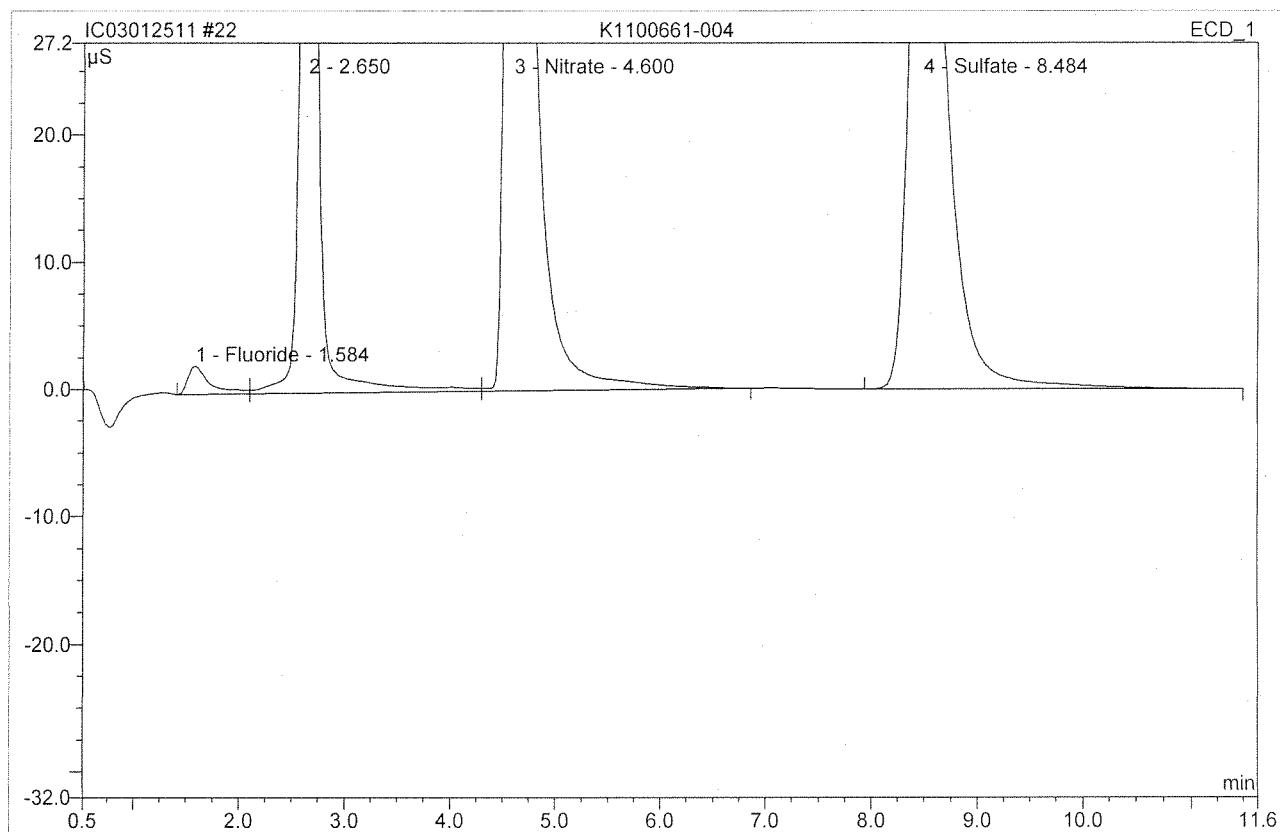
JAN 25 2011

6/21/2011

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

22 K1100661-004

Sample Name:	K1100661-004	Injection Volume:	200.0
Vial Number:	24	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 12:43	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

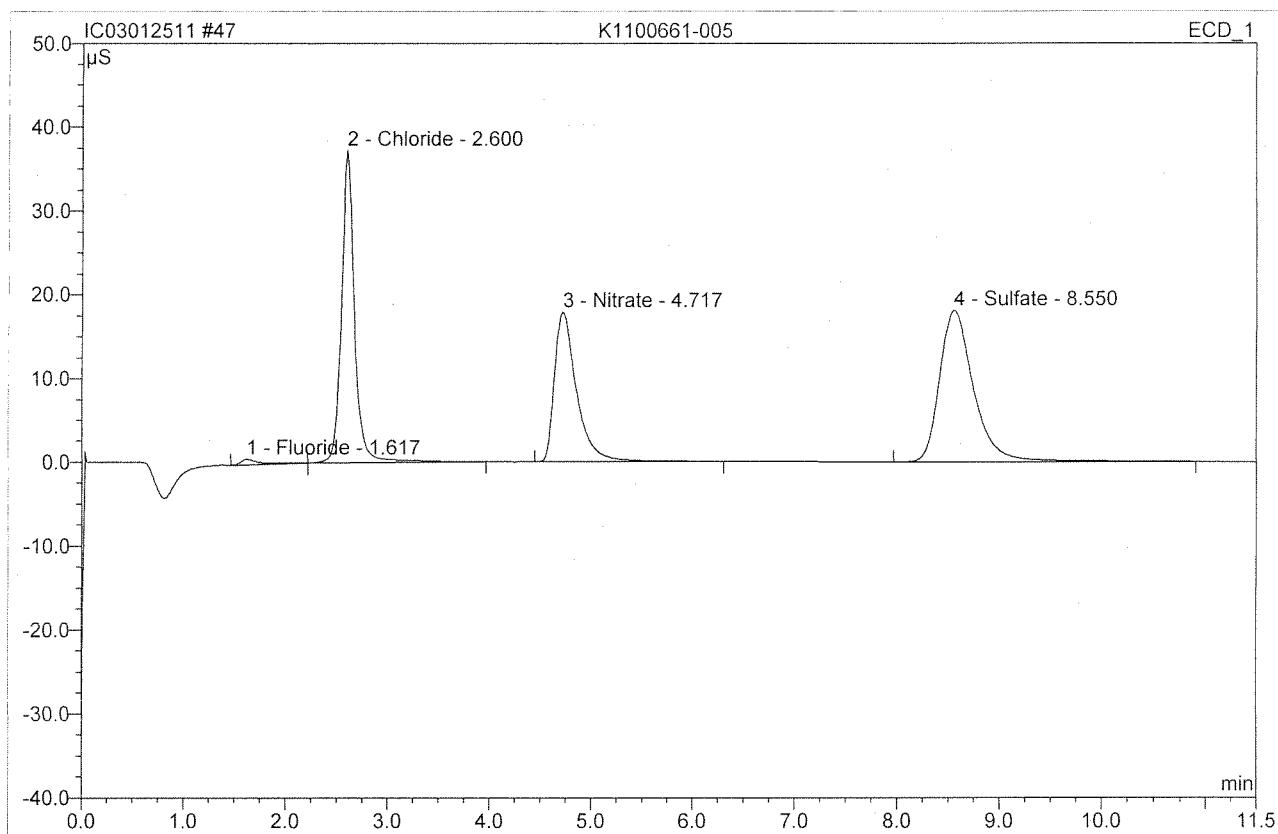


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	2.231	0.552	0.87	0.547	BM
2	2.65	n.a.	106.040	15.338	24.11	n.a.	M
3	4.60	Nitrate	102.671	26.817	42.15	14.899	MB
4	8.48	Sulfate	54.378	20.918	32.88	44.099	BMB
Total:			265.319	63.624	100.00	59.546	

*Before**JAN 25 2011*

47 K1100661-005

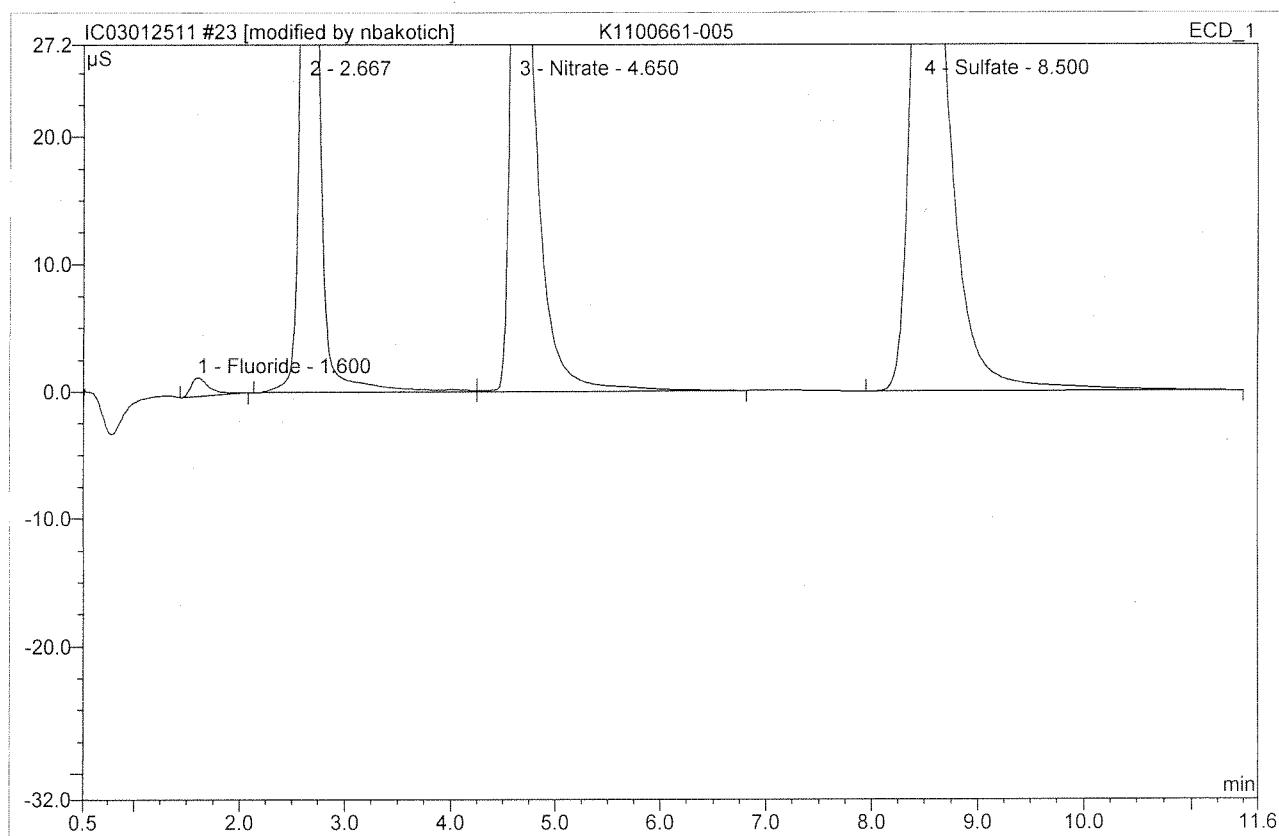
Sample Name:	K1100661-005	Injection Volume:	200.0
Vial Number:	49	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	5.0000
Recording Time:	1/25/2011 18:56	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	0.666	0.145	0.84	0.360	BMB
2	2.60	Chloride	37.311	5.583	32.34	18.970	bMB
3	4.72	Nitrate	17.867	4.571	26.48	6.349	BMB
4	8.55	Sulfate	18.077	6.963	40.34	36.701	BMB
Total:			73.920	17.262	100.00	62.380	

23 K1100661-005

Sample Name:	K1100661-005	Injection Volume:	200.0
Vial Number:	25	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 12:57	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.60	Fluoride	1.470	0.298	0.61	0.295	BMB*
2	2.67	n.a.	108.968	15.794	32.32	n.a.	BM *
3	4.65	Nitrate	51.897	13.147	26.90	7.304	MB*
4	8.50	Sulfate	51.069	19.627	40.17	41.378	BMB
Total:			213.404	48.865	100.00	48.977	

After
Initials nb

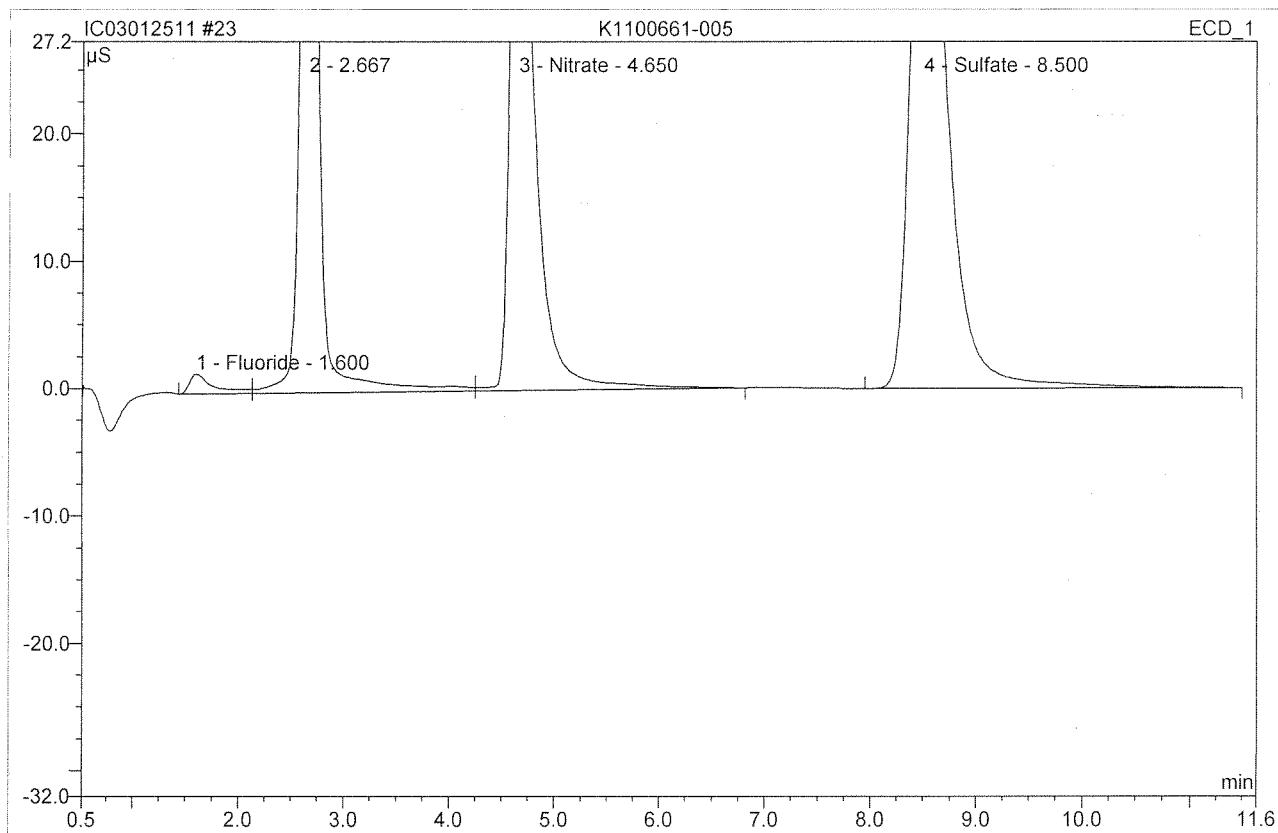
JAN 25 2011

6PM 1/25/11

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

23 K1100661-005

Sample Name:	K1100661-005	Injection Volume:	200.0
Vial Number:	25	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 12:57	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

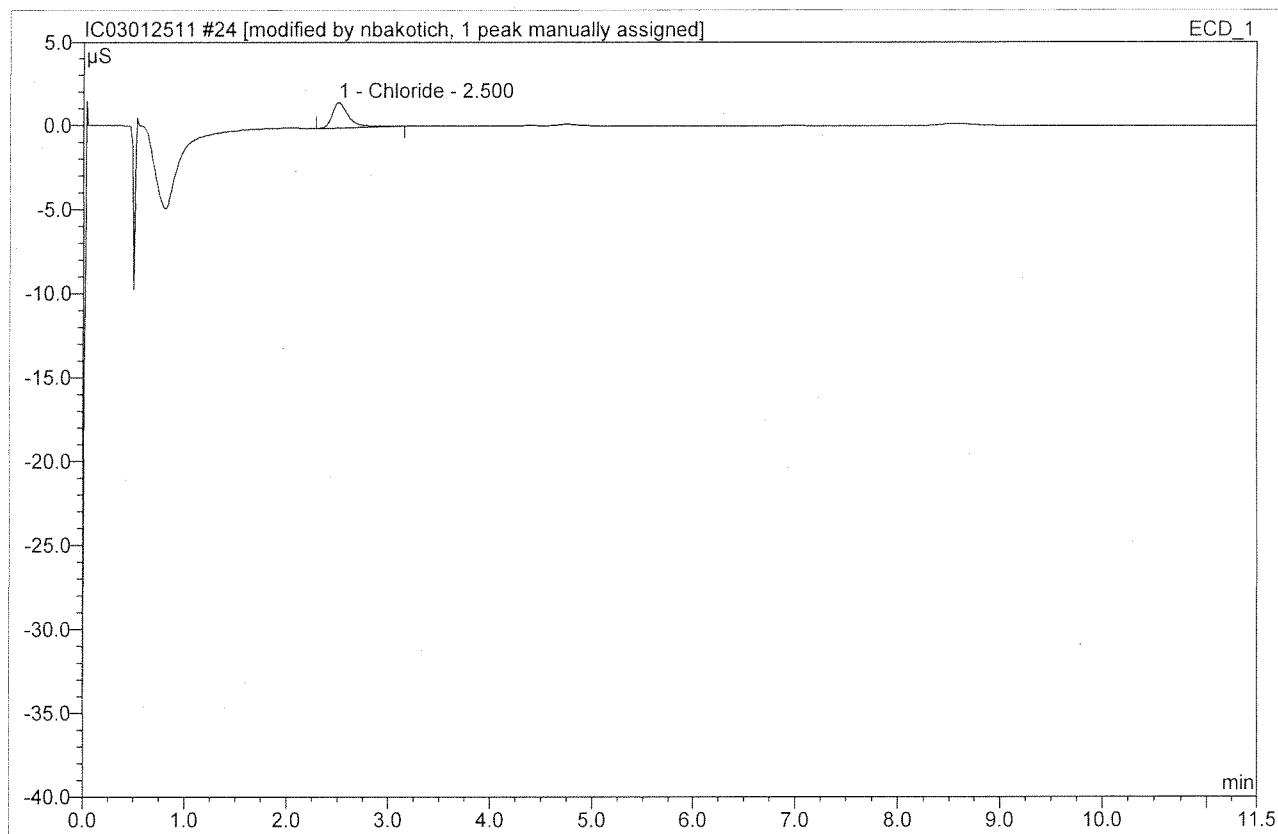


No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.60	Fluoride	1.548	0.412	0.83	0.408	BM
2	2.67	n.a.	109.229	16.277	32.77	n.a.	M
3	4.65	Nitrate	52.034	13.354	26.89	7.420	MB
4	8.50	Sulfate	51.069	19.627	39.51	41.378	BMB
Total:			213.880	49.670	100.00	49.206	

Before**JAN 25 2011**

24 K1100661-006

Sample Name:	K1100661-006	Injection Volume:	200.0
Vial Number:	26	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 13:11	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.50	Chloride	1.512	0.282	100.00	0.383	BMB*^
Total:			1.512	0.282	100.00	0.383	

F < 0.20

After
Initials nb

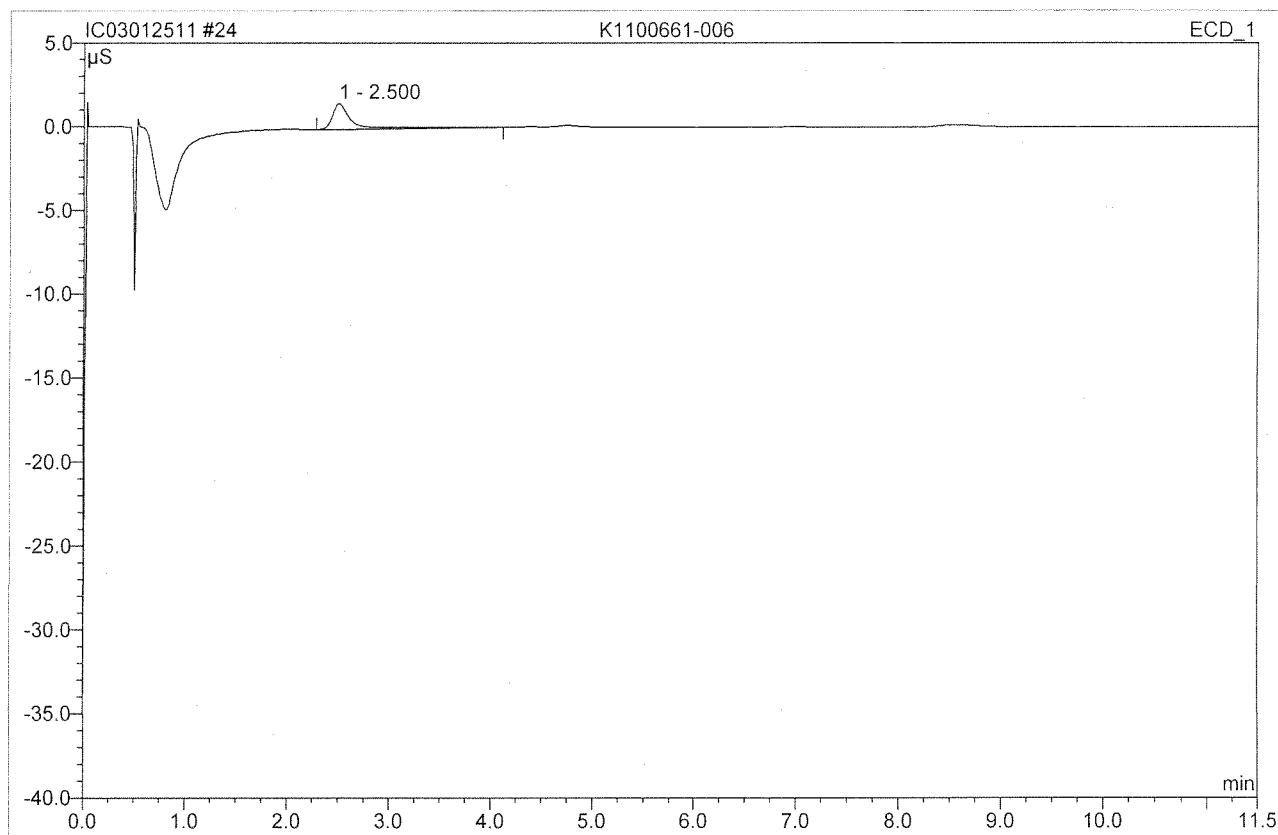
BMB 9/11

JAN 25 2011

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

24 K1100661-006

Sample Name:	K1100661-006	Injection Volume:	200.0
Vial Number:	26	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 13:11	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



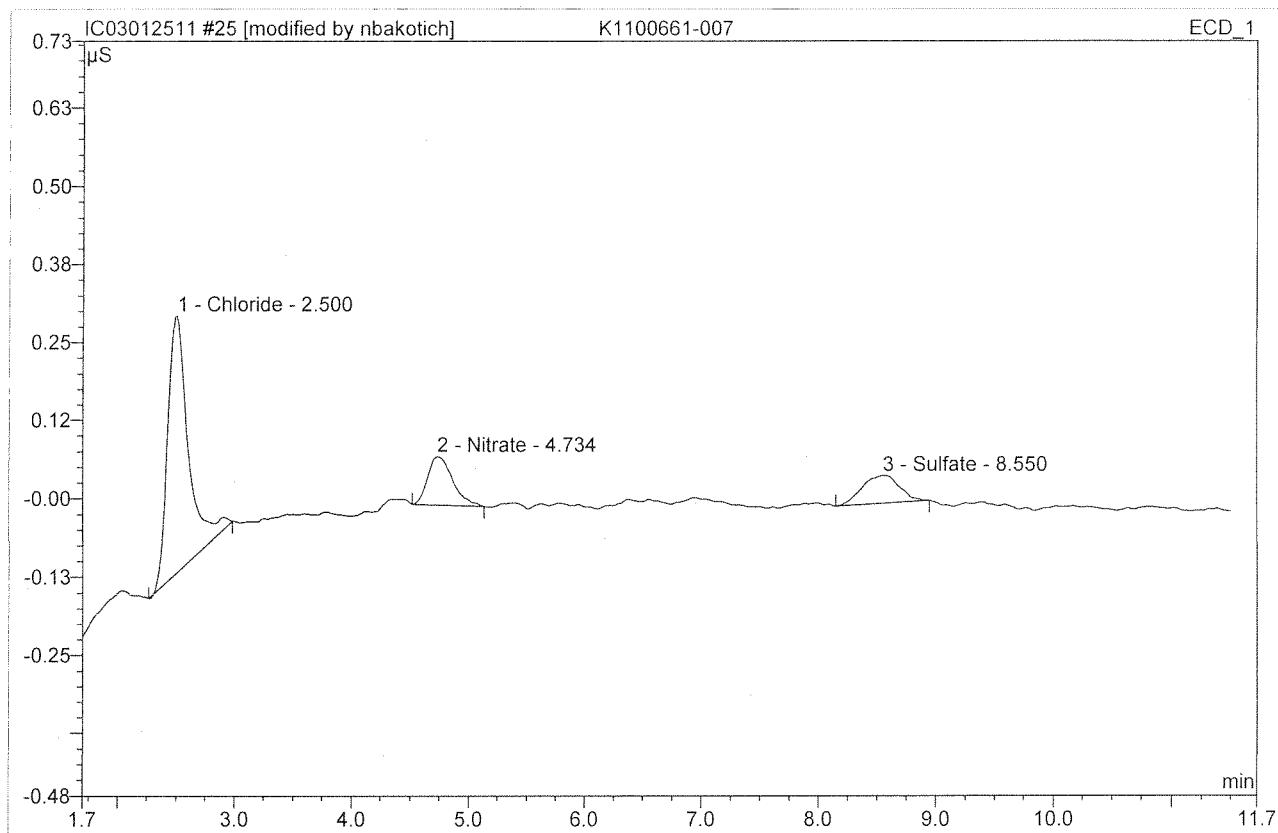
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.50	n.a.	1.531	0.347	100.00	n.a.	BMB
Total:			1.531	0.347	100.00	0.000	

F S :

Before**JAN 25 2011**

25 K1100661-007

Sample Name:	K1100661-007	Injection Volume:	200.0
Vial Number:	27	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 13:25	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.50	Chloride	0.411	0.084	70.10	0.114	BMB*
2	4.73	Nitrate	0.078	0.019	16.02	0.011	BMB*
3	8.55	Sulfate	0.045	0.017	13.87	0.035	BMB*
Total:			0.534	0.120	100.00	0.160	

F < 0.20

After
Initials

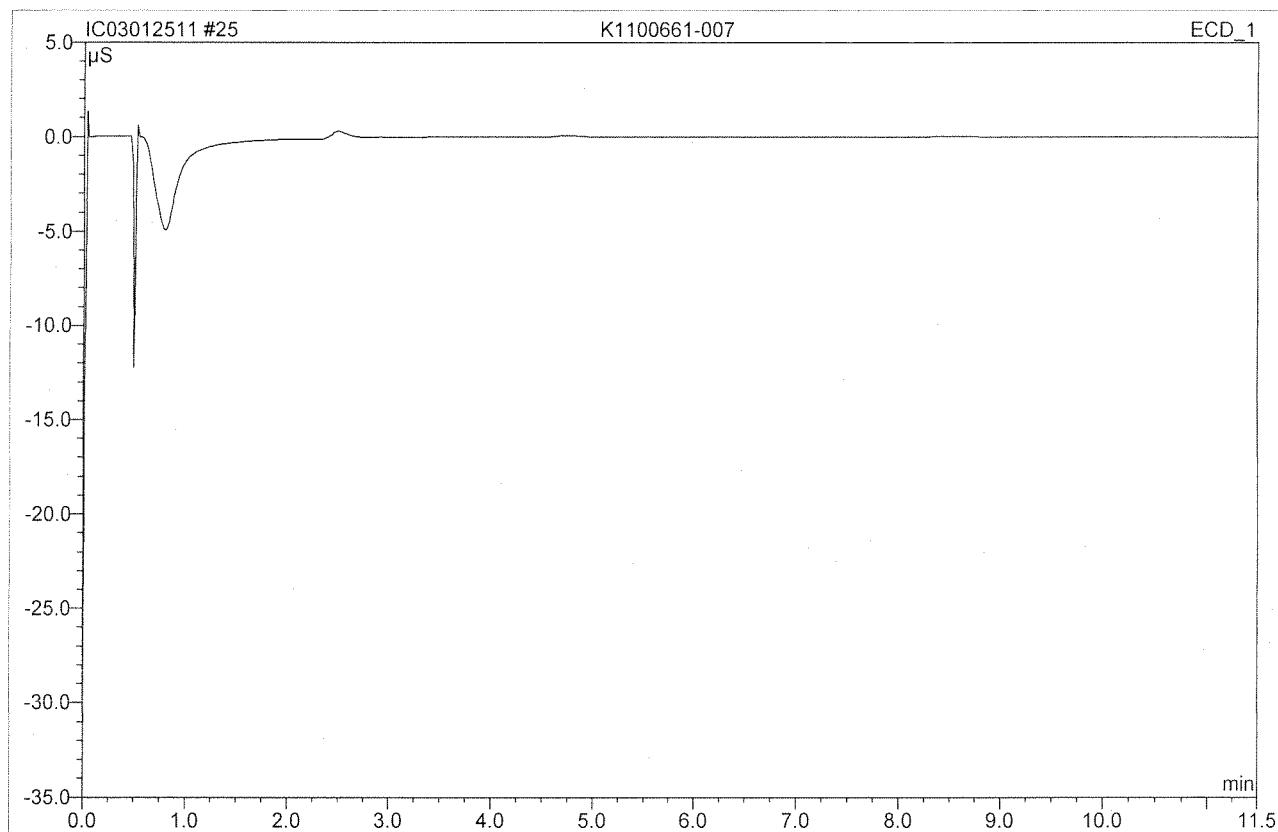
1/25/2011

B. M. B.

Trapped Peak/Peak not Found
 Shoulder/shoulder incorrect
 Other

25 K1100661-007

Sample Name:	K1100661-007	Injection Volume:	200.0
Vial Number:	27	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 13:25	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

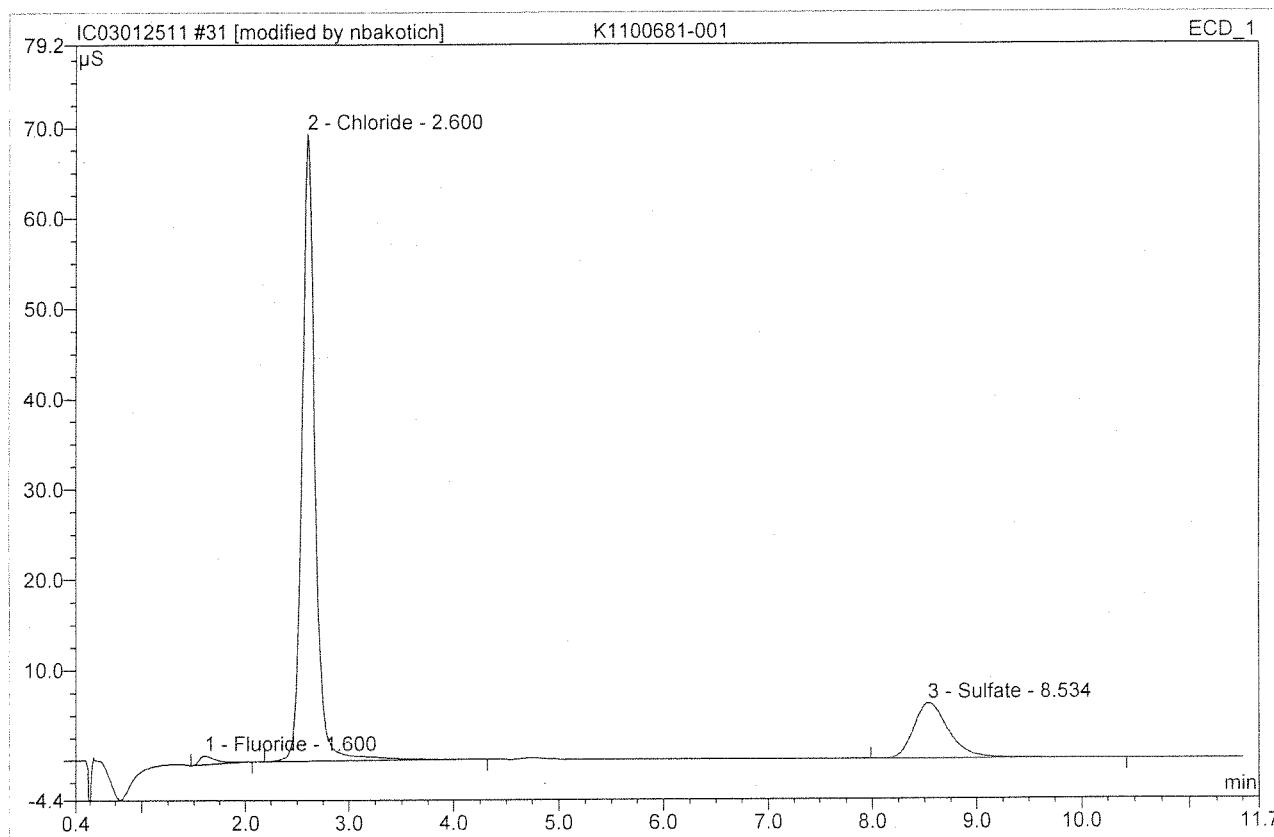


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

Before**JAN 25 2011**

31 K1100681-001

Sample Name:	K1100681-001	Injection Volume:	200.0
Vial Number:	33	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 14:49	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S} \cdot \text{min}$	Rel.Area %	Amount	Type
1	1.60	Fluoride $\times 10^{10} \text{ RPD} =$	0.985	0.189	1.48	0.188	BMB*
2	2.60	Chloride $\times 10^{10} \text{ RPD} =$	69.408	10.244	79.76	13.923	BMB*
3	8.53	Sulfate $\times 10^{10} \text{ RPD} =$	6.125	2.410	18.76	5.081	BMB
Total:			76.518	12.843	100.00	19.192	

$\text{NO}_2 < 0.10$ NO_3 \downarrow After Initials mb

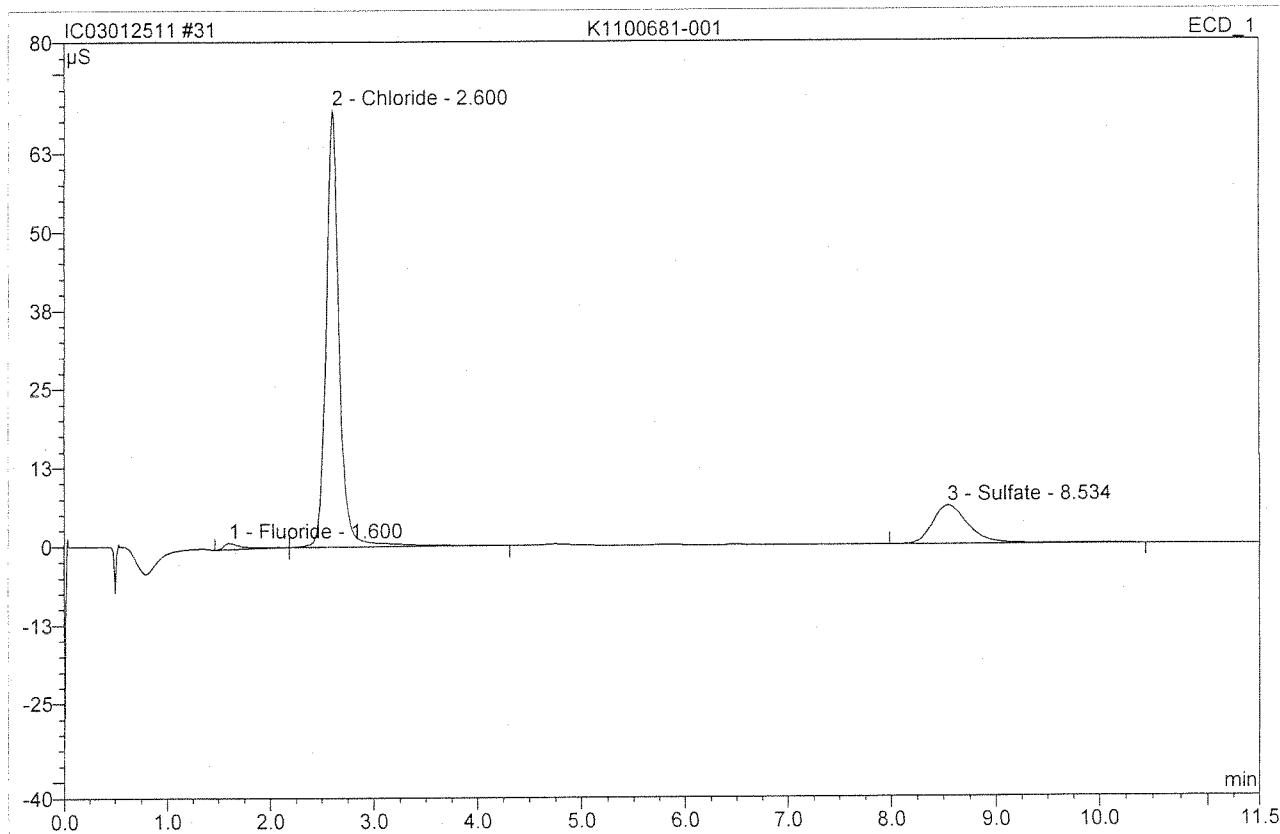
64113711

JAN 25 2011

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

31 K1100681-001

Sample Name:	K1100681-001	Injection Volume:	200.0
Vial Number:	33	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 14:49	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

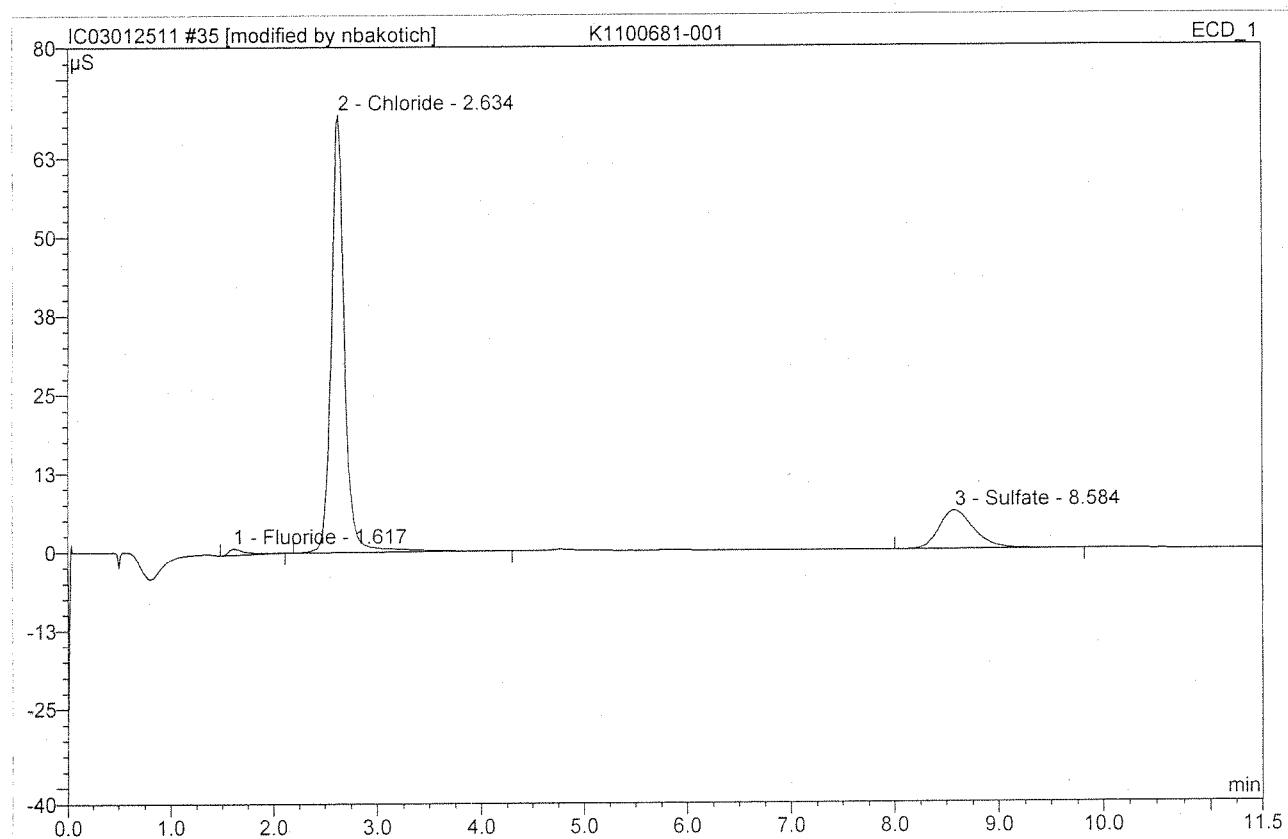


No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S} \cdot \text{min}$	Rel.Area %	Amount	Type
1	1.60	Fluoride	1.001	0.216	1.68	0.214	BMB
2	2.60	Chloride	69.408	10.244	79.60	13.923	bMB
3	8.53	Sulfate	6.125	2.410	18.73	5.081	BMB
Total:			76.534	12.870	100.00	19.218	

Before**JAN 25 2011**

35 K1100681-001**D**

Sample Name:	K1100681-001	Injection Volume:	200.0
Vial Number:	37	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 16:08	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.62	Fluoride	0.992	0.199	1.55	0.197	BMB*
2	2.63	Chloride	69.458	10.300	80.07	13.999	BMB*
3	8.58	Sulfate	6.099	2.364	18.38	4.984	BMB
Total:			76.549	12.863	100.00	19.181	

 $\text{NO}_2 < 0.10$ $\text{NO}_3 \downarrow$ After
Initials mb

JAN 25 2011

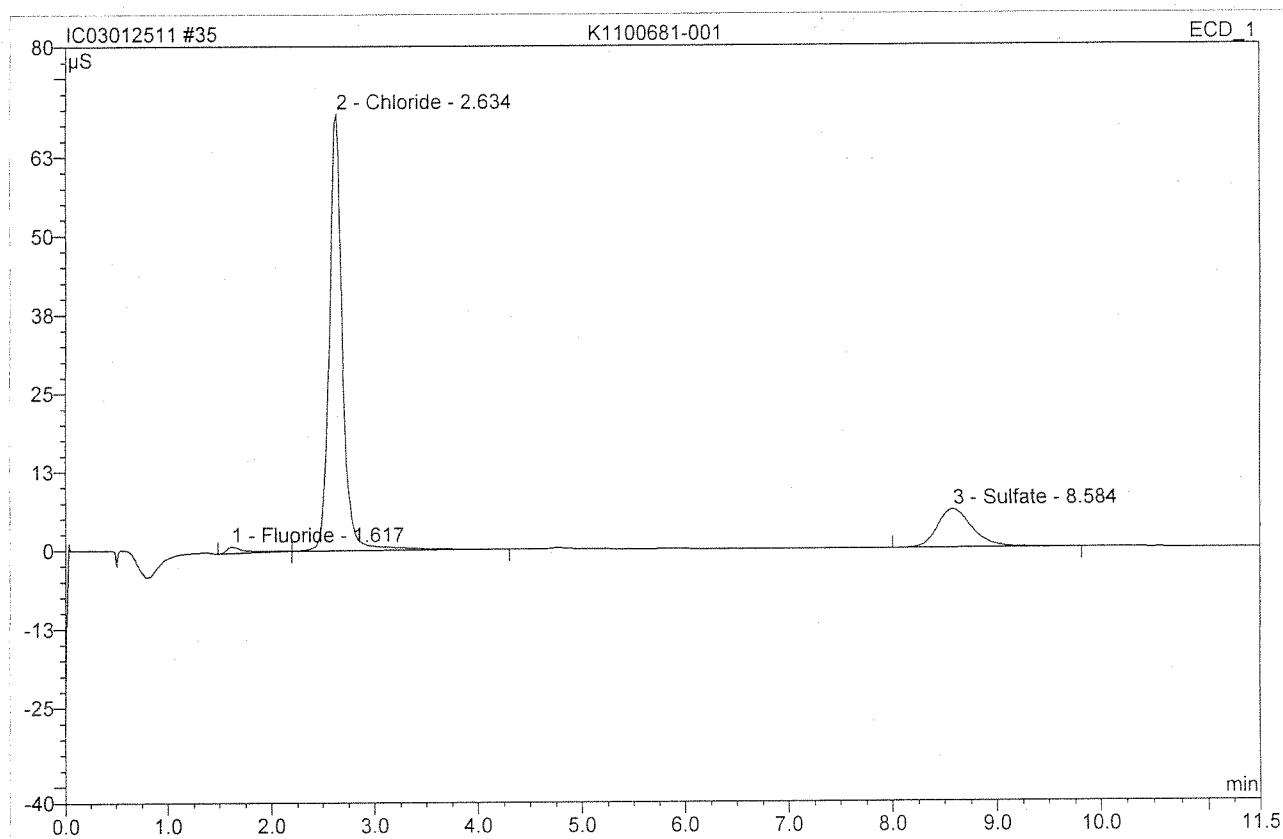
34001111

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

Chrometeon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

35 K1100681-001**D**

Sample Name:	K1100681-001	Injection Volume:	200.0
Vial Number:	37	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 16:08	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

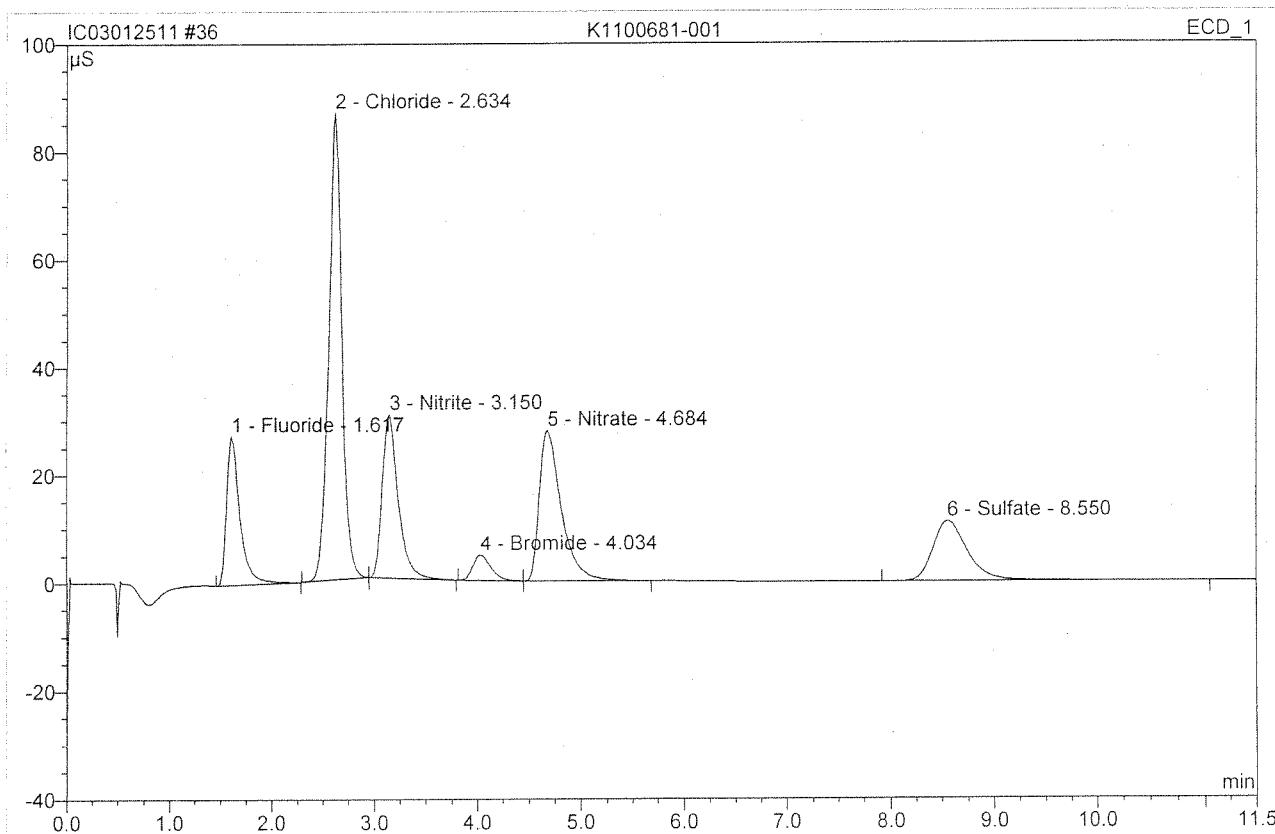


No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.62	Fluoride	1.004	0.218	1.70	0.217	BMB
2	2.63	Chloride	69.458	10.300	79.95	13.999	bMB
3	8.58	Sulfate	6.099	2.364	18.35	4.984	BMB
Total:			76.561	12.882	100.00	19.200	

Before**JAN 25 2011**

36 K1100681-001**MS**

<i>Sample Name:</i>	K1100681-001	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	38	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	2.0000
<i>Recording Time:</i>	1/25/2011 16:22	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000

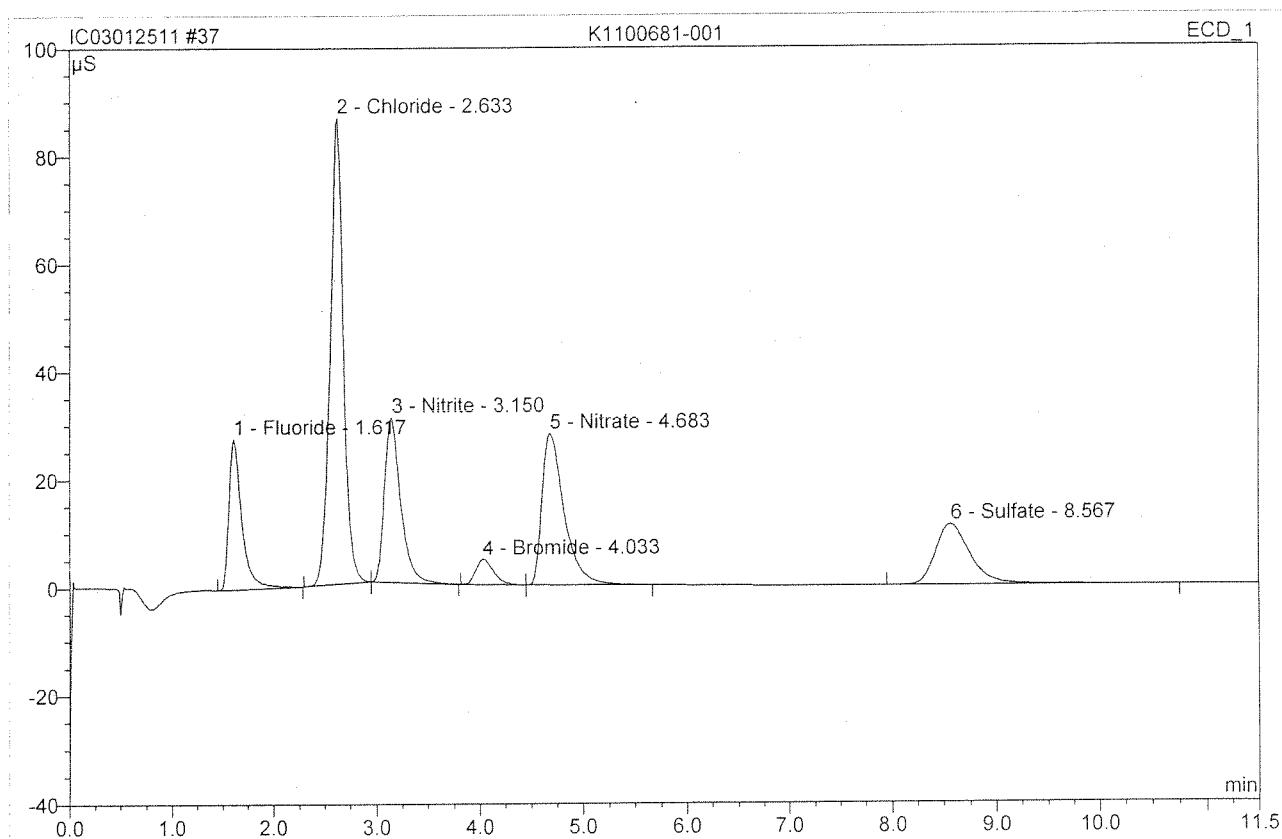


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride REC=102	27.601	4.134	11.93	4.101	BMB
2	2.63	Chloride REC=90	86.558	12.879	37.18	17.505	BMB
3	3.15	Nitrite REC=95	30.356	5.461	15.76	3.805	bMB
4	4.03	Bromide —	4.690	0.945	2.73	3.778	BMB
5	4.68	Nitrate REC=95	27.900	6.847	19.77	3.804	bMB
6	8.55	Sulfate REC=104	11.192	4.375	12.63	9.224	BMB
Total:			188.296	34.641	100.00	42.217	

spk lvl
4

37 K1100681-001**MSD**

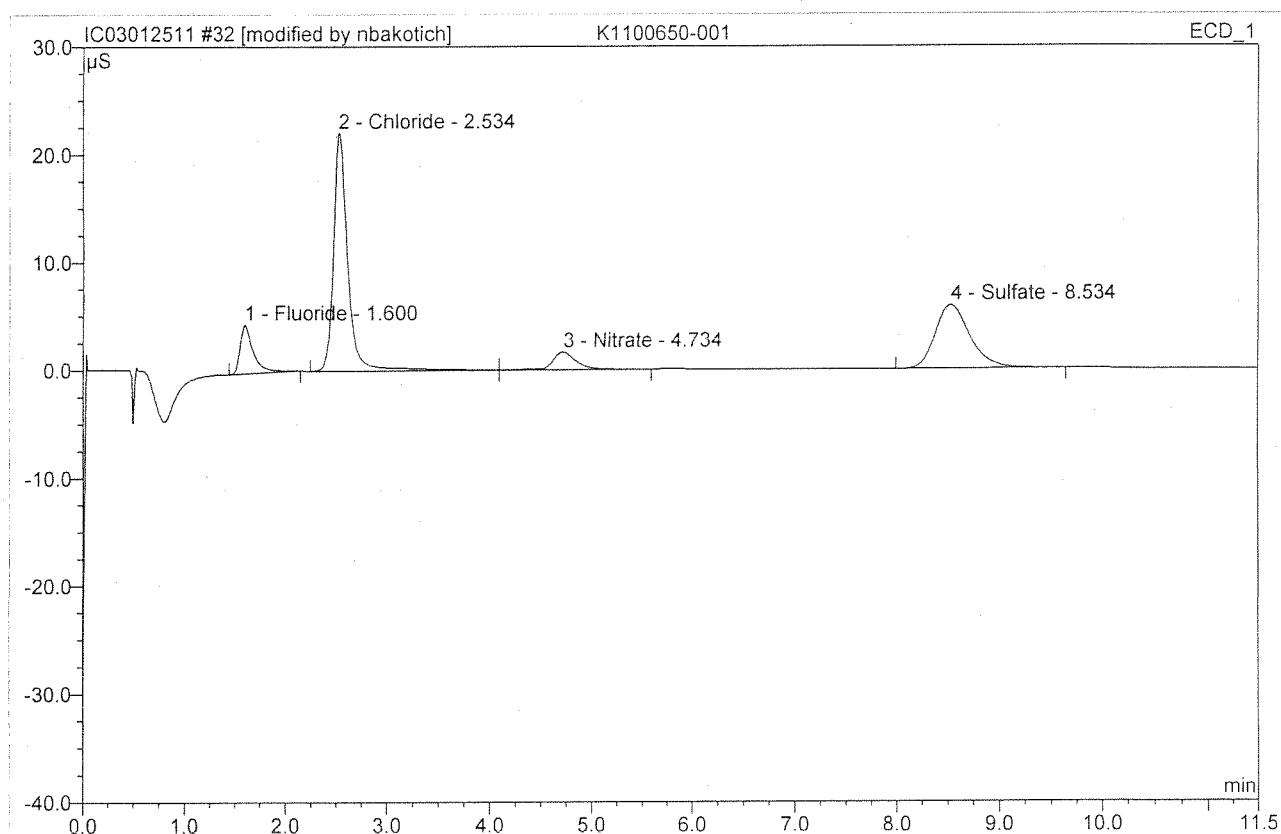
Sample Name:	K1100681-001	Injection Volume:	200.0
Vial Number:	39	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 16:36	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride REC=104	27.881	4.174	11.93	4.141	BMB
2	2.63	Chloride REC=95	86.396	13.045	37.27	17.731	BMB
3	3.15	Nitrite REC=96	30.564	5.525	15.79	3.850	bMB
4	4.03	Bromide	4.718	0.954	2.72	3.814	BMB
5	4.68	Nitrate REC=97	28.098	6.946	19.84	3.859	bMB
6	8.57	Sulfate REC=103	11.233	4.358	12.45	9.189	BMB
Total:			188.891	35.003	100.00	42.583	

32 K1100650-001

Sample Name:	K1100650-001	Injection Volume:	200.0
Vial Number:	34	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 15:03	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S} \cdot \text{min}$	Rel.Area %	Amount	Type
1	1.60	Fluoride $x \approx 0.72 RPD \approx 1$	4.530	0.716	10.05	0.711	BMB*
2	2.53	Chloride $x \approx 4.93 RPD \approx 1$	22.042	3.652	51.25	4.964	BM *
3	4.73	Nitrate $x \approx 0.24 RPD \approx 13$	1.629	0.453	6.36	0.252	MB*
4	8.53	Sulfate $x \approx 4.72 RPD \approx 2$	5.895	2.304	32.34	4.858	BMB
Total:			34.096	7.127	100.00	10.785	

After
Initials b 5×10^{-11}

IAN 25 2011

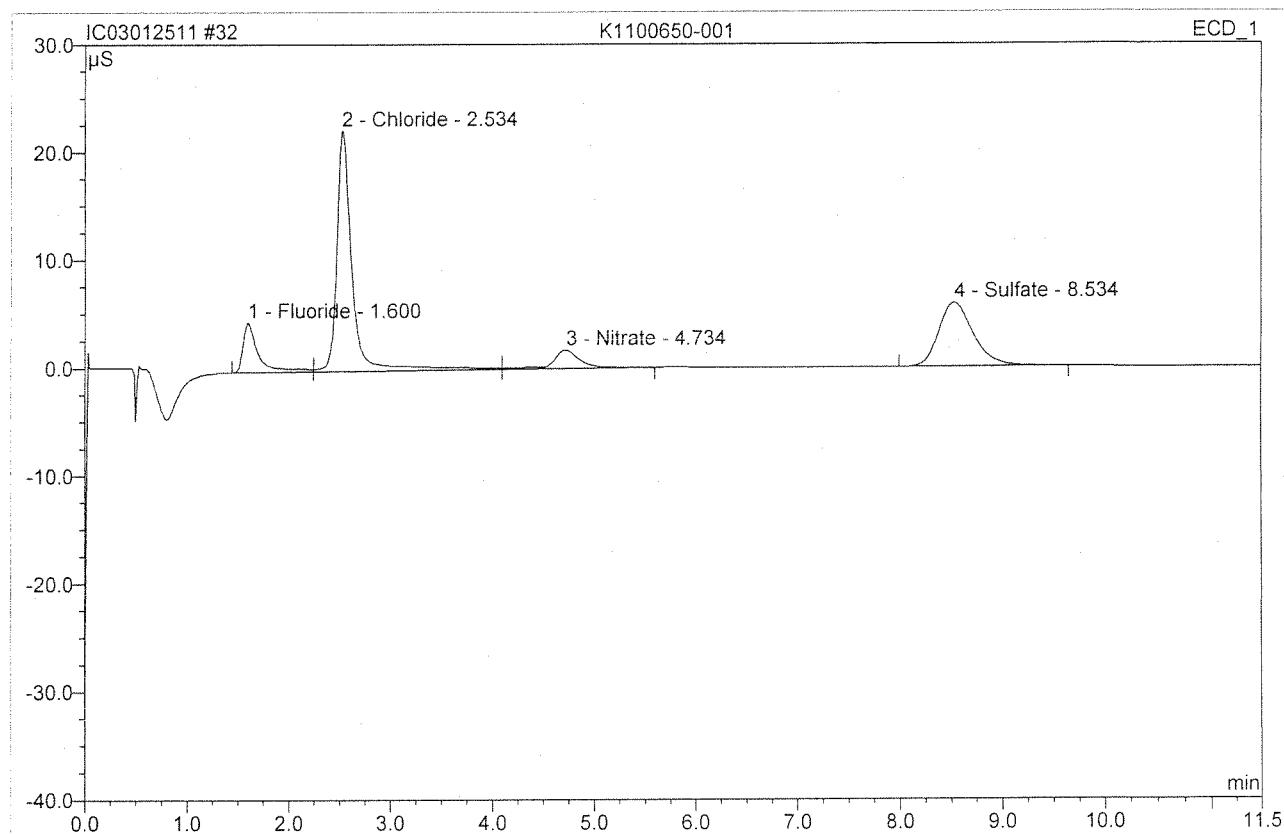
PF=Peak/Peak not Found
PS=Baseline/shoulder Incorrect
DU=Data Used

default/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

32 K1100650-001

<i>Sample Name:</i>	K1100650-001	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	34	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	2.0000
<i>Recording Time:</i>	1/25/2011 15:03	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000

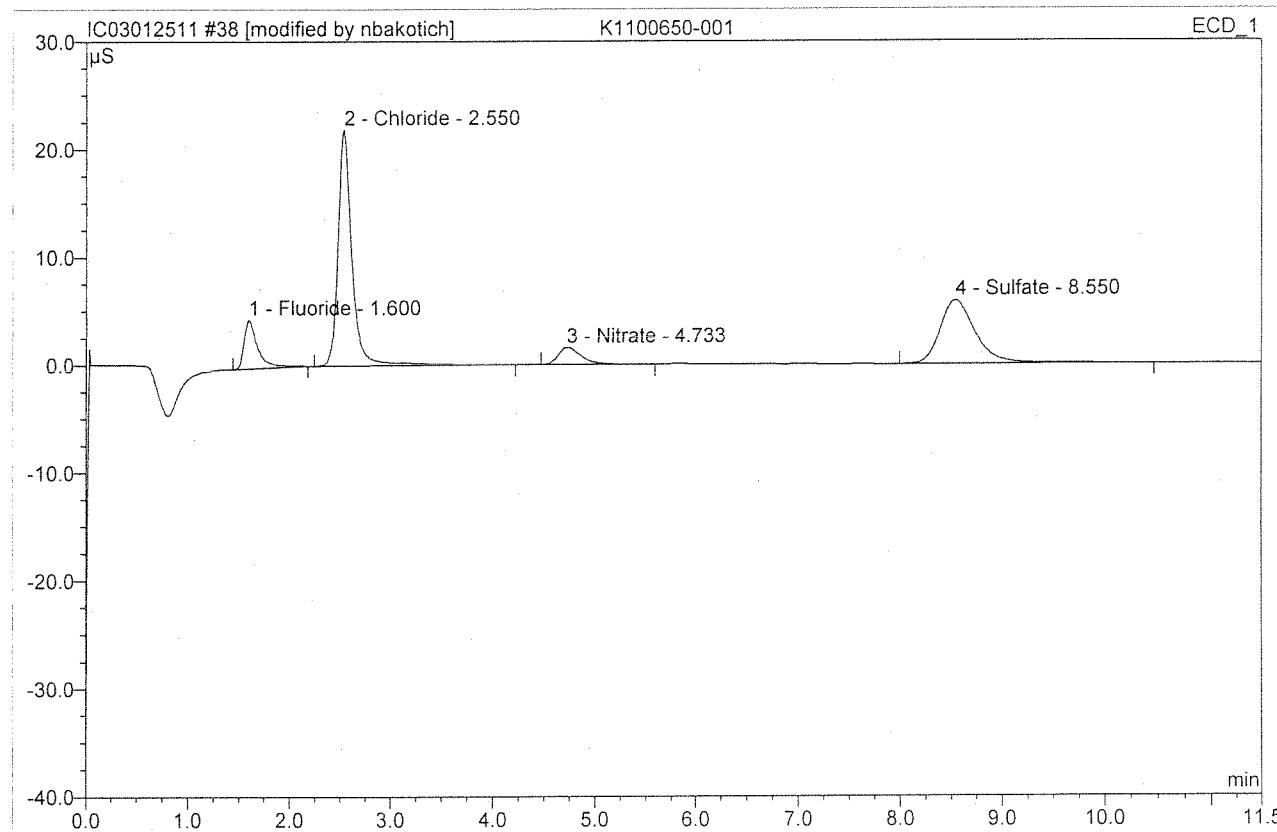


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	4.588	0.837	10.94	0.830	BM
2	2.53	Chloride	22.264	3.977	51.97	5.406	M
3	4.73	Nitrate	1.692	0.535	6.99	0.297	MB
4	8.53	Sulfate	5.895	2.304	30.11	4.858	BMB
Total:			34.439	7.654	100.00	11.392	

*Before**JAN 25 2011*

38 K1100650-001**D**

Sample Name:	K1100650-001	Injection Volume:	200.0
Vial Number:	40	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 16:50	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.60	Fluoride	4.536	0.725	10.22	0.719	BMB*
2	2.55	Chloride	21.899	3.604	50.81	4.899	BMB*
3	4.73	Nitrate	1.577	0.403	5.68	0.224	BMB
4	8.55	Sulfate	5.883	2.361	33.29	4.979	BMB
Total:			33.896	7.093	100.00	10.820	

After
Initials AB

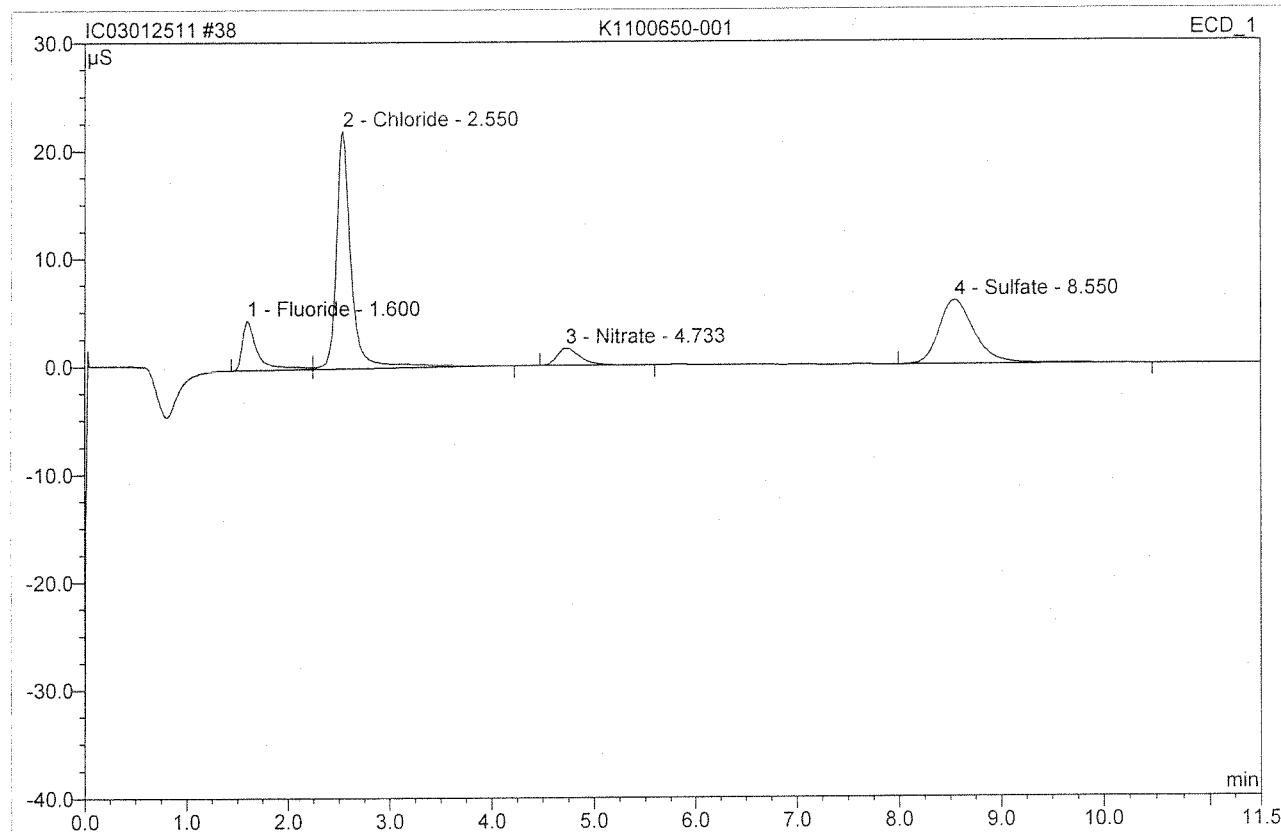
1/25/2011

IAN 25 2011

Wrong Peak/Peak not Found
 Baseline/shoulder Incorrect
 Other

38 K1100650-001**D**

Sample Name:	K1100650-001	Injection Volume:	200.0
Vial Number:	40	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 16:50	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

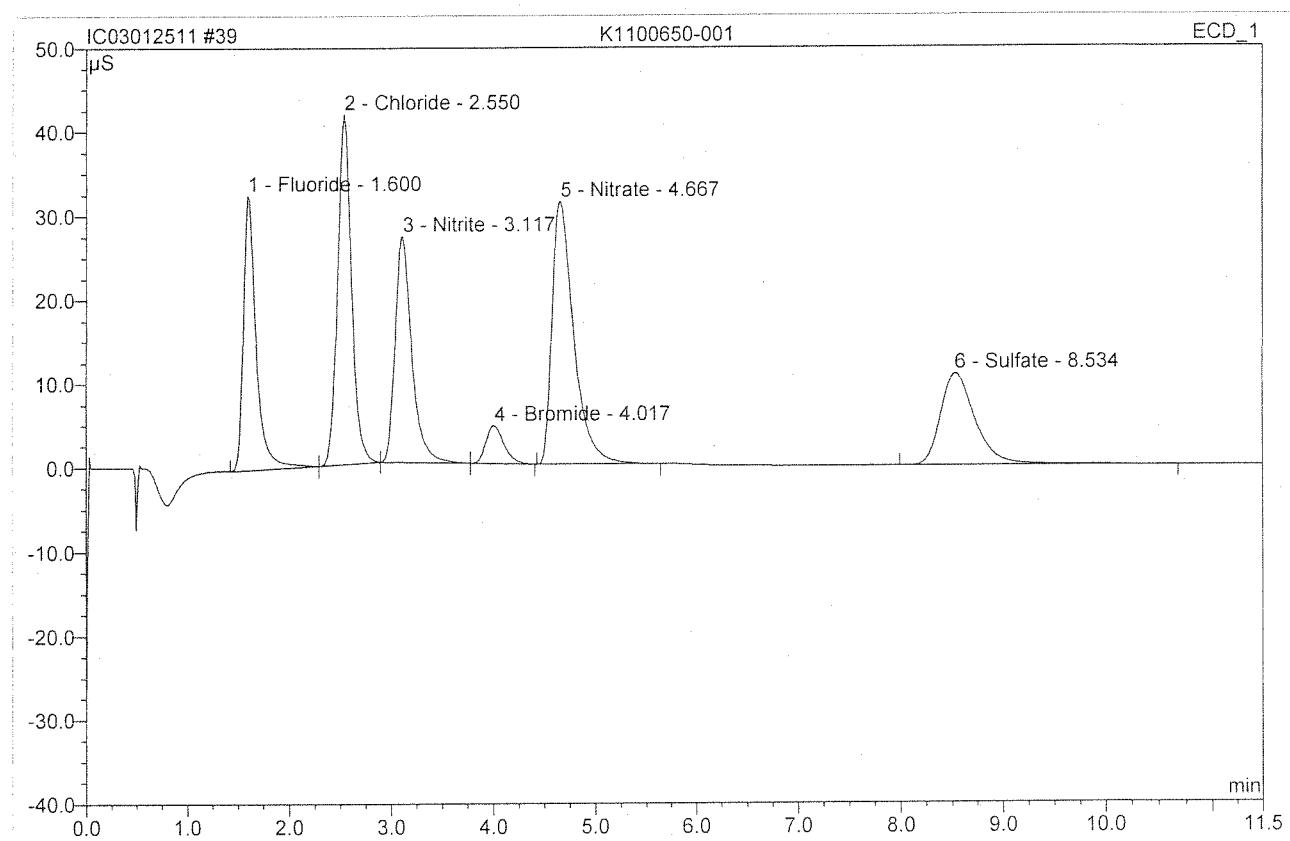


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	4.579	0.816	11.07	0.810	BM
2	2.55	Chloride	22.064	3.798	51.47	5.162	MB
3	4.73	Nitrate	1.577	0.403	5.46	0.224	BMB
4	8.55	Sulfate	5.883	2.361	32.01	4.979	BMB
Total:			34.105	7.378	100.00	11.174	

Before**JAN 25 2011**

39 K1100650-001**MS**

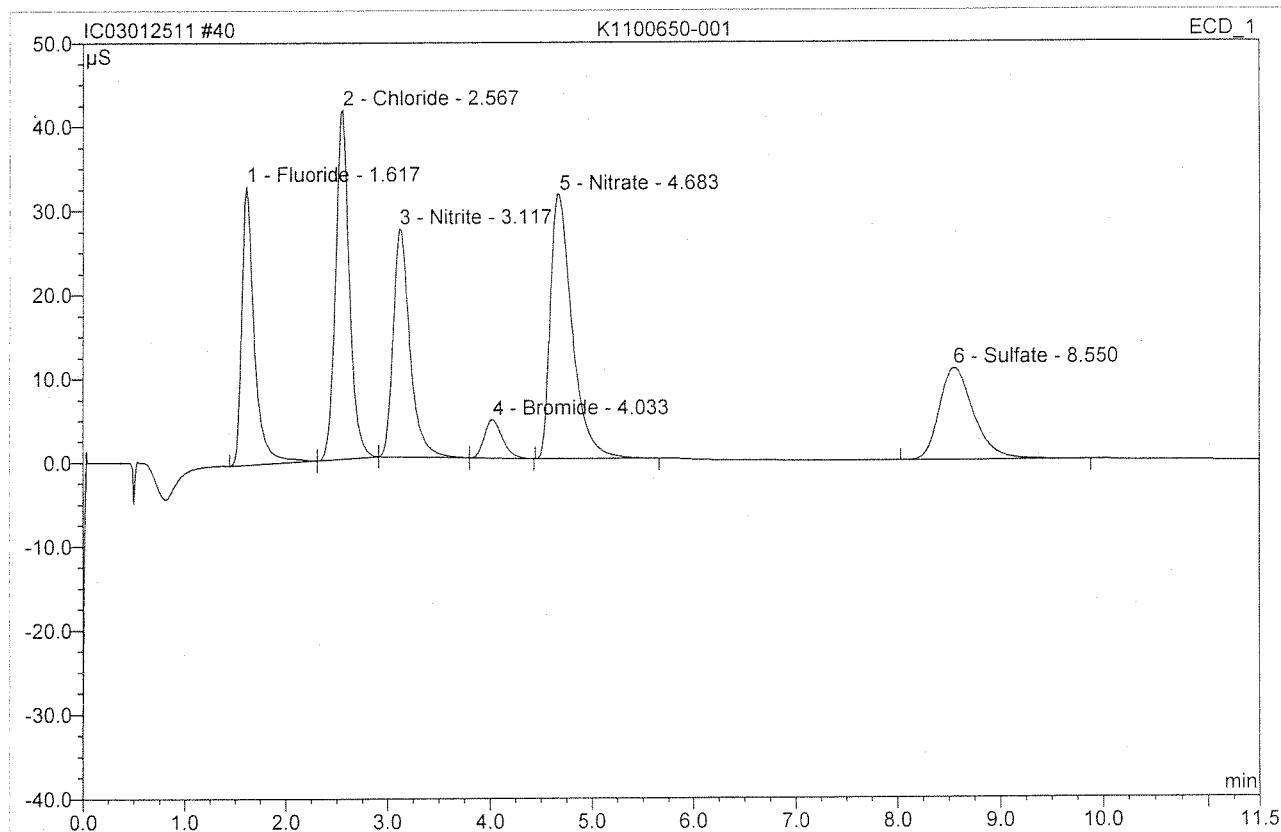
Sample Name:	K1100650-001	Injection Volume:	200.0
Vial Number:	41	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 17:04	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride REC=102	32.728	4.839	16.30	4.800	BMB
2	2.55	Chloride REC=102	41.681	6.633	22.35	9.016	bMb
3	3.12	Nitrite REC=90	26.941	5.134	17.30	3.577	bMb
4	4.02	Bromide ~	4.558	0.939	3.16	3.754	bMB
5	4.67	Nitrate REC=103	31.395	7.821	26.35	4.345	BMB
6	8.53	Sulfate REC=106	10.950	4.316	14.54	9.100	BMB
Total:			148.254	29.682	100.00	34.593	

40 K1100650-001**MSD**

Sample Name:	K1100650-001	Injection Volume:	200.0
Vial Number:	42	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/25/2011 17:18	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride <i>RFC=103</i>	33.189	4.863	16.35	4.824	BMB
2	2.57	Chloride <i>RFC=103</i>	41.630	6.672	22.44	9.068	bMb
3	3.12	Nitrite <i>RFC=90</i>	27.186	5.180	17.42	3.610	bMb
4	4.03	Bromide <i>~</i>	4.574	0.944	3.17	3.775	bMB
5	4.68	Nitrate <i>RFC=103</i>	31.532	7.849	26.40	4.361	BMB
6	8.55	Sulfate <i>RFC=101</i>	10.964	4.227	14.22	8.912	BMB
Total:			149.076	29.735	100.00	34.550	

SPK lv1
4

Sequence # 233726Ion Chromatography Data Quality Report
InorganicsRun # EC03012511

1. Holding times met for all samples analyzed? yes/no/NA
2. Are dilutions within upper limits of the curve? yes/no/NA
3. Are analysis/extraction stickers included on report? yes/no/NA
4. Are detection limits reported correctly? yes/no/NA
5. Are all quality control criteria met?
 - 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
6. 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.

i MRL is elevated because of matrix interferences and the sample required diluting.

F Sample filtered primary to analysis.

LCS

Fluoride	True Value = 11.0 ppm	CAS ID # = AN1-33-CC	Expires: <u>3/3/11</u>
Chloride	True Value = 5.0ppm	CAS ID # = ERA#0824-10-01	Expires: <u>3/11</u>
Nitrite	True Value = 100 ppm	CAS ID # = <u>AN1-33-X</u>	Expires: <u>12/5/11</u>
Bromide	True Value = 4.0 ppm	CAS ID # = AN1-33-Z	Expires: <u>—</u>
Nitrate	True Value = 15.2 ppm	CAS ID # = AN1-34-F	Expires: <u>7/21/11</u>
Sulfate	True Value = 5.0 ppm	CAS ID # = ERA#0824-10-01	Expires: <u>3/11</u>

CCV

Fluoride	CAS ID # = <u>AN1-75-0</u>	Expires <u>6/25/11</u>	Expires: <u>2/24/28/11</u>
Chloride	True Value = 5.0 ppm	10K CAS ID # = AN1-33-DD	Expires: <u>2/5/17</u>
Nitrite	True Value = 5.0 ppm	10K CAS ID # = AN1-33-AA	Expires: <u>11/28/11</u>
Bromide	True Value = 2.0 ppm	10K CAS ID # = AN1-33-EE	Expires: <u>—</u>
Nitrate	True Value = 2.0 ppm	10K CAS ID # = AN1-34-E	Expires: <u>6/30/11</u>
Sulfate	True Value = 5.0 ppm	10K CAS ID # = AN1-33-W	Expires: <u>2/5/11</u>
		10K CAS ID # = AN1-33-BB	

Spike

2.0ppm X dilution factor	CAS ID# = <u>AN1-75-N</u>	Expires <u>1/25/11</u>
Fluoride	10K CAS ID # = AN1-33-DD	Expires: <u>1/25/11</u>
Chloride	10K CAS ID # = AN1-33-AA	Expires: <u>1/25/11</u>
Nitrite	10K CAS ID # = AN1-33-EE	Expires: <u>1/25/11</u>
Bromide	10K CAS ID # = AN1-33-U	Expires: <u>1/25/11</u>
Nitrate	10K CAS ID # = AN1-33-W	Expires: <u>1/25/11</u>
Sulfate	10K CAS ID # = AN1-33-BB	Expires: <u>1/25/11</u>

Analyst: ABDate: 1/25/11First Review: VDate: 1/25/11

Final Review:

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Date: 1/25/11

Analytical Results Summary

Instrument Name: K-IC-03 Analyst: N BAKOTICH Analysis Lot: 233726 Method/Testcode: 300.0/SO4

<u>Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>POL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>
3636-004	Sulfate	N/A		Water	3.84 mg/L	5 mL	3.84 mg/L	2	0.02	0.40	1	25/11 15:17:00	N	II
3636-006	Sulfate	N/A		Water	8.39 mg/L	5 mL	8.39 mg/L	2	0.02	0.40	1	25/11 15:31:00	N	II
0650-001	Fluoride	N/A		Drinking Water	0.71 mg/L	5 mL	0.71 mg/L	2	0.006	0.40	1	25/11 15:03:00	N	I
0659-002	Sulfate	N/A		Water	25.55 mg/L	5 mL	25.5 mg/L	20	0.2	4.0	1	25/11 13:53:00	N	II
0661-001	Chloride	N/A		Water	70.71 mg/L	5 mL	70.7 mg/L	10	0.3	2.0	1	25/11 18:00:00	N	IV
0661-002	Fluoride	N/A		Water	0.50 mg/L	5 mL	0.50 mg/L	2	0.006	0.40	1	25/11 12:15:00	N	IV
0661-003	Chloride	N/A		Water	444.95 mg/L	5 mL	445 mg/L	100	3	20	1	25/11 18:14:00	N	IV
0661-003	Fluoride	N/A		Water	0.17 mg/L	5 mL	0.17 mg/L	J 2	0.006	0.40	1	25/11 12:29:00	N	IV
0661-003	Sulfate	N/A		Water	45.11 mg/L	5 mL	45.1 mg/L	10	0.1	2.0	1	25/11 18:28:00	N	IV
0661-004	Chloride	N/A		Water	17.90 mg/L	5 mL	17.9 mg/L	5	0.2	1.0	1	25/11 18:42:00	N	IV
0661-004	Fluoride	N/A		Water	0.44 mg/L	5 mL	0.44 mg/L	2	0.006	0.40	1	25/11 12:43:00	N	IV
0661-004	Sulfate	N/A		Water	39.46 mg/L	5 mL	39.5 mg/L	5	0.05	1.0	1	25/11 18:42:00	N	IV
0661-005	Chloride	N/A		Water	18.97 mg/L	5 mL	19.0 mg/L	5	0.2	1.0	1	25/11 18:56:00	N	IV
0661-005	Fluoride	N/A		Water	0.30 mg/L	5 mL	0.30 mg/L	J 2	0.006	0.40	1	25/11 12:57:00	N	IV
0661-005	Sulfate	N/A		Water	36.70 mg/L	5 mL	36.7 mg/L	5	0.05	1.0	1	25/11 18:56:00	N	IV
0661-006	Chloride	N/A		Water	0.38 mg/L	5 mL	0.38 mg/L	J 2	0.06	0.40	1	25/11 13:11:00	N	IV
0661-006	Fluoride	N/A		Water	0.00 mg/L	5 mL	0.40 mg/L	U 2	0.006	0.40	1	25/11 13:11:00	N	IV
0661-006	Sulfate	N/A		Water	0.00 mg/L	5 mL	0.40 mg/L	U 2	0.02	0.40	1	25/11 13:11:00	N	IV
0661-006	Chloride	N/A		Water	0.11 mg/L	5 mL	0.11 mg/L	J 2	0.06	0.40	1	25/11 13:25:00	N	IV
0661-007	Fluoride	N/A		Water	0.00 mg/L	5 mL	0.40 mg/L	U 2	0.006	0.40	1	25/11 13:25:00	N	IV
0661-007	Sulfate	N/A		Water	0.04 mg/L	5 mL	0.04 mg/L	J 2	0.02	0.40	1	25/11 13:25:00	N	IV
0681-001	Chloride	N/A		Drinking Water	13.92 mg/L	5 mL	13.9 mg/L	2	0.06	0.40	1	25/11 14:49:00	N	IV
0681-001	Fluoride	N/A		Water	0.19 mg/L	5 mL	0.40 mg/L	U 2	0.006	0.40	1	25/11 14:49:00	N	IV
0681-001	Nitrate as Nitrogen	N/A		Drinking Water	0.00 mg/L	5 mL	0.10 mg/L	U 2	0.008	0.10	1	25/11 14:49:00	N	IV
0681-001	Sulfate	N/A		Drinking Water	5.08 mg/L	5 mL	5.08 mg/L	2	0.02	0.40	1	25/11 14:49:00	N	IV
10686-001	Chloride	N/A		Drinking Water	5.88 mg/L	5 mL	5.88 mg/L	2	0.06	0.40	1	25/11 20:34:00	N	II
10686-002	Chloride	N/A		Water	6.27 mg/L	5 mL	6.27 mg/L	2	0.06	0.40	1	25/11 20:48:00	N	II
10686-003	Chloride	N/A		Water	6.26 mg/L	5 mL	6.26 mg/L	2	0.06	0.40	1	25/11 21:02:00	N	II
10686-004	Chloride	N/A		Water	6.19 mg/L	5 mL	6.19 mg/L	2	0.06	0.40	1	25/11 21:16:00	N	II
10686-005	Chloride	N/A		Water	6.17 mg/L	5 mL	6.17 mg/L	2	0.06	0.40	1	25/11 21:30:00	N	II
10686-006	Chloride	N/A		Water	6.11 mg/L	5 mL	6.11 mg/L	2	0.06	0.40	1	25/11 21:44:00	N	II

Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name:	K-IC-03	Analyst:	NBAKOTICH	Analysis Lot:	233726	Method/Testcode:	300.0/Chloride								
Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	OC? Tier	
J686-007	Chloride	N/A		Water	6.06 mg/L	5 mL	6.06 mg/L	2	0.06	0.40	1/25/11 16:22:00	N	II		
00733-01	Chloride	MS	K1100681-001	Drinking Water	17.51 mg/L	5 mL	17.5 mg/L	2	0.06	0.40	90	1/25/11 16:22:00	N	I	
00733-01	Fluoride	MS	K1100681-001	Water	4.10 mg/L	5 mL	4.10 mg/L	2	0.006	0.40	103	1/25/11 16:22:00	N	I	
00733-01	Nitrate as Nitrogen	MS	K1100681-001	Drinking Water	3.80 mg/L	5 mL	3.80 mg/L	2	0.008	0.10	95	1/25/11 16:22:00	N	I	
00733-01	Nitrite as Nitrogen	MS	K1100681-001	Drinking Water	3.81 mg/L	5 mL	3.81 mg/L	2	0.004	0.10	95	1/25/11 16:22:00	N	I	
00733-01	Sulfate	MS	K1100681-001	Drinking Water	9.22 mg/L	5 mL	9.22 mg/L	2	0.02	0.40	104	1/25/11 16:22:00	N	I	
00733-02	Chloride	DMS	K1100681-001	Drinking Water	17.73 mg/L	5 mL	17.7 mg/L	2	0.05	0.40	95	1/25/11 16:36:00	N	I	
00733-02	Fluoride	DMS	K1100681-001	Drinking Water	4.14 mg/L	5 mL	4.14 mg/L	2	0.006	0.40	104	<1	1/25/11 16:36:00	N	I
00733-02	Nitrate as Nitrogen	DMS	K1100681-001	Drinking Water	3.86 mg/L	5 mL	3.86 mg/L	2	0.008	0.10	96	1	1/25/11 16:36:00	N	I
00733-02	Nitrite as Nitrogen	DMS	K1100681-001	Drinking Water	3.85 mg/L	5 mL	3.85 mg/L	2	0.004	0.10	96	1	1/25/11 16:36:00	N	I
00733-02	Sulfate	DMS	K1100681-001	Drinking Water	9.19 mg/L	5 mL	9.19 mg/L	2	0.02	0.40	103	<1	1/25/11 16:36:00	N	I
00733-03	Chloride	DUP	K1100681-001	Drinking Water	14.00 mg/L	5 mL	14.0 mg/L	2	0.06	0.40	<1	1/25/11 16:08:00	N	I	
00733-03	Fluoride	DUP	K1100681-001	Drinking Water	0.20 mg/L	5 mL	0.20 mg/L	2	0.006	0.40	NC	1/25/11 16:08:00	N	I	
00733-03	Nitrate as Nitrogen	DUP	K1100681-001	Drinking Water	0.00 mg/L	5 mL	0.10 mg/L	2	0.008	0.10	NC	1/25/11 16:08:00	N	I	
00733-03	Nitrite as Nitrogen	DUP	K1100681-001	Drinking Water	0.00 mg/L	5 mL	0.10 mg/L	2	0.004	0.10	NC	1/25/11 16:08:00	N	I	
00733-03	Sulfate	DUP	K1100681-001	Drinking Water	0.00 mg/L	5 mL	0.10 mg/L	2	0.004	0.10	NC	1/25/11 16:08:00	N	I	
00733-04	Chloride	LCS	K1100681-001	Drinking Water	4.98 mg/L	5 mL	4.98 mg/L	2	0.02	0.40	2	1/25/11 16:08:00	N	I	
00733-04	Fluoride	LCS	K1100681-001	Drinking Water	4.73 mg/L	5 mL	4.73 mg/L	1	0.03	0.20	95	1/25/11 10:30:00	N	I	
100733-04	Nitrate as Nitrogen	LCS	K1100681-001	Drinking Water	10.52 mg/L	5 mL	10.5 mg/L	2	0.006	0.40	96	1/25/11 10:44:00	N	I	
100733-04	Nitrite as Nitrogen	LCS	K1100681-001	Drinking Water	14.84 mg/L	5 mL	14.8 mg/L	5	0.02	0.25	98	1/25/11 10:44:00	N	I	
100733-04	Nitrite as Nitrogen	LCS	K1100681-001	Drinking Water	100.54 mg/L	5 mL	101 mg/L	25	0.05	1.3	101	1/25/11 09:49:00	N	I	
100733-04	Sulfate	LCS	K1100681-001	Drinking Water	4.61 mg/L	5 mL	4.61 mg/L	1	0.01	0.20	92	1/25/11 10:30:00	N	I	
100733-05	Chloride	MB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.03	0.20	1/25/11 10:03:00	N	I	
100733-05	Fluoride	MB		Drinking Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.003	0.20	1/25/11 10:03:00	N	I	
100733-05	Nitrate as Nitrogen	MB		Drinking Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.004	0.050	1/25/11 10:03:00	N	I	
100733-05	Nitrite as Nitrogen	MB		Drinking Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.002	0.050	1/25/11 10:03:00	N	I	
100733-05	Sulfate	MB		Drinking Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.01	0.20	1/25/11 10:03:00	N	I	

ates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-IC-03

Analyst: N BAKOTICH

Analysis Lot: 2333726 Method/Testcode: 300.0/F

<u>Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>POE</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>
00733-06	Fluoride	MS	K1100650-001	Water	4.80 mg/L	5 mL	4.80 mg/L	2	0.006	0.40	102	<1	1/25/11 17:04:00	N I
00733-07	Fluoride	DMS	K1100650-001	Drinking Water	4.82 mg/L	5 mL	4.82 mg/L	2	0.006	0.40	103	<1	1/25/11 17:18:00	N I
00733-08	Fluoride	DUP	K1100650-001	Drinking Water	0.72 mg/L	5 mL	0.72 mg/L	2	0.006	0.40	1	1/25/11 16:50:00	N I	
00733-09	Chloride	CCV	Water	4.68 mg/L	5 mL	4.68 mg/L	1						1/25/11 09:21:00	N II
00733-09	Fluoride	CCV	Water	5.03 mg/L	5 mL	5.03 mg/L	1						1/25/11 09:21:00	N II
00733-09	Nitrate as Nitrogen	CCV	Water	1.88 mg/L	5 mL	1.88 mg/L	1						1/25/11 09:21:00	N II
00733-09	Nitrite as Nitrogen	CCV	Water	1.98 mg/L	5 mL	1.98 mg/L	1						1/25/11 09:21:00	N II
00733-09	Sulfate	CCV	Water	4.75 mg/L	5 mL	4.75 mg/L	1						1/25/11 09:21:00	N II
00733-10	Chloride	CCV	Water	4.68 mg/L	5 mL	4.68 mg/L	1						1/25/11 11:12:00	N II
00733-10	Fluoride	CCV	Water	4.95 mg/L	5 mL	4.95 mg/L	1						1/25/11 11:12:00	N II
00733-10	Nitrate as Nitrogen	CCV	Water	1.89 mg/L	5 mL	1.89 mg/L	1						1/25/11 11:12:00	N II
00733-10	Nitrite as Nitrogen	CCV	Water	1.97 mg/L	5 mL	1.97 mg/L	1						1/25/11 11:12:00	N II
00733-10	Sulfate	CCV	Water	4.74 mg/L	5 mL	4.74 mg/L	1						1/25/11 11:12:00	N II
00733-11	Chloride	CCV	Water	4.66 mg/L	5 mL	4.66 mg/L	1						1/25/11 14:21:00	N II
00733-11	Fluoride	CCV	Water	5.00 mg/L	5 mL	5.00 mg/L	1						1/25/11 14:21:00	N II
00733-11	Nitrate as Nitrogen	CCV	Water	1.88 mg/L	5 mL	1.88 mg/L	1						1/25/11 14:21:00	N II
00733-11	Nitrite as Nitrogen	CCV	Water	1.97 mg/L	5 mL	1.97 mg/L	1						1/25/11 14:21:00	N II
00733-11	Sulfate	CCV	Water	4.72 mg/L	5 mL	4.72 mg/L	1						1/25/11 14:21:00	N II
00733-12	Chloride	CCV	Water	4.70 mg/L	5 mL	4.70 mg/L	1						1/25/11 17:32:00	N II
00733-12	Fluoride	CCV	Water	5.05 mg/L	5 mL	5.05 mg/L	1						1/25/11 17:32:00	N II
00733-12	Nitrate as Nitrogen	CCV	Water	1.89 mg/L	5 mL	1.89 mg/L	1						1/25/11 17:32:00	N II
00733-12	Nitrite as Nitrogen	CCV	Water	1.97 mg/L	5 mL	1.97 mg/L	1						1/25/11 17:32:00	N II
100733-12	Sulfate	CCV	Water	4.77 mg/L	5 mL	4.77 mg/L	1						1/25/11 17:32:00	N II
100733-13	Chloride	CCV	Water	4.68 mg/L	5 mL	4.68 mg/L	1						1/25/11 20:06:00	N II
100733-13	Fluoride	CCV	Water	5.04 mg/L	5 mL	5.04 mg/L	1						1/25/11 20:06:00	N II
100733-13	Nitrate as Nitrogen	CCV	Water	1.88 mg/L	5 mL	1.88 mg/L	1						1/25/11 20:06:00	N II
100733-13	Nitrite as Nitrogen	CCV	Water	1.96 mg/L	5 mL	1.96 mg/L	1						1/25/11 20:06:00	N II
100733-13	Sulfate	CCV	Water	4.63 mg/L	5 mL	4.63 mg/L	1						1/25/11 20:06:00	N II
100733-14	Chloride	CCV	Water	4.72 mg/L	5 mL	4.72 mg/L	1						1/25/11 22:53:00	N II
100733-14	Fluoride	CCV	Water	5.08 mg/L	5 mL	5.08 mg/L	1						1/25/11 22:53:00	N II
100733-14	Nitrate as Nitrogen	CCV	Water	1.87 mg/L	5 mL	1.87 mg/L	1						1/25/11 22:53:00	N II
100733-14	Sulfate	CCV	Water	4.79 mg/L	5 mL	4.79 mg/L	1						1/25/11 22:53:00	N II
100733-15	Chloride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L	1	0.20	0.20				1/25/11 09:35:00	N II

Notes: Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-1C-03

Analyst: NBAKOTICH

Analysis Lot: 233726 Method/Testcode: 300.0/F

<u>Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>POI</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>
00733-15	Fluoride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 09:35:00	N	II			
00733-15	Nitrate as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 09:35:00	N	II			
00733-15	Nitrite as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 09:35:00	N	II			
00733-15	Sulfate	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 09:35:00	N	II			
00733-16	Chloride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 11:26:00	N	II			
00733-16	Fluoride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 11:26:00	N	II			
00733-16	Nitrate as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 11:26:00	N	II			
00733-16	Nitrite as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 11:26:00	N	II			
00733-16	Sulfate	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 11:26:00	N	II			
00733-17	Chloride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 14:35:00	N	II			
00733-17	Fluoride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 14:35:00	N	II			
00733-17	Nitrate as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 14:35:00	N	II			
00733-17	Nitrite as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 14:35:00	N	II			
00733-17	Sulfate	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 14:35:00	N	II			
00733-18	Chloride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 17:46:00	N	II			
00733-18	Fluoride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 17:46:00	N	II			
00733-18	Nitrate as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 17:46:00	N	II	95		
00733-18	Nitrite as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 17:46:00	N	II			
00733-18	Sulfate	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 17:46:00	N	II			
00733-19	Chloride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 20:20:00	N	II			
00733-19	Fluoride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 20:20:00	N	II			
00733-19	Nitrate as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 20:20:00	N	II			
00733-19	Nitrite as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 20:20:00	N	II			
00733-19	Sulfate	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 20:20:00	N	II			
00733-20	Chloride	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 23:07:00	N	II			
00733-20	Fluoride	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 23:07:00	N	II			
00733-20	Nitrate as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 23:07:00	N	II			
00733-20	Nitrite as Nitrogen	CCB	Water	0.00 mg/L	5 mL	0.050 mg/L U 1	0.050	0.050	1/25/11 23:07:00	N	II			
00733-20	Sulfate	CCB	Water	0.00 mg/L	5 mL	0.20 mg/L U 1	0.20	0.20	1/25/11 23:07:00	N	II			

Notes: Final Result is not yet adjusted for Solids because it has not yet been determined.

Title:
Datasource: ACQWET10_local
Location: DX120A
Timebase: DX120
#Samples: 65Created: 1/25/2011 9:20:03 AM by ACQWET10
Last Update: 1/26/2011 9:55:45 AM by nbakotich

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	std2/lvl2	Standard	2	200.0	epa300	epa300	Finished	11/22/2010 2:11:37 PM
2	std3/lvl3	Standard	1	200.0	epa300	epa300	Finished	11/22/2010 2:26:35 PM
3	std4/lvl4	Standard	2	200.0	epa300	epa300	Finished	11/22/2010 2:41:33 PM
4	std5/lvl5	Standard	3	200.0	epa300	epa300	Finished	11/22/2010 2:56:30 PM
5	std6/lvl6	Standard	4	200.0	epa300	epa300	Finished	11/22/2010 3:11:28 PM
6	std7/lvl7	Standard	5	200.0	epa300	epa300	Finished	11/22/2010 3:26:25 PM
7	std8/lvl8	Standard	6	200.0	epa300	epa300	Finished	11/22/2010 3:41:23 PM
8	std1/lvl1	Standard	7	200.0	epa300	epa300	Finished	11/22/2010 3:56:20 PM
9	CCV1 AN11-85-O	Unknown	8	200.0	epa300	epa300	Finished	1/25/2011 9:21:07 AM
10	CCB1	Unknown	10	200.0	epa300	epa300	Finished	1/25/2011 9:35:05 AM
11	NO2 AN11-33-X	Unknown	11	200.0	epa300	epa300	Finished	1/25/2011 9:49:02 AM
12	MB	Unknown	12	200.0	epa300	epa300	Finished	1/25/2011 10:03:00 AM
13	NO3	Unknown	13	200.0	epa300	epa300	Finished	1/25/2011 10:16:58 AM
14	CLS04	Unknown	14	200.0	epa300	epa300	Finished	1/25/2011 10:30:56 AM
15	F	Unknown	15	200.0	epa300	epa300	Finished	1/25/2011 10:44:54 AM
16	SPKCHK AN11-75-N	Unknown	18	200.0	epa300	epa300	Finished	1/25/2011 10:58:52 AM
17	CCV2	Unknown	19	200.0	epa300	epa300	Finished	1/25/2011 11:12:49 AM
18	CCB2	Unknown	20	200.0	epa300	epa300	Finished	1/25/2011 11:26:47 AM
19	K1100661-001	Unknown	21	200.0	epa300	epa300	Finished	1/25/2011 12:01:44 PM
20	K1100661-002	Unknown	22	200.0	epa300	epa300	Finished	1/25/2011 12:15:42 PM
21	K1100661-003	Unknown	23	200.0	epa300	epa300	Finished	1/25/2011 12:29:40 PM
22	K1100661-004	Unknown	24	200.0	epa300	epa300	Finished	1/25/2011 12:43:38 PM
23	K1100661-005	Unknown	25	200.0	epa300	epa300	Finished	1/25/2011 12:57:36 PM
24	K1100661-006	Unknown	26	200.0	epa300	epa300	Finished	1/25/2011 1:11:34 PM
25	K1100661-007	Unknown	27	200.0	epa300	epa300	Finished	1/25/2011 1:25:32 PM
26	K1100659-001	Unknown	28	200.0	epa300	epa300	Finished	1/25/2011 1:39:30 PM
27	K1100659-002	Unknown	29	200.0	epa300	epa300	Finished	1/25/2011 1:53:27 PM
28	RB	Unknown	30	200.0	epa300	epa300	Finished	1/25/2011 2:07:25 PM
29	CCV3	Unknown	31	200.0	epa300	epa300	Finished	1/25/2011 2:21:22 PM
30	CCB3	Unknown	32	200.0	epa300	epa300	Finished	1/25/2011 2:35:20 PM
31	K1100681-001	Unknown	33	200.0	epa300	epa300	Finished	1/25/2011 2:49:18 PM
32	K1100650-001	Unknown	34	200.0	epa300	epa300	Finished	1/25/2011 3:03:16 PM
33	K1100636-004	Unknown	35	200.0	epa300	epa300	Finished	1/25/2011 3:17:14 PM
34	K1100636-006	Unknown	36	200.0	epa300	epa300	Finished	1/25/2011 3:31:11 PM
35	K1100681-001	Unknown	37	200.0	epa300	epa300	Finished	1/25/2011 4:08:59 PM
36	K1100681-001	Unknown	38	200.0	epa300	epa300	Finished	1/25/2011 4:22:56 PM
37	K1100681-001	Unknown	39	200.0	epa300	epa300	Finished	1/25/2011 4:36:54 PM
38	K1100650-001	Unknown	40	200.0	epa300	epa300	Finished	1/25/2011 4:50:52 PM
39	K1100650-001	Unknown	41	200.0	epa300	epa300	Finished	1/25/2011 5:04:49 PM
40	K1100650-001	Unknown	42	200.0	epa300	epa300	Finished	1/25/2011 5:18:47 PM
41	CCV4	Unknown	43	200.0	epa300	epa300	Finished	1/25/2011 5:32:44 PM
42	CCB4	Unknown	44	200.0	epa300	epa300	Finished	1/25/2011 5:46:43 PM

Title:
Datasource: ACQWET10_local
Location: DX120A
Timebase: DX120
#Samples: 65

Created: 1/25/2011 9:20:03 AM by ACQWET10
Last Update: 1/26/2011 9:55:45 AM by nbakotich

No.	Name	Dil. Factor	Comment
1	std2/lvl2	1.0000	
2	std3/lvl3	1.0000	
3	std4/lvl4	1.0000	
4	std5/lvl5	1.0000	
5	std6/lvl6	1.0000	
6	std7/lvl7	1.0000	
7	std8/lvl8	1.0000	
8	std1/lvl1	1.0000	
9	CCV1 AN11-85-O	1.0000	
10	CCB1	1.0000	
11	NO2 AN11-33-X	25.0000	NO2
12	MB	1.0000	MB
13	NO3	5.0000	NO3
14	CLSO4	1.0000	CLSO4
15	F	2.0000	F
16	SPKCHK AN11-75-N	1.0000	SPKCHK
17	CCV2	1.0000	CCV2
18	CCB2	1.0000	CCB2
19	K1100661-001	2.0000	
20	K1100661-002	2.0000	
21	K1100661-003	2.0000	
22	K1100661-004	2.0000	
23	K1100661-005	2.0000	
24	K1100661-006	2.0000	
25	K1100661-007	2.0000	
26	K1100659-001	20.0000	
27	K1100659-002	20.0000	
28	RB	1.0000	
29	CCV3	1.0000	CCV3
30	CCB3	1.0000	CCB3
31	K1100681-001	2.0000	
32	K1100650-001	2.0000	
33	K1100636-004	2.0000	
34	K1100636-006	2.0000	
35	K1100681-001	2.0000	D
36	K1100681-001	2.0000	MS
37	K1100681-001	2.0000	MSD
38	K1100650-001	2.0000	D
39	K1100650-001	2.0000	MS
40	K1100650-001	2.0000	MSD
41	CCV4	1.0000	CCV4
42	CCB4	1.0000	CCB4

Sequence: IC03012511
Operator: nbakotich

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Printed: 1/26/2011 10:14:31 AM

Title:
Datasource: ACQWET10_local
Location: DX120A
Timebase: DX120
#Samples: 65

Created: 1/25/2011 9:20:03 AM by ACQWET10
Last Update: 1/26/2011 9:55:45 AM by nbakotich

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	K1100661-001	Unknown	45	200.0	epa300	epa300	Finished	1/25/2011 6:00:41 PM
44	K1100661-003	Unknown	46	200.0	epa300	epa300	Finished	1/25/2011 6:14:38 PM
45	K1100661-003	Unknown	47	200.0	epa300	epa300	Finished	1/25/2011 6:28:36 PM
46	K1100661-004	Unknown	48	200.0	epa300	epa300	Finished	1/25/2011 6:42:33 PM
47	K1100661-005	Unknown	49	200.0	epa300	epa300	Finished	1/25/2011 6:56:31 PM
48	RB	Unknown	50	200.0	epa300	epa300	Finished	1/25/2011 7:10:28 PM
49	RB	Unknown	51	200.0	epa300	epa300	Finished	1/25/2011 7:24:25 PM
50	RB	Unknown	52	200.0	epa300	epa300	Finished	1/25/2011 7:38:23 PM
51	RB	Unknown	53	200.0	epa300	epa300	Finished	1/25/2011 7:52:21 PM
52	CCV5	Unknown	54	200.0	epa300	epa300	Finished	1/25/2011 8:06:19 PM
53	CCB5	Unknown	55	200.0	epa300	epa300	Finished	1/25/2011 8:20:16 PM
54	K1100686-001	Unknown	56	200.0	epa300	epa300	Finished	1/25/2011 8:34:14 PM
55	K1100686-002	Unknown	57	200.0	epa300	epa300	Finished	1/25/2011 8:48:12 PM
56	K1100686-003	Unknown	58	200.0	epa300	epa300	Finished	1/25/2011 9:02:10 PM
57	K1100686-004	Unknown	59	200.0	epa300	epa300	Finished	1/25/2011 9:16:08 PM
58	K1100686-005	Unknown	60	200.0	epa300	epa300	Finished	1/25/2011 9:30:06 PM
59	K1100686-006	Unknown	61	200.0	epa300	epa300	Finished	1/25/2011 9:44:03 PM
60	K1100686-007	Unknown	62	200.0	epa300	epa300	Finished	1/25/2011 9:58:01 PM
61	RB	Unknown	63	200.0	epa300	epa300	Finished	1/25/2011 10:11:58 PM
62	RB	Unknown	64	200.0	epa300	epa300	Finished	1/25/2011 10:25:57 PM
63	RB	Unknown	65	200.0	epa300	epa300	Finished	1/25/2011 10:39:55 PM
64	CCV6	Unknown	66	200.0	epa300	epa300	Finished	1/25/2011 10:53:53 PM
65	CCB6	Unknown	67	200.0	epa300	epa300	Finished	1/25/2011 11:07:50 PM

Title:
Datasource: ACQWET10_local
Location: DX120A
Timebase: DX120
#Samples: 65

Created: 1/25/2011 9:20:03 AM by ACQWET10
Last Update: 1/26/2011 9:55:45 AM by nbakotich

No.	Name	Dil. Factor	Comment
43	?	K1100661-001	10.0000
44	?	K1100661-003	100.0000
45	?	K1100661-003	10.0000
46	?	K1100661-004	5.0000
47	?	K1100661-005	5.0000
48	?	RB	1.0000
49	?	RB	1.0000
50	?	RB	1.0000
51	?	RB	1.0000
52	?	CCV5	1.0000 CCV5
53	?	CCB5	1.0000 CCB5
54	?	K1100686-001	2.0000
55	?	K1100686-002	2.0000
56	?	K1100686-003	2.0000
57	?	K1100686-004	2.0000
58	?	K1100686-005	2.0000
59	?	K1100686-006	2.0000
60	?	K1100686-007	2.0000
61	?	RB	1.0000
62	?	RB	1.0000
63	?	RB	1.0000
64	?	CCV6	1.0000 CCV6
65	?	CCB6	1.0000 CCB6

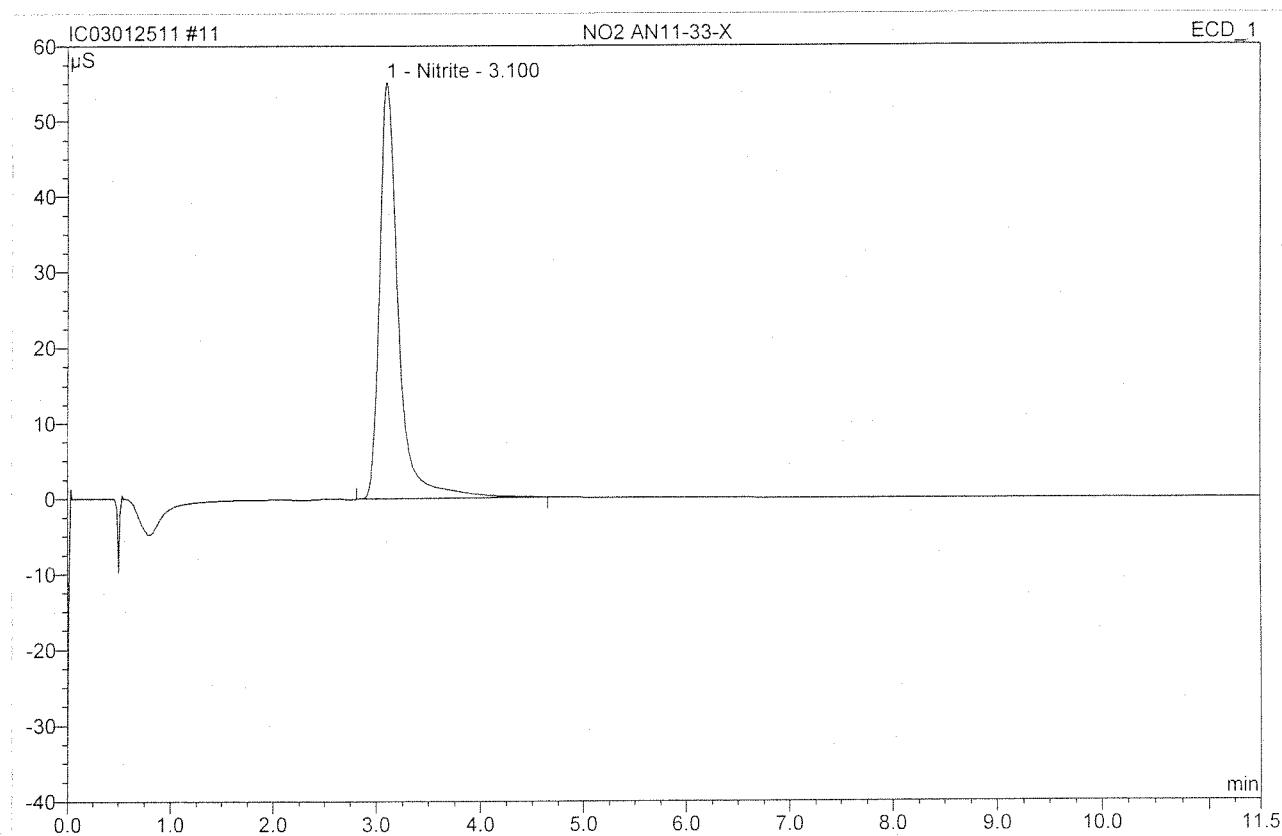
636-4					F		
					Cl		
					NO ₂		
					Br		
					NO ₃		
					(SO ₄)	2.5/5	
-6					F		
					Cl		
					NO ₂		
					Br		
					NO ₃		
					(SO ₄)	✓	
661-1	IV				F		✓
					Cl	0.5/5	✓
					NO ₂	✓	
					Br	✓	
					NO ₃	✓	
					(SO ₄)	✓	
-2					F		✓
					Cl	0.5/5	✓
					NO ₂	✓	
					Br	✓	
					NO ₃	✓	
					(SO ₄)	✓	
-3					F		✓
					Cl	1/100	✓
					NO ₂		
					Br		
					NO ₃		
					(SO ₄)	✓	
-4					F		✓
					Cl	2.5/5	✓
					NO ₂		
					Br		
					NO ₃		
					(SO ₄)	✓	
-5					F		✓
					Cl	1/5	✓
					NO ₂	✓	
					Br	✓	
					NO ₃		
					(SO ₄)	✓	
-6					F		✓
					Cl		✓
					NO ₂		
					Br		
					NO ₃		
					(SO ₄)	✓	
-7					F		✓
					Cl		✓
					NO ₂		
					Br		
					NO ₃		
					(SO ₄)	✓	
650-1	I	✓			F		✓
					Cl		
					NO ₂		
					Br		
					NO ₃		
					SO ₄		

Cap h 1.25

659-1	11				F				
					Cl				
					NO ₂				
					Br				
					NO ₃				
					(SO ₄)	0,23/5	2,5/5		✓
-2					F				
					Cl				
					NO ₂				
					Br				
					NO ₃				
					(SO ₄)				✓
681-1	11				F	2,45/5			✓
					Cl				✓
					NO ₂				✓
					Br				
					NO ₃				✓
					(SO ₄)				✓
686-1	11				F				
					(Cl)				✓
					NO ₂				
					Br				
					NO ₃				
					SO ₄				
-2					F				
					(Cl)				✓
					NO ₂				
					Br				
					NO ₃				
					SO ₄				
-3					F				
					(Cl)				✓
					NO ₂				
					Br				
					NO ₃				
					SO ₄				
-4					F				
					(Cl)				✓
					NO ₂				
					Br				
					NO ₃				
					SO ₄				
-5					F				
					(Cl)				✓
					NO ₂				
					Br				
					NO ₃				
					SO ₄				
-6					F				
					(Cl)				✓
					NO ₂				
					Br				
					NO ₃				
					SO ₄				
-7					F				
					(Cl)				✓
					NO ₂				
					Br				
					NO ₃				
					SO ₄				

11 NO2 AN11-33-X**NO2**

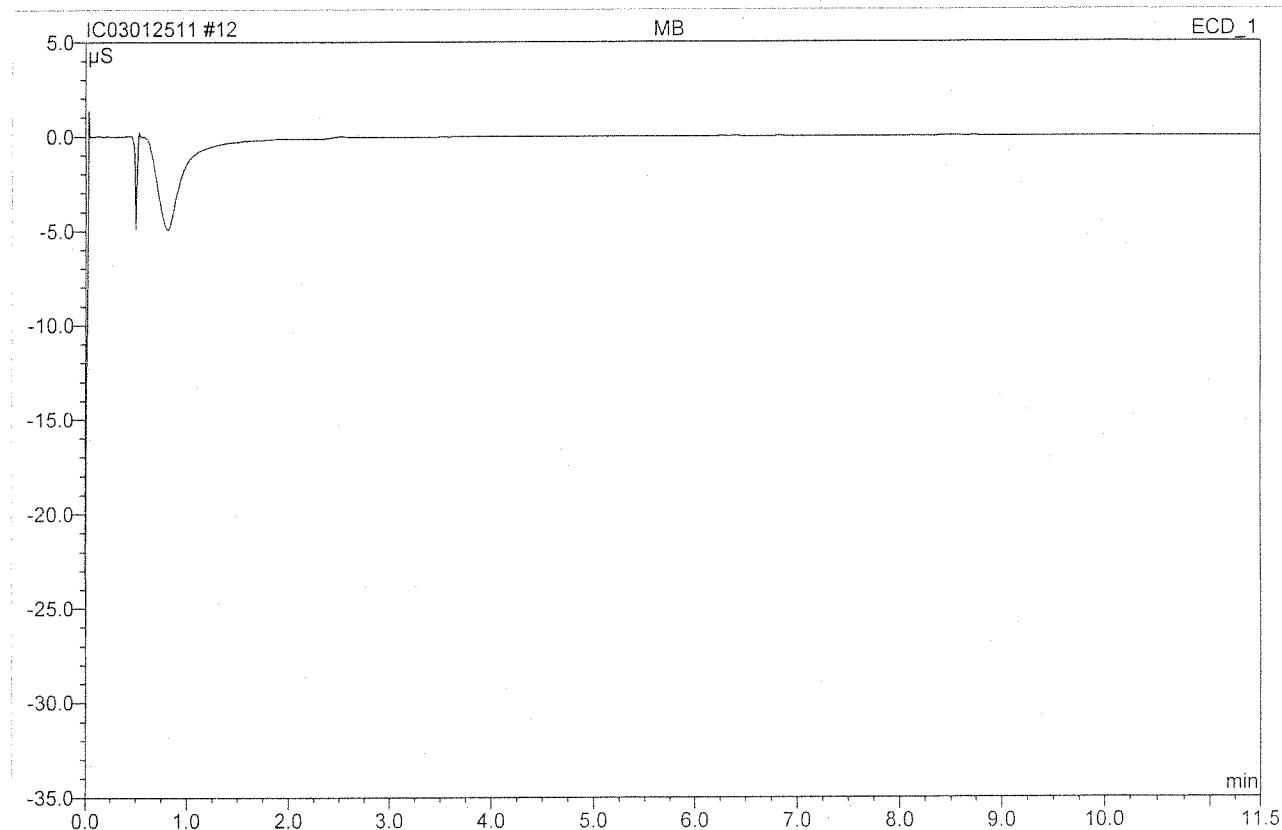
<i>Sample Name:</i>	NO2 AN11-33-X	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	11	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	25.0000
<i>Recording Time:</i>	1/25/2011 9:49	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	3.10	Nitrite	55.176	11.543	100.00	10 / 100.544	BMB
Total:			55.176	11.543	100.00	100.544	

12 MB**MB**

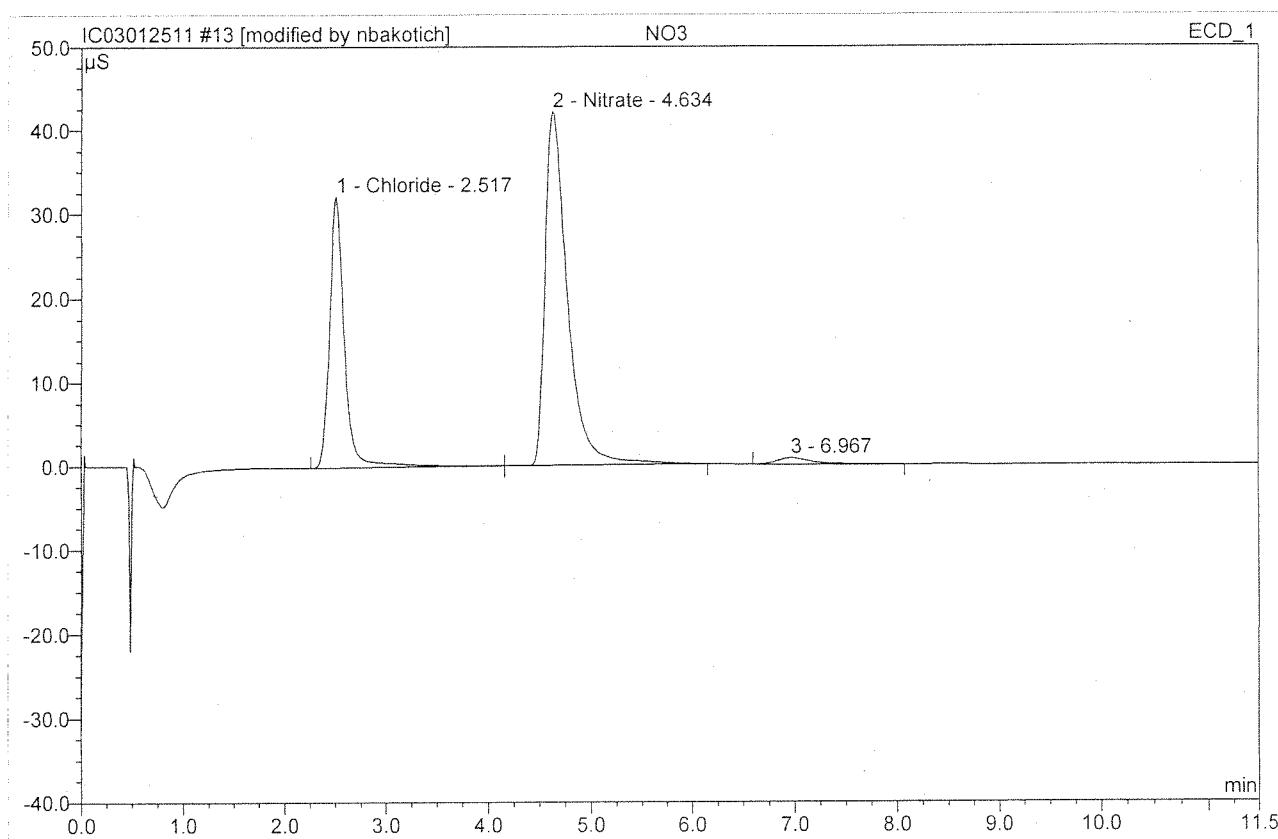
<i>Sample Name:</i>	MB	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	12	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/25/2011 10:03	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

13 NO3**NO3**

Sample Name:	NO3	Injection Volume:	200.0
Vial Number:	13	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	5.0000
Recording Time:	1/25/2011 10:16	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.52	Chloride	32.231	5.522	33.46	18.764	BMb*
2	4.63	Nitrate	42.095	10.683	64.73	97/14.838	bMB*
3	6.97	n.a.	0.748	0.298	1.80	n.a.	BMB*
Total:			75.075	16.503	100.00	33.602	

default/Integration

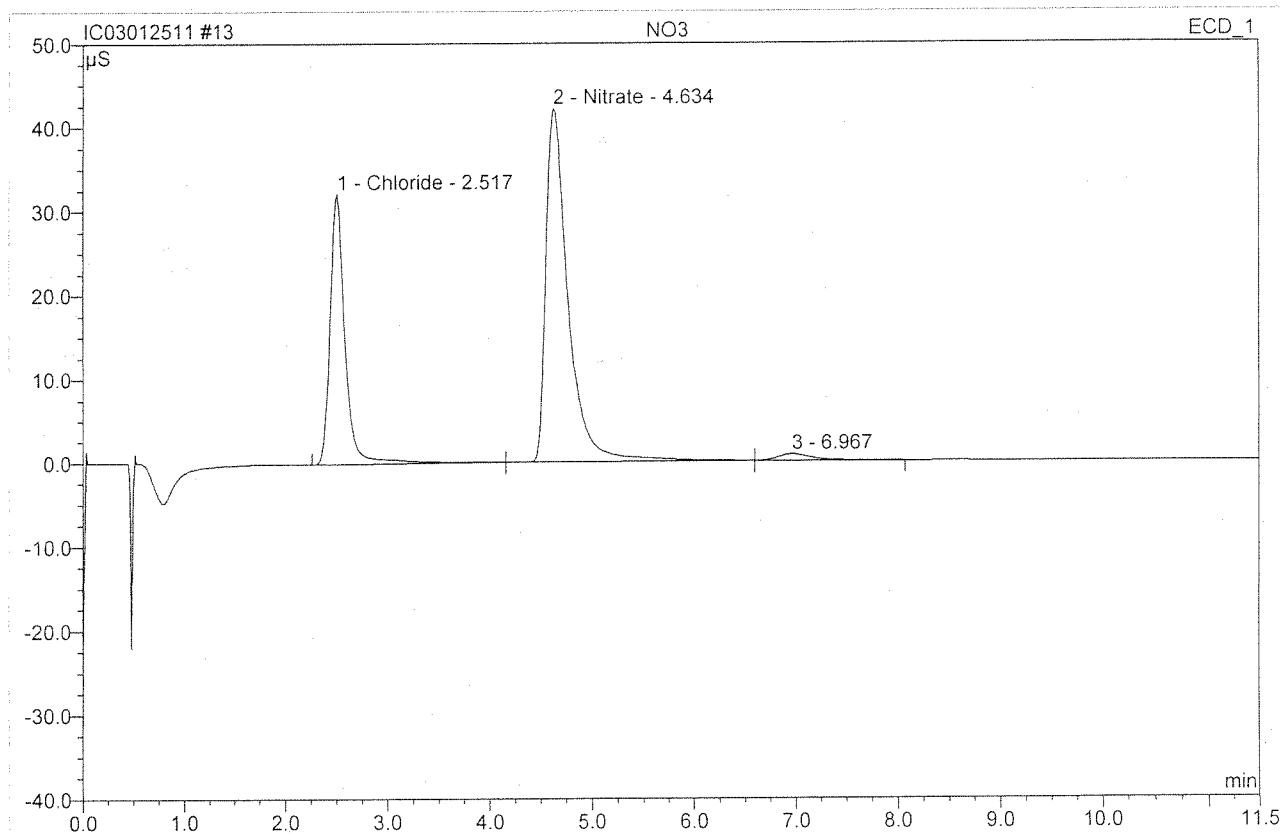
After
Initials: AB
JAN 25 2011

Drift/Dead/Flare not Found
Baseline/shoulder incorrect
Chromatogram

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

13 NO3**NO3**

Sample Name:	NO3	Injection Volume:	200.0
Vial Number:	13	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	5.0000
Recording Time:	1/25/2011 10:16	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

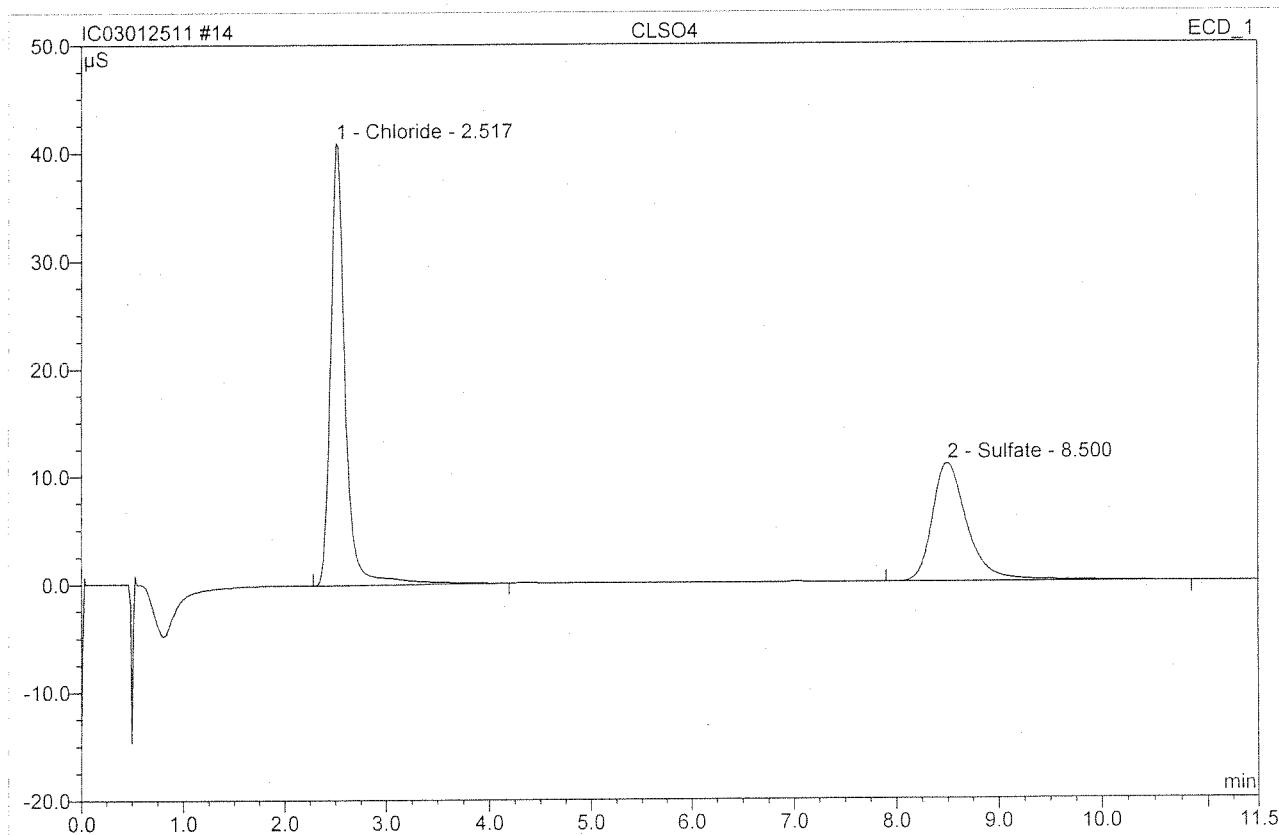


No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	2.52	Chloride	32.231	5.522	33.27	18.764	BMB
2	4.63	Nitrate	42.114	10.779	64.94	14.972	bMb
3	6.97	n.a.	0.748	0.298	1.79	n.a.	bMB
Total:			75.094	16.599	100.00	33.736	

Before**JAN 25 2011**

14 CLSO4**CLSO4**

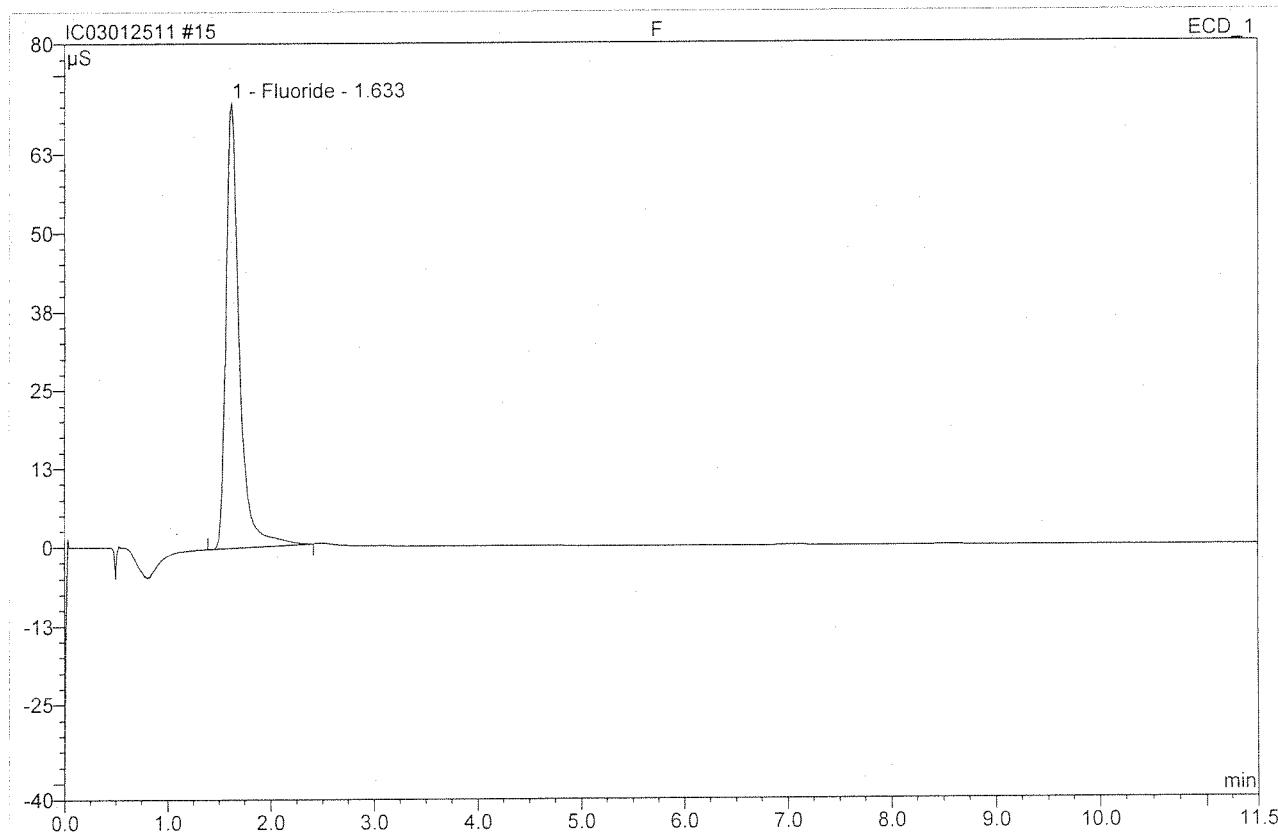
Sample Name:	CLSO4	Injection Volume:	200.0
Vial Number:	14	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 10:30	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.52	Chloride	40.999	6.965	61.44	4.734	BMB
2	8.50	Sulfate	10.989	4.372	38.56	4.608	BMB
Total:			51.988	11.337	100.00	9.342	

15 F**F**

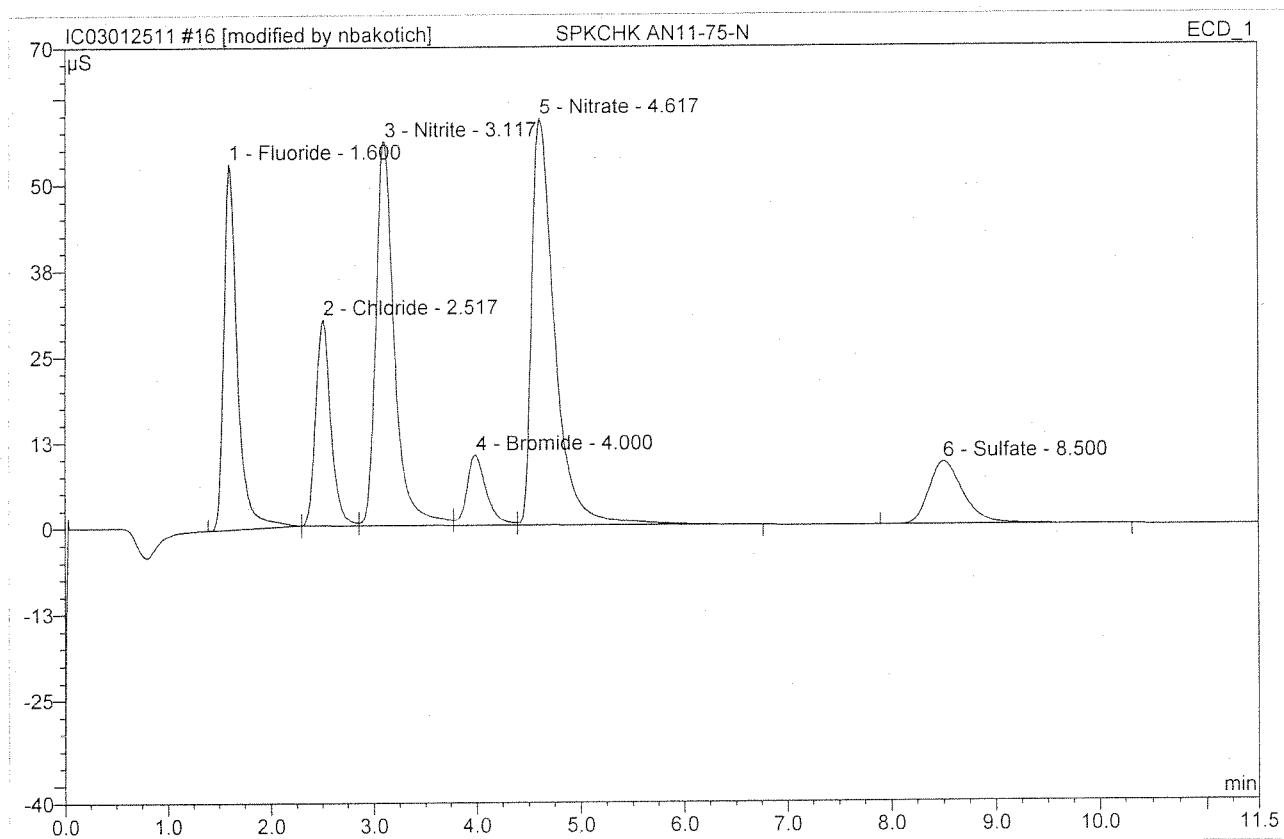
<i>Sample Name:</i>	F	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	15	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	2.0000
<i>Recording Time:</i>	1/25/2011 10:44	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.63	Fluoride	70.828	10.605	100.00	95 10.520	BMB
Total:			70.828	10.605	100.00	10.520	

16 SPKCHK AN11-75-N**SPKCHK**

Sample Name:	SPKCHK AN11-75-N	Injection Volume:	200.0
Vial Number:	18	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 10:58	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

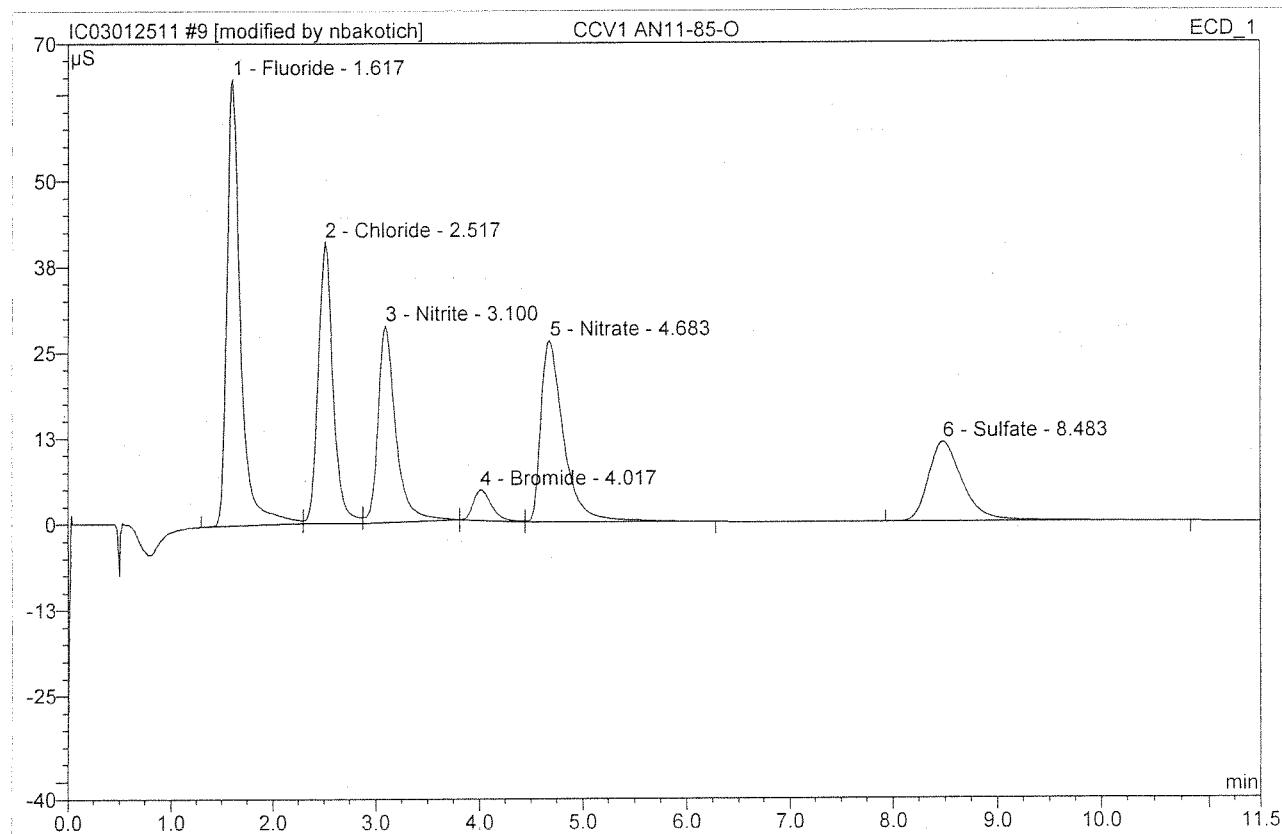


No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.60	Fluoride	53.151	8.073	17.62	4.004	BMb
2	2.52	Chloride	30.077	5.217	11.39	3.546	bM
3	3.12	Nitrite	55.854	11.540	25.19	4.021	M *
4	4.00	Bromide	10.268	2.230	4.87	4.458	M *
5	4.62	Nitrate	59.197	15.225	33.23	4.230	MB
6	8.50	Sulfate	9.158	3.531	7.71	3.722	BMB
Total:			217.705	45.817	100.00	23.980	

TV=4.0

9 CCV1 AN11-85-O

Sample Name:	CCV1 AN11-85-O	Injection Volume:	200.0
Vial Number:	8	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 9:21	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.62	Fluoride	65.055	10.142	29.04	101 5.030	BM *
2	2.52	Chloride	41.062	6.891	19.73	94 4.683	M *
3	3.10	Nitrite	28.717	5.673	16.24	99 1.976	Mb*
4	4.02	Bromide	4.480	0.943	2.70	95 1.886	bM *
5	4.68	Nitrate	26.521	6.770	19.38	94 1.881	MB*
6	8.48	Sulfate	11.587	4.510	12.91	95 4.754	BMB
Total:			177.421	34.929	100.00	20.210	

After Initials nb

1/25/2011

JAN 25 2011

default/Integration

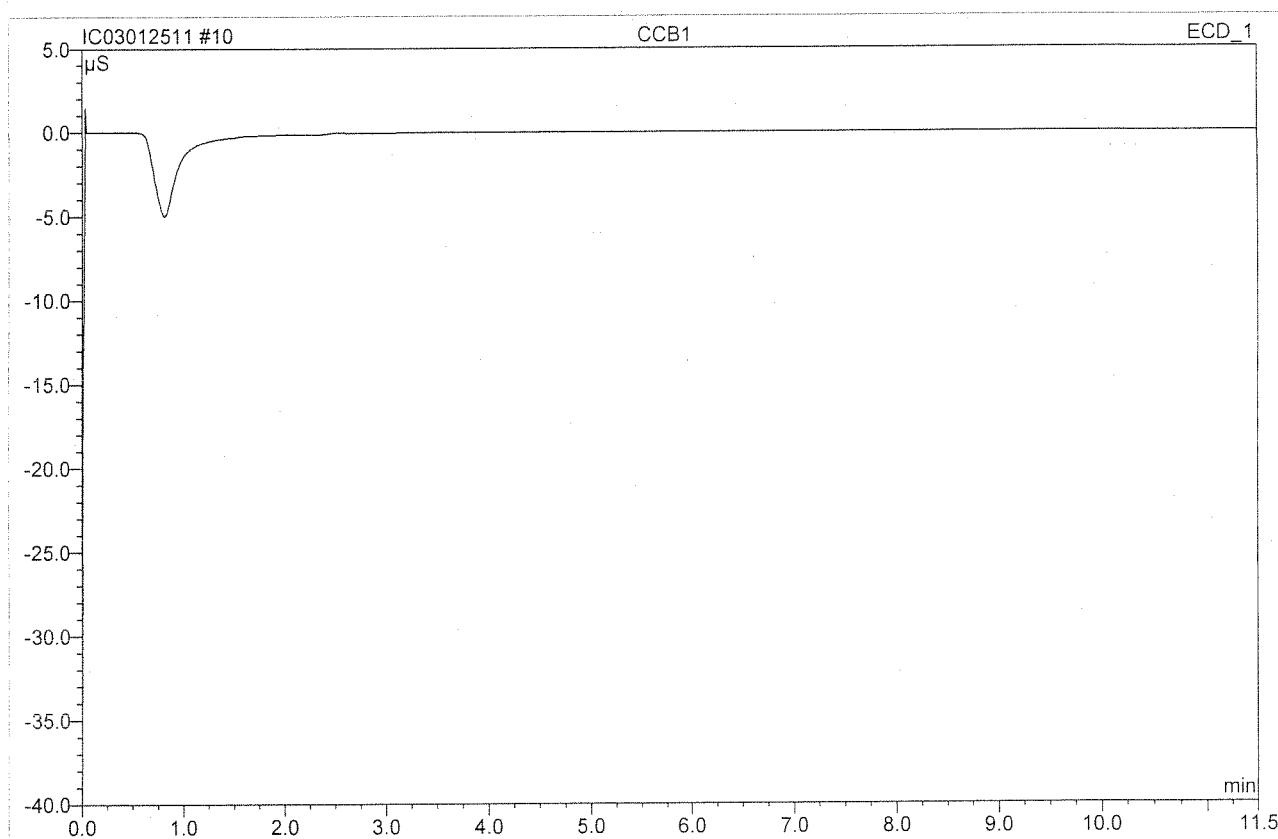
 Wrong Peak/Peak not Found
 Baseline/shoulder Incorrect
 Other

109

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

10 CCB1

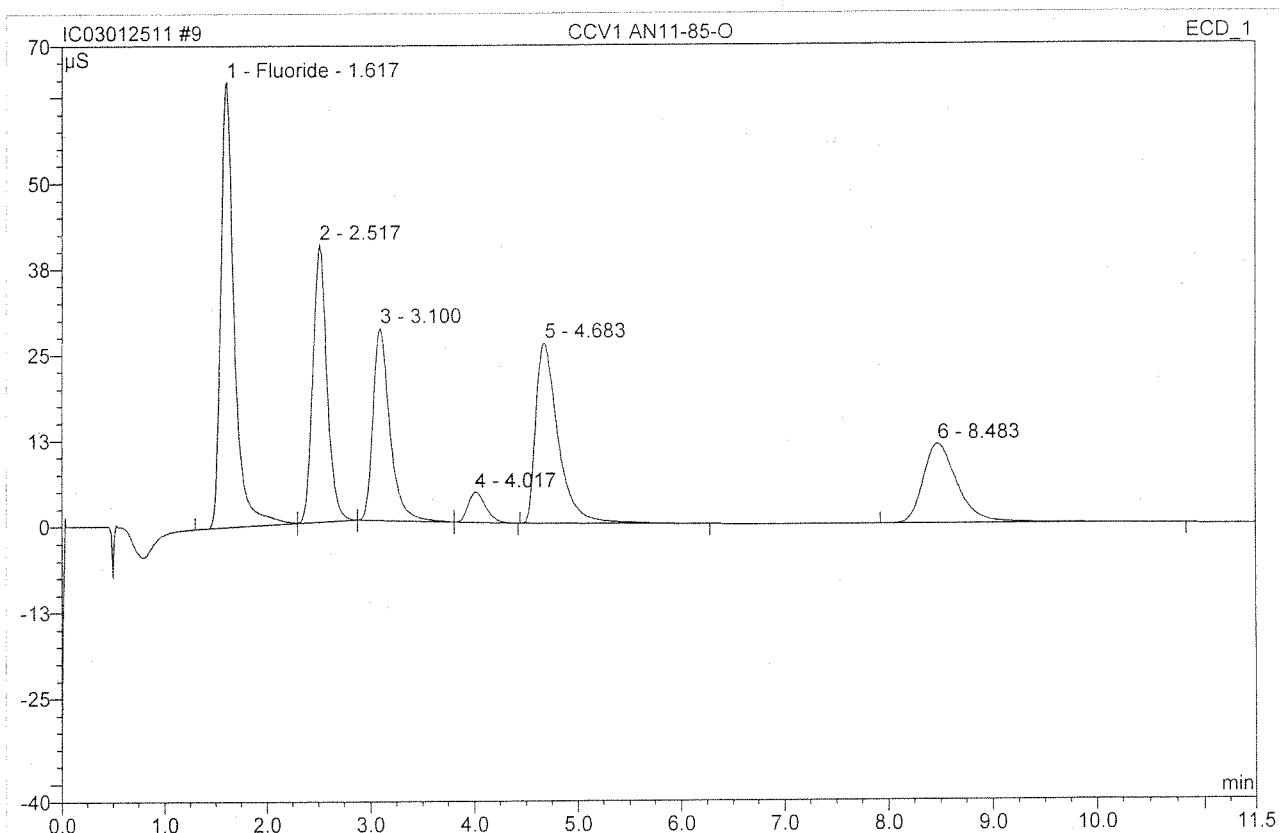
<i>Sample Name:</i>	CCB1	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	10	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/25/2011 9:35	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

9 CCV1 AN11-85-O

Sample Name:	CCV1 AN11-85-O	Injection Volume:	200.0
Vial Number:	8	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 9:21	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



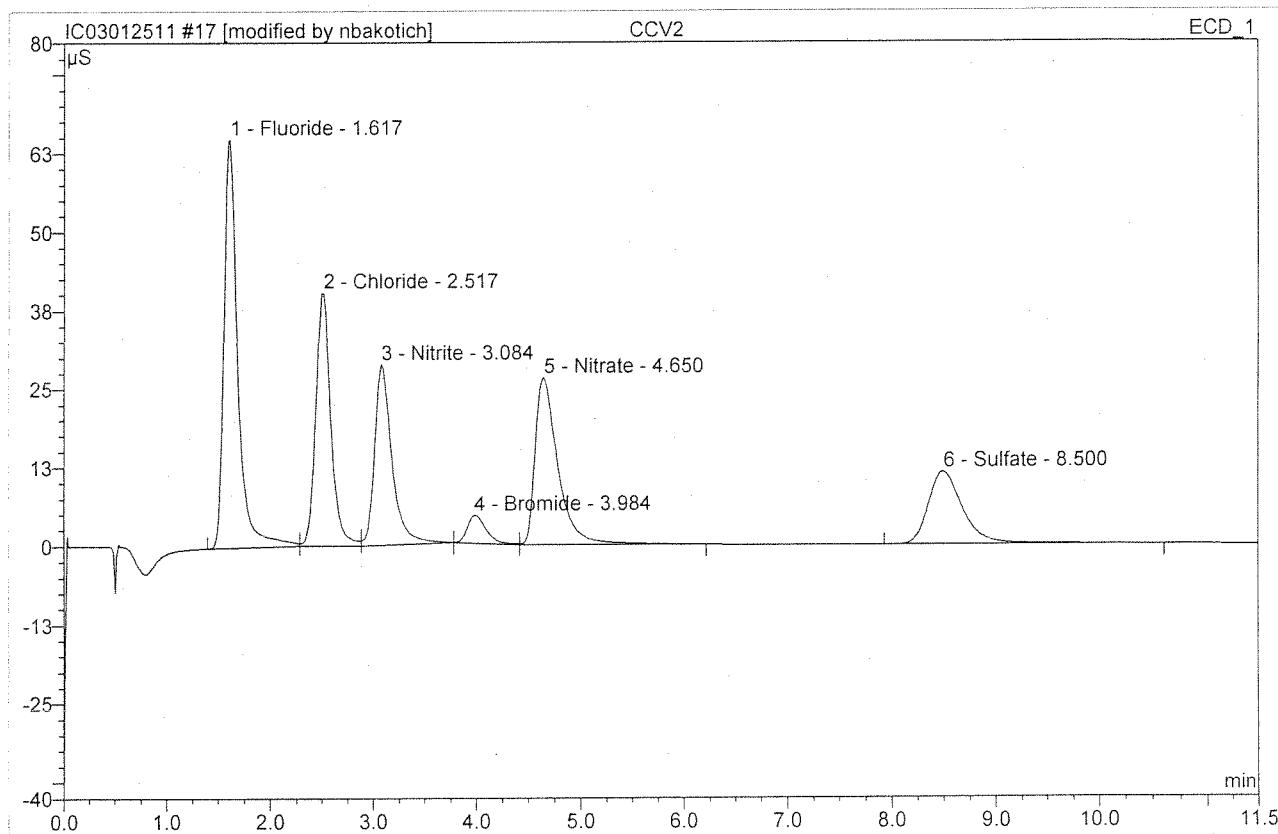
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	64.943	9.965	29.49	4.942	BM
2	2.52	n.a.	40.528	6.543	19.37	n.a.	Mb
3	3.10	n.a.	28.073	5.282	15.63	n.a.	bMb
4	4.02	n.a.	4.423	0.886	2.62	n.a.	bMB
5	4.68	n.a.	26.361	6.602	19.54	n.a.	BMB
6	8.48	n.a.	11.587	4.510	13.35	n.a.	BMB
Total:			175.915	33.788	100.00	4.942	

Before

JAN 25 2011

17 CCV2**CCV2**

Sample Name:	CCV2	Injection Volume:	200.0
Vial Number:	19	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 11:12	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	64.933	9.990	28.73	4.955	BM *
2	2.52	Chloride	40.240	6.886	19.81	4.680	M *
3	3.08	Nitrite	28.645	5.645	16.24	1.967	Mb*
4	3.98	Bromide	4.472	0.957	2.75	1.913	bM *
5	4.65	Nitrate	26.607	6.791	19.53	1.887	MB*
6	8.50	Sulfate	11.546	4.497	12.93	4.740	BMB
Total:			176.445	34.767	100.00	20.142	

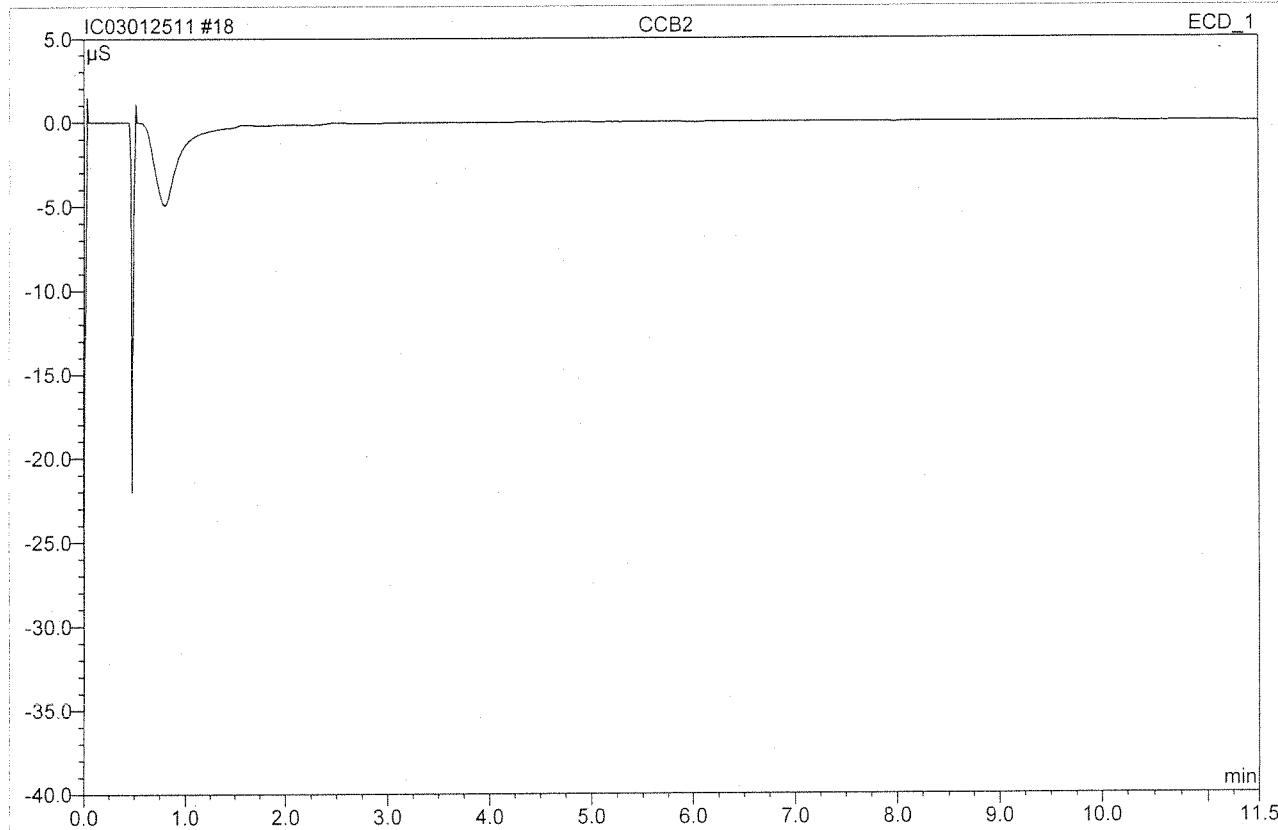
After
Initials AB

64113211

JAN 25 2011

18 CCB2**CCB2**

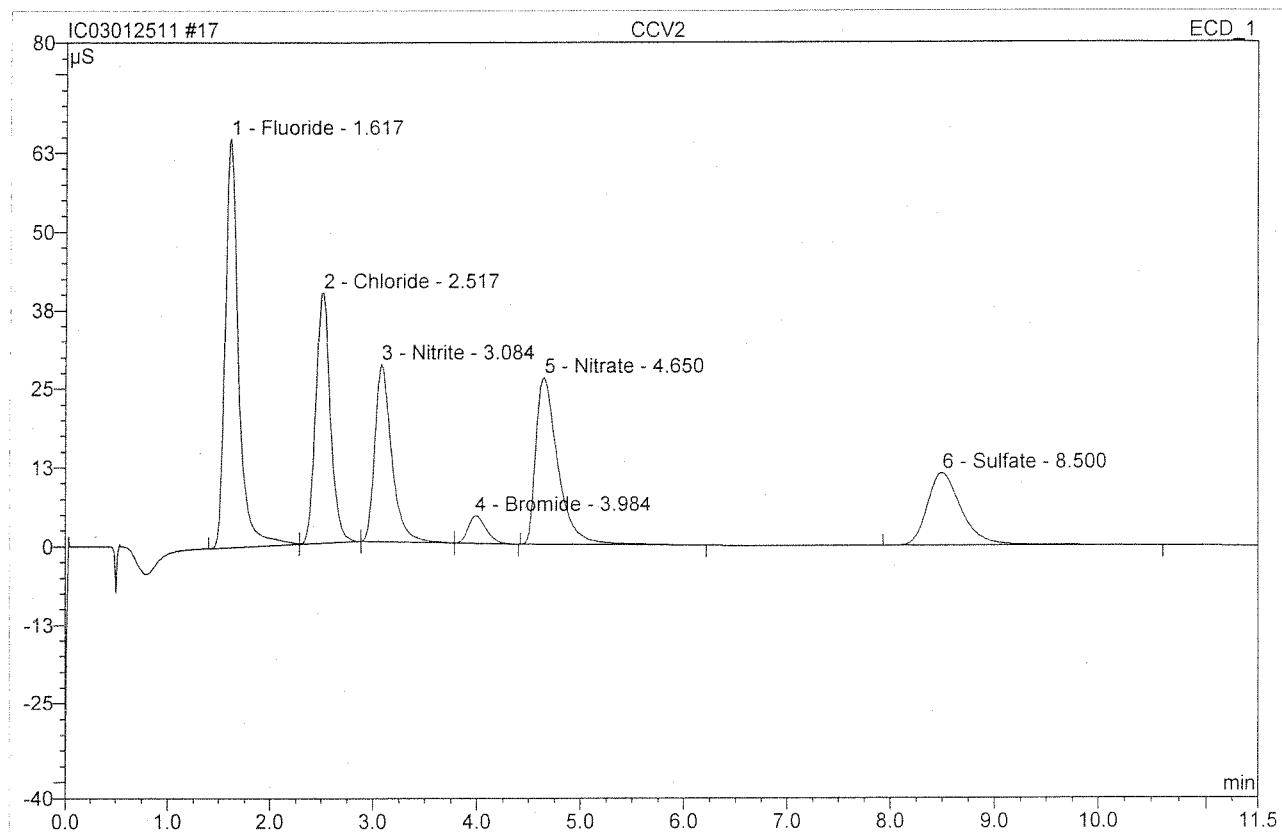
<i>Sample Name:</i>	CCB2	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	20	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/25/2011 11:26	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

17 CCV2**CCV2**

Sample Name:	CCV2	Injection Volume:	200.0
Vial Number:	19	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 11:12	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

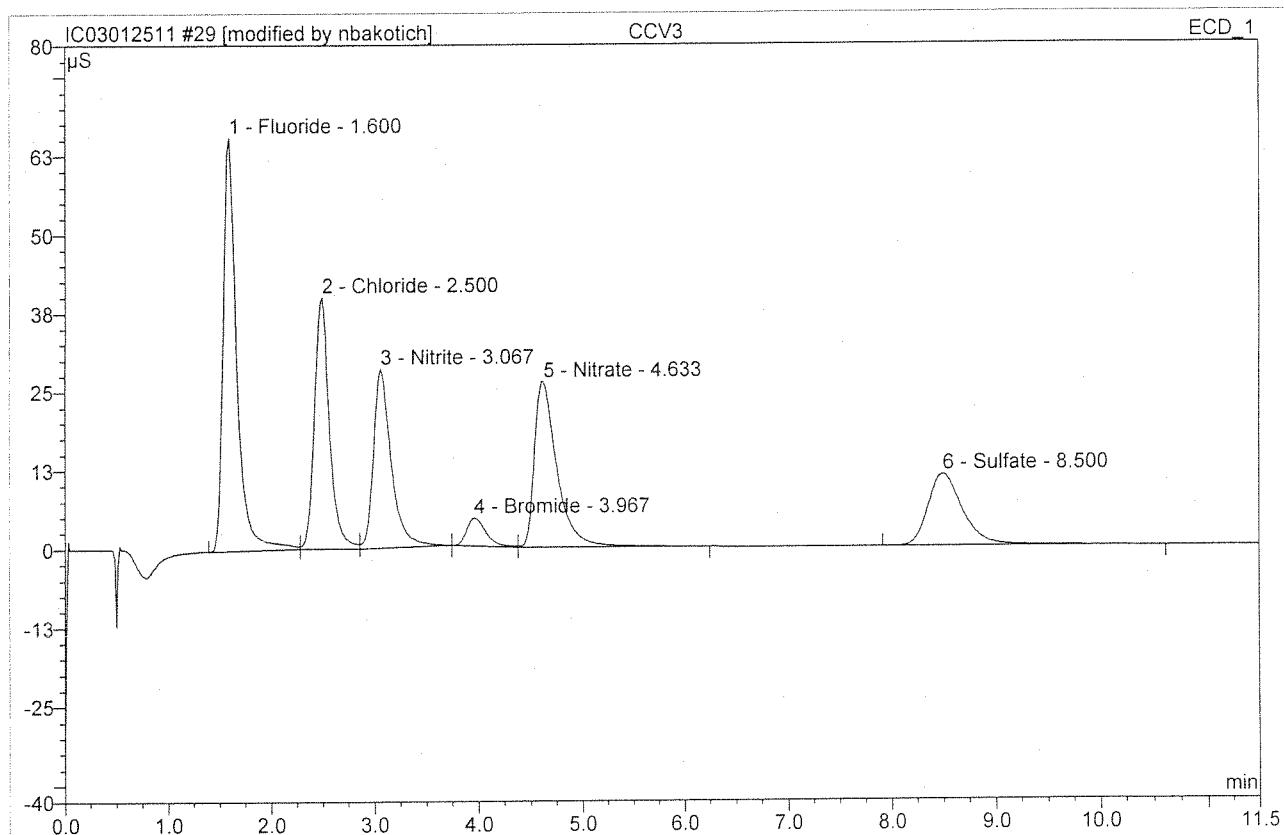


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	64.867	9.871	29.25	4.896	BM
2	2.52	Chloride	39.781	6.578	19.49	4.471	Mb
3	3.08	Nitrite	28.056	5.304	15.72	1.848	bMb
4	3.98	Bromide	4.408	0.893	2.65	1.785	bMB
5	4.65	Nitrate	26.429	6.608	19.58	1.836	BMB
6	8.50	Sulfate	11.546	4.497	13.32	4.740	BMB
Total:			175.088	33.751	100.00	19.575	

Before**JAN 25 2011**

29 CCV3**CCV3**

Sample Name:	CCV3	Injection Volume:	200.0
Vial Number:	31	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 14:21	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



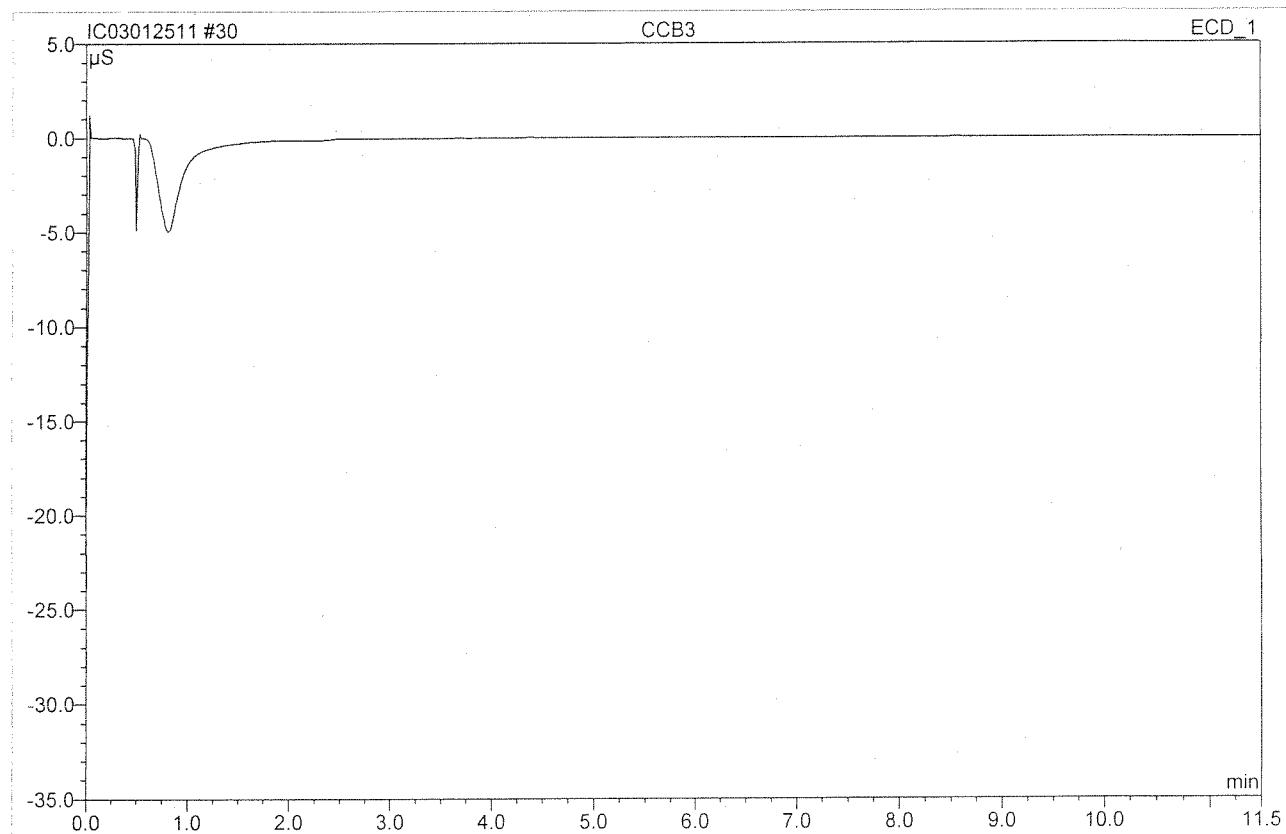
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	65.635	10.072	28.95	100 4.995	BM *
2	2.50	Chloride	39.952	6.856	19.71	93 4.659	M *
3	3.07	Nitrite	28.353	5.642	16.22	99 1.966	Mb*
4	3.97	Bromide	4.487	0.974	2.80	98 1.946	bM *
5	4.63	Nitrate	26.333	6.773	19.47	94 1.882	MB*
6	8.50	Sulfate	11.450	4.473	12.86	94/ 4.716	BMB
Total:			176.210	34.790	100.00	20.164	

After
Initials nb

1/25/2011

30 CCB3**CCB3**

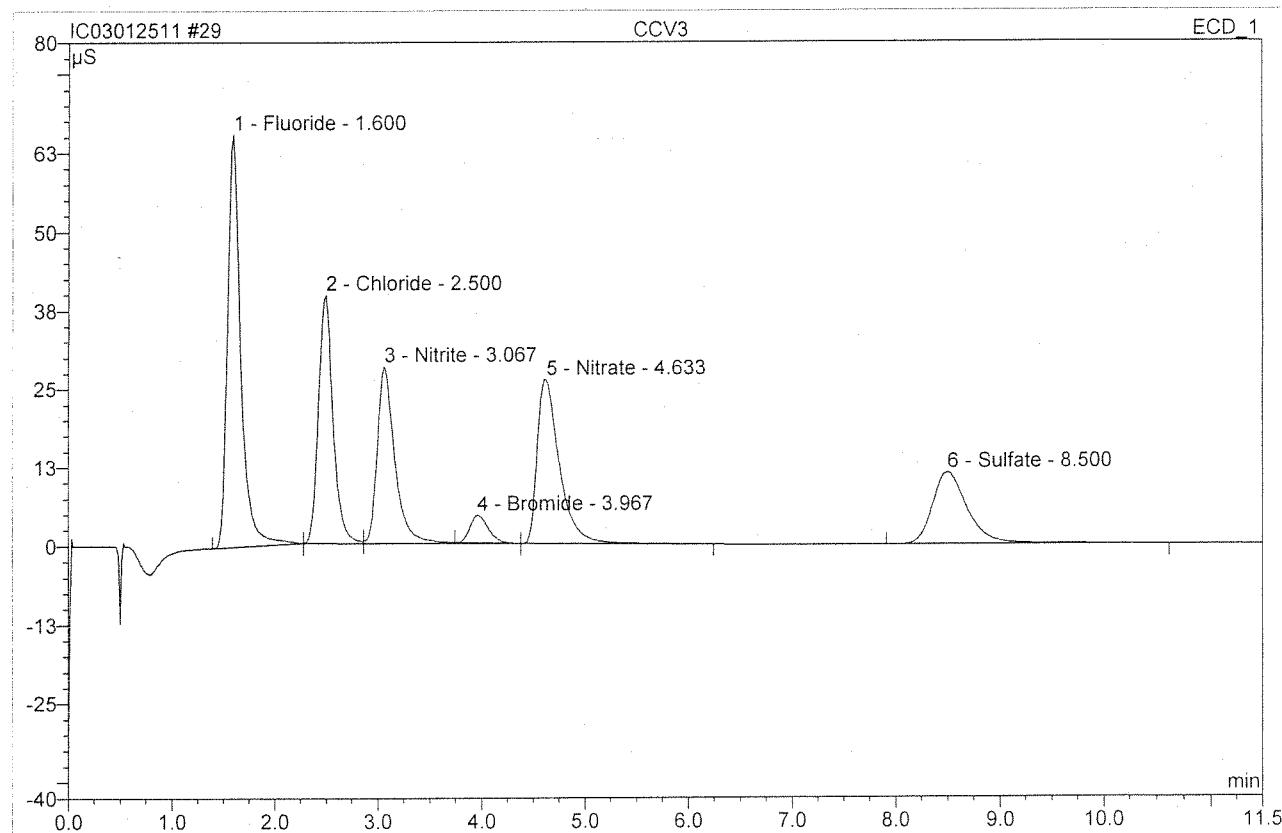
<i>Sample Name:</i>	CCB3	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	32	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/25/2011 14:35	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

29 CCV3**CCV3**

<i>Sample Name:</i>	CCV3	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	31	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/25/2011 14:21	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000

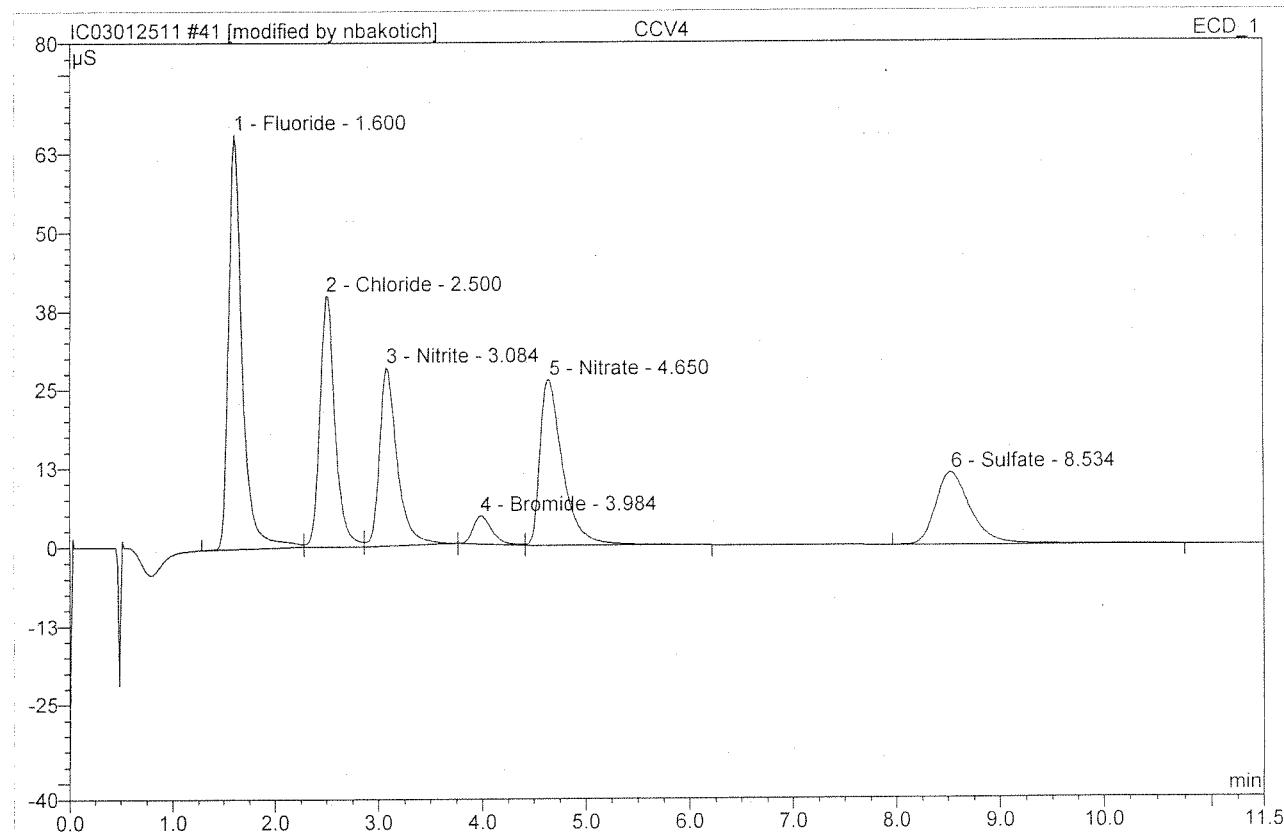


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	65.552	9.910	29.01	4.915	BMB
2	2.50	Chloride	39.598	6.652	19.47	4.521	bM
3	3.07	Nitrite	28.139	5.642	16.52	1.966	Mb
4	3.97	Bromide	4.415	0.907	2.65	1.813	Rd
5	4.63	Nitrate	26.151	6.576	19.25	1.827	bMB
6	8.50	Sulfate	11.450	4.473	13.10	4.716	BMB
Total:			175.304	34.159	100.00	19.756	

Before**JAN 25 2011**

41 CCV4**CCV4**

Sample Name:	CCV4	Injection Volume:	200.0
Vial Number:	43	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 17:32	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	65.853	10.190	29.06	5.054	BM *
2	2.50	Chloride	39.864	6.913	19.72	4.698	M *
3	3.08	Nitrite	28.349	5.667	16.16	1.975	Mb*
4	3.98	Bromide	4.477	0.976	2.78	1.951	bM *
5	4.65	Nitrate	26.312	6.789	19.36	1.886	MB*
6	8.53	Sulfate	11.463	4.527	12.91	4.772	BMB
Total:			176.319	35.062	100.00	20.336	

After
Initials

AB

640311

JAN 26 2011

default/Integration

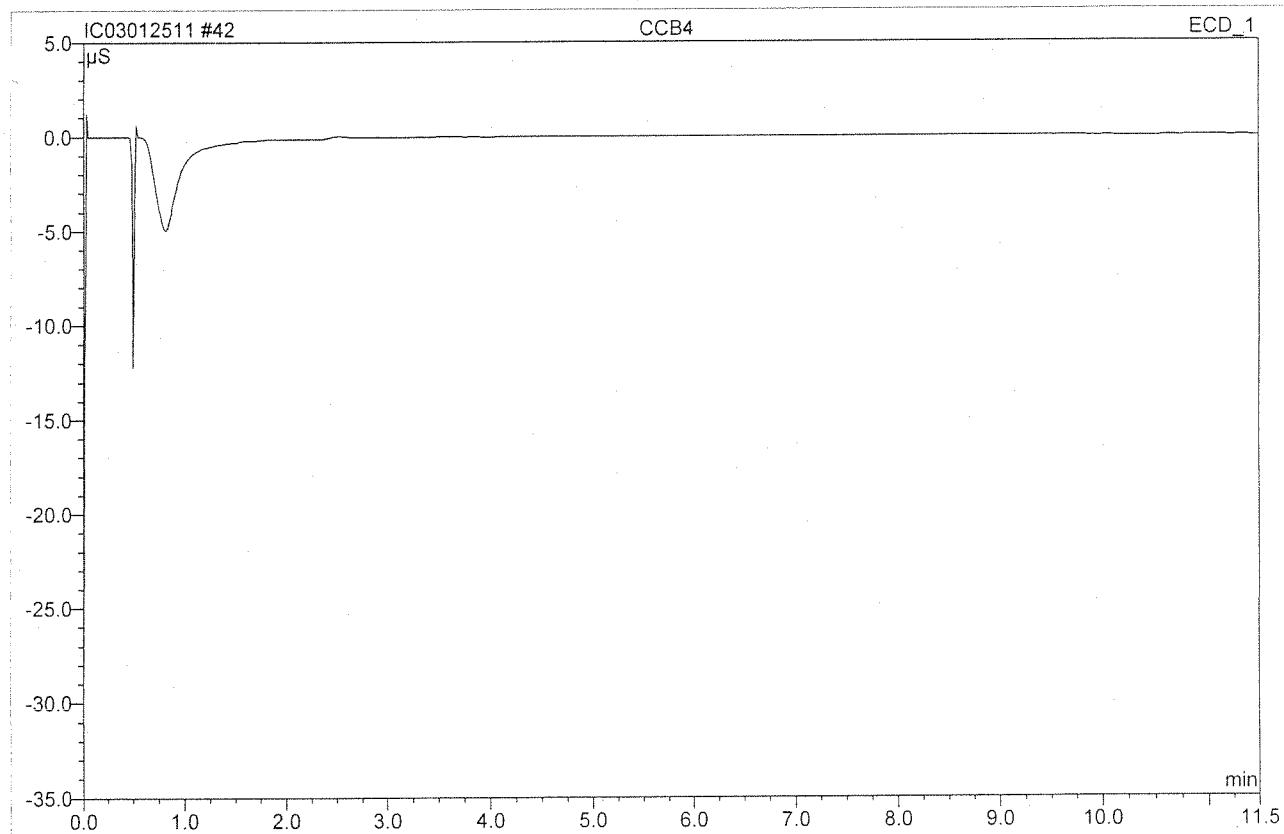
- Wrong Peak/Peak not Found
 Baseline/shoulder Incorrect
 Other

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Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

42 CCB4**CCB4**

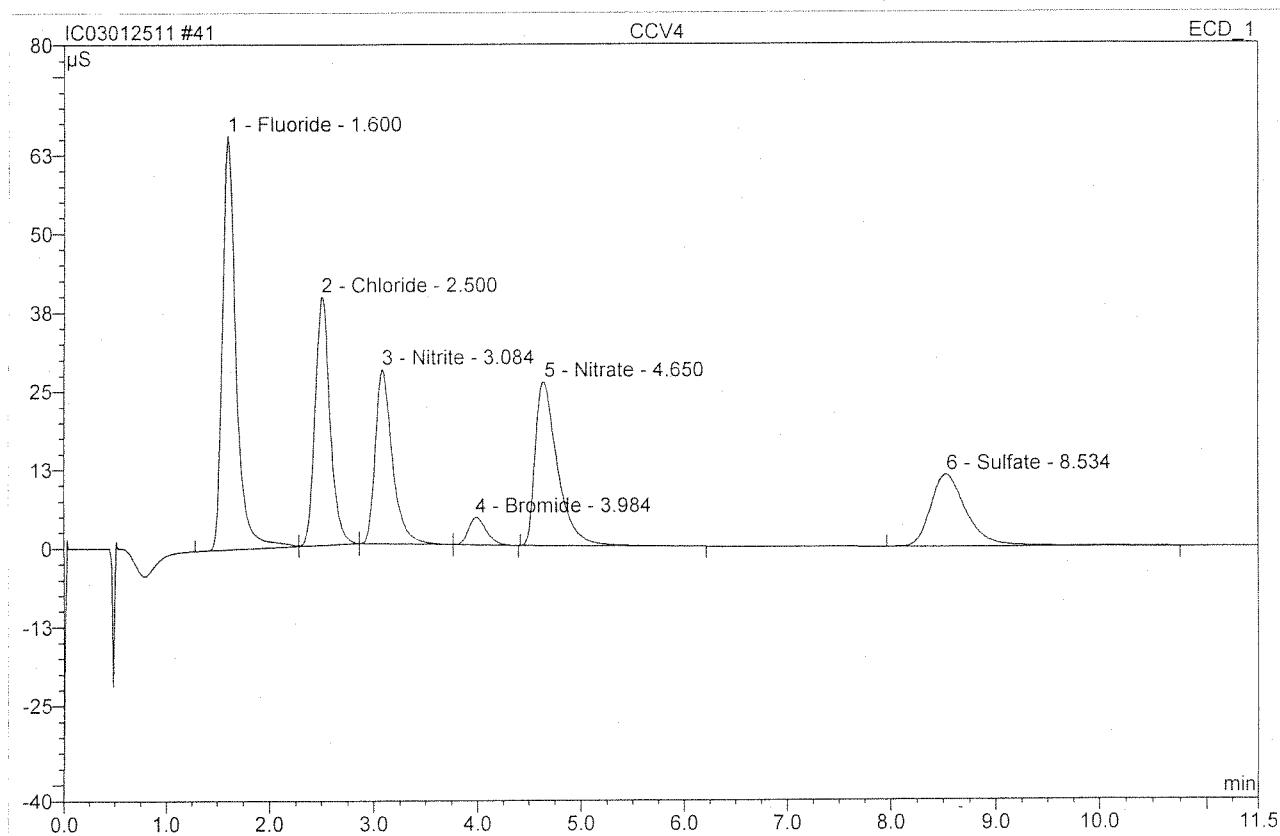
Sample Name:	CCB4	Injection Volume:	200.0
Vial Number:	44	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 17:46	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

41 CCV4**CCV4**

Sample Name:	CCV4	Injection Volume:	200.0
Vial Number:	43	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 17:32	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

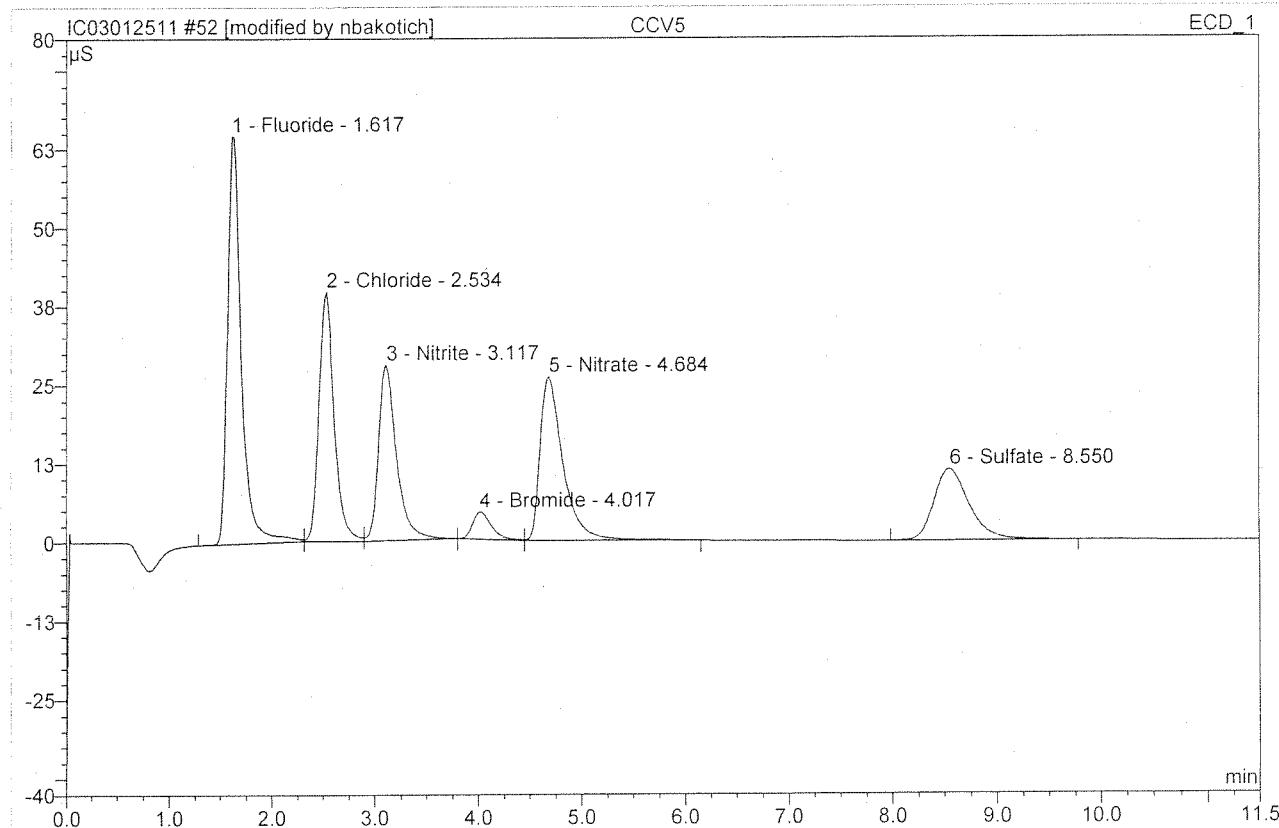


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	65.761	10.045	29.51	4.982	BM
2	2.50	Chloride	39.409	6.615	19.44	4.495	Mb
3	3.08	Nitrite	27.794	5.338	15.69	1.860	bMb
4	3.98	Bromide	4.408	0.909	2.67	1.816	bMB
5	4.65	Nitrate	26.129	6.599	19.39	1.833	BMB
6	8.53	Sulfate	11.463	4.527	13.30	4.772	BMB
Total:			174.964	34.033	100.00	19.759	

Before**JAN 26 2011**

52 CCV5**CCV5**

Sample Name:	CCV5	Injection Volume:	200.0
Vial Number:	54	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 20:06	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	64.865	10.167	29.22	101 5.043	BM *
2	2.53	Chloride	39.699	6.886	19.79	94 4.680	M *
3	3.12	Nitrite	27.948	5.620	16.15	98 1.958	Mb*
4	4.02	Bromide	4.406	0.966	2.78	97 1.932	bM *
5	4.68	Nitrate	26.058	6.761	19.43	94 1.878	MB*
6	8.55	Sulfate	11.351	4.394	12.63	93 4.632	BMB
Total:			174.327	34.794	100.00	20.123	

After
Initials *nb**5 x 10^-11*

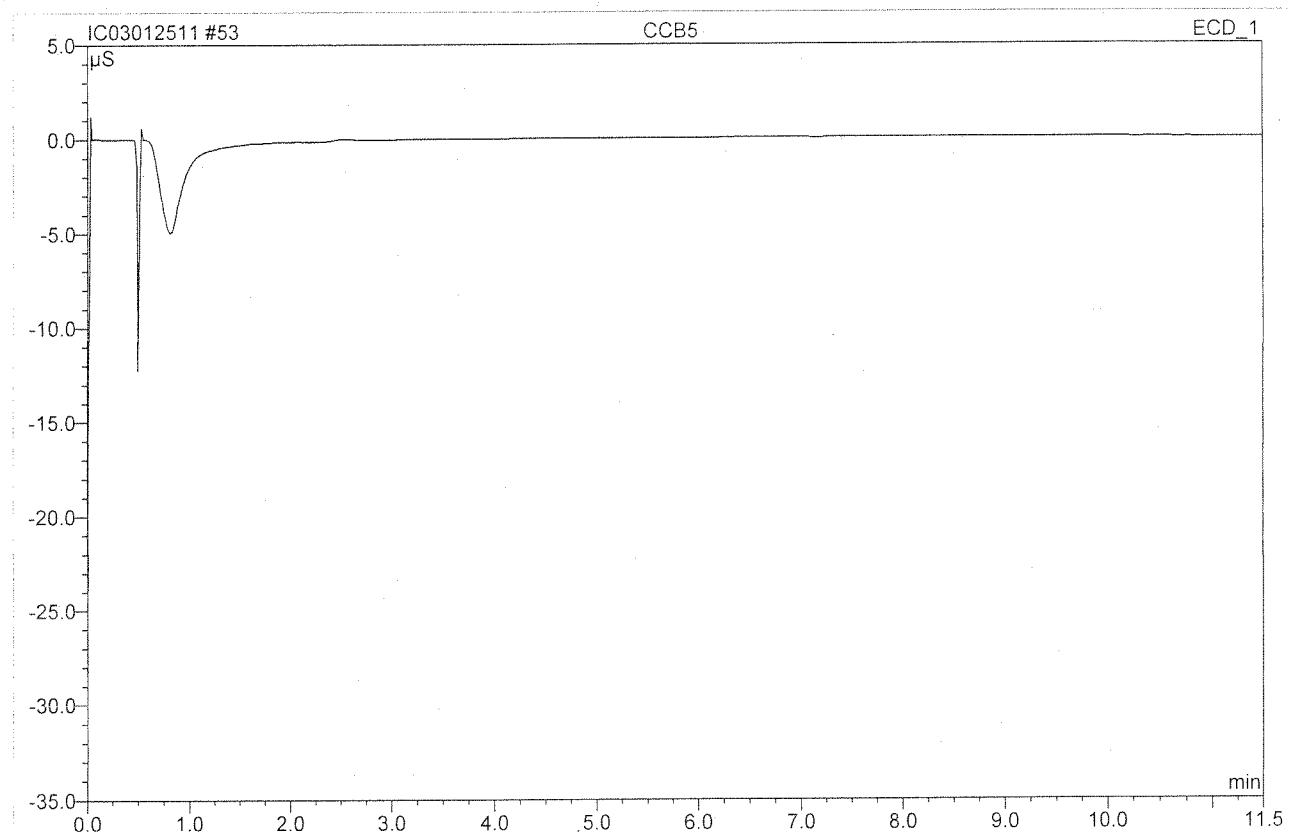
JAN 26 2011

default/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238
 Wrong Peak/Peak not Found
 Baseline/shoulder Incorrect
 Other

53 CCB5**CCB5**

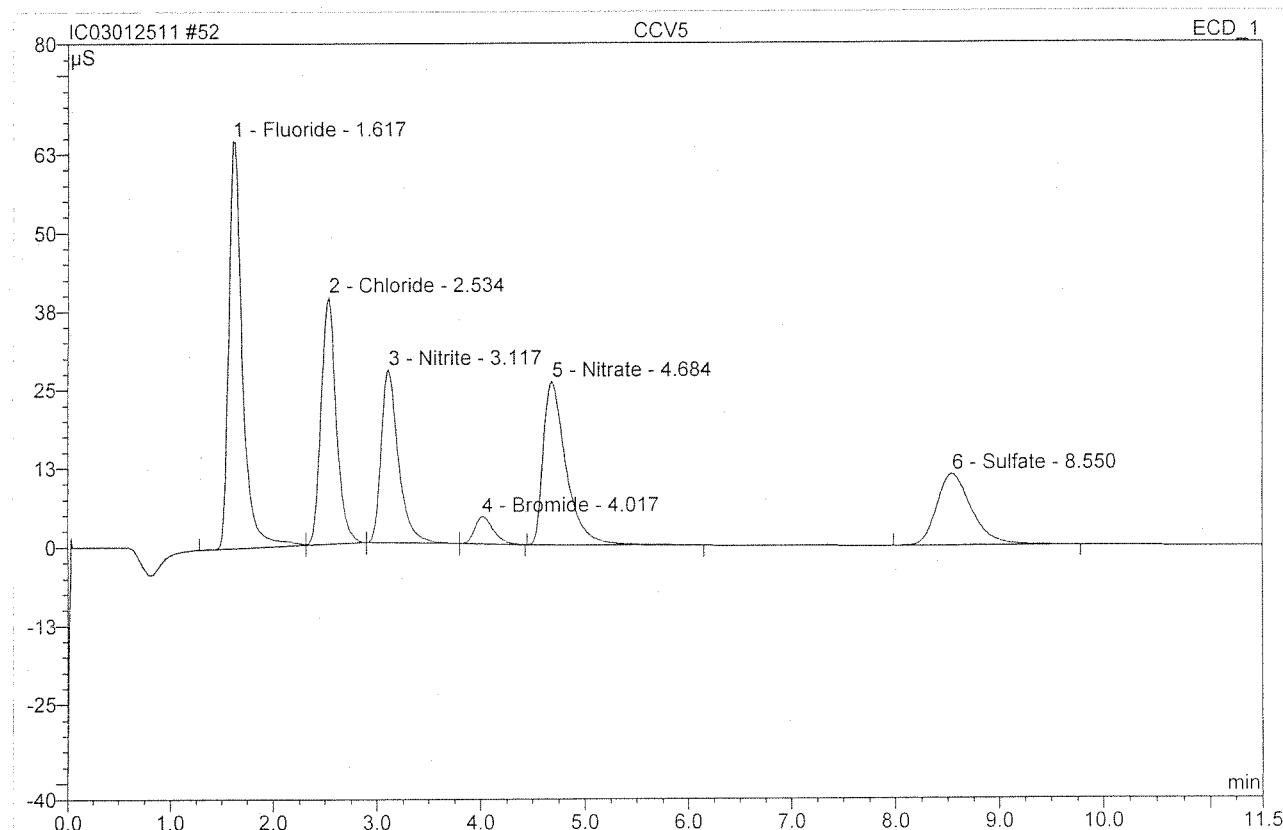
Sample Name:	CCB5	Injection Volume:	200.0
Vial Number:	55	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 20:20	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

52 CCV5**CCV5**

Sample Name:	CCV5	Injection Volume:	200.0
Vial Number:	54	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 20:06	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

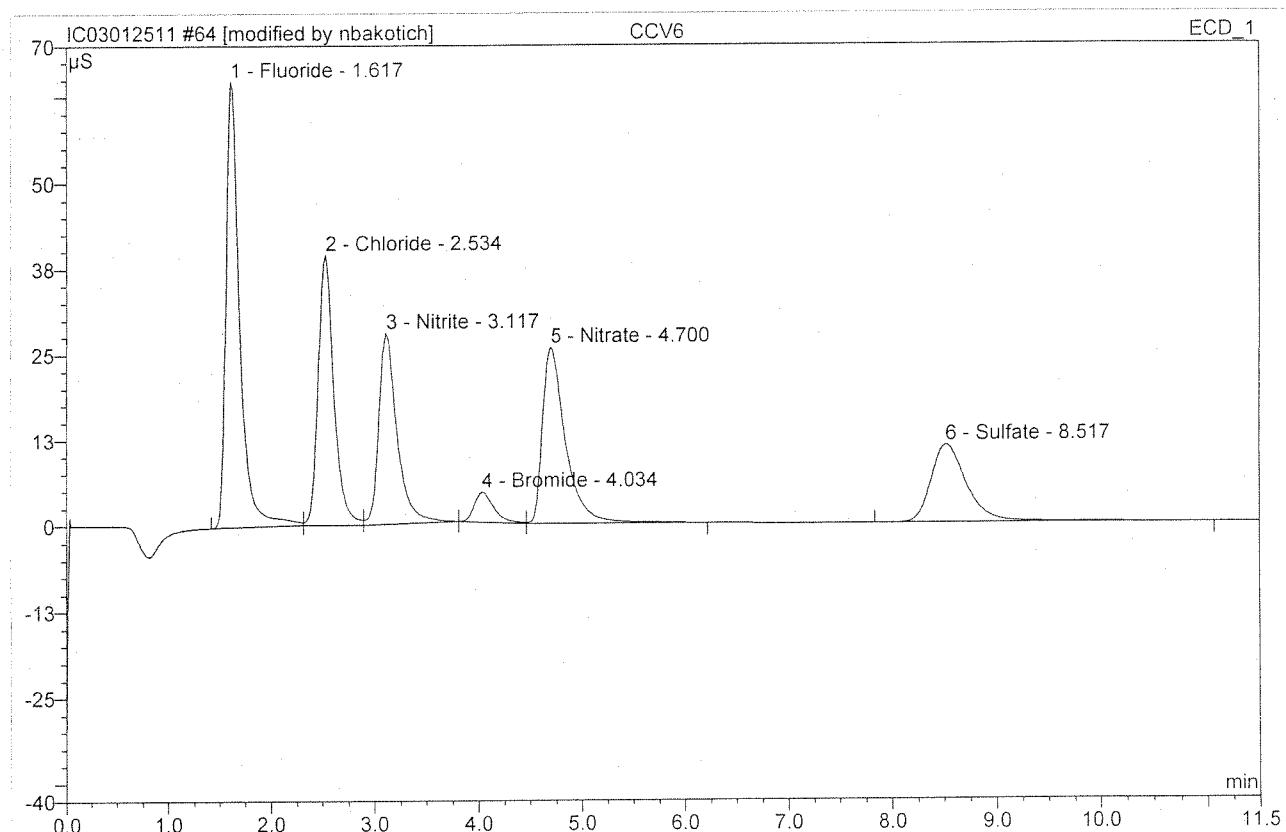


No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.62	Fluoride	64.797	10.059	29.64	4.989	BM
2	2.53	Chloride	39.329	6.637	19.56	4.511	Mb
3	3.12	Nitrite	27.460	5.330	15.71	1.857	bMb
4	4.02	Bromide	4.346	0.908	2.68	1.816	bMB
5	4.68	Nitrate	25.902	6.607	19.47	1.835	BMB
6	8.55	Sulfate	11.351	4.394	12.95	4.632	BMB
Total:			173.185	33.936	100.00	19.640	

Before**JAN 26 2011**

64 CCV6**CCV6**

Sample Name:	CCV6	Injection Volume:	200.0
Vial Number:	66	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 22:53	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.62	Fluoride	64.955	10.237	29.18	5.077	BM *
2	2.53	Chloride	39.485	6.945	19.80	4.720	M *
3	3.12	Nitrite	27.821	5.672	16.17	1.976	Mb*
4	4.03	Bromide	4.342	0.959	2.73	1.918	bM *
5	4.70	Nitrate	25.687	6.724	19.17	1.868	MB*
6	8.52	Sulfate	11.303	4.540	12.94	4.785	BMB
Total:			173.594	35.077	100.00	20.344	

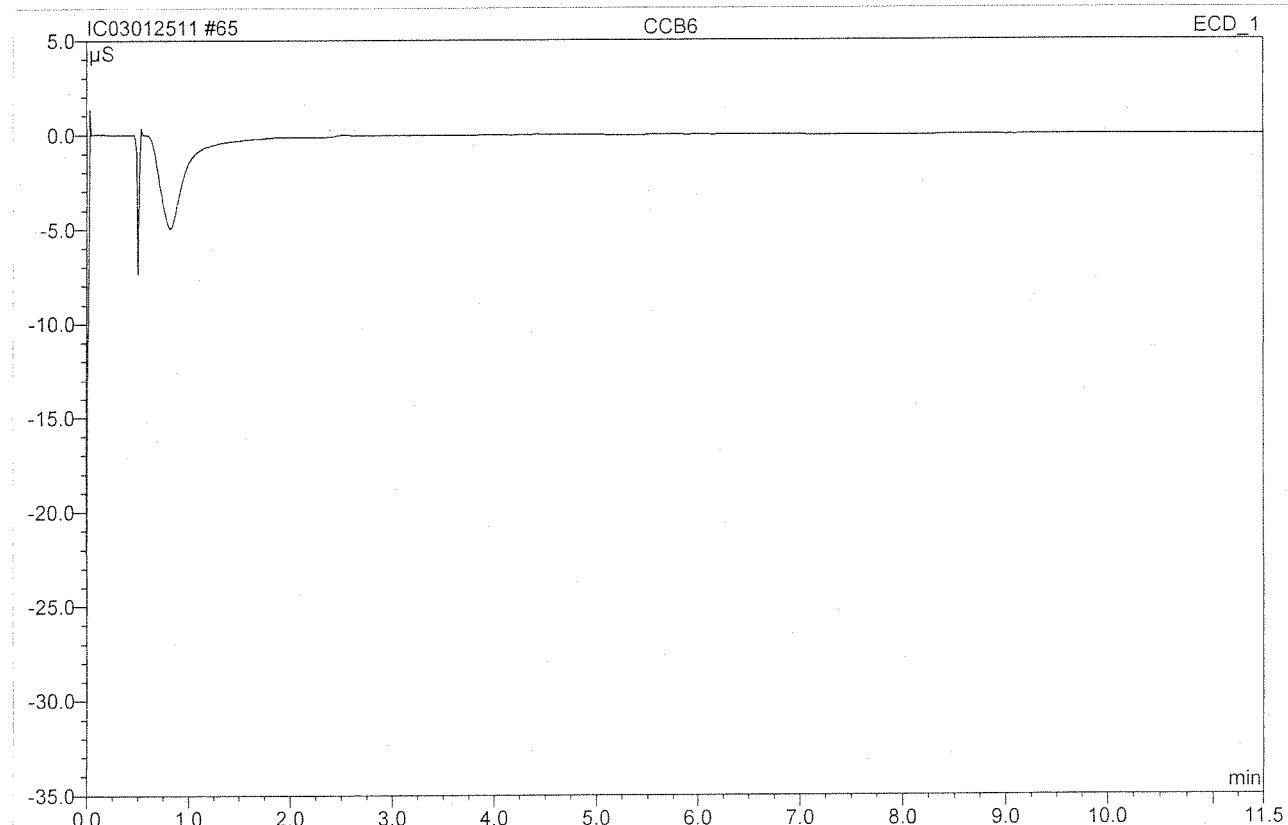
After
Initials AB

IAN 26 2011

AB 1/26/2011

65 CCB6**CCB6**

<i>Sample Name:</i>	CCB6	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	67	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/25/2011 23:07	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000

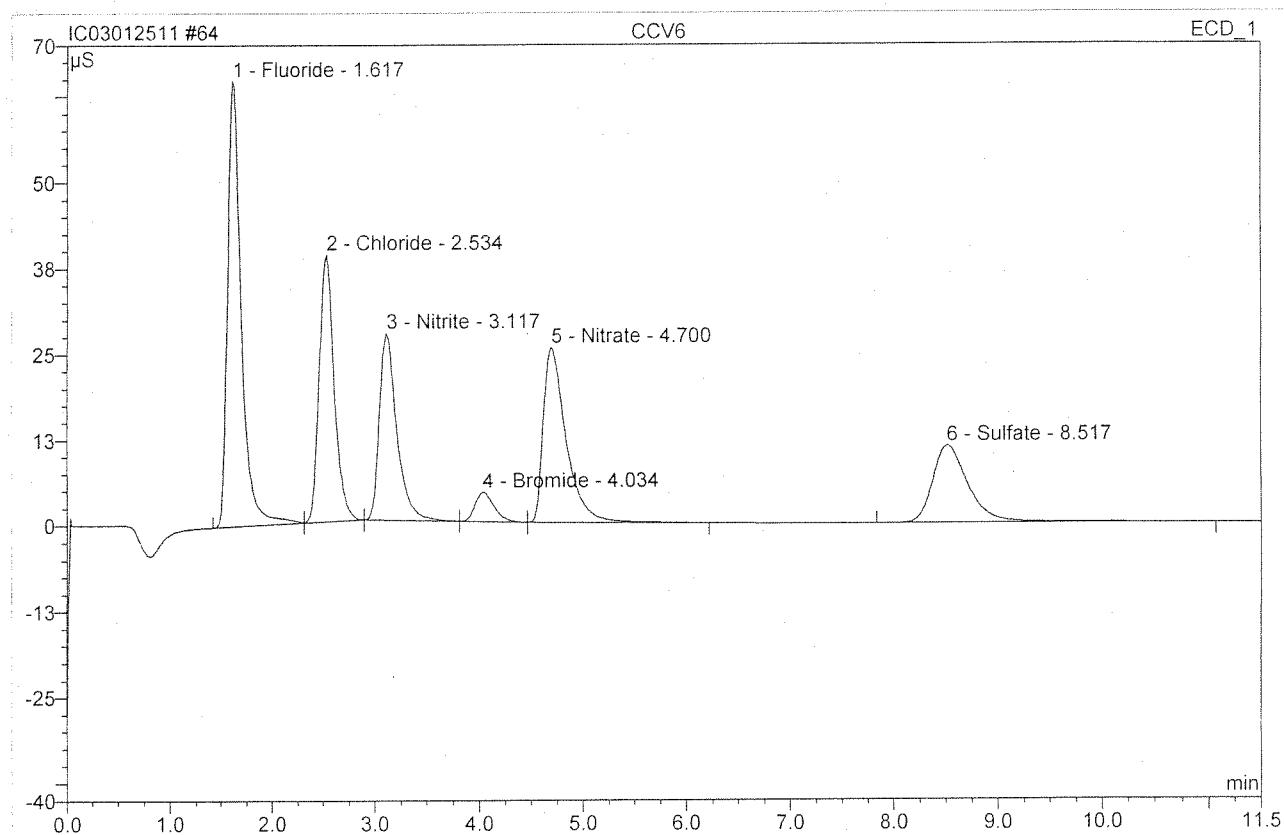


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

64 CCV6

CCV6

Sample Name:	CCV6	Injection Volume:	200.0
Vial Number:	66	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/25/2011 22:53	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	64.890	10.106	29.64	5.012	BM
2	2.53	Chloride	39.029	6.646	19.49	4.516	Mb
3	3.12	Nitrite	27.259	5.335	15.65	1.859	bMb
4	4.03	Bromide	4.281	0.900	2.64	1.799	bMb
5	4.70	Nitrate	25.529	6.565	19.26	1.824	bMB
6	8.52	Sulfate	11.303	4.540	13.32	4.785	BMB
Total:			172.293	34.091	100.00	19.796	

Before

JAN 26 2011

Sequence: IC03112210c
Date: 11/22/10

Anion	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Corr.Coeff.	Date:	Slope
F	0.0	0.1	0.2	0.5	1.0	5.0	7.5	10.0	99.9841	2.0281	
Cl	0.0	0.1	0.2	0.5	1.0	5.0	7.5	10.0	99.8121	1.6325	
NO2	0.0	0.05	0.1	0.5	1.0	2.0	5.0	-	99.9963	2.9528	
Br	0.0	0.05	0.1	0.5	1.0	2.0	5.0	-	99.8997	0.5632	
NO3	0.0	0.05	0.1	0.5	1.0	2.0	5.0	-	99.8567	4.0451	
SO4	0.0	0.1	0.2	0.5	1.0	5.0	7.5	10.0	99.9341	1.0586	

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

No.	Peak Name	Cal.Type	#Points	Rel.Std.Dev.	Corr.Coeff.	Offset	Slope	Curve
1	Fluoride	Lin	7	1.538%	99.9934%	0	2.0162	0
2	Chloride	Lin	7	6.3839%	99.8962%	0	1.4715	0
n.a.	Nitrite	Lin	6	3.47	99.9844	0	2.8702	0
n.a.	Bromide	Lin	6	5.0433	99.9621	0	0.5002	0
n.a.	Nitrate	Lin	6	9.5703	99.8817	0	3.5997	0
3	Sulfate	Lin	7	4.5792	99.9463	0	0.9487	0
Average:			6.5	5.0975	99.944	0	1.9011	0

AN11-54-A
AN11-54-B
AN11-54-C AN11-54-D AN11-54-E AN11-54-F AN11-54-G AN11-54-H AN11-54-I
STD2 STD3 STD4 STD5 STD6 STD7 STD8 STD1
ml

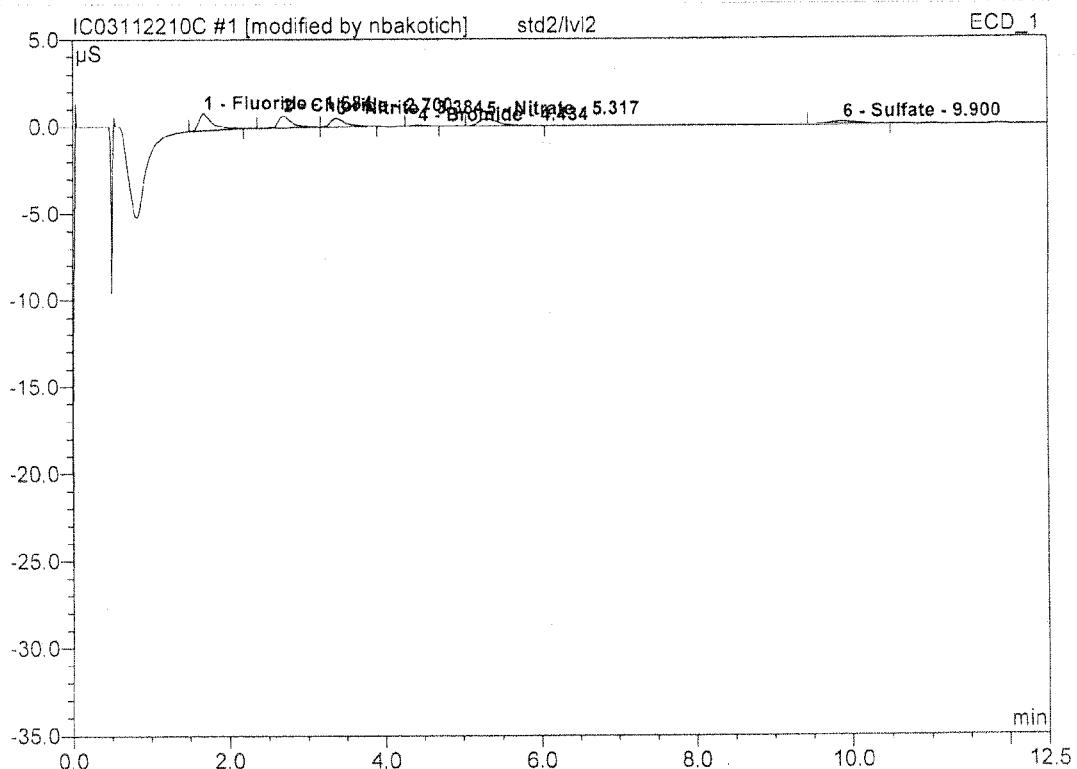
F	0.100	0.200	0.500	1.000	5.00	7.50	10.00	0
Cl	0.100	0.200	0.500	1.000	5.00	7.50	10.00	0
SO4	0.100	0.200	0.500	1.000	5.00	7.50	10.00	0
NO2	0.050	0.100	0.500	1.000	2.00	5.00	--	0
NO3	0.050	0.100	0.500	1.000	2.00	5.00	--	0
SO4	0.050	0.100	0.500	1.000	2.00	5.00	--	0

6/4/2010

Columbia Analytical Services, Inc.

1 std2/lvl2

Sample Name:	std2/lvl2	Injection Volume:	200.0
Vial Number:	2	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 14:11	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.68	Fluoride	0.989	0.192	28.60	0.095	BMB*
2	2.70	Chloride	0.677	0.148	22.03	0.101	BM *
3	3.38	Nitrite	0.504	0.125	18.58	0.043	MB*
4	4.43	Bromide	0.074	0.015	2.22	0.030	BMB*
5	5.32	Nitrate	0.399	0.125	18.66	0.035	BMB
6	9.90	Sulfate	0.155	0.067	9.91	0.070	BMB*
Total:			2.798	0.672	100.00	0.374	

After
Initials *AB*

11/22/2010

NOV 2 2010

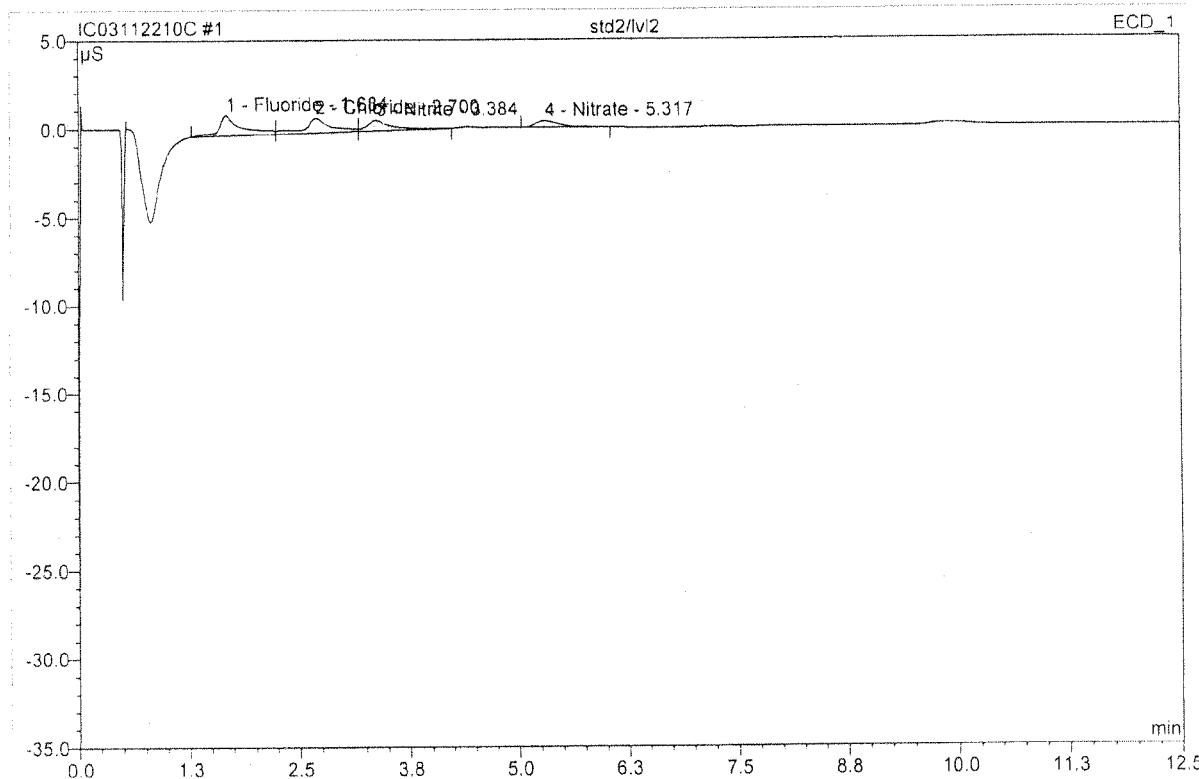
CASLIMS_300-0/Integration

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

Chromleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

1 std2/lvl2

Sample Name:	std2/lvl2	Injection Volume:	200.0
Vial Number:	2	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 14:11	Sample Weight:	1.0000
Run Time (min):	12.50	Sample Amount:	1.0000



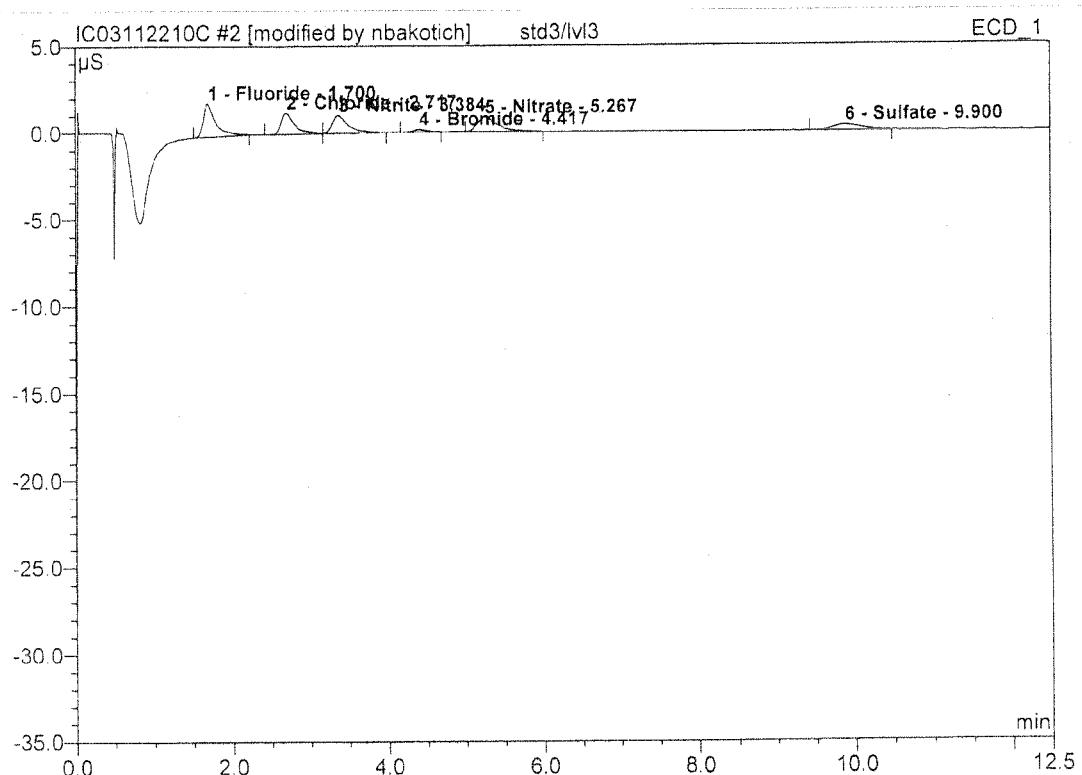
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.68	Fluoride	1.128	0.329	35.50	0.163	BM
2	2.70	Chloride	0.822	0.282	30.45	0.192	M
3	3.38	Nitrite	0.597	0.190	20.52	0.066	MB
4	5.32	Nitrate	0.399	0.125	13.53	0.035	BMB
Total:			2.945	0.926	100.00	0.456	

Before**NOV 22 2010**

Columbia Analytical Services, Inc.

2 std3/lvl3

Sample Name:	std3/lvl3	Injection Volume:	200.0
Vial Number:	1	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 14:26	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



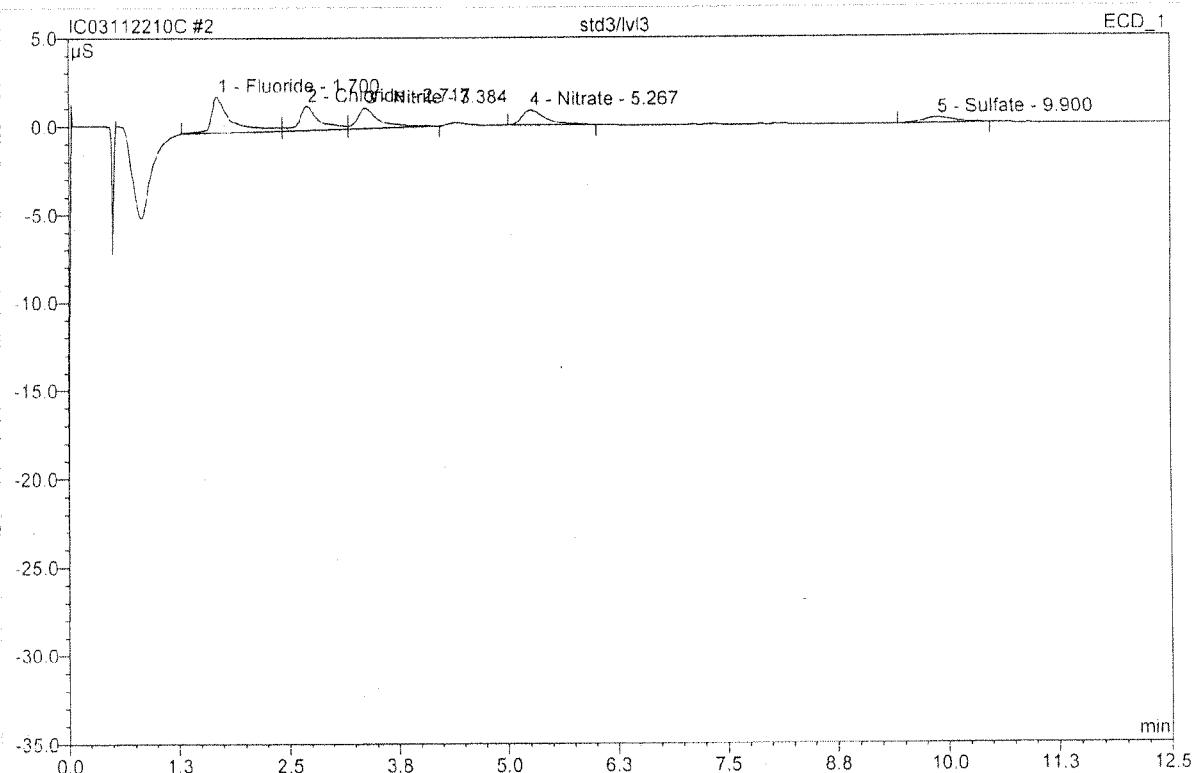
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	1.893	0.360	27.52	0.178	BMB*
2	2.72	Chloride	1.204	0.252	19.27	0.171	BM *
3	3.38	Nitrite	1.048	0.257	19.71	0.090	MB*
4	4.42	Bromide	0.160	0.035	2.71	0.071	BMB*
5	5.27	Nitrate	0.847	0.262	20.09	0.073	BMB
6	9.90	Sulfate	0.325	0.140	10.70	0.147	BMB
Total:			After 4.77	1.306	100.00	0.730	

Initials AB*11/11/10*

NOV 22 2010

2 std3/lvl3

Sample Name:	std3/lvl3	Injection Volume:	200.0
Vial Number:	1	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 14:26	Sample Weight:	1.0000
Run Time (min.):	12.50	Sample Amount:	1.0000

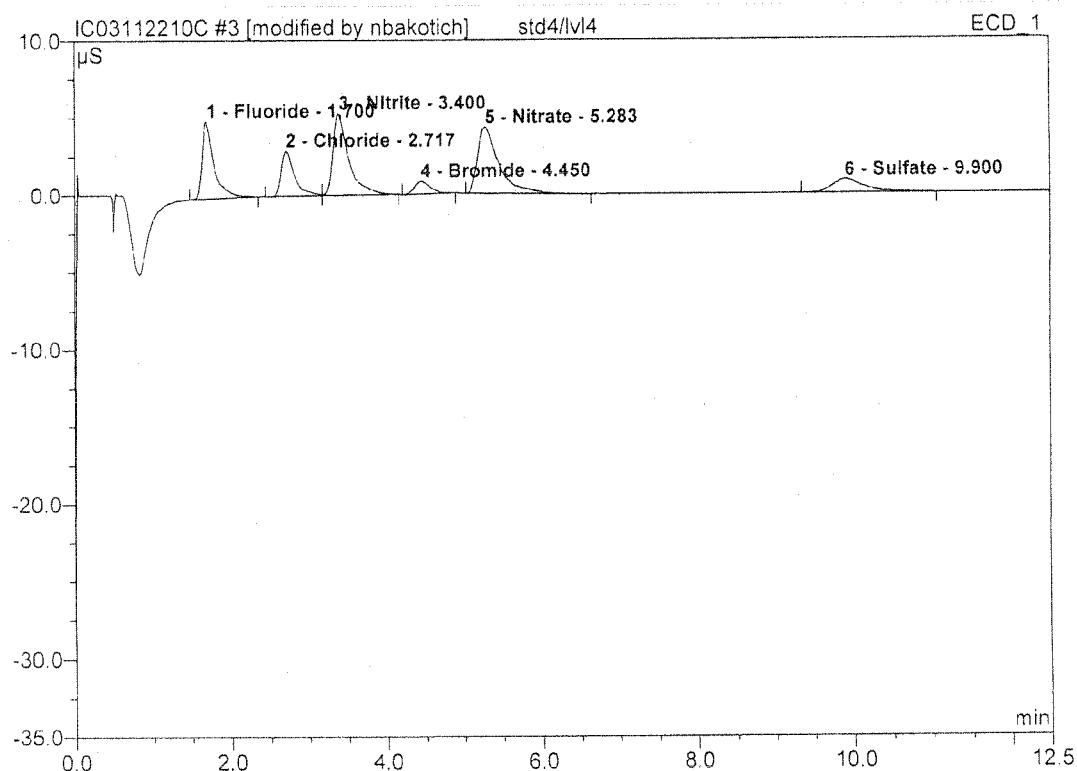


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	2.043	0.538	33.21	0.267	BM
2	2.72	Chloride	1.351	0.356	21.99	0.242	M
3	3.38	Nitrite	1.140	0.324	19.97	0.113	MB
4	5.27	Nitrate	0.847	0.262	16.20	0.073	BMB
5	9.90	Sulfate	0.325	0.140	8.63	0.147	BMB
Total:			5.707	1.620	100.00	0.842	

Before**NOV 4 2010**

Columbia Analytical Services, Inc.**3 std4/lvl4**

Sample Name:	std4/lvl4	Injection Volume:	200.0
Vial Number:	2	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 14:41	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S} \cdot \text{min}$	Rel.Area %	Amount	Type
1	1.70	Fluoride	5.003	0.894	18.81	0.443	BMB*
2	2.72	Chloride	2.933	0.584	12.30	0.397	BM *
3	3.40	Nitrite	5.309	1.275	26.83	0.444	MB*
4	4.45	Bromide	0.826	0.194	4.08	0.388	BMB*
5	5.28	Nitrate	4.320	1.392	29.29	0.387	BMB*
6	9.90	Sulfate	0.849	0.413	8.69	0.435	BMB
Total:			19.240	4.752	100.00	2.495	

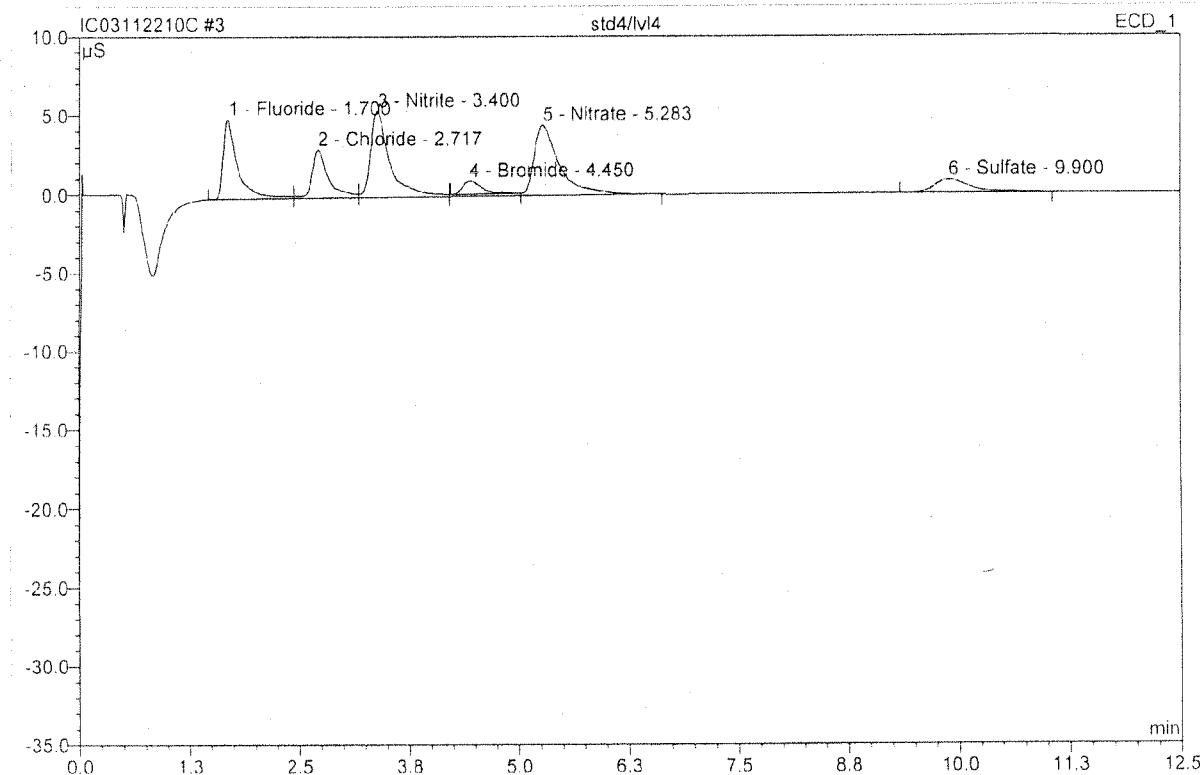
After
Initials njb

11/22/2010

NOV 22 2010

3 std4/lvl4

Sample Name:	std4/lvl4	Injection Volume:	200.0
Vial Number:	2	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 14:41	Sample Weight:	1.0000
Run Time (min):	12.50	Sample Amount:	1.0000

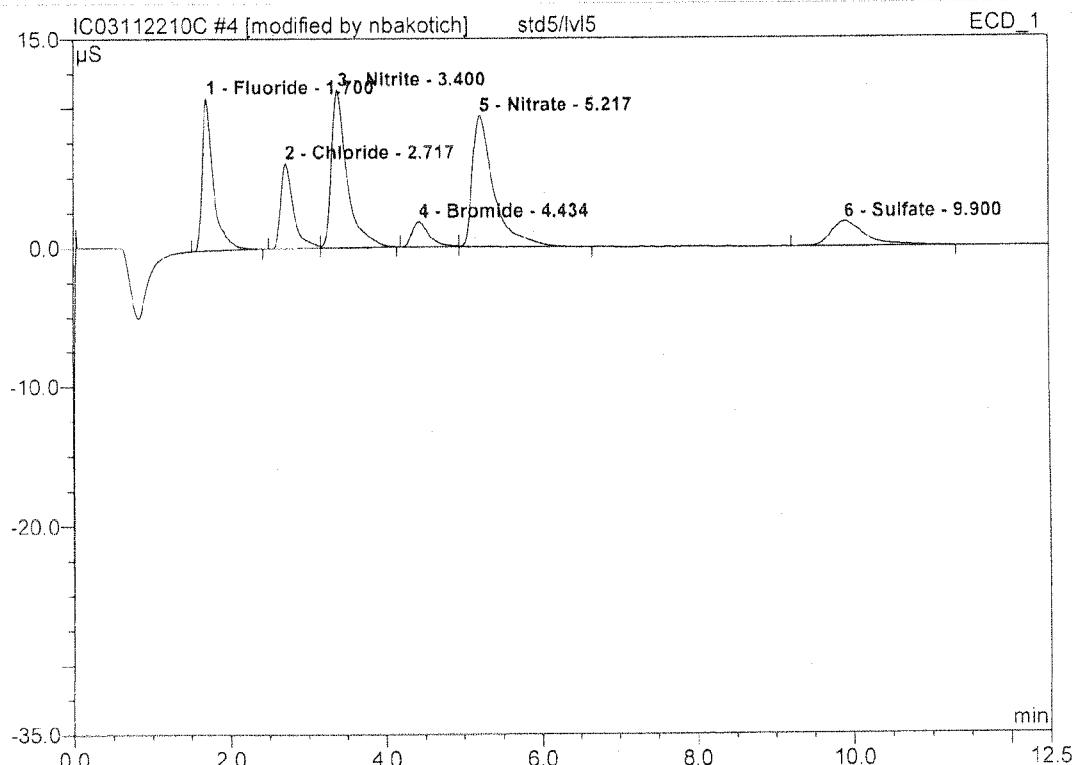


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	5.041	0.974	18.14	0.483	BM
2	2.72	Chloride	3.071	0.687	12.79	0.467	M
3	3.40	Nitrite	5.457	1.432	26.65	0.498	M
4	4.45	Bromide	0.842	0.213	3.97	0.426	Ru
5	5.28	Nitrate	4.459	1.653	30.77	0.459	MB
6	9.90	Sulfate	0.849	0.413	7.69	0.435	BMB
Total:		Before	19.719	5.371	100.00	2.768	

NOV 22 2010

Columbia Analytical Services, Inc.**4 std5/lvl5**

Sample Name:	std5/lvl5	Injection Volume:	200.0
Vial Number:	3	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 14:56	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	10.940	1.843	18.50	0.914	BMB*
2	2.72	Chloride	6.077	1.180	11.85	0.802	BM *
3	3.40	Nitrite	11.282	2.633	26.44	0.917	MB*
4	4.43	Bromide	1.794	0.452	4.54	0.904	BM *
5	5.22	Nitrate	9.359	2.982	29.95	0.828	MB*
6	9.90	Sulfate	1.753	0.868	8.72	0.915	BMB
Total:			After 4.1.205	9.958	100.00	5.281	

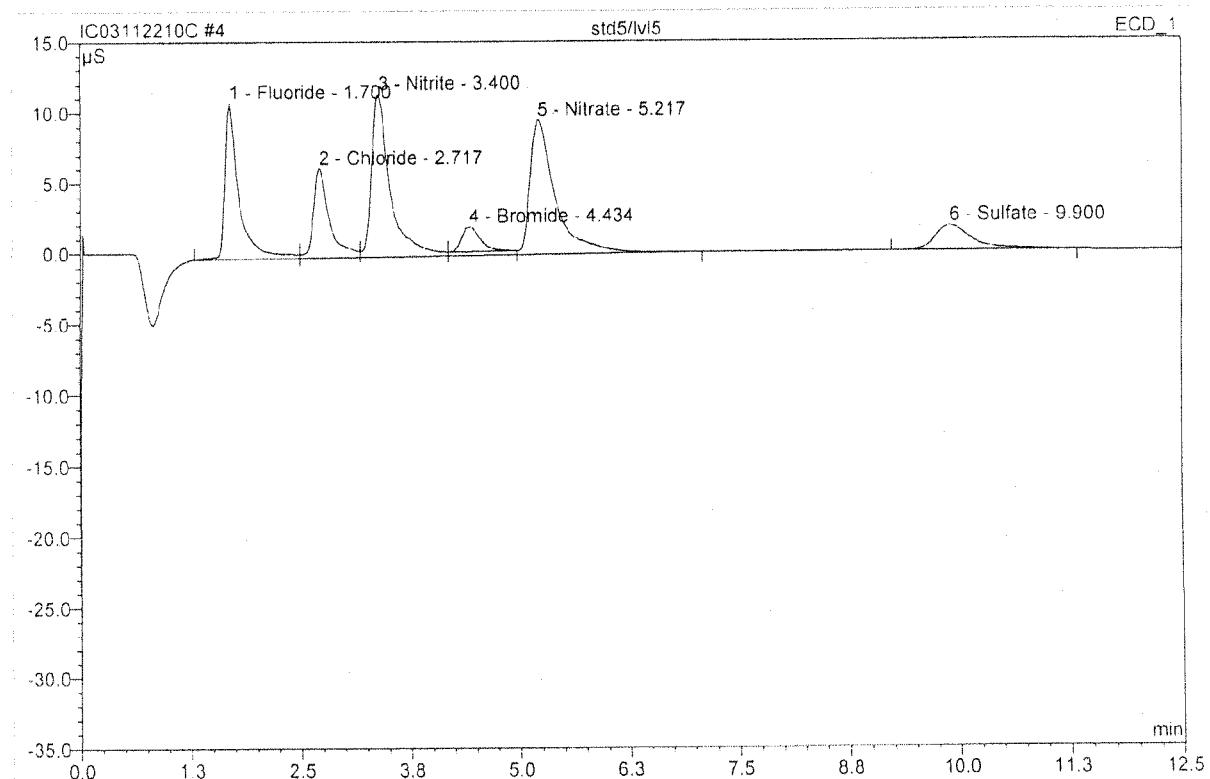
Initials AB

6/12/2010

NOV 22 2010

4 std5/lv15

Sample Name:	std5/lv15	Injection Volume:	200.0
Vial Number:	3	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 14:56	Sample Weight:	1.0000
Run Time (min):	12.50	Sample Amount:	1.0000

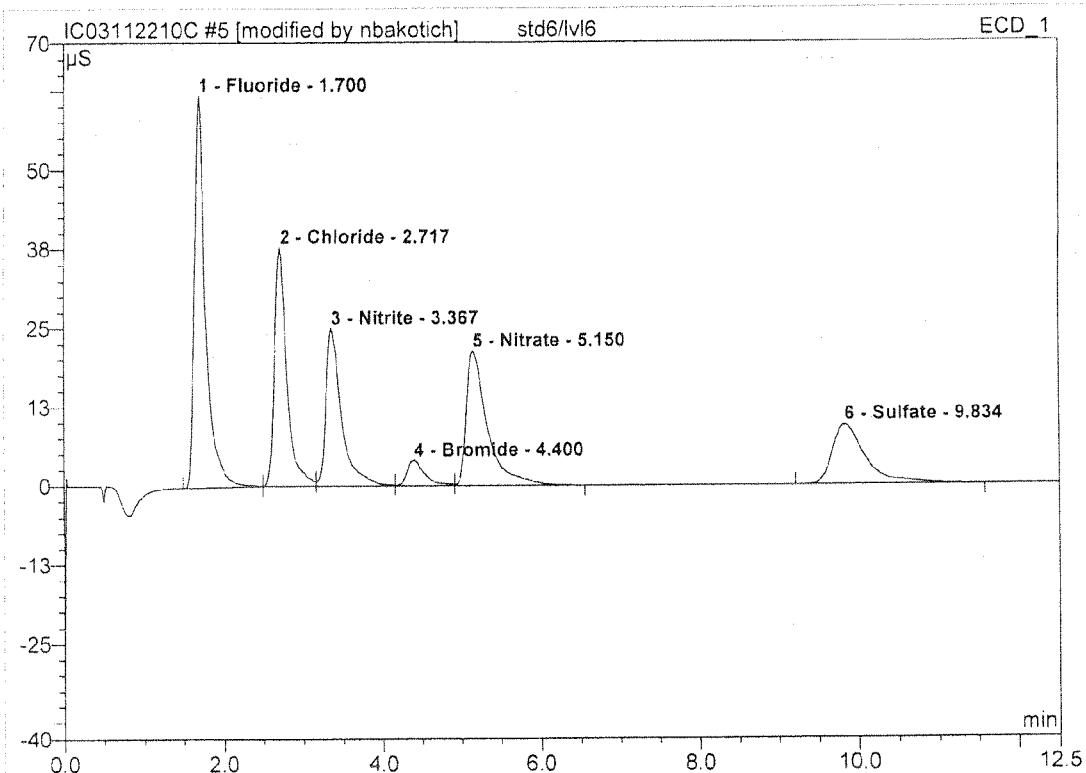


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	11.106	2.068	18.66	1.025	BM
2	2.72	Chloride	6.341	1.362	12.28	0.925	M
3	3.40	Nitrite	11.559	2.921	26.35	1.014	M
4	4.43	Bromide	1.778	0.433	3.90	0.867	Ru
5	5.22	Nitrate	9.558	3.435	30.98	0.950	MB
6	9.90	Sulfate	1.753	0.868	7.83	0.915	BMB
Total:			42.095	11.087	100.00	5.696	

Before**NOV 4 2010**

Columbia Analytical Services, Inc.**5 std6/lvl6**

Sample Name:	std6/lvl6	Injection Volume:	200.0
Vial Number:	4	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 15:11	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.70	Fluoride	61.919	10.194	29.36	5.056	BMB*
2	2.72	Chloride	37.693	6.806	19.60	4.625	bM *
3	3.37	Nitrite	24.857	5.657	16.29	1.971	M *
4	4.40	Bromide	3.966	1.023	2.95	2.045	M *
5	5.15	Nitrate	21.252	6.574	18.93	1.826	MB*
6	9.83	Sulfate	9.417	4.472	12.88	4.714	BMB
Total:		After	159.103	34.725	100.00	20.237	

Initials nb

NOV 22 2010

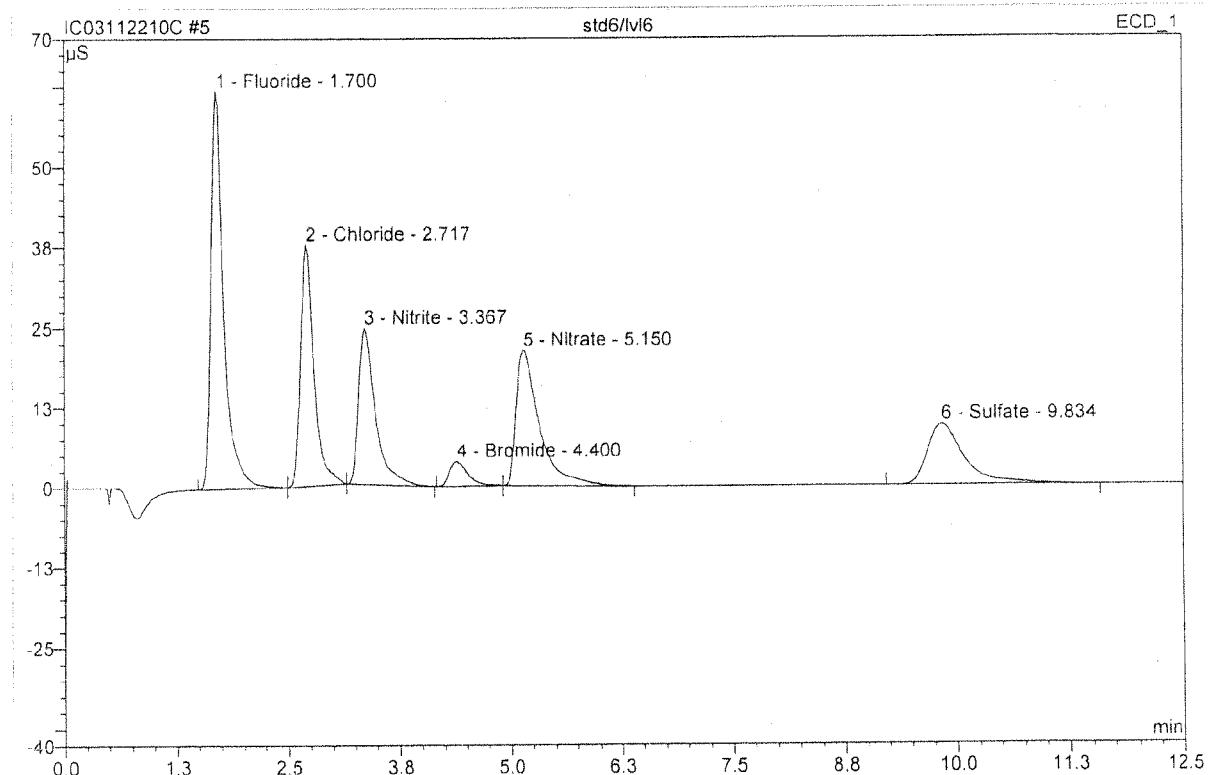
3413116

Wrong Peak/Peak not Found
 Baseline/shoulder Incorrect
 Other

Chromleon (c) Dionex 1996-2001
 Version 6.80 SP1 Build 2238

5 std6/lvl6

Sample Name:	std6/lvl6	Injection Volume:	200.0
Vial Number:	4	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 15:11	Sample Weight:	1.0000
Run Time (min):	12.50	Sample Amount:	1.0000



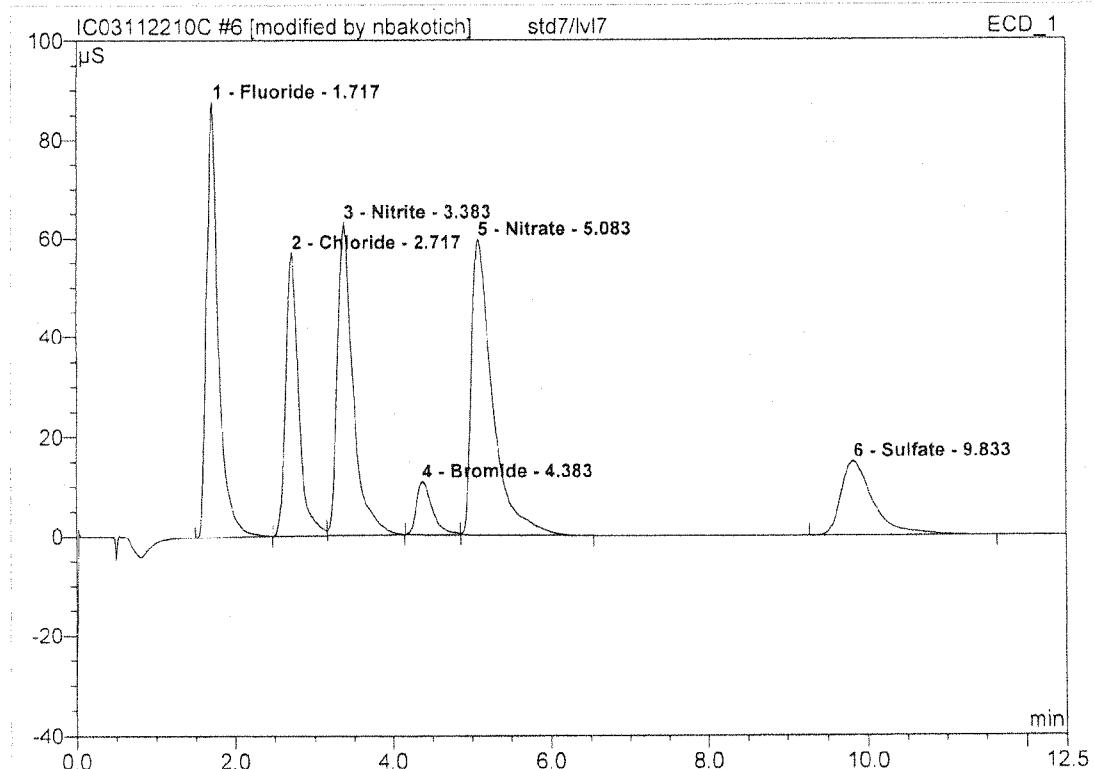
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	61.919	10.194	30.08	5.056	BMB
2	2.72	Chloride	37.503	6.612	19.51	4.510	bMb
3	3.37	Nitrite	24.368	5.310	15.67	1.865	bMB
4	4.40	Bromide	3.823	0.902	2.66	1.833	BMB
5	5.15	Nitrate	21.074	6.399	18.88	1.783	bMB
6	9.83	Sulfate	9.417	4.472	13.19	4.714	BMB
Total:			158.103	33.888	100.00	19.761	

Before**NOV 2 2010**

Columbia Analytical Services, Inc.

6 std7/lvl7

Sample Name:	std7/lvl7	Injection Volume:	200.0
Vial Number:	5	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 15:26	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.72	Fluoride	87.714	15.187	22.17	7.532	BMB
2	2.72	Chloride	56.910	10.892	15.90	7.402	BM *
3	3.38	Nitrite	62.916	14.448	21.09	5.034	MB*
4	4.38	Bromide	10.676	2.508	3.66	5.013	BM *
5	5.08	Nitrate	59.432	18.416	26.89	5.116	MB*
6	9.83	Sulfate	14.943	7.046	10.29	7.427	BMB
Total:			292.592	68.496	100.00	37.525	

After
Initials nb

6A15/11/10

NOV 22 2010

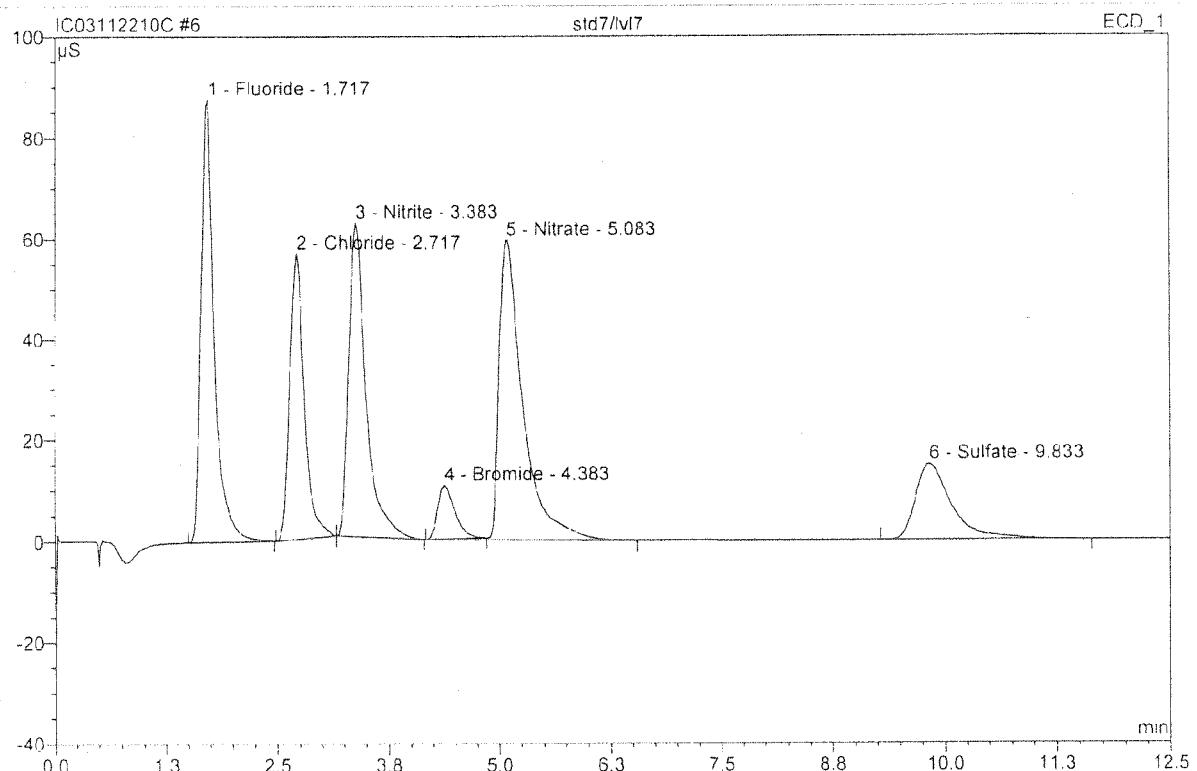
CASLIMS_300-0/Integration

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

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

6 std7/lvl7

Sample Name:	std7/lvl7	Injection Volume:	200.0
Vial Number:	5	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 15:26	Sample Weight:	1.0000
Run Time (min):	12.50	Sample Amount:	1.0000



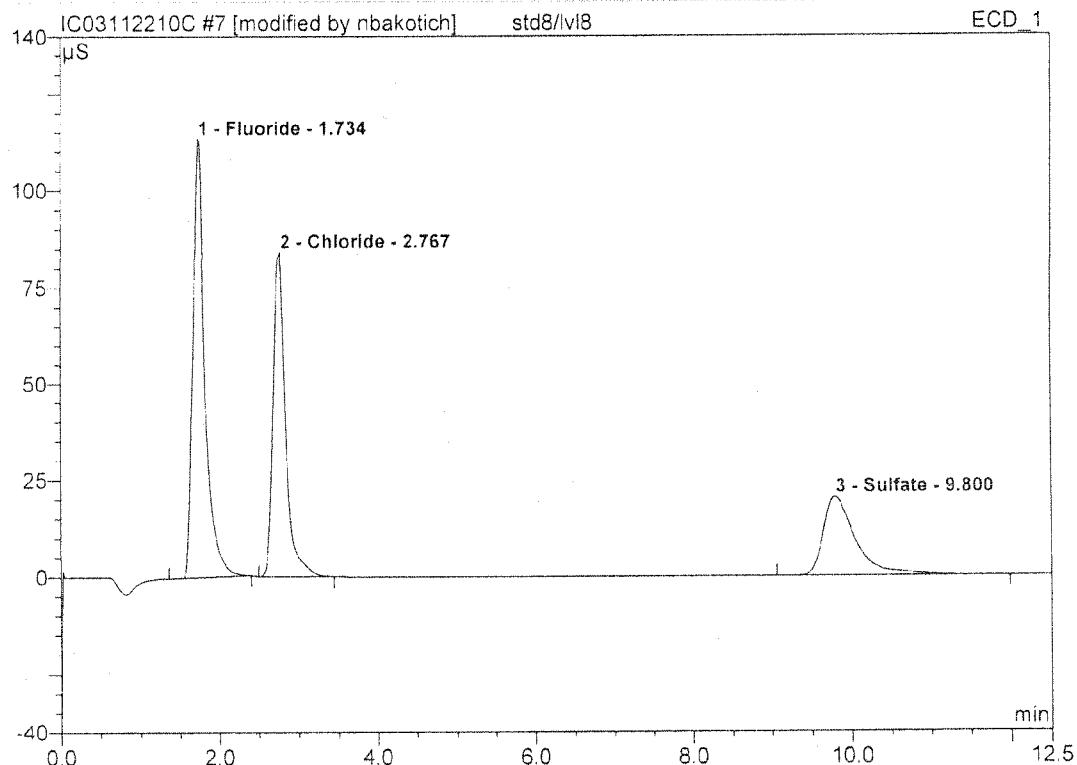
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.72	Fluoride	87.714	15.187	22.41	7.532	BMB
2	2.72	Chloride	56.611	10.593	15.63	7.259	BMB
3	3.38	Nitrite	62.232	14.017	20.68	5.008	bMB
4	4.38	Bromide	10.581	2.401	3.54	4.975	RU
5	5.08	Nitrate	59.432	18.523	27.33	5.120	BMB
6	9.83	Sulfate	14.943	7.046	10.40	7.427	BMB
Total:			291.513	67.765	100.00	37.322	

Before**NOV 4 2010**

Columbia Analytical Services, Inc.

7 std8/lvl8

Sample Name:	std8/lvl8	Injection Volume:	200.0
Vial Number:	6	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 15:41	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S} \cdot \text{min}$	Rel.Area %	Amount	Type
1	1.73	Fluoride	113.420	20.081	44.72	9.960	BMB*
2	2.77	Chloride	83.885	15.135	33.71	10.286	BMB*
3	9.80	Sulfate	20.407	9.687	21.57	10.211	BMB
Total:		After	217.713	44.903	100.00	30.457	

Initials TD

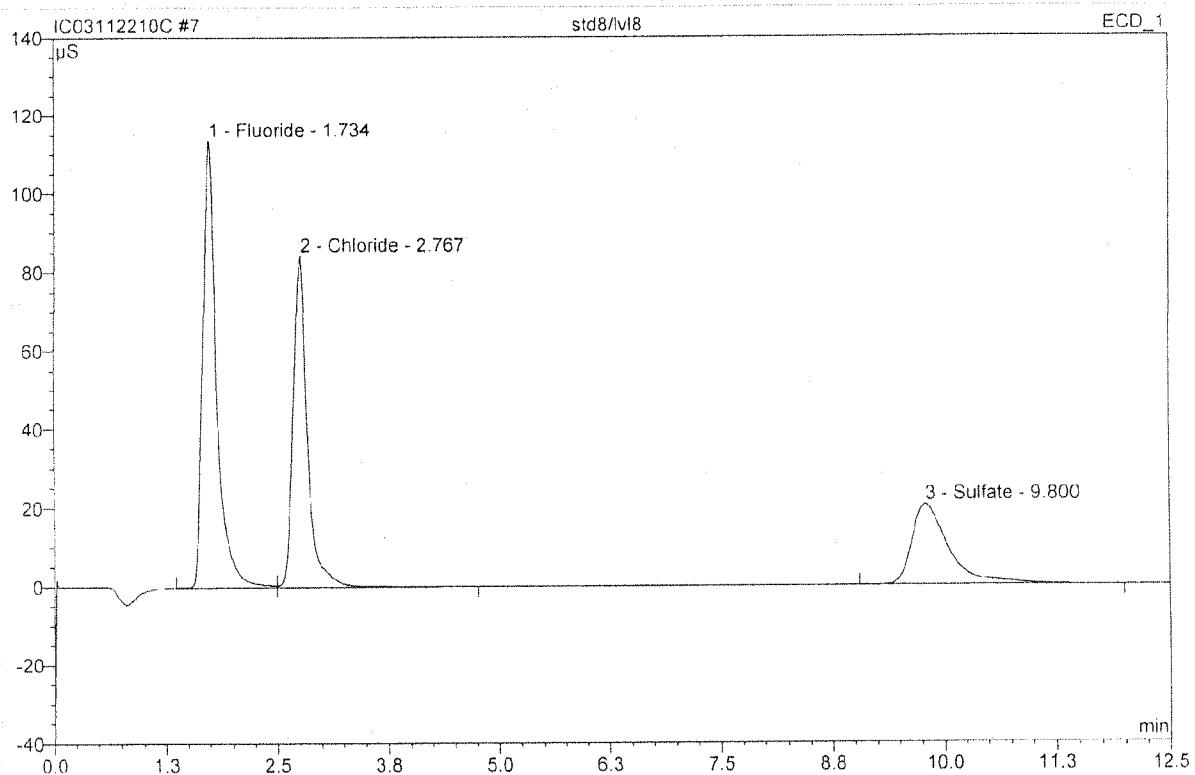
NOV 22 2010

611013112

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

7 std8/lvl8

Sample Name:	std8/lvl8	Injection Volume:	200.0
Vial Number:	6	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 15:41	Sample Weight:	1.0000
Run Time (min.):	12.50	Sample Amount:	1.0000

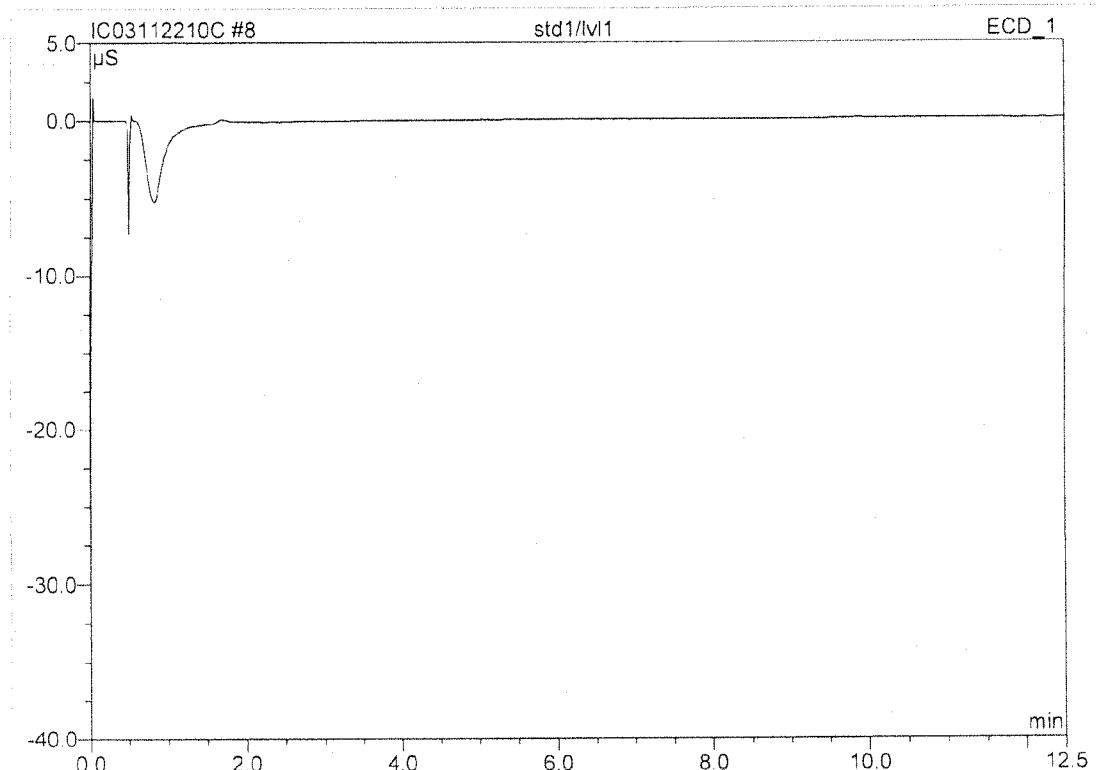


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.73	Fluoride	113.629	20.434	44.74	10.039	BM
2	2.77	Chloride	84.251	15.552	34.05	10.408	MB
3	9.80	Sulfate	20.407	9.687	21.21	10.211	BMB
Total:			218.287	45.673	100.00	30.657	

Before**NOV 4 2010**

Columbia Analytical Services, Inc.**8 std1/lvl1**

Sample Name:	std1/lvl1	Injection Volume:	200.0
Vial Number:	7	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 15:56	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03

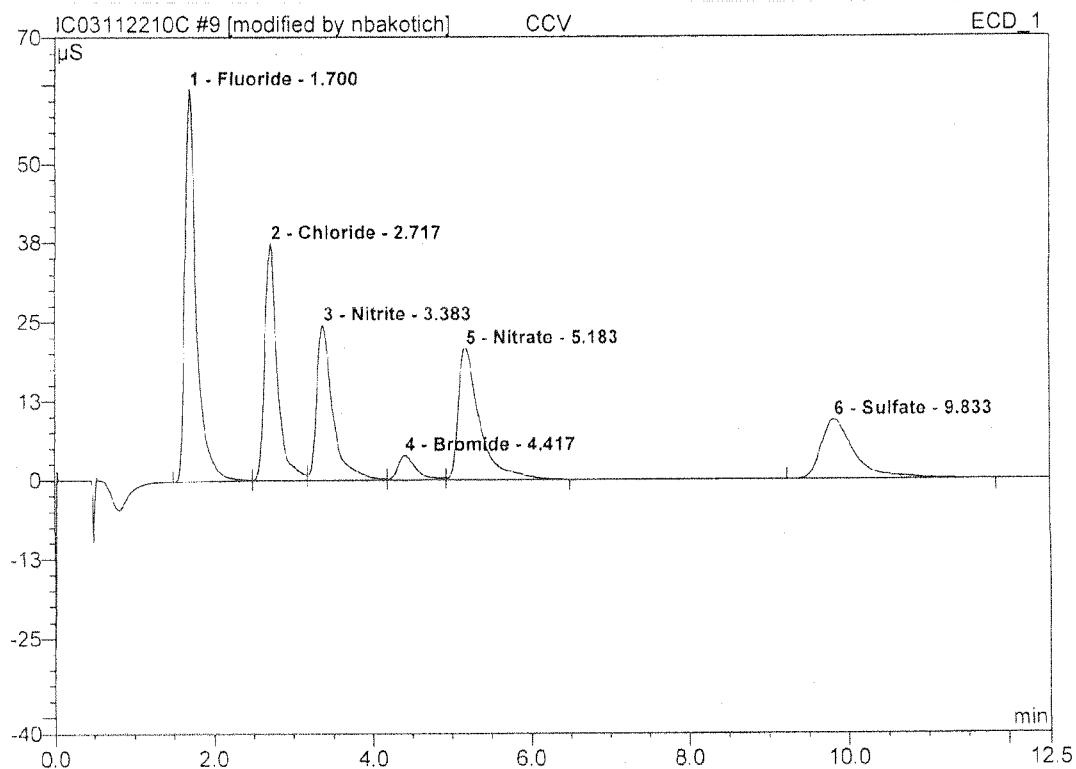


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

Columbia Analytical Services, Inc.

9 CCV

Sample Name:	CCV	Injection Volume:	200.0
Vial Number:	8	Channel:	ECD_1
Sample Type:	unknown	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 16:11	Analyst:	JS / EM
Run Time (min.):	12.52	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	62.081	10.293	29.50	5.105	BMB
2	2.72	Chloride	37.316	6.836	19.59	4.646	bM *
3	3.38	Nitrite	24.508	5.662	16.22	1.973	M *
4	4.42	Bromide	3.899	1.014	2.91	2.027	M *
5	5.18	Nitrate	20.744	6.560	18.80	1.822	MB*
6	9.83	Sulfate	9.395	4.531	12.98	4.777	BMB
Total:			157.944	34.896	100.00	20.350	

After
Initials nb

6110310

NOV 2 2010

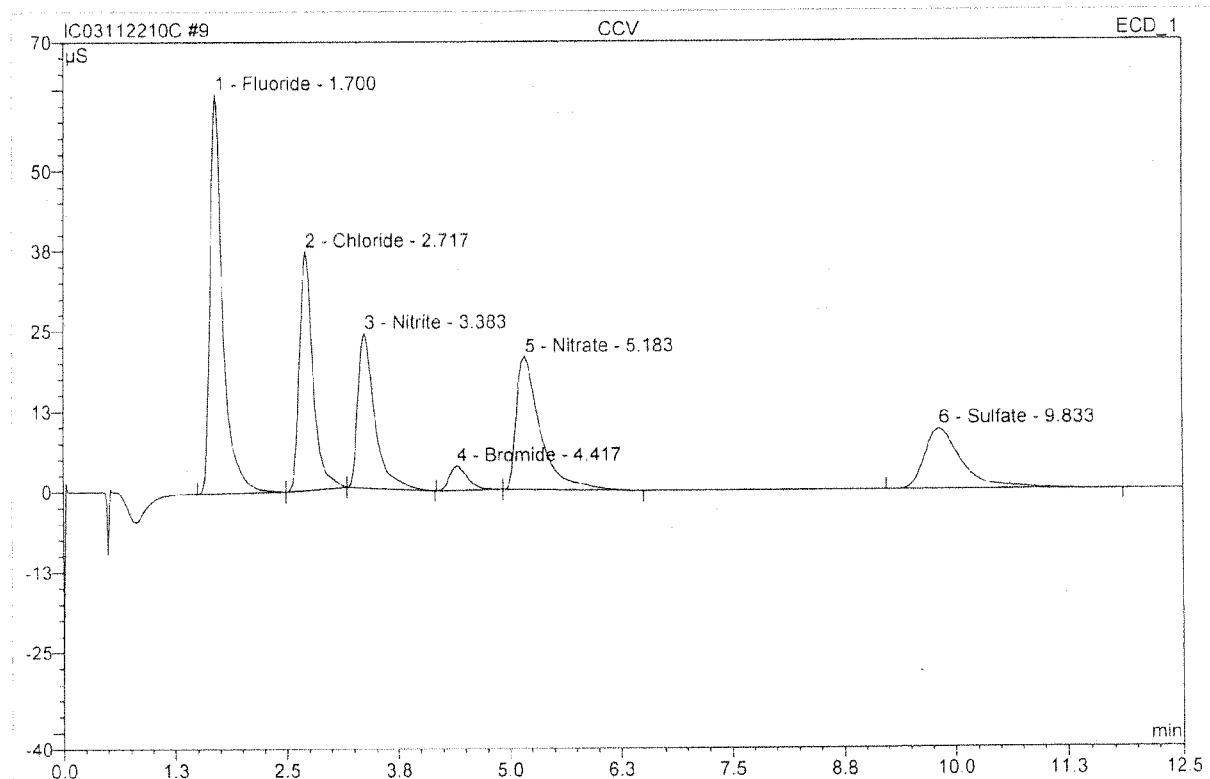
CASLIMS_300-0/Integration

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

Chromleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

9 CCV

Sample Name:	CCV	Injection Volume:	200.0
Vial Number:	8	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 16:11	Sample Weight:	1.0000
Run Time (min):	12.52	Sample Amount:	1.0000



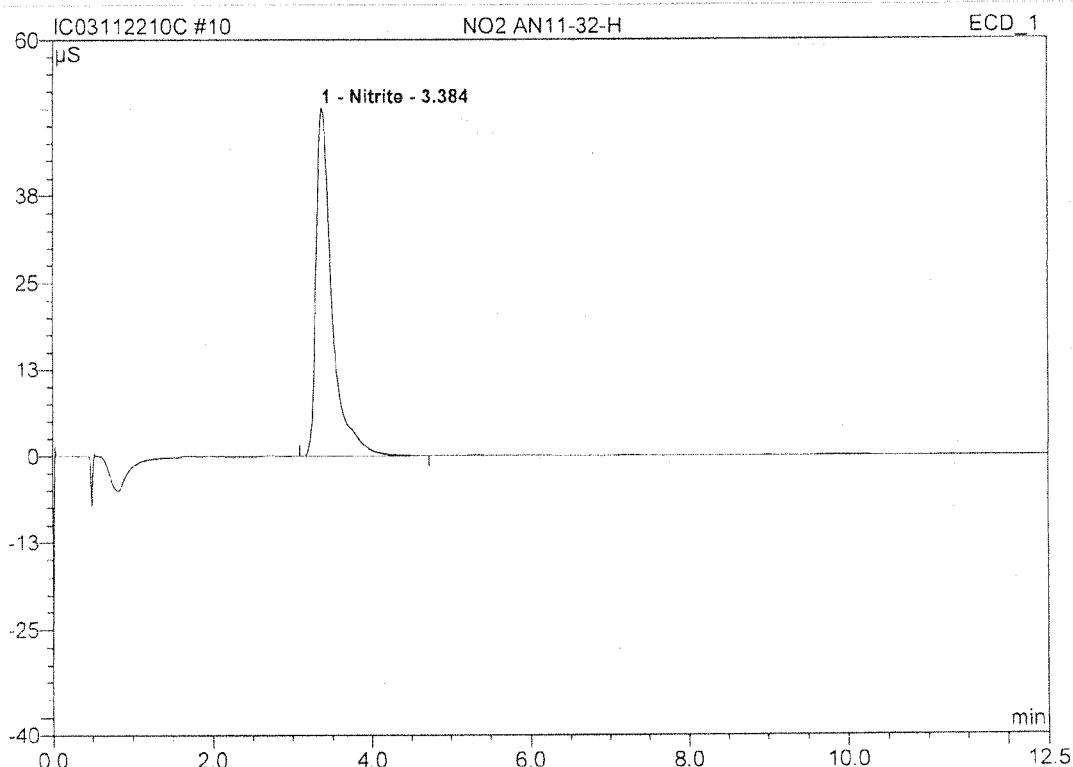
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	62.081	10.293	30.28	5.105	BMb
2	2.72	Chloride	37.108	6.612	19.45	4.493	bMb
3	3.38	Nitrite	23.960	5.280	15.53	1.840	bMB
4	4.42	Bromide	3.755	0.890	2.62	1.780	BMb
5	5.18	Nitrate	20.558	6.387	18.79	1.774	bMB
6	9.83	Sulfate	9.395	4.531	13.33	4.777	BMB
Total:			156.858	33.992	100.00	19.768	

Before

NOV 2 2010

Columbia Analytical Services, Inc.**10 NO2 AN11-32-H****NO2**

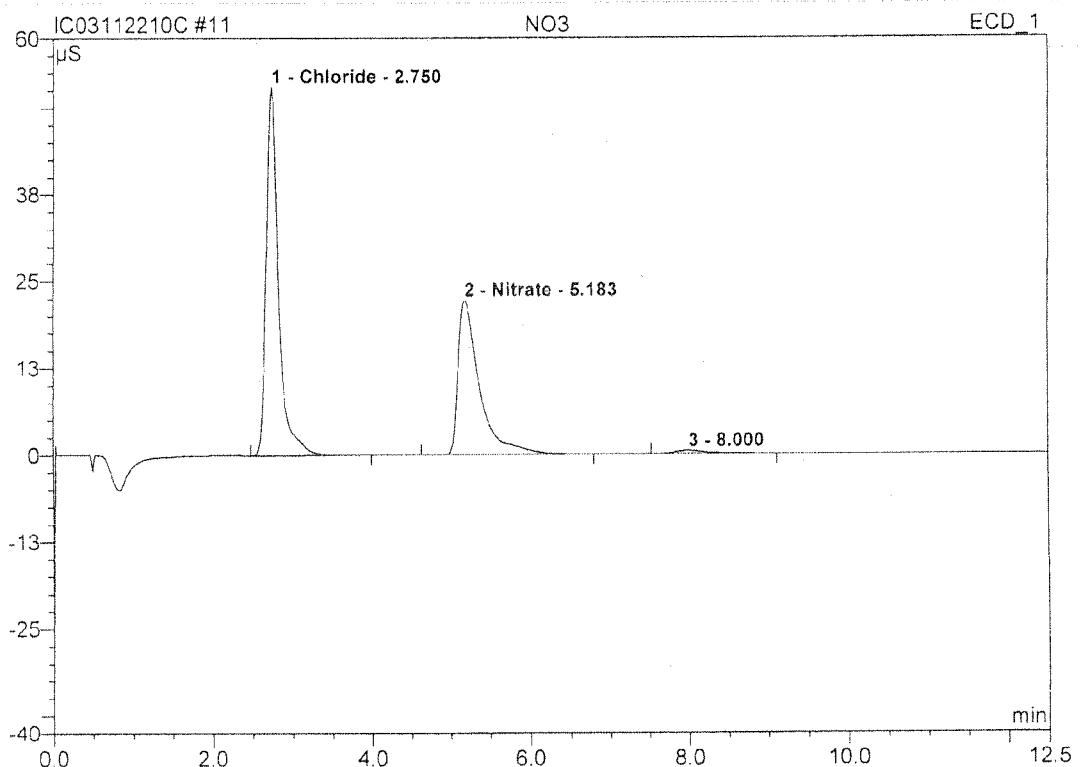
<i>Sample Name:</i>	NO2 AN11-32-H	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	10	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>ICAL Date:</i>	
<i>Control Program:</i>	epa300	<i>ICAL ID#:</i>	
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	25.0
<i>Recording Time:</i>	11/22/2010 16:26	<i>Analyst:</i>	JS / EM
<i>Run Time (min):</i>	12.50	<i>Inst. ID:</i>	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	3.38	Nitrite	50.270	11.728	100.00	102.158	BMB
Total:			50.270	11.728	100.00	102.158	

Columbia Analytical Services, Inc.**11 NO3****NO3**

<i>Sample Name:</i>	NO3	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	11	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>ICAL Date:</i>	
<i>Control Program:</i>	epa300	<i>ICAL ID#:</i>	
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	10.0
<i>Recording Time:</i>	11/22/2010 16:41	<i>Analyst:</i>	JS / EM
<i>Run Time (min):</i>	12.50	<i>Inst. ID:</i>	K-IC-03



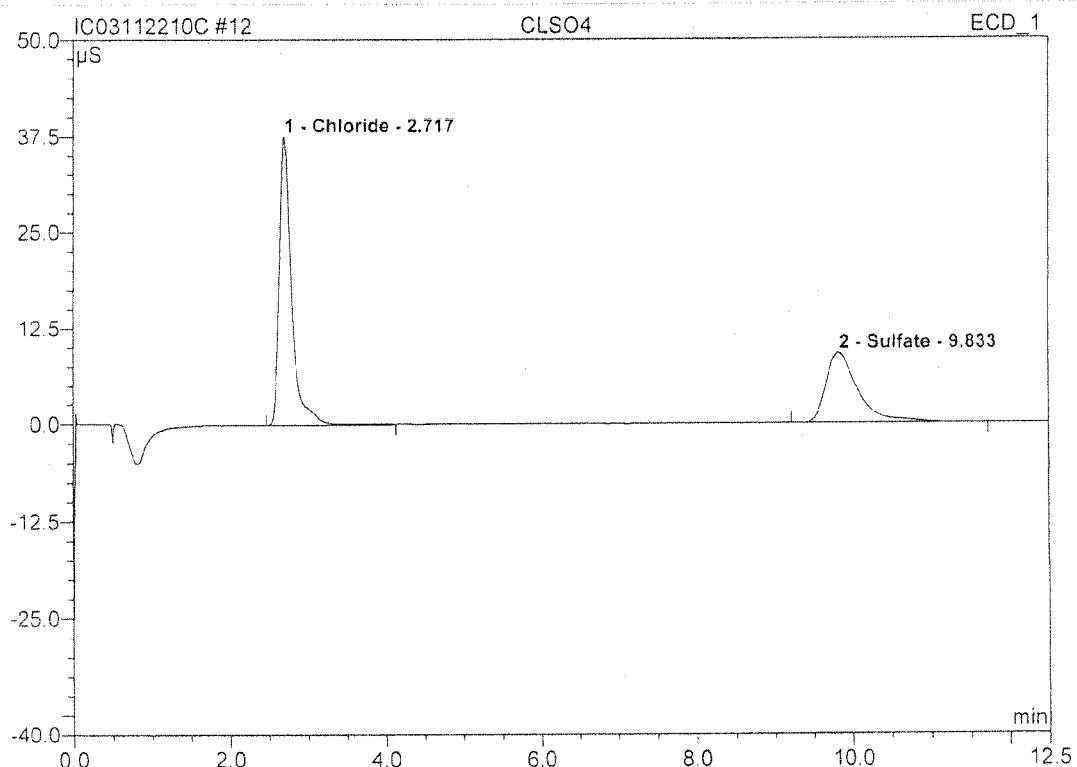
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.75	Chloride	53.078	9.510	56.79	64.626	BMB
2	5.18	Nitrate	22.119	7.007	41.84	19.466	BMB
3	8.00	n.a.	0.491	0.230	1.37	n.a.	BMB
Total:			75.688	16.746	100.00	84.092	

Columbia Analytical Services, Inc.

12 CLSO4

CLSO4

Sample Name:	CLSO4	Injection Volume:	200.0
Vial Number:	12	Channel:	ECD_1
Sample Type:	unknown	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 16:56	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



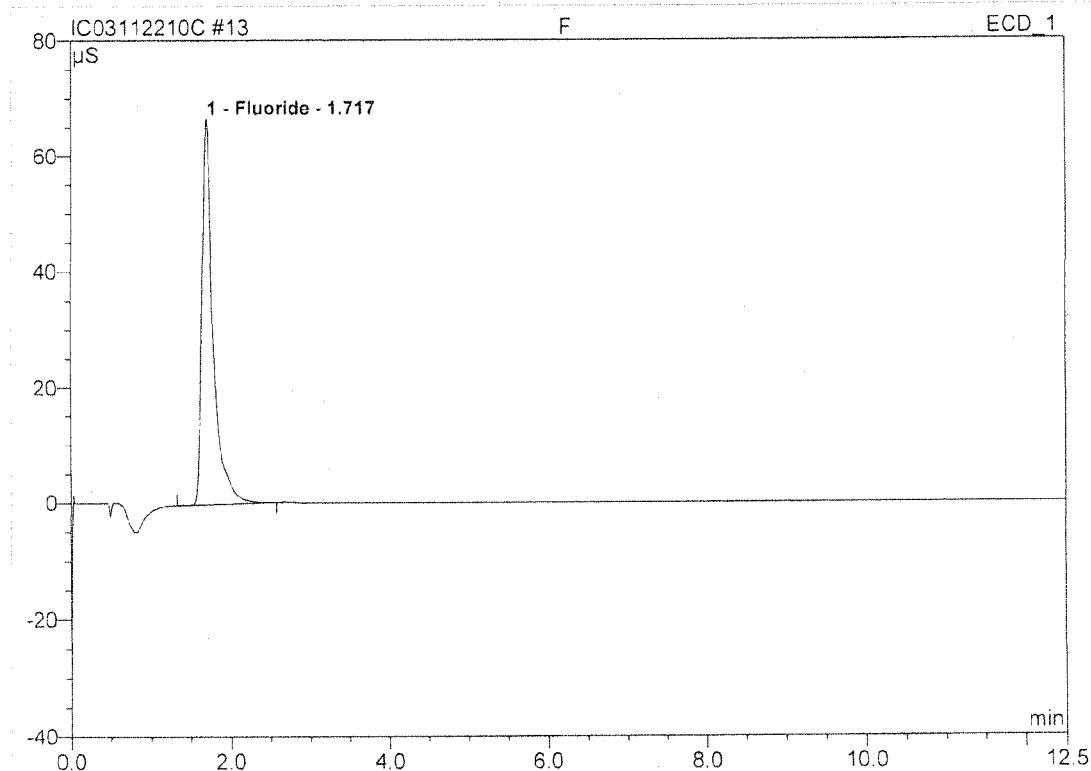
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.72	Chloride	37.687	6.916	61.01	4.700	BMB
2	9.83	Sulfate	9.129	4.421	38.99	4.660	BMB
Total:			46.817	11.337	100.00	9.360	

Columbia Analytical Services, Inc.

13 F

F

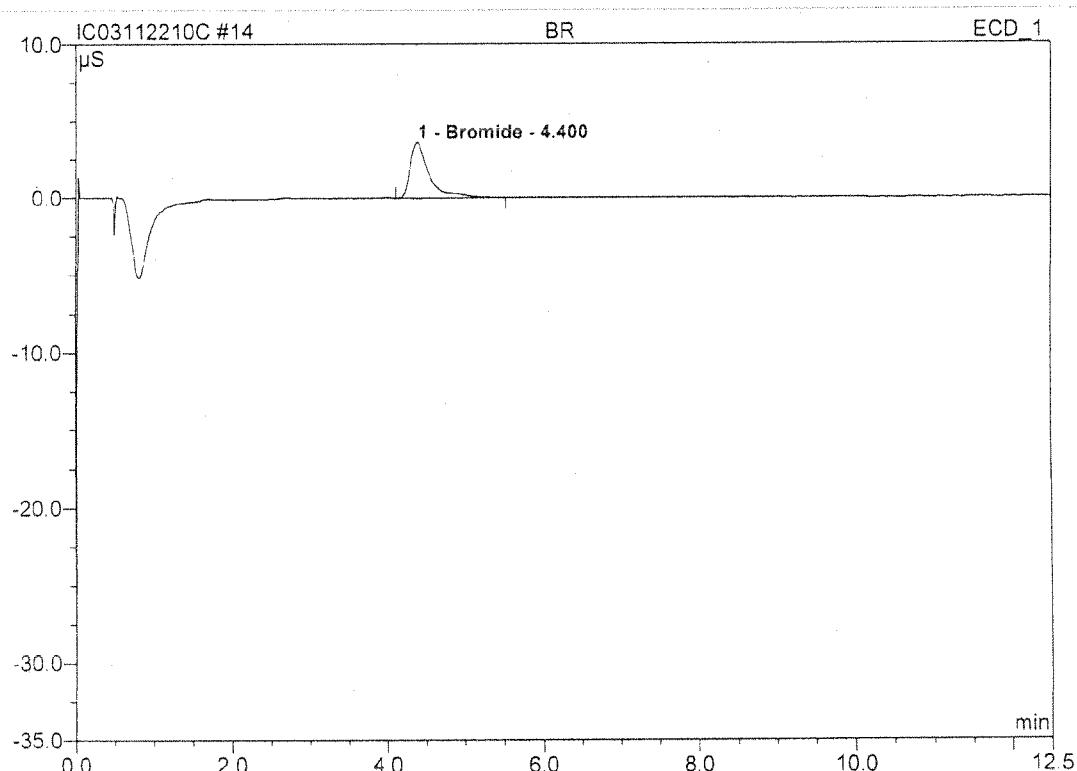
Sample Name:	F	Injection Volume:	200.0
Vial Number:	13	Channel:	ECD_1
Sample Type:	unknown	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	2.0
Recording Time:	11/22/2010 17:11	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.72	Fluoride	66.734	11.007	100.00	10.919	BMB
Total:			66.734	11.007	100.00	10.919	

Columbia Analytical Services, Inc.**14 BR****BR**

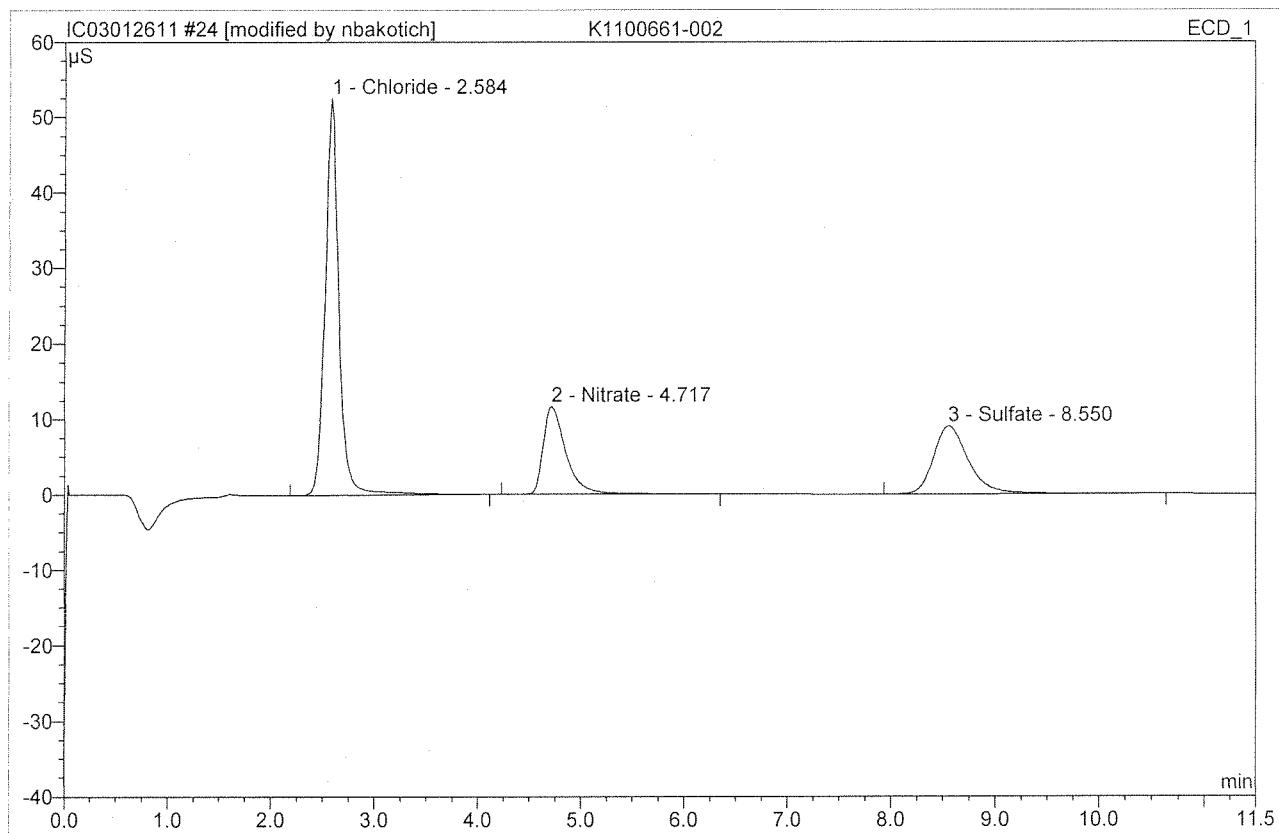
<i>Sample Name:</i>	BR	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	14	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>ICAL Date:</i>	
<i>Control Program:</i>	epa300	<i>ICAL ID#:</i>	
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	2.0
<i>Recording Time:</i>	11/22/2010 17:26	<i>Analyst:</i>	JS / EM
<i>Run Time (min):</i>	12.50	<i>Inst. ID:</i>	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	4.40	Bromide	3.615	1.033	100.00	4.130	BMB
Total:			3.615	1.033	100.00	4.130	

24 K1100661-002

Sample Name:	K1100661-002	Injection Volume:	200.0
Vial Number:	26	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	1/26/2011 12:42	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.58	Chloride	52.599	8.184	55.76	55.617	BMB*
2	4.72	Nitrate	11.657	2.970	20.24	8.250	BMB*
3	8.55	Sulfate	9.075	3.522	24.00	37.130	BMB
Total:			73.331	14.676	100.00	100.997	

After
Initials

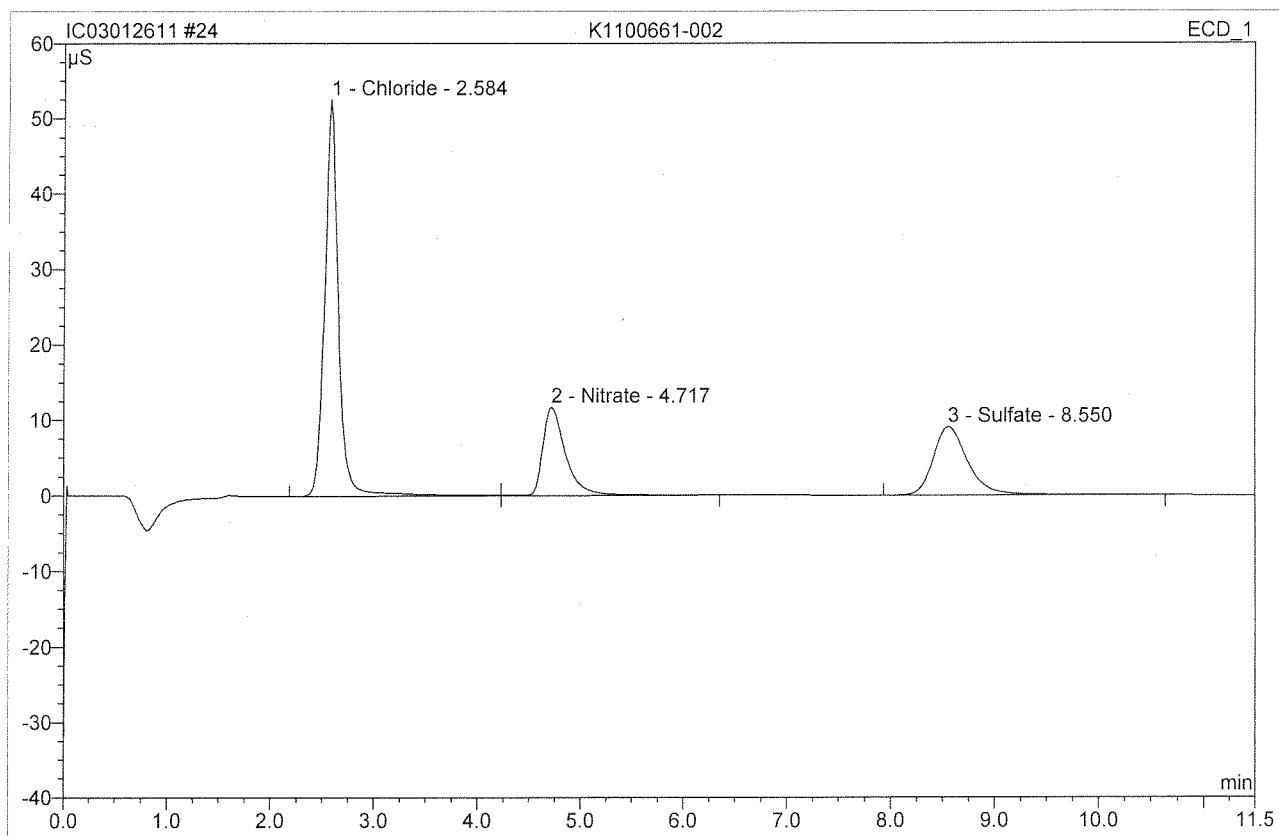
NB

6/14/2011

JAN 27 2011

24 K1100661-002

Sample Name:	K1100661-002	Injection Volume:	200.0
Vial Number:	26	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	1/26/2011 12:42	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

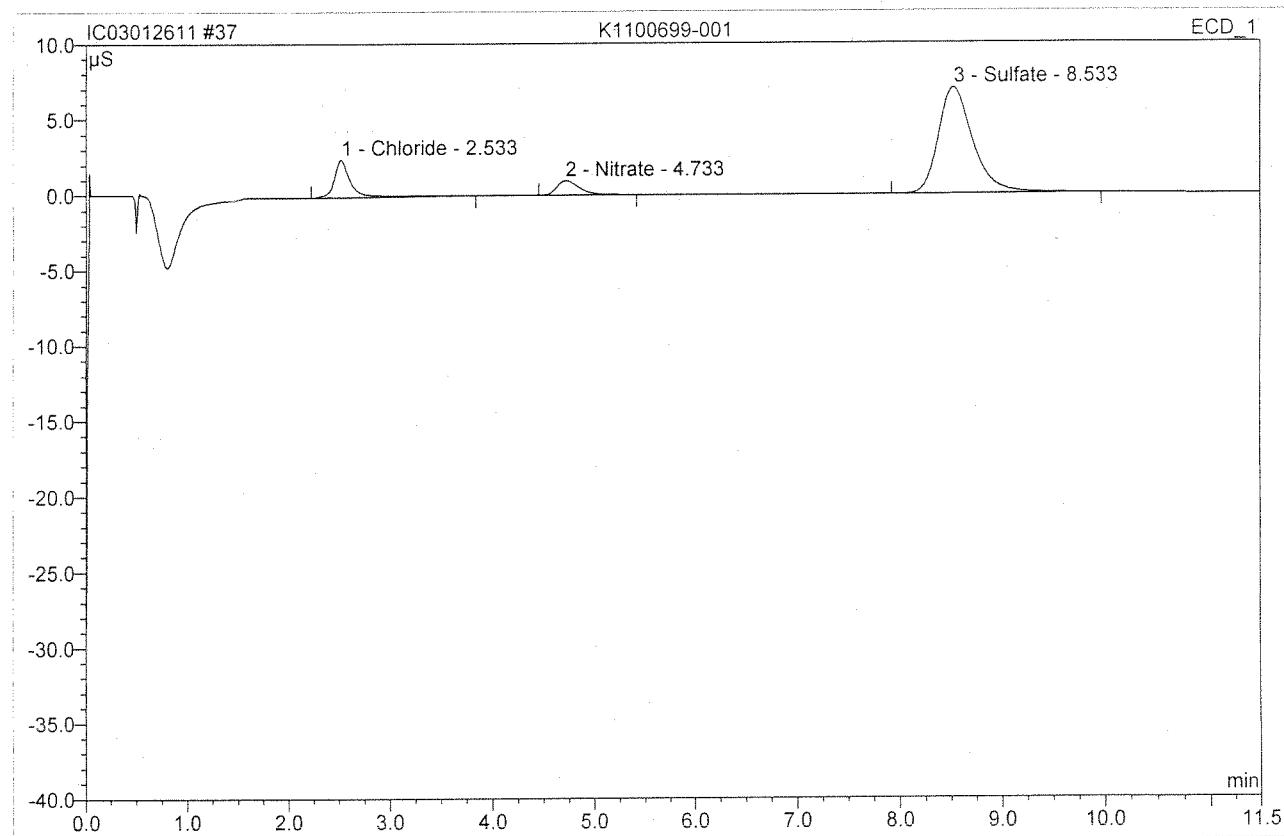


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.58	Chloride	52.625	8.319	55.75	56.533	BM
2	4.72	Nitrate	11.737	3.080	20.64	8.557	MB
3	8.55	Sulfate	9.075	3.522	23.61	37.130	BMB
Total:			73.437	14.921	100.00	102.221	

Before**JAN 27 2011**

37 K1100699-001

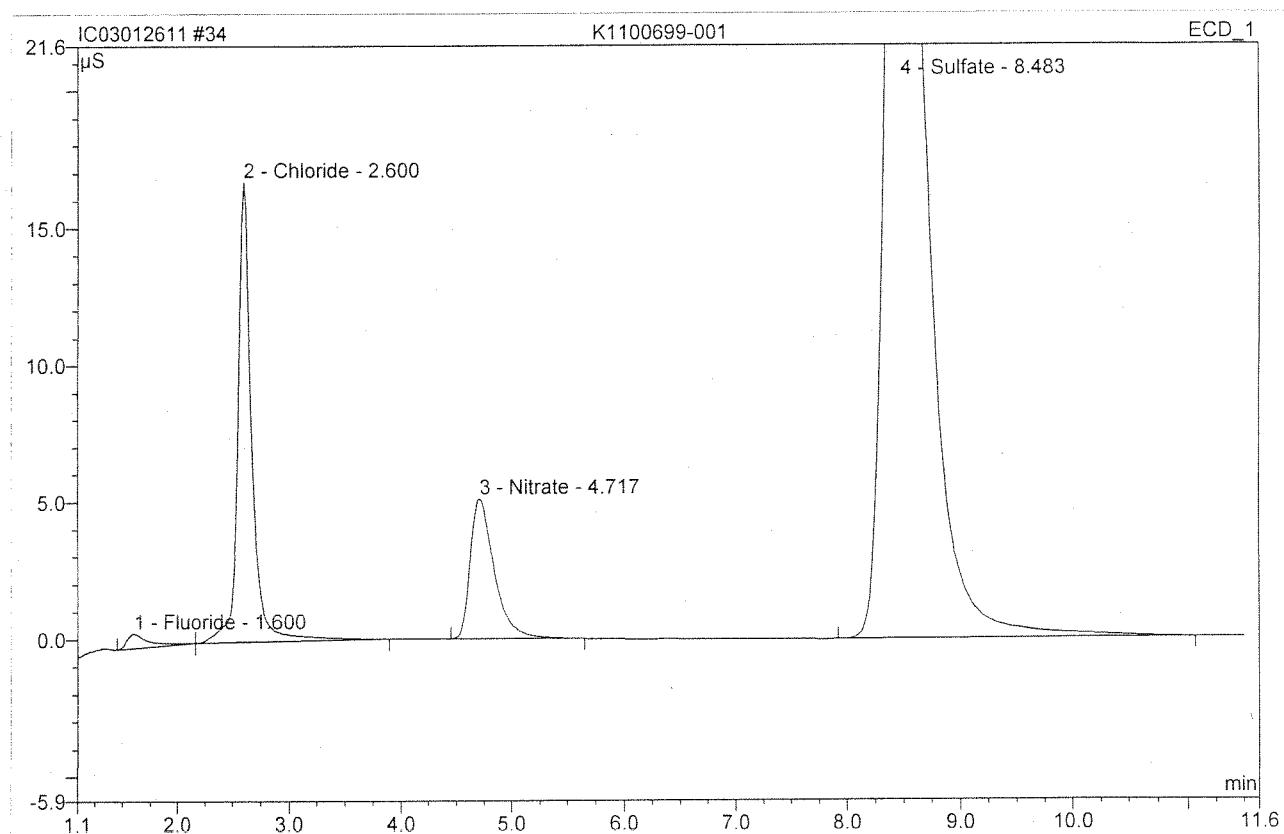
Sample Name:	K1100699-001	Injection Volume:	200.0
Vial Number:	39	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	1/26/2011 15:43	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.53	Chloride	2.479	0.494	14.26	3.360	BMB
2	4.73	Nitrate	0.949	0.241	6.94	0.669	BMB
3	8.53	Sulfate <i>x=28.8 APD<1</i>	7.005	2.732	78.80	28.802	BMB
Total:			10.434	3.468	100.00	32.831	

34 K1100699-001**D**

<i>Sample Name:</i>	K1100699-001	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	36	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	2.0000
<i>Recording Time:</i>	1/26/2011 15:01	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000

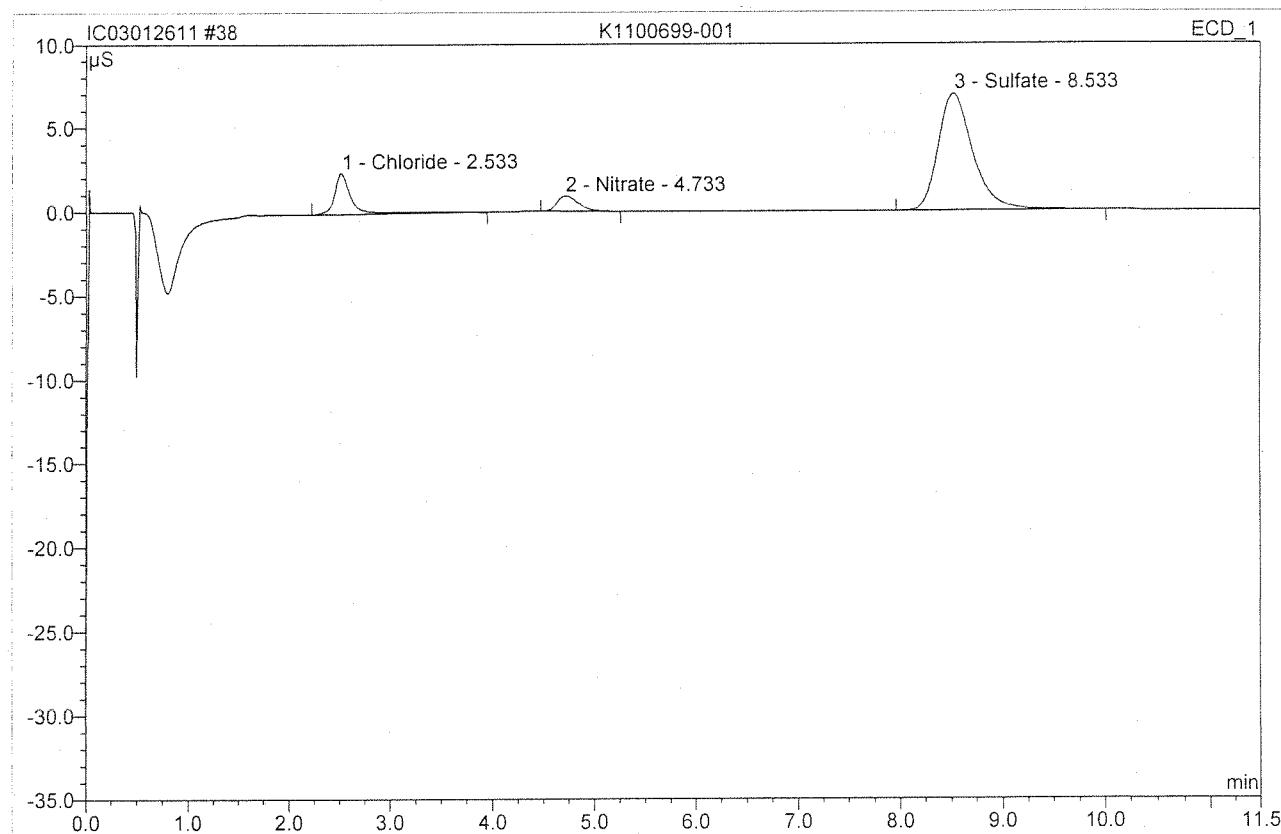


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	0.529	0.124	0.61	0.123	BMB
2	2.60	Chloride	16.774	2.438	12.09	3.314	bMB
3	4.72	Nitrate	5.091	1.280	6.35	0.711	BMB
4	8.48	Sulfate	42.412	16.318	80.94	34.402	BMB
Total:			64.806	20.160	100.00	38.550	

NO₂ < 0.10

38 K1100699-001**D**

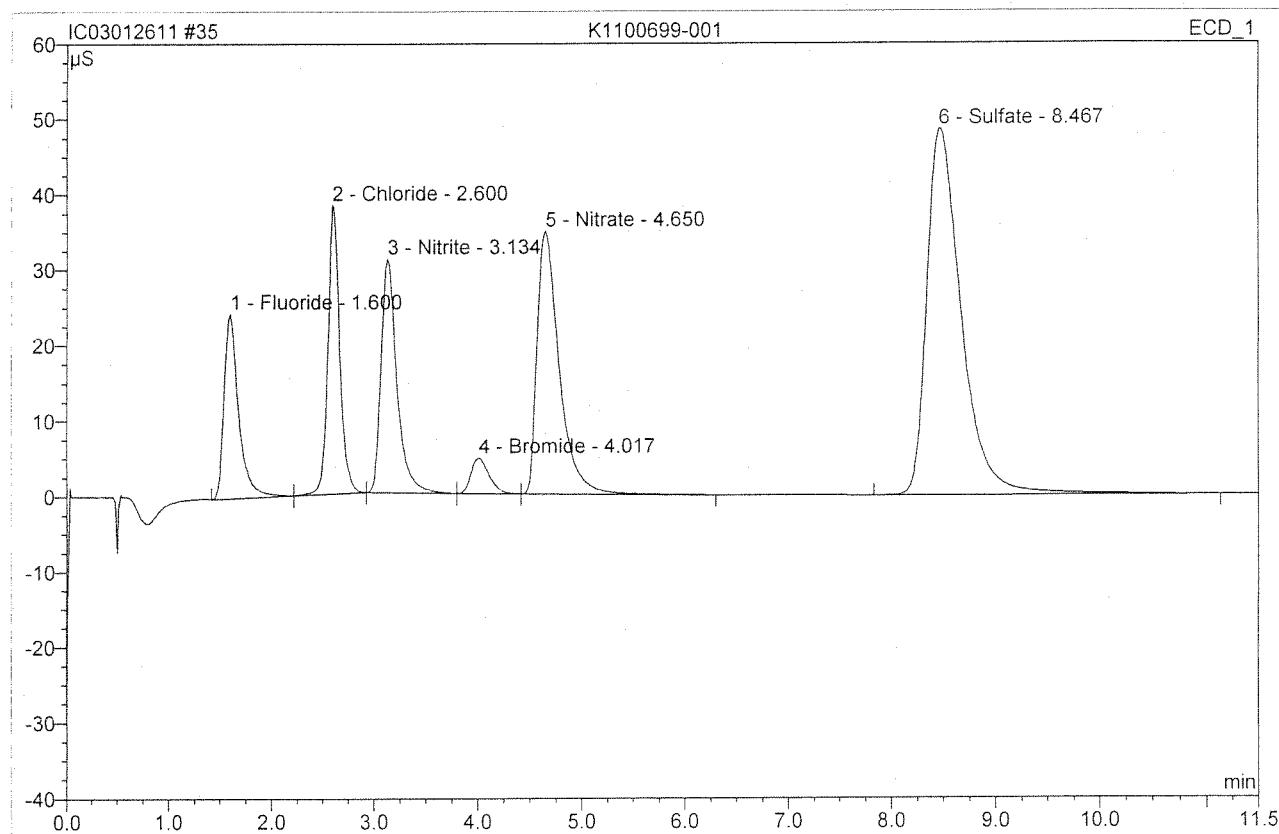
Sample Name:	K1100699-001	Injection Volume:	200.0
Vial Number:	40	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	1/26/2011 15:57	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.53	Chloride	2.439	0.499	14.43	3.389	BMB
2	4.73	Nitrate	0.925	0.228	6.60	0.634	BMB
3	8.53	Sulfate	6.970	2.728	78.96	28.756	BMB
Total:			10.334	3.455	100.00	32.778	

35 K1100699-001**MS**

Sample Name:	K1100699-001	Injection Volume:	200.0
Vial Number:	37	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/26/2011 15:15	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

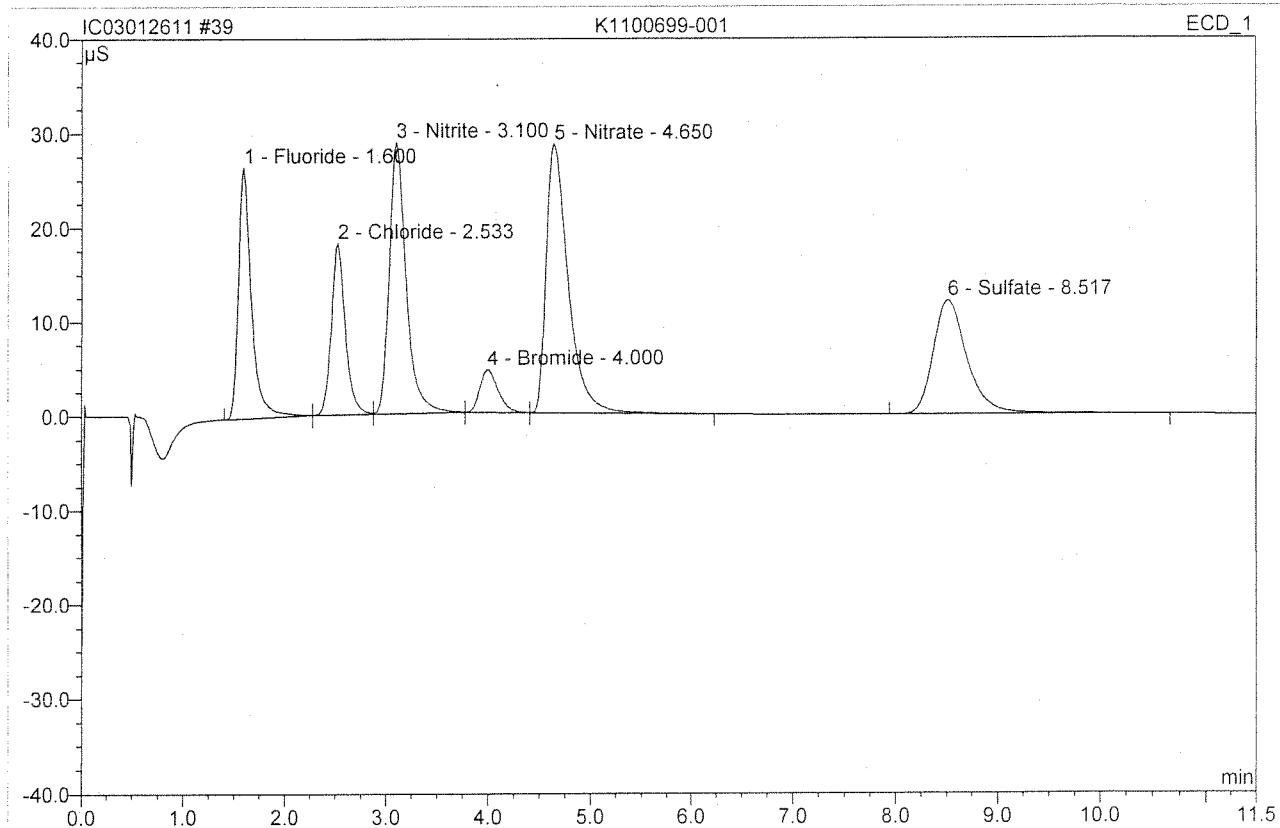


SPK 1/1
4

No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.60	Fluoride <i>R EC=100</i>	24.388	4.025	9.35	3.993	BMB
2	2.60	Chloride <i>R EC=86</i>	38.240	5.103	11.86	6.936	bMb
3	3.13	Nitrite <i>R EC=97</i>	30.959	5.549	12.90	3.867	bMb
4	4.02	Bromide ~	4.743	0.961	2.23	3.843	bMb
5	4.65	Nitrate <i>R EC=123</i>	34.853	8.655	20.11	4.809	bMB
6	8.47	Sulfate ~	48.569	18.737	43.54	39.502	BMB
Total:			181.751	43.030	100.00	62.949	

39 K1100699-001**MS**

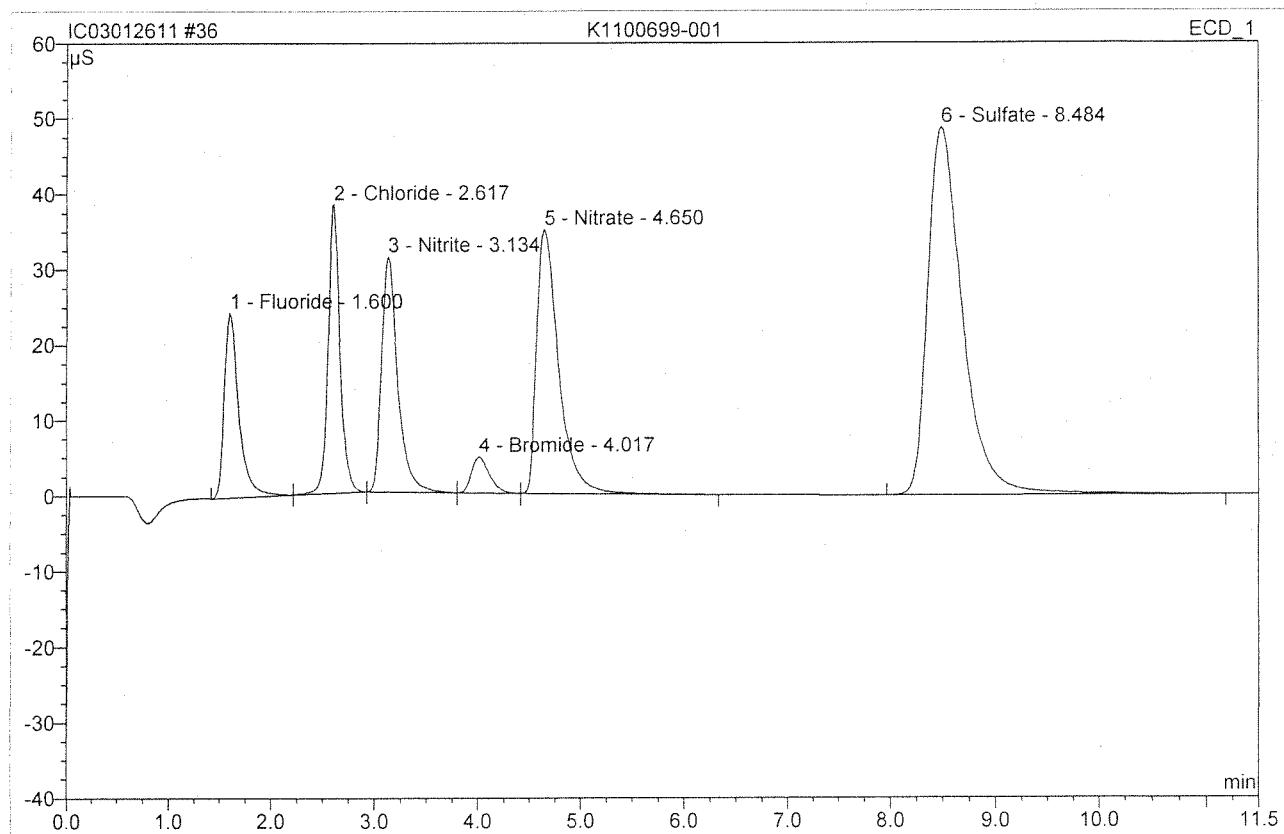
<i>Sample Name:</i>	K1100699-001	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	41	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	10.0000
<i>Recording Time:</i>	1/26/2011 16:11	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	26.631	3.967	15.68	19.676	BMB
2	2.53	Chloride	18.223	2.951	11.67	20.057	bM
3	3.10	Nitrite	28.824	5.574	22.03	19.420	Mb
4	4.00	Bromide	4.573	0.945	3.74	18.895	bMb
5	4.65	Nitrate	28.566	7.149	28.26	19.861	bMB
6	8.52	Sulfate <i>DFC=10%</i>	12.151	4.713	18.63	49.680	BMB
Total:			118.968	25.300	100.00	147.589	

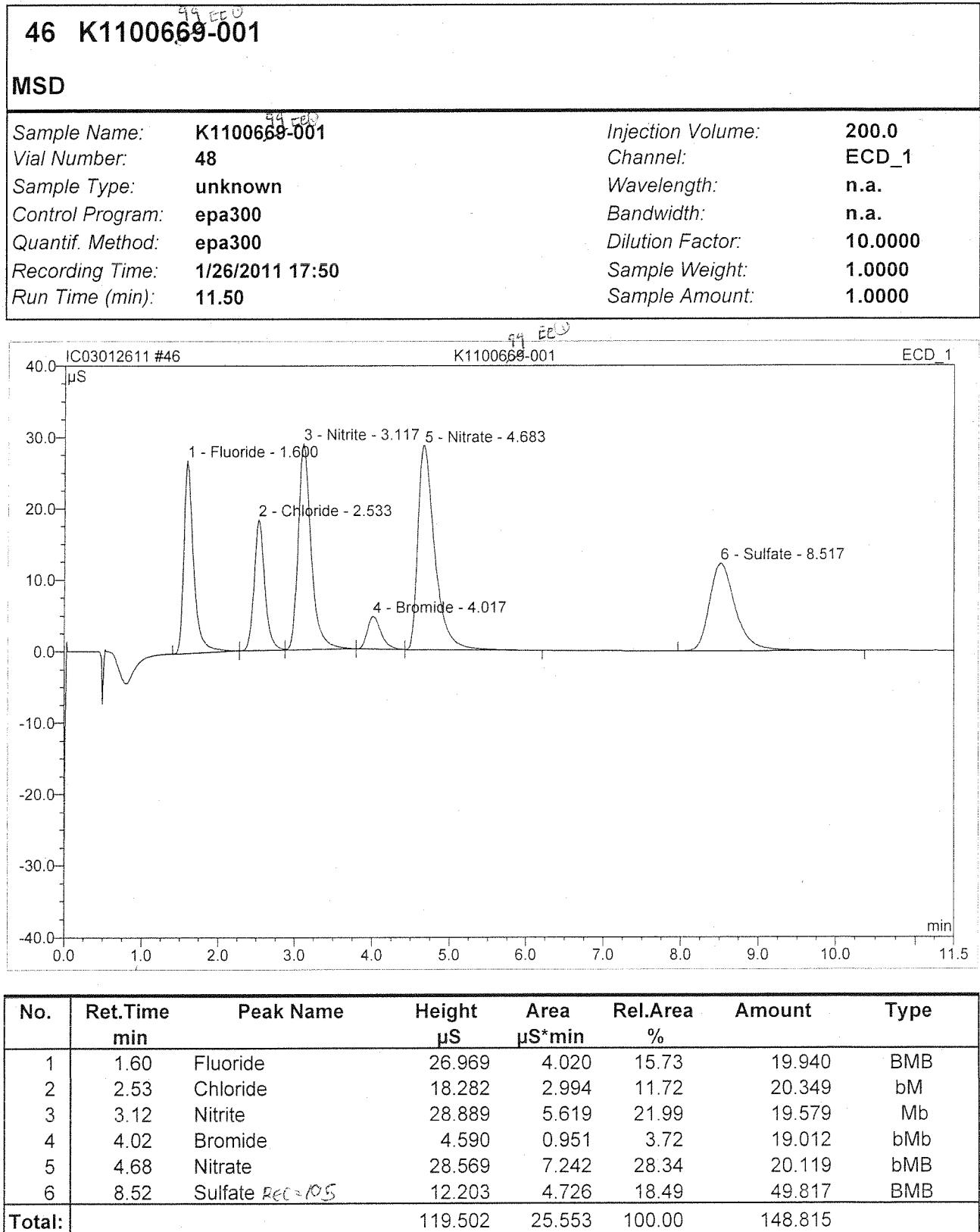
36 K1100699-001**MSD**

Sample Name:	K1100699-001	Injection Volume:	200.0
Vial Number:	38	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/26/2011 15:29	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



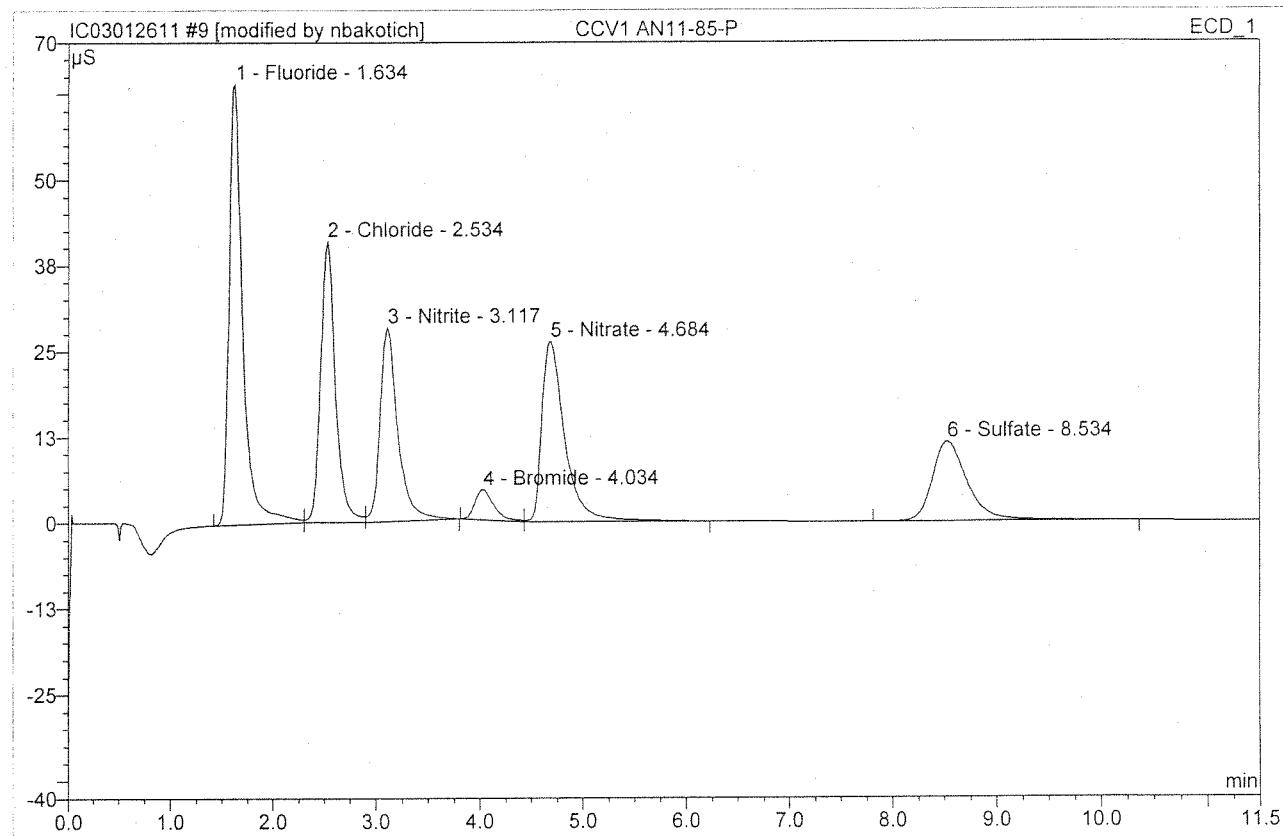
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride REC101	24.505	4.054	9.38	4.022	BMB
2	2.62	Chloride REC87	38.235	5.122	11.85	NR 6.961	bMb
3	3.13	Nitrite REC98	31.167	5.605	12.97	3.906	bMb
4	4.02	Bromide —	4.787	0.967	2.24	3.868	bMb
5	4.65	Nitrate REC104	35.076	8.736	20.22	4.854	bMB
6	8.48	Sulfate —	48.701	18.722	43.33	39.471	BMB
Total:			182.471	43.207	100.00	63.081	

spk lv
4



9 CCV1 AN11-85-P

Sample Name:	CCV1 AN11-85-P	Injection Volume:	200.0
Vial Number:	8	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 9:12	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.63	Fluoride	64.213	10.021	28.80	99 4.970	BM *
2	2.53	Chloride	40.938	6.946	19.97	94 4.721	M *
3	3.12	Nitrite	28.241	5.618	16.15	98 1.957	MB*
4	4.03	Bromide	4.430	0.949	2.73	95 1.897	BM *
5	4.68	Nitrate	26.294	6.746	19.39	94 1.874	MB*
6	8.53	Sulfate	11.576	4.510	12.96	95 4.754	BMB
Total:			175.692	34.790	100.00	20.174	

default/Integration

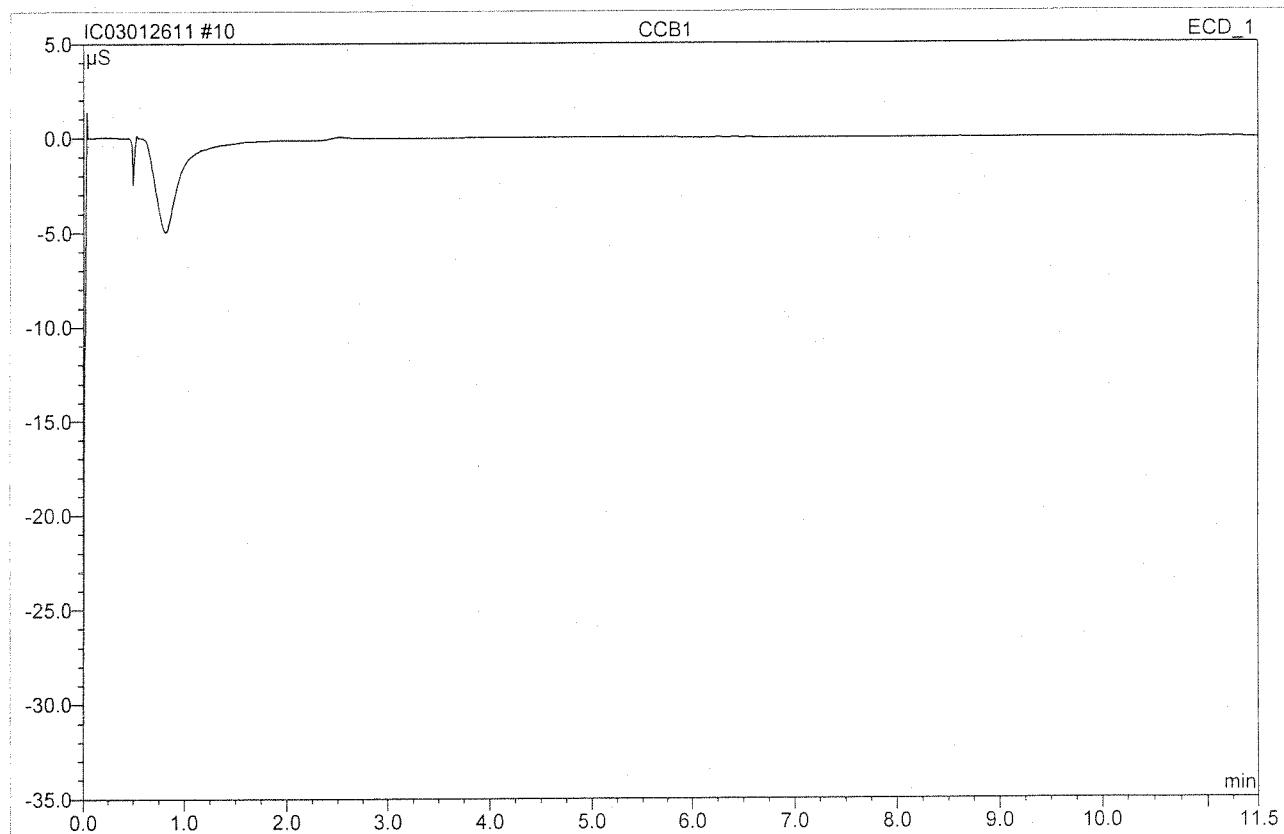
After
Initials *[initials]*

6/27/2011

JAN 27 2011
Wrong Peak/Peak not Found
Baseline/shoulder Incorrect 159Chromleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

10 CCB1

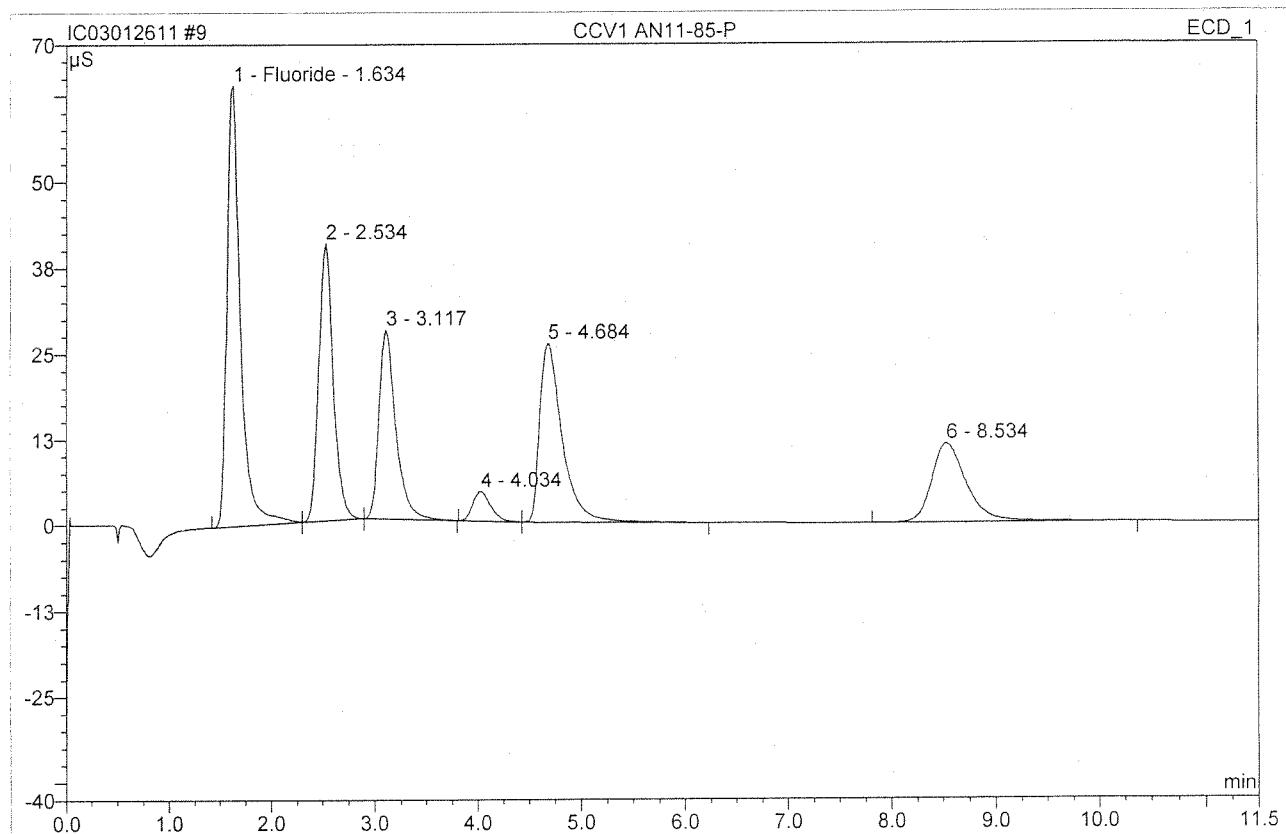
<i>Sample Name:</i>	CCB1	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	10	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/26/2011 9:26	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

9 CCV1 AN11-85-P

Sample Name:	CCV1 AN11-85-P	Injection Volume:	200.0
Vial Number:	8	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 9:12	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



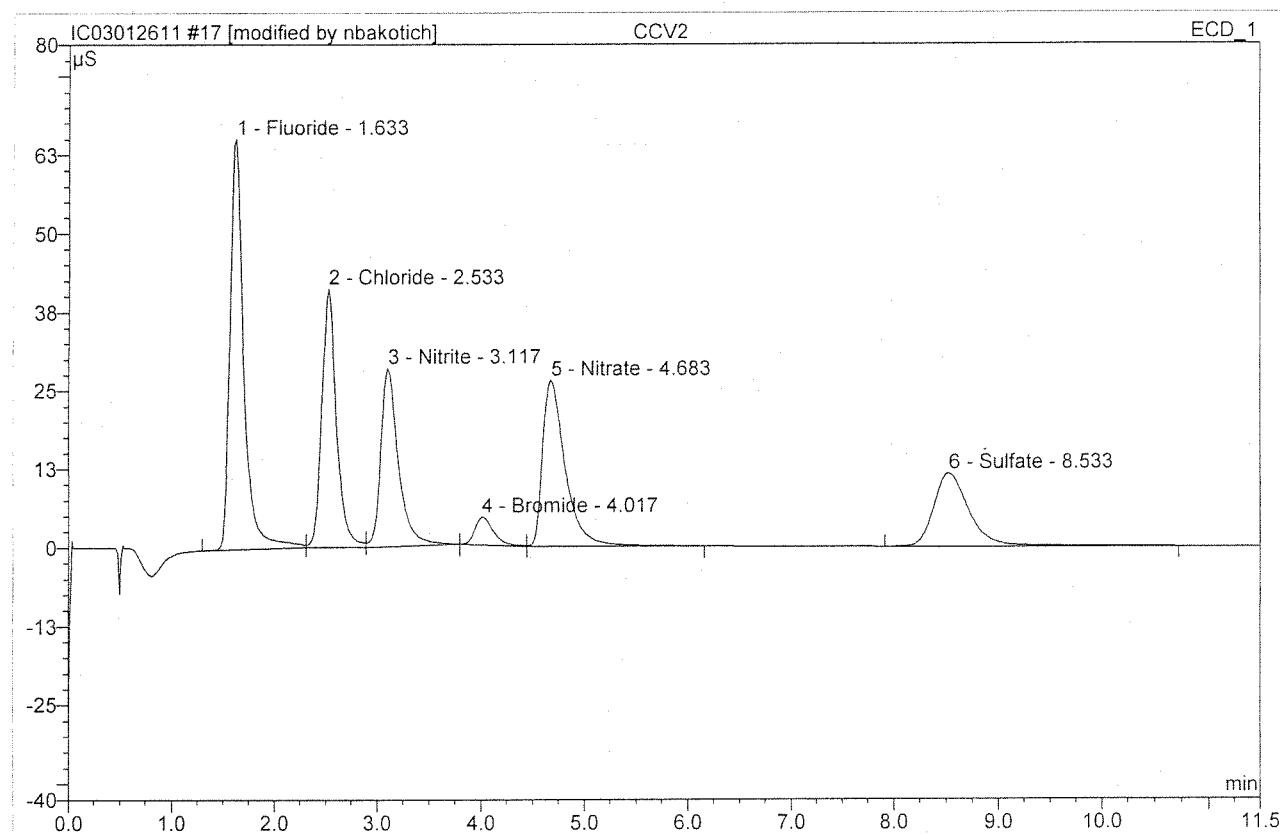
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.63	Fluoride	64.137	9.884	29.34	4.902	BM
2	2.53	n.a.	40.431	6.608	19.61	n.a.	Mb
3	3.12	n.a.	27.620	5.250	15.58	n.a.	bMB
4	4.03	n.a.	4.356	0.884	2.62	n.a.	BMb
5	4.68	n.a.	26.112	6.556	19.46	n.a.	bMB
6	8.53	n.a.	11.576	4.510	13.39	n.a.	BMB
Total:			174.232	33.693	100.00	4.902	

Before

JAN 27 2011

17 CCV2**CCV2**

Sample Name:	CCV2	Injection Volume:	200.0
Vial Number:	19	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 11:04	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.63	Fluoride	65.289	10.114	28.89	100 5.017	BM *
2	2.53	Chloride	41.124	6.983	19.94	95 4.745	M *
3	3.12	Nitrite	28.446	5.614	16.03	98 1.956	Mb*
4	4.02	Bromide	4.484	0.965	2.76	97 1.930	bM *
5	4.68	Nitrate	26.502	6.768	19.33	94 1.880	MB*
6	8.53	Sulfate	11.696	4.569	13.05	96 4.817	BMB
Total:			177.541	35.013	100.00	20.344	

After
Initials nb

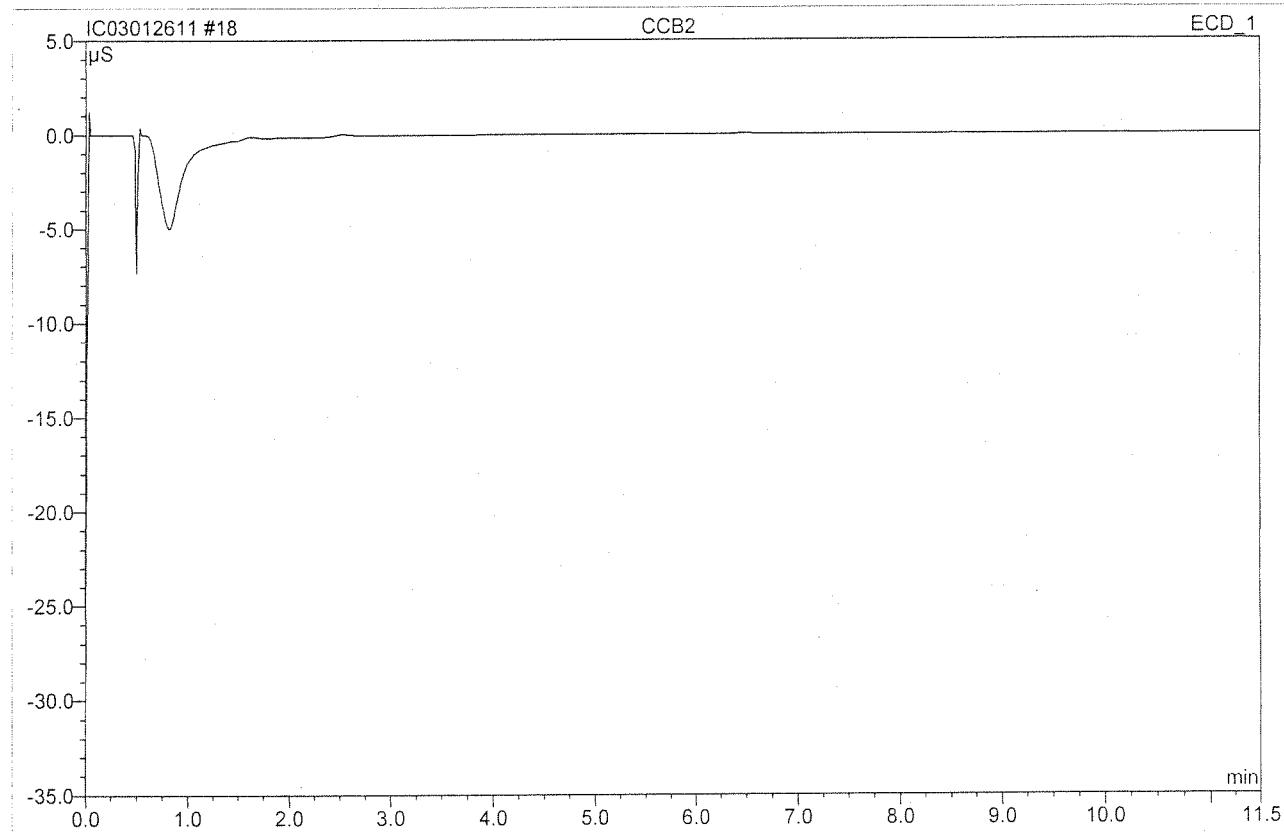
01/27/2011

JAN 27 2011

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

18 CCB2**CCB2**

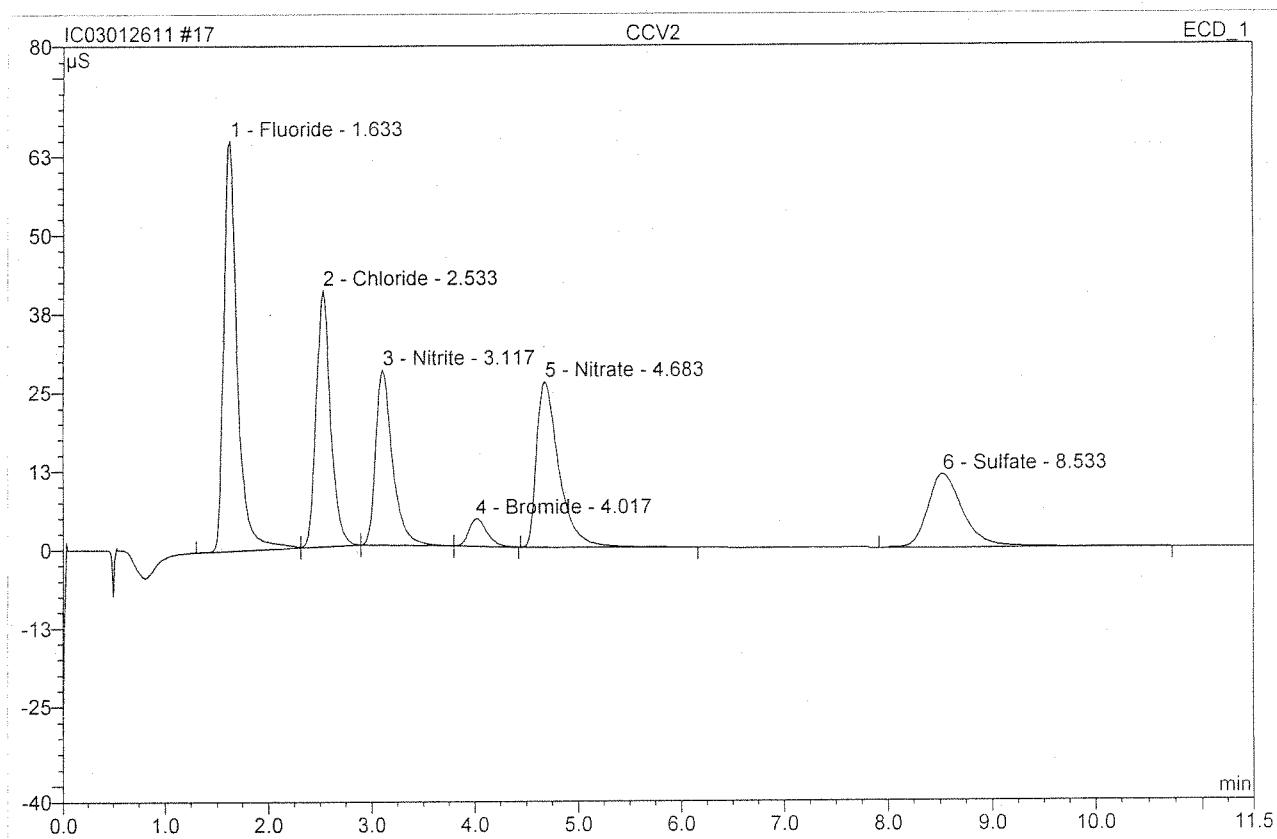
<i>Sample Name:</i>	CCB2	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	20	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/26/2011 11:18	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

17 CCV2**CCV2**

<i>Sample Name:</i>	CCV2	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	19	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/26/2011 11:04	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000

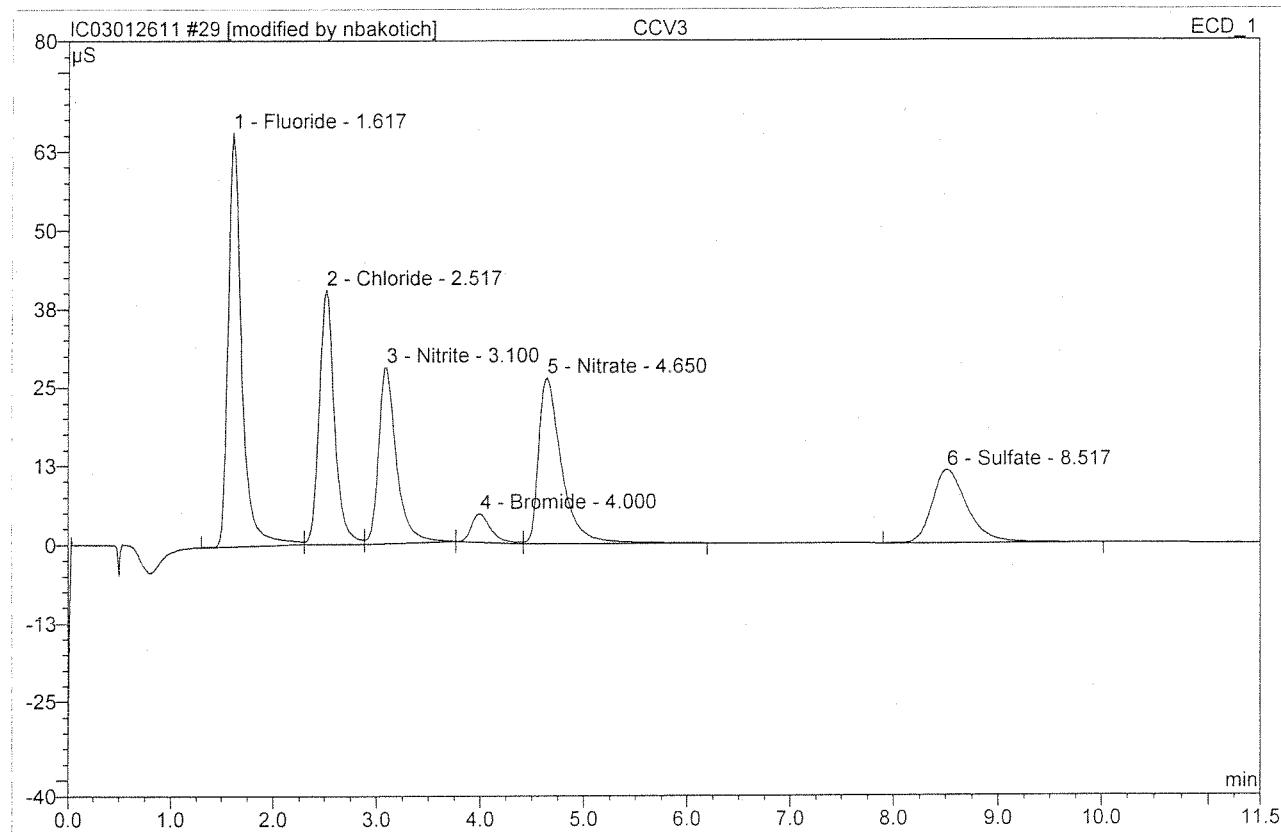


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.63	Fluoride	65.202	9.980	29.30	4.950	BM
2	2.53	Chloride	40.695	6.699	19.67	4.553	Mb
3	3.12	Nitrite	27.910	5.296	15.55	1.845	bMb
4	4.02	Bromide	4.424	0.907	2.66	1.813	bMB
5	4.68	Nitrate	26.344	6.611	19.41	1.836	BMB
6	8.53	Sulfate	11.696	4.569	13.41	4.817	BMB
Total:			176.272	34.062	100.00	19.814	

Before**JAN 27 2011**

29 CCV3**CCV3**

Sample Name:	CCV3	Injection Volume:	200.0
Vial Number:	31	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 13:52	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	65.677	10.062	28.88	4.990	BM *
2	2.52	Chloride	40.444	6.951	19.95	4.724	M *
3	3.10	Nitrite	27.995	5.615	16.12	1.956	Mb*
4	4.00	Bromide	4.491	0.984	2.83	1.968	bM *
5	4.65	Nitrate	26.295	6.764	19.42	1.879	MB*
6	8.52	Sulfate	11.555	4.465	12.82	4.706	BMB
Total:			176.458	34.840	100.00	20.224	

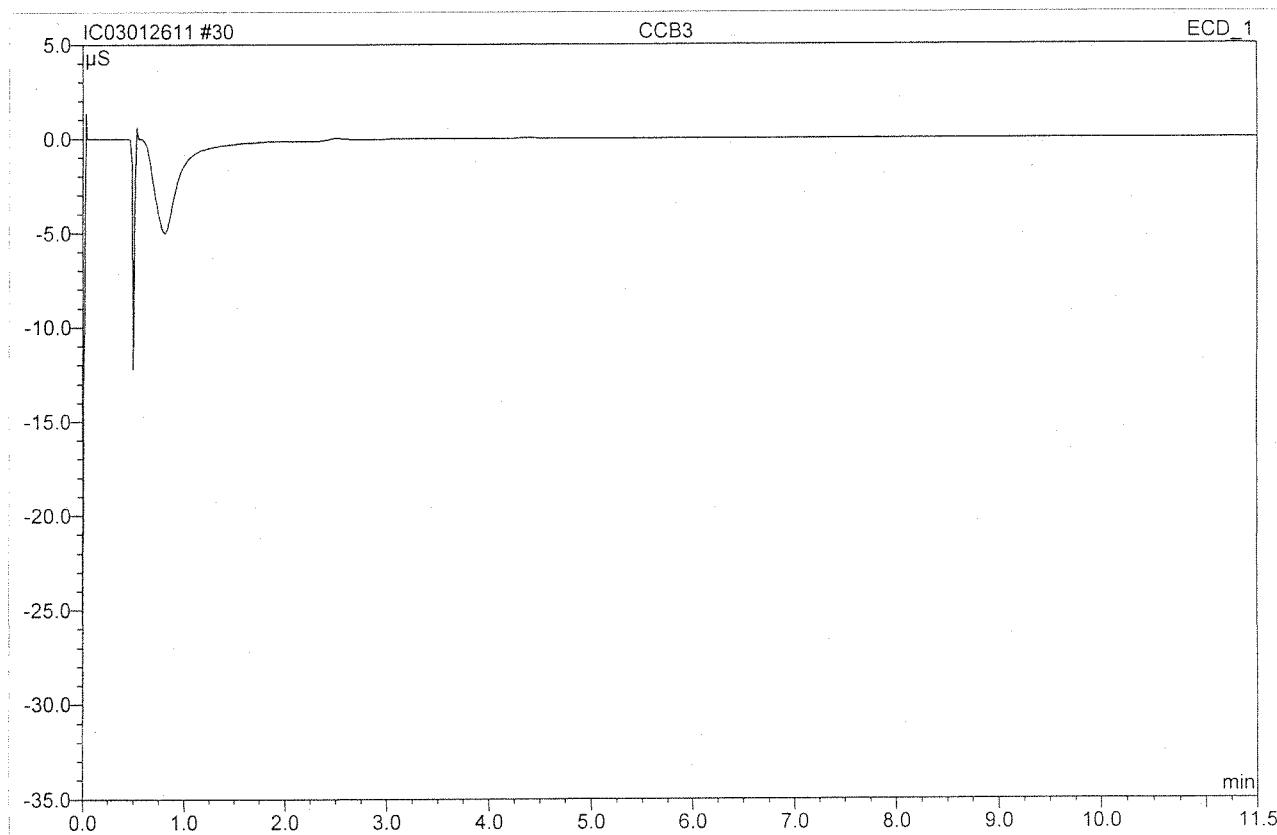
After
Initials AB

JAN 27 2011

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

30 CCB3**CCB3**

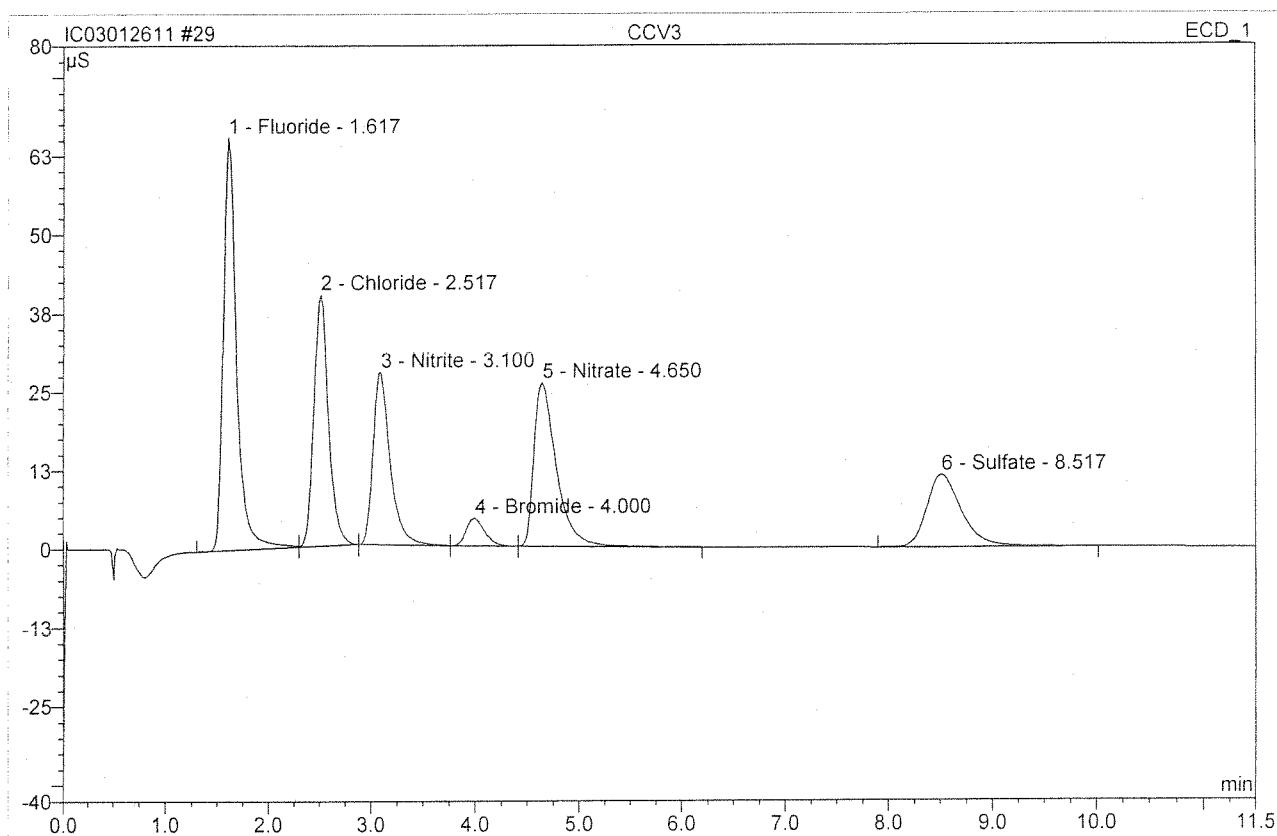
<i>Sample Name:</i>	CCB3	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	32	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/26/2011 14:06	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

29 CCV3**CCV3**

<i>Sample Name:</i>	CCV3	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	31	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/26/2011 13:52	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000

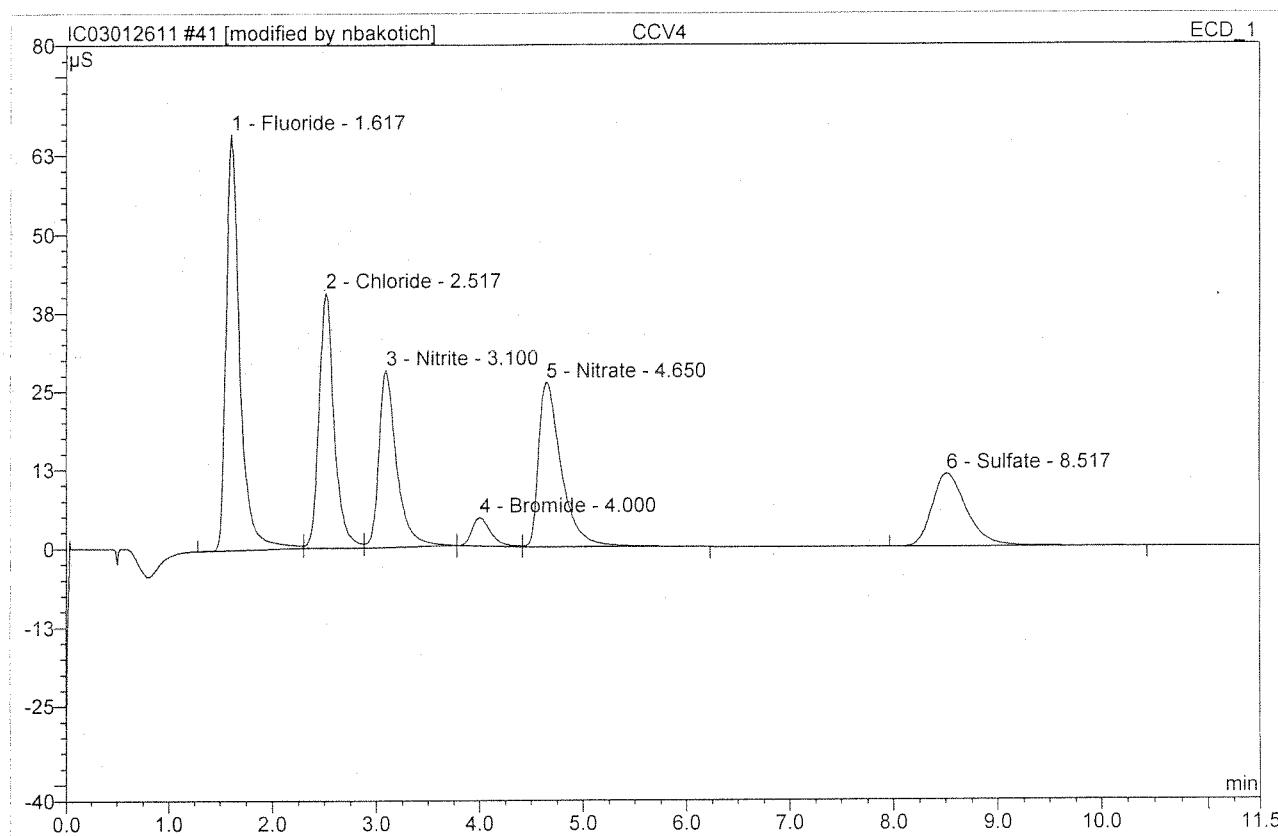


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	65.595	9.931	29.33	4.926	BM
2	2.52	Chloride	40.024	6.673	19.71	4.535	Mb
3	3.10	Nitrite	27.474	5.310	15.68	1.850	bMb
4	4.00	Bromide	4.414	0.914	2.70	1.827	bMb
5	4.65	Nitrate	26.106	6.571	19.40	1.825	bMB
6	8.52	Sulfate	11.555	4.465	13.18	4.706	BMB
Total:			175.168	33.864	100.00	19.669	

Before**JAN 27 2011**

41 CCV4**CCV4**

Sample Name:	CCV4	Injection Volume:	200.0
Vial Number:	43	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 16:41	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	66.167	10.094	28.80	100 5.006	BM *
2	2.52	Chloride	40.733	7.042	20.09	96 4.786	M *
3	3.10	Nitrite	28.232	5.644	16.10	99 1.966	Mb*
4	4.00	Bromide	4.513	0.977	2.79	98 1.953	bM *
5	4.65	Nitrate	26.252	6.757	19.28	94 1.877	MB*
6	8.52	Sulfate	11.650	4.539	12.95	96 4.784	BMB
Total:			177.547	35.053	100.00	20.373	

After
Initiator
Initials _____

bH1874W

JAN 27 2011

□ Wrong Peak/Peak not Found

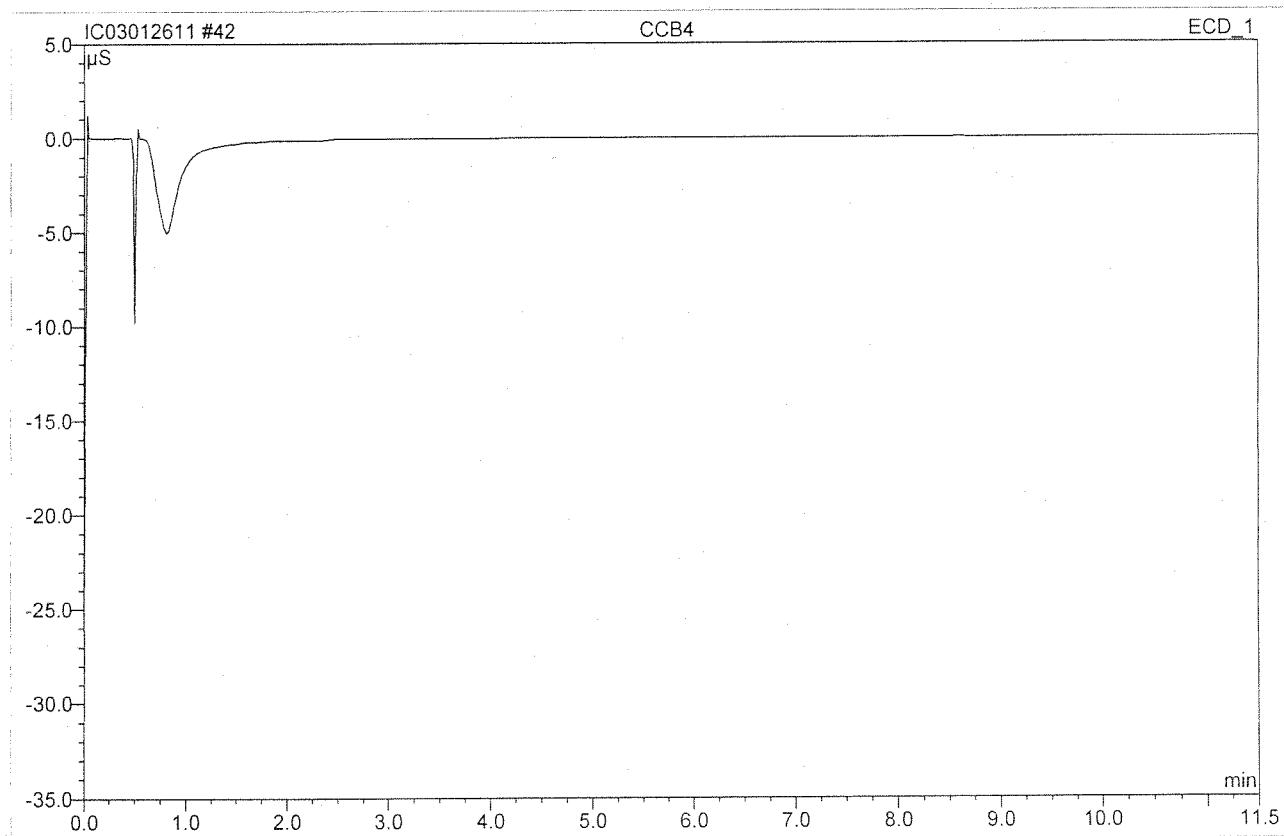
□ Wrong Peak/Peak not Found

□ Baseline/shoulder Incorrect

□ Other _____

42 CCB4**CCB4**

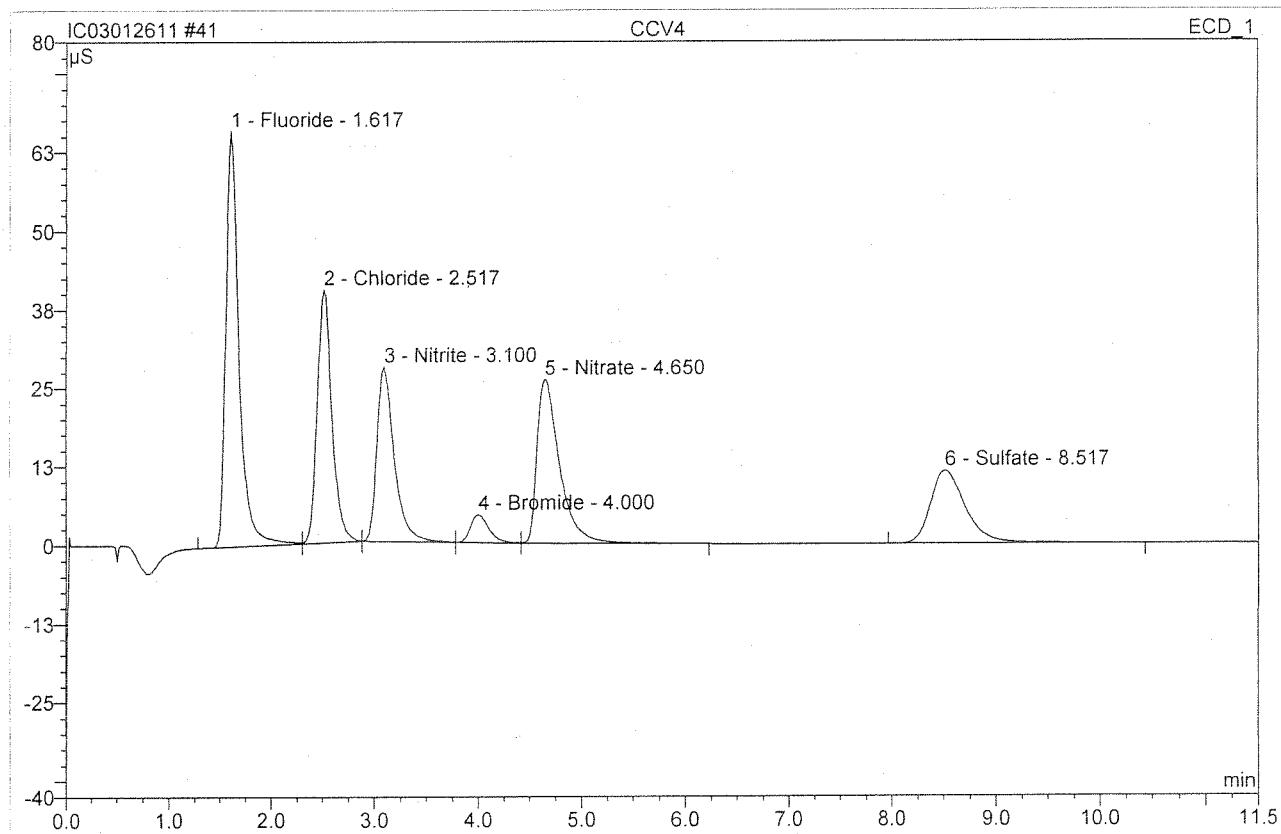
Sample Name:	CCB4	Injection Volume:	200.0
Vial Number:	44	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 16:55	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

41 CCV4**CCV4**

Sample Name:	CCV4	Injection Volume:	200.0
Vial Number:	43	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 16:41	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

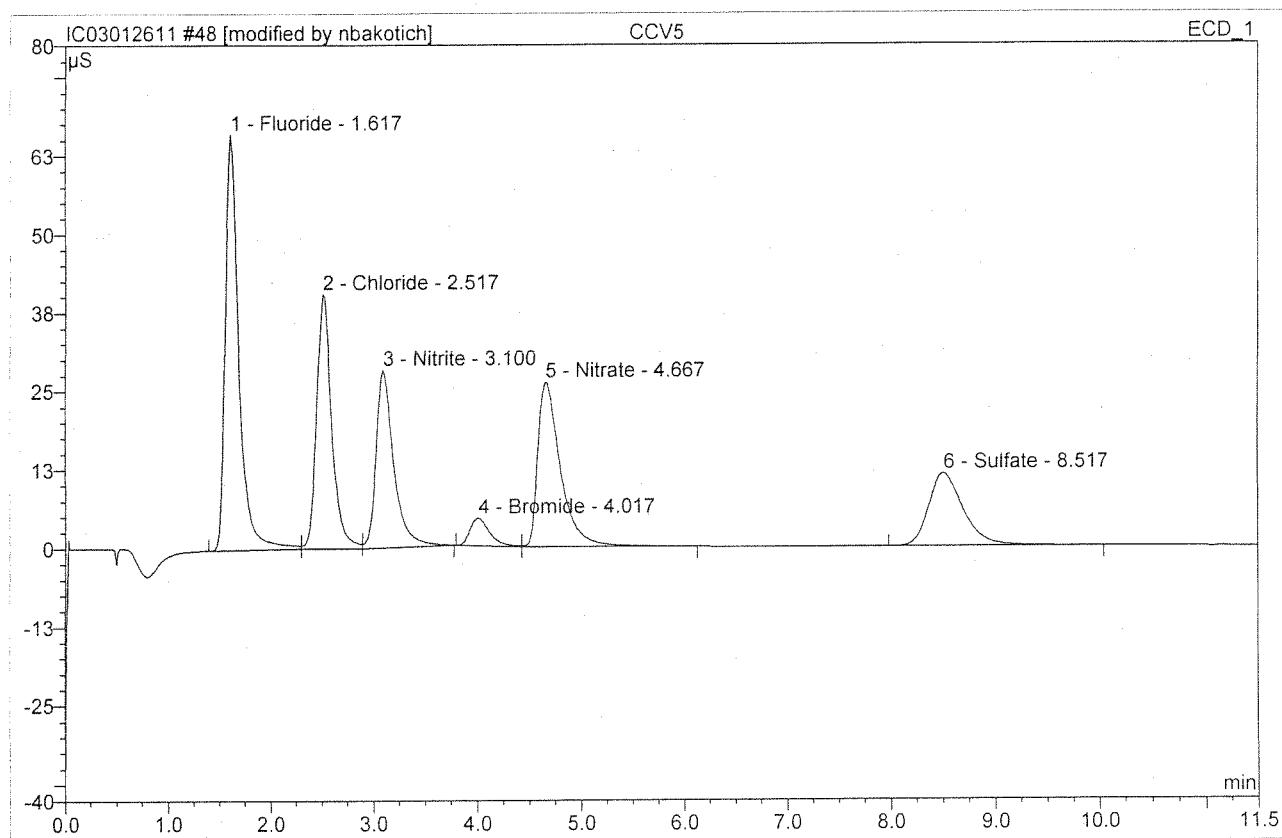


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	66.077	9.955	29.22	4.938	BM
2	2.52	Chloride	40.304	6.760	19.84	4.594	Mb
3	3.10	Nitrite	27.706	5.333	15.65	1.858	bMb
4	4.00	Bromide	4.444	0.913	2.68	1.826	bMb
5	4.65	Nitrate	26.076	6.574	19.29	1.826	bMB
6	8.52	Sulfate	11.650	4.539	13.32	4.784	BMB
Total:			176.258	34.074	100.00	19.826	

Before**JAN 27 2011**

48 CCV5**CCV5**

Sample Name:	CCV5	Injection Volume:	200.0
Vial Number:	50	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 18:18	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	66.148	10.156	29.00	101 5.037	BM *
2	2.52	Chloride	40.401	7.046	20.12	96 4.788	M *
3	3.10	Nitrite	28.168	5.666	16.18	79 1.974	MB*
4	4.02	Bromide	4.487	0.981	2.80	78 1.961	BM *
5	4.67	Nitrate	26.216	6.675	19.06	93 1.854	MB*
6	8.52	Sulfate	11.623	4.502	12.85	95 4.745	BMB
Total:			177.043	35.025	100.00	20.360	

After
Initials *pb*

1/27/2011

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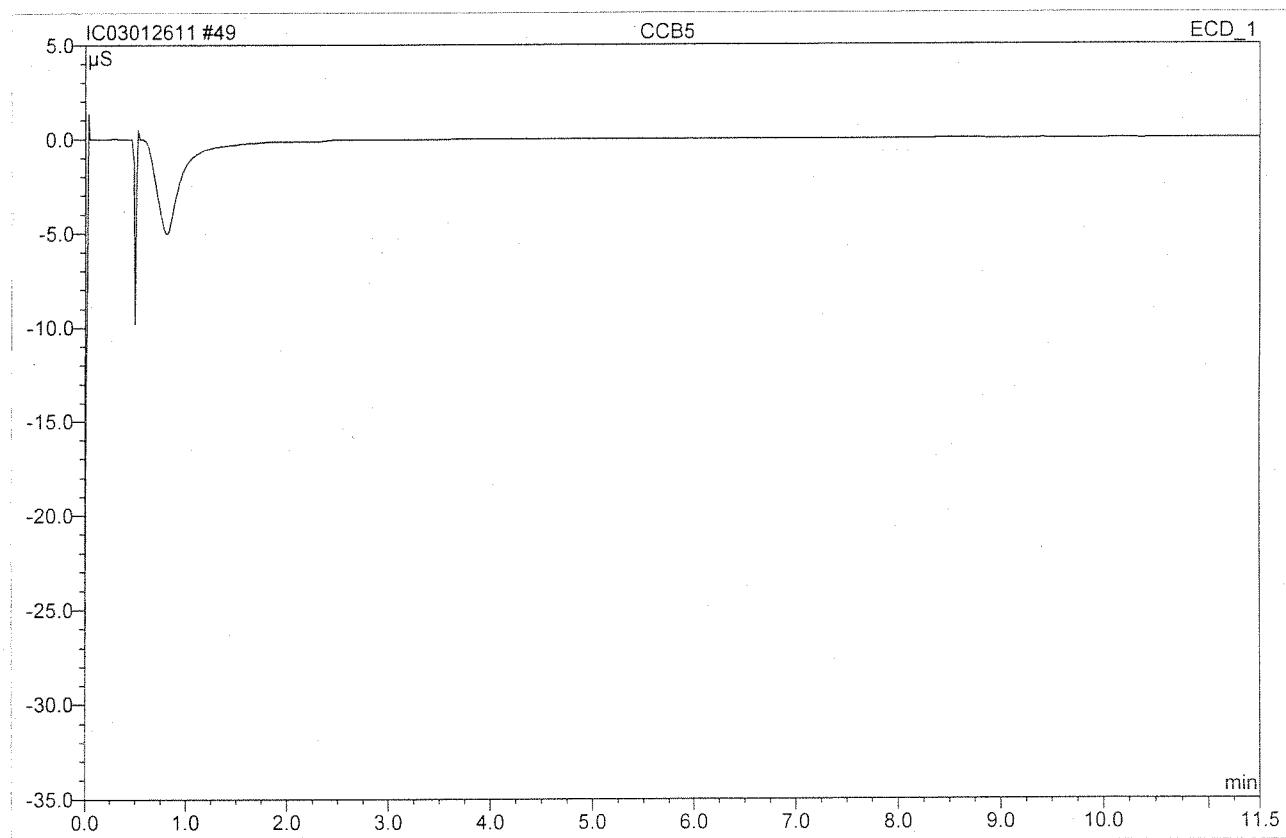
Integration Peak not Found
Baseline shoulder incorrect
Other

default/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

49 CCB5**CCB5**

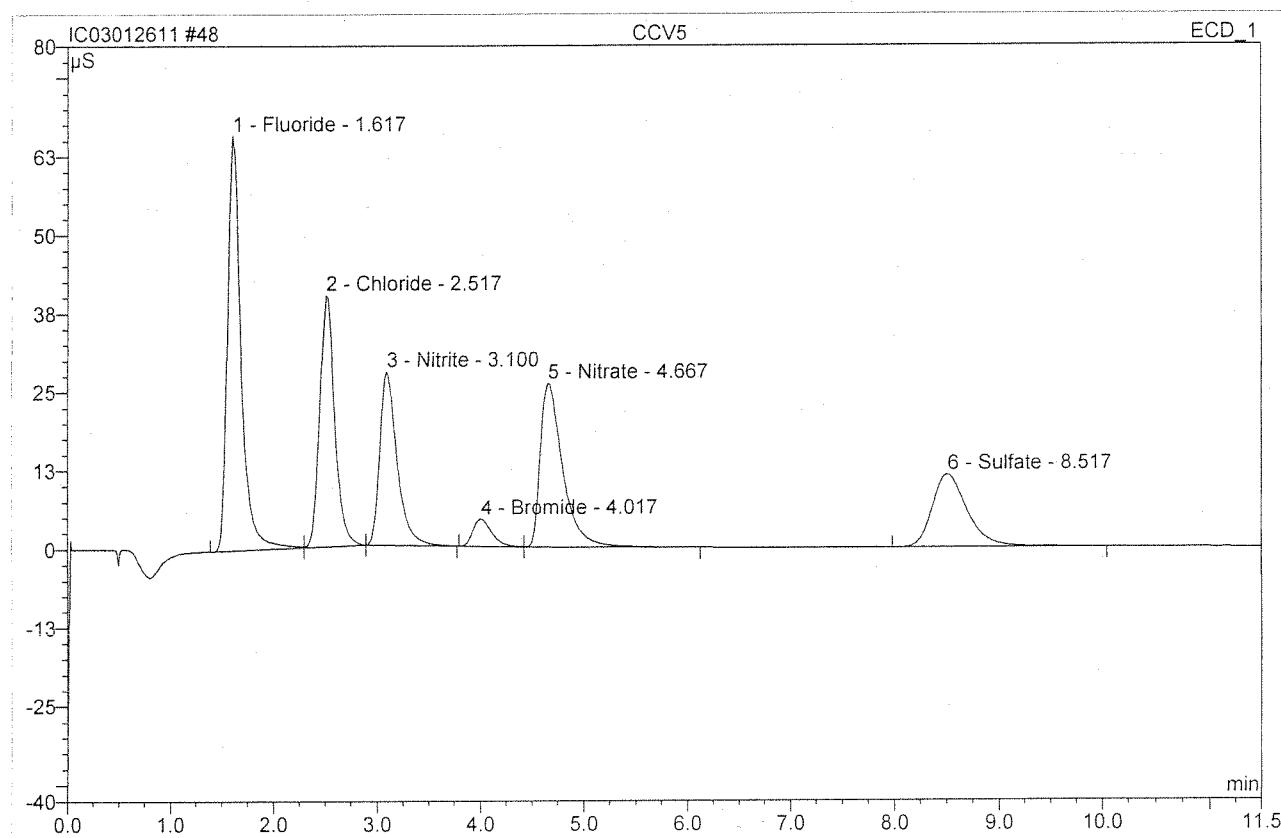
Sample Name:	CCB5	Injection Volume:	200.0
Vial Number:	51	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 18:32	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

48 CCV5**CCV5**

Sample Name:	CCV5	Injection Volume:	200.0
Vial Number:	50	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 18:18	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

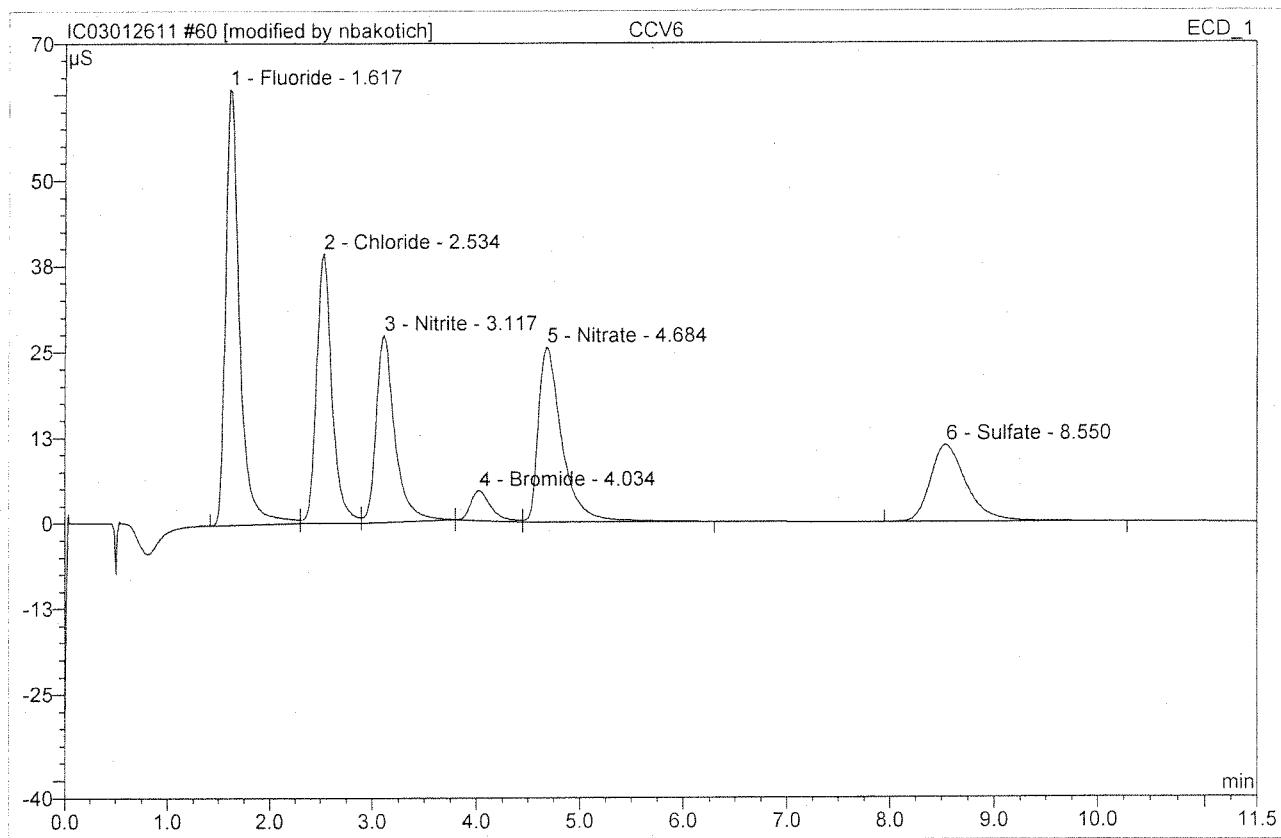


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	66.071	10.012	29.43	4.966	BM
2	2.52	Chloride	39.929	6.728	19.77	4.572	Mb
3	3.10	Nitrite	27.595	5.339	15.69	1.860	bMB
4	4.02	Bromide	4.425	0.924	2.71	1.846	BMb
5	4.67	Nitrate	26.060	6.522	19.17	1.812	bMB
6	8.52	Sulfate	11.623	4.502	13.23	4.745	BMB
Total:			175.704	34.025	100.00	19.801	

Before**JAN 27 2011**

60 CCV6**CCV6**

Sample Name:	CCV6	Injection Volume:	200.0
Vial Number:	55	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 21:06	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

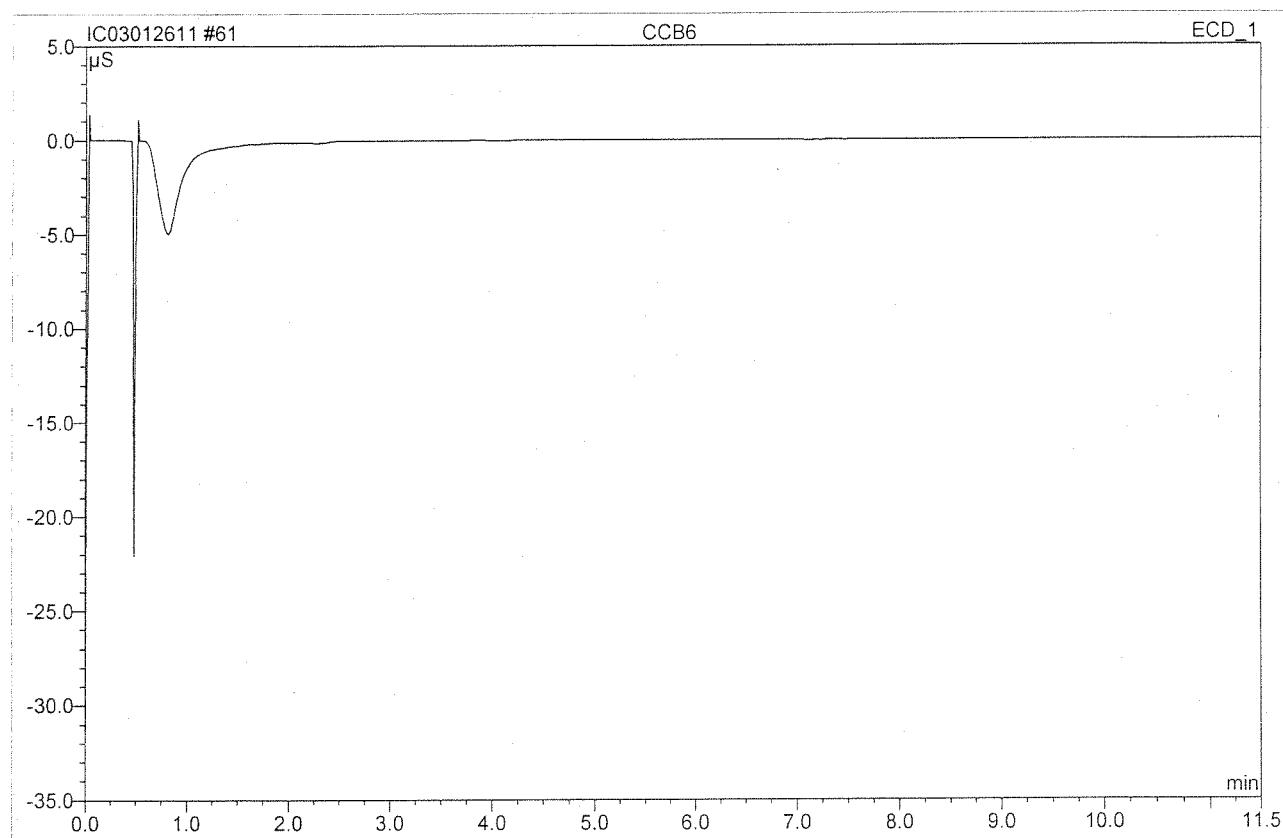


No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.62	Fluoride	63.547	10.114	28.89	5.016	BM *
2	2.53	Chloride	39.328	6.989	19.96	4.750	M *
3	3.12	Nitrite	27.280	5.650	16.14	1.968	Mb*
4	4.03	Bromide	4.353	0.982	2.80	1.962	bm *
5	4.68	Nitrate	25.479	6.769	19.33	1.880	MB*
6	8.55	Sulfate	11.268	4.506	12.87	4.750	BMB
Total:			171.255	35.009	100.00	20.327	

After
Initials rb1/27/2011

61 CCB6**CCB6**

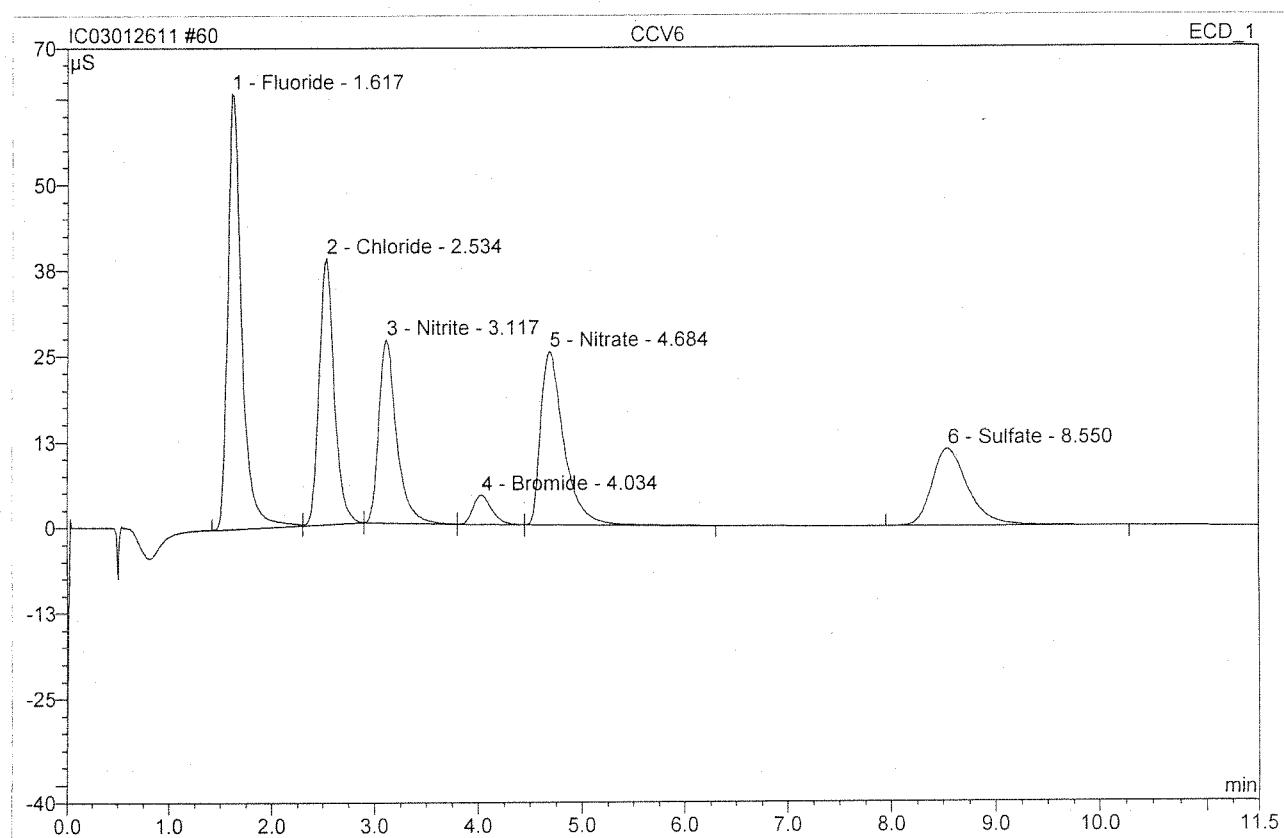
Sample Name:	CCB6	Injection Volume:	200.0
Vial Number:	56	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 21:20	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

60 CCV6**CCV6**

Sample Name:	CCV6	Injection Volume:	200.0
Vial Number:	55	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 21:06	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

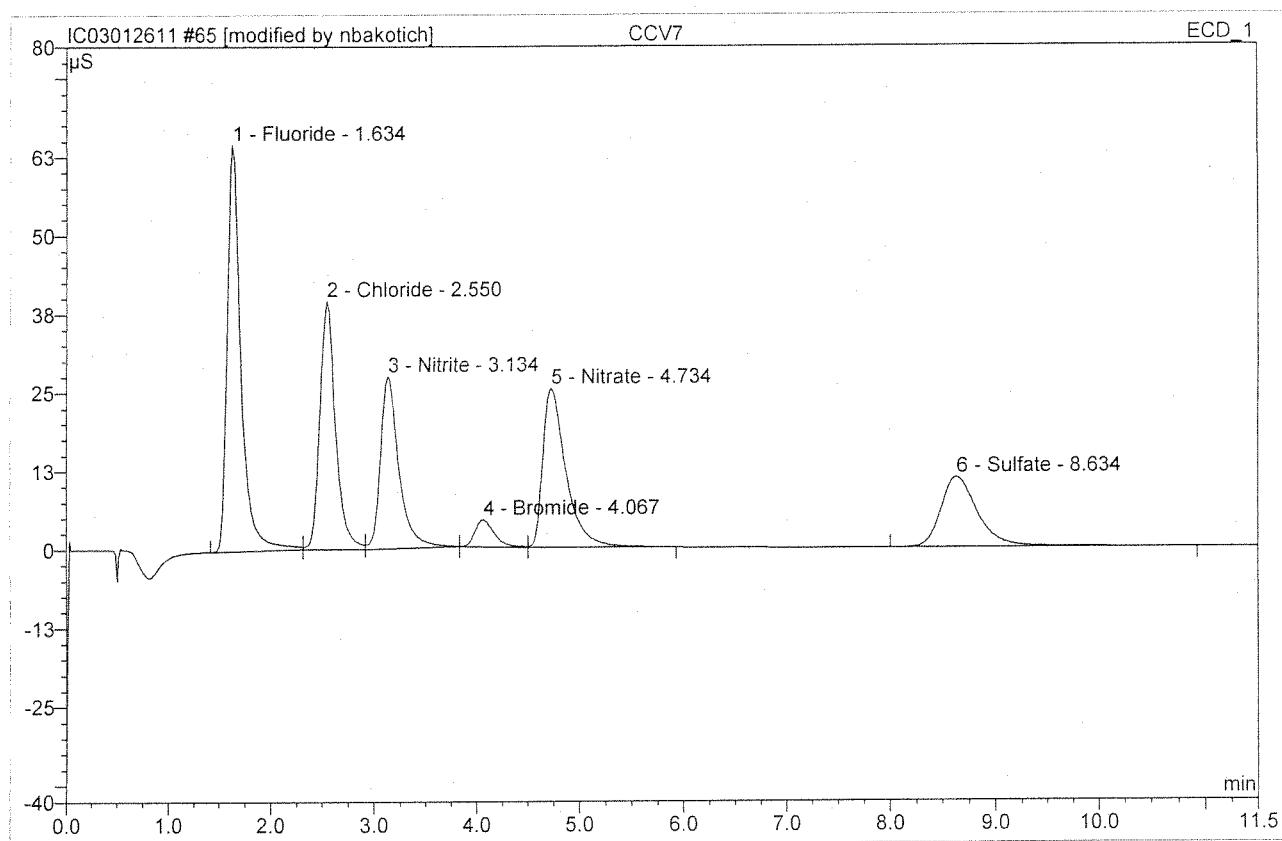


No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.62	Fluoride	63.480	9.982	29.41	4.951	BM
2	2.53	Chloride	38.855	6.676	19.67	4.537	Mb
3	3.12	Nitrite	26.713	5.314	15.66	1.851	bMb
4	4.03	Bromide	4.271	0.907	2.67	1.814	bMb
5	4.68	Nitrate	25.279	6.557	19.32	1.822	bMB
6	8.55	Sulfate	11.268	4.506	13.28	4.750	BMB
Total:			169.866	33.943	100.00	19.725	

Before**JAN 27 2011**

65 CCV7**CCV7**

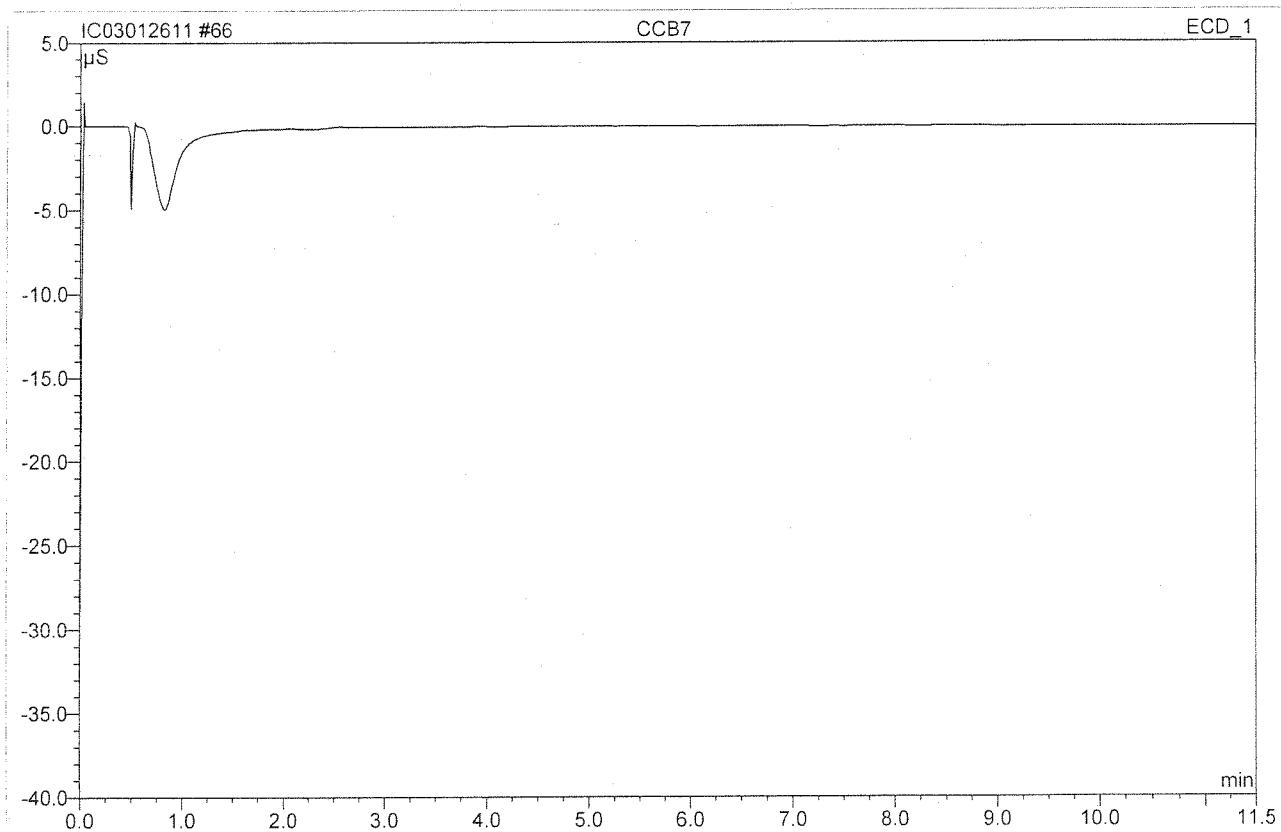
Sample Name:	CCV7	Injection Volume:	200.0
Vial Number:	60	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 22:16	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.63	Fluoride	64.660	10.142	28.97	10 / 5.030	BM *
2	2.55	Chloride	39.571	7.049	20.14	96 4.790	M *
3	3.13	Nitrite	27.373	5.662	16.18	99 1.973	MB*
4	4.07	Bromide	4.331	0.969	2.77	97 1.937	bM *
5	4.73	Nitrate	25.388	6.619	18.91	92 1.839	MB*
6	8.63	Sulfate	11.233	4.562	13.03	96 4.809	BMB
Total:			172.556	35.003	100.00	20.378	

66 CCB7**CCB7**

Sample Name:	CCB7	Injection Volume:	200.0
Vial Number:	61	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 22:30	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

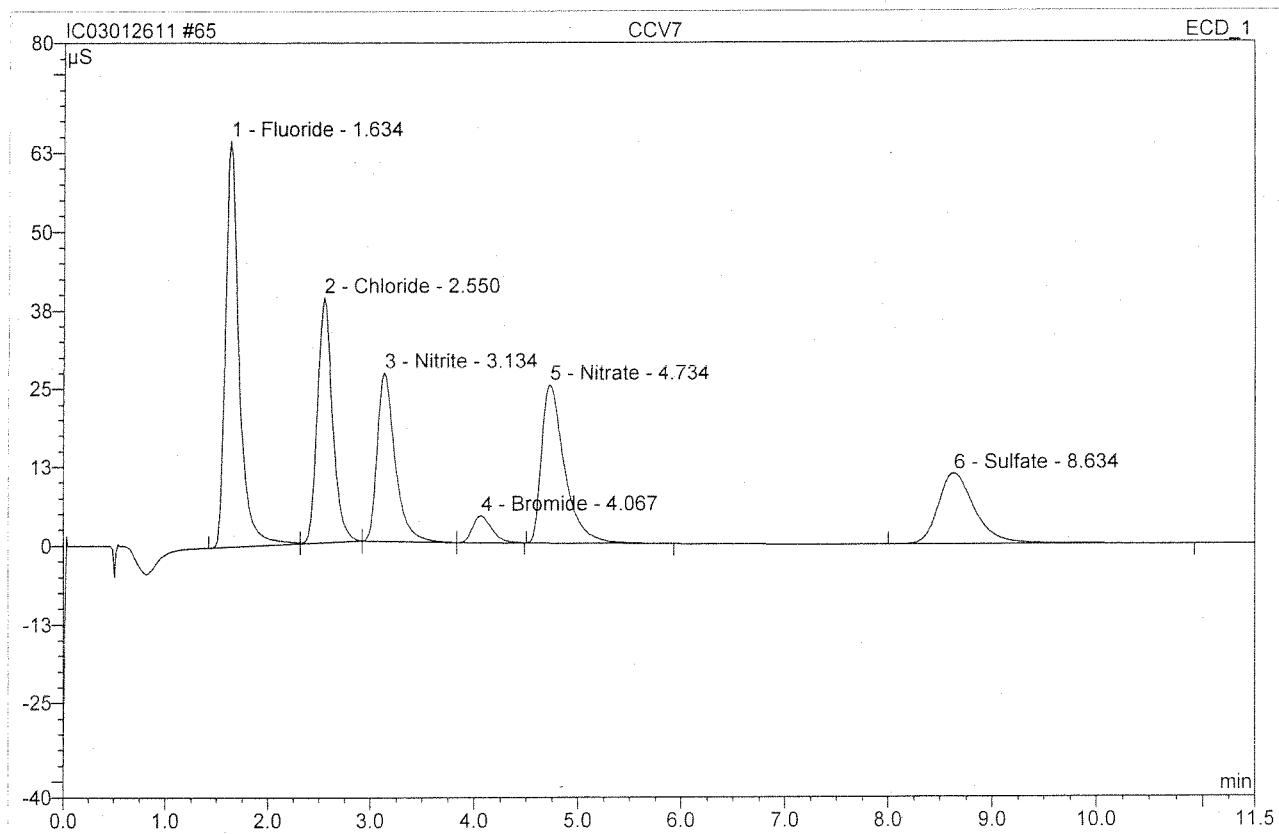


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

65 CCV7

CCV7

Sample Name:	CCV7	Injection Volume:	200.0
Vial Number:	60	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 22:16	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.63	Fluoride	64.590	10.012	29.42	4.966	BM
2	2.55	Chloride	39.111	6.743	19.81	4.582	Mb
3	3.13	Nitrite	26.815	5.326	15.65	1.856	bMb
4	4.07	Bromide	4.264	0.905	2.66	1.810	bMB
5	4.73	Nitrate	25.228	6.482	19.05	1.801	BMB
6	8.63	Sulfate	11.233	4.562	13.41	4.809	BMB
Total:			171.240	34.031	100.00	19.824	

Before

JAN 27 2011

Sequence: IC03112210c
Date: 11/22/10

Anion	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Corr.Coeff.	Date:	Slope
F	0.0	0.1	0.2	0.5	1.0	5.0	7.5	10.0	99.9841	2.0281	
Cl	0.0	0.1	0.2	0.5	1.0	5.0	7.5	10.0	99.8121	1.6325	
NO2	0.0	0.05	0.1	0.5	1.0	2.0	5.0	-	99.9963	2.9528	
Br	0.0	0.05	0.1	0.5	1.0	2.0	5.0	-	99.8997	0.5632	
NO3	0.0	0.05	0.1	0.5	1.0	2.0	5.0	-	99.8567	4.0451	
SO4	0.0	0.1	0.2	0.5	1.0	5.0	7.5	10.0	99.9341	1.0586	

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

No.	Peak Name	Cal.Type	#Points	Rel.Std.Dev. %	Corr.Coeff. %	Offset	Slope	Curve
1	Fluoride	Lin	7	1.538	99.9934	0	2.0162	0
2	Chloride	Lin	7	6.3839	99.8962	0	1.4715	0
n.a.	Nitrite	Lin	6	3.47	99.9844	0	2.8702	0
n.a.	Bromide	Lin	6	5.0433	99.9621	0	0.5002	0
n.a.	Nitrate	Lin	6	9.5703	99.8817	0	3.5997	0
3	Sulfate	Lin	7	4.5792	99.9463	0	0.9487	0
Average:			6.5	5.0975	99.944	0	1.9011	0

AN11-54-A 100PPM NO2, BR, NO3
AN11-54-B 100PPM F, CL, SO4

AN11-54-C AN11-54-D AN11-54-E AN11-54-F AN11-54-G AN11-54-H AN11-54-I
STD2 STD3 STD4 STD5 STD6 STD7 STD8 STD1

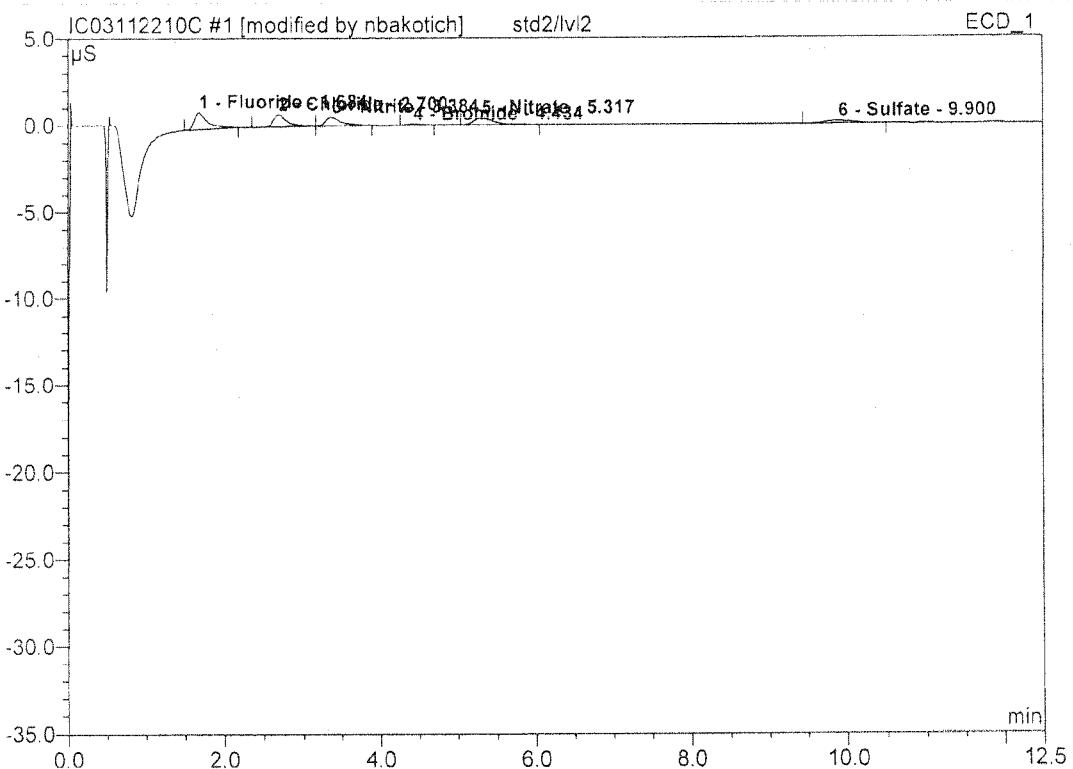
ml

F	0.100	0.200	0.500	1.000	5.00	7.50	10.00	0
Cl	0.100	0.200	0.500	1.000	5.00	7.50	10.00	0
SO4	0.100	0.200	0.500	1.000	5.00	7.50	10.00	0
NO2	0.050	0.100	0.500	1.000	2.00	5.00	--	0
NO3	0.050	0.100	0.500	1.000	2.00	5.00	--	0
Br	0.050	0.100	0.500	1.000	5.00	7.50	--	0

Columbia Analytical Services, Inc.

1 std2/lvl2

Sample Name:	std2/lvl2	Injection Volume:	200.0
Vial Number:	2	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 14:11	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



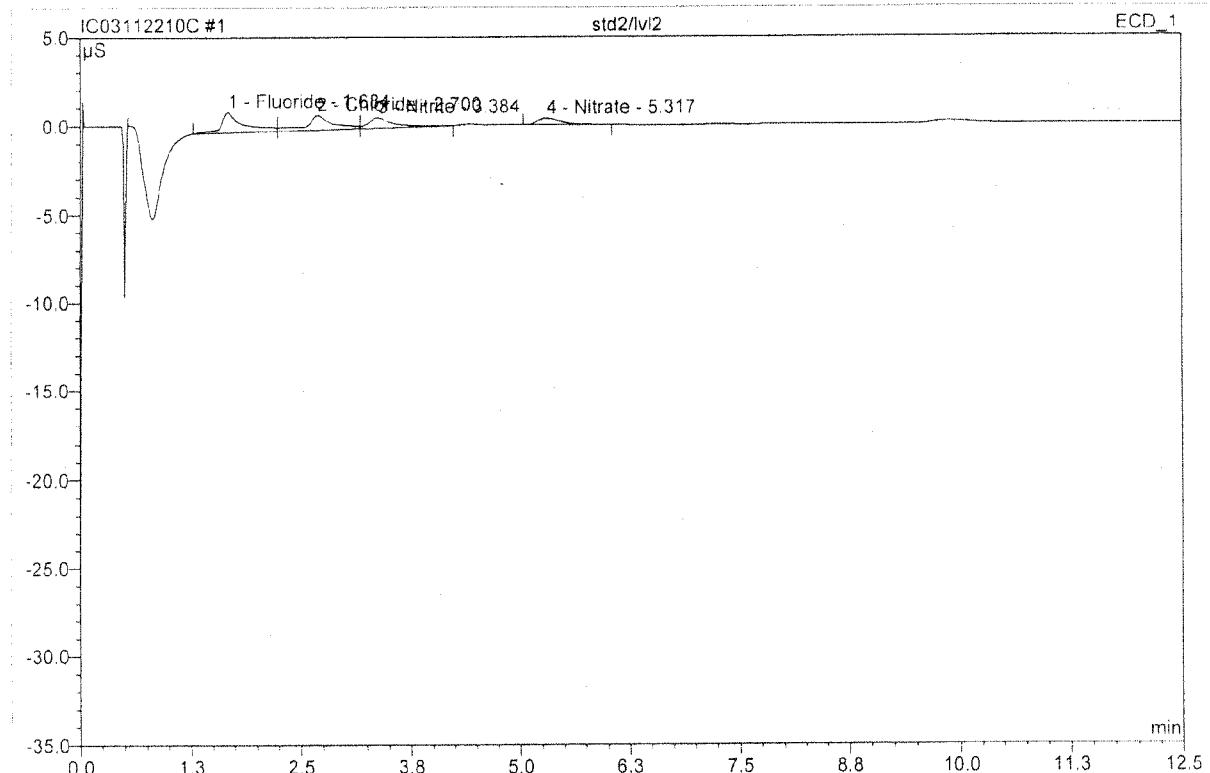
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.68	Fluoride	0.989	0.192	28.60	0.095	BMB*
2	2.70	Chloride	0.677	0.148	22.03	0.101	BM *
3	3.38	Nitrite	0.504	0.125	18.58	0.043	MB*
4	4.43	Bromide	0.074	0.015	2.22	0.030	BMB*
5	5.32	Nitrate	0.399	0.125	18.66	0.035	BMB
6	9.90	Sulfate	0.155	0.067	9.91	0.070	BMB*
Total:			2.798	0.672	100.00	0.374	

After
Initials AJ

12/10/2010

1 std2/lvl2

Sample Name:	std2/lvl2	Injection Volume:	200.0
Vial Number:	2	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 14:11	Sample Weight:	1.0000
Run Time (min):	12.50	Sample Amount:	1.0000

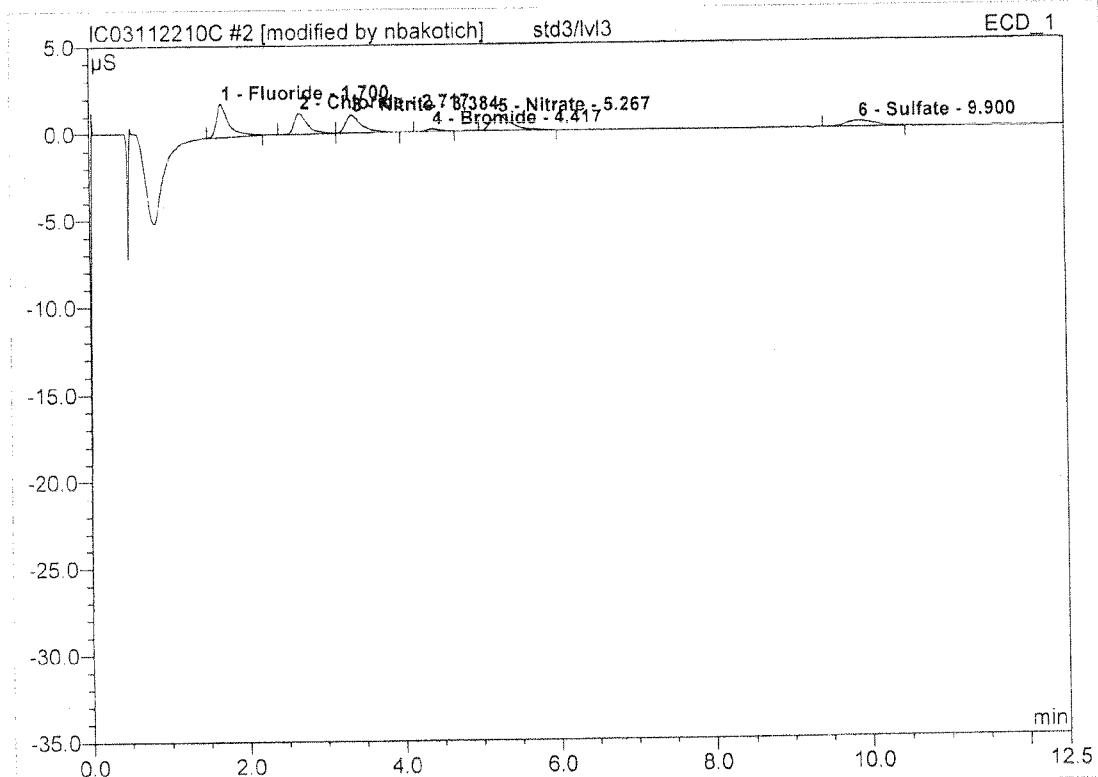


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.68	Fluoride	1.128	0.329	35.50	0.163	BM
2	2.70	Chloride	0.822	0.282	30.45	0.192	M
3	3.38	Nitrite	0.597	0.190	20.52	0.066	MB
4	5.32	Nitrate	0.399	0.125	13.53	0.035	BMB
Total:			2.945	0.926	100.00	0.456	

Before**NOV 22 2010**

Columbia Analytical Services, Inc.**2 std3/lvl3**

Sample Name:	std3/lvl3	Injection Volume:	200.0
Vial Number:	1	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 14:26	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	1.893	0.360	27.52	0.178	BMB*
2	2.72	Chloride	1.204	0.252	19.27	0.171	BM *
3	3.38	Nitrite	1.048	0.257	19.71	0.090	MB*
4	4.42	Bromide	0.160	0.035	2.71	0.071	BMB*
5	5.27	Nitrate	0.847	0.262	20.09	0.073	BMB
6	9.90	Sulfate	0.325	0.140	10.70	0.147	BMB
Total:			5.477	1.306	100.00	0.730	

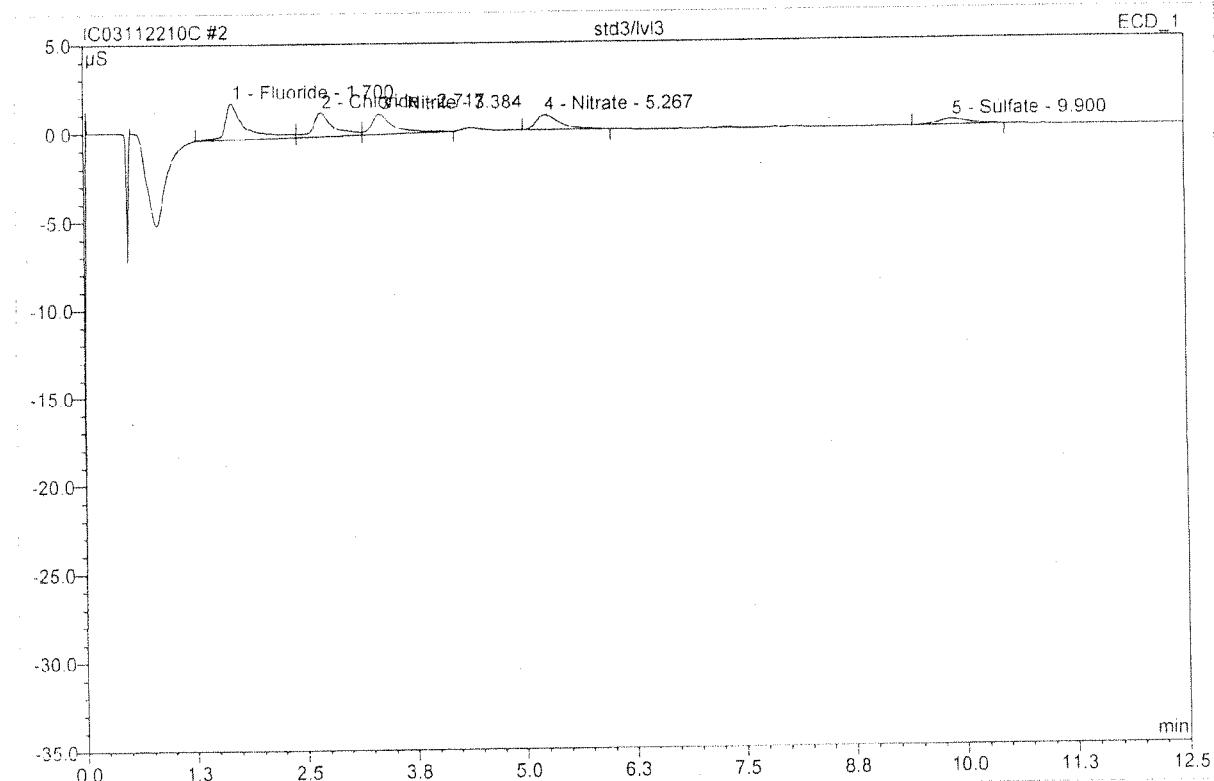
Initials rb

11/12/2010

NOV 22 2010

2 std3/lvl3

Sample Name:	std3/lvl3	Injection Volume:	200.0
Vial Number:	1	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 14:26	Sample Weight:	1.0000
Run Time (min.):	12.50	Sample Amount:	1.0000



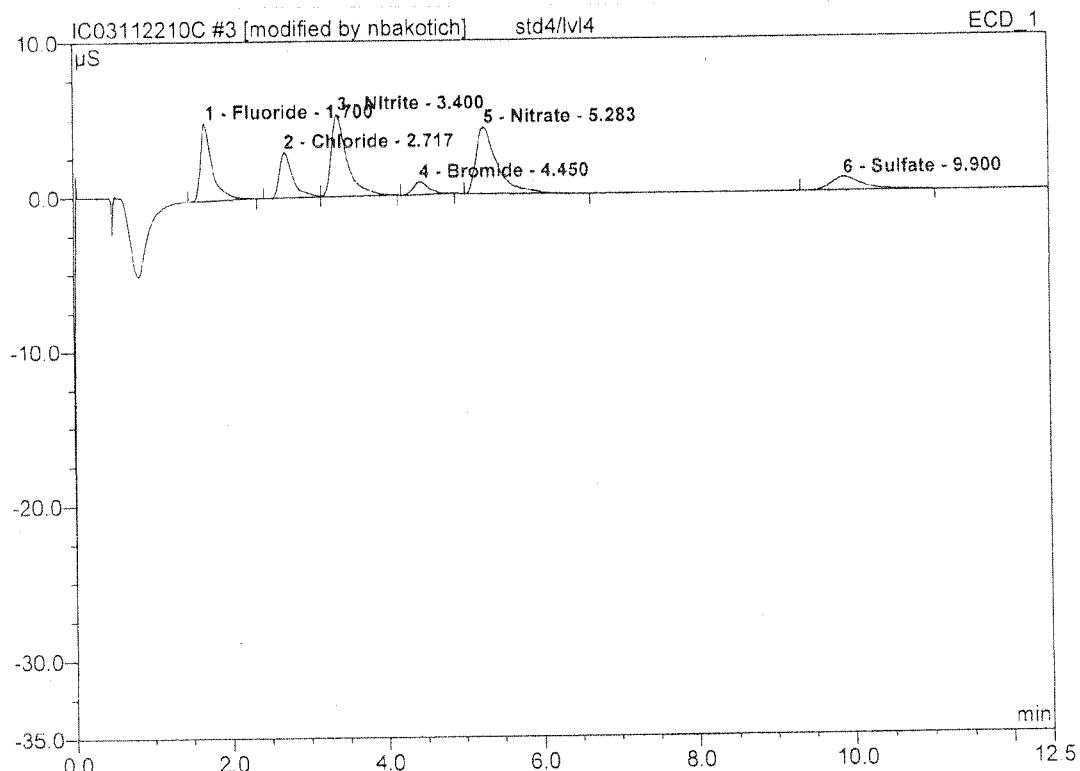
No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.70	Fluoride	2.043	0.538	33.21	0.267	BM
2	2.72	Chloride	1.351	0.356	21.99	0.242	M
3	3.38	Nitrite	1.140	0.324	19.97	0.113	MB
4	5.27	Nitrate	0.847	0.262	16.20	0.073	BMB
5	9.90	Sulfate	0.325	0.140	8.63	0.147	BMB
Total:			5.707	1.620	100.00	0.842	

Before**NOV 4 2010**

Columbia Analytical Services, Inc.

3 std4/lvl4

Sample Name:	std4/lvl4	Injection Volume:	200.0
Vial Number:	2	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 14:41	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	5.003	0.894	18.81	0.443	BMB*
2	2.72	Chloride	2.933	0.584	12.30	0.397	BM *
3	3.40	Nitrite	5.309	1.275	26.83	0.444	MB*
4	4.45	Bromide	0.826	0.194	4.08	0.388	BMB*
5	5.28	Nitrate	4.320	1.392	29.29	0.387	BMB*
6	9.90	Sulfate	0.849	0.413	8.69	0.435	BMB
Total:			19.240	4.752	100.00	2.495	

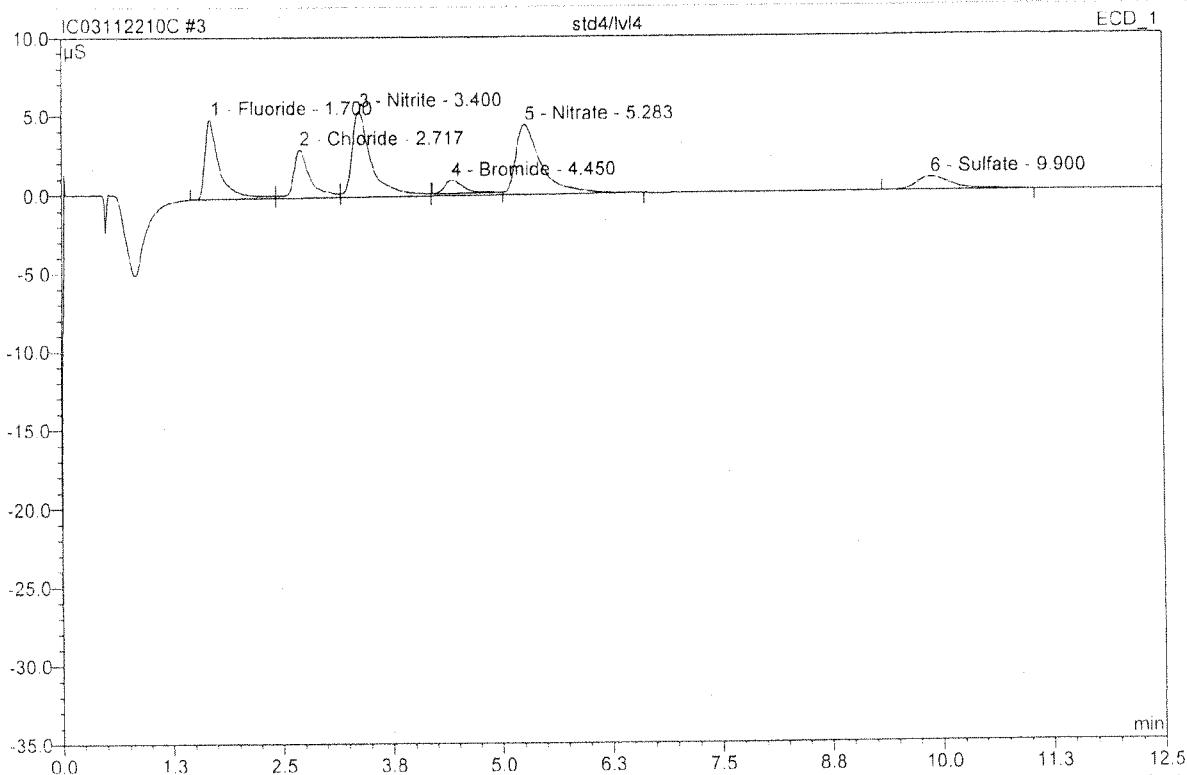
After
Initials: *nb*

11/22/2010

NOV 22 2010

3 std4/lvl4

Sample Name:	std4/lvl4	Injection Volume:	200.0
Vial Number:	2	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 14:41	Sample Weight:	1.0000
Run Time (min):	12.50	Sample Amount:	1.0000

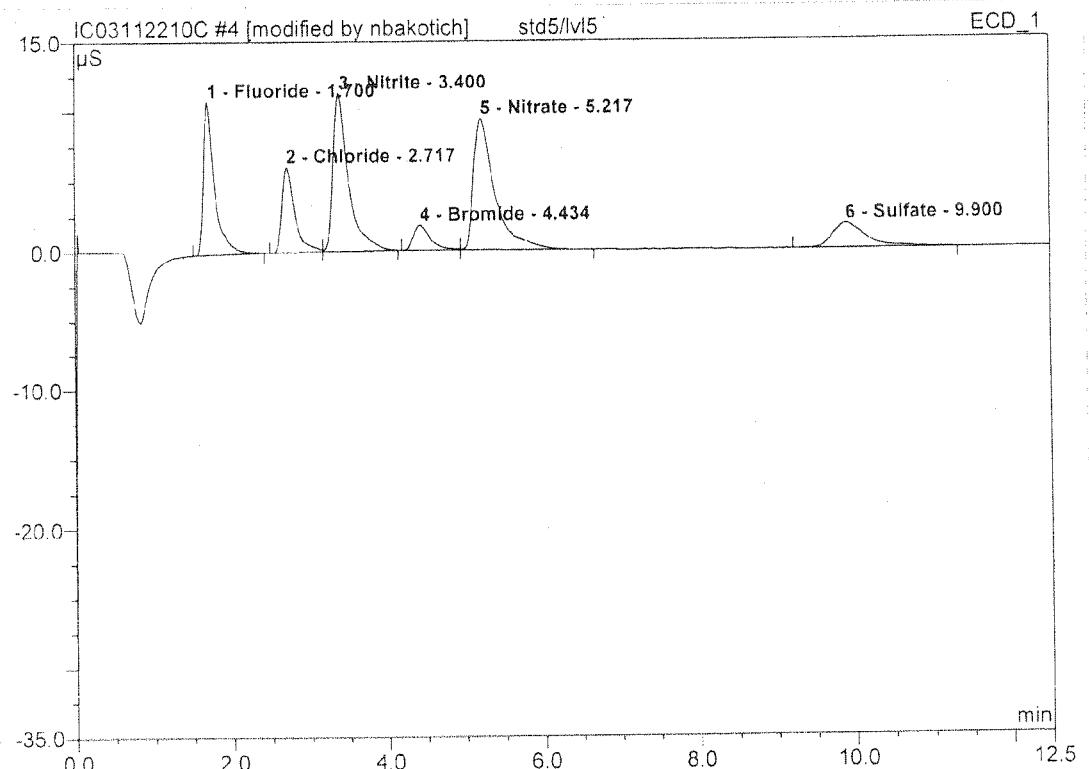


No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.70	Fluoride	5.041	0.974	18.14	0.483	BM
2	2.72	Chloride	3.071	0.687	12.79	0.467	M
3	3.40	Nitrite	5.457	1.432	26.65	0.498	M
4	4.45	Bromide	0.842	0.213	3.97	0.426	Ru
5	5.28	Nitrate	4.459	1.653	30.77	0.459	MB
6	9.90	Sulfate	0.849	0.413	7.69	0.435	BMB
Total:		Before	19.719	5.371	100.00	2.768	

NOV 2 2010

Columbia Analytical Services, Inc.**4 std5/lv15**

Sample Name:	std5/lv15	Injection Volume:	200.0
Vial Number:	3	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 14:56	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	10.940	1.843	18.50	0.914	BMB*
2	2.72	Chloride	6.077	1.180	11.85	0.802	BM *
3	3.40	Nitrite	11.282	2.633	26.44	0.917	MB*
4	4.43	Bromide	1.794	0.452	4.54	0.904	BM *
5	5.22	Nitrate	9.359	2.982	29.95	0.828	MB*
6	9.90	Sulfate	1.753	0.868	8.72	0.915	BMB
Total:			After 41.205	9.958	100.00	5.281	

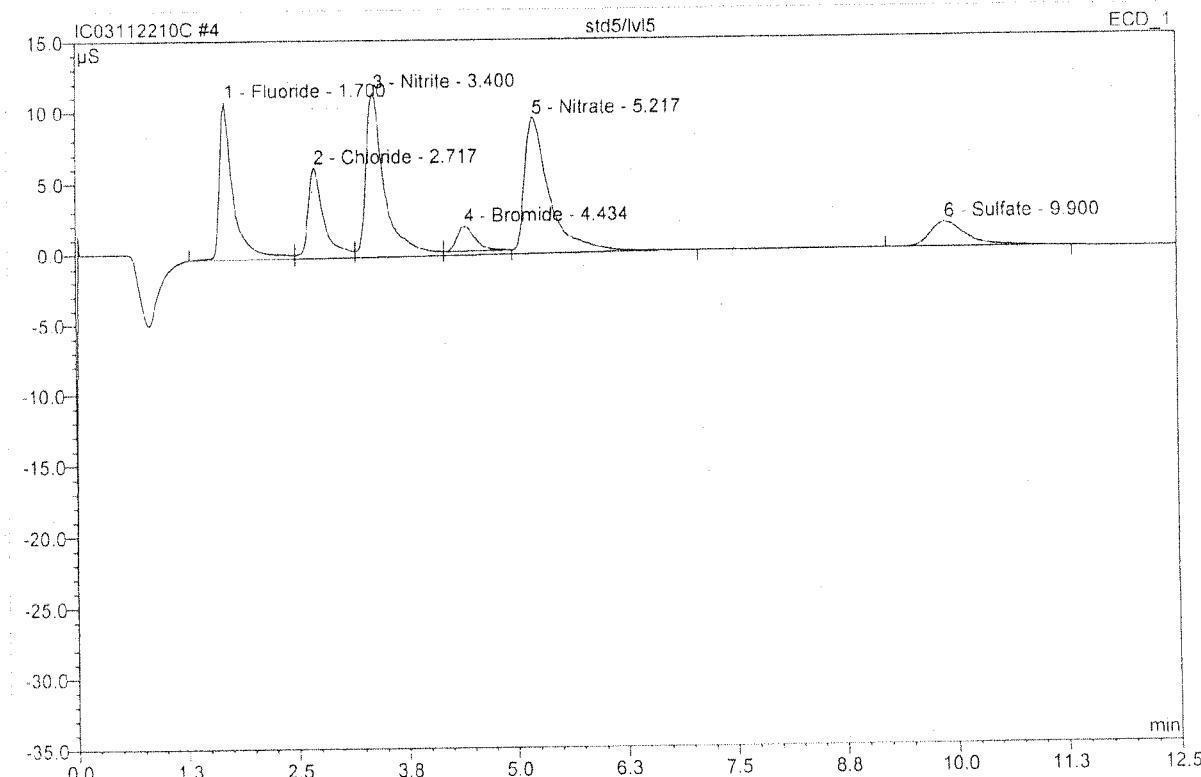
Initials AB

11/18/10 11:49

NOV 22 2010

4 std5/lvl5

Sample Name:	std5/lvl5	Injection Volume:	200.0
Vial Number:	3	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 14:56	Sample Weight:	1.0000
Run Time (min):	12.50	Sample Amount:	1.0000

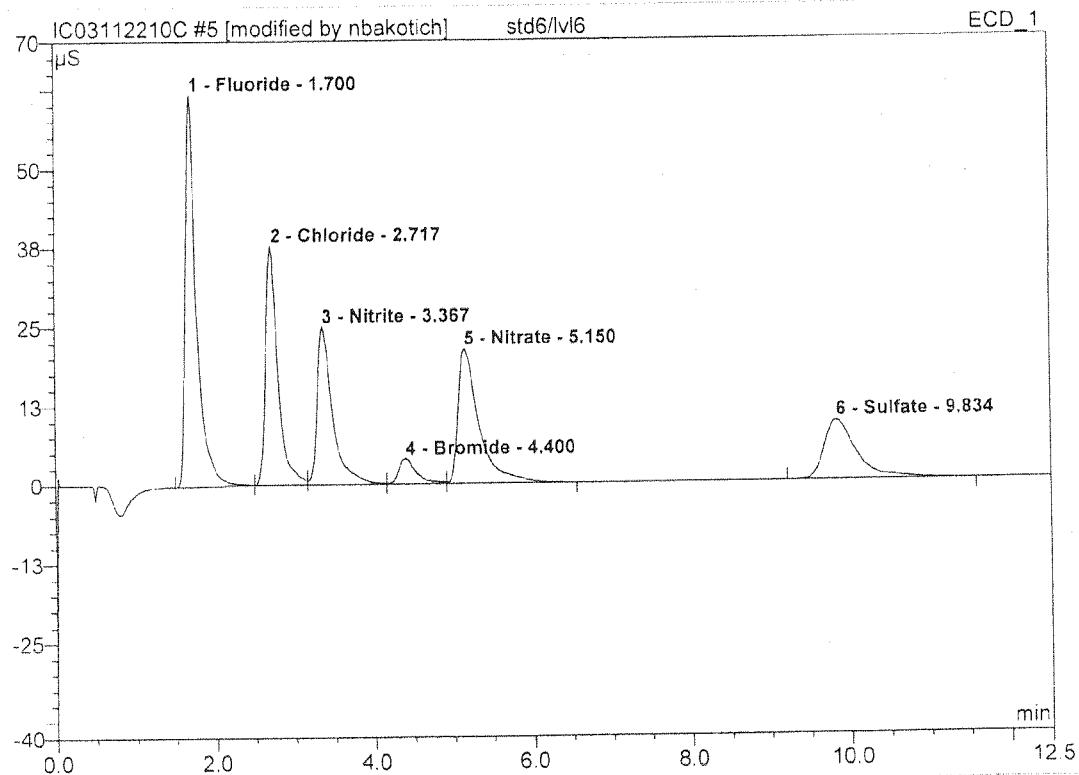


No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.70	Fluoride	11.106	2.068	18.66	1.025	BM
2	2.72	Chloride	6.341	1.362	12.28	0.925	M
3	3.40	Nitrite	11.559	2.921	26.35	1.014	M
4	4.43	Bromide	1.778	0.433	3.90	0.867	Ru
5	5.22	Nitrate	9.558	3.435	30.98	0.950	MB
6	9.90	Sulfate	1.753	0.868	7.83	0.915	BMB
Total:			42.095	11.087	100.00	5.696	

Before**NOV 4 2010**

Columbia Analytical Services, Inc.**5 std6/lvl6**

Sample Name:	std6/lvl6	Injection Volume:	200.0
Vial Number:	4	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 15:11	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S} \cdot \text{min}$	Rel.Area %	Amount	Type
1	1.70	Fluoride	61.919	10.194	29.36	5.056	BMb*
2	2.72	Chloride	37.693	6.806	19.60	4.625	bM *
3	3.37	Nitrite	24.857	5.657	16.29	1.971	M *
4	4.40	Bromide	3.966	1.023	2.95	2.045	M *
5	5.15	Nitrate	21.252	6.574	18.93	1.826	MB*
6	9.83	Sulfate	9.417	4.472	12.88	4.714	BMB
Total:		After Initials	159.103	34.725	100.00	20.237	

NOV 22 2010

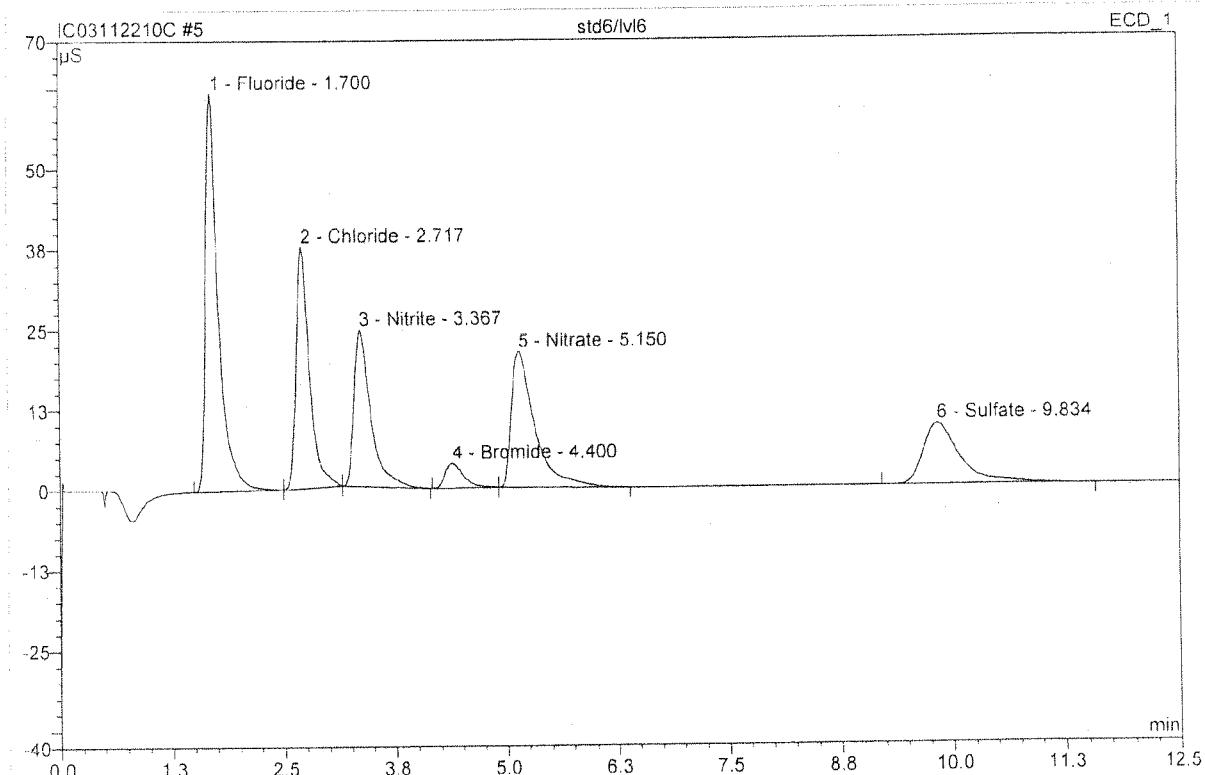
54433119

Wrong Peak/Peak not Found
 Baseline/shoulder Incorrect
 Other

Chromleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

5 std6/lv16

<i>Sample Name:</i>	std6/lvl6	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	4	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	standard	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	11/22/2010 15:11	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	12.50	<i>Sample Amount:</i>	1.0000



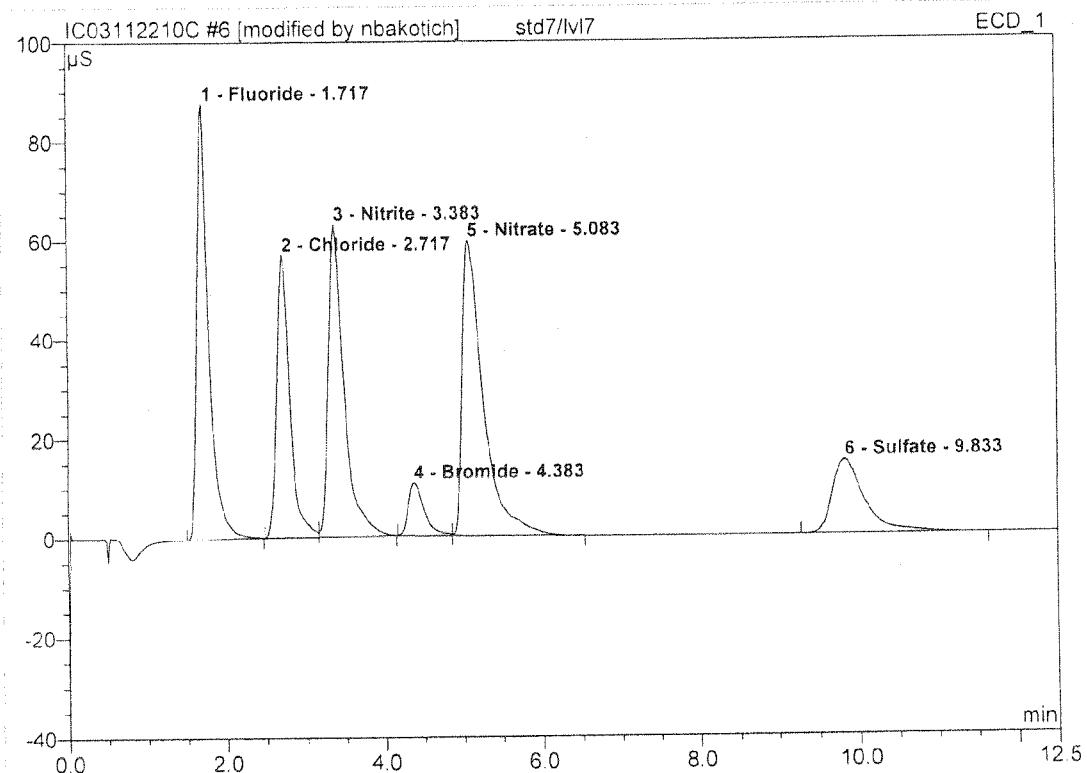
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	61.919	10.194	30.08	5.056	BMB
2	2.72	Chloride	37.503	6.612	19.51	4.510	bMb
3	3.37	Nitrite	24.368	5.310	15.67	1.865	bMB
4	4.40	Bromide	3.823	0.902	2.66	1.833	BMb
5	5.15	Nitrate	21.074	6.399	18.88	1.783	bMB
6	9.83	Sulfate	9.417	4.472	13.19	4.714	BMB
Total:			158.103	33.888	100.00	19.761	

Before

NOV 4 2 2010

Columbia Analytical Services, Inc.**6 std7/lvl7**

Sample Name:	std7/lvl7	Injection Volume:	200.0
Vial Number:	5	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 15:26	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.72	Fluoride	87.714	15.187	22.17	7.532	BMB
2	2.72	Chloride	56.910	10.892	15.90	7.402	BM *
3	3.38	Nitrite	62.916	14.448	21.09	5.034	MB*
4	4.38	Bromide	10.676	2.508	3.66	5.013	BM *
5	5.08	Nitrate	59.432	18.416	26.89	5.116	MB*
6	9.83	Sulfate	14.943	7.046	10.29	7.427	BMB
Total:			292.592	68.496	100.00	37.525	

After
Initials nb

Analyst's initials

NOV 22 2010

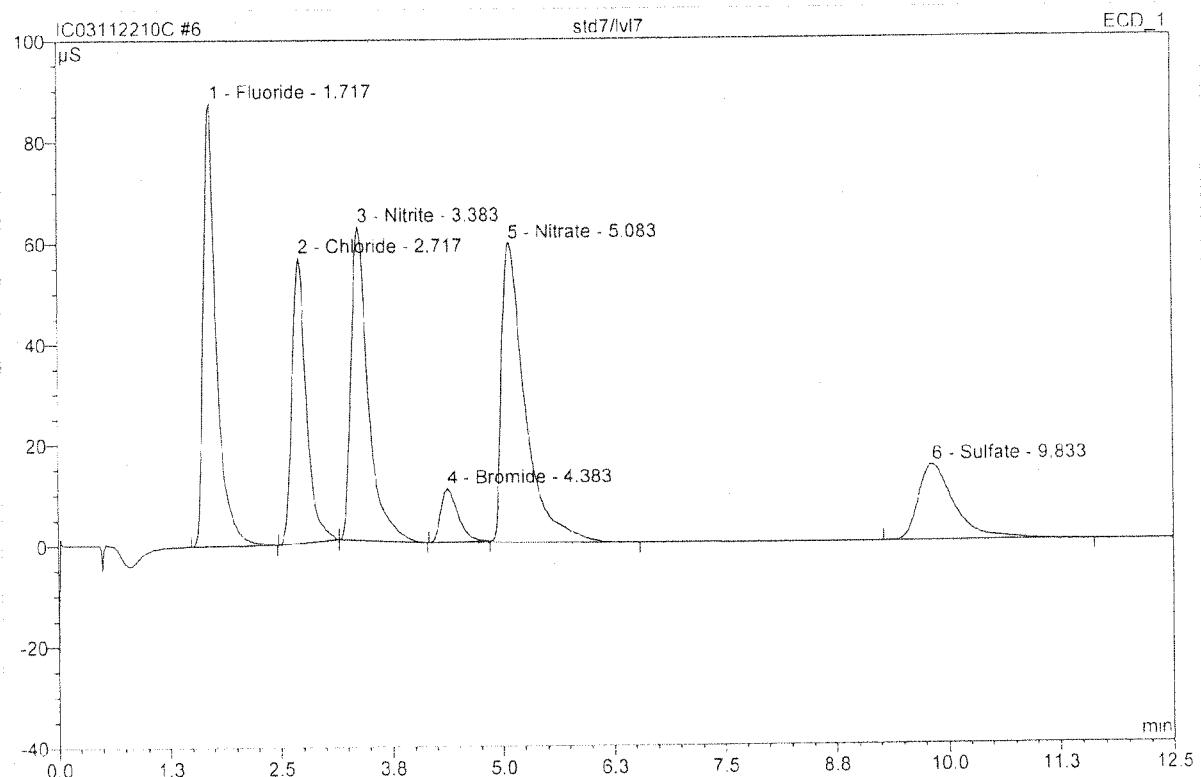
CASLIMS_300-0/Integration

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

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

6 std7/lv17

Sample Name:	std7/lvl7	<i>Injection Volume:</i>	200.0
Vial Number:	5	<i>Channel:</i>	ECD_1
Sample Type:	standard	<i>Wavelength:</i>	n.a.
Control Program:	epa300	<i>Bandwidth:</i>	n.a.
Quantif. Method:	epa300	<i>Dilution Factor:</i>	1.0000
Recording Time:	11/22/2010 15:26	<i>Sample Weight:</i>	1.0000
Run Time (min):	12.50	<i>Sample Amount:</i>	1.0000



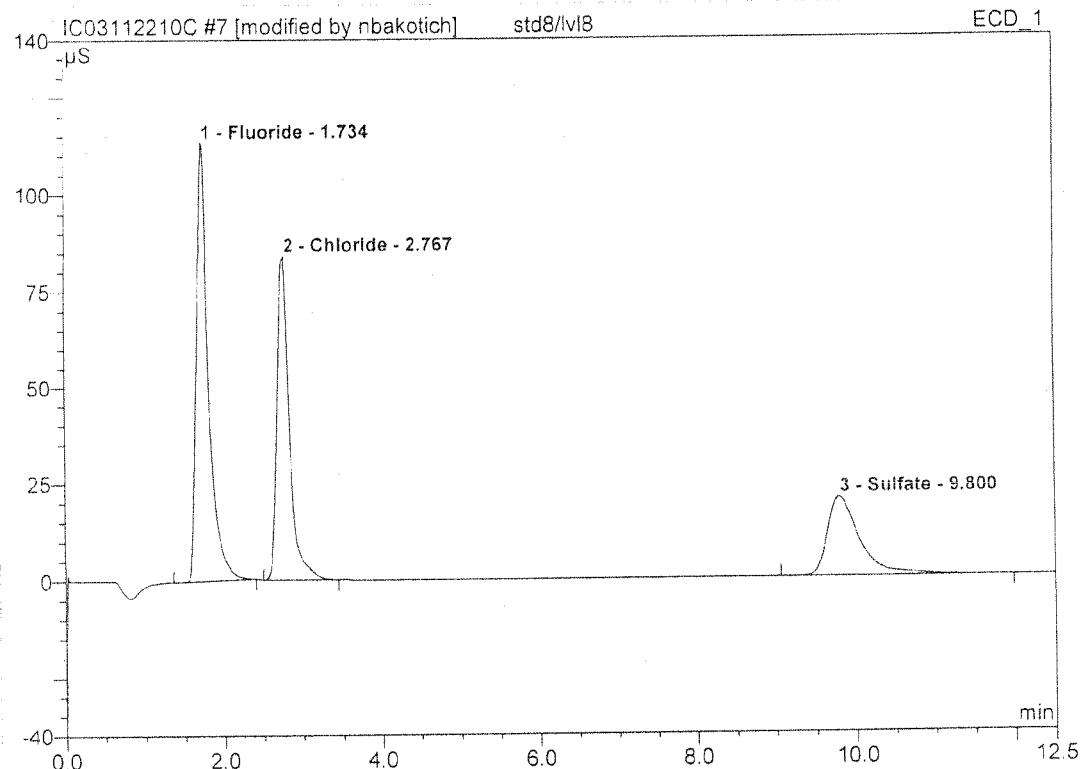
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.72	Fluoride	87.714	15.187	22.41	7.532	BMB
2	2.72	Chloride	56.611	10.593	15.63	7.259	BMB
3	3.38	Nitrite	62.232	14.017	20.68	5.008	bBMB
4	4.38	Bromide	10.581	2.401	3.54	4.975	Ru
5	5.08	Nitrate	59.432	18.523	27.33	5.120	BMB
6	9.83	Sulfate	14.943	7.046	10.40	7.427	BMB
Total:			291.513	67.765	100.00	37.322	

~~Before~~

NOV 4 2 2010

Columbia Analytical Services, Inc.**7 std8/lvl8**

Sample Name:	std8/lvl8	Injection Volume:	200.0
Vial Number:	6	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 15:41	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.73	Fluoride	113.420	20.081	44.72	9.960	BMB*
2	2.77	Chloride	83.885	15.135	33.71	10.286	BMB*
3	9.80	Sulfate	20.407	9.687	21.57	10.211	BMB
Total:		After	217.713	44.903	100.00	30.457	

Initials AD

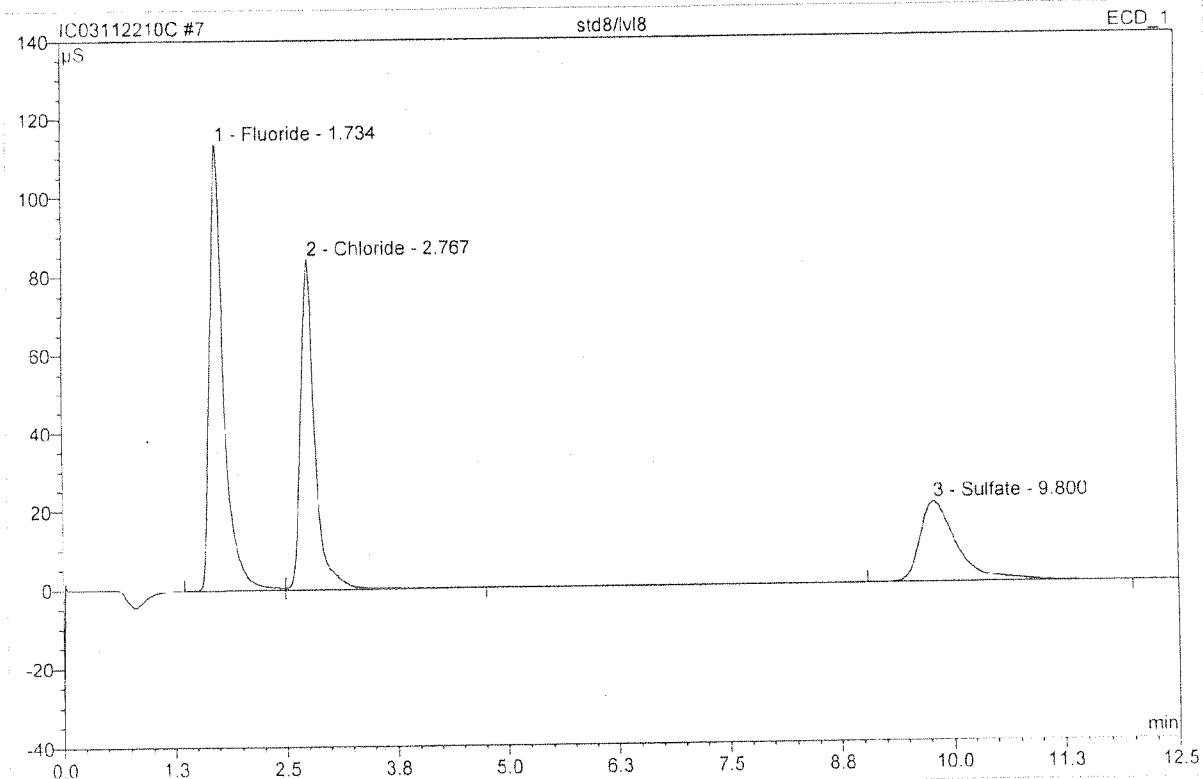
NOV 4 2010

611311112

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

7 std8/lvl8

Sample Name:	std8/lvl8	Injection Volume:	200.0
Vial Number:	6	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 15:41	Sample Weight:	1.0000
Run Time (min):	12.50	Sample Amount:	1.0000



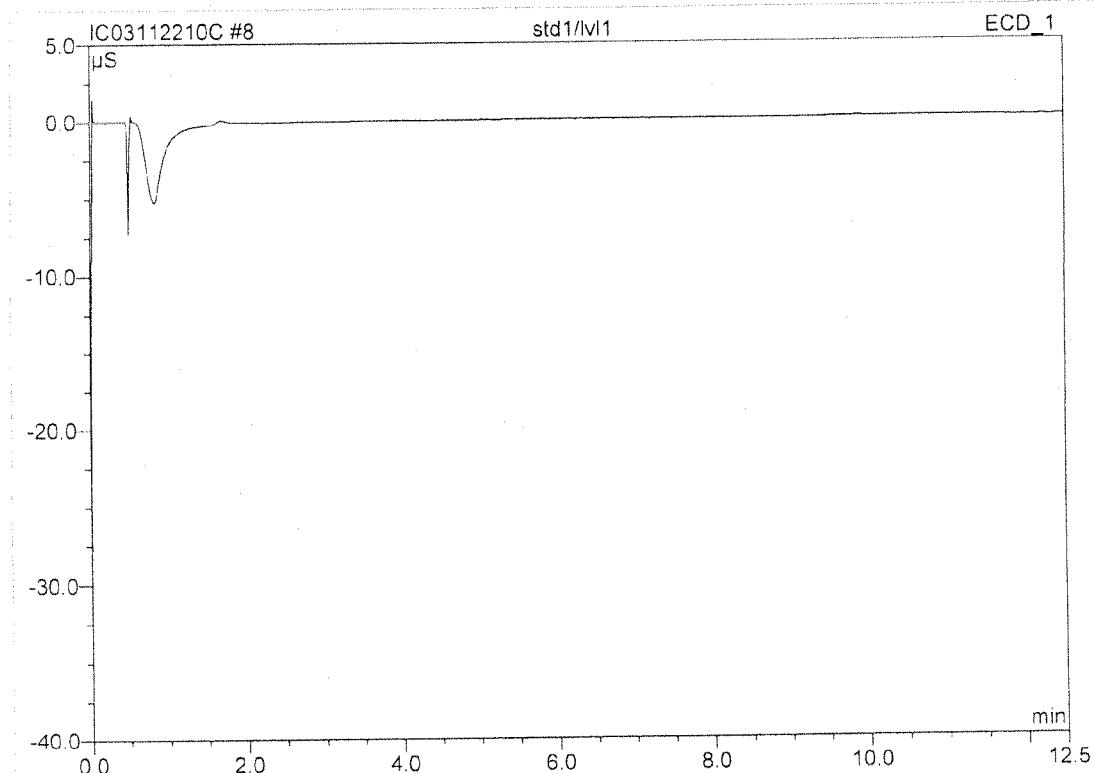
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.73	Fluoride	113.629	20.434	44.74	10.039	BM
2	2.77	Chloride	84.251	15.552	34.05	10.408	MB
3	9.80	Sulfate	20.407	9.687	21.21	10.211	BMB
Total:			218.287	45.673	100.00	30.657	

Before

NOV 4 2010

Columbia Analytical Services, Inc.**8 std1/lvl1**

Sample Name:	std1/lvl1	Injection Volume:	200.0
Vial Number:	7	Channel:	ECD_1
Sample Type:	standard	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 15:56	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03

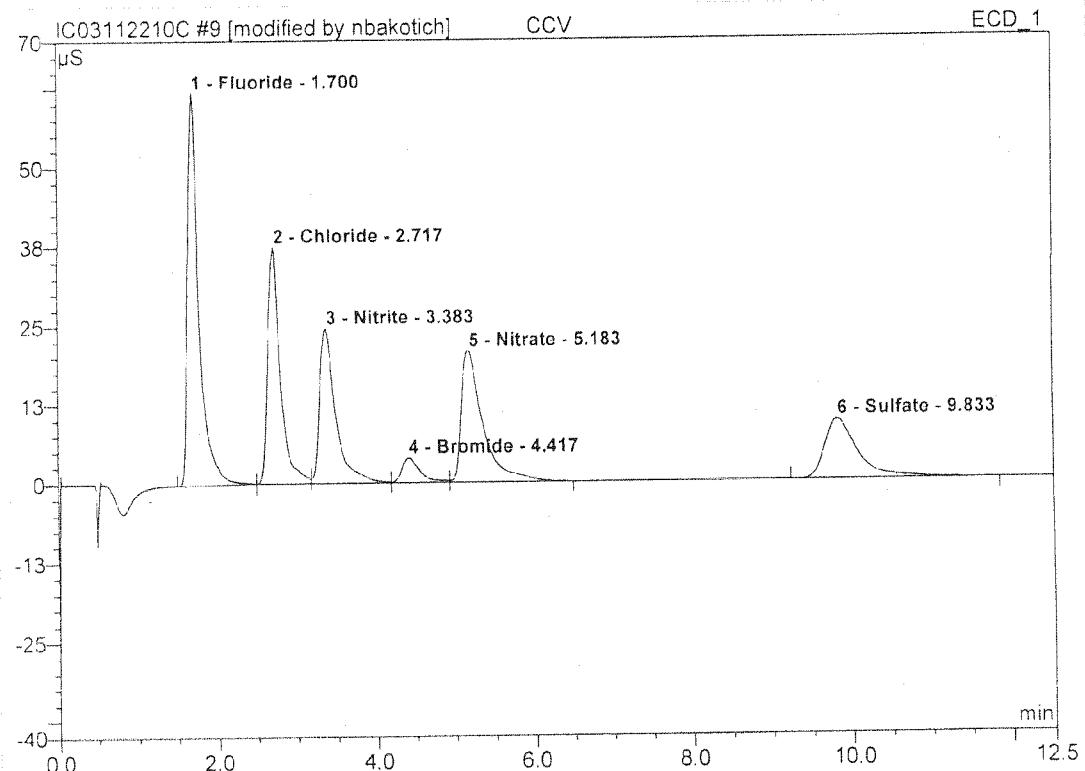


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

Columbia Analytical Services, Inc.

9 CCV

Sample Name:	CCV	Injection Volume:	200.0
Vial Number:	8	Channel:	ECD_1
Sample Type:	unknown	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 16:11	Analyst:	JS / EM
Run Time (min):	12.52	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.70	Fluoride	62.081	10.293	29.50	5.105	BMb
2	2.72	Chloride	37.316	6.836	19.59	4.646	bM *
3	3.38	Nitrite	24.508	5.662	16.22	1.973	M *
4	4.42	Bromide	3.899	1.014	2.91	2.027	M *
5	5.18	Nitrate	20.744	6.560	18.80	1.822	MB*
6	9.83	Sulfate	9.395	4.531	12.98	4.777	BMB
Total:			157.944	34.896	100.00	20.350	

After
Initials ab

6110315

CASLIMS_300-0/Integration

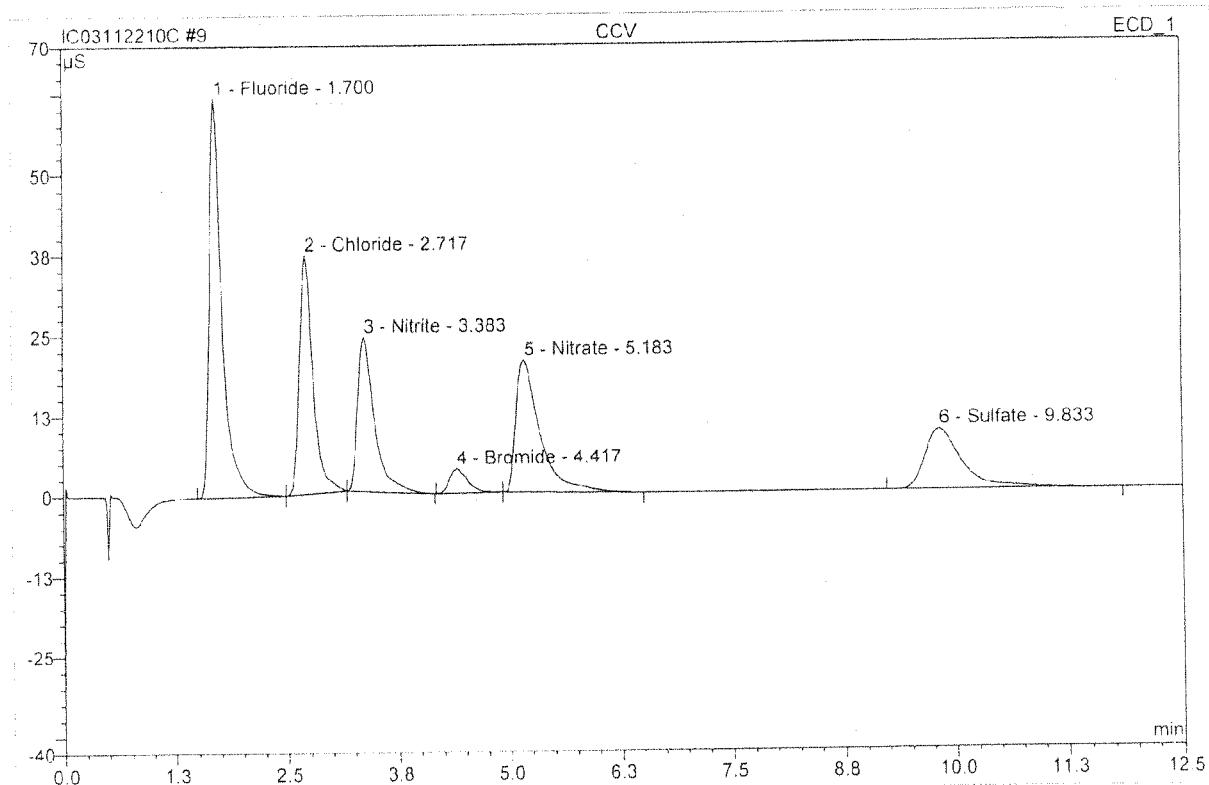
NOV 22 2010

Chromleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

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

9 CCV

Sample Name:	CCV	Injection Volume:	200.0
Vial Number:	8	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	11/22/2010 16:11	Sample Weight:	1.0000
Run Time (min):	12.52	Sample Amount:	1.0000



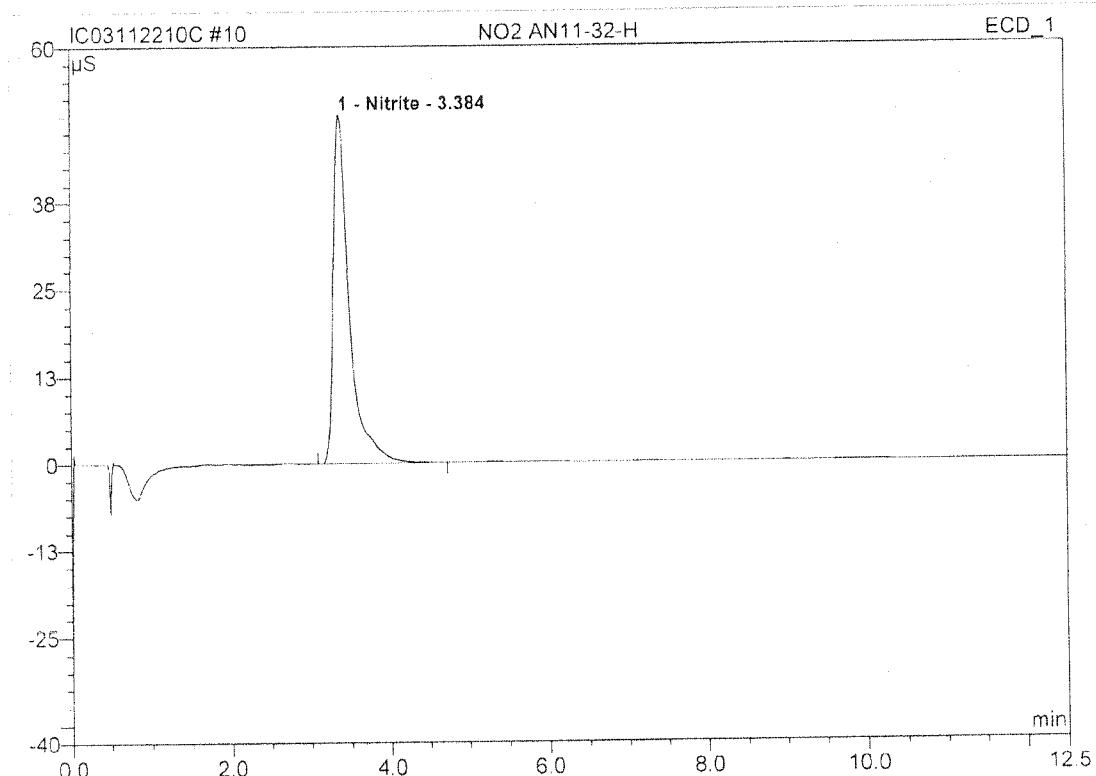
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.70	Fluoride	62.081	10.293	30.28	5.105	BMB
2	2.72	Chloride	37.108	6.612	19.45	4.493	bMb
3	3.38	Nitrite	23.960	5.280	15.53	1.840	bMB
4	4.42	Bromide	3.755	0.890	2.62	1.780	BMB
5	5.18	Nitrate	20.558	6.387	18.79	1.774	bMB
6	9.83	Sulfate	9.395	4.531	13.33	4.777	BMB
Total:			156.858	33.992	100.00	19.768	

Before

NOV 4 2010

Columbia Analytical Services, Inc.**10 NO₂ AN11-32-H****NO₂**

Sample Name:	NO ₂ AN11-32-H	Injection Volume:	200.0
Vial Number:	10	Channel:	ECD_1
Sample Type:	unknown	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	25.0
Recording Time:	11/22/2010 16:26	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03

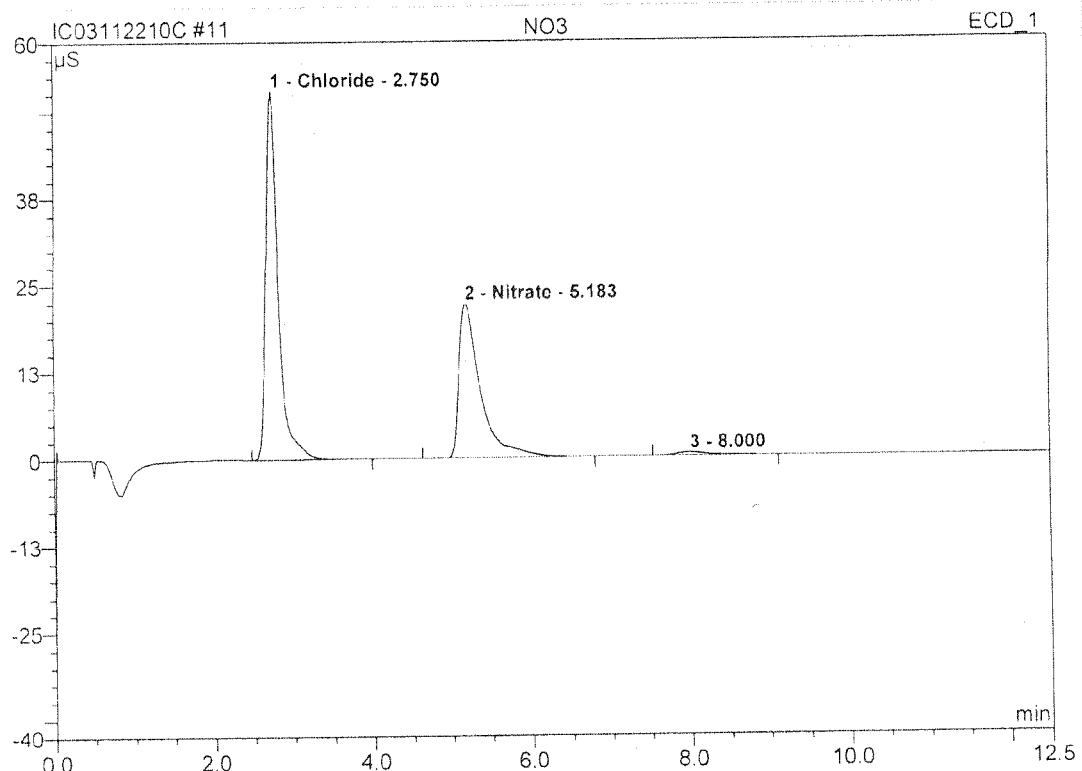


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	3.38	Nitrite	50.270	11.728	100.00	102.158	BMB
Total:			50.270	11.728	100.00	102.158	

Columbia Analytical Services, Inc.

11 NO3**NO3**

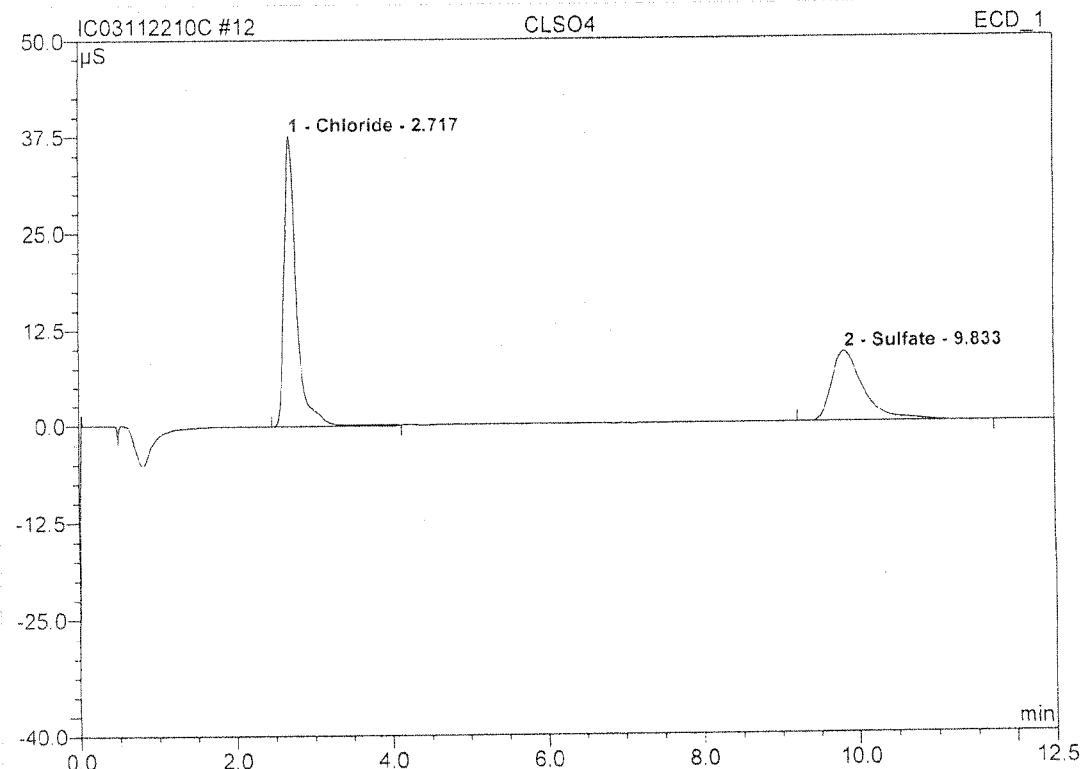
Sample Name:	NO3	Injection Volume:	200.0
Vial Number:	11	Channel:	ECD_1
Sample Type:	unknown	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	10.0
Recording Time:	11/22/2010 16:41	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.75	Chloride	53.078	9.510	56.79	64.626	BMB
2	5.18	Nitrate	22.119	7.007	41.84	19.466	BMB
3	8.00	n.a.	0.491	0.230	1.37	n.a.	BMB
Total:			75.688	16.746	100.00	84.092	

Columbia Analytical Services, Inc.**12 CLSO4****CLSO4**

Sample Name:	CLSO4	Injection Volume:	200.0
Vial Number:	12	Channel:	ECD_1
Sample Type:	unknown	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	1.0
Recording Time:	11/22/2010 16:56	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



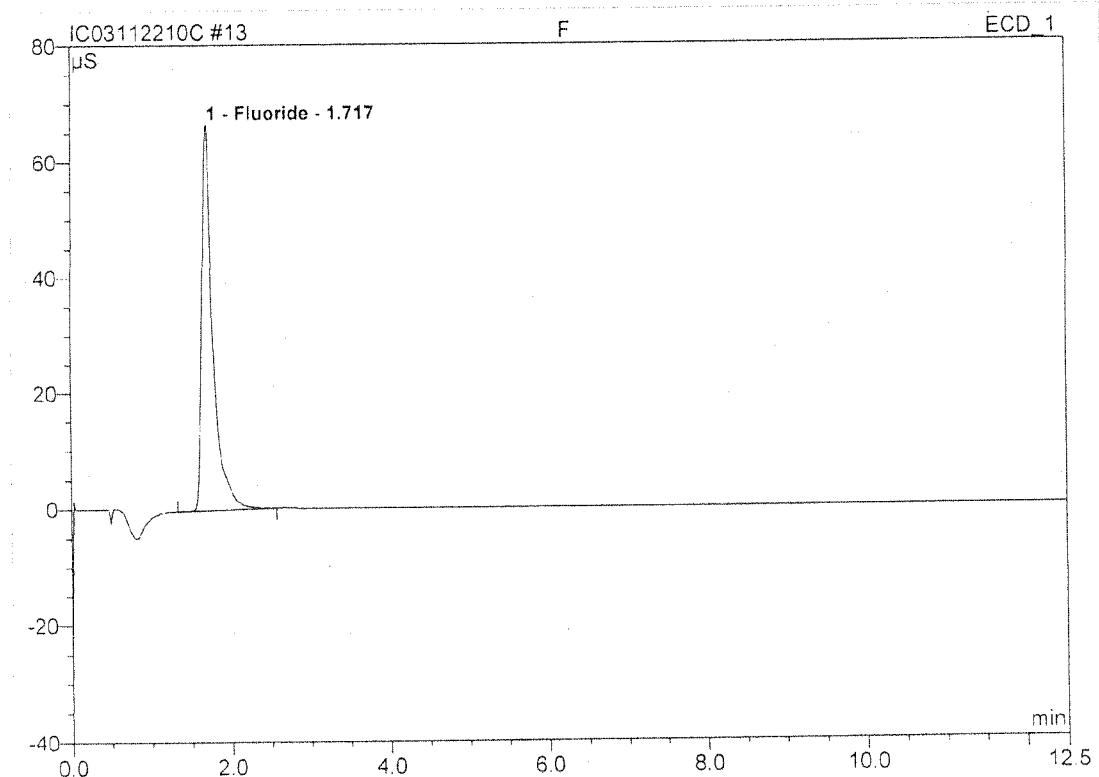
No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	2.72	Chloride	37.687	6.916	61.01	4.700	BMB
2	9.83	Sulfate	9.129	4.421	38.99	4.660	BMB
Total:			46.817	11.337	100.00	9.360	

Columbia Analytical Services, Inc.

13 F

F

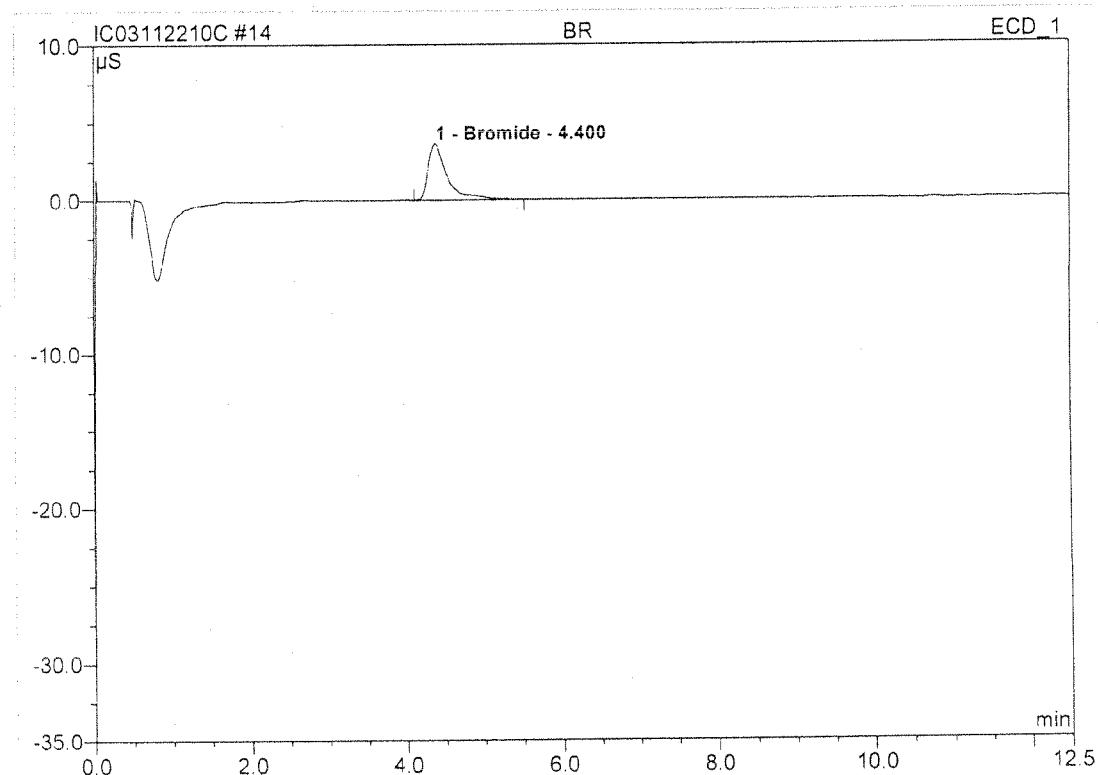
Sample Name:	F	Injection Volume:	200.0
Vial Number:	13	Channel:	ECD_1
Sample Type:	unknown	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	2.0
Recording Time:	11/22/2010 17:11	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.72	Fluoride	66.734	11.007	100.00	10.919	BMB
Total:			66.734	11.007	100.00	10.919	

Columbia Analytical Services, Inc.**14 BR****BR**

Sample Name:	BR	Injection Volume:	200.0
Vial Number:	14	Channel:	ECD_1
Sample Type:	unknown	ICAL Date:	
Control Program:	epa300	ICAL ID#:	
Quantif. Method:	epa300	Dilution Factor:	2.0
Recording Time:	11/22/2010 17:26	Analyst:	JS / EM
Run Time (min):	12.50	Inst. ID:	K-IC-03



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	4.40	Bromide	3.615	1.033	100.00	4.130	BMB
Total:			3.615	1.033	100.00	4.130	

Sequence # IC03012611Ion Chromatography Data Quality Report
InorganicsRun # J33888

1. Holding times met for all samples analyzed? yes/no/NA
2. Are dilutions within upper limits of the curve? yes/no/NA
3. Are analysis/extraction stickers included on report? yes/no/NA
4. Are detection limits reported correctly? yes/no/NA
5. Are all quality control criteria met?
- 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
6. 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.

i MRL is elevated because of matrix interferences and the sample required diluting.

F Sample filtered primary to analysis.

K033-1,2 Received analytical but held.

LCS	True Value	CAS ID #	Expires
Fluoride	11.0 ppm	AN1-33-CC	3/3/11
Chloride	5.0 ppm	ERA#0824-10-01	3/1/11
Nitrite	100 ppm	AN1-33-Y	1/26/11
Bromide	4.0 ppm	AN1-33-Z	—
Nitrate	15.2 ppm	AN1-34-F	7/21/11
Sulfate	5.0 ppm	ERA#0824-10-01	3/1/11

CCV	CAS ID #	Expires	
Fluoride	AN1-33-P	1/26/11	
Chloride	True Value = 5.0 ppm	10K CAS ID # = AN1-33-DD	4/28/11
Nitrite	True Value = 5.0 ppm	10K CAS ID # = AN1-33-AA	2/5/11
Bromide	True Value = 2.0 ppm	10K CAS ID # = AN1-33-EE	4/28/11
Nitrate	True Value = 2.0 ppm	10K CAS ID # = AN1-34-E	2/—
Sulfate	True Value = 2.0 ppm	10K CAS ID # = AN1-33-W	1/30/11
	True Value = 5.0 ppm	10K CAS ID # = AN1-33-BB	2/5/11

Spike	CAS ID #	Expires	
2.0ppm X dilution factor	AN1-75-O	1/26/11	
Fluoride	10K CAS ID # = AN1-33-DD	Expires: <u>CCV</u>	
Chloride	10K CAS ID # = AN1-33-AA	Expires: <u>1</u>	
Nitrite	10K CAS ID # = AN1-33-EE	Expires: <u>1</u>	
Bromide	10K CAS ID # = AN1-33-U	Expires: <u>1</u>	
Nitrate	10K CAS ID # = AN1-33-W	Expires: <u>1</u>	
Sulfate	10K CAS ID # = AN1-33-BB	Expires: <u>1</u>	

Analyst: NP Date: 1/26/11First Review: ↓ Date: 1/27/11Final Review: BA Date: 1/27/11
t:\wet\iclcqdqs.xls

Analytical Results Summary

Instrument Name: K-IC-03	Analyst: NBAKOTICH	Analysis Lot: 233888	Method/Testcode: 300.0/SO4											
Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
30659-001	Sulfate	N/A		Water	6.42 mg/L	5 mL	6.42 mg/L	2	0.02	0.40	1/26/11 12:56:00	N	II	
30661-002	Chloride	N/A		Water	55.62 mg/L	5 mL	55.6 mg/L	10	0.3	2.0	1/26/11 12:42:00	N	IV	
30661-002	Sulfate	N/A		Water	37.13 mg/L	5 mL	37.1 mg/L	10	0.1	2.0	1/26/11 12:42:00	N	IV	
30682-001	Sulfur	N/A		Misc.	0.00 mg/L	1 g	2.6 µg U	2	2.6	1/26/11 19:56:00	N	V		
00683-001	Sulfur	N/A		Solid	0.00 mg/L	1 g	2.6 µg U	2	2.6	1/26/11 20:10:00	N	V		
00692-001	Chloride	N/A		Solid	656.01 mg/L	5 mL	656 mg/L	100	3	20	1/26/11 13:10:00	N	IV	
00692-001	Fluoride	N/A		Water	0.16 mg/L	5 mL	0.16 mg/L	J	2	0.006	0.40	1/26/11 13:24:00	N	IV
00692-001	Sulfate	N/A		Water	26.49 mg/L	5 mL	26.5 mg/L	10	0.1	2.0	1/26/11 12:00:00	N	IV	
00692-002	Chloride	N/A		Water	640.75 mg/L	5 mL	641 mg/L	100	3	20	1/26/11 14:34:00	N	IV	
00692-002	Fluoride	N/A		Water	0.17 mg/L	5 mL	0.17 mg/L	J	2	0.006	0.40	1/26/11 14:47:00	N	IV
00692-003	Sulfate	N/A		Water	26.65 mg/L	5 mL	26.7 mg/L	10	0.1	2.0	1/26/11 12:28:00	N	IV	
00692-003	Chloride	N/A		Water	0.00 mg/L	5 mL	0.40 mg/L	U	2	0.06	0.40	1/26/11 12:28:00	N	IV
00692-003	Fluoride	N/A		Water	0.00 mg/L	5 mL	0.40 mg/L	U	2	0.006	0.40	1/26/11 12:28:00	N	IV
00699-001	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	5 mL	0.10 mg/L	U	2	0.004	0.10	1/26/11 11:46:00	N	IV
00699-001	Nitrate as Nitrogen	N/A		Water	0.71 mg/L	5 mL	0.71 mg/L	2	0.008	0.10	1/26/11 11:46:00	N	I	
00712-001	Fluoride	N/A		Water	0.39 mg/L	5 mL	0.40 mg/L	U	2	0.006	0.40	1/26/11 14:20:00	N	I
00712-001	Sulfate	N/A		Drinking Water	1.97 mg/L	5 mL	1.97 mg/L	2	0.02	0.40	1/26/11 14:20:00	N	I	
00733-001	Chloride	N/A		Water	6.76 mg/L	5 mL	6.8 mg/L	2	0.06	2.0	1/26/11 17:22:00	N	V	
00733-001	Nitrate as Nitrogen	N/A		Water	0.28 mg/L	5 mL	0.28 mg/L	2	0.008	0.10	1/26/11 17:22:00	N	V	
00733-001	Sulfate	N/A		Water	69.32 mg/L	5 mL	69.3 mg/L	10	0.1	1.0	1/26/11 21:34:00	N	V	
00733-002	Chloride	N/A		Water	9.74 mg/L	5 mL	9.7 mg/L	2	0.06	2.0	1/26/11 17:36:00	N	V	
00733-002	Nitrate as Nitrogen	N/A		Water	0.13 mg/L	5 mL	0.13 mg/L	2	0.008	0.10	1/26/11 17:36:00	N	V	
00733-002	Sulfate	N/A		Water	31.89 mg/L	5 mL	31.9 mg/L	10	0.1	1.0	1/26/11 21:48:00	N	V	
00733-003	Chloride	N/A		Water	3.38 mg/L	5 mL	3.4 mg/L	2	0.06	2.0	1/26/11 16:27:00	N	V	
00733-003	Nitrate as Nitrogen	N/A		Water	0.02 mg/L	5 mL	0.10 mg/L	U	2	0.008	0.10	1/26/11 16:27:00	N	V
00733-003	Sulfate	N/A		Water	2.19 mg/L	5 mL	2.19 mg/L	2	0.02	0.20	1/26/11 16:27:00	N	V	
00733-004	Chloride	N/A		Water	6.82 mg/L	5 mL	6.8 mg/L	2	0.06	2.0	1/26/11 17:08:00	N	V	
00733-004	Nitrate as Nitrogen	N/A		Water	0.28 mg/L	5 mL	0.28 mg/L	2	0.008	0.10	1/26/11 17:08:00	N	V	
00733-004	Sulfate	N/A		Water	69.10 mg/L	5 mL	69.1 mg/L	10	0.1	1.0	1/26/11 22:02:00	N	V	
1100783-01	Sulfur	MB		Misc. Solid	0.00 mg/L	50 g	0.14 mg/Kg	U	2	0.14	1/26/11 18:46:00	N	V	

llicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-IC-03		Analyst: NBAKOTICH		Analysis Lot: 233888		Method/Testcode: 300.0/Sulfur Tot H2O2									
Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	POL	% Rec	% RSD	Date Analyzed	QC? Tier	
100783-02	Sulfur	MB		Misc.	0.00 mg/L	50 g	0.14 mg/Kg	U 2	0.14	0.14	100	1/26/11 19:00:00	N V		
100783-03	Sulfur	MB		Misc.	0.00 mg/L	50 g	0.14 mg/Kg	U 2	0.14	0.14	100	1/26/11 19:14:00	N V		
100783-04	Sulfur	LCS		Misc.	141.21 mg/L	2 g	3530 mg/Kg	U 200	7.0	83	1/26/11 19:28:00	N V			
100783-05	Sulfur	LCS		Misc.	317.67 mg/L	4 g	3970 mg/Kg	U 200	14	93	1/26/11 19:42:00	N V			
100784-01	Chloride	N/A	Water	3.36 mg/L	5 mL	3.4 mg/L	10	0.3	2.0	1/26/11 15:43:00	N	1			
100784-01	Fluoride	N/A	Water	0.00 mg/L	5 mL	2.0 mg/L	U 10	0.03	2.0	1/26/11 15:43:00	N	1			
100784-01	Nitrate as Nitrogen	N/A	Water	0.67 mg/L	5 mL	0.67 mg/L	10	0.04	0.50	1/26/11 15:43:00	N	1			
100784-01	Nitrite as Nitrogen	N/A	Water	0.00 mg/L	5 mL	0.50 mg/L	U 10	0.02	0.50	1/26/11 15:43:00	N	1			
100784-01	Sulfate	N/A	Water	28.80 mg/L	5 mL	28.8 mg/L	10	0.1	2.0	1/26/11 15:43:00	N	1			
100784-02	Chloride	MS	KQ1100784-01	Water	6.94 mg/L	5 mL	6.94 mg/L	2	0.06	0.40	89	1/26/11 15:15:00	N	1	
100784-02	Fluoride	MS	KQ1100784-01	Water	3.99 mg/L	5 mL	3.99 mg/L	2	0.006	0.40	100	1/26/11 15:15:00	N	1	
100784-02	Nitrate as Nitrogen	MS	KQ1100784-01	Water	4.81 mg/L	5 mL	4.81 mg/L	2	0.008	0.10	103	1/26/11 15:15:00	N	1	
100784-02	Nitrite as Nitrogen	MS	KQ1100784-01	Water	3.87 mg/L	5 mL	3.87 mg/L	2	0.004	0.10	97	1/26/11 15:15:00	N	1	
100784-02	Sulfate	MS	KQ1100784-01	Water	49.68 mg/L	5 mL	49.7 mg/L	10	0.1	2.0	104	1/26/11 16:11:00	N	1	
100784-03	Chloride	DMS	KQ1100784-01	Water	6.96 mg/L	5 mL	6.96 mg/L	2	0.06	0.40	90	<1	1/26/11 15:29:00	N	1
100784-03	Fluoride	DMS	KQ1100784-01	Water	4.02 mg/L	5 mL	4.02 mg/L	2	0.006	0.40	101	<1	1/26/11 15:29:00	N	1
100784-03	Nitrate as Nitrogen	DMS	KQ1100784-01	Water	4.85 mg/L	5 mL	4.85 mg/L	2	0.008	0.10	105	<1	1/26/11 15:29:00	N	1
100784-03	Nitrite as Nitrogen	DMS	KQ1100784-01	Water	3.91 mg/L	5 mL	3.91 mg/L	2	0.004	0.10	98	1	1/26/11 15:29:00	N	1
100784-03	Sulfate	DMS	KQ1100784-01	Water	49.82 mg/L	5 mL	49.8 mg/L	10	0.1	2.0	105	<1	1/26/11 17:50:00	N	1
100784-04	Chloride	DUP	KQ1100784-01	Water	3.31 mg/L	5 mL	3.31 mg/L	2	0.06	0.40	1	1/26/11 15:01:00	N	1	
100784-04	Fluoride	DUP	KQ1100784-01	Water	0.12 mg/L	5 mL	0.12 mg/L	J 2	0.006	0.40	NC	1/26/11 15:01:00	N	1	
100784-04	Nitrate as Nitrogen	DUP	KQ1100784-01	Water	0.71 mg/L	5 mL	0.71 mg/L	2	0.008	0.10	6	1/26/11 15:01:00	N	1	
100784-04	Nitrite as Nitrogen	DUP	KQ1100784-01	Water	0.00 mg/L	5 mL	0.10 mg/L	U 2	0.004	0.10	NC	1/26/11 15:01:00	N	1	
100784-04	Sulfate	DUP	KQ1100784-01	Water	28.76 mg/L	5 mL	28.8 mg/L	10	0.1	2.0	<1	1/26/11 15:57:00	N	1	
100784-05	Chloride	LCS		Water	4.77 mg/L	5 mL	4.77 mg/L	1	0.03	0.20	95	1/26/11 10:22:00	N	1	
100784-05	Fluoride	LCS		Water	10.61 mg/L	5 mL	10.6 mg/L	2	0.006	0.40	96	1/26/11 10:36:00	N	1	
100784-05	Nitrate as Nitrogen	LCS		Water	14.87 mg/L	5 mL	14.9 mg/L	5	0.02	0.25	98	1/26/11 10:58:00	N	1	
100784-05	Nitrite as Nitrogen	LCS		Water	100.31 mg/L	5 mL	100 mg/L	25	0.05	1.3	100	1/26/11 09:40:00	N	1	
100784-05	Sulfate	LCS		Water	4.64 mg/L	5 mL	4.64 mg/L	1	0.01	0.20	93	1/26/11 10:22:00	N	1	
100784-06	Chloride	MB		Water	0.00 mg/L	5 mL	0.20 mg/L	U 1	0.03	0.20	1/26/11 09:54:00	N	1		
1100784-06	Fluoride	MB		Water	0.00 mg/L	5 mL	0.20 mg/L	U 1	0.003	0.20	1/26/11 09:54:00	N	1		
1100784-06	Nitrate as Nitrogen	MB		Water	0.00 mg/L	5 mL	0.050 mg/L	U 1	0.004	0.050	1/26/11 09:54:00	N	1		

icates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-IC-03

Analyst: N BAKOTICH Analysis Lot: 233888 Method/Testcode: 300.0/NO3

Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC? Tier
100784-06	Nitrite as Nitrogen	MB		Water	0.00 mg/L	5 mL	0.050 mg/L U	1	0.002	0.050			1/26/11 09:54:00	N
100784-06	Sulfate	MB		Water	0.00 mg/L	5 mL	0.20 mg/L U	1	0.01	0.20			1/26/11 09:54:00	N
100784-07	Chloride	CCV		Water	4.72 mg/L	5 mL	4.72 mg/L	1					1/26/11 09:12:00	N
100784-07	Fluoride	CCV		Water	4.97 mg/L	5 mL	4.97 mg/L	1					1/26/11 09:12:00	N
100784-07	Nitrate as Nitrogen	CCV		Water	1.87 mg/L	5 mL	1.87 mg/L	1					1/26/11 09:12:00	N
100784-07	Nitrite as Nitrogen	CCV		Water	1.96 mg/L	5 mL	1.96 mg/L	1					1/26/11 09:12:00	N
100784-07	Sulfate	CCV		Water	4.75 mg/L	5 mL	4.75 mg/L	1					1/26/11 09:12:00	N
100784-08	Chloride	CCV		Water	4.75 mg/L	5 mL	4.75 mg/L	1					1/26/11 11:04:00	N
100784-08	Fluoride	CCV		Water	5.02 mg/L	5 mL	5.02 mg/L	1					1/26/11 11:04:00	V
100784-08	Nitrate as Nitrogen	CCV		Water	1.88 mg/L	5 mL	1.88 mg/L	1					1/26/11 11:04:00	N
100784-08	Nitrite as Nitrogen	CCV		Water	1.96 mg/L	5 mL	1.96 mg/L	1					1/26/11 11:04:00	N
100784-08	Sulfate	CCV		Water	4.82 mg/L	5 mL	4.82 mg/L	1					1/26/11 11:04:00	V
100784-09	Chloride	CCV		Water	4.72 mg/L	5 mL	4.72 mg/L	1					1/26/11 13:52:00	N
100784-09	Fluoride	CCV		Water	4.99 mg/L	5 mL	4.99 mg/L	1					1/26/11 13:52:00	V
100784-09	Nitrate as Nitrogen	CCV		Water	1.88 mg/L	5 mL	1.88 mg/L	1					1/26/11 13:52:00	N
100784-09	Nitrite as Nitrogen	CCV		Water	1.96 mg/L	5 mL	1.96 mg/L	1					1/26/11 13:52:00	V
100784-09	Sulfate	CCV		Water	4.71 mg/L	5 mL	4.71 mg/L	1					1/26/11 13:52:00	N
100784-10	Chloride	CCV		Water	4.79 mg/L	5 mL	4.79 mg/L	1					1/26/11 16:41:00	N
100784-10	Fluoride	CCV		Water	5.01 mg/L	5 mL	5.01 mg/L	1					1/26/11 16:41:00	V
100784-10	Nitrate as Nitrogen	CCV		Water	1.88 mg/L	5 mL	1.88 mg/L	1					1/26/11 16:41:00	V
100784-10	Nitrite as Nitrogen	CCV		Water	1.97 mg/L	5 mL	1.97 mg/L	1					1/26/11 16:41:00	V
100784-10	Sulfate	CCV		Water	4.78 mg/L	5 mL	4.78 mg/L	1					1/26/11 16:41:00	N
100784-11	Chloride	CCV		Water	4.79 mg/L	5 mL	4.79 mg/L	1					1/26/11 18:18:00	V
100784-11	Fluoride	CCV		Water	5.04 mg/L	5 mL	5.04 mg/L	1					1/26/11 18:18:00	N
1100784-11	Nitrate as Nitrogen	CCV		Water	1.85 mg/L	5 mL	1.85 mg/L	1					1/26/11 18:18:00	N
1100784-11	Nitrite as Nitrogen	CCV		Water	1.97 mg/L	5 mL	1.97 mg/L	1					1/26/11 18:18:00	N
1100784-11	Sulfate	CCV		Water	4.75 mg/L	5 mL	4.75 mg/L	1					1/26/11 18:18:00	V
1100784-12	Chloride	CCV		Water	4.75 mg/L	5 mL	4.75 mg/L	1					1/26/11 21:06:00	N
1100784-12	Fluoride	CCV		Water	5.02 mg/L	5 mL	5.02 mg/L	1					1/26/11 21:06:00	V
1100784-12	Nitrate as Nitrogen	CCV		Water	1.88 mg/L	5 mL	1.88 mg/L	1					1/26/11 21:06:00	N
1100784-12	Nitrite as Nitrogen	CCV		Water	1.97 mg/L	5 mL	1.97 mg/L	1					1/26/11 21:06:00	V
1100784-12	Sulfate	CCV		Water	4.75 mg/L	5 mL	4.75 mg/L	1					1/26/11 21:06:00	N
1100784-13	Chloride	CCV		Water	4.79 mg/L	5 mL	4.79 mg/L	1					1/26/11 22:16:00	N
1100784-13	Fluoride	CCV		Water	5.03 mg/L	5 mL	5.03 mg/L	1					1/26/11 22:16:00	V

Indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-IC-03

Analyst: NBAKOTICH

Analysis Lot: 233888 Method/Testcode: 300.0/NO3

<u>Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>PQL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>
100784-13	Nitrate as Nitrogen	CCV		Water	1.84 mg/L	5 mL	1.84 mg/L	1					1/26/11 22:16:00	N V
100784-13	Nitrite as Nitrogen	CCV		Water	1.97 mg/L	5 mL	1.97 mg/L	1					1/26/11 22:16:00	N V
100784-13	Sulfate	CCV		Water	4.81 mg/L	5 mL	4.81 mg/L	1					1/26/11 22:16:00	N V
100784-14	Chloride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	0.20	0.20			1/26/11 09:26:00	N V
100784-14	Fluoride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	0.20	0.20			1/26/11 09:26:00	N V
100784-14	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 09:26:00	N V
100784-14	Nitrite as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 09:26:00	N V
100784-14	Sulfate	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 09:26:00	N V
100784-15	Chloride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 11:18:00	N V
100784-15	Fluoride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 11:18:00	N V
100784-15	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 11:18:00	N V
100784-15	Nitrite as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 11:18:00	N V
100784-15	Sulfate	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 11:18:00	N V
100784-16	Chloride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 14:06:00	N V
100784-16	Fluoride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 14:06:00	N V
100784-16	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.50 mg/L	U	1	0.050	0.050		1/26/11 14:06:00	N V
100784-16	Nitrite as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.50 mg/L	U	1	0.050	0.050		1/26/11 14:06:00	N V
100784-16	Sulfate	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 14:06:00	N V
100784-17	Chloride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 14:06:00	N V
100784-17	Fluoride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 14:06:00	N V
100784-17	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 14:06:00	N V
100784-17	Nitrite as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 14:06:00	N V
100784-17	Sulfate	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 14:06:00	N V
1100784-17	Nitrite as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 16:55:00	N V
1100784-17	Sulfate	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 16:55:00	N V
1100784-18	Chloride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 18:32:00	N V
1100784-18	Fluoride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 18:32:00	N V
1100784-18	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 18:32:00	N V
1100784-18	Nitrite as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 18:32:00	N V
1100784-18	Sulfate	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 18:32:00	N V
1100784-19	Chloride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 21:20:00	N V
1100784-19	Fluoride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 21:20:00	N V
1100784-19	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 21:20:00	N V
1100784-19	Nitrite as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050		1/26/11 21:20:00	N V
1100784-19	Sulfate	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 21:20:00	N V
1100784-20	Chloride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20		1/26/11 22:30:00	N V

icates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

strument Name: K-IC-03

Analyst: NBAKOTICH

Analysis Lot: 233888 Method/Testcode: 300.0/F

<u>Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>POL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>
1100784-20	Fluoride	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20	1/26/11 22:30:00	N	V
1100784-20	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050	1/26/11 22:30:00	N	V
1100784-20	Nitrite as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050	1/26/11 22:30:00	N	V
1100784-20	Sulfate	CCB		Water	0.00 mg/L	5 mL	0.20 mg/L	U	1	0.20	0.20	1/26/11 22:30:00	N	V

icates Final Result is not yet adjusted for Solids because it has not yet been determined.

ted 1/27/11 12:56

6386-1					F	11/00 → 11/8		
					Cl			
					NO ₂			
					Br			
					NO ₃			
					SO ₄			
661-2					F			
					Cl	0.5/5	✓	
					NO ₂			
					Br			
					NO ₃			
					SO ₄	↓		✓
599-1	1	X			F			
					Cl			
					NO ₂	2.5/5	✓	
					Br			
					NO ₃	↓	✓	
					SO ₄	→ 1/5 for all		
659-1					F			
					Cl			
					NO ₂			
					Br			
					NO ₃			
					SO ₄	↓	✓	
592-1					F	0.5/5	2.5/5	
					Cl		1/100	
					NO ₂			
					Br			
					NO ₃			
					SO ₄			✓
2					F			
					Cl		2.5/5	
					NO ₂		1/100	
					Br			
					NO ₃			
					SO ₄	↓	✓	
-?					F	2.5/5		
					Cl			✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄	↓		✓
720-1	1				F			
					Cl			
					NO ₂			
					Br			
					NO ₃			
					SO ₄	↓	✓	
733-1					F			
					Cl			✓
					NO ₂			
					Br			
					NO ₃			✓
					SO ₄		0.5/5	
-2					F			
					Cl			✓
					NO ₂			
					Br			
					NO ₃			
					SO ₄	↓	0.5/5	✓

733-3

F	
(Cl)	3,515
NO2	
Br	
NO3	
SO4	

✓

✓

-4

F	
(Cl)	
NO2	
Br	
NO3	
SO4	

✓

✓

0,515

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	

F	
Cl	
NO2	
Br	
NO3	
SO4	

F	
Cl	
NO2	
Br	
NO3	
SO4	

F	
Cl	
NO2	
Br	
NO3	
SO4	

Title:
 Datasource: ACQWET10_local
 Location: DX120A
 Timebase: DX120
 #Samples: 67

Created: 1/26/2011 9:11:47 AM by ACQWET10
 Last Update: 1/26/2011 9:09:40 PM by ACQWET10

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	1 std2/lvl2	Standard	2	200.0	epa300	epa300	Finished	11/22/2010 2:11:37 PM
2	1 std3/lvl3	Standard	1	200.0	epa300	epa300	Finished	11/22/2010 2:26:35 PM
3	1 std4/lvl4	Standard	2	200.0	epa300	epa300	Finished	11/22/2010 2:41:33 PM
4	1 std5/lvl5	Standard	3	200.0	epa300	epa300	Finished	11/22/2010 2:56:30 PM
5	1 std6/lvl6	Standard	4	200.0	epa300	epa300	Finished	11/22/2010 3:11:28 PM
6	1 std7/lvl7	Standard	5	200.0	epa300	epa300	Finished	11/22/2010 3:26:25 PM
7	1 std8/lvl8	Standard	6	200.0	epa300	epa300	Finished	11/22/2010 3:41:23 PM
8	1 std1/lvl1	Standard	7	200.0	epa300	epa300	Finished	11/22/2010 3:56:20 PM
9	2 CCV1 AN11-85-P	Unknown	8	200.0	epa300	epa300	Finished	1/26/2011 9:12:54 AM
10	2 CCB1	Unknown	10	200.0	epa300	epa300	Finished	1/26/2011 9:26:51 AM
11	2 NO2 AN11-33-Y	Unknown	11	200.0	epa300	epa300	Finished	1/26/2011 9:40:49 AM
12	2 MB	Unknown	12	200.0	epa300	epa300	Finished	1/26/2011 9:54:47 AM
13	2 NO3	Unknown	13	200.0	epa300	epa300	Finished	1/26/2011 10:08:45 AM
14	2 CLSO4	Unknown	14	200.0	epa300	epa300	Finished	1/26/2011 10:22:43 AM
15	2 F	Unknown	15	200.0	epa300	epa300	Finished	1/26/2011 10:36:40 AM
16	2 SPKCHK AN11-75-O	Unknown	18	200.0	epa300	epa300	Finished	1/26/2011 10:50:38 AM
17	2 CCV2	Unknown	19	200.0	epa300	epa300	Finished	1/26/2011 11:04:36 AM
18	2 CCB2	Unknown	20	200.0	epa300	epa300	Finished	1/26/2011 11:18:33 AM
19	2 K1014386-001	Unknown	21	200.0	epa300	epa300	Finished	1/26/2011 11:32:31 AM
20	2 K1100699-001	Unknown	22	200.0	epa300	epa300	Finished	1/26/2011 11:46:30 AM
21	2 K1100692-001	Unknown	23	200.0	epa300	epa300	Finished	1/26/2011 12:00:28 PM
22	2 K1100692-002	Unknown	24	200.0	epa300	epa300	Finished	1/26/2011 12:14:26 PM
23	2 K1100692-003	Unknown	25	200.0	epa300	epa300	Finished	1/26/2011 12:28:23 PM
24	2 K1100661-002	Unknown	26	200.0	epa300	epa300	Finished	1/26/2011 12:42:21 PM
25	2 K1100659-001	Unknown	27	200.0	epa300	epa300	Finished	1/26/2011 12:56:18 PM
26	2 K1100692-001	Unknown	28	200.0	epa300	epa300	Finished	1/26/2011 1:10:16 PM
27	2 K1100692-001	Unknown	29	200.0	epa300	epa300	Finished	1/26/2011 1:24:13 PM
28	2 RB	Unknown	30	200.0	epa300	epa300	Finished	1/26/2011 1:38:11 PM
29	2 CCV3	Unknown	31	200.0	epa300	epa300	Finished	1/26/2011 1:52:09 PM
30	2 CCB3	Unknown	32	200.0	epa300	epa300	Finished	1/26/2011 2:06:06 PM
31	2 K1100712-001	Unknown	33	200.0	epa300	epa300	Finished	1/26/2011 2:20:04 PM
32	2 K1100692-002	Unknown	34	200.0	epa300	epa300	Finished	1/26/2011 2:34:02 PM
33	2 K1100692-002	Unknown	35	200.0	epa300	epa300	Finished	1/26/2011 2:47:59 PM
34	2 K1100699-001	Unknown	36	200.0	epa300	epa300	Finished	1/26/2011 3:01:57 PM
35	2 K1100699-001	Unknown	37	200.0	epa300	epa300	Finished	1/26/2011 3:15:55 PM
36	2 K1100699-001	Unknown	38	200.0	epa300	epa300	Finished	1/26/2011 3:29:53 PM
37	2 K1100699-001	Unknown	39	200.0	epa300	epa300	Finished	1/26/2011 3:43:50 PM
38	2 K1100699-001	Unknown	40	200.0	epa300	epa300	Finished	1/26/2011 3:57:48 PM
39	2 K1100699-001	Unknown	41	200.0	epa300	epa300	Finished	1/26/2011 4:11:45 PM
40	2 K1100733-003	Unknown	42	200.0	epa300	epa300	Finished	1/26/2011 4:27:05 PM
41	2 CCV4	Unknown	43	200.0	epa300	epa300	Finished	1/26/2011 4:41:03 PM
42	2 CCB4	Unknown	44	200.0	epa300	epa300	Finished	1/26/2011 4:55:00 PM

Title:
Datasource: ACQWET10_local
Location: DX120A
Timebase: DX120
#Samples: 67

Created: 1/26/2011 9:11:47 AM by ACQWET10
Last Update: 1/26/2011 9:09:40 PM by ACQWET10

No.	Name	Dil. Factor	Comment
1	std2/lvl2	1.0000	
2	std3/lvl3	1.0000	
3	std4/lvl4	1.0000	
4	std5/lvl5	1.0000	
5	std6/lvl6	1.0000	
6	std7/lvl7	1.0000	
7	std8/lvl8	1.0000	
8	std1/lvl1	1.0000	
9	CCV1 AN11-85-P	1.0000	
10	CCB1	1.0000	
11	NO2 AN11-33-Y	25.0000	NO2
12	MB	1.0000	MB
13	NO3	5.0000	NO3
14	CLSO4	1.0000	CLSO4
15	F	2.0000	F
16	SPKCHK AN11-75-O	1.0000	SPKCHK
17	CCV2	1.0000	CCV2
18	CCB2	1.0000	CCB2
19	K1014386-001	500.0000	
20	K1100699-001	2.0000	
21	K1100692-001	10.0000	
22	K1100692-002	10.0000	
23	K1100692-003	2.0000	
24	K1100661-002	10.0000	
25	K1100659-001	2.0000	
26	K1100692-001	100.0000	
27	K1100692-001	2.0000	
28	RB	1.0000	
29	CCV3	1.0000	CCV3
30	CCB3	1.0000	CCB3
31	K1100712-001	2.0000	
32	K1100692-002	100.0000	
33	K1100692-002	2.0000	
34	K1100699-001	2.0000	D
35	K1100699-001	2.0000	MS
36	K1100699-001	2.0000	MSD
37	K1100699-001	10.0000	
38	K1100699-001	10.0000	D
39	K1100699-001	10.0000	MS
40	K1100733-003	2.0000	
41	CCV4	1.0000	CCV4
42	CCB4	1.0000	CCB4

Title:
 Datasource: ACQWET10_local
 Location: DX120A
 Timebase: DX120
 #Samples: 67

	Created:	1/26/2011 9:11:47 AM by ACQWET10
	Last Update:	1/26/2011 9:09:40 PM by ACQWET10

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	K1100733-004	Unknown	45	200.0	epa300	epa300	Finished	1/26/2011 5:08:58 PM
44	K1100733-001	Unknown	46	200.0	epa300	epa300	Finished	1/26/2011 5:22:56 PM
45	K1100733-002	Unknown	47	200.0	epa300	epa300	Finished	1/26/2011 5:36:54 PM
46	K1100683-001	Unknown	48	200.0	epa300	epa300	Finished	1/26/2011 5:50:52 PM
47	RB	Unknown	49	200.0	epa300	epa300	Finished	1/26/2011 6:04:50 PM
48	CCV5	Unknown	50	200.0	epa300	epa300	Finished	1/26/2011 6:18:48 PM
49	CCB5	Unknown	51	200.0	epa300	epa300	Finished	1/26/2011 6:32:45 PM
50	MB1 TS	Unknown	45	200.0	epa300	epa300	Finished	1/26/2011 6:46:43 PM
51	MB2 TS	Unknown	46	200.0	epa300	epa300	Finished	1/26/2011 7:00:42 PM
52	MB3 TS	Unknown	47	200.0	epa300	epa300	Finished	1/26/2011 7:14:40 PM
53	LCS1 TS	Unknown	48	200.0	epa300	epa300	Finished	1/26/2011 7:28:38 PM
54	LCS2 TS	Unknown	49	200.0	epa300	epa300	Finished	1/26/2011 7:42:36 PM
55	K1100682-001	Unknown	50	200.0	epa300	epa300	Finished	1/26/2011 7:56:34 PM
56	K1100683-001	Unknown	51	200.0	epa300	epa300	Finished	1/26/2011 8:10:32 PM
57	K1100682-001	Unknown	52	200.0	epa300	epa300	Finished	1/26/2011 8:24:29 PM
58	K1100683-001	Unknown	53	200.0	epa300	epa300	Finished	1/26/2011 8:38:27 PM
59	RB	Unknown	54	200.0	epa300	epa300	Finished	1/26/2011 8:52:25 PM
60	CCV6	Unknown	55	200.0	epa300	epa300	Finished	1/26/2011 9:06:23 PM
61	CCB6	Unknown	56	200.0	epa300	epa300	Finished	1/26/2011 9:20:21 PM
62	K1100733-001	Unknown	57	200.0	epa300	epa300	Finished	1/26/2011 9:34:19 PM
63	K1100733-002	Unknown	58	200.0	epa300	epa300	Finished	1/26/2011 9:48:16 PM
64	K1100733-004	Unknown	59	200.0	epa300	epa300	Finished	1/26/2011 10:02:15 PM
65	CCV7	Unknown	60	200.0	epa300	epa300	Finished	1/26/2011 10:16:12 PM
66	CCB7	Unknown	61	200.0	epa300	epa300	Finished	1/26/2011 10:30:10 PM
67	STOP	Unknown	62	200.0	shutdown 120	epa300	Finished	1/26/2011 10:44:07 PM

Sequence: IC03012611
Operator: nbakotich

Page 4 of 4
Printed: 1/27/2011 12:20:07 PM

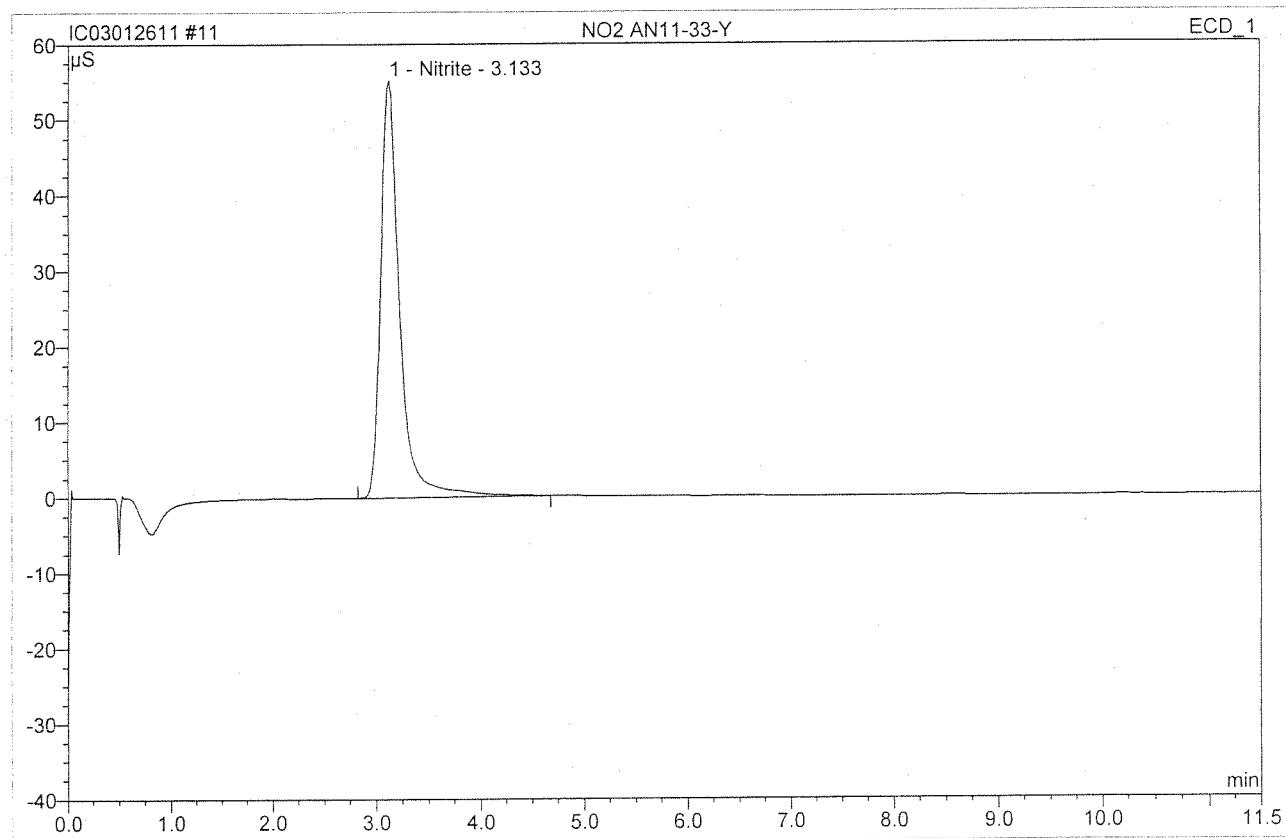
Title:
Datasource: ACQWET10_local
Location: DX120A
Timebase: DX120
#Samples: 67

Created: 1/26/2011 9:11:47 AM by ACQWET10
Last Update: 1/26/2011 9:09:40 PM by ACQWET10

No.	Name	Dil. Factor	Comment
43	② K1100733-004	2.0000	
44	② K1100733-001	2.0000	
45	② K1100733-002	2.0000	qq ZZ 4/11/11
46	② K1100682-001	10.0000	MSD
47	② RB	1.0000	
48	② CCV5	1.0000	CCV5
49	② CCB5	1.0000	CCB5
50	② MB1 TS	2.0000	
51	② MB2 TS	2.0000	
52	② MB3 TS	2.0000	
53	② LCS1 TS	100.0000	
54	② LCS2 TS	200.0000	
55	② K1100682-001	2.0000	
56	② K1100683-001	2.0000	
57	② K1100682-001	20.0000	
58	② K1100683-001	20.0000	
59	② RB	1.0000	
60	② CCV6	1.0000	CCV6
61	② CCB6	1.0000	CCB6
62	② K1100733-001	10.0000	
63	② K1100733-002	10.0000	
64	② K1100733-004	10.0000	
65	② CCV7	1.0000	CCV7
66	② CCB7	1.0000	CCB7
67	② STOP	1.0000	CCB7

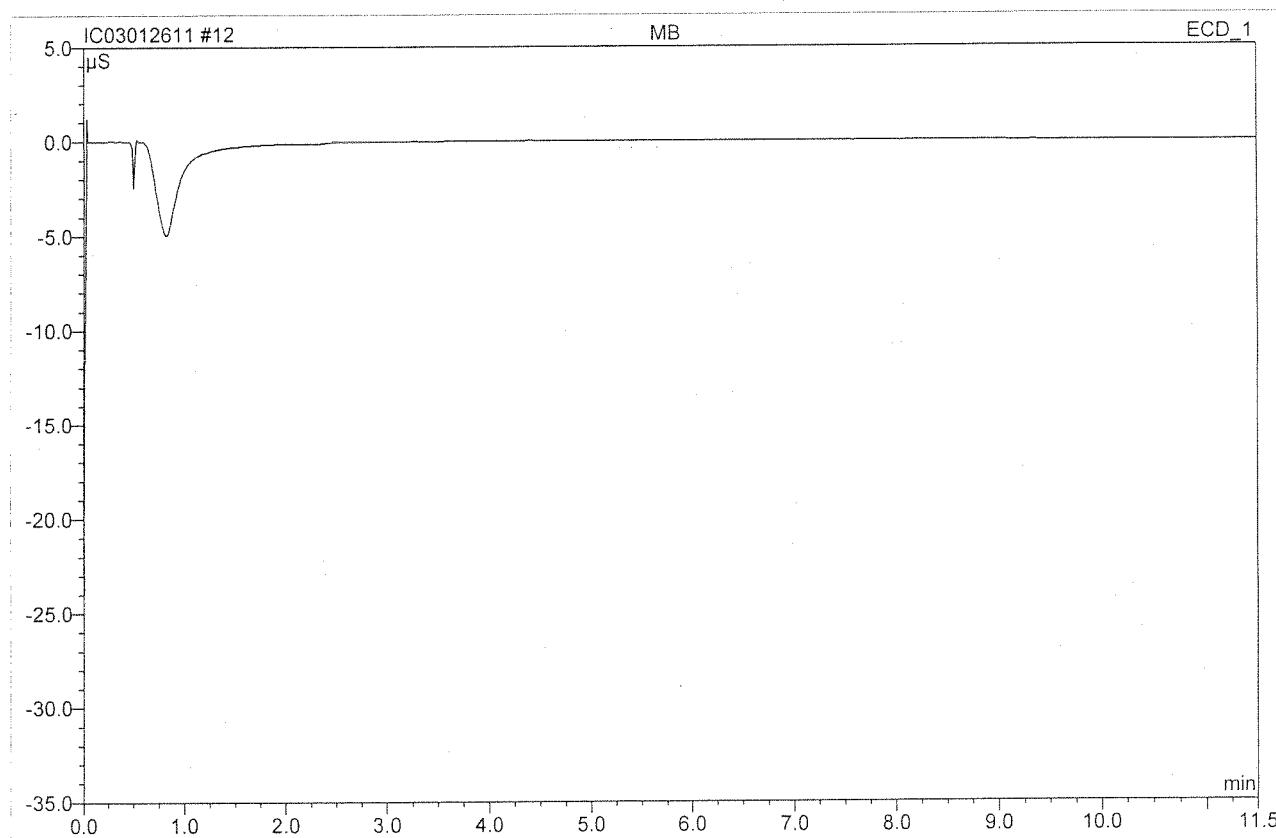
11 NO2 AN11-33-Y**NO2**

<i>Sample Name:</i>	NO2 AN11-33-Y	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	11	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	25.0000
<i>Recording Time:</i>	1/26/2011 9:40	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	3.13	Nitrite	55.186	11.517	100.00	100.313	BMB
Total:			55.186	11.517	100.00	100.313	

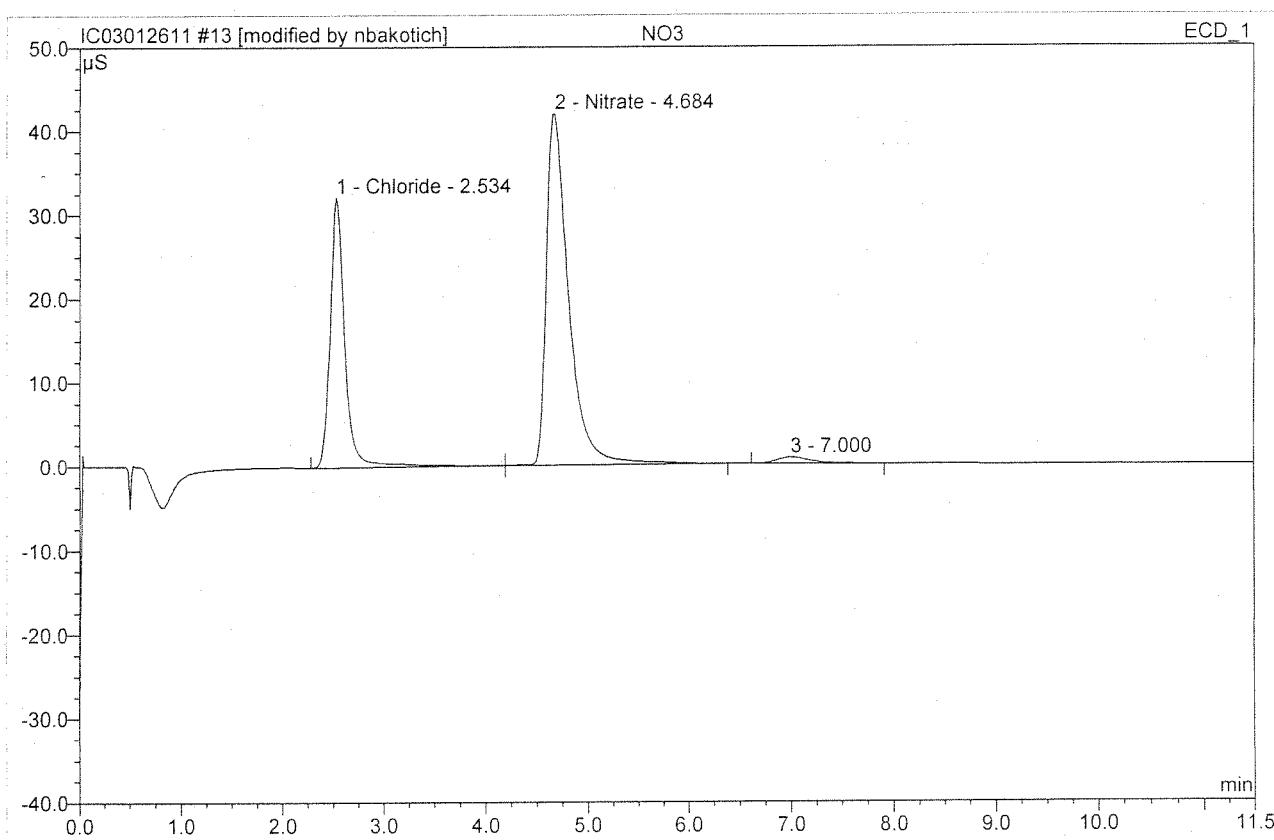
12 MB	
MB	
Sample Name:	MB
Vial Number:	12
Sample Type:	unknown
Control Program:	epa300
Quantif. Method:	epa300
Recording Time:	1/26/2011 9:54
Run Time (min):	11.50
Injection Volume:	200.0
Channel:	ECD_1
Wavelength:	n.a.
Bandwidth:	n.a.
Dilution Factor:	1.0000
Sample Weight:	1.0000
Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

13 NO3**NO3**

Sample Name:	NO3	Injection Volume:	200.0
Vial Number:	13	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	5.0000
Recording Time:	1/26/2011 10:08	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.53	Chloride	32.193	5.513	33.38	18.732	BMb*
2	4.68	Nitrate	41.908	10.707	64.84	14.872	bMB*
3	7.00	n.a.	0.744	0.294	1.78	n.a.	BMB*
Total:			74.845	16.513	100.00	33.604	

After
Initials *NB*

BA 11/2011

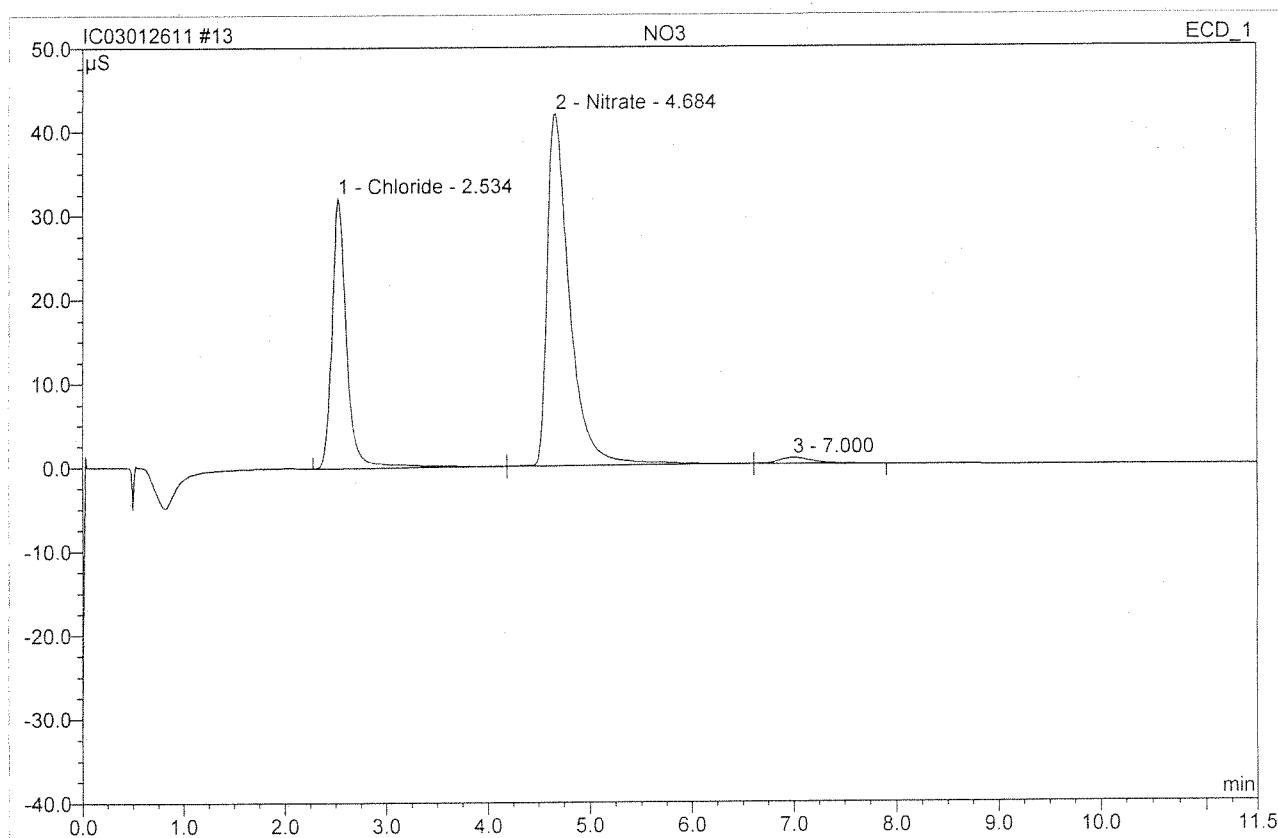
JAN 27 2011

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

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

13 NO3**NO3**

<i>Sample Name:</i>	NO3	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	13	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	5.0000
<i>Recording Time:</i>	1/26/2011 10:08	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000

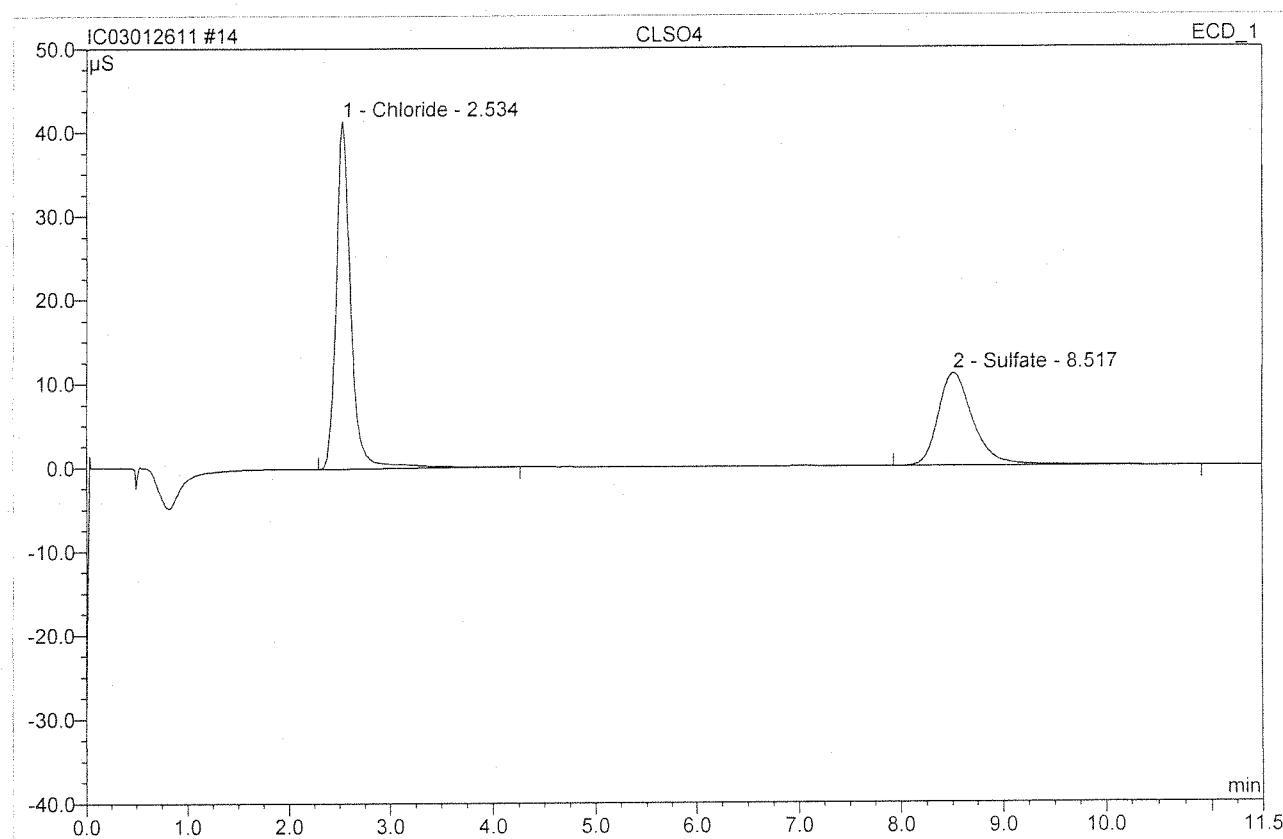


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.53	Chloride	32.193	5.513	33.30	18.732	BMB
2	4.68	Nitrate	41.915	10.747	64.92	14.928	bMb
3	7.00	n.a.	0.744	0.294	1.77	n.a.	bMB
Total:			74.852	16.553	100.00	33.660	

Before**JAN 27 2011**

14 CLSO4**CLSO4**

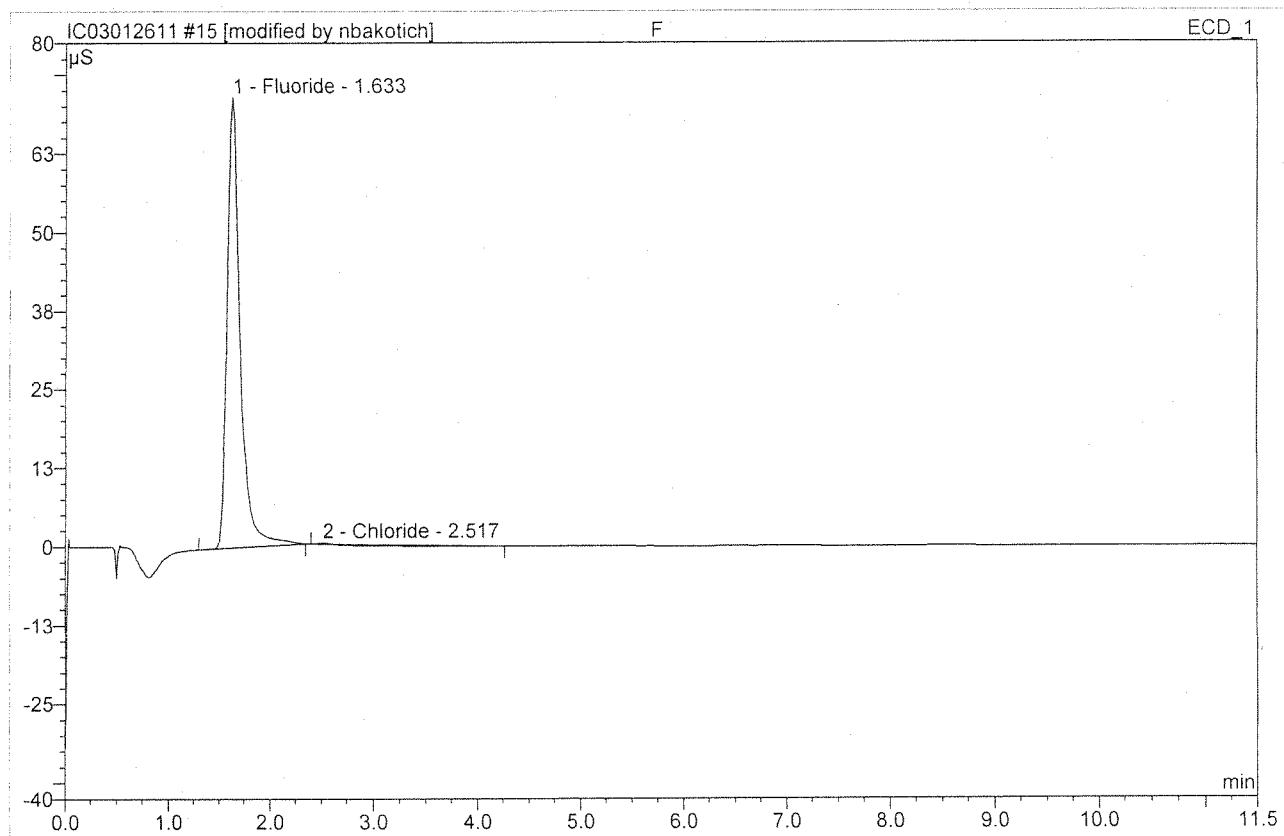
<i>Sample Name:</i>	CLSO4	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	14	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	1/26/2011 10:22	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.53	Chloride	41.473	7.025	61.48	4.774	BMB
2	8.52	Sulfate	11.019	4.401	38.52	4.639	BMB
Total:			52.492	11.425	100.00	9.413	

15 F**F**

Sample Name:	F	Injection Volume:	200.0
Vial Number:	15	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/26/2011 10:36	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.63	Fluoride	71.603	10.698	98.59	96 10.612	BMB*
2	2.52	Chloride	0.203	0.153	1.41	0.209	BMB*
Total:			71.806	10.851	100.00	10.820	

After
Initials*NB*

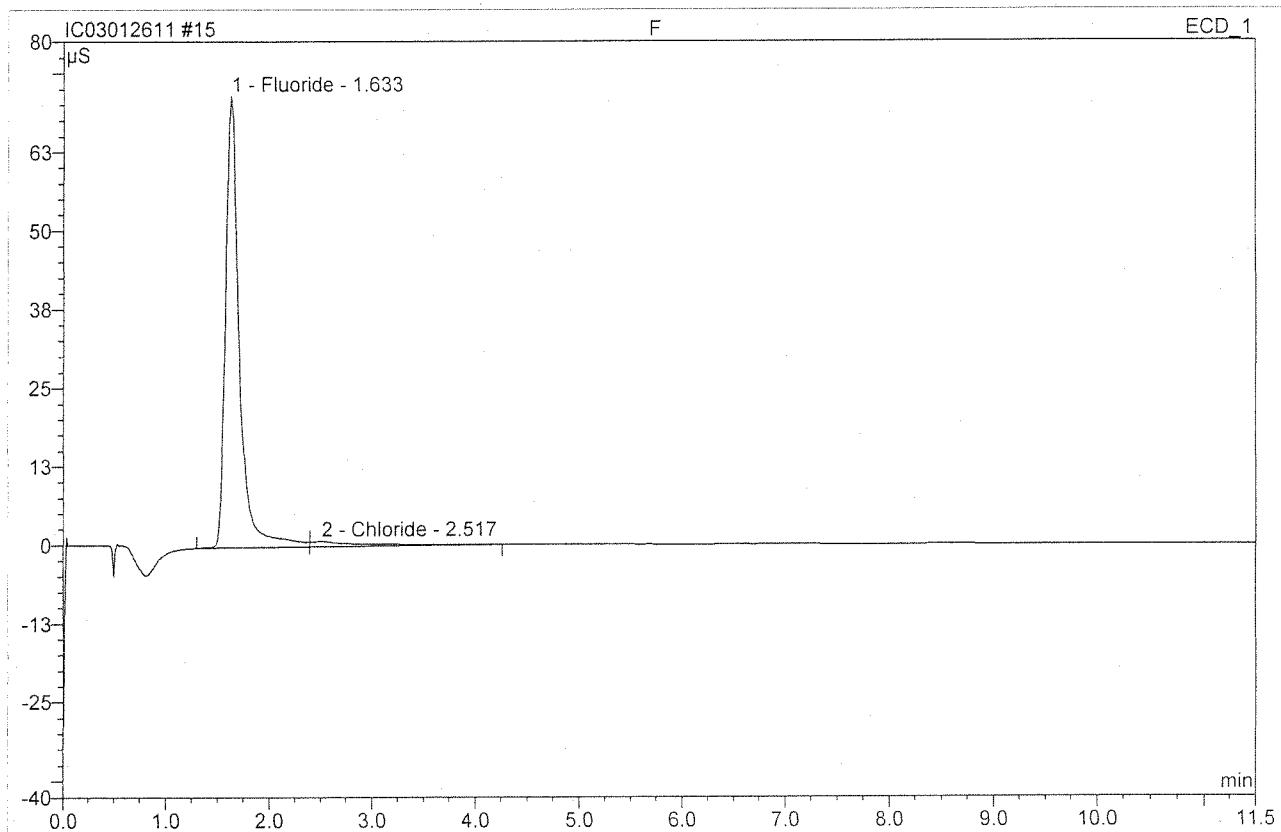
JAN 27 2011

bakotich

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

15 F**F**

Sample Name:	F	Injection Volume:	200.0
Vial Number:	15	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/26/2011 10:36	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000

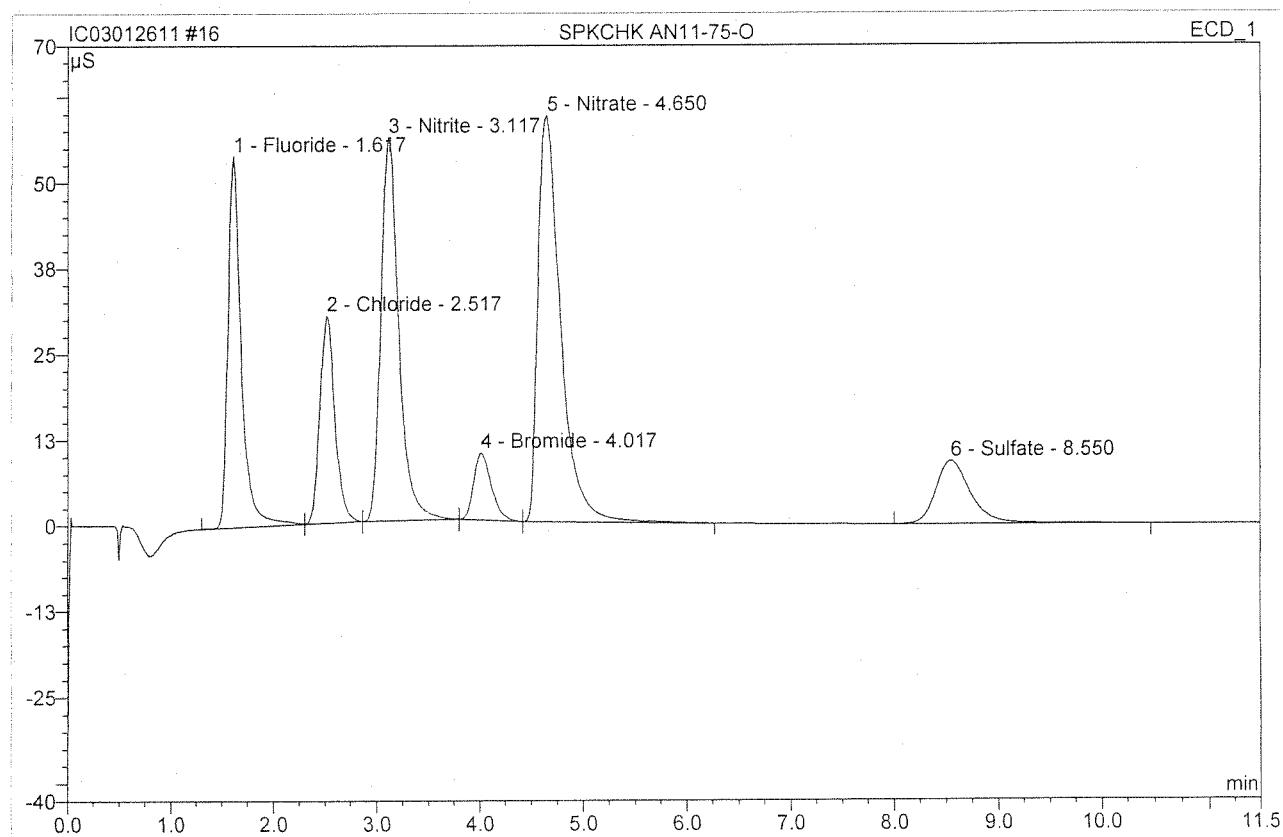


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.63	Fluoride	71.847	11.138	95.45	11.049	BM
2	2.52	Chloride	0.890	0.531	4.55	0.721	MB
Total:			72.737	11.669	100.00	11.770	

Before**JAN 27 2011**

16 SPKCHK AN11-75-O**SPKCHK**

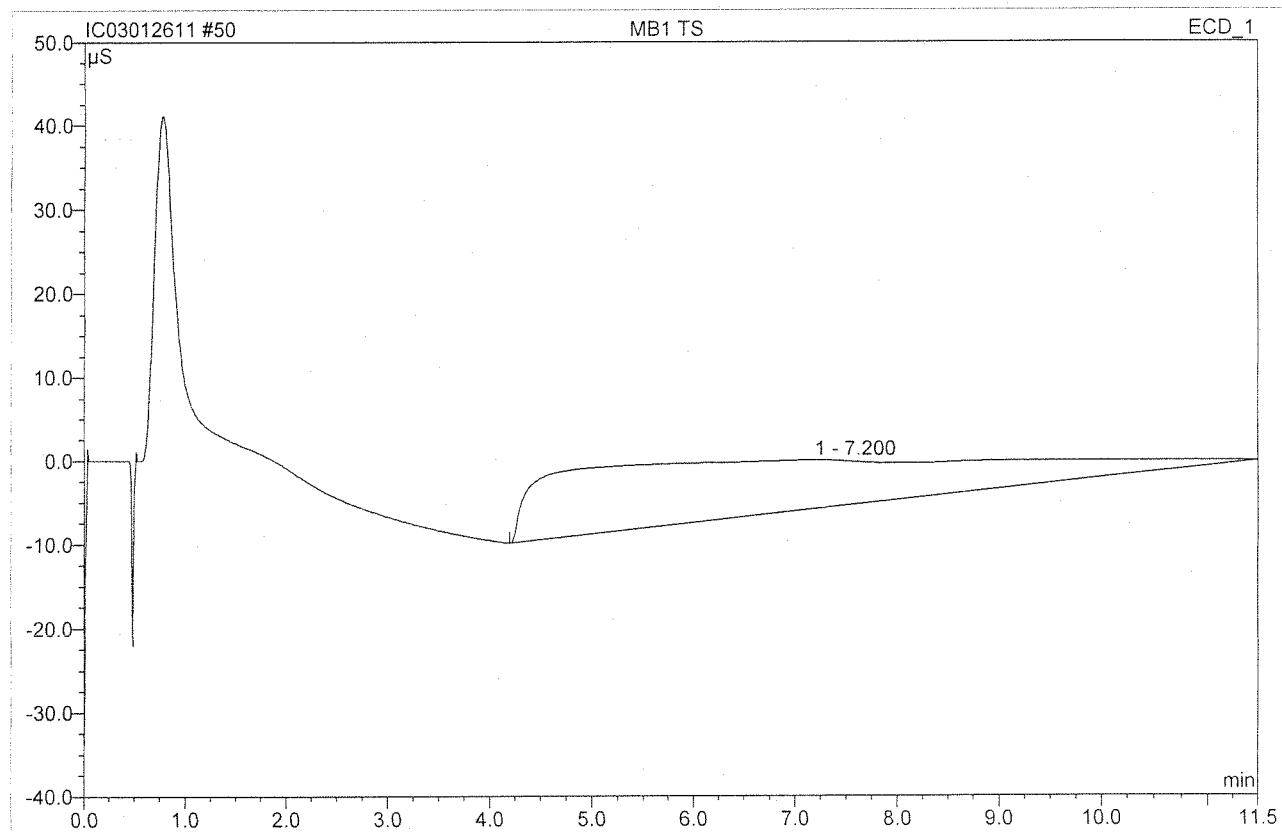
Sample Name:	SPKCHK AN11-75-O	Injection Volume:	200.0
Vial Number:	18	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	1/26/2011 10:50	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	54.165	8.154	18.10	4.044	BM
2	2.52	Chloride	30.220	5.211	11.57	3.541	Mb
3	3.12	Nitrite	55.922	11.154	24.75	3.886	bMb
4	4.02	Bromide	9.799	1.952	4.33	3.903	bMb
5	4.65	Nitrate	59.203	15.004	33.30	4.168	bMB
6	8.55	Sulfate	9.247	3.583	7.95	3.777	BMB
Total:			218.557	45.057	100.00	23.319	

50 MB1 TS

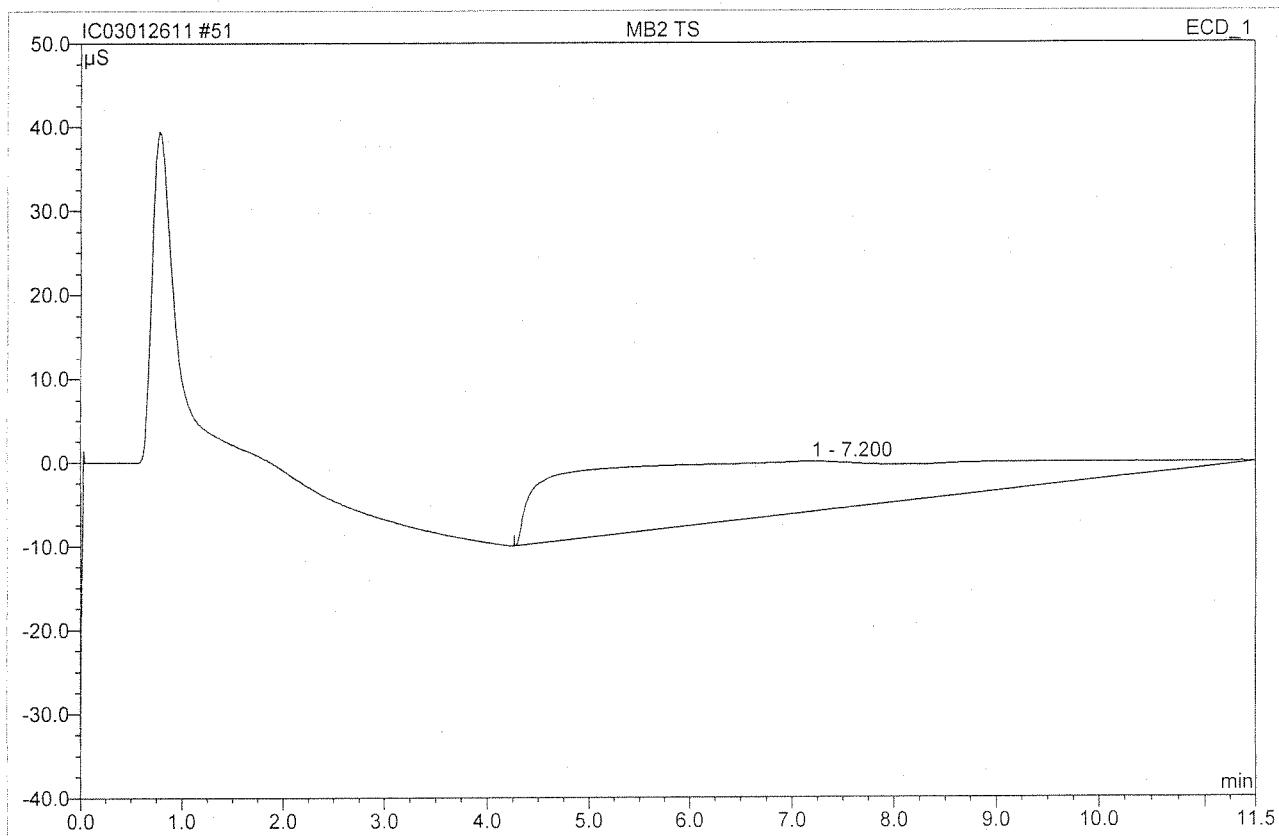
Sample Name:	MB1 TS	Injection Volume:	200.0
Vial Number:	45	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/26/2011 18:46	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	7.20	n.a.	5.855	32.698	100.00	n.a.	BMB
Total:			5.855	32.698	100.00	0.000	

51 MB2 TS

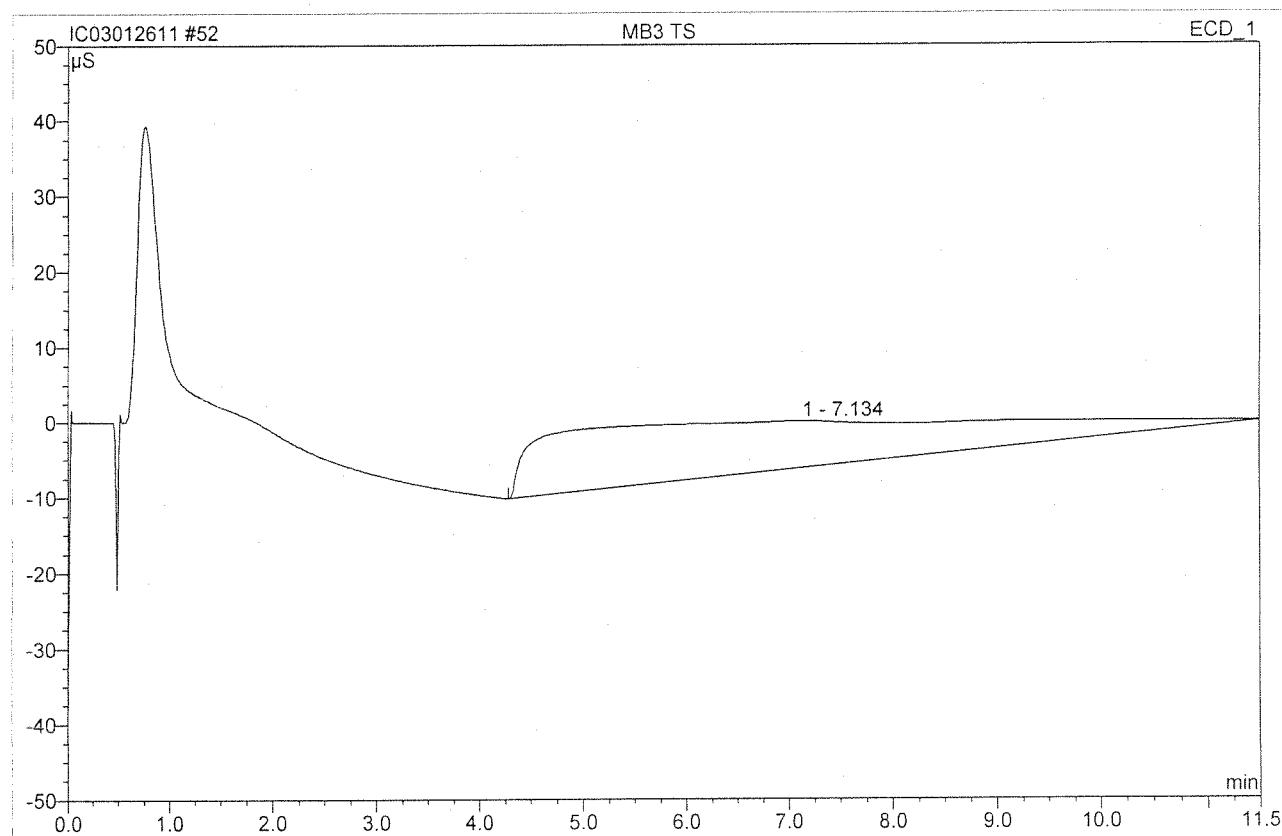
<i>Sample Name:</i>	MB2 TS	<i>Injection Volume:</i>	200.0
<i>Vial Number:</i>	46	<i>Channel:</i>	ECD_1
<i>Sample Type:</i>	unknown	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	epa300	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	epa300	<i>Dilution Factor:</i>	2.0000
<i>Recording Time:</i>	1/26/2011 19:00	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	11.50	<i>Sample Amount:</i>	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	7.20	n.a.	5.984	32.887	100.00	n.a.	BMB
Total:			5.984	32.887	100.00	0.000	

52 MB3 TS

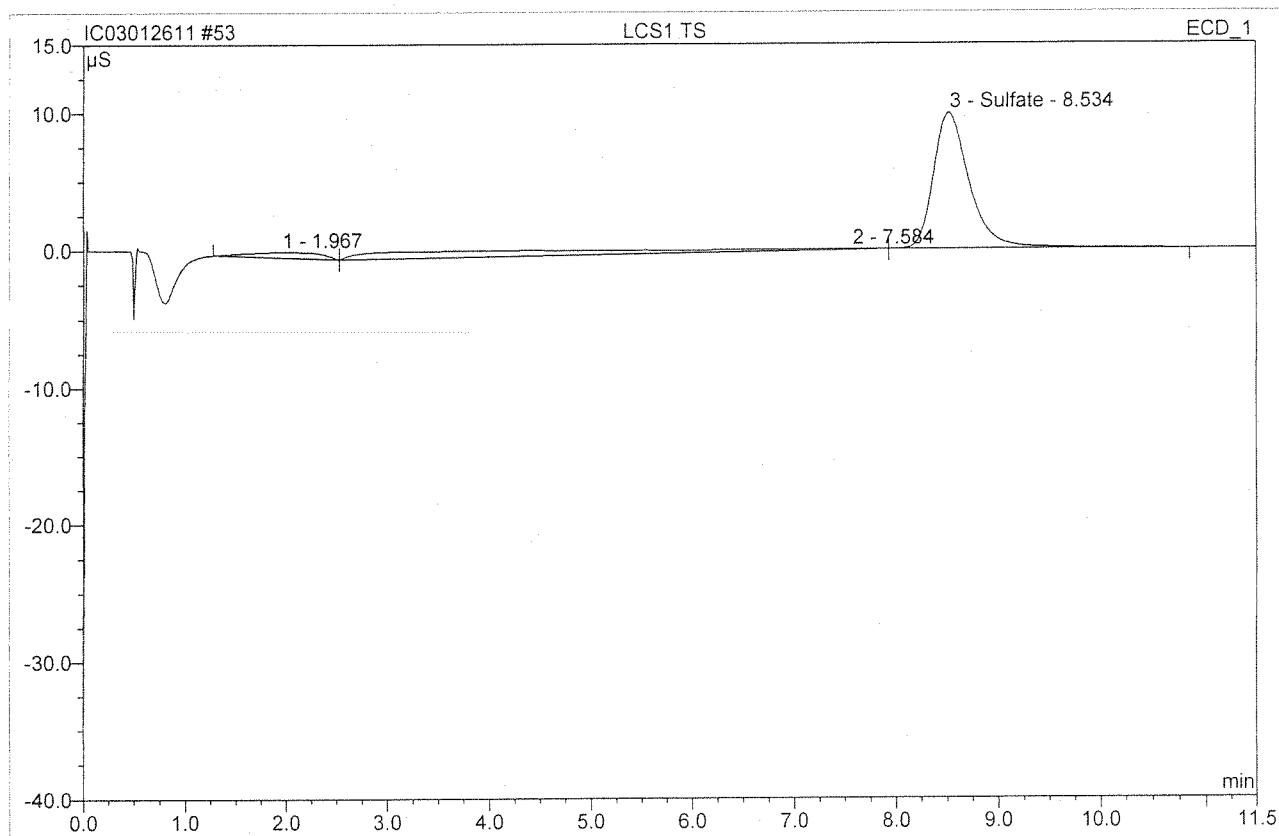
Sample Name:	MB3 TS	Injection Volume:	200.0
Vial Number:	47	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	1/26/2011 19:14	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	7.13	n.a.	6.216	33.406	100.00	n.a.	BMB
Total:			6.216	33.406	100.00	0.000	

53 LCS1 TS

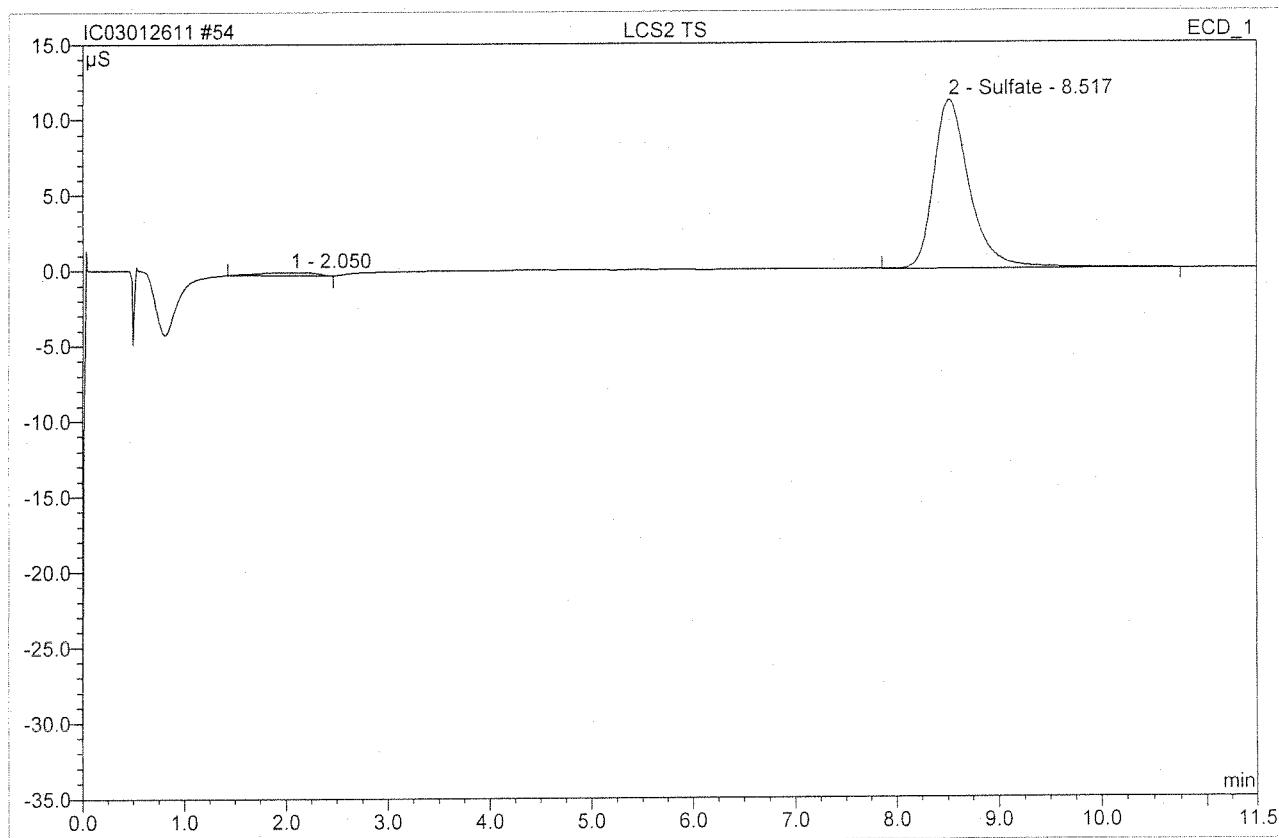
Sample Name:	LCS1 TS	Injection Volume:	200.0
Vial Number:	48	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	100.0000
Recording Time:	1/26/2011 19:28	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.97	n.a.	0.401	0.347	5.94	n.a.	BMb
2	7.58	n.a.	0.050	1.481	25.36	n.a.	bMB
3	8.53	Sulfate	9.876	4.013	68.70	423.038	bMB
Total:			10.326	5.841	100.00	423.038	

54 LCS2 TS

Sample Name:	LCS2 TS	Injection Volume:	200.0
Vial Number:	49	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	200.0000
Recording Time:	1/26/2011 19:42	Sample Weight:	1.0000
Run Time (min):	11.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.05	n.a.	0.207	0.142	3.06	n.a.	BMB
2	8.52	Sulfate	11.166	4.514	96.94	951.714	BMB
Total:			11.373	4.657	100.00	951.714	

Work Request # (Original) K586 K588 K595 K636 K659 K661
II II II II II IV
 Tier:
 Date Analyzed: 01/26/11
 Analyst: Houyouw
 Analysis: NH₃-H - 350.1/S/N 4500-NH₃ G 233907

DATA QUALITY REPORT INORGANICS

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

- | | |
|--|--|
| 1. Is the method name and number correct and appropriate? | <input checked="" type="radio"/> yes/no/NA |
| 2. Holding times met for all analyses and for all samples? | <input checked="" type="radio"/> yes/no/NA |
| 3. Are calculations correct? | <input checked="" type="radio"/> yes/no/NA |
| 4. Is the reporting basis correct? (Dry Weight) | <input checked="" type="radio"/> yes/no/NA |
| 5. All quality control criteria met? | <input checked="" type="radio"/> yes/no/NA |
| a. Is the calibration curve correlation coefficient ≥ 0.995 ? | <input checked="" type="radio"/> yes/no/NA |
| b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? | <input checked="" type="radio"/> yes/no/NA |
| c. Are ICVs, CCVs, and CCBs all within acceptance limits? | <input checked="" type="radio"/> yes/no/NA |
| d. Are results for methods blanks all ND? | <input checked="" type="radio"/> yes/no/NA |
| e. Are all QC samples within acceptance criteria?
(LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) | <input checked="" type="radio"/> yes/no/NA |
| f. Are all exceptions explained? | <input checked="" type="radio"/> yes/no/NA |
| 6. Are all service requests that apply attached? | <input checked="" type="radio"/> yes/no/NA |
| 7. Are all samples labelled correctly? | <input checked="" type="radio"/> yes/no/NA |
| 8. Have all instructions on the service request been followed?
(e.g. Special MRLs, QC on a specific sample) | <input checked="" type="radio"/> yes/no/NA |
| 9. Are detection limits and units reported correctly? | <input checked="" type="radio"/> yes/no/NA |
| 10. Are proper Analysis/Extraction stickers included on report? | <input checked="" type="radio"/> yes/no/NA |
| 11. Is the unused space on the benchsheet crossed out? | <input checked="" type="radio"/> yes/no/NA |
| 12. Was analysis turned in by the due date? (n-2) (If not record SR#) | <input checked="" type="radio"/> yes/no/NA |

COMMENTS:

Final Approved by: Bnk Date: 1/27/11 DOREPORT

Analytical Results Summary

Instrument Name: K-FIA-01

Analyst: THANGANU

Analysis Lot:

Method/Testcode: SM 4500-NH3 G/Ammonia

<u>Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>PQL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>
00586-002	Ammonia as Nitrogen	N/A		Water	1.37 mg/L	5 mL	1.37 mg/L	1	0.02	0.10			1/26/11 12:51	N V
00588-001	Ammonia as Nitrogen	N/A		Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N I
100588-002	Ammonia as Nitrogen	N/A		Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N I
100595-001	Ammonia as Nitrogen	N/A		Water	0.06 mg/L	5 mL	0.060 mg/L	1	0.020	0.050			1/26/11 12:51	N II
100595-003	Ammonia as Nitrogen	N/A		Water	0.30 mg/L	5 mL	0.296 mg/L	1	0.020	0.050			1/26/11 12:51	N II
100595-004	Ammonia as Nitrogen	N/A		Water	0.69 mg/L	5 mL	0.690 mg/L	1	0.020	0.050			1/26/11 12:51	N II
100636-004	Ammonia as Nitrogen	N/A		Water	1.08 mg/L	5 mL	5.42 mg/L	5	0.10	0.25			1/26/11 12:51	N II
100636-006	Ammonia as Nitrogen	N/A		Water	0.37 mg/L	5 mL	0.365 mg/L	1	0.020	0.050			1/26/11 12:51	N II
100659-001	Ammonia as Nitrogen	N/A		Water	1.37 mg/L	5 mL	6.85 mg/L	5	0.10	0.25			1/26/11 12:51	N II
100659-002	Ammonia as Nitrogen	N/A		Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N IV
100661-001	Ammonia as Nitrogen,	N/A		Water	-0.03 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N IV
100661-002	Ammonia as Nitrogen,	N/A		Water	2.31 mg/L	5 mL	2.31 mg/L	1	0.020	0.050			1/26/11 12:51	N IV
100661-003	Ammonia as Nitrogen,	N/A		Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N IV
100661-004	Ammonia as Nitrogen,	N/A		Water	-0.03 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N IV
100661-005	Ammonia as Nitrogen,	N/A		Water	-0.02 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N IV ^{Q2}
100661-006	Ammonia as Nitrogen,	N/A		Water	-0.03 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N IV
100661-007	Ammonia as Nitrogen,	N/A		Water	-0.03 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N IV
)1100751-01	Dissolved Ammonia as Nitrogen	MB		Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N I
)1100751-01	Ammonia as Nitrogen	MB		Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N I
)1100751-01	Ammonia as Nitrogen,	MB		Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.020	0.050			1/26/11 12:51	N I
)1100751-02	Ammonia as Nitrogen	LCS		Water	2.87 mg/L	5 mL	2.87 mg/L	1	0.020	0.050			1/26/11 12:51	N I
)1100751-02	Ammonia as Nitrogen	LCS		Water	2.87 mg/L	5 mL	2.87 mg/L	1	0.020	0.050			1/26/11 12:51	N I
)1100751-03	Dissolved Ammonia as Nitrogen	CCB		Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050			1/26/11 12:51	N I
)1100751-03	Ammonia as Nitrogen	CCB		Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050			1/26/11 12:51	N I
)1100751-03	Ammonia as Nitrogen,	CCB		Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050			1/26/11 12:51	N I
)1100751-04	Dissolved Ammonia as Nitrogen	CCB		Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050			1/26/11 12:51	N I
)1100751-04	Ammonia as Nitrogen	CCB		Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050			1/26/11 12:51	N I

Indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

01/26/11
Thangnus

Analytical Results Summary

Instrument Name: K-FIA-01

Analyst: IHANGANU

Analysis Lot.

<u>Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>POI</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC</u>	<u>1st</u>
1100751-04	Ammonia as Nitrogen	CCB	Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-04	Ammonia as Nitrogen,	CCB	Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-04	Dissolved		Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-05	Ammonia as Nitrogen	CCB	Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-05	Ammonia as Nitrogen	CCB	Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-06	Ammonia as Nitrogen,	CCB	Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-06	Dissolved		Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-06	Ammonia as Nitrogen	CCB	Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-06	Ammonia as Nitrogen	CCB	Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-06	Ammonia as Nitrogen,	CCB	Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-07	Ammonia as Nitrogen,	CCB	Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-07	Dissolved		Water	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-07	Ammonia as Nitrogen	CCB	Reagent	-0.04 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-08	Ammonia as Nitrogen	CCB	Water	-0.05 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-08	Ammonia as Nitrogen,	CCB	Reagent	-0.05 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-08	Dissolved		Water	-0.05 mg/L	5 mL	0.050 mg/L U	1	0.050	0.050				1/26/11 12:51	N	I
1100751-09	Ammonia as Nitrogen	CCV	Reagent	1.97 mg/L	5 mL	1.97 mg/L	1						1/26/11 12:51	N	I
1100751-09	Ammonia as Nitrogen	CCV	Water	1.97 mg/L	5 mL	1.97 mg/L	1						1/26/11 12:51	N	I
1100751-09	Ammonia as Nitrogen,	CCV	Reagent	1.97 mg/L	5 mL	1.97 mg/L	1						1/26/11 12:51	N	I
1100751-10	Dissolved		Water	1.97 mg/L	5 mL	1.97 mg/L	1						1/26/11 12:51	N	I
1100751-10	Ammonia as Nitrogen	CCV	Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						1/26/11 12:51	N	I
1100751-10	Ammonia as Nitrogen	CCV	Water	1.96 mg/L	5 mL	1.96 mg/L	1						1/26/11 12:51	N	I
1100751-10	Ammonia as Nitrogen,	CCV	Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						1/26/11 12:51	N	I
1100751-11	Dissolved		Water	1.96 mg/L	5 mL	1.96 mg/L	1						1/26/11 12:51	N	I
1100751-11	Ammonia as Nitrogen	CCV	Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						1/26/11 12:51	N	I
1100751-11	Ammonia as Nitrogen,	CCV	Water	1.96 mg/L	5 mL	1.96 mg/L	1						1/26/11 12:51	N	I
1100751-11	Dissolved		Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						1/26/11 12:51	N	I
1100751-12	Ammonia as Nitrogen	CCV	Water	1.96 mg/L	5 mL	1.96 mg/L	1						1/26/11 12:51	N	I
1100751-12	Ammonia as Nitrogen,	CCV	Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						1/26/11 12:51	N	I

indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Med 4/26/11 14:30

Results Summary

Page 2 of 3

Analytical Results Summary

Instrument Name: K-FIA-01

Analyst: THANGANU

Analysis Lot: 233907

Method/Testcode: SM 4500-NH3 G/Ammonia

Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	POL	% Rec	% RSD	Date Analyzed	QC? Tier
1100751-12	Ammonia as Nitrogen	CCV		Reagent	1.96 mg/L	5 mL	1.96 mg/L	1	0.8 mg/L	1	100%	1	1/26/11 12:51	N I
1100751-12	Ammonia as Nitrogen,	CCV		Water										
1100751-12	Dissolved			Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						
1100751-13	Ammonia as Nitrogen	CCV		Water										
1100751-13	Ammonia as Nitrogen,	CCV		Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						
1100751-14	Dissolved			Water										
1100751-14	Ammonia as Nitrogen	CCV		Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						
1100751-14	Ammonia as Nitrogen	CCV		Water										
1100751-14	Ammonia as Nitrogen	CCV		Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						
1100751-14	Ammonia as Nitrogen	CCV		Water										
1100751-14	Ammonia as Nitrogen	CCV		Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						
1100751-14	Ammonia as Nitrogen	CCV		Water										
1100751-15	Dissolved			Reagent	1.96 mg/L	5 mL	1.96 mg/L	1						
1100751-15	Ammonia as Nitrogen	MS	K1100586-002	Water	3.35 mg/L	5 mL	3.35 mg/L	1	0.020	0.050	99			
1100751-16	Ammonia as Nitrogen	DMS	K1100586-002	Water	3.41 mg/L	5 mL	3.41 mg/L	1	0.020	0.050	102	3	1/26/11 12:51	N V
1100751-17	Ammonia as Nitrogen	DUP	K1100586-002	Water	1.37 mg/L	5 mL	1.37 mg/L	1	0.020	0.050	<1		1/26/11 12:51	N V
1100751-18	Ammonia as Nitrogen,	MS	K1100661-001	Water	1.95 mg/L	5 mL	1.95 mg/L	1	0.020	0.050	97		1/26/11 12:51	N IV
1100751-19	Dissolved			Reagent	1.96 mg/L	5 mL	1.96 mg/L	1	0.020	0.050	98	<1	1/26/11 12:51	N IV
1100751-20	Ammonia as Nitrogen,	DUP	K1100661-001	Water	-0.05 mg/L	5 mL	0.050 mg/L	1	0.020	0.050	NC		1/26/11 12:51	N IV

Spiked ID# : $\text{PO}_4^{3-} / \beta + \text{NH}_3 / - 86 - \text{FF}$ T.V. = 2.81
 Curve ID# : $\beta + \text{NH}_3 / - 86 - \text{FF}$ T.V. = 2.00
 $\text{NH}_3 \text{ MS} = 2.00$

112711

01/26/11

Thangnu

Indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

nted 1/26/11 14:30

Results Summary

BRAN+LUEBBE

Post-run report

Name of Run : 110126A
 Date of Report : 1/26/2011
 Date of Run : 1/26/2011
 Operator :
 Comment :

Name of Analysis : Ammonia
 System No. : 1
 Type of System : AA3
 Start/Stop time : 12:51 - 14:13

Channel : 2
 Method : Method 2
 Unit : mg/L
 Calibr. Fit : Linear
 Corr. Coeff. : 0.9998
 Base : -24459
 Gain : 22
 Sensitivity : 0.3775
 Sample Limit 1 :
 Sample Limit 2 :

BPX

1/27/11

Pk	Cup	Sample Id	Value
0	0	B Baseline	-0.0418
1	1	P Primer	4.9824
2	1	D Drift	4.9992
3	1	C 5.00	5.0081
4	2	C 2.00	1.9784
5	3	C 0.50	0.4887
6	4	C 0.05	0.1105
7	5	C 0	-0.0357
8	0	B Baseline	-0.0418
9	1	H1 High	5.0183
10	0	L1 Low	-0.0362
11	0	L1 Low	-0.0361
12	5	QC2 CCB1	-0.0360
13	2	QC1 CCV1	1.9670
14	10	QC3 LCS1 *10 ④	2.8730
15	11	S MB MS	1.9337
16	0	N Null	-0.0334N
17	5	QC2 MB1	-0.0371
18	12	S k1100588-001	-0.0393
19	13	S k1100588-002	-0.0428
20	14	S k1100586-002	1.3743
21	15	S k1100586-002d	1.3684
22	16	S k1100586-002ms	3.3536
23	0	B baseline	-0.0418
24	5	QC2 CCB2	-0.0419
25	2	QC1 CCV2	1.9618
26	17	S k1100586-002msd	3.4092

OTH 01/26/11

01/26/11

Hawley

BRAN+LUEBBE AACE 6.02

27	18	S	k1100595-001	0.0603
28	19	S	k1100595-003	0.2958
29	20	S	k1100595-004	0.6904
30	21	S	k1100636-004	5.2064 } NR
31	22	S	k1100636-006	0.3476 } NR
32	23	S	k1100659-001	1.3678
33	24	S	k1100659-002	6.8527* NR
34	25	S	rinse	-0.0317
35	0	B	BASELINE	-0.0418
36	5	QC2	CCB-3	-0.0394
37	2	QC1	CCV-3	1.9637
38	26	S	k1100661-001	-0.0375 } NR
39	27	S	k1100661-001d	0.0943 } NR
40	28	S	k1100661-001ms	1.9454
41	29	S	k1100661-001msd	1.9600
42	30	S	k1100661-002	-0.0304
43	31	S	k1100661-003	2.3147
44	32	S	k1100661-004	-0.0364
45	33	S	k1100661-005	-0.0170
46	34	S	k1100661-006	-0.0341
47	0	B	Baseline	-0.0418
48	5	QC2	CCB4	-0.0391
49	2	QC1	CCV4	1.9645
50	35	S	k1100661-007	-0.0341
51	22	S	k1100626-006 K1100626-006	0.3651
52	36	S	k1100636-004*5	1.0837
53	37	S	k1100659-002*5	1.3697
54	0	B	Baseline	-0.0418
55	5	QC2	CCB5	-0.0416
56	2	QC1	CCV5	1.9593
57	1	D	Drift	4.9992
58	0	B	Baseline	-0.0418
59	38	S	k1100661-001	-0.0407
60	39	S	k1100661-001d	-0.0482
61	40	S	k1100661-003	2.2791 NR
62	5	QC2	Quality Cup CC6	-0.0452
63	2	QC1	Quality Cup CCV6	1.9623
64	1	D	Drift	4.9992
65	0	B	Baseline	-0.0418
66	0	B	FinalBase	-0.0418

QC Limits

Channel	:
QC 1	Unused
QC 2	Unused
QC 3	Unused
QC 4	Unused
QC 5	Unused
QC 6	Unused
QC 7	Unused
QC 8	Unused

2

01/26/11

QC 9 Unused
QC10 Unused

CORRECTIONS

Channel	:	2
Baseline	:	Yes
Drift	:	Yes
Carry over	:	Yes
%:		0.3

* ... Sample offscale
+ ... Result higher than sample limit
- ... Result lower than sample limit
P ... Standard passed
F ... Standard failed
N ... Value not calculated or not used
R ... Resample after offscale
M ... Peak marker moved manually
D ... Diluted sample

** <END OF REPORT> **

01/26/11
Hawkeye

BRAN+LUEBBE

Calibration Curve

Name of run : 110126A.run
Comment :

Name of analysis : Ammonia

```

Channel :2
Method :Method 2      a=-3.6243E-001   b=9.2303E-005
Curve fit :Linear
Corr. coeff. :0.9998

```

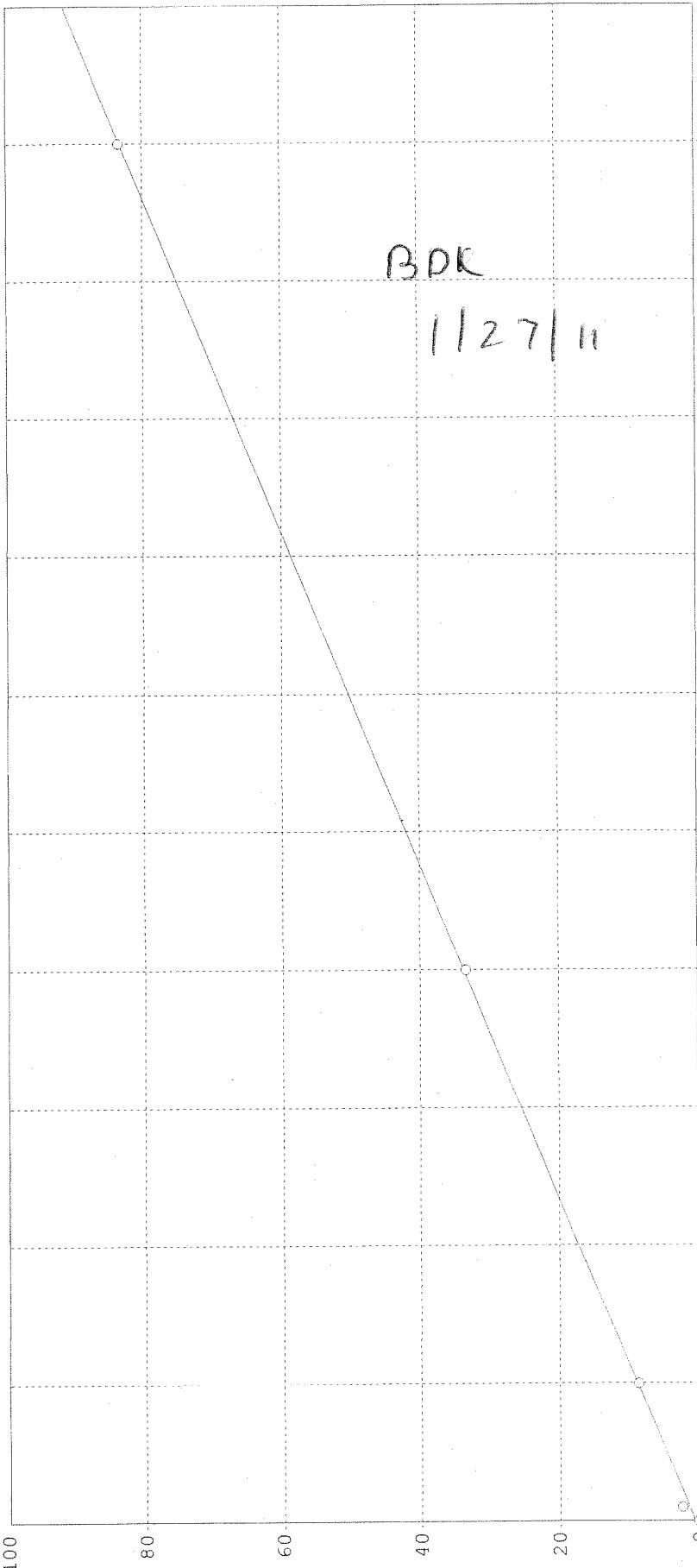
Peak [%]

100

235

01/26/11 July 2011

0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00 Conc. [mg/L]



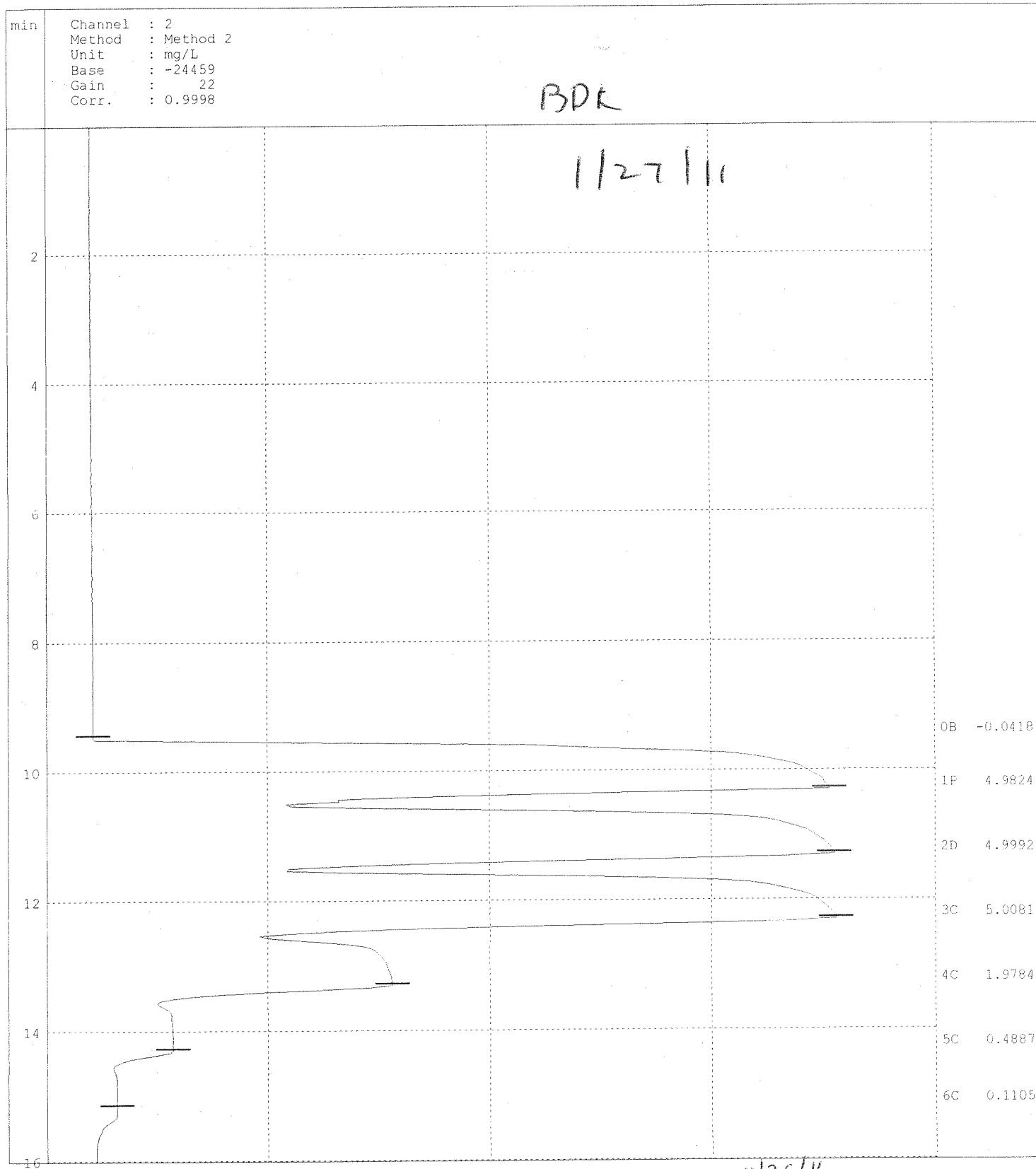
BRAN+LUEBBE

Post-run chart

Name of run : 110126A.RUN

Comment :

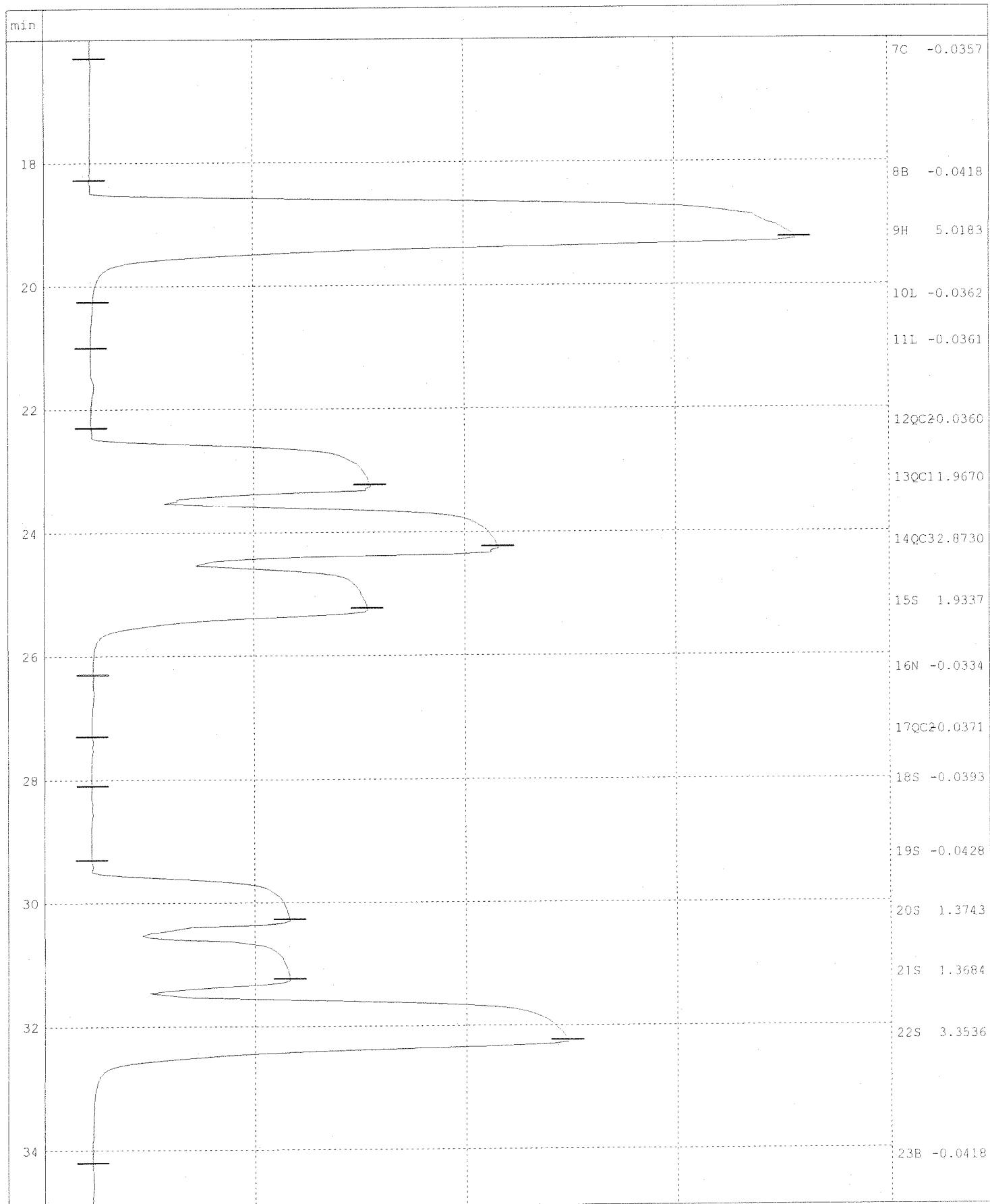
Name of analysis : Ammonia



Name of run : 110126A.RUN

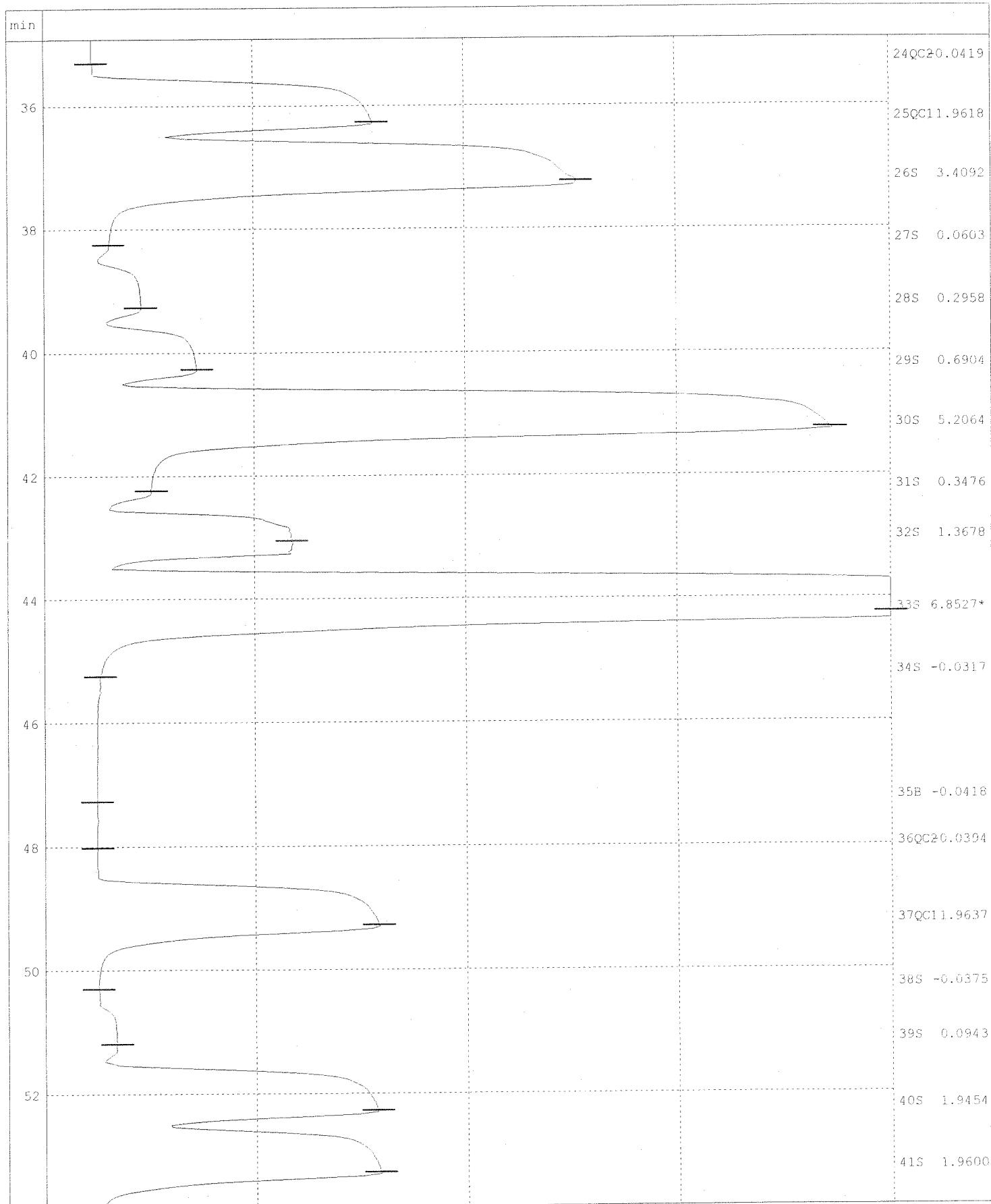
Comment :

Name of analysis : Ammonia



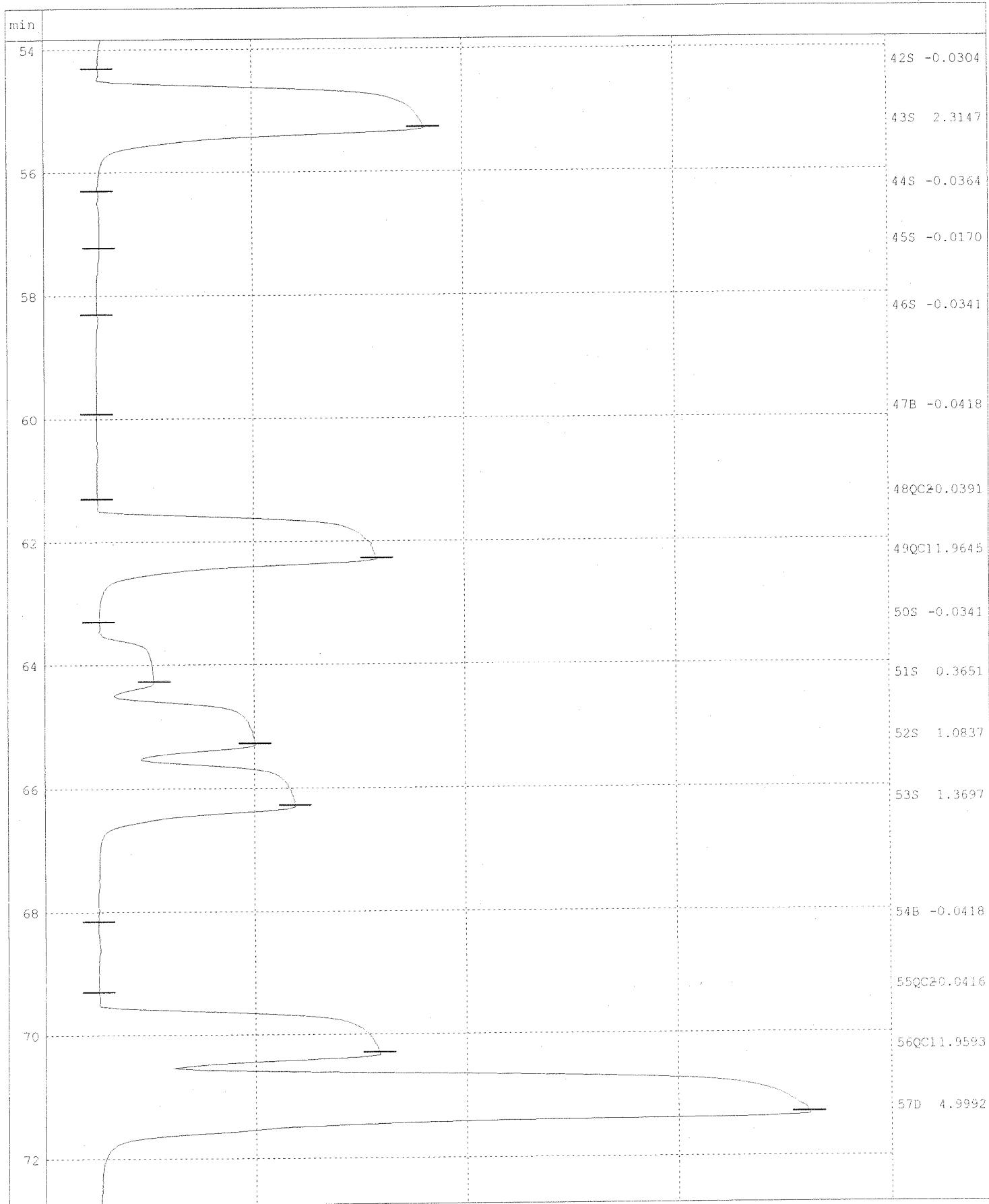
Name of run : 110126A.RUN
 Comment :

Name of analysis : Ammonia



Name of run : 110126A.RUN
Comment :

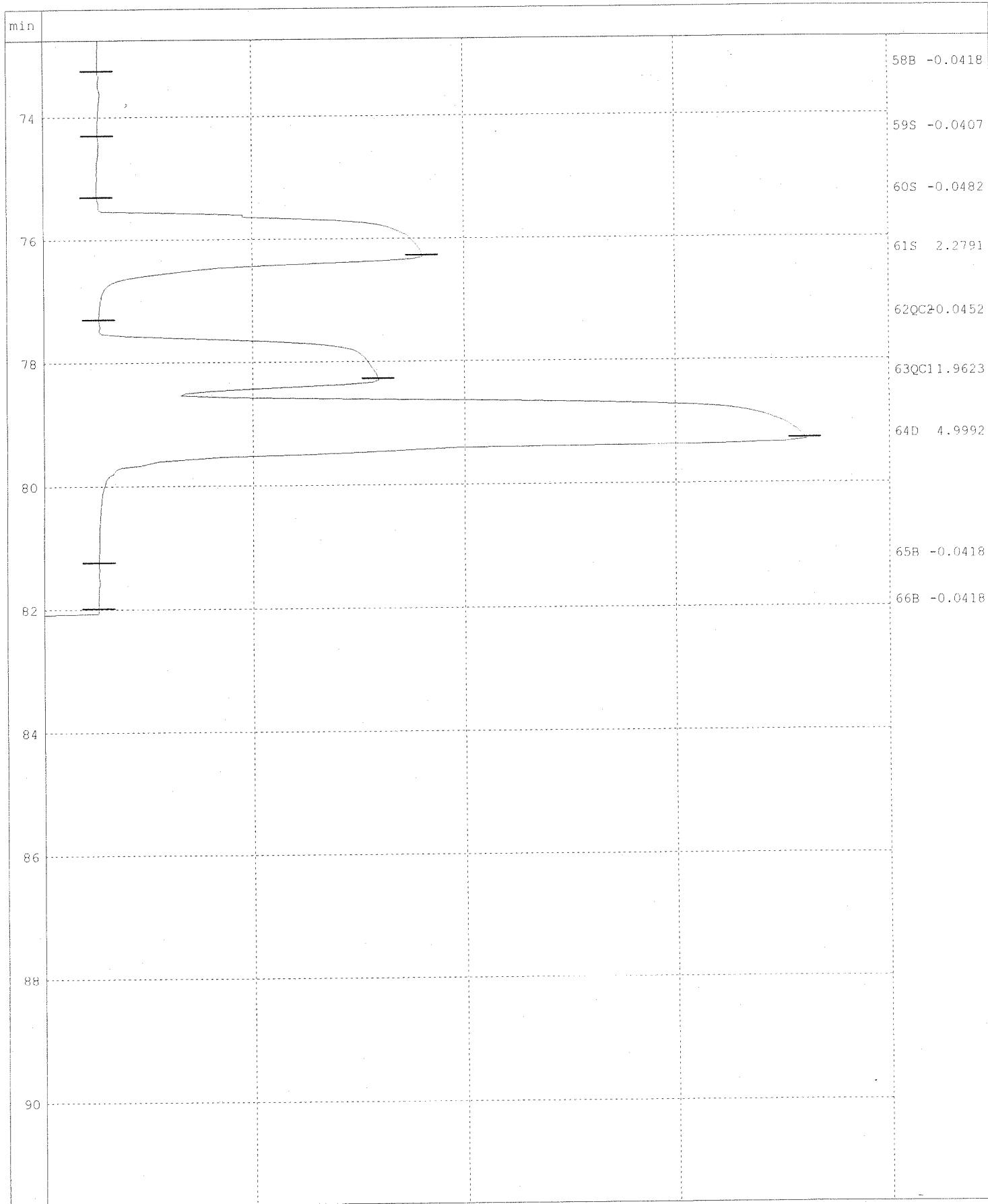
Name of analysis : Ammonia



Name of run :110126A.RUN

Comment :

Name of analysis :Ammonia



Original
Work Request # (K661)

Tier: III

Date Analyzed: 01/25/11

Analyst: Fawcett

Analysis: NO₂-N - 353.2

233686

**DATA QUALITY REPORT
INORGANICS**

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate? yes/no/NA
2. Holding times met for all analyses and for all samples? yes/no/NA
3. Are calculations correct? yes/no/NA
4. Is the reporting basis correct? (Dry Weight) yes/no/NA
5. All quality control criteria met?
 - a. Is the calibration curve correlation coefficient ≥ 0.995 ? yes/no/NA
 - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? yes/no/NA
 - c. Are ICVs, CCVs, and CCBs all within acceptance limits? yes/no/NA
 - d. Are results for methods blanks all ND? yes/no/NA
 - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) yes/no/NA
 - f. Are all exceptions explained? yes/no/NA
6. Are all service requests that apply attached? yes/no/NA
7. Are all samples labelled correctly? yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample) yes/no/NA
9. Are detection limits and units reported correctly? yes/no/NA
10. Are proper Analysis/Extraction stickers included on report? yes/no/NA
11. Is the unused space on the benchsheet crossed out? yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#) yes/no/NA

COMMENTS:

Final Approved by: _____

Date: 1/27/11

DQREPORT

Analytical Results Summary

Instrument Name: K-FIA-01

Analyst: THANGANU Analysis Lot: 233686 Method/Testcode: 353.2/NO2 (D109)

Job Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	POL	% Rec	% RSD	Date Analyzed	QC? Tier	
1100661-001	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	5 mL	0.050 mg/L	U 1	0.005	0.050	1/25/11 10:19	N	IV		
1100661-002	Nitrite as Nitrogen	N/A		Water	0.03 mg/L	5 mL	0.032 mg/L	J 1	0.005	0.050	1/25/11 10:19	N	IV		
1100661-003	Nitrite as Nitrogen	N/A		Water	0.02 mg/L	5 mL	0.021 mg/L	J 1	0.005	0.050	1/25/11 10:19	N	IV		
1100661-004	Nitrite as Nitrogen	N/A		Water	0.01 mg/L	5 mL	0.012 mg/L	J 1	0.005	0.050	1/25/11 10:19	N	IV		
1100661-005	Nitrite as Nitrogen	N/A		Water	0.01 mg/L	5 mL	0.011 mg/L	J 1	0.005	0.050	1/25/11 10:19	N	IV		
1100661-006	Nitrite as Nitrogen	N/A		Water	0.01 mg/L	5 mL	0.010 mg/L	J 1	0.005	0.050	1/25/11 10:19	N	IV		
1100661-007	Nitrite as Nitrogen	N/A		Water	0.01 mg/L	5 mL	0.010 mg/L	J 1	0.005	0.050	1/25/11 10:19	N	IV		
Q1100697-01	Nitrite as Nitrogen	MS	K1100661-001	Water	2.05 mg/L	5 mL	2.05 mg/L	1	0.005	0.050	102	1/25/11 10:19	N	IV	
Q1100697-02	Nitrite as Nitrogen	DMS	K1100661-001	Water	2.04 mg/L	5 mL	2.04 mg/L	1	0.005	0.050	102	<1	1/25/11 10:19	N	IV
Q1100697-03	Nitrite as Nitrogen	DUP	K1100661-001	Water	0.01 mg/L	5 mL	0.008 mg/L	J 1	0.005	0.050	NC	1/25/11 10:19	N	IV	
Q1100697-04	Nitrite as Nitrogen	MB		Water	0.00 mg/L	5 mL	0.050 mg/L	U 1	0.005	0.050	1/25/11 10:19	N	IV		
Q1100697-05	Nitrite as Nitrogen	LCS		Water	4.03 mg/L	5 mL	4.03 mg/L	1	0.005	0.050	101	1/25/11 10:19	N	IV	
Q1100697-06	Nitrite as Nitrogen	CCB		Water	0.01 mg/L	5 mL	0.050 mg/L	U 1	0.050	0.050	1/25/11 10:19	N	IV		
Q1100697-07	Nitrite as Nitrogen	CCB		Water	0.01 mg/L	5 mL	0.050 mg/L	U 1	0.050	0.050	1/25/11 10:19	N	IV		
Q1100697-08	Nitrite as Nitrogen	CCB		Water	0.01 mg/L	5 mL	0.050 mg/L	U 1	0.050	0.050	1/25/11 10:19	N	IV		
Q1100697-09	Nitrite as Nitrogen	CCV		Water	1.98 mg/L	5 mL	1.98 mg/L	1	99%	99%	1/25/11 10:19	N	IV		
Q1100697-10	Nitrite as Nitrogen	CCV		Water	2.01 mg/L	5 mL	2.01 mg/L	1	101%	101%	1/25/11 10:19	N	IV		
Q1100697-11	Nitrite as Nitrogen	CCV		Water	2.01 mg/L	5 mL	2.01 mg/L	1	101%	101%	1/25/11 10:19	N	IV		

LOD ID# : AN/11-33-X TV. = 4.00
 Spike ID# : B+LN/11-99-V TV. = 2.00
 Control ID# : B+LN/11-70-A TV. = 2.00

01/25/11
 Haugewy

indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

inted 1/25/11 11:15

BRAN+LUEBBE

Post-run report

Name of Run	:	110125C	Name of Analysis	:	Nitrite
Date of Report	:	1/25/2011	System No.	:	1
Date of Run	:	1/25/2011	Type of System	:	AA3
Operator	:		Start/Stop time	:	10:19 - 11:04
Comment	:				

Channel	:	2
Method	:	Method 2
Unit	:	
Calibr. Fit	:	Linear
Corr. Coeff.	:	1.0000
Base	:	-26051
Gain	:	5
Sensitivity	:	1.5820
Sample Limit 1	:	
Sample Limit 2	:	

Pk	Cup	Sample	Id	Value
0	0	B	Baseline	-0.0011
1	1	P	Primer	4.9705
2	1	D	Drift	5.0016
3	1	C	5.00	4.9987
4	2	C	2.00	2.0045
5	3	C	0.50	0.4953
6	4	C	0.05	0.0487
7	5	C	0	0.0029
8	1	H1	High	4.9822
9	0	L1	Low	0.0113
10	0	L1	Low	0.0013
11	5	QC2	CCB1	0.0056
12	2	QC1	CCV1	1.9770
13	10	QC3	LCS1	4.0333
14	0	N	Null	0.0098N
15	5	QC2	MB1	0.0048
16	11	S	k1100661-001	0.0016
17	12	S	k1100661-001d	0.0079
18	13	S	k1100661-001ms	2.0476
19	14	S	k1100661-001msd	2.0447
20	15	S	k1100661-002	0.0323
21	16	S	k1100661-003	0.0205
22	0	B	Baseline	0.0034
23	5	QC2	CCB2	0.0114
24	2	QC1	CCV2	2.0083
25	17	S	k1100661-004	0.0123
26	18	S	k1100661-005	0.0110

01/25/11
Hawyer

BRAN+LUEBBE AACE 6.02

Post-run Report

27	19	S	k1100661-006	0.0095
28	20	S	k1100661-007	0.0096
29	0	B	Baseline	0.0060
30	5	QC2	CCB3	0.0116
31	2	QC1	CCV3	2.0057
32	1	D	Drift	5.0443
33	0	B	Baseline	0.0096
34	0	B	FinalBase	0.0089

QC Limits

Channel	:	2
QC 1	Unused	
QC 2	Unused	
QC 3	Unused	
QC 4	Unused	
QC 5	Unused	
QC 6	Unused	
QC 7	Unused	
QC 8	Unused	
QC 9	Unused	
QC10	Unused	

CORRECTIONS

Channel	:	2
Baseline	:	No
Drift	:	No
Carry over	:	No
%:		0.0

* ... Sample offscale
 + ... Result higher than sample limit
 - ... Result lower than sample limit
 P ... Standard passed
 F ... Standard failed
 N ... Value not calculated or not used
 R ... Resample after offscale
 M ... Peak marker moved manually
 D ... Diluted sample

** <END OF REPORT> **

01/25/11

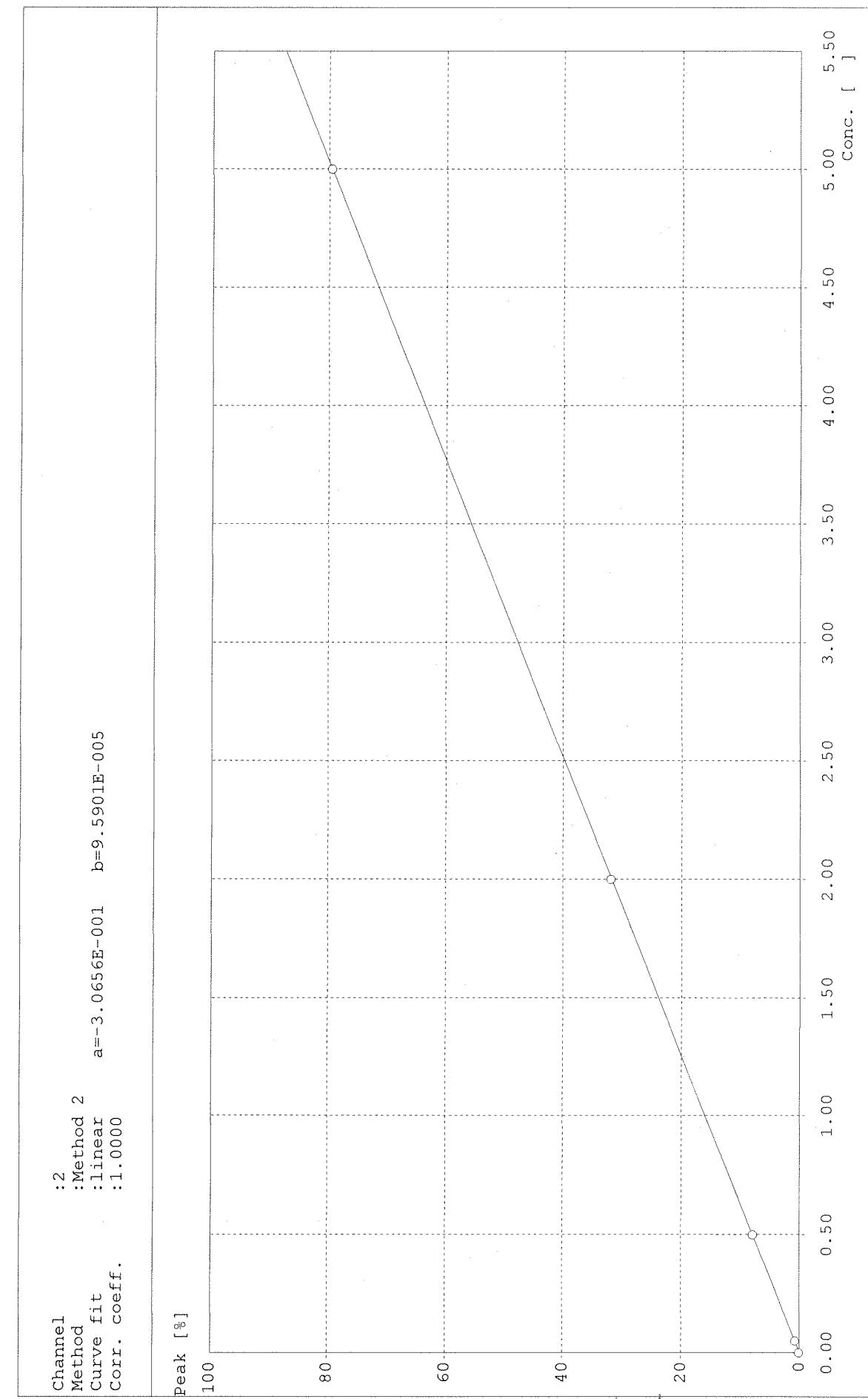
Jewell

BRAN+LUEBBE

Calibration Curve

Name of run : 110125C.run
 Comment :

Name of analysis : Nitrite

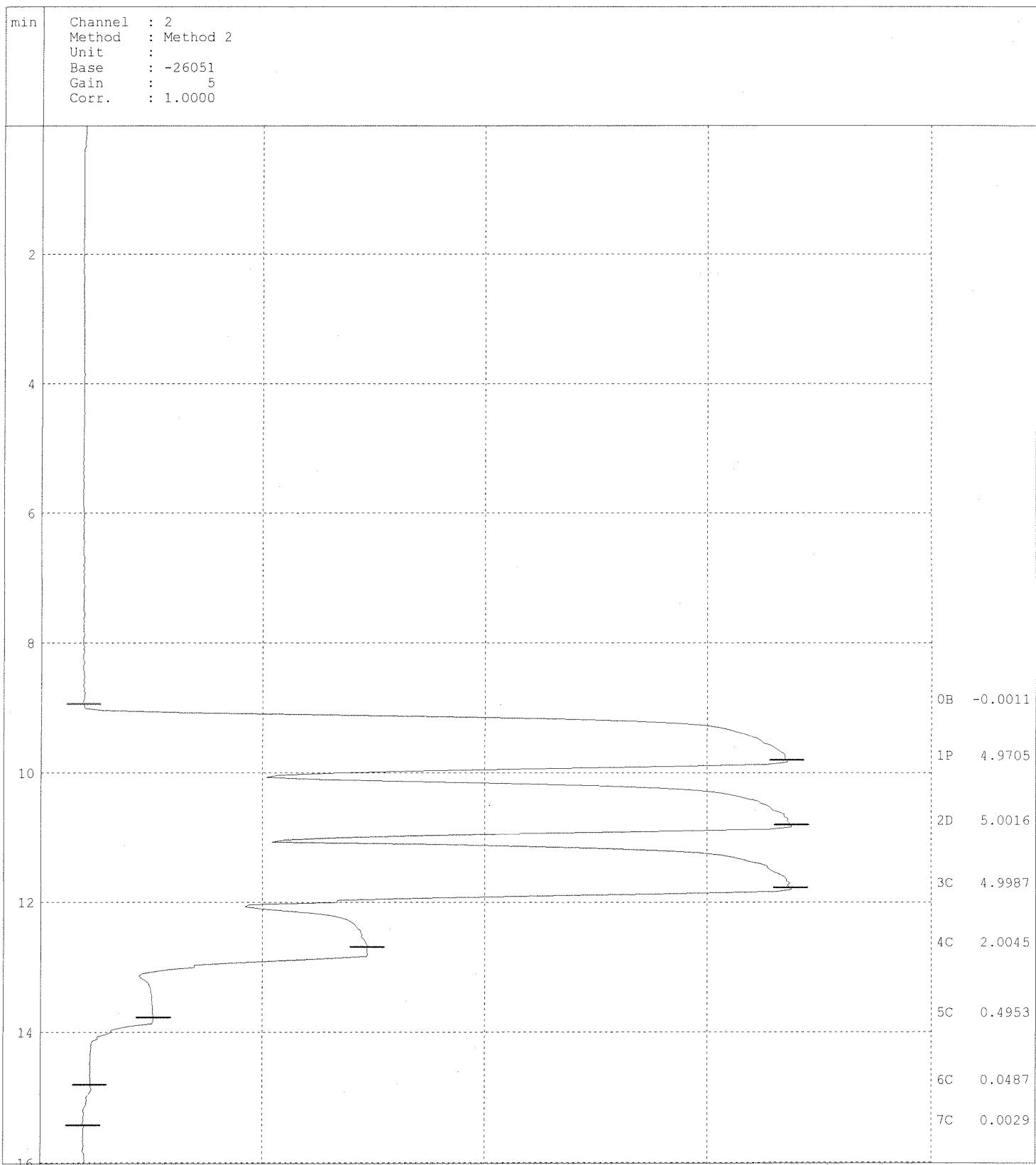


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Post-run chart

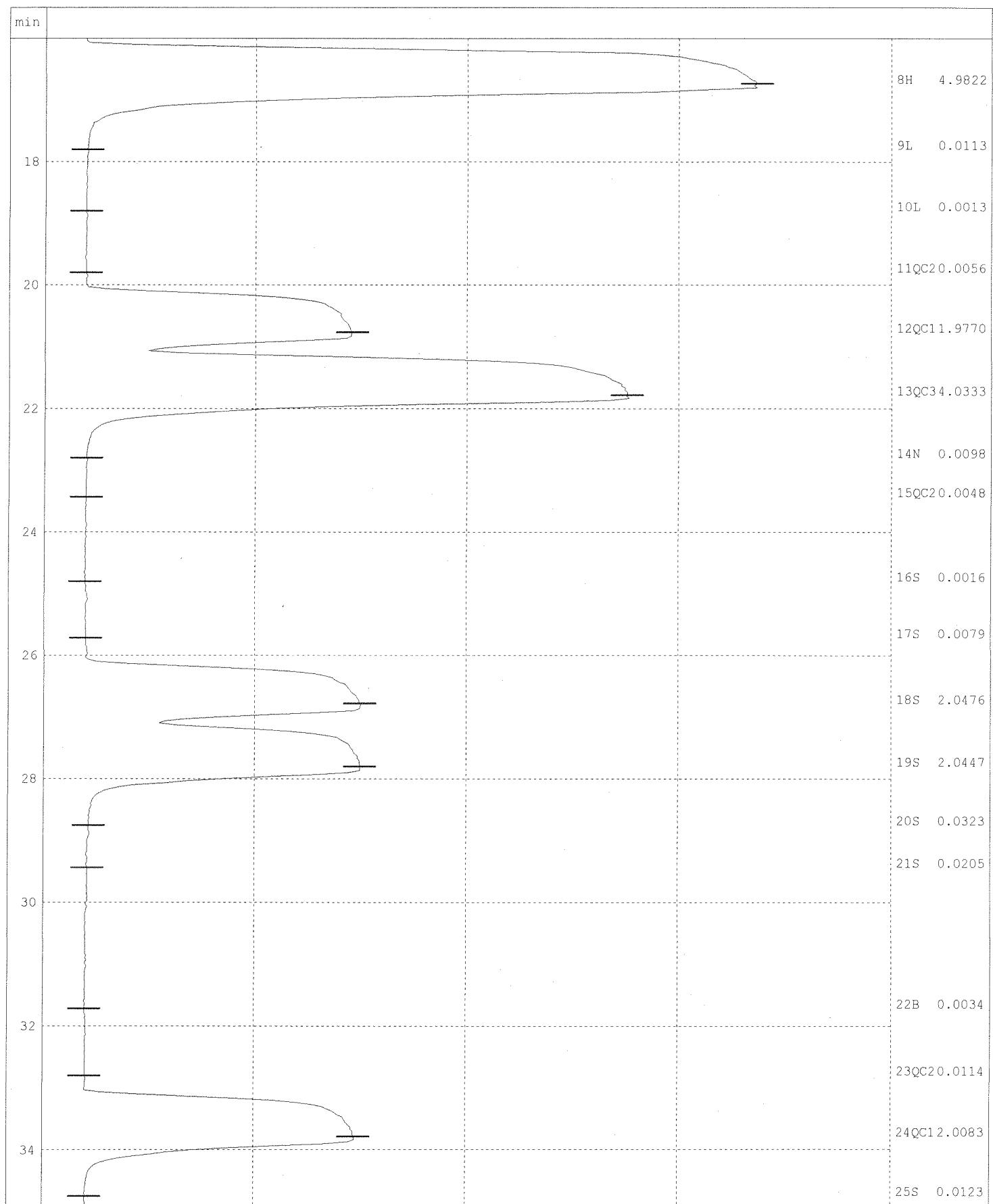
Name of run : 110125C.RUN
 Comment :

Name of analysis : Nitrite



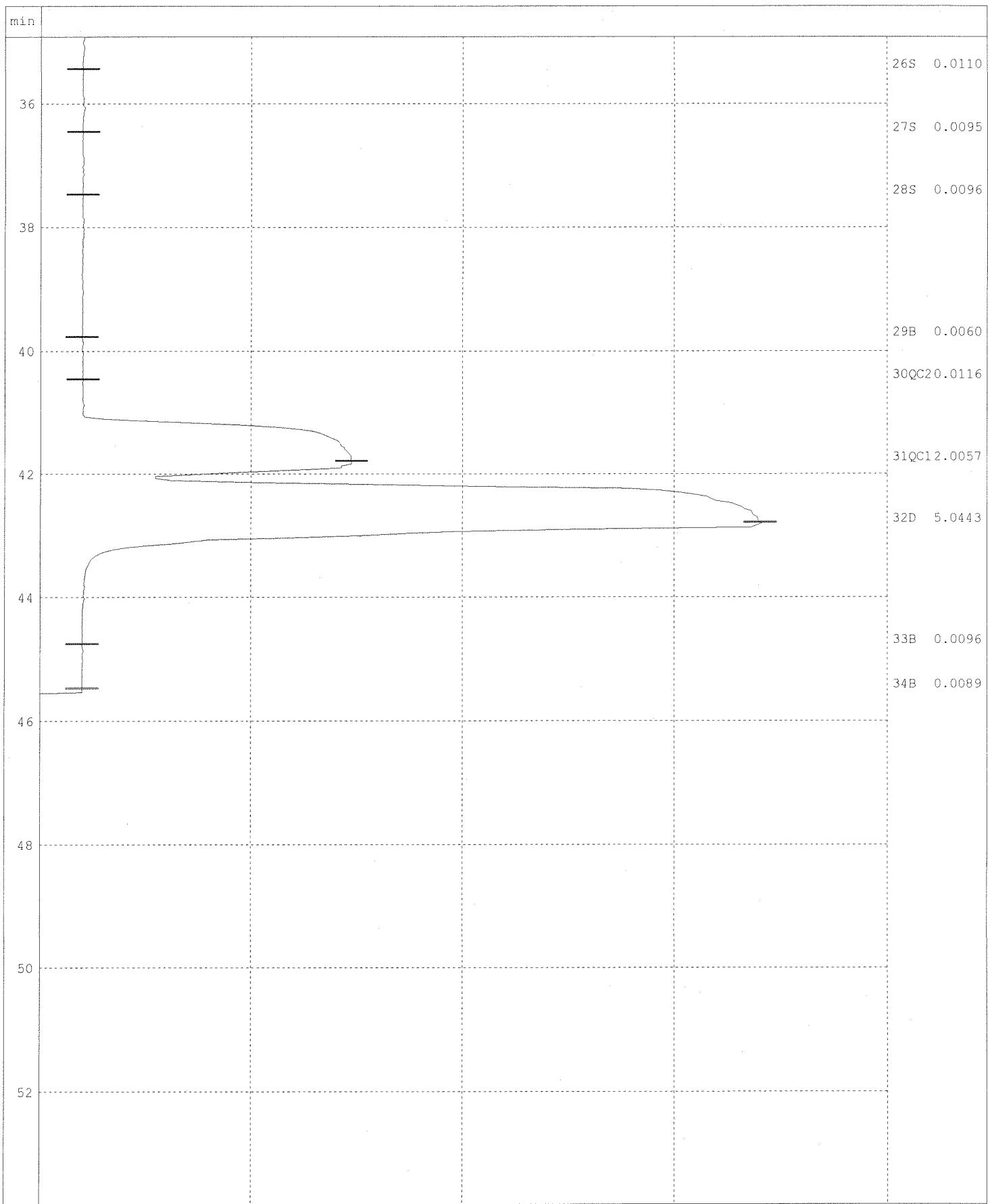
Name of run :110125C.RUN
Comment :

Name of analysis :Nitrite



Name of run :110125C.RUN
Comment :

Name of analysis :Nitrite



Original
Work Request # (K659) K661 K726

Tier: II IV V

Date Analyzed: 01/27/11

Analyst: Fmuyue

Analysis: NO_x/NO₂-N 353.2

234048

DATA QUALITY REPORT INORGANICS

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate? yes/no/NA
2. Holding times met for all analyses and for all samples? yes/no/NA
3. Are calculations correct? yes/no/NA
4. Is the reporting basis correct? (Dry Weight) yes/no/NA
5. All quality control criteria met?
 - a. Is the calibration curve correlation coefficient ≥ 0.995 ? yes/no/NA
 - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? yes/no/NA
 - c. Are ICVs, CCVs, and CCBs all within acceptance limits? yes/no/NA
 - d. Are results for methods blanks all ND? yes/no/NA
 - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) yes/no/NA
 - f. Are all exceptions explained? yes/no/NA
6. Are all service requests that apply attached? yes/no/NA
7. Are all samples labelled correctly? yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample) yes/no/NA
9. Are detection limits and units reported correctly? yes/no/NA
10. Are proper Analysis/Extraction stickers included on report? yes/no/NA
11. Is the unused space on the benchsheet crossed out? yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#) yes/no/NA

COMMENTS:

K726 - Rush - due date : 02/05/11

Final Approved by: H Date: 1/28/11 DQREPORT

Analytical Results Summary

Instrument Name: K-FIA-01

Analyst: THANGANU

Analysis Lot: 234048 Method/Testcode: 353.2/NO2 NO3 T

<u>Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>POL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>	
00659-001	Nitrate+Nitrite as Nitrogen	N/A		Water	0.20 mg/L	5 mL	0.197 mg/L	1	0.009	0.050			1/27/11 10:30:09	N II	
00659-002	Nitrate+Nitrite as Nitrogen	N/A		Water	0.32 mg/L	5 mL	0.323 mg/L	1	0.009	0.050			1/27/11 10:30:09	N II	
00661-001	Nitrate+Nitrite as Nitrogen	N/A		Water	1.79 mg/L	5 mL	17.9 mg/L	10	0.09	0.50			1/27/11 10:30:09	N IV	
00661-002	Nitrate+Nitrite as Nitrogen	N/A		Water	0.94 mg/L	5 mL	9.36 mg/L	10	0.09	0.50			1/27/11 10:30:09	N IV	
00661-005	Nitrate+Nitrite as Nitrogen	N/A		Water	1.41 mg/L	5 mL	7.05 mg/L	5	0.05	0.25			1/27/11 10:30:09	N IV	
00661-006	Nitrate+Nitrite as Nitrogen	N/A		Water	0.01 mg/L	5 mL	0.050 mg/L	U	1	0.009	0.050			1/27/11 10:30:09	N IV
00661-007	Nitrate+Nitrite as Nitrogen	N/A		Water	0.15 mg/L	5 mL	0.146 mg/L	1	0.009	0.050			1/27/11 10:30:09	N IV	
00726-001	Nitrate+Nitrite as Nitrogen	N/A		Water	0.16 mg/L	5 mL	0.162 mg/L	1	0.009	0.050			1/27/11 10:30:09	N V	
00726-002	Nitrate+Nitrite as Nitrogen	N/A		Water	0.04 mg/L	5 mL	0.036 mg/L	J	1	0.009	0.050			1/27/11 10:30:09	N V
00726-003	Nitrate+Nitrite as Nitrogen	N/A		Water	0.16 mg/L	5 mL	0.162 mg/L	1	0.009	0.050			1/27/11 10:30:09	N V	
00726-004	Nitrate+Nitrite as Nitrogen	N/A		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.009	0.050			1/27/11 10:30:09	N V
00726-005	Nitrate+Nitrite as Nitrogen	N/A		Water	0.05 mg/L	5 mL	0.050 mg/L	I	1	0.009	0.050			1/27/11 10:30:09	N V
00726-006	Nitrate+Nitrite as Nitrogen	N/A		Water	0.06 mg/L	5 mL	0.061 mg/L	1	0.009	0.050			1/27/11 10:30:09	N V	
1100789-01	Nitrate+Nitrite as Nitrogen	MS	K1100661-001	Water	3.84 mg/L	5 mL	38.4 mg/L	10	0.09	0.50	102		1/27/11 10:30:09	N V	
1100789-02	Nitrate+Nitrite as Nitrogen	DMS	K1100661-001	Water	3.82 mg/L	5 mL	38.2 mg/L	10	0.09	0.50	101	<1	1/27/11 10:30:09	N V	
1100789-03	Nitrate+Nitrite as Nitrogen	DUP	K1100661-001	Water	1.81 mg/L	5 mL	18.1 mg/L	10	0.09	0.50		1	1/27/11 10:30:09	N V	
1100789-04	Nitrate+Nitrite as Nitrogen	MS	K1100726-001	Water	2.21 mg/L	5 mL	2.21 mg/L	1	0.009	0.050	103		1/27/11 10:30:09	N V	
1100789-05	Nitrate+Nitrite as Nitrogen	DMS	K1100726-001	Water	2.21 mg/L	5 mL	2.21 mg/L	1	0.009	0.050	102	<1	1/27/11 10:30:09	N V	
1100789-06	Nitrate+Nitrite as Nitrogen	DUP	K1100726-001	Water	0.16 mg/L	5 mL	0.158 mg/L	1	0.009	0.050		2	1/27/11 10:30:09	N V	
1100789-07	Nitrate+Nitrite as Nitrogen	MB		Water	-0.01 mg/L	5 mL	0.050 mg/L	U	1	0.009	0.050			1/27/11 10:30:09	N II
1100789-08	Nitrate+Nitrite as Nitrogen	LCS		Water	1.54 mg/L	5 mL	15.4 mg/L	10	0.09	0.50	101		1/27/11 10:30:09	N II	
1100789-09	Nitrate+Nitrite as Nitrogen	CCB		Water	-0.01 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050			1/27/11 10:30:09	N II
1100789-10	Nitrate+Nitrite as Nitrogen	CCB		Water	-0.01 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050			1/27/11 10:30:09	N II
1100789-11	Nitrate+Nitrite as Nitrogen	CCB		Water	0.00 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050			1/27/11 10:30:09	N II
1100789-12	Nitrate+Nitrite as Nitrogen	CCB		Water	-0.01 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050			1/27/11 10:30:09	N II
1100789-13	Nitrate+Nitrite as Nitrogen	CCB		Water	-0.01 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050			1/27/11 10:30:09	N II
1100789-14	Nitrate+Nitrite as Nitrogen	CCB		Water	-0.01 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050			1/27/11 10:30:09	N II
1100789-15	Nitrate+Nitrite as Nitrogen	CCV		Water	1.98 mg/L	5 mL	1.98 mg/L	1	1.98%					1/27/11 10:30:09	N II
1100789-16	Nitrate+Nitrite as Nitrogen	CCV		Water	1.99 mg/L	5 mL	1.99 mg/L	1	1.00%					1/27/11 10:30:09	N II
1100789-17	Nitrate+Nitrite as Nitrogen	CCV		Water	1.98 mg/L	5 mL	1.98 mg/L	1	99%					1/27/11 10:30:09	N II
1100789-18	Nitrate+Nitrite as Nitrogen	CCV		Water	1.98 mg/L	5 mL	1.98 mg/L	1	1.98%					1/27/11 10:30:09	N II
1100789-19	Nitrate+Nitrite as Nitrogen	CCV		Water	1.98 mg/L	5 mL	1.98 mg/L	1	1.98%					1/27/11 10:30:09	N II
1100789-20	Nitrate+Nitrite as Nitrogen	CCV		Water	1.96 mg/L	5 mL	1.96 mg/L	1	98%					1/27/11 10:30:09	N II

icates Final Result is not yet adjusted for Solids because it has not yet been determined.

ited 1/27/11 11:13:07

Lees ID# : P03/3-79-E TV = 15.2 Spike ID# : B + LNO3 - 99-y TV = 20.0 (K66) TV = 2.00 (K726)

Buvne,CCV ID# : B + LNO3 - 87-E TV = 2.00 Results Summary

BRAN+LUEBBE

Post-run report

Name of Run : 110127A
 Date of Report : 1/27/2011
 Date of Run : 1/27/2011
 Operator :
 Comment :

Name of Analysis : NO₂+NO₃
 System No. : 1
 Type of System : AA3
 Start/Stop time : 10:30 - 11:54

Channel : 2
 Method : Method 2
 Unit : mg/L
 Calibr. Fit : Linear
 Corr. Coeff. : 1.0000
 Base : -26029
 Gain : 5
 Sensitivity : 1.5620
 Sample Limit 1 :
 Sample Limit 2 :

Pk	Cup	Sample	Id	Value
0	0	B	Baseline	-0.0139
1	1	P	primer	4.9849
2	1	D	Drift	4.9719
3	1	C	5.00	4.9958
4	2	C	2.00	2.0098
5	3	C	0.50	0.5026
6	4	C	0.05	0.0463
7	5	C	0	-0.0045
8	1	H1	High	4.9833
9	0	L1	Low	-0.0095
10	0	L1	Low	-0.0095
11	9	QC3	ICV	1.9374
12	5	QC2	ICB	-0.0067
13	5	QC2	CCB1	-0.0101
14	2	QC1	CCV1	1.9834
15	10	QC4	LCS1*10	1.5352
16	11	S	MB MS	2.0055
17	0	N	Null	-0.0147N
18	5	QC2	MB1	-0.0084
19	12	S	k1100731-002	6.9532* NR
20	13	S	k1100659-001	0.2011 NR
21	14	S	k1100659-002	0.3225
22	15	S	rinse	-0.0104
23	16	S	k1100661-001	15.5563* NR
24	0	B	Baseline	-0.0139
25	5	QC2	CCB2	-0.0073
26	2	QC1	CCV2	1.9855

01/27/11
 J. M. Jones

27	17	S	k1100661-001d	15.5217*
28	18	S	k1100661-001ms	15.4917*
29	19	S	k1100661-001msd	15.4862*
30	20	S	k1100661-002	15.4806*
31	21	S	k1100661-003	15.4748*
32	22	S	k1100661-004	15.4693*
33	23	S	k1100661-005	7.5752*
34	24	S	k1100661-006	0.0402
35	25	S	k1100661-007	0.1460
36	0	B	Baseline	-0.0139
37	5	QC2	CCB3	0.0008
38	2	QC1	CCV3	1.9815
39	26	S	k1100726-001	0.1619
40	27	S	k1100726-001d	0.1582
41	28	S	k1100726-001ms	2.2133
42	29	S	k1100726-001msd	2.2052
43	30	S	k1100726-002	0.0357
44	31	S	k1100726-003	0.1615
45	32	S	k1100726-004	-0.0045
46	33	S	k1100726-005	0.0503
47	34	S	k1100726-006	0.0613
48	0	B	Baseline	-0.0139
49	5	QC2	CCB4	-0.0066
50	2	QC1	CCV4	1.9808
51	13	S	k1100659-001	0.1969
52	35	S	k1100661-001*10	1.7933
53	36	S	k1100661-001d*10	1.8114
54	37	S	k1100661-001ms*10	3.8371
55	38	S	k1100661-001msd*10	3.8156
56	39	S	k1100661-002*10	0.9355
57	40	S	k1100661-003*10	5.0757
58	41	S	k1100661-004*10	1.3206
59	42	S	k1100661-005*5	1.4109
60	0	B	Baseline	-0.0139
61	5	QC2	CCB5	-0.0047
62	2	QC1	CCV5	1.9789
63	24	S	k1100661-006	0.0082
64	0	B	Baseline	-0.0139
65	5	QC2	CCB6	-0.0071
66	2	QC1	CCV6	1.9565
67	1	D	Drift	4.9719
68	0	B	Baseline	-0.0139
69	0	B	FinalBase	-0.0139

QC Limits

Channel	:
QC 1	Unused
QC 2	Unused
QC 3	Unused
QC 4	Unused
QC 5	Unused

2

01/27/11

Fawcett

QC 6	Unused
QC 7	Unused
QC 8	Unused
QC 9	Unused
QC10	Unused

CORRECTIONS

Channel :	2
Baseline :	Yes
Drift :	Yes
Carry over :	Yes
%:	0.2

* ... Sample offscale
+ ... Result higher than sample limit
- ... Result lower than sample limit
P ... Standard passed
F ... Standard failed
N ... Value not calculated or not used
R ... Resample after offscale
M ... Peak marker moved manually
D ... Diluted sample

** <END OF REPORT> **

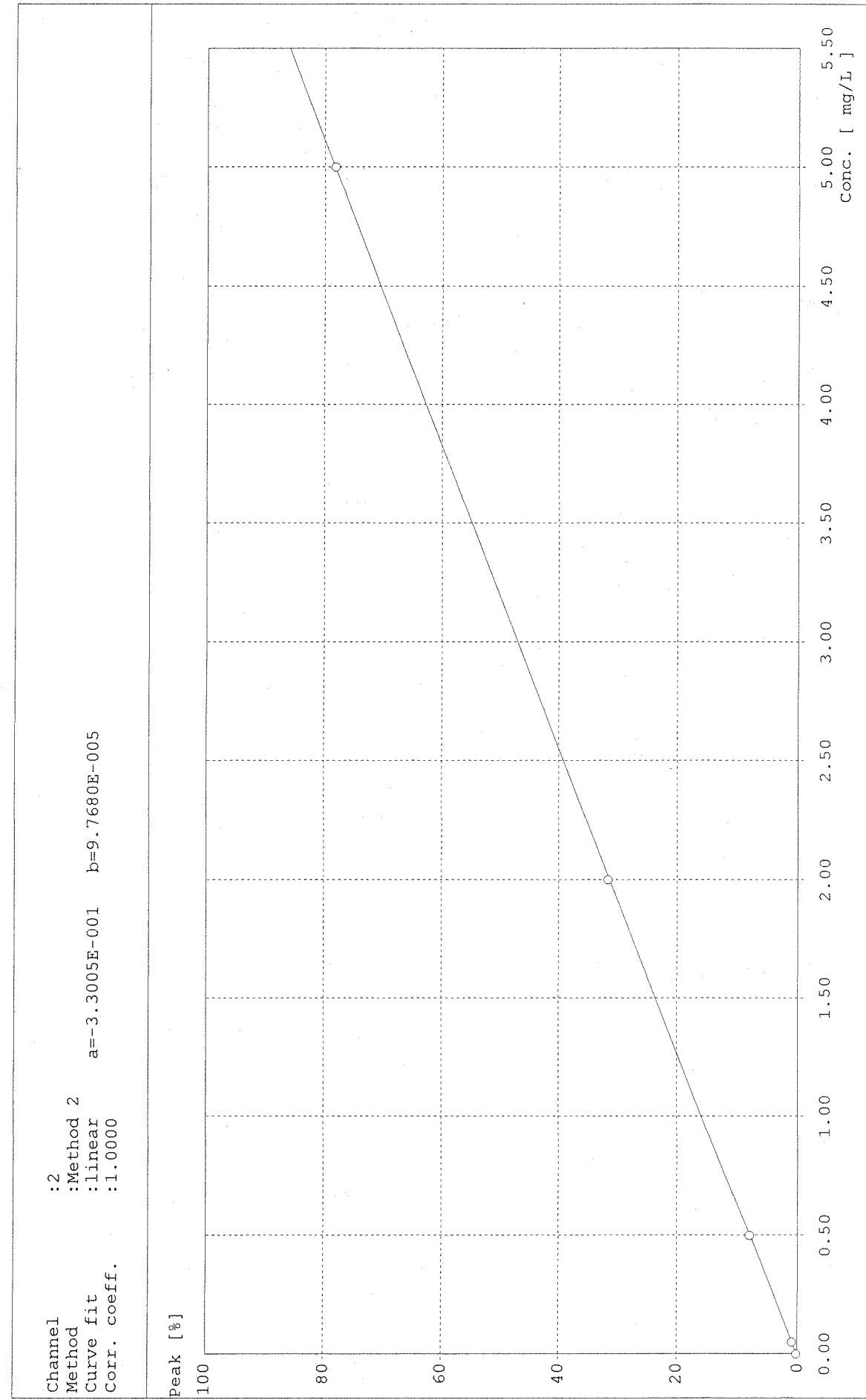
01/27/11
Hawkins

BRAN+LUEBBE

Calibration Curve

Name of run : 110127A.run
Comment :

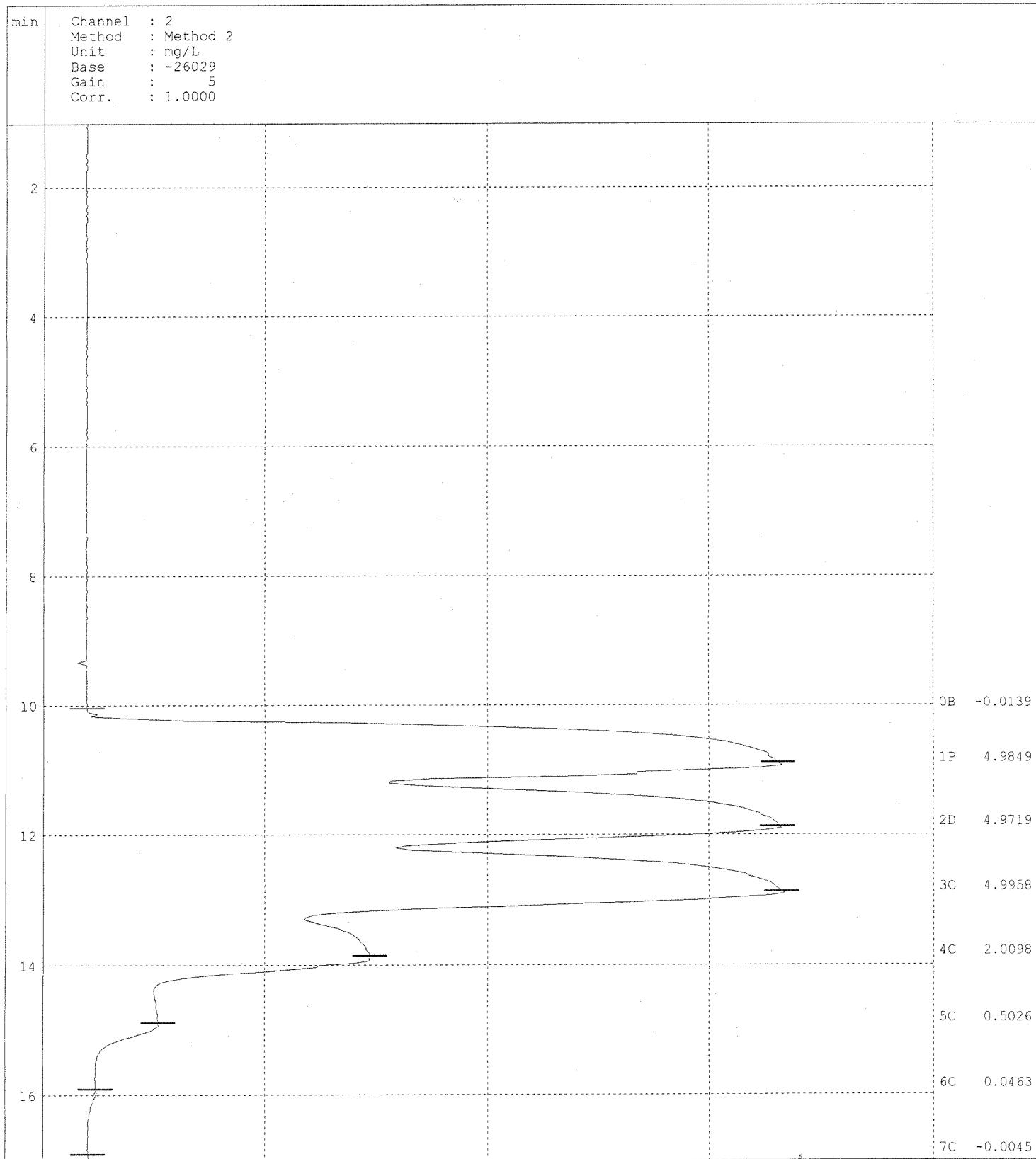
Name of analysis : NO2+NO3



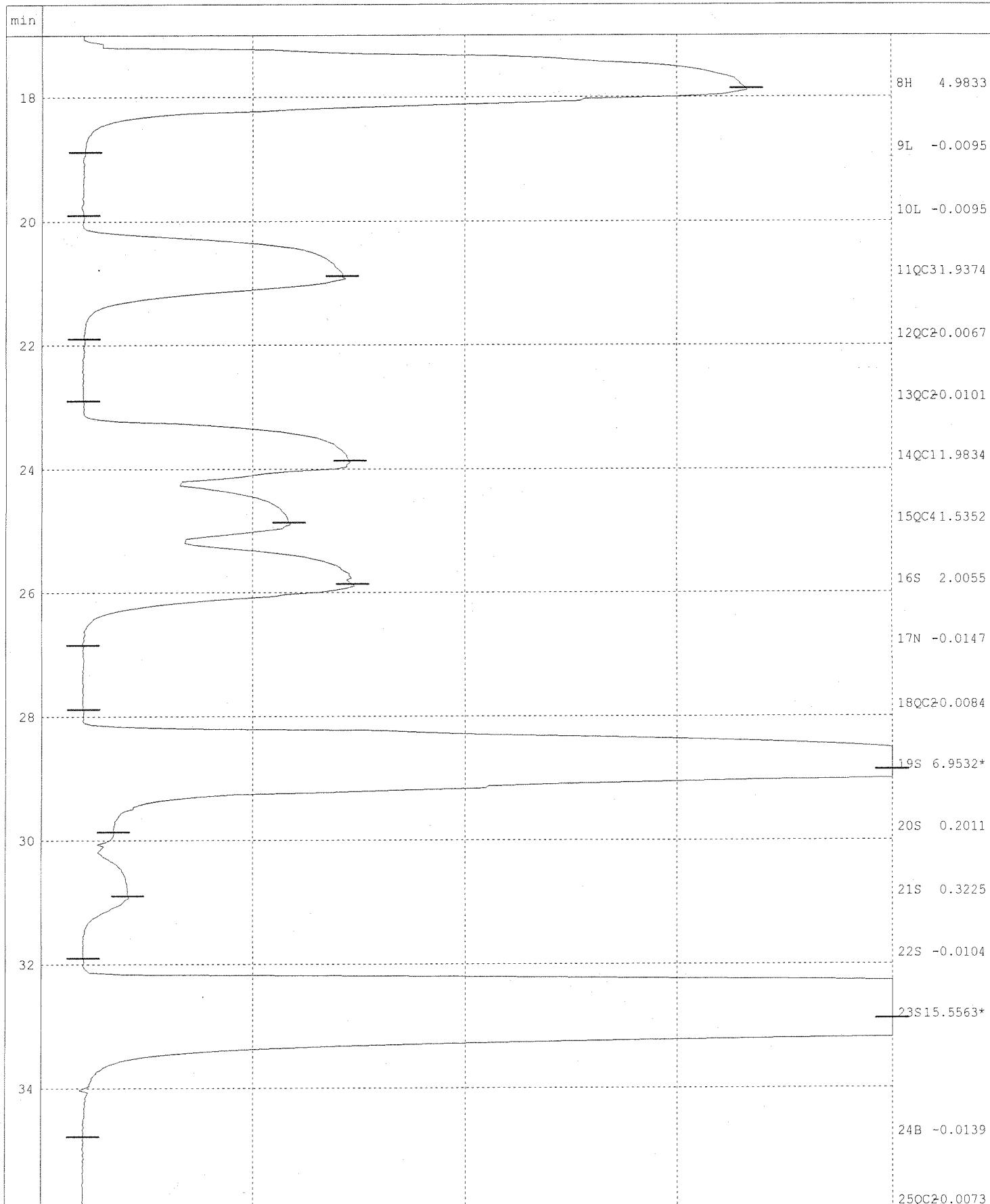
BRAN+LUEBBE

Post-run chart

Name of run : 110127A.RUN
 Comment :

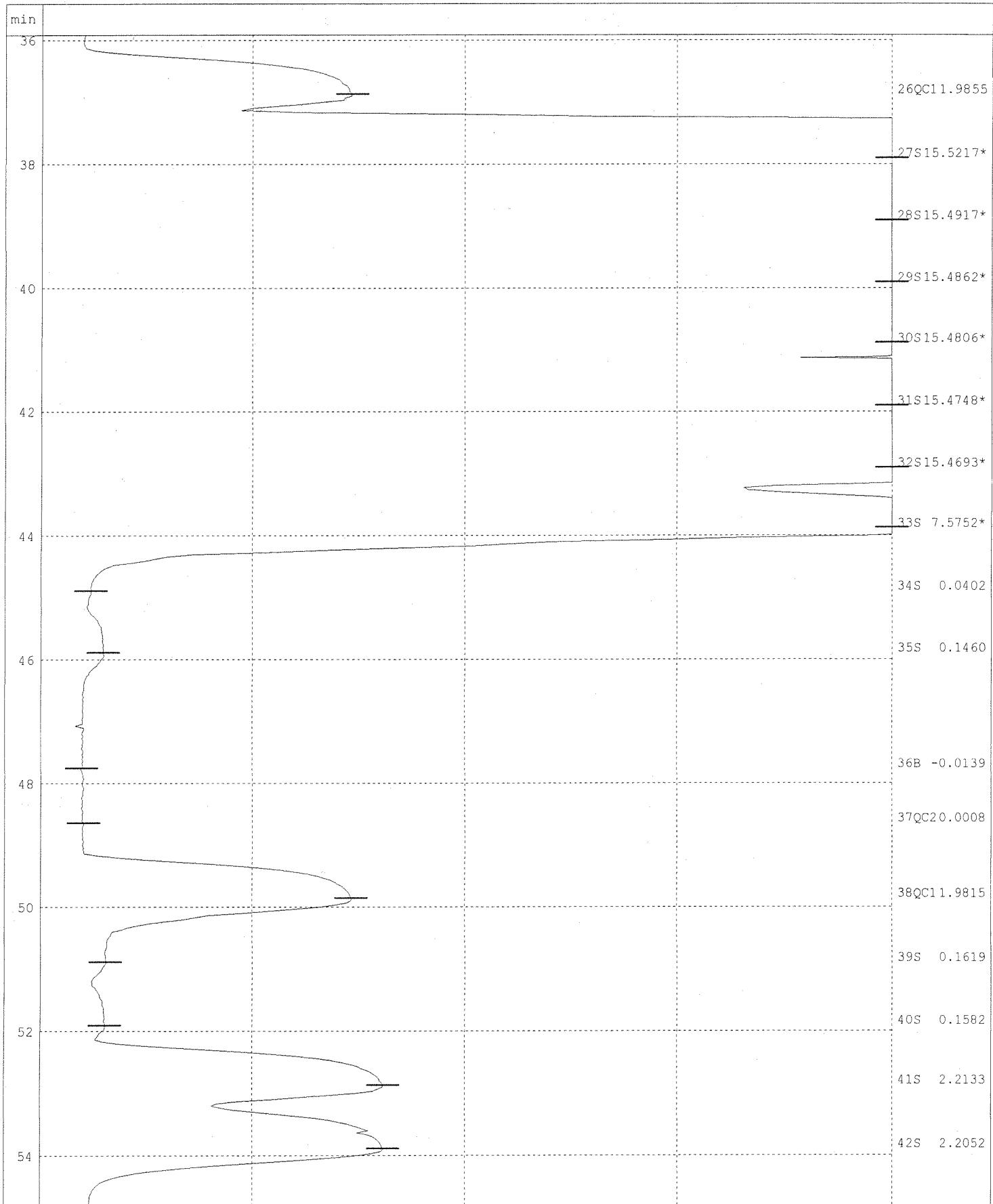
Name of analysis : NO₂+NO₃

Name of run : 110127A.RUN
Comment :

Name of analysis : NO₂+NO₃

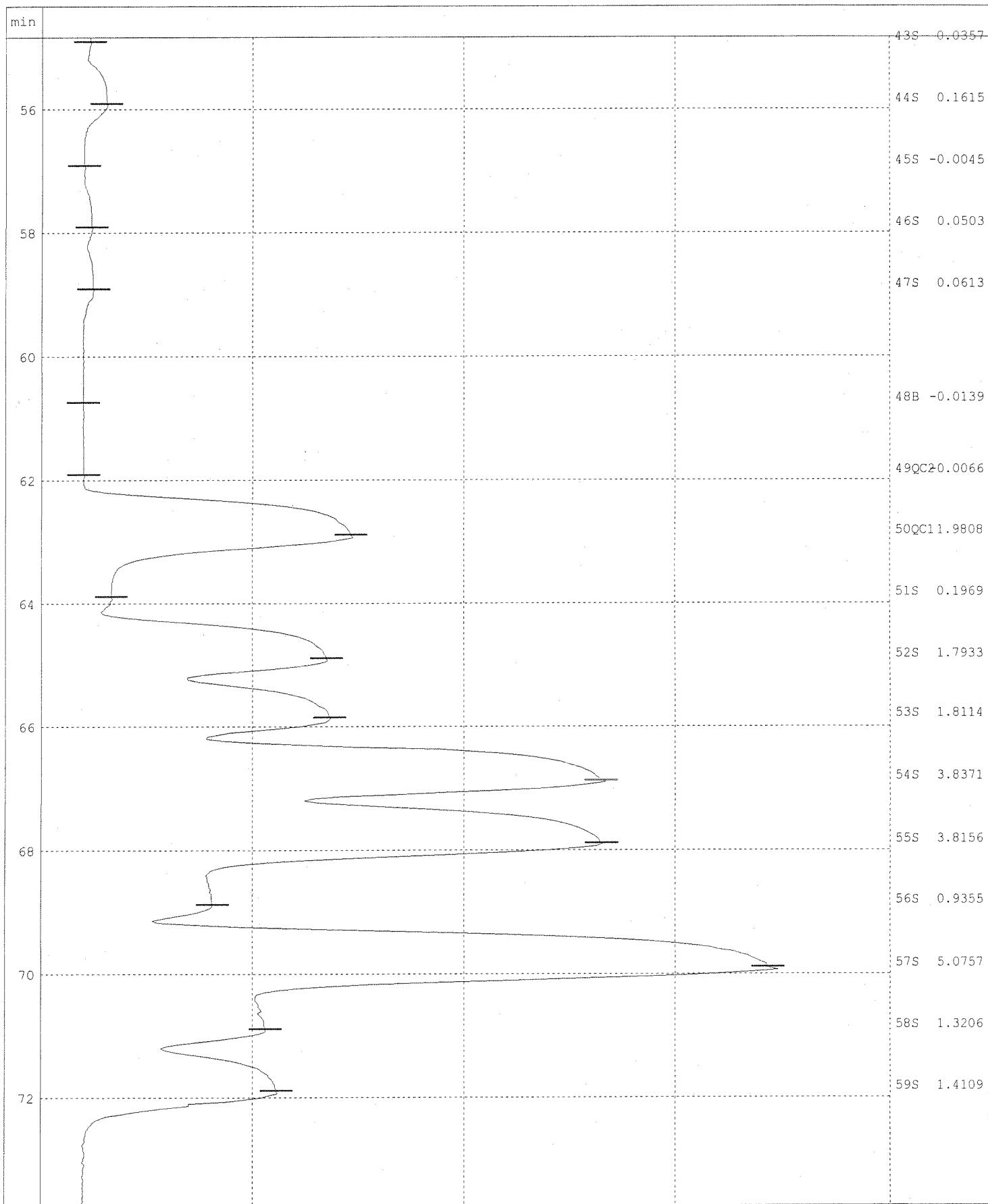
Name of run :110127A.RUN
Comment :

Name of analysis :NO2+NO3

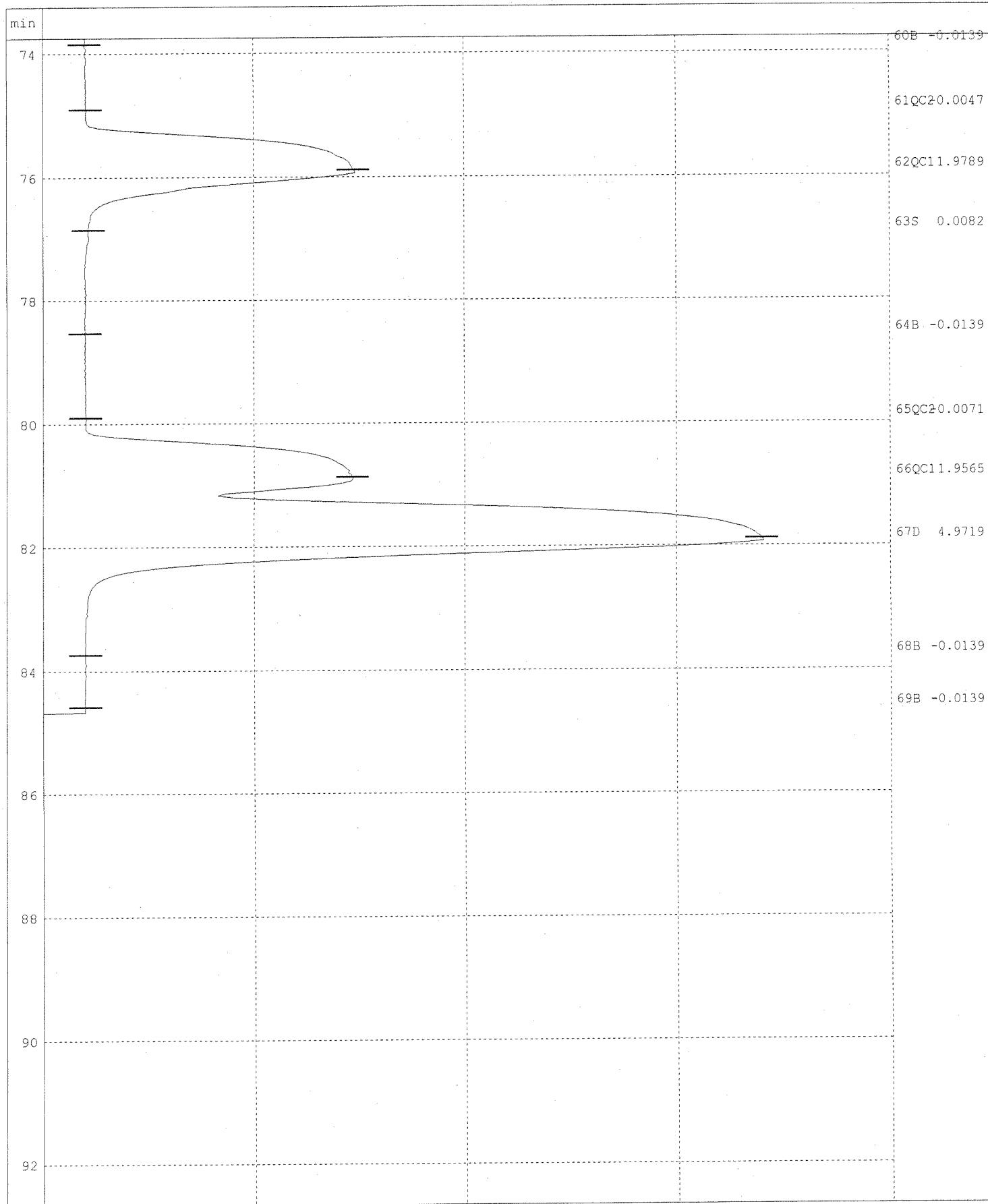


Name of run :110127A.RUN
Comment :

Name of analysis :NO2+NO3



Name of run : 110127A.RUN
Comment :

Name of analysis : NO₂+NO₃

Original
Work Request # (K0692) K0661 K0731 K0778 K0764 K0712

Tier: III III I I II I

Date Analyzed: 1/31/11

Analyst: B. H. Etland

Analysis: NO₂/NO₃ - N / 353.2

DATA QUALITY REPORT
INORGANICS

Run# 234379

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate? yes/no/NA
2. Holding times met for all analyses and for all samples? yes/no/NA
3. Are calculations correct? yes/no/NA
4. Is the reporting basis correct? (Dry Weight) yes/no/NA
5. All quality control criteria met?
 - a. Is the calibration curve correlation coefficient ≥ 0.995 ? yes/no/NA
 - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? yes/no/NA
 - c. Are ICVs, CCVs, and CCBs all within acceptance limits? yes/no/NA
 - d. Are results for methods blanks all ND? yes/no/NA
 - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) yes/no/NA
 - f. Are all exceptions explained? yes/no/NA
6. Are all service requests that apply attached? yes/no/NA
7. Are all samples labelled correctly? yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample) yes/no/NA
9. Are detection limits and units reported correctly? yes/no/NA
10. Are proper Analysis/Extraction stickers included on report? yes/no/NA
11. Is the unused space on the benchsheet crossed out? yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#) yes/no/NA

COMMENTS:

12.) K0731 Rush due 2/2/11

Final Approved by: BDK Date: 1/31/11 DOREPORT

Analytical Results Summary

Analyst: BHETLAND

Analysis Lot: 234379 Method/Testcode: 353.2/NO2 NO3 T

<u>Instrument Name:</u> K-FIA-01	<u>Target Analytes</u>	<u>OC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>PQL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC?</u>	<u>Tier</u>
30661-003	Nitrate+Nitrite as Nitrogen	N/A		Water	2.69 mg/L	5 mL	53.8 mg/L	20	0.2	1.0	1322	N	IV		
30661-004	Nitrate+Nitrite as Nitrogen	N/A		Water	1.42 mg/L	5 mL	14.2 mg/L	10	0.09	0.50	1322	N	IV		
00692-001	Nitrate+Nitrite as Nitrogen	N/A		Water	1.18 mg/L	5 mL	29.4 mg/L	25	0.3	1.3	1322	N	IV		
00692-002	Nitrate+Nitrite as Nitrogen	N/A		Water	1.18 mg/L	5 mL	29.5 mg/L	25	0.3	1.3	1322	N	IV		
00692-003	Nitrate+Nitrite as Nitrogen	N/A		Water	0.02 mg/L	5 mL	0.020 mg/L	BJ	1	0.009	0.050	1322	N	IV	
00712-001	Nitrate+Nitrite as Nitrogen	N/A		Drinking Water	0.32 mg/L	5 mL	0.318 mg/L	1	0.009	0.050	1322	N	I		
00731-002	Nitrate+Nitrite as Nitrogen	N/A		Water	0.71 mg/L	5 mL	7.09 mg/L	10	0.09	0.50	1322	N	I		
00766-001	Nitrate+Nitrite as Nitrogen	N/A		Water	2.78 mg/L	5 mL	2.78 mg/L	1	0.009	0.050	1322	N	II		
00766-002	Nitrate+Nitrite as Nitrogen	N/A		Water	2.46 mg/L	5 mL	2.46 mg/L	1	0.009	0.050	1322	N	II		
00766-003	Nitrate+Nitrite as Nitrogen	N/A		Water	2.68 mg/L	5 mL	2.68 mg/L	1	0.009	0.050	1322	N	II		
00766-004	Nitrate+Nitrite as Nitrogen	N/A		Water	2.72 mg/L	5 mL	2.72 mg/L	1	0.009	0.050	1322	N	II		
00766-005	Nitrate+Nitrite as Nitrogen	N/A		Water	2.99 mg/L	5 mL	2.99 mg/L	1	0.009	0.050	1322	N	II		
00766-006	Nitrate+Nitrite as Nitrogen	N/A		Water	2.15 mg/L	5 mL	2.15 mg/L	1	0.009	0.050	1322	N	II		
00766-007	Nitrate+Nitrite as Nitrogen	N/A		Water	1.46 mg/L	5 mL	1.46 mg/L	1	0.009	0.050	1322	N	II		
00766-008	Nitrate+Nitrite as Nitrogen	N/A		Water	1.68 mg/L	5 mL	1.68 mg/L	1	0.009	0.050	1322	N	II		
00766-009	Nitrate+Nitrite as Nitrogen	N/A		Water	1.31 mg/L	5 mL	1.31 mg/L	1	0.009	0.050	1322	N	II		
00766-010	Nitrate+Nitrite as Nitrogen	N/A		Water	1.78 mg/L	5 mL	1.78 mg/L	1	0.009	0.050	1322	N	II		
00766-011	Nitrate+Nitrite as Nitrogen	N/A		Water	1.76 mg/L	5 mL	1.76 mg/L	1	0.009	0.050	1322	N	II		
100766-012	Nitrate+Nitrite as Nitrogen	N/A		Water	0.03 mg/L	5 mL	0.050 mg/L	U	1	0.009	0.050	1322	N	II	
100778-001	Nitrate+Nitrite as Nitrogen	N/A		Water	0.08 mg/L	5 mL	0.078 mg/L	1	0.009	0.050	1322	N	II		
1100875-01	Nitrate+Nitrite as Nitrogen	MB		Water	0.02 mg/L	5 mL	0.017 mg/L	J	1	0.009	0.050	1322	N	IV	261
1100875-02	Nitrate+Nitrite as Nitrogen	LCS		Water	1.55 mg/L	5 mL	15.5 mg/L	10	0.09	0.50	102	1322	N	IV	
1100875-03	Nitrate+Nitrite as Nitrogen	CCV		Water	1.99 mg/L	5 mL	1.99 mg/L	1	0.009	0.050	1322	N	IV		
1100875-04	Nitrate+Nitrite as Nitrogen	CCV		Water	1.99 mg/L	5 mL	1.99 mg/L	1	0.009	0.050	1322	N	IV		
1100875-05	Nitrate+Nitrite as Nitrogen	CCV		Water	1.97 mg/L	5 mL	1.97 mg/L	1	0.009	0.050	1322	N	IV		
1100875-06	Nitrate+Nitrite as Nitrogen	CCV		Water	2.02 mg/L	5 mL	2.02 mg/L	1	0.009	0.050	1322	N	IV		
1100875-07	Nitrate+Nitrite as Nitrogen	CCV		Water	1.97 mg/L	5 mL	1.97 mg/L	1	0.009	0.050	1322	N	IV		
1100875-08	Nitrate+Nitrite as Nitrogen	CCB		Water	0.01 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050	1322	N	IV	
1100875-09	Nitrate+Nitrite as Nitrogen	CCB		Water	0.02 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050	1322	N	IV	
1100875-10	Nitrate+Nitrite as Nitrogen	CCB		Water	0.01 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050	1322	N	IV	
1100875-11	Nitrate+Nitrite as Nitrogen	CCB		Water	0.02 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050	1322	N	IV	
1100875-12	Nitrate+Nitrite as Nitrogen	CCB		Water	0.03 mg/L	5 mL	0.050 mg/L	U	1	0.050	0.050	1322	N	IV	
1100875-13	Nitrate+Nitrite as Nitrogen	MS	K1100766-001	Water	4.65 mg/L	5 mL	4.65 mg/L	1	0.009	0.050	93	1322	N	II	
1100875-14	Nitrate+Nitrite as Nitrogen	DMS	K1100766-001	Water	4.76 mg/L	5 mL	4.76 mg/L	1	0.009	0.050	99	2	1322	N	II
1100875-15	Nitrate+Nitrite as Nitrogen	DUP	K1100766-001	Water	2.81 mg/L	5 mL	2.81 mg/L	1	0.009	0.050	<1	1322	N	II	

Indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

med 1/31/11 15:32

BPL *BNK W/D* *UV = 0.0313 - 74.6 T.V. + 2.0 mg/l*
Conc., BPL UV = 1.839 - 5.6 T.V. + 2.0 mg/l
SLR: CBLN03 / 1-99-4A T.V. = 2.0 mg/l

BRAN+LUEBBE

Post-run report

Name of Run : 110131B
 Date of Report : 1/31/2011
 Date of Run : 1/31/2011
 Operator :
 Comment :

Name of Analysis : NO₂+NO₃
 System No. : 1
 Type of System : AA3
 Start/Stop time : 13:22 - 14:46

Channel : 2
 Method : Method 2
 Unit : mg/L
 Calibr. Fit : Linear
 Corr. Coeff. : 1.0000
 Base : -26161
 Gain : 5
 Sensitivity : 1.5391
 Sample Limit 1 :
 Sample Limit 2 :

BDR

1/31/11

Pk	Cup	Sample Id	Value
0	0	B Baseline	-0.0041
1	1	P primer	5.0101
2	1	D Drift	5.0307
3	1	C 5.00	5.0049
4	2	C 2.00	1.9878
5	3	C 0.50	0.4987
6	4	C 0.05	0.0549
7	5	C 0	0.0037
8	1	H1 High	5.0729
9	0	L1 Low	0.0065
10	0	L1 Low	0.0069
11	9	QC3 ICV	1.9652 99
12	5	QC2 ICB	0.0091
13	5	QC2 CCB1	0.0089
14	2	QC1 CCV1	1.9900
15	10	QC4 LCS1*10	1.5507
16	11	S MB MS	2.0016 100
17	0	N Null	0.0403N
18	5	QC2 MB1	0.0168
19	12	S k1100692-001*25	1.1760
20	13	S k1100692-002*25	1.1791
21	14	S 0692-2 10x nr	2.9023 NR
22	15	S 0692-2 nr	15.9953* NR
23	16	S rinse	0.1953
24	0	B Baseline	-0.0041
25	5	QC2 CCB2	0.0248
26	2	QC1 CCV2	1.9906

64 1/31/11

27	17	S	k1100692-003	0.0198
28	18	S	0661-3 10x nr	5.3875 <i>NR</i>
29	19	S	0661-4 10x nr	1.4138 <i>NR</i>
30	20	S	k1100731-002*10	0.7091
31	21	S	k1100778-001	0.0779
32	22	S	k1100766-001	2.7809
33	23	S	k1100766-001d	2.8052
34	24	S	k1100766-001ms	4.6463
35	25	S	k1100766-001msd	4.7603
36	0	B	Baseline	-0.0041
37	5	QC2	CCB3	0.0149
38	2	QC1	CCV3	1.9699
39	26	S	k1100766-002	2.4552
40	27	S	k1100766-003	2.6846
41	28	S	k1100766-004	2.7154
42	29	S	k1100766-005	2.9926
43	30	S	k1100766-006	2.1549
44	31	S	k1100766-007	1.4616
45	32	S	k1100766-008	1.6751
46	33	S	k1100766-009	1.3092
47	34	S	k1100766-010	1.7830
48	0	B	Baseline	-0.0041
49	5	QC2	CCB4	0.0194
50	2	QC1	CCV4	2.0181
51	35	S	k1100766-011	1.7582
52	36	S	k1100766-012	0.0297
53	37	S	k1100712-001	0.3184
54	38	S	rinse	0.0215
55	39	S	k1100661-003*20	2.6896
56	19	S	k1100661-004*10	1.4173
57	0	B	Baseline	-0.0041
58	5	QC2	CCB5	0.0320
59	2	QC1	CCV5	1.9680
60	1	D	Drift	5.0307
61	0	B	Baseline	-0.0041
62	0	B	FinalBase	0.0000

QC Limits

Channel	:
QC 1	Unused
QC 2	Unused
QC 3	Unused
QC 4	Unused
QC 5	Unused
QC 6	Unused
QC 7	Unused
QC 8	Unused
QC 9	Unused
QC10	Unused

CORRECTIONS

Channel :	2
Baseline :	Yes
Drift :	Yes
Carry over :	Yes
%:	0.9

* ... Sample offscale
+ ... Result higher than sample limit
- ... Result lower than sample limit
P ... Standard passed
F ... Standard failed
N ... Value not calculated or not used
R ... Resample after offscale
M ... Peak marker moved manually
D ... Diluted sample

** <END OF REPORT> **

6/4/13/11/11

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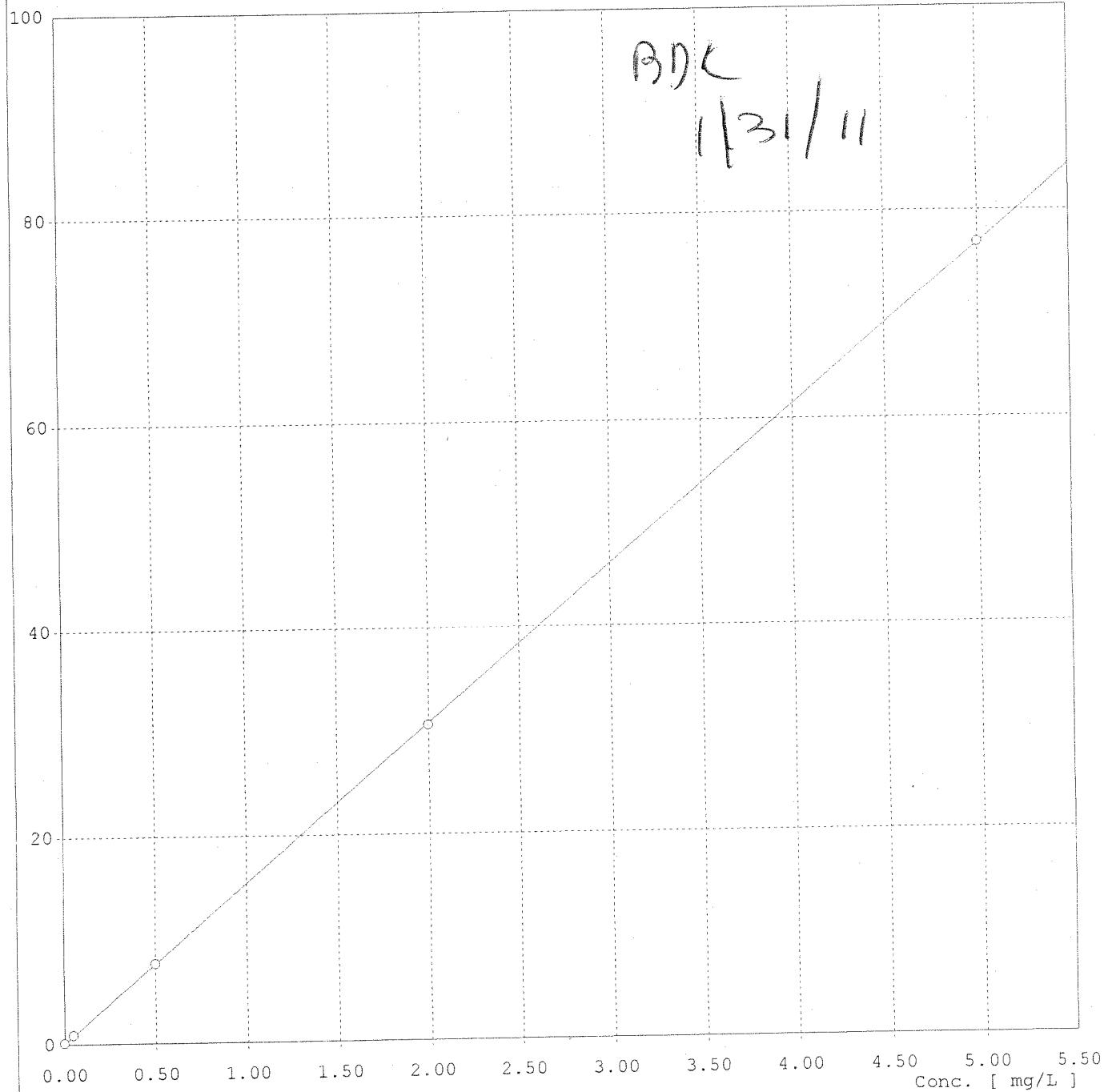
Calibration Curve

Name of run :110131B.run
Comment :

Name of analysis :NO2+NO3

Channel :2
Method :Method 2
Curve fit :linear $a = -3.2937 \times 10^{-3}$ $b = 9.9448 \times 10^{-3}$
Corr. coeff. :1.0000

Peak [%]



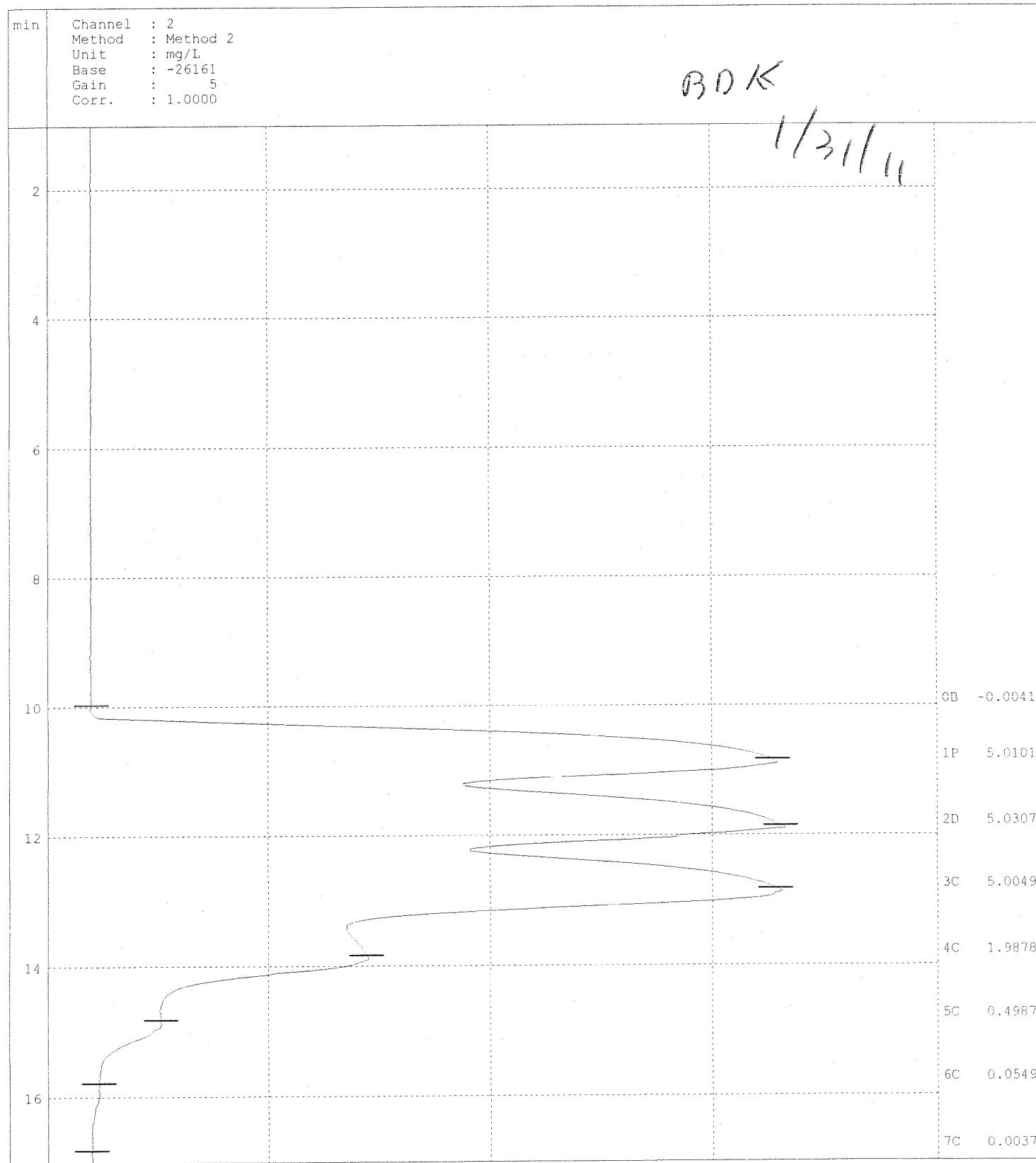
BRAN+LUEBBE

Post-run chart

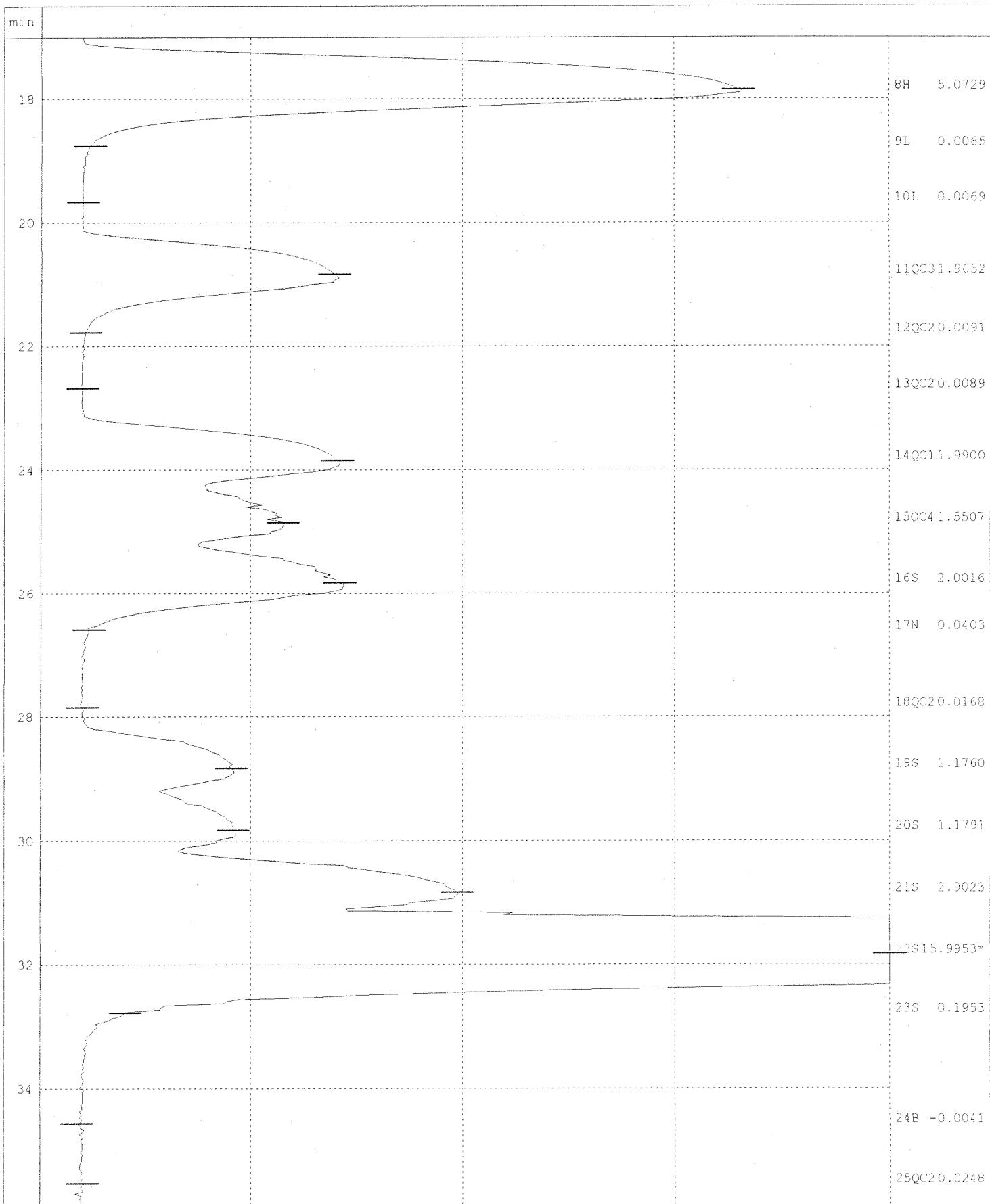
Name of run : 110131B.RUN

Comment :

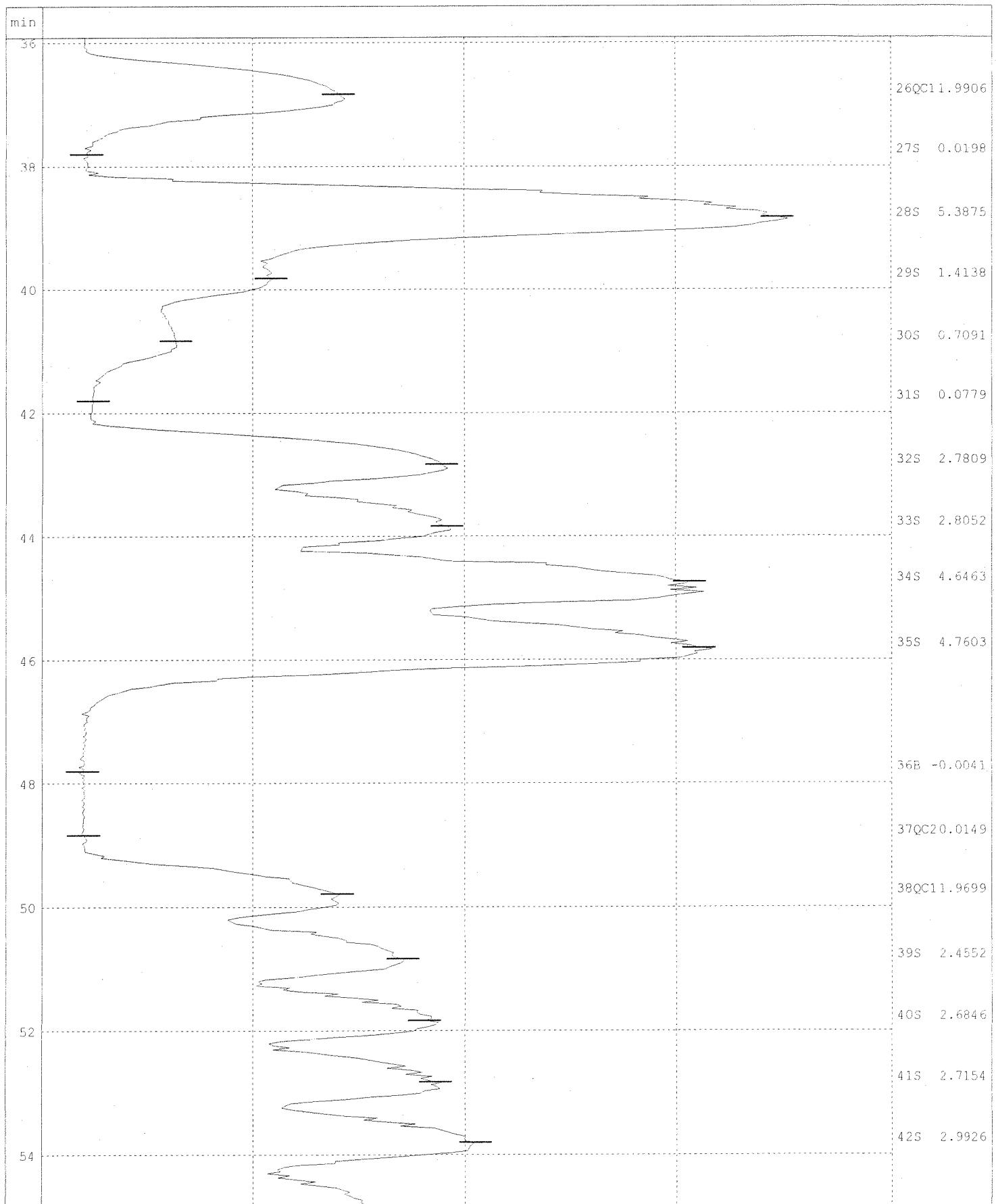
Name of analysis : NO2+NO3



Name of run : 110131B.RUN
 Comment :

Name of analysis : NO₂+NO₃

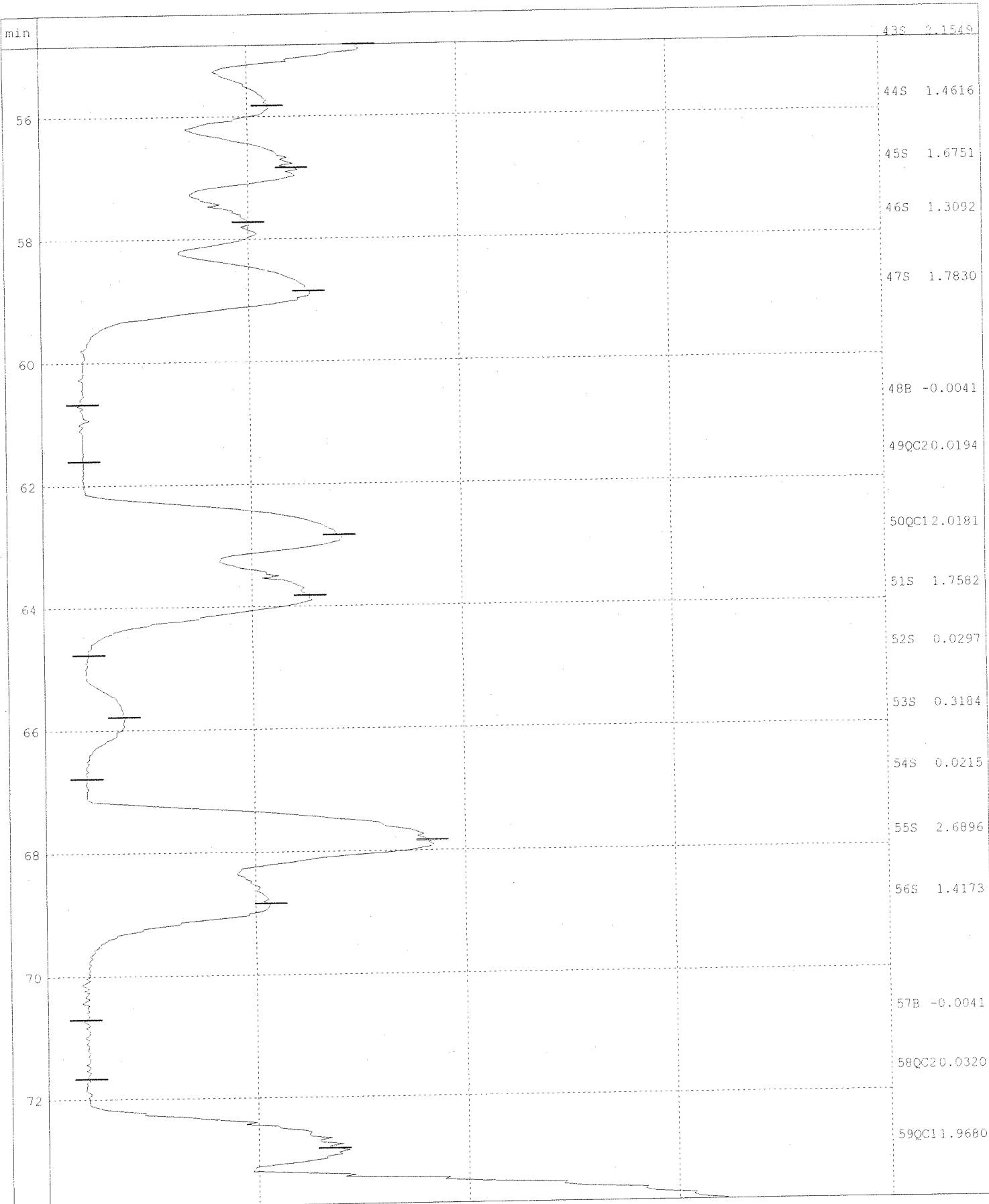
Name of run : 110131B.RUN
 Comment :

Name of analysis : NO₂+NO₃

Name of run :110131B.RUN

Name of analysis :NO₂+NO₃

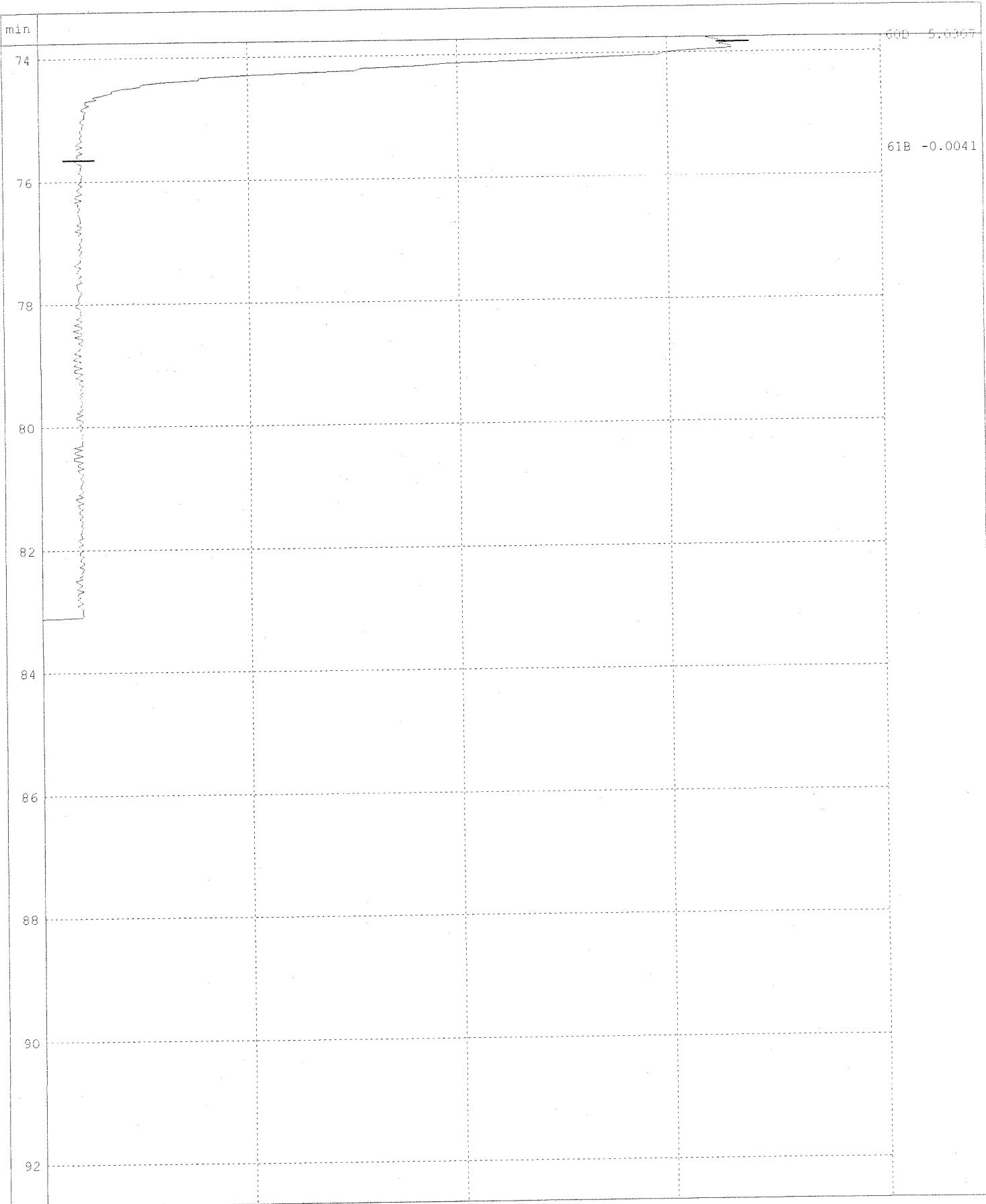
Comment :



Name of run :110131B.RUN

Name of analysis :NO2+NO3

Comment :



Work Request # KO681

Original

Tier: IV IDate Analyzed: 11/26/11Analyst: KCAnalysis: TDS

DATA QUALITY REPORT INORGANICS

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate? yes/no/NA
2. Holding times met for all analyses and for all samples? yes/no/NA
3. Are calculations correct? yes/no/NA
4. Is the reporting basis correct? (Dry Weight) yes/no/NA
5. All quality control criteria met?
 - a. Is the calibration curve correlation coefficient ≥ 0.995 ? yes/no/NA
 - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? yes/no/NA
 - c. Are ICVs, CCVs, and CCBs all within acceptance limits? yes/no/NA
 - d. Are results for methods blanks all ND? yes/no/NA
 - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) yes/no/NA
 - f. Are all exceptions explained? yes/no/NA
6. Are all service requests that apply attached? yes/no/NA
7. Are all samples labelled correctly? yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample) yes/no/NA
9. Are detection limits and units reported correctly? yes/no/NA
10. Are proper Analysis/Extraction stickers included on report? yes/no/NA
11. Is the unused space on the benchsheet crossed out? yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#) yes/no/NA

COMMENTS:

Final Approved by: BZ Date: 1/28/14 DQREPORT

Analytical Results Summary

Instrument Name: K-Balance-31 **Analyst:** KCUEVAS **Analysis Lot:** 233872 **Method/Testcode:** SM 2540 C/TDS

<u>Lab.Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>POL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>
K1100661-001	Solids, Total Dissolved	N/A	Water	Water	532.00 mg/L	100 ml	532 mg/L	1	10	10	10	1/26/11 08:00	N	IV
K1100661-002	Solids, Total Dissolved	N/A	Water	Water	457.00 mg/L	100 ml	457 mg/L	1	10	10	10	1/26/11 08:00	N	IV
K1100661-003	Solids, Total Dissolved	N/A	Water	Water	1545.30 mg/L	75 ml	1550 mg/L	1	14	14	14	1/26/11 08:00	N	IV
K1100661-004	Solids, Total Dissolved	N/A	Water	Water	500.00 mg/L	100 ml	500 mg/L	1	10	10	10	1/26/11 08:00	N	IV
K1100661-005	Solids, Total Dissolved	N/A	Water	Water	425.00 mg/L	100 ml	425 mg/L	1	10	10	10	1/26/11 08:00	N	IV
K1100661-006	Solids, Total Dissolved	N/A	Water	Water	1.50 mg/L	200 ml	5.0 mg/L	U	1	5.0	5.0	1/26/11 08:00	N	IV
K1100661-007	Solids, Total Dissolved	N/A	Water	Water	6.00 mg/L	200 ml	6.0 mg/L	1	5.0	5.0	5.0	1/26/11 08:00	N	IV
K1100661-001	Solids, Total Dissolved	N/A	Drinking Water	Water	181.00 mg/L	100 ml	181 mg/L	1	10	10	10	1/26/11 08:00	N	I
KQ1100741-01	Solids, Total Dissolved	DUP	K1100661-003	Water	1583.30 mg/L	75 ml	1590 mg/L	1	14	14	14	1/26/11 08:00	N	IV
KQ1100741-02	Solids, Total Dissolved	MB	Water	Water	0.50 mg/L	200 ml	5.0 mg/L	U	1	5.0	5.0	1/26/11 08:00	N	IV
KQ1100741-03	Solids, Total Dissolved	LCS	Water	Water	1050.00 mg/L	50 ml	1050 mg/L	1	20	20	96	1/26/11 08:00	N	IV

indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

COLUMBIA ANALYTICAL SERVICES, INC.

233872

Work Order #: KO681, KO681
Analysis: Total Dissolved Solids

Method: EPA SM 2540 C

Calculation: Dissolved Solids (mg/L) = Wt. Dry Sample (g) x 1000 x 1000 / Volume (ml)

Balance#31

APG #4033 Lot# 280610

ID# TDS-1-28-EE

T.V. = 1090

% Rec = 91.

Wt (1)	Start	9:00		Wt (2)	Start 06:00		Wt (3)	Start _____		
	Stop	5:00			Stop 07:00			Stop		
Wt (1)	Start	180		Wt (2)	Start 180		Wt (3)	Start _____		
Temp	Stop	180		Temp	Stop 180		Temp	Stop _____	date	time

Analyzed By: KC

Date Analyzed:

26/2011

8:00

Reviewed By:

Date Reviewed:

1128/1

Koleksi-3/3d $\bar{x} = 1570$ RPD = 3

Original

Work Request # (0042) 00726 ~~0001~~

Tier: V V IV

Date Analyzed: 1/26/11

Analyst: CR

Analysis: Alkenanburst

DATA QUALITY REPORT INORGANICS

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate? yes/no/NA
2. Holding times met for all analyses and for all samples? yes/no/NA
3. Are calculations correct? yes/no/NA
4. Is the reporting basis correct? (Dry Weight) yes/no/NA
5. All quality control criteria met?
 - a. Is the calibration curve correlation coefficient ≥ 0.995 ? yes/no/NA
 - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? yes/no/NA
 - c. Are ICVs, CCVs, and CCBs all within acceptance limits? yes/no/NA
 - d. Are results for methods blanks all ND? yes/no/NA
 - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) yes/no/NA
 - f. Are all exceptions explained? yes/no/NA
6. Are all service requests that apply attached? yes/no/NA
7. Are all samples labelled correctly? yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample) yes/no/NA
9. Are detection limits and units reported correctly? yes/no/NA
10. Are proper Analysis/Extraction stickers included on report? yes/no/NA
11. Is the unused space on the benchsheet crossed out? yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#) yes/no/NA

COMMENTS:

No form fine for either SR.

Both Rushes

Final Approved by: BDK Date: 1/27/11 DOREPORT

Analytical Results Summary

Instrument Name: K-pH-01

Analyst: CVECCHITTO

Analysis Lot: 233926

Method/Testcode: SM 2320 B/Alkalinity Tit

<u>ab Code</u>	<u>Target Analytes</u>	<u>OC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>PQL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>	
1100642-002	Alkalinity as CaCO ₃ , Total N/A		Water	6.50 mg/L	30 mL	6.5 mg/L J 1	3.0	9.0		1/26/11 13:00:00	N	V			
1100642-003	Alkalinity as CaCO ₃ , Total N/A		Water	0.90 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	V			
1100642-007	Alkalinity as CaCO ₃ , Total N/A		Water	3.40 mg/L	30 mL	3.4 mg/L J 1	3.0	9.0		1/26/11 13:00:00	N	V			
1100642-008	Alkalinity as CaCO ₃ , Total N/A		Water	5.00 mg/L	30 mL	5.0 mg/L J 1	3.0	9.0		1/26/11 13:00:00	N	V			
1100642-009	Alkalinity as CaCO ₃ , Total N/A		Water	9.50 mg/L	30 mL	9.5 mg/L 1	3.0	9.0		1/26/11 13:00:00	N	V			
1100661-006	Alkalinity as CaCO ₃ , Total N/A		Water	0.60 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	IV			
1100661-006	Bicarbonate as CaCO ₃ N/A		Water	0.60 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	IV			
1100661-006	Carbonate as CaCO ₃ N/A		Water	0.00 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	IV			
1100661-006	Hydroxide as CaCO ₃ N/A		Water	0.00 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	IV			
1100661-007	Alkalinity as CaCO ₃ , Total N/A		Water	1.40 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	IV			
1100661-007	Bicarbonate as CaCO ₃ N/A		Water	1.40 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	IV			
1100661-007	Carbonate as CaCO ₃ N/A		Water	0.00 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	IV			
1100661-007	Hydroxide as CaCO ₃ N/A		Water	0.00 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	IV			
1100725-001	Alkalinity as CaCO ₃ , Total N/A		Water	9.10 mg/L	30 mL	9.1 mg/L 1	3.0	9.0		1/26/11 13:00:00	N	V			
1100725-003	Alkalinity as CaCO ₃ , Total N/A		Water	8.20 mg/L	30 mL	8.2 mg/L J 1	3.0	9.0		1/26/11 13:00:00	N	V ^{TO}			
1100726-004	Alkalinity as CaCO ₃ , Total N/A		Water	0.00 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	V			
Q1100755-01	Alkalinity as CaCO ₃ , Total MB		Water	0.00 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	V			
Q1100755-02	Alkalinity as CaCO ₃ , Total LCS		Water	79.80 mg/L	30 mL	79.8 mg/L 1	3.0	9.0	100	1/26/11 13:00:00	N	V			
Q1100755-03	Alkalinity as CaCO ₃ , Total MB		Water	5.90 mg/L	30 mL	5.9 mg/L J 1	3.0	9.0	10	1/26/11 13:00:00	N	V			
Q1100755-04	Alkalinity as CaCO ₃ , Total N/A		Water	6.50 mg/L	30 mL	6.5 mg/L J 1	3.0	9.0		1/26/11 13:00:00	N	V			
Q1100755-04	Alkalinity as CaCO ₃ , Total LCS		Water	6.50 mg/L	30 mL	6.5 mg/L J 1	3.0	9.0		1/26/11 13:00:00	N	V			
Q1100755-04	Bicarbonate as CaCO ₃ N/A		Water	6.50 mg/L	30 mL	6.5 mg/L J 1	3.0	9.0		1/26/11 13:00:00	N	V			
Q1100755-04	Carbonate as CaCO ₃ N/A		Water	0.00 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	V			
Q1100755-04	Hydroxide as CaCO ₃ N/A		Water	0.00 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0		1/26/11 13:00:00	N	V			
Q1100755-05	Alkalinity as CaCO ₃ , Total DUP		KQ1100755-04	Water	5.90 mg/L	30 mL	5.9 mg/L J 1	3.0	9.0	10	1/26/11 13:00:00	N	V		
Q1100755-05	Bicarbonate as CaCO ₃ DUP		KQ1100755-04	Water	5.90 mg/L	30 mL	5.9 mg/L J 1	3.0	9.0	10	1/26/11 13:00:00	N	V		
Q1100755-05	Carbonate as CaCO ₃ DUP		KQ1100755-04	Water	0.00 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0	NC	1/26/11 13:00:00	N	V		
Q1100755-05	Hydroxide as CaCO ₃ DUP		KQ1100755-04	Water	0.00 mg/L	30 mL	9.0 mg/L U 1	3.0	9.0	NC	1/26/11 13:00:00	N	V		

indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

B.DK

1 / 27 / 11

Analyte: Alkalinity**Method: 310.1 / SM20 2320 B****Regular Level**
High Level
Low Level Analyst: _____ CV
Pipette: _____ k-pH-01
Date: 1/26/11
Time: 0.00

Table 403.1 Alkalinity Relationships

Result of titration	Hydroxide Alkalinity as CaCO ₃	Carbonate Alkalinity as CaCO ₃	Bicarbonate Alkalinity as CaCO ₃	Concentration
P = 0	0.0	0.0	T	
P < 1/2T	0.0	2P	T - 2P	
P = 1/2T	0.0	2P	0	
P > 1/2T	2P - T	0		
P = T	T	0.0	0	

$$\begin{aligned} P &= \text{Phenolphthalein Alkalinity} \\ \text{Phenolphthalein alkalinity} &= \text{the quantity measured by titration to pH 8.3} \\ \text{Alkalinity, mg CaCO}_3/\text{L} &= (A_{(\text{mL acid used})} \times N_{(\text{HCl})} \times 50,000) / \text{mL sample} \\ \text{Alkalinity Low level, mg CaCO}_3/\text{L} &= ((2A_{(\text{mL acid used to pH 4.5})} - B_{(\text{mL acid used to pH 4.2})}) \times N_{(\text{HCl})} \times 50,000) / \text{mL sample} \end{aligned}$$

Pp IC

1 // 2-7 //

Reagents: concentration
 $HCl: \frac{0.020}{LCS TV = 80} N$

<u>Lot #</u>	Ricca 1002358
<u>Date</u>	ERA S166-698

pH meter cal:

4.0	4
7.0	7.00
10.0	10

Buffer Log #:
 cond/1-75-O
 cond/1-77-O ρ ≈ 1.2641
 cond/1-79-N

Service Request#	Sample Vol (mL)	pH Initial	Vol to pH 8.3	Vol to pH 4.5	Vol to pH 4.2	Phen. Alk. mg/L	OH- Alk. mg/L	Carb Alk. mg/L	Bicarb Alk. mg/L	Total Alk. mg/L	Low Level Alk. mg/L	Notes/Comments
1 MB-1	100.0	5.77		0.15	0.30					1.5	0.0	
2 LCS-1	50.0	9.13		3.99						79.8		$\%_{\text{Rec}} = 100$
3 K1100642-002	100.0	5.66		0.85	1.05					8.5	6.5	$\bar{x} = 6.2$
4 K1100642-002d	100.0	5.65		0.82	1.05					8.2	5.9	$RPO = 10$
5 K1100642-003	100.0	5.39		0.30	0.51					3.0	0.9	
6 K1100642-007	100.0	6.57		0.48	0.62					4.8	3.4	
7 K1100642-008	100.0	6.84		0.65	0.80					6.5	5.0	
8 K1100642-009	100.0	6.89		1.05	1.15					10.5	9.5	
9 K1100726-001	75.0	7.10		0.79	0.90					10.5	9.1	
10 buffer check		4.03							#DIV/0!			
11 K1100726-003	100.0	7.33		1.01	1.20					10.1	8.2	
12 K1100726-004	100.0	5.49		0.18	0.39					1.8	-0.3	$\text{Stab} = 0.2$ $\text{pH} = 11.26$
13 K1100661-006	100.0	6.42		0.28	0.50					2.8	0.6	$= 0.610 \text{ Carb, pH} = 0.0$
14 K1100661-007	100.0	6.19		0.28	0.42					2.8	1.4	$= 1.410 \text{ Carb, pH} = 0.0$
15 buffer check		4.02							#DIV/0!			
16									#DIV/0!			
17									#DIV/0!			
18									#DIV/0!			
19									#DIV/0!			
20									#DIV/0!			
21									#DIV/0!			

233926

Original
Work Request # (006412) 00726, 00686, 00661
Tier: V V II IV
Date Analyzed: 1/26/11
Analyst: CV
Analysis: AlK on autotitrator

DATA QUALITY REPORT INORGANICS

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate? yes/no/NA
2. Holding times met for all analyses and for all samples? yes/no/NA
3. Are calculations correct? yes/no/NA
4. Is the reporting basis correct? (Dry Weight) yes/no/NA
5. All quality control criteria met?
 - a. Is the calibration curve correlation coefficient ≥ 0.995 ? yes/no/NA
 - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? yes/no/NA
 - c. Are ICVs, CCVs, and CCBs all within acceptance limits? yes/no/NA
 - d. Are results for methods blanks all ND? yes/no/NA
 - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) yes/no/NA
 - f. Are all exceptions explained? yes/no/NA
6. Are all service requests that apply attached? yes/no/NA
7. Are all samples labelled correctly? yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample) yes/no/NA
9. Are detection limits and units reported correctly? yes/no/NA
10. Are proper Analysis/Extraction stickers included on report? yes/no/NA
11. Is the unused space on the benchsheet crossed out? yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#) yes/no/NA

COMMENTS:

642 & 726 are fresh
dont have form V

Final Approved by: BPk Date: 1/27/11 DQREPORT

Analytical Results Summary

Instrument Name: K-pH-01 **Analyst:** CVECCHITTO **Analysis Lot:** 233931 **Method/Testcode:** SM 2320 B/Aalkalinity Titr

<u>ab_Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Ant.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>POL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>
1100642-001	Alkalinity as CaCO ₃ , Total N/A		Water	Water	23.70 mg/L	30 mL	23.7 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	V
1100642-004	Alkalinity as CaCO ₃ , Total N/A		Water	Water	21.80 mg/L	30 mL	21.8 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	V
1100642-005	Alkalinity as CaCO ₃ , Total N/A		Water	Water	23.60 mg/L	30 mL	23.6 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	V
1100642-006	Alkalinity as CaCO ₃ , Total N/A		Water	Water	72.80 mg/L	30 mL	72.8 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	V
1100661-001	Alkalinity as CaCO ₃ , Total N/A		Water	Water	196.00 mg/L	30 mL	196 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-001	Bicarbonate as CaCO ₃ N/A		Water	Water	196.00 mg/L	30 mL	196 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-001	Carbonate as CaCO ₃ N/A		Water	Water	0.00 mg/L	30 mL	9.0 mg/L U	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-001	Hydroxide as CaCO ₃ N/A		Water	Water	0.00 mg/L	30 mL	9.0 mg/L U	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-002	Alkalinity as CaCO ₃ , Total N/A		Water	Water	268.00 mg/L	30 mL	268 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-002	Bicarbonate as CaCO ₃ N/A		Water	Water	268.00 mg/L	30 mL	268 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-002	Carbonate as CaCO ₃ N/A		Water	Water	0.00 mg/L	30 mL	9.0 mg/L U	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-003	Alkalinity as CaCO ₃ , Total N/A		Water	Water	206.00 mg/L	30 mL	206 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-003	Bicarbonate as CaCO ₃ N/A		Water	Water	206.00 mg/L	30 mL	206 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-003	Carbonate as CaCO ₃ N/A		Water	Water	0.00 mg/L	30 mL	9.0 mg/L U	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-003	Hydroxide as CaCO ₃ N/A		Water	Water	0.00 mg/L	30 mL	9.0 mg/L U	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-004	Alkalinity as CaCO ₃ , Total N/A		Water	Water	274.00 mg/L	30 mL	274 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-004	Bicarbonate as CaCO ₃ N/A		Water	Water	274.00 mg/L	30 mL	274 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-004	Carbonate as CaCO ₃ N/A		Water	Water	0.00 mg/L	30 mL	9.0 mg/L U	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-004	Hydroxide as CaCO ₃ N/A		Water	Water	0.00 mg/L	30 mL	9.0 mg/L U	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-005	Alkalinity as CaCO ₃ , Total N/A		Water	Water	218.00 mg/L	30 mL	218 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-005	Bicarbonate as CaCO ₃ N/A		Water	Water	218.00 mg/L	30 mL	218 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-005	Carbonate as CaCO ₃ N/A		Water	Water	0.00 mg/L	30 mL	9.0 mg/L U	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100661-005	Hydroxide as CaCO ₃ N/A		Water	Water	0.00 mg/L	30 mL	9.0 mg/L U	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
11006686-001	Alkalinity as CaCO ₃ , Total N/A		Water	Water	79.70 mg/L	30 mL	79.7 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
11006686-002	Alkalinity as CaCO ₃ , Total N/A		Water	Water	80.60 mg/L	30 mL	80.6 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
11006686-003	Alkalinity as CaCO ₃ , Total N/A		Water	Water	79.40 mg/L	30 mL	79.4 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
11006686-004	Alkalinity as CaCO ₃ , Total N/A		Water	Water	78.90 mg/L	30 mL	78.9 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
11006686-005	Alkalinity as CaCO ₃ , Total N/A		Water	Water	77.20 mg/L	30 mL	77.2 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV
1100686-006	Alkalinity as CaCO ₃ , Total N/A		Water	Water	75.50 mg/L	30 mL	75.5 mg/L	1	3.0	9.0	9.0	1/25/11 11:44:00	N	IV

Indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-pH-01

Analyst: CVECCHITTO

Analysis Lot: 233931 **Method/Testcode:** SM 2320 B/Alkalinity Tit

<u>Lab Code</u>	<u>Target Analytes</u>	<u>QC</u>	<u>Parent Sample</u>	<u>Matrix</u>	<u>Raw Result</u>	<u>Sample Amt.</u>	<u>Final Result</u>	<u>Dil</u>	<u>MDL</u>	<u>PQL</u>	<u>% Rec</u>	<u>% RSD</u>	<u>Date Analyzed</u>	<u>QC? Tier</u>		
Q1100686-007	Alkalinity as CaCO ₃ , Total N/A		Water	79.90 mg/L	30 mL	79.9 mg/L	1	3.0	9.0				1/26/11 11:44:00	N		
Q1100726-002	Alkalinity as CaCO ₃ , Total N/A		Water	28.40 mg/L	30 mL	28.4 mg/L	1	3.0	9.0				1/26/11 11:44:00	N		
Q1100726-005	Alkalinity as CaCO ₃ , Total N/A		Water	68.70 mg/L	30 mL	68.7 mg/L	1	3.0	9.0				1/26/11 11:44:00	N		
Q1100726-006	Alkalinity as CaCO ₃ , Total N/A		Water	39.80 mg/L	30 mL	39.8 mg/L	1	3.0	9.0				1/26/11 11:44:00	N		
Q1100758-01	Alkalinity as CaCO ₃ , Total DUP	K1100642-001	Water	24.50 mg/L	30 mL	24.5 mg/L	1	3.0	9.0		3	1/26/11 11:44:00	N	V		
Q1100758-02	Alkalinity as CaCO ₃ , Total MB		Water	5.49 mg/L	30 mL	5.5 mg/L	J	1	3.0	9.0			1/26/11 11:44:00	N	V	
Q1100758-02	Bicarbonate as CaCO ₃	MB	Water	5.49 mg/L	30 mL	5.5 mg/L	J	1	3.0	9.0			1/26/11 11:44:00	N	V	
Q1100758-02	Carbonate as CaCO ₃	MB	Water	0.00 mg/L	30 mL	9.0 mg/L	U	1	3.0	9.0			1/26/11 11:44:00	N	V	
Q1100758-02	Hydroxide as CaCO ₃	MB	Water	0.00 mg/L	30 mL	9.0 mg/L	U	1	3.0	9.0			1/26/11 11:44:00	N	V	
Q1100758-04	Alkalinity as CaCO ₃ , Total MB		Water	5.89 mg/L	30 mL	5.9 mg/L	J	1	3.0	9.0			1/26/11 11:44:00	N	II	
Q1100758-04	Bicarbonate as CaCO ₃	MB	Water	5.89 mg/L	30 mL	5.9 mg/L	J	1	3.0	9.0			1/26/11 11:44:00	N	II	
Q1100758-04	Carbonate as CaCO ₃	MB	Water	0.00 mg/L	30 mL	9.0 mg/L	U	1	3.0	9.0			1/26/11 11:44:00	N	II	
Q1100758-04	Hydroxide as CaCO ₃	MB	Water	0.00 mg/L	30 mL	9.0 mg/L	U	1	3.0	9.0			1/26/11 11:44:00	N	II	
Q1100758-06	Alkalinity as CaCO ₃ , Total DUP	K1100686-006	Water	80.90 mg/L	30 mL	80.9 mg/L	1	3.0	9.0		7	1/26/11 11:44:00	N	II		
Q1100758-09	Alkalinity as CaCO ₃ , Total LCS		Water	81.90 mg/L	30 mL	81.9 mg/L	1	3.0	9.0	102	6.0	1/26/11 11:44:00	N	V		
Q1100758-10	Alkalinity as CaCO ₃ , Total LCS		Water	78.00 mg/L	30 mL	78.0 mg/L	1	3.0	9.0	98	6.0	1/26/11 11:44:00	N	II		
Q1100758-11	Alkalinity as CaCO ₃ , Total DUP	K1100661-002	Water	252.00 mg/L	30 mL	252 mg/L	1	3.0	9.0		6	1/26/11 11:44:00	N	IV		
Q1100758-11	Bicarbonate as CaCO ₃	DUP	K1100661-002	Water	252.00 mg/L	30 mL	252 mg/L	1	3.0	9.0		6	1/26/11 11:44:00	N	IV	
Q1100758-11	Carbonate as CaCO ₃	DUP	K1100661-002	Water	0.00 mg/L	30 mL	9.0 mg/L	U	1	3.0	9.0		NC	1/26/11 11:44:00	N	IV
Q1100758-11	Hydroxide as CaCO ₃	DUP	K1100661-002	Water	0.00 mg/L	30 mL	9.0 mg/L	U	1	3.0	9.0		NC	1/26/11 11:44:00	N	IV

[#] indicates: Final Result is not yet adjusted for Solids because it has not yet been determined.

BSL
1/26/11

23393

Date: 01/26/2011

RunID = Z0126111049

InstrumentID = SN=1234A

Site Name = Your Company Name Here

Analyst = ACQWE

Test Name/ID = ALK

Titrant Name/ID = HCl 0.02N Ricca lot#1002358

Standard(s) Name/ID = LCS TV=80.0 ERA lot#S166-698

Test ID LIMS ID Met Smpl pH SmplVol SmplResults Units End Pt

Test ID	LIMS ID	Met	Smpl	pH	SmplVol	SmplResults	Units	End Pt	Slope (m)	Calc C	Date	Time	Analyst	Run ID	Instr ID
ALK	Mb-1	3	1	5.80	30	5.4923 ppmf	0.165 mL (135.0 mV)	58.48	01082	01-25-11	23:44	ACQWE	Z0126111049	SN=123	
ALK	LCS-1	3	2	8.88	30	47.064 ppmf	1.411 mL (87.3 mV)	58.48	01082	01-25-11	23:46	ACQWE	Z0126111049	SN=123	
ALK	LCS-1	3	2	8.88	30	81.854 ppmf	2.453 mL (135.0 mV)	58.48	01082	01-25-11	23:46	ACQWE	Z0126111049	SN=123	
ALK	K1100642-001.01	3	3	6.51	30	23.634 ppmf	0.710 mL (135.0 mV)	58.48	01082	01-25-11	23:52	ACQWE	Z0126111049	SN=123	
ALK	K1100642-001.d	3	4	6.47	30	24.486 ppmf	0.734 mL (135.0 mV)	58.48	01082	01-25-11	23:56	ACQWE	Z0126111049	SN=123	
ALK	K1100642-002.01	3	5	5.79	30	8.5008 ppmf	0.255 mL (135.0 mV)	58.48	01082	01-25-11	23:59	ACQWE	Z0126111049	SN=123	
ALK	K1100642-003.01	3	6	5.43	30	5.2480 ppmf	0.157 mL (135.0 mV)	58.48	01082	01-26-11	00:03	ACQWE	Z0126111049	SN=123	
ALK	K1100642-004.01	3	7	6.44	30	21.787 ppmf	0.653 mL (135.0 mV)	58.48	01082	01-26-11	00:06	ACQWE	Z0126111049	SN=123	
ALK	K1100642-005.01	3	8	6.53	30	23.836 ppmf	0.714 mL (135.0 mV)	58.48	01082	01-26-11	00:09	ACQWE	Z0126111049	SN=123	
ALK	K1100642-006.01	3	9	8.41	30	1.2258 ppmf	0.037 mL (87.3 mV)	58.48	01082	01-26-11	00:13	ACQWE	Z0126111049	SN=123	
ALK	K1100642-006.01	3	9	8.41	30	72.764 ppmf	2.181 mL (135.0 mV)	58.48	01082	01-26-11	00:13	ACQWE	Z0126111049	SN=123	
ALK	K1100642-007.01	3	10	6.66	30	7.0641 ppmf	0.212 mL (135.0 mV)	58.48	01082	01-26-11	00:18	ACQWE	Z0126111049	SN=123	
ALK	K1100642-008.01	3	11	6.72	30	7.2752 ppmf	0.218 mL (135.0 mV)	58.48	01082	01-26-11	00:21	ACQWE	Z0126111049	SN=123	
ALK	K1100642-009.01	3	12	6.96	30	12.779 ppmf	0.383 mL (135.0 mV)	58.48	01082	01-26-11	00:24	ACQWE	Z0126111049	SN=123	
ALK	K1100726-001	3	13	6.95	30	12.138 ppmf	0.364 mL (135.0 mV)	58.48	01082	01-26-11	00:27	ACQWE	Z0126111049	SN=123	
ALK	K1100726-002.01	3	14	7.41	30	28.351 ppmf	0.850 mL (135.0 mV)	58.48	01082	01-26-11	00:30	ACQWE	Z0126111049	SN=123	
ALK	K1100726-003.01	3	15	7.03	30	12.341 ppmf	0.370 mL (135.0 mV)	58.48	01082	01-26-11	00:34	ACQWE	Z0126111049	SN=123	
ALK	K1100726-004.01	3	16	5.64	30	5.3261 ppmf	0.160 mL (135.0 mV)	58.48	01082	01-26-11	00:38	ACQWE	Z0126111049	SN=123	
ALK	K1100726-005.01	3	17	7.90	30	68.712 ppmf	2.059 mL (135.0 mV)	58.48	01082	01-26-11	00:40	ACQWE	Z0126111049	SN=123	
ALK	K1100726-006.01	3	18	7.67	30	39.844 ppmf	1.194 mL (135.0 mV)	58.48	01082	01-26-11	00:46	ACQWE	Z0126111049	SN=123	
ALK	K1100686-001.05	3	19	6.93	30	79.732 ppmf	2.390 mL (135.0 mV)	58.48	01082	01-26-11	00:50	ACQWE	Z0126111049	SN=123	
ALK	K1100686-002.05	3	20	6.85	30	80.601 ppmf	2.416 mL (135.0 mV)	58.48	01082	01-26-11	00:56	ACQWE	Z0126111049	SN=123	
ALK	K1100686-003.05	3	21	6.87	30	79.441 ppmf	2.381 mL (135.0 mV)	58.48	01082	01-26-11	01:01	ACQWE	Z0126111049	SN=123	
ALK	K1100686-004.05	3	22	7.97	30	78.889 ppmf	2.365 mL (135.0 mV)	58.48	01082	01-26-11	01:07	ACQWE	Z0126111049	SN=123	
ALK	K1100686-005.05	3	23	7.96	30	77.176 ppmf	2.313 mL (135.0 mV)	58.48	01082	01-26-11	01:12	ACQWE	Z0126111049	SN=123	
ALK	MB-2	3	24	6.07	30	5.8936 ppmf	0.177 mL (135.0 mV)	58.48	01082	01-26-11	01:18	ACQWE	Z0126111049	SN=123	
ALK	LCS-2	3	25	8.94	30	43.624 ppmf	1.308 mL (87.3 mV)	58.48	01082	01-26-11	01:21	ACQWE	Z0126111049	SN=123	
ALK	LCS-2	3	25	8.94	30	77.956 ppmf	2.338 mL (135.0 mV)	58.48	01082	01-26-11	01:21	ACQWE	Z0126111049	SN=123	
ALK	K1100686-006.05	3	26	7.91	30	75.475 ppmf	2.262 mL (135.0 mV)	58.48	01082	01-26-11	01:27	ACQWE	Z0126111049	SN=123	
ALK	K1100686-006.d	3	27	7.92	30	80.877 ppmf	2.424 mL (135.0 mV)	58.48	01082	01-26-11	01:32	ACQWE	Z0126111049	SN=123	
ALK	K1100686-007.05	3	28	7.94	30	79.955 ppmf	2.394 mL (135.0 mV)	58.48	01082	01-26-11	01:37	ACQWE	Z0126111049	SN=123	
ALK	K1100681-001.03	3	29	7.38	30	196.28 ppmf	5.883 mL (135.0 mV)	58.48	01082	01-26-11	01:43	ACQWE	Z0126111049	SN=123	
ALK	K1100661-002.03	3	30	7.49	30	267.76 ppmf	8.026 mL (135.0 mV)	58.48	01082	01-26-11	01:53	ACQWE	Z0126111049	SN=123	

Your Company Name Here
 EZ_960 Data Summary Run ID - 20126111049.EZ page 2 01/26/2011

Test ID	UIMS ID	Mettl Smpl	pH	SmpVol	SmplResults	Units	End Pt	Slope (m)	Calc C	Date	Time	Analyst	Run ID	Instr ID	
ALK	K1100661-002.d	3	31	7.50;	30	251.57	ppm(	7.540 mL (135.0 mV)	58.48	01082	01-26-11	02:05	ACQWE	20126111049	SN=123
ALK	K1100661-003.03	3	32	7.271	30	205.52	ppm(	6.160 mL (135.0 mV)	58.48	01082	01-26-11	02:17	ACQWE	20126111049	SN=123
ALK	K1100661-004.03	3	33	7.65.	30	274.42	ppm(	8.225 mL (135.0 mV)	58.48	01082	01-26-11	02:28	ACQWE	20126111049	SN=123
ALK	K1100661-005.03	3	34	7.591	30	218.35	ppm(	6.544 mL (135.0 mV)	58.48	01082	01-26-11	02:41	ACQWE	20126111049	SN=123
ALK	K1100661-006.03	3	35	6.41:	30	6.2813	ppm(	0.188 mL (135.0 mV)	58.48	01082	01-26-11	02:52	ACQWE	20126111049	SN=123
ALK	K1100661-007.03	3	36	6.38:	30	6.2610	ppm(	0.188 mL (135.0 mV)	58.48	01082	01-26-11	02:54	ACQWE	20126111049	SN=123
ALK	MB-3	3	37	5.60:	30	5.1244	ppm(	0.154 mL (135.0 mV)	58.48	01082	01-26-11	02:58	ACQWE	20126111049	SN=123

LCS-1 %Rec = 102

642-1 $\bar{x} = 24.1$ RPD = 3

LCS-2 %Rec = $\frac{97}{CV_{120m}}$

686-6 $\bar{x} = \frac{75.5}{78.2}$ RPD = 7

661-2 $\bar{x} = 260$ RPD = 6

QDC 1/2/11

Metals

Columbia Analytical Services

**- Cover Page -
INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent
Project Name: Heglar Kronquist
Project No.: 0907194.000.0901

Service Request: K1100661

<u>Sample Name:</u>	<u>Lab Code:</u>
MW-1D	<u>K1100661-001DDISS</u>
MW-1	<u>K1100661-001DISS</u>
MW-1S	<u>K1100661-001SDISS</u>
MW-2	<u>K1100661-002DISS</u>
MW-4	<u>K1100661-003DISS</u>
MW-5	<u>K1100661-004DISS</u>
MW-6	<u>K1100661-005DISS</u>
EB-012311	<u>K1100661-006DISS</u>
EB-012411	<u>K1100661-007DISS</u>
Method Blank	<u>K1100661-MB</u>

Comments:

Approved By:

SC

Date:

2/23/11

Columbia Analytical Services**Metals****- 1 -****INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent **Service Request:** K1100661
Project No.: 0907194.000.0901 **Date Collected:** 01/24/11
Project Name: Heglar Kronquist **Date Received:** 01/25/11
Matrix: WATER **Units:** ug/L
 Basis: NA

Sample Name: MW-1 **Lab Code:** K1100661-001DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	01/31/11	02/01/11	30	U	
Arsenic	200.8	0.50	0.07	1.0	01/31/11	02/02/11	0.90		
Calcium	200.7	50.0	6.0	1.0	01/31/11	02/01/11	46500		
Iron	200.7	20.0	0.8	1.0	01/31/11	02/01/11	15.5	J	
Magnesium	200.7	20.0	0.3	1.0	01/31/11	02/01/11	12800		
Manganese	200.7	5.0	0.2	1.0	01/31/11	02/01/11	3.5	J	
Potassium	200.7	400	40	1.0	01/31/11	02/01/11	28300		
Sodium	200.7	100	20	1.0	01/31/11	02/01/11	85500		

% Solids: 0.0

Comments:

Columbia Analytical Services**Metals****- 1 -****INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent **Service Request:** K1100661
Project No.: 0907194.000.0901 **Date Collected:** 01/24/11
Project Name: Heglar Kronquist **Date Received:** 01/25/11
Matrix: WATER **Units:** ug/L
 Basis: NA

Sample Name: MW-2 **Lab Code:** K1100661-002DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	01/31/11	02/01/11	482		
Arsenic	200.8	0.50	0.07	1.0	01/31/11	02/02/11	0.90		
Calcium	200.7	50.0	6.0	1.0	01/31/11	02/01/11	95700		
Iron	200.7	20.0	0.8	1.0	01/31/11	02/01/11	941		
Magnesium	200.7	20.0	0.3	1.0	01/31/11	02/01/11	29700		
Manganese	200.7	5.0	0.2	1.0	01/31/11	02/01/11	167		
Potassium	200.7	400	40	1.0	01/31/11	02/01/11	5900		
Sodium	200.7	100	20	1.0	01/31/11	02/01/11	24300		

% Solids: 0.0

Comments:

Columbia Analytical Services**Metals****- 1 -****INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent **Service Request:** K1100661
Project No.: 0907194.000.0901 **Date Collected:** 01/24/11
Project Name: Heglar Kronquist **Date Received:** 01/25/11
Matrix: WATER **Units:** ug/L
 Basis: NA

Sample Name: MW-4 **Lab Code:** K1100661-003DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	01/31/11	02/01/11	30	U	
Arsenic	200.8	0.50	0.07	1.0	01/31/11	02/02/11	0.50	J	
Calcium	200.7	50.0	6.0	1.0	01/31/11	02/01/11	178000		
Iron	200.7	20.0	0.8	1.0	01/31/11	02/01/11	9.6	J	
Magnesium	200.7	20.0	0.3	1.0	01/31/11	02/01/11	58200		
Manganese	200.7	5.0	0.2	1.0	01/31/11	02/01/11	116		
Potassium	200.7	400	40	1.0	01/31/11	02/01/11	29900		
Sodium	200.7	100	20	1.0	01/31/11	02/01/11	154000		

% Solids: 0.0

Comments:

Columbia Analytical Services**Metals****- 1 -****INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent **Service Request:** K1100661
Project No.: 0907194.000.0901 **Date Collected:** 01/23/11
Project Name: Heglar Kronquist **Date Received:** 01/25/11
Matrix: WATER **Units:** ug/L
 Basis: NA

Sample Name: MW-5 **Lab Code:** K1100661-004DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	01/31/11	02/01/11	30	U	
Arsenic	200.8	0.50	0.07	1.0	01/31/11	02/02/11	0.78		
Calcium	200.7	50.0	6.0	1.0	01/31/11	02/01/11	82000		
Iron	200.7	20.0	0.8	1.0	01/31/11	02/01/11	3.1	J	
Magnesium	200.7	20.0	0.3	1.0	01/31/11	02/01/11	32500		
Manganese	200.7	5.0	0.2	1.0	01/31/11	02/01/11	4.2	J	
Potassium	200.7	400	40	1.0	01/31/11	02/01/11	4250		
Sodium	200.7	100	20	1.0	01/31/11	02/01/11	31800		

% Solids: 0.0

Comments:

Columbia Analytical Services**Metals****- 1 -
INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent **Service Request:** K1100661
Project No.: 0907194.000.0901 **Date Collected:** 01/23/11
Project Name: Heglar Kronquist **Date Received:** 01/25/11
Matrix: WATER **Units:** ug/L
 Basis: NA

Sample Name: MW-6 **Lab Code:** K1100661-005DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	01/31/11	02/01/11	30	U	
Arsenic	200.8	0.50	0.07	1.0	01/31/11	02/02/11	2.72		
Calcium	200.7	50.0	6.0	1.0	01/31/11	02/01/11	73300		
Iron	200.7	20.0	0.8	1.0	01/31/11	02/01/11	22.0		
Magnesium	200.7	20.0	0.3	1.0	01/31/11	02/01/11	22800		
Manganese	200.7	5.0	0.2	1.0	01/31/11	02/01/11	25.1		
Potassium	200.7	400	40	1.0	01/31/11	02/01/11	5090		
Sodium	200.7	100	20	1.0	01/31/11	02/01/11	23600		

% Solids: 0.0

Comments:

Columbia Analytical Services**Metals****- 1 -****INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent **Service Request:** K1100661
Project No.: 0907194.000.0901 **Date Collected:** 01/23/11
Project Name: Heglar Kronquist **Date Received:** 01/25/11
Matrix: WATER **Units:** ug/L
 Basis: NA

Sample Name: EB-012311 **Lab Code:** K1100661-006DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	01/31/11	02/01/11	30	U	
Arsenic	200.8	0.50	0.07	1.0	01/31/11	02/02/11	0.07	U	
Calcium	200.7	50.0	6.0	1.0	01/31/11	02/01/11	59.4		
Iron	200.7	20.0	0.8	1.0	01/31/11	02/01/11	1.2	J	
Magnesium	200.7	20.0	0.3	1.0	01/31/11	02/01/11	17.4	J	
Manganese	200.7	5.0	0.2	1.0	01/31/11	02/01/11	0.2	U	
Potassium	200.7	400	40	1.0	01/31/11	02/01/11	40	U	
Sodium	200.7	100	20	1.0	01/31/11	02/01/11	171		

% Solids: 0.0

Comments:

Columbia Analytical Services**Metals****- 1 -****INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent **Service Request:** K1100661
Project No.: 0907194.000.0901 **Date Collected:** 01/24/11
Project Name: Heglar Kronquist **Date Received:** 01/25/11
Matrix: WATER **Units:** ug/L
 Basis: NA

Sample Name: EB-012411 **Lab Code:** K1100661-007DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	01/31/11	02/01/11	30	U	
Arsenic	200.8	0.50	0.07	1.0	01/31/11	02/02/11	0.07	U	
Calcium	200.7	50.0	6.0	1.0	01/31/11	02/01/11	177		
Iron	200.7	20.0	0.8	1.0	01/31/11	02/01/11	20.4		
Magnesium	200.7	20.0	0.3	1.0	01/31/11	02/01/11	58.9		
Manganese	200.7	5.0	0.2	1.0	01/31/11	02/01/11	1.9	J	
Potassium	200.7	400	40	1.0	01/31/11	02/01/11	40	U	
Sodium	200.7	100	20	1.0	01/31/11	02/01/11	862		

% Solids: 0.0

Comments:

Columbia Analytical Services**Metals****- 1 -****INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Date Collected:

Project Name: Heglar Kronquist

Date Received:

Matrix: WATER

Units: ug/L

Basis: NA

Sample Name: Method Blank

Lab Code: K1100661-MB

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	01/31/11	02/01/11	30	U	
Arsenic	200.8	0.50	0.07	1.0	01/31/11	02/02/11	0.07	U	
Calcium	200.7	50.0	6.0	1.0	01/31/11	02/01/11	6.0	U	
Iron	200.7	20.0	0.8	1.0	01/31/11	02/01/11	0.8	U	
Magnesium	200.7	20.0	0.3	1.0	01/31/11	02/01/11	0.3	U	
Manganese	200.7	5.0	0.2	1.0	01/31/11	02/01/11	0.2	U	
Potassium	200.7	400	40	1.0	01/31/11	02/01/11	40	U	
Sodium	200.7	100	20	1.0	01/31/11	02/01/11	20	U	

% Solids: 0.0

Comments:

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICV Source: Inorganic Ventures

CCV Source: CAS MIXED

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					Method
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum	5000	5029	101	5000	5125	102	5215	104	200.7
Arsenic	25.0	24.9	100	25.0	24.7	99	24.9	100	200.8
Calcium	5000	5095	102	2500	2577	103	2579	103	200.7
Calcium	12500	13057	104	25000	26042	104	25950	104	200.7
Iron	2500	2380	95	500	515	103	532	106	200.7
Iron	10000	10223	102	25000	25891	104	25799	103	200.7
Magnesium	5000	5026	101	2000	2075	104	2071	104	200.7
Magnesium	12500	12676	101	25000	25562	102	25764	103	200.7
Manganese	1250	1200	96	1000	1018	102	1023	102	200.7
Manganese	10000	10225	102	5000	5152	103	5126	103	200.7
Potassium	12500	12486	100	10000	10110	101	10235	102	200.7
Sodium	12500	11935	95	10000	10176	102	10180	102	200.7

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICV Source: Inorganic Ventures

CCV Source: CAS MIXED

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					Method
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum				5000	5030	101	5024	100	200.7
Arsenic				25.0	24.9	100			200.8
Calcium				2500	2568	103	2494	100	200.7
Calcium				25000	25717	103	25541	102	200.7
Iron				500	523	105	503	101	200.7
Iron				25000	25402	102	24758	99	200.7
Magnesium				2000	2085	104	2059	103	200.7
Magnesium				25000	25399	102	25371	101	200.7
Manganese				1000	996	100	952	95	200.7
Manganese				5000	5058	101	4972	99	200.7
Potassium				10000	10002	100	10005	100	200.7
Sodium				10000	9898	99	9366	94	200.7

Columbia Analytical Services**Metals**

- 2b -

CRDL STANDARD FOR AA AND ICP

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000,0901

Project Name: Heglar Kronquist

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP					
	True	Found	%R	Initial	Found	%R	Final	Found	%R
Aluminum				50.00	57.73	115			
Arsenic				0.50	0.52	104			
Calcium				50.00	40.59	81			
Iron				20.00	19.63	98			
Magnesium				20.00	17.83	89			
Manganese				5.00	5.30	106			
Potassium				400.00	391.78	98			
Sodium				200.00	195.51	98			

Columbia Analytical Services**Metals**

- 3 -

BLANKS

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

Concentration Units: ug/L

Analyte	Initial Calib. Blank	Continuing Calibration Blank						Method	
		C	1	C	2	C	3	C	
Aluminum	30	U	30	U	30	U	30	U	200.7
Arsenic	0.07	U	0.07	U	0.07	U	0.07	U	200.8
Calcium	-7.6	J	6.0	U	6.0	U	6.0	U	200.7
Iron	0.8	U	0.8	U	1.1	J	0.8	U	200.7
Magnesium	-0.7	J	1.8	J	2.1	J	2.9	J	200.7
Manganese	0.8	J	0.3	J	0.6	J	0.5	J	200.7
Potassium	40	U	40	U	40	U	40	U	200.7
Sodium	20	U	20	U	20	U	20	U	200.7

Columbia Analytical Services**Metals**

- 3 -

BLANKS

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

Concentration Units: ug/L

Analyte	Initial Calib. Blank	C	Continuing Calibration Blank						Method
			1	C	2	C	3	C	
Aluminum			30	U					200.7
Calcium			6.0	U					200.7
Iron			0.8	U					200.7
Magnesium			3.1	J					200.7
Manganese			0.4	J					200.7
Potassium			40	U					200.7
Sodium			20	U					200.7

Columbia Analytical Services**Metals**

- 4 -

ICP INTERFERENCE CHECK SAMPLE

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP ID Number: K-ICP-AES-02

ICS Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Aluminum	500000	500000	515538	513262.0	102.7			
Calcium	500000	500000	503104	499208.5	99.8			
Iron	200000	200000	199536	195025.0	97.5			
Magnesium	500000	500000	538686	527879.9	105.6			
Manganese		500	-17	419.6	83.9			
Potassium			-75	-62.7				
Sodium			16	18.4				

80-120% control criteria is not applicable to interfering elements (Al,Ca,Fe,Mg).

Columbia Analytical Services**Metals**

- 5A -

SPIKE SAMPLE RECOVERY

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Units: UG/L

Project Name: Heglar Kronquist

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: MW-1S

Lab Code: K1100661-001SDISS

Analyte	Control Limit %R	Spike Result C	Sample Result C	Spike Added	%R	Q	Method
Aluminum	70 - 130	2100	30 | U	2000.00	105.0		200.7
Arsenic	70 - 130	21.8	0.90	20.00	104.5		200.8
Calcium		57900	46500	10000.00	114.0		200.7
Iron	70 - 130	999	15.5 | J	1000.00	98.4		200.7
Magnesium	70 - 130	23700	12800	10000.00	109.0		200.7
Manganese	70 - 130	471	3.5 | J	500.00	93.5		200.7
Potassium	70 - 130	39400	28300	10000.00	111.0		200.7
Sodium		102000	85500	10000.00	165.0		200.7

An empty field in the Control Limit column indicates the control limit is not applicable

Columbia Analytical Services**Metals**

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DUPLICATES

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Units: UG/L

Project Name: Heglar Kronquist

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: MW-1D

Lab Code: K1100661-001DDISS

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum		30	U	30	U			200.7
Arsenic		0.90		0.95		5.4		200.8
Calcium	20	46500		46700		0.4		200.7
Iron		15.5	J	15.3	J	1.3		200.7
Magnesium	20	12800		13100		2.3		200.7
Manganese		3.5	J	3.5	J	0.0		200.7
Potassium	20	28300		28900		2.1		200.7
Sodium	20	85500		89400		4.5		200.7

An empty field in the Control Limit column indicates the control limit is not applicable.

Columbia Analytical Services**Metals**

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LABORATORY CONTROL SAMPLE

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

Aqueous LCS Source: CAS MIXED

Solid LCS Source:

Analyte	Aqueous: ug/L			Solid: mg/kg				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum	5000	5150	103.0					
Arsenic	20	19.6	98.0					
Calcium	12500	13200	105.6					
Iron	2500	2430	97.2					
Magnesium	12500	12900	103.2					
Manganese	1250	1230	98.4					
Potassium	12500	12700	101.6					
Sodium	12500	12300	98.4					

Metals

- 9 -

ICP SERIAL DILUTIONS

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Units: UG/L

Project Name: Heglar Kronquist

Sample Name: MW-1L

Lab Code: K1100661-001LDIIS

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Difference	Q	M
	C		C				
Aluminum	30.00	U	150.00	U			P
Calcium	46529.66		47228.20		1.5		P
Iron	15.53	J	6.90	J	55.6		P
Magnesium	12823.21		13480.25		5.1		P
Manganese	3.48	J	2.25	J	35.3		P
Potassium	28272		27934		1		P
Sodium	85534.55		87363.75		2.1		P

Columbia Analytical Services**Metals**

- 10 -

DETECTION LIMITS

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP/ICP-MS ID #: K-ICP-AES-02

GFAA ID #:

AA ID #:

Analyte	Wave-length (nm)	Back-ground	MRL ug/L	MDL ug/L	M
Aluminum	237.3		50	30.0	P
Calcium	211.2		50	6.0	P
Iron	259.90		20	0.8	P
Magnesium	202.5		20	0.3	P
Manganese	257.61		5	0.2	P
Potassium	766.49		400	40.0	P
Sodium	589.5		100	20.0	P

Comments:

Columbia Analytical Services

Metals

- 10 -

DETECTION LIMITS

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP/ICP-MS ID #: K-ICP-MS-02

GFAA ID #:

AA ID #:

Analyte	Isotope	Back-ground	MRL ug/L	MDL ug/L	M
Arsenic	75		0.5	0.07	MS

Comments:

Columbia Analytical Services**Metals****- 11A -****ICP INTERELEMENT CORRECTION FACTORS**

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	As
Aluminum	237.312	0.0000000	0.0000000	0.0006350	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.0000000	-0.0001090	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.773	0.0000000	0.0000000	0.0011600	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0001010	0.0000000	0.0000000
Calcium	211.276	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	-0.0000260	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	-0.0000260	0.0000000	0.0000000
Iron	271.441	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0001140	0.0000000	0.0000000	0.0000000	0.0000000
Lithium	670.784	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	202.582	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	293.930	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	-0.0000740	0.0000000	0.0000000
Phosphorus	214.914	0.0000000	0.0000000	0.0007010	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	251.612	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	407.771	0.0000000	0.0000740	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	323.452	0.0000000	0.0000000	0.0000250	0.0000000	0.0000000
Vanadium	310.230	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.200	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

Columbia Analytical Services

Metals

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Co	Cr	Cu	Mn	Mo
Aluminum	237.312	-0.0037980	-0.0033950	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0131320	0.0000000	0.0000000	-0.0170290
Arsenic	189.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000510
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.773	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	211.276	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0013420
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0001660
Iron	271.441	0.0815870	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0005610	0.0000000	-0.0014670
Lithium	670.784	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	202.582	0.0695310	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	293.930	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0003250	0.0000000	0.0000000	0.0000000	0.0000000
Phosphorus	214.914	0.0000000	0.0000000	-0.2315800	0.0000000	0.0031710
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	251.612	0.0000000	0.0000000	0.0000000	-0.0019550	0.0346950
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0001660	-0.0004050
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	407.771	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0040310	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	323.452	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	310.230	0.0000000	-0.0002710	0.0000000	0.0000000	0.0000000
Zinc	206.200	0.0000000	-0.0013270	0.0000000	0.0000000	-0.0001480

Comments:

Columbia Analytical Services

Metals

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Wave-length (nm)	Ni	Ti	V		
Aluminum	237.312	0.0000000	0.0000000	0.0000000		
Antimony	206.838	0.0000000	0.0000000	0.0000000		
Arsenic	189.042	0.0000000	0.0000000	0.0000000		
Barium	493.409	0.0000000	0.0000000	-0.0005630		
Beryllium	313.042	0.0000000	-0.0000770	0.0002550		
Boron	249.773	0.0000000	0.0000000	0.0000000		
Cadmium	226.502	-0.0000840	0.0000000	0.0000000		
Calcium	211.276	0.0000000	0.0000000	0.0000000		
Chromium	267.716	0.0000000	0.0000000	-0.0002700		
Cobalt	228.616	0.0000000	0.0017170	0.0000000		
Copper	324.754	0.0000000	0.0000000	-0.0001920		
Iron	271.441	0.0000000	0.0000000	-0.1662750		
Lead	220.353	0.0000000	0.0000000	0.0000000		
Lithium	670.784	0.0000000	0.0000000	0.0000000		
Magnesium	202.582	0.0000000	0.0000000	0.0000000		
Manganese	293.930	0.0000000	0.0000000	0.0000000		
Molybdenum	202.030	0.0000000	0.0000000	0.0000000		
Nickel	231.604	0.0000000	0.0000000	0.0000000		
Phosphorus	214.914	0.0000000	0.0000000	0.0000000		
Potassium	766.490	0.0000000	0.0000000	0.0000000		
Selenium	196.090	0.0000000	0.0000000	0.0000000		
Silicon	251.612	0.0000000	0.0072650	0.0000000		
Silver	328.068	0.0000000	0.0001620	0.0000000		
Sodium	589.592	0.0000000	0.0000000	0.0000000		
Strontium	407.771	0.0000000	0.0000000	0.0000000		
Thallium	190.864	0.0000000	0.0000000	0.0019330		
Tin	189.989	0.0000000	-0.0030900	0.0000000		
Titanium	323.452	0.0004260	0.0000000	0.0000000		
Vanadium	310.230	0.0000000	0.0000000	0.0000000		
Zinc	206.200	0.0000000	0.0000000	0.0000000		

Comments:

Columbia Analytical Services

Metals

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ICP LINEAR RANGES (QUARTERLY)

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Aluminum	5.000	900000	200.7
Calcium	5.000	1800000	200.7
Iron	5.000	900000	200.7
Magnesium	5.000	900000	200.7
Manganese	5.000	180000	200.7
Potassium	5.000	450000	200.7
Sodium	5.000	180000	200.7

Comments:

Columbia Analytical Services

Metals

-12-

ICP LINEAR RANGES (QUARTERLY)

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP ID Number: K-ICP-MS-02

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic	15.000	900	200.8

Comments:

Columbia Analytical Services**Metals****-13-****PREPARATION LOG**

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

Method: P

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
K1100661-001DDISS	01/31/11	50.0	50.0
K1100661-001DISS	01/31/11	50.0	50.0
K1100661-001SDISS	01/31/11	50.0	50.0
K1100661-002DISS	01/31/11	50.0	50.0
K1100661-003DISS	01/31/11	50.0	50.0
K1100661-004DISS	01/31/11	50.0	50.0
K1100661-005DISS	01/31/11	50.0	50.0
K1100661-006DISS	01/31/11	50.0	50.0
K1100661-007DISS	01/31/11	50.0	50.0
K1100661-MB	01/31/11	50.0	50.0
LCSW	01/31/11	50.0	50.0

Columbia Analytical Services**Metals****-13-****PREPARATION LOG**

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

Method: MS

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
K1100661-001DDISS	01/31/11	50.0	50.0
K1100661-001DISS	01/31/11	50.0	50.0
K1100661-001SDISS	01/31/11	50.0	50.0
K1100661-002DISS	01/31/11	50.0	50.0
K1100661-003DISS	01/31/11	50.0	50.0
K1100661-004DISS	01/31/11	50.0	50.0
K1100661-005DISS	01/31/11	50.0	50.0
K1100661-006DISS	01/31/11	50.0	50.0
K1100661-007DISS	01/31/11	50.0	50.0
K1100661-MB	01/31/11	50.0	50.0
LCSW	01/31/11	50.0	50.0

Columbia Analytical Services

Metals

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ANALYSIS RUN LOG

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

Instrument ID Number: K-ICP-AES-02

Method: P

Start Date: 02/01/11

End Date: 02/01/11

Sample No.	D/F	Time	% R	Analytes																						
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K S	S E	A L	T V	V N	Z C N	
Blank	1	15:31		X						X					X	X X		X		X						
STDB	1	15:34			X						X					X	X X		X		X					
STD A	1	15:37									X					X	X X									
ICV1	1	15:40		X							X					X	X X		X		X					
ICV1	1	15:43										X				X	X X									
ICB1	1	15:46		X								X				X	X X		X		X					
CCV1	1	15:50			X							X				X	X X		X		X					
CCV1	1	15:56										X				X	X X									
CCB1	1	16:01		X								X				X	X X		X		X					
CRA1	1	16:04			X							X				X	X X		X		X					
ZZZZZ	1	16:07																								
ICS-A1	1	16:10		X								X				X	X X		X		X					
ICS-AB1	1	16:13			X							X				X	X X		X		X					
ZZZZZ	1	16:16																								
CCV2	1	16:19		X								X				X	X X		X		X					
CCV2	1	16:22										X				X	X X									
CCB2	1	16:25		X								X				X	X X		X		X					
ZZZZZ	1	16:28																								
K1100661-MB	1	16:31		X								X				X	X X		X		X					
LCSW	1	16:34			X							X				X	X X		X		X					
ZZZZZ	1	16:36																								
K1100661-001DISS	1	16:39		X								X				X	X X		X		X					
K1100661-001LDISS	5	16:42			X							X				X	X X		X		X					
K1100661-001DDISS	1	16:45		X								X				X	X X		X		X					
K1100661-001SDISS	1	16:48		X								X				X	X X		X		X					
ZZZZZ	1	16:51																								
ZZZZZ	1	16:54																								
CCV3	1	16:57		X								X				X	X X		X		X					
CCV3	1	17:00										X				X	X X									
CCB3	1	17:03		X								X				X	X X		X		X					
ZZZZZ	1	17:08																								
K1100661-002DISS	1	17:11		X								X				X	X X		X		X					

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

Columbia Analytical Services**Metals**

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ANALYSIS RUN LOG

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

Instrument ID Number: K-ICP-AES-02

Method: P

Start Date: 02/01/11

End Date: 02/01/11

Sample No.	D/F	Time	% R	Analytes																								
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K S	S E	A G	A N	T A	V L	Z N	C N	
K1100661-003DISS	1	17:14		X						X				X	X	X		X		X								
K1100661-004DISS	1	17:17		X							X				X	X	X		X		X							
K1100661-005DISS	1	17:20		X							X				X	X	X		X		X							
K1100661-006DISS	1	17:23		X							X				X	X	X		X		X							
K1100661-007DISS	1	17:26		X							X				X	X	X		X		X							
ZZZZZZ	1	17:29																										
ZZZZZZ	1	17:32																										
ZZZZZZ	1	17:35																										
CCV4	1	17:38		X							X				X	X	X		X		X							
CCV4	1	17:41										X				X	X	X										
CCB4	1	17:44			X							X				X	X	X		X		X						

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

Columbia Analytical Services**Metals**

- 14 -

ANALYSIS RUN LOG

Client: Exponent

Service Request: K1100661

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

Instrument ID Number: K-ICP-MS-02

Method: MS

Start Date: 02/02/11

End Date: 02/02/11

Sample No.	D/F	Time	% R	Analytes																								
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H B	N G	K I	S E	A G	N A	T G	V A	Z L	C N	
Cal. Blk	1	12:25				X																						
Cal. Stn	1	12:27				X																						
ICV1	1	12:30				X																						
CCV1	1	12:32				X																						
ICB1	1	12:34				X																						
CCB1	1	12:36				X																						
CRA1	1	12:39				X																						
K1100661-MB	1	12:41				X																						
LCSW	1	12:43				X																						
ZZZZZZ	1	12:45																										
K1100661-001DISS	1	12:47				X																						
K1100661-001DDISS	1	12:50				X																						
K1100661-001SDISS	1	12:52				X																						
K1100661-002DISS	1	12:54				X																						
K1100661-003DISS	1	12:56				X																						
K1100661-004DISS	1	12:58				X																						
K1100661-005DISS	1	13:01				X																						
CCV2	1	13:03				X																						
CCB2	1	13:05				X																						
K1100661-006DISS	1	13:07				X																						
K1100661-007DISS	1	13:10				X																						
ZZZZZZ	1	13:12																										
ZZZZZZ	1	13:14																										
ZZZZZZ	1	13:16																										
ZZZZZZ	1	13:18																										
ZZZZZZ	1	13:21																										
CCV3	1	13:23				X																						
CCB3	1	13:25				X																						

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

Metals

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Columbia Analytical Services Contract: 0907194.000.0901
 Lab Code: CAS Case No.: _____ NRAS No.: _____ SDG NO.: K1100661
 ICP-MS Instrument ID: K-ICP-MS-02 Start Date: 02/02/2011 End Date: 02/02/2011

Sample No.	Client ID	Time	Internal Standards %RI For:								Element Ga_71	Q
			Element Rh_103	Q	Element	Q	Element	Q	Element	Q		
Cal. Blk	Cal. Blk	1225	100		100							
Cal. Stn	Cal. Stn	1227	96		98							
ICV1	ICV1	1230	92		94							
CCV1	CCV1	1232	90		93							
ICB1	ICB1	1234	89		92							
CCB1	CCB1	1236	88		92							
CRA1	WATER CRA	1239	88		92							
K1100661-MB	Method Blank	1241	89		91							
LCSW	LCSW	1243	87		89							
ZZZZZZ	ZZZZZZ	1245										
K1100661-001DISS	MW-1	1247	80		75							
K1100661-001DDIS	MW-1D	1250	81		76							
K1100661-001SDIS	MW-1S	1252	79		75							
K1100661-002DISS	MW-2	1254	83		79							
K1100661-003DISS	MW-4	1256	72		66							
K1100661-004DISS	MW-5	1258	83		81							
K1100661-005DISS	MW-6	1301	84		82							
CCV2	CCV2	1303	93		92							
CCB2	CCB2	1305	92		90							
K1100661-006DISS	EB-012311	1307	92		91							
K1100661-007DISS	EB-012411	1310	91		89							
ZZZZZZ	ZZZZZZ	1312										
ZZZZZZ	ZZZZZZ	1314										
ZZZZZZ	ZZZZZZ	1316										
ZZZZZZ	ZZZZZZ	1318										
ZZZZZZ	ZZZZZZ	1321										
CCV3	CCV3	1323	91		88							
CCB3	CCB3	1325	90		86							

 Analytical Services Preparation Information Worksheet

Prep Workflow: MetDigAqMS **Status:** Prepped
Prep Run: 128041 **EPA CLP-**
Team: Metals **Prep Method:** METALS
Analyst: KRisteska **ILM04.0,**
Rush/NPDES: NPDES

Prep Date: 01/31/2011
14:35
Due Date: 02/06/2011

Lab Code	Client ID	Bottle #	Initial Amt	Final Volume	Spike Amt	Spike ID	TestNo List	Comments
KQ1100869-01	Method Blank		50 mL	50 mL			Metals T	1%HNO3 Ultrex
KQ1100869-02	Lab Control Sample		50 mL	50 mL	1 mL 0.1 mL 1 mL	20439 21053 21569	Metals T	1%HNO3 Ultrex
KQ1100869-03	Lab Control Sample		50 mL	50 mL	0.5 mL	23359	Metals T	1%HNO3 Ultrex
K1100661-001	MW-1	.05	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100661-001: KQ1100869-04	Duplicate	.05	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100661-001: KQ1100869-05	Matrix Spike	.05	50 mL	50 mL	1 mL 0.1 mL 1 mL	20439 21053 21569	Metals D	1%HNO3 Ultrex
K1100661-002	MW-2	.05	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100661-003	MW-4	.05	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100661-004	MW-5	.05	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100661-005	MW-6	.05	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100661-006	EB-012311	.05	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100661-007	EB-012411	.05	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100671-001	T67520-1/AB33830	.07	50 mL	50 mL			Metals T	1%HNO3 Ultrex
K1100681-001	Well Head	.04	50 mL	50 mL			Metals T	1%HNO3 Ultrex
K1100692-001	MW-3	.11	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100692-002	MW-7	.11	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100692-002: KQ1100869-06	Duplicate	.11	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100692-002: KQ1100869-07	Matrix Spike	.11	50 mL	50 mL	1 mL 0.1 mL 1 mL	20439 21053 21569	Metals D	1%HNO3 Ultrex
K1100692-003	EB-012511	.11	50 mL	50 mL			Metals D	1%HNO3 Ultrex
K1100712-001	Toma #23	.04	50 mL	50 mL			Metals T	1%HNO3 Ultrex
K1100735-001	B.G. Kinsman/Boberg	.03	50 mL	50 mL			Metals T	1%HNO3 Ultrex
K1100736-001	B.G. Utility Vault	.03	50 mL	50 mL			Metals T	1%HNO3 Ultrex

K1100767-001	ASB Out	.08	50 mL	50 mL			Metals T	1%HNO3 Ultrex
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23 Total Samples consisting of 16 Client Samples, 4 Client QC Samples, 3 Batch QC Samples associated with the current Prep Run.

Spiking Solutions

Name	Type	ID	Expires	Name	Type	ID	Expires
K-MET 200.8 1000ug/L Stock	Spike	21569	3/21/2011	K-MET Alt 200.8 spiking solution	Spike	21053	8/24/2011
K-MET Ag 1000 ppb Stock	Spike	20439	4/28/2011	K-MET ICP/MS DW MRL Check	Spike	23359	2/13/2011

Preparation Materials

Step	Name	ID	Step	Name	ID
Digestion	K-MET HNO3 ULTREX	21674	Digestion	K-MET 50ml Centrifuge Tube	22573

Preparation Hardware / Equipment

Preparation Steps

Step	Started	Finished	By	Assisted By	Training?	Comments
Digestion	31-JAN-11 14:35	31-JAN-11 16:35	KRisteska	BSodorff	N	

Comments

Review

Reviewed by: T Date: 2/2/11

 Columbia
Analytical Services Preparation Information Benchsheet**Prep Run:** 128035**Prep Workflow:** MetDigAqICP **Status:** Prepped **Prep Date:** 01/31/2011**Team:** Metals**Prep Method:** EPA CLP-**Current Step:** Digestion

14:35

Analyst: KRisteska**METALS**

ILM04.0

Due Date: 02/11/2011**Rush/NPDES:** NPDES

Lab Code	Client ID	Bottle #	Initial Amt	Final Volume	Spike Amt	Spike ID	TestNo List	Comments
KQ1100868-01	Method Blank		50 mL	50 mL			Metals T	1%HNO3 5%HCl
KQ1100868-02	Lab Control Sample		50 mL	50 mL	0.5 mL 0.25 mL 0.25 mL 0.25 mL 0.5 mL	15571 18109 20255 20797 25536	Metals T	1%HNO3 5%HCl
KQ1100868-03	Lab Control Sample		50 mL	50 mL			Metals T	1%HNO3 5%HCl
K1100661-001	MW-1	.05	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100661-001: KQ1100868-07	Duplicate	.05	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100661-001: KQ1100868-06	Matrix Spike	.05	50 mL	50 mL	0.5 mL 0.5 mL 0.5 mL 0.5 mL 0.5 mL	15571 24706 25104 25344 25536	Metals D	1%HNO3 5%HCl
K1100661-002	MW-2	.05	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100661-003	MW-4	.05	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100661-004	MW-5	.05	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100661-005	MW-6	.05	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100661-006	EB-012311	.05	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100661-007	EB-012411	.05	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100681-001	Well Head	.04	50 mL	50 mL			Metals T	1%HNO3 5%HCl
K1100692-001	MW-3	.11	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100692-002	MW-7	.11	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100692-002: KQ1100868-05	Duplicate	.11	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100692-002: KQ1100868-04	Matrix Spike	.11	50 mL	50 mL	0.5 mL 0.5 mL 0.5 mL 0.5 mL 0.5 mL	15571 24706 25104 25344 25536	Metals D	1%HNO3 5%HCl
K1100692-003	EB-012511	.11	50 mL	50 mL			Metals D	1%HNO3 5%HCl
K1100712-001	Toma #23	.04	50 mL	50 mL			Metals T	1%HNO3 5%HCl
K1100767-001	ASB Out	.08	50 mL	50 mL			Metals T	1%HNO3 5%HCl

20 Total Samples consisting of 13 Client Samples, 4 Client QC Samples, 3 Batch QC Samples associated with the current Prep Run.

Spiking Solutions

Name	Type	ID	Expires	Name	Type	ID	Expires
K-MET QCP-CICV-1	Spike	18109	6/1/2011	K-MET SS3	Spike	25104	5/31/2011
K-MET QCP-CICV-2	Spike	20797	8/1/2011	K-MET SS4	Spike	25536	7/5/2011
K-MET QCP-CICV-3	Spike	20255	8/1/2011	K-MET SS5	Spike	25344	5/5/2011
K-MET SS1	Spike	24706	11/1/2011	Titanium 1000 ug/mL Ti	Spike	15571	5/5/2011

Preparation Materials

Step	Name	ID	Step	Name	ID
Digestion	K-MET 50ml Centrifuge Tube	22573	Digestion	K-MET HCL	23237
Digestion	K-MET HNO3	23064			

Preparation Hardware / Equipment

Step	Name	Property	Value
Digestion	K-BlockDigester-06	Temperature	96 deg C

Preparation Steps

Step	Started	Finished	By	Assisted By	Training?	Comments
Digestion	31-JAN-11 14:35	31-JAN-11 16:35	KRisteska	BSodorff	N	

Comments**Review**

Reviewed by: SP Date: 2/2/11

METALS SPIKING SOLUTIONS CONCENTRATIONS FORM

Solution Name	Element	mLs of 1000ppm Solution	Final Volume	Solution Conc. mg/L	Enter mls Added
K-MET SS1	HNO3	50.0	1000ml	-	
	Al	100*	1000ml	200	
	Ag	100*	1000ml	5	
	Ba	100*	1000ml	200	
	Be	100*	1000ml	5	
	Cd	100*	1000ml	5	
	Co	100*	1000ml	50	
	Cr	100*	1000ml	20	
	Cu	100*	1000ml	25	0.5 → To MS
	Fe	100*	1000ml	100	
	Pb	100*	1000ml	50	
	Mn	100*	1000ml	50	
	Ni	100*	1000ml	50	
	Sb	50	1000ml	50	
	V	100*	1000ml	50	
	Zn	100*	1000ml	50	
K-MET SS2	HNO3	25.0	500ml	-	
	As	2.0	500ml	4	
	Cd	2.0	500ml	4	
	Pb	2.0	500ml	4	
	Se	2.0	500ml	4	
	Tl	2.0	500ml	4	
	Cu	2.0	500ml	4	
K-MET SS3	HNO3	25.0	500ml	-	
	As	50.0	500ml	100	0.5 → To MS
	Se	50.0	500ml	100	
	Tl	50.0	500ml	100	
K-MET SS4	HNO3	25	500ml	-	
	B	50	500ml	100	0.5 → To LCS & MS
	Mo	50	500ml	100	
K-MET SS5	HNO3	10.0	200ml	-	
	K**	20	200ml	1000	0.5 → To MS
	Na***	20	200ml	1000	
	Mg***	20	200ml	1000	
	Ca***	20	200ml	1000	

K-MET GFLCSW	HNO3 As, Pb, Sc, Tl Cd Cr	10.0 5.0 - 2.5	1000ml 1000ml - 1000ml	- 2.5 1.25 2.5	
K-MET QCP-CICV-1	Ca, Mg, Na, K Al, Ba Fe Co, Mn, Ni, V, Zn Cu, Ag Cr Be	no dilution no dilution no dilution no dilution no dilution no dilution no dilution	- - - - - - -	2500 1000 500 250 125 100 25	0.25
K-MET QCP-CICV-2	Sb	no dilution	-	500	0.25
K-MET QCP-CICV-3	As, Pb, Se, Tl Cd	no dilution no dilution	-	500 250	0.25

* Denotes volume of mixed stock standard.

** Denotes 10,000 ppm individual stock standards.

Standard	mLs of standard	ppm	Logbook #	Exp. Date
Tl	0.50	1000	Med 1 - 50 - 6	5/5/11

Service Request # K1100661
Instrument ID# K-ICP-AES-02

ICP-OES Data Review Form

	Yes	No
1. Standardization completed	✓	___
2. ICV within 10 % of true value	✓	___
3. ICB below MRL	✓	___
4. CRI standard analyzed.	✓	___
5. ICS standards within 20% of true value	✓	___
6. All preceding CCVs within 10 % of true value	✓	___
7. Following CCV within 10 % of true value	✓	___
8. Bracketing CCBs below MRL	✓	___
9. Method Blank below MRL	✓	___
10. MS-MSD or Dup-MS and LCS within CAS control limits	✓	___
11. All analytes within instrument linear range	✓	___
12. Adequate rinse out time allowed between samples to eliminate memory effect	✓	___

Comments:

File Name: 020111BICP02

Star Lims: 234443

NR Mo.

200.7 Only.

Primary Review by WS Date 2/2/11

Secondary Review by MMR Date 2/2/11

Method:	2011A	Sample Name:	Blank	Operator:
Comment:				
Run Time:	02/01/11 15:31	Type:	Std	Mode: IR Corr. Fact: 1.000000
Elem	Al2373	Sb2068	As1890	Ba2335
Line	237.312 {141}	206.833 {162}	189.042 {177}	233.527 {144}
Avg	.1796	.0594	.0131	.00027
Stddev	.0312	.0293	.0010	.00010
%RSD	17.38	49.31	7.419	35.970
#1	.2017	.0801	.0138	.00034
#2	.1576	.0387	.0124	.00020
Elem	Be3130	B 2497	Cd2265	Ca2112
Line	313.042 {107}	249.773 {134}	226.502 {148}	211.276 {159}
Avg	-.00129	.4864	.0002	.4166
Stddev	.00048	.0275	.0001	.0048
%RSD	37.411	5.650	60.12	1.147
#1	-.00095	.4670	.0002	.4200
#2	-.00164	.5058	.0001	.4132
Elem	Ca3179	Cr2677	Co2286	Cu3247
Line	317.933 {105}	267.716 {125}	228.616 {147}	324.754 {103}
Avg	-.0981	-.0003	.0004	.0249
Stddev	.0137	.0000	.0001	.0039
%RSD	13.98	10.88	28.52	15.68
#1	-.0884	-.0002	.0005	.0276
#2	-.1078	-.0003	.0003	.0221
Elem	Fe2599	Fe2714	Pb2203	Mg2025
Line	259.940 {129}	271.441 {124}	220.353 {152}	202.582 {166}
Avg	.0023	.0006	.0001	.1396
Stddev	.0008	.0001	.0001	.0254
%RSD	33.65	16.11	60.41	18.23
#1	.0028	.0006	.0001	.1216
#2	.0017	.0005	.0001	.1576
Elem	Mg2795	Mn2576	Mn2939	Mo2020
Line	279.553 {120}	257.610 {131}	293.930 {114}	202.030 {166}
Avg	.43403	.00103	-.0002	.0007
Stddev	.05458	.00025	.0002	.0004
%RSD	12.576	23.941	65.72	56.17
#1	.47262	.00120	-.0004	.0010
#2	.39543	.00085	-.0001	.0004
Elem	Ni2316	K 7664	Se1960	Ag3280
Line	231.604 {145}	766.490 {44}	196.090 {171}	328.068 {102}
Avg	.0000	.3816	.0028	.0553
Stddev	.000	.0585	.0039	.0860
%RSD	4002.	15.34	141.4	155.6
#1	.0001	.4230	.0000	.1161
#2	-.0001	.3402	.0055	-.0055

Sample Name: Blank Run Time: 02/01/11 15:31

Elem	Na5895	Sn1899	V_3102	Zn2062
Line	589.592 { 57}	189.989 {176}	310.230 {108}	206.200 {163}
Avg	.0013	.0005	.0049	.0006
Stddev	.0004	.0000	.0000	.0000
%RSD	31.80	6.098	.4590	5.528

#1	.0010	.0005	.0049	.0007
#2	.0015	.0005	.0049	.0006

Elem	P_2149	Si2516	Ti3234	Tl1908
Line	214.914 {156}	251.612 {134}	323.452 {104}	190.864 {176}
Avg	.0684	.2266	.00389	.0001
Stddev	.0264	.0665	.00009	.0000
%RSD	38.55	29.34	2.3562	54.19

#1	.0870	.1796	.00383	.0000
#2	.0498	.2736	.00396	.0001

Elem	Li6707	Sr4077		
Line	670.784 { 50}	407.771 { 82}		
Avg	.29166	.00226		
Stddev	.00967	.00006		
%RSD	3.3165	2.4638		

#1	.29850	.00230		
#2	.28482	.00222		

Int. Std.	Sc3572			
Line	357.253 { 94}			
Avg	232.84			
Stddev	.62			
%RSD	.26639			

#1	232.41			
#2	233.28			

WS
2/1/11
Initial
2/2/11

Method: 2011A Sample Name: STDB 2011A Operator:
 Comment:
 Run Time: 02/01/11 15:34 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al2373	Ba2335	Be3130	Ca2112
Line	237.312 {141}	233.527 {144}	313.042 {107}	211.276 {159}
Avg	18.40	2.2316	.41131	37.76
Stddev	.10	.0096	.00018	.23
%RSD	.5358	.43120	.04353	.6131

#1	18.33	2.2248	.41118	37.60
#2	18.47	2.2384	.41143	37.92

Elem	Fe2714	Mg2025	Mn2939	K_7664
Line	271.441 {124}	202.582 {166}	293.930 {114}	766.490 { 44}
Avg	.6123	54.83	.6496	205.0
Stddev	.0029	.07	.0013	.6
%RSD	.4768	.1325	.1973	.2757

#1	.6103	54.88	.6487	205.4
#2	.6144	54.78	.6505	204.6

Elem	Na5895	P_2149	Si2516	Li6707
Line	589.592 { 57}	214.914 {156}	251.612 {134}	670.784 { 50}
Avg	3.513	36.29	85.98	437.82
Stddev	.005	.22	.25	.87
%RSD	.1450	.6081	.2882	.19773

#1	3.509	36.13	85.81	438.44
#2	3.516	36.44	86.16	437.21

Elem	Sr4077
Line	407.771 { 82}
Avg	9.0960
Stddev	.0061
%RSD	.06679
#1	9.1003
#2	9.0917

Int. Std.	Sr4077
Line	357.253 { 94}
Avg	235.14
Stddev	.12
%RSD	.04915
#1	235.06
#2	235.22

Method: 2011A Sample Name: STDA UPS - 34-B Operator:

Comment:

Run Time: 02/01/11 15:37 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Sb2068	As1890	B_2497	Cd2265
Line	206.833 {162}	189.042 {177}	249.773 {134}	226.502 {148}
Avg	14.48	9.720	38.82	.2029
Stddev	.10	.031	.18	.0003
%RSD	.7252	.3173	.4591	.1253

#1	14.41	9.698	38.70	.2027
#2	14.56	9.742	38.95	.2031

Elem	Ca3179	Cr2677	Co2286	Cu3247
Line	317.933 {105}	267.716 {125}	228.616 {147}	324.754 {103}
Avg	43.31	.0834	.1379	25.25
Stddev	.17	.0002	.0001	.10
%RSD	.3837	.2756	.0826	.4104

#1	43.19	.0836	.1378	25.17
#2	43.43	.0833	.1380	25.32

Elem	Fe2599	Pb2203	Mg2795	Mn2576
Line	259.940 {129}	220.353 {152}	279.553 {120}	257.610 {131}
Avg	.3145	.0709	1683.5	2.3200
Stddev	.0118	.0001	5.6	.0529
%RSD	3.736	.1175	.33329	2.2802

#1	.3228	.0710	1679.6	2.2826
#2	.3062	.0709	1687.5	2.3574

Elem	Mo2020	Ni2316	Se1960	Ag3280
Line	202.030 {166}	231.604 {145}	196.090 {171}	328.068 {102}
Avg	.1154	.1234	8.467	23.82
Stddev	.0009	.0002	.017	.17
%RSD	.7696	.1219	.1966	.7058

#1	.1148	.1235	8.479	23.70
#2	.1161	.1233	8.455	23.94

Elem	Sn1899	V_3102	Zn2062	Ti3234
Line	189.989 {176}	310.230 {108}	206.200 {163}	323.452 {104}
Avg	.0678	.1414	.1145	.16129
Stddev	.0002	.0003	.0002	.00083
%RSD	.2694	.2369	.2026	.51764

#1	.0680	.1411	.1143	.16188
#2	.0677	.1416	.1147	.16070

Elem	Tl1908			
Line	190.864 {176}			
Avg	.0612			
Stddev	.0001			
%RSD	.1212			
#1	.0611			
#2	.0612			

Sample Name: STDA Run Time: 02/01/11 15:37

Int. Std. Sc3572
Line 357.253 { 94}
Avg 238.18
Stddev 1.62
%RSD .68047

#1 237.04
#2 239.33

Method:	2011A	Sample Name:	ICV1 CP6-58-C	Operator:		
Comment:						
Run Time:	02/01/11 15:40	Type:	QC	Mode:	CONC	Corr. Fact:
Elem	A12373	Units	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.029		2.465	2.534	5.1750	.12658
Stddev	.074		.002	.004	.0375	.00002
%RSD	1.475		.0759	.1412	.72479	.01520
#1	4.976		2.466	2.537	5.1485	.12660
#2	5.081		2.464	2.532	5.2015	.12657
Check ?	QC Pass	Value	QC Pass	QC Pass	QC Pass	QC Pass
Value	5.000		2.500	2.500	5.0000	.12500
Range	5.000%		5.000%	5.000%	5.0000%	5.0000%
Elem	Cd2265	Units	Ca2112	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.227		13.06	.5003	1.231	.6139
Stddev	.006		.26	.0026	.013	.0037
%RSD	.4603		2.028	.5218	1.041	.6024
#1	1.223		12.87	.4984	1.222	.6165
#2	1.231		13.24	.5021	1.240	.6113
Check ?	QC Pass	Value	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.250		12.50	.5000	1.250	.6250
Range	5.000%		5.000%	5.000%	5.000%	5.000%
Elem	Pb2203	Units	Mg2025	Mn2576	Mo2020	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.465		12.68	1.2001	2.008	1.229
Stddev	.005		.11	.0033	.014	.012
%RSD	.1884		.8674	.27865	.6951	.9596
#1	2.461		12.60	1.2025	1.998	1.221
#2	2.468		12.75	1.1978	2.018	1.237
Check ?	QC Pass	Value	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.500		12.50	1.2500	2.000	1.250
Range	5.000%		5.000%	5.0000%	5.000%	5.000%
Elem	Se1960	Units	Ag3280	Na5895	Sn1899	V_3102
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.518		.6140	11.94	.0123	1.220
Stddev	.030		.0027	.00	.0024	.001
%RSD	1.194		.4336	.0399	19.87	.0573
#1	2.497		.6121	11.93	.0140	1.221
#2	2.539		.6158	11.94	.0106	1.220
Check ?	QC Pass	Value	QC Pass	QC Pass	None	QC Pass
Value	2.500		.6250	12.50		1.250
Range	5.000%		5.000%	5.000%		5.000%

Sample Name: ICV1 Run Time: 02/01/11 15:40

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0043	-.0668	1.9369	2.474	-.00007	.00454
Stddev	.0004	.0014	.0028	.038	.00023	.00000
%RSD	8.675	2.133	.14236	1.531	328.26	.09244
#1	-.0040	-.0658	1.9350	2.447	.00009	.00454
#2	-.0045	-.0678	1.9389	2.501	-.00023	.00453
Check ?	None	None	QC Pass	QC Pass	None	None
Value			2.0000	2.500		
Range			5.0000%	5.000%		
Int. Std.	Sc3572					
Units	Cts/S					
Avg	241.10					
Stddev	.19					
%RSD	.07862					
#1	240.97					
#2	241.23					

Method: 2011A

Sample Name: ICVB1 50g-44-13 Operator:

Comment:

Run Time: 02/01/11 15:43 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.021	.0052	.0065	.00114	-.00003	2.028
Stddev	.005	.0096	.0061	.00187	.00004	.014
%RSD	.5337	184.5	93.42	163.72	104.44	.6935

#1	1.025	.0119	.0022	.00247	-.00006	2.018
#2	1.017	-.0016	.0108	-.00018	-.00001	2.038

Check ?	None	None	None	None	None	QC Pass
Value						2.000
Range						5.000%

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	5.095	.0130	-.0008	-.0015	10.22
Stddev	.0010	.032	.0022	.0013	.0009	.03
%RSD	135.1	.6258	16.86	162.2	55.23	.2881

#1	.0014	5.072	.0146	.0001	-.0009	10.20
#2	.0000	5.117	.0115	-.0017	-.0021	10.24

Check ?	None	QC Pass	None	None	None	QC Pass
Value		5.000				10.00
Range		5.000%				5.000%

Elem	Pb2203	Mg2795	Mn2939	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0019	5.0264	10.23	.0018	.0017	-.0308
Stddev	.0075	.0080	.04	.0067	.0012	.0027
%RSD	388.4	.15899	.4116	371.9	71.09	.8.680

#1	-.0072	5.0208	10.20	.0065	.0025	-.0289
#2	.0034	5.0321	10.25	-.0029	.0008	-.0327

Check ?	None	QC Pass	QC Pass	None	None	None
Value		5.0000	10.00			
Range		5.0000%	5.000%			

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082	.0003	8.102	5.120	-.0005	.0012
Stddev	.0139	.0002	.010	.029	.0019	.0009
%RSD	169.6	54.55	.1255	.5761	419.7	.76.89

#1	-.0016	.0002	8.095	5.099	.0009	.0019
#2	.0180	.0004	8.110	5.141	-.0018	.0006

Check ?	None	None	None	QC Pass	None	None
Value				5.000		
Range				5.000%		

Sample Name: ICVB1 Run Time: 02/01/11 15:43

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.018	5.224	-.00060	.0176	2.0626	1.9896
Stddev	.009	.041	.00040	.0027	.0027	.0084
%RSD	.1756	.7918	65.928	15.14	.12879	.42448
#1	5.012	5.194	-.00089	.0157	2.0607	1.9836
#2	5.024	5.253	-.00032	.0194	2.0644	1.9956
Check ?	QC Pass	QC Pass	None	None	QC Pass	QC Pass
Value	5.000	5.000			2.0000	2.0000
Range	5.000%	5.000%			5.0000%	5.0000%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	240.53					
Stddev	.14					
%RSD	.05748					
#1	240.43					
#2	240.63					

Method: 2011A Sample Name: ICB Operator:

Comment:

Run Time: 02/01/11 15:46 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	A12373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0015	-.0092	.0164	-.00058	-.00003
Stddev	.0022	.0054	.0086	.00003	.00001
%RSD	144.4	58.70	52.28	4.8711	43.632

#1	.0000	-.0054	.0224	-.00060	-.00002
#2	-.0030	-.0130	.0103	-.00056	-.00004

Check ?	QC Pass				
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0500	±.0500	±.1000	±.00500	±.00500

Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0008	-.0002	-.0076	.0005	-.0008
Stddev	.0013	.0004	.0025	.0006	.0008
%RSD	165.5	153.1	32.38	115.4	99.33

#1	.0018	-.0005	-.0059	.0009	-.0002
#2	-.0001	.0000	-.0094	.0001	-.0014

Check ?	QC Pass				
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0500	±.0050	±.0500	±.0050	±.0100

Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0008	.0005	.0019	-.00069	.00081
Stddev	.0014	.0061	.0083	.00007	.00103
%RSD	181.4	1301.	434.6	10.059	127.07

#1	.0018	.0048	-.0040	-.00064	.00153
#2	-.0002	-.0038	.0078	-.00074	.00008

Check ?	QC Pass				
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0100	±.0200	±.0500	±.02000	±.00500

Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0080	-.0005	-.0147	-.0033	-.0024
Stddev	.0006	.0009	.0010	.0139	.0002
%RSD	7.159	173.2	6.510	424.4	6.736

#1	-.0076	.0001	-.0141	.0065	-.0026
#2	-.0084	-.0012	-.0154	-.0131	-.0023

Check ?	QC Pass				
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0100	±.0200	±.4000	±.1000	±.0100

Sample Name: ICB Run Time: 02/01/11 15:46

	Na5895	Sn1899	V_3102	Zn2062	P_2149
Elem					ppm
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0034	.0036	.0033	-.0008	-.0032
Stddev	.0022	.0004	.0000	.0005	.0057
%RSD	65.06	12.06	.0769	55.08	177.5
#1	-.0018	.0033	.0033	-.0005	.0008
#2	-.0049	.0040	.0033	-.0012	-.0073
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.2000	±.0500	±.0100	±.0100	±.2000
Elem	Si2516	Ti3234	Tl11908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-.00175	-.0136	.00003	.00003
Stddev	.0015	.00164	.0069	.00023	.00005
%RSD	2747.	93.723	50.72	905.18	164.61
#1	.0011	-.00059	-.0185	.00019	.00006
#2	-.0010	-.00291	-.0087	-.00014	.00000
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.01000	±.2000	±.01000	±.01000
Int. Std.	Sc3572				
Units	Cts/S				
Avg	232.14				
Stddev	.79				
%RSD	.33864				
#1	232.70				
#2	231.58				

Method: 2011A

Sample Name: CCVB

Operator:

Comment:

Run Time: 02/01/11 15:50 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.125	.0020	.0003	2.5627	.05169	.0065
Stddev	.034	.0153	.0073	.0103	.00009	.0003
%RSD	.6681	773.9	2115.	.40071	.16825	4.610

#1	5.139	.0194	-.0025	2.5485	.05161	.0066
#2	5.160	.0032	-.0075	2.5689	.05173	.0068
#3	5.121	.0031	.0018	2.5714	.05162	.0061
#4	5.079	-.0178	.0096	2.5621	.05179	.0066

Check ?	QC Pass	None	None	QC Pass	QC Pass	None
Value	5.000			2.5000	.05000	
Range	5.000%			5.0000%	5.0000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016	26.04	.0050	-.0019	-.0016	25.89
Stddev	.0003	.15	.0014	.0006	.0013	.11
%RSD	20.29	.5822	27.76	33.91	81.14	.4384

#1	.0017	25.82	.0056	-.0010	-.0030	25.78
#2	.0017	26.13	.0030	-.0021	-.0003	26.03
#3	.0019	26.10	.0061	-.0020	-.0022	25.83
#4	.0011	26.12	.0054	-.0024	-.0007	25.93

Check ?	None	QC Pass	None	None	None	QC Pass
Value		25.00				25.00
Range		5.000%				5.000%

Elem	Pb2203	Mg2025	Mn2939	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0131	25.56	5.152	-.0100	-.0039	10.11
Stddev	.0073	.07	.008	.0017	.0014	.03
%RSD	55.68	.2548	.1636	17.35	37.51	.2888

#1	-.0043	25.62	5.145	-.0098	-.0059	10.12
#2	-.0200	25.62	5.164	-.0119	-.0035	10.09
#3	-.0180	25.50	5.151	-.0107	-.0037	10.15
#4	-.0101	25.51	5.148	-.0077	-.0024	10.08

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		25.00	5.000			10.00
Range		5.000%	5.000%			5.000%

Sample Name: CCVB Run Time: 02/01/11 15:50

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065	-.0027	10.18	.0031	.0058	.0013
Stddev	.0048	.0034	.02	.0060	.0031	.0007
%RSD	73.65	123.6	.2377	192.5	53.04	58.03

#1	-.0049	-.0034	10.20	.0022	.0040	.0020
#2	-.0065	.0015	10.15	-.0031	.0105	.0005
#3	-.0131	-.0067	10.19	.0113	.0046	.0018
#4	-.0016	-.0023	10.17	.0021	.0043	.0007

Check ?	None	None	QC Pass	None	None	None
Value			10.00			
Range			5.000%			

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.18	2.568	.00075	.0086	.50445	.51854
Stddev	.02	.010	.00081	.0098	.00157	.00078
%RSD	.1915	.3996	108.15	114.5	.31040	.14983

#1	10.18	2.559	.00018	.0183	.50500	.51879
#2	10.20	2.580	.00044	.0124	.50518	.51928
#3	10.15	2.574	.00043	-.0049	.50549	.51864
#4	10.18	2.560	.00196	.0086	.50212	.51745

Check ?	QC Pass	QC Pass	None	None	QC Pass	QC Pass
Value	10.00	2.500			.50000	.50000
Range	5.000%	5.000%			5.0000%	5.0000%

Int. Std.	Sc3572
Units	Cts/S
Avg	235.26
Stddev	.19
%RSD	.08174

#1	235.05
#2	235.35
#3	235.48
#4	235.15

Method: 2011A

Sample Name: CCVA

Operator:

Comment:

Run Time: 02/01/11 15:56 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4810	2.472	2.519	.47282	.56338	.5045
Stddev	.0197	.011	.009	.00184	.00211	.0023
%RSD	4.100	.4415	.3402	.38965	.37365	.4530
#1	.4540	2.468	2.511	.47156	.56413	.5016
#2	.4906	2.481	2.513	.47555	.56532	.5038
#3	.4798	2.480	2.530	.47193	.56367	.5057
#4	.4996	2.458	2.521	.47223	.56040	.5068
Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		2.500	2.500			.5000
Range		5.000%	5.000%			5.000%
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5178	2.577	.5024	.5055	.5108	.5149
Stddev	.0027	.007	.0027	.0034	.0037	.0076
%RSD	.5151	.2911	.5301	.6660	.7172	1.479
#1	.5193	2.572	.4989	.5019	.5108	.5249
#2	.5208	2.572	.5054	.5098	.5065	.5168
#3	.5151	2.576	.5028	.5061	.5105	.5098
#4	.5162	2.588	.5025	.5041	.5155	.5082
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	2.500	.5000	.5000	.5000	.5000
Range	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.521	2.0752	1.0184	.9953	.5043	.038
Stddev	.016	.0065	.0052	.0057	.0020	.019
%RSD	.6221	.31338	.50965	.5703	.3880	.3807
#1	2.532	2.0694	1.0228	.9884	.5042	5.058
#2	2.522	2.0716	1.0227	1.001	.5071	5.013
#3	2.530	2.0757	1.0154	.9929	.5034	5.046
#4	2.498	2.0842	1.0125	.9991	.5025	5.036
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	None
Value	2.500	2.0000	1.0000	1.000	.5000	
Range	5.000%	5.0000%	5.0000%	5.000%	5.000%	

Sample Name: CCVA Run Time: 02/01/11 15:56

	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Elem	ppm	ppm	ppm	ppm	ppm	ppm
Units	2.498	.4997	.5036	2.511	.5044	.5160
Avg	.040	.0040	.0073	.015	.0040	.0030
Stddev	1.607	.8076	1.453	.6153	.7842	.5889
%RSD						
#1	2.454	.5049	.5145	2.497	.5093	.5169
#2	2.475	.4963	.5011	2.528	.5056	.5195
#3	2.537	.4968	.4992	2.521	.5003	.5152
#4	2.527	.5009	.4997	2.499	.5024	.5123
Check ?	QC Pass	QC Pass	None	QC Pass	QC Pass	QC Pass
Value	2.500	.5000		2.500	.5000	.5000
Range	5.000%	5.000%		5.000%	5.000%	5.000%
Elem	P_2149	Si2516	Ti3234	Tl11908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0154	.2486	.49960	5.044	.50068	.50846
Stddev	.0130	.0009	.00223	.040	.00115	.00310
%RSD	84.19	.3513	.44709	.8012	.22876	.60950
#1	-.0286	.2488	.50263	5.022	.49990	.51114
#2	-.0036	.2495	.49982	5.105	.49955	.51083
#3	-.0050	.2486	.49847	5.023	.50197	.50723
#4	-.0245	.2474	.49748	5.026	.50130	.50465
Check ?	None	None	QC Pass	QC Pass	None	None
Value			.50000	5.000		
Range			5.0000%	5.000%		
Int. Std.	Sc3572					
Units	Cts/S					
Avg	238.93					
Stddev	1.46					
%RSD	.60942					
#1	237.63					
#2	237.90					
#3	239.45					
#4	240.76					

Method: 2011A Sample Name: CCB Operator:

Comment:

Run Time: 02/01/11 16:01 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0091	.0197	.0096	.00045	.00006
Stddev	.0064	.0081	.0050	.00005	.00008
%RSD	70.67	41.24	52.41	10.135	126.47

#1	-.0137	-.0139	.0060	-.00042	.00001
#2	-.0046	-.0254	.0132	-.00049	.00012

Check ?	QC Pass				
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0500	±.0500	±.1000	±.00500	±.00500

Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0006	.0006	.0033	.0006	-.0010
Stddev	.0008	.0006	.0041	.0012	.0002
%RSD	149.6	100.5	121.1	210.6	21.04

#1	.0000	.0010	.0005	.0014	-.0009
#2	-.0012	.0002	.0062	-.0003	-.0012

Check ?	QC Pass				
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0500	±.0050	±.0500	±.0050	±.0100

Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	-.0004	.0018	.00183	.00032
Stddev	.0006	.0006	.0012	.00007	.00014
%RSD	113.3	155.9	66.47	4.0219	45.121

#1	-.0010	.0000	.0026	.00178	.00042
#2	-.0001	-.0008	.0009	.00188	.00022

Check ?	QC Pass				
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0100	±.0200	±.0500	±.02000	±.00500

Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0062	.0001	-.0306	-.0065	-.0009
Stddev	.0020	.0001	.0321	.0000	.0010
%RSD	31.54	70.98	105.1	.0099	105.9

#1	-.0048	.0001	-.0532	-.0065	-.0002
#2	-.0076	.0002	-.0079	-.0065	-.0016

Check ?	QC Pass				
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0100	±.0200	±.4000	±.1000	±.0100

Sample Name: CCB Run Time: 02/01/11 16:01

	Na5895	Sn1899	V_3102	Zn2062	P_2149
Elem					ppm
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0018	.0043	-.0002	-.0005	-.0165
Stddev	.0008	.0015	.0006	.0003	.0163
RSD	44.66	35.53	299.1	55.29	98.93
#1	-.0024	.0032	-.0006	-.0006	-.0281
#2	-.0012	.0054	-.0002	-.0003	-.0050
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.2000	±.0500	±.0100	±.0100	±.2000
Elem	Si2516	Ti3234	Tl11908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0011	.00058	.0123	.00044	.00010
Stddev	.0012	.00125	.0000	.00067	.00001
RSD	109.0	216.19	.0336	154.90	13.922
#1	.0019	-.00031	.0123	.00091	.00011
#2	.0003	.00146	.0123	-.00004	.00009
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.01000	±.2000	±.01000	±.01000
Int. Std.	Sc3572				
Units	Cts/S				
Avg	235.73				
Stddev	.07				
RSD	.02948				
#1	235.68				
#2	235.78				

Method:	2011A	Sample Name:	CRI 24Pg-644-A	Operator:		
Comment:						
Run Time:	02/01/11 16:04	Type:	QC	Mode:	CONC	Corr.Fact: 1.000000
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0577	.0324	.0854	.00411	.00506	.0495
Stddev	.0064	.0047	.0045	.00016	.00001	.0004
%RSD	11.12	14.66	5.313	4.0144	.19861	.8878
#1	.0532	.0357	.0887	.00422	.00505	.0498
#2	.0623	.0290	.0822	.00399	.00507	.0492
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0500	.0500	.1000	.00500	.00500	.0500
Range	30.00%	50.00%	50.00%	50.000%	50.000%	50.00%
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046	.0406	.0055	.0092	.0090	.0196
Stddev	.0008	.0009	.0006	.0010	.0009	.0002
%RSD	18.16	2.214	10.49	10.88	10.35	.9321
#1	.0051	.0412	.0051	.0099	.0083	.0198
#2	.0040	.0400	.0059	.0085	.0096	.0195
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0050	.0500	.0050	.0100	.0100	.0200
Range	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0496	.01783	.00530	.0002	.0187	.3918
Stddev	.0024	.00041	.00016	.0007	.0003	.0031
%RSD	4.789	2.3231	2.9839	358.7	1.569	.7860
#1	.0480	.01754	.00541	.0007	.0185	.3896
#2	.0513	.01813	.00518	-.0003	.0189	.3940
Check ?	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	.0500	.02000	.00500	.0100	.0200	.4000
Range	50.00%	50.000%	50.000%	50.00%	50.00%	50.00%
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0727	.0074	.1955	.0352	.0086	.0085
Stddev	.0150	.0003	.0046	.0030	.0001	.0000
%RSD	20.67	4.418	2.354	8.567	.8734	.2112
#1	.0833	.0077	.1923	.0373	.0085	.0085
#2	.0621	.0072	.1988	.0330	.0086	.0085
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.1000	.0100	.2000	.0500	.0100	.0100
Range	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%

Sample Name: CRI Run Time: 02/01/11 16:04

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1616	.4177	.00810	.1522	.01036	.00955
Stddev	.0025	.0000	.00019	.0033	.00042	.00002
%RSD	1.546	.0041	2.3354	2.178	4.0906	.25134
#1	.1634	.4178	.00797	.1545	.01066	.00953
#2	.1598	.4177	.00824	.1498	.01006	.00957
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.2000	.4000	.01000	.2000	.01000	.01000
Range	50.00%	50.00%	50.000%	50.00%	50.000%	50.000%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	238.91					
Stddev	.90					
%RSD	.37820					
#1	238.27					
#2	239.55					

Method: 2011A

Sample Name: CRI

Operator:

Comment:

Run Time: 02/01/11 16:07 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0463	.0405	.0851	.00437	.00509	.0504
Stddev	.0162	.0081	.0061	.00039	.00006	.0008
%RSD	34.94	20.08	7.172	8.8417	1.2404	1.652

#1	.0349	.0347	.0807	.00410	.00505	.0498
#2	.0578	.0462	.0894	.00465	.00514	.0510

Check ?	QC Pass					
Value	.0500	.0500	.1000	.00500	.00500	.0500
Range	30.00%	50.00%	50.00%	50.000%	50.000%	50.00%

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043	.0409	.0056	.0098	.0067	.0198
Stddev	.0002	.0031	.0004	.0004	.0002	.0001
%RSD	5.587	7.657	6.991	4.239	2.244	.4514

#1	.0045	.0387	.0058	.0101	.0066	.0197
#2	.0041	.0431	.0053	.0095	.0068	.0198

Check ?	QC Pass					
Value	.0050	.0500	.0050	.0100	.0100	.0200
Range	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%

Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0425	.01779	.00549	.0004	.0196	.3883
Stddev	.0064	.00000	.00003	.0008	.0014	.0064
%RSD	15.00	.01771	.55992	184.4	.6.896	1.647

#1	.0380	.01780	.00546	.0001	.0205	.3929
#2	.0470	.01779	.00551	-.0010	.0186	.3838

Check ?	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass
Value	.0500	.02000	.00500	.0100	.0200	.4000
Range	50.00%	50.000%	50.000%	50.00%	50.00%	50.00%

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0873	.0101	.1966	.0366	.0090	.0092
Stddev	.0080	.0015	.0064	.0036	.0001	.0009
%RSD	9.184	14.54	3.269	9.840	.8666	10.20

#1	.0930	.0091	.1921	.0392	.0090	.0085
#2	.0817	.0112	.2012	.0341	.0091	.0099

Check ?	QC Pass					
Value	.1000	.0100	.2000	.0500	.0100	.0100
Range	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%

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Sample Name: CRI Run Time: 02/01/11 16:07

Elem.	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1740	.4189	.00936	.1738	.01007	.00955
Stddev	.0137	.0014	.00309	.0121	.00033	.00000
%RSD	7.854	.3418	32.991	6.975	3.2587	.05087
#1	.1643	.4179	.00718	.1652	.00984	.00955
#2	.1837	.4199	.01155	.1824	.01030	.00954
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.2000	.4000	.01000	.2000	.01000	.01000
Range	50.00%	50.00%	50.000%	50.00%	50.000%	50.000%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	239.01					
Stddev	.06					
%RSD	.02716					
#1	238.96					
#2	239.06					

WS
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Method: 2011A

Sample Name: ICSAICP-33-C

Operator:

Comment:

Run Time: 02/01/11 16:10 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	515.5	.0408	.0532	-.00033	.00014	.0009
Stddev	3.9	.0088	.0164	.00009	.00007	.0019
%RSD	.7478	21.50	30.90	27.674	53.188	215.3

#1	512.8	.0346	-.0416	-.00040	.00008	-.0004
#2	518.3	.0470	-.0648	-.00027	.00019	.0022

Check ?	QC Pass	None	None	None	None	None
Value	500.0					
Range	20.00%					

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035	503.1	.0010	.0001	-.0039	199.5
Stddev	.0001	4.8	.0003	.0000	.0003	2.1
%RSD	3.607	.9534	33.78	25.20	7.606	1.035

#1	.0034	499.7	.0008	.0001	-.0041	198.1
#2	.0036	506.5	.0012	.0001	-.0037	201.0

Check ?	None	QC Pass	None	None	None	QC Pass
Value		500.0				200.0
Range		20.00%				20.00%

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0073	538.7	-.01655	-.0234	-.0068	-.0754
Stddev	.0039	.3	.00022	.0011	.0008	.0168
%RSD	53.87	.0645	1.3588	4.845	11.46	22.25

#1	-.0045	538.9	-.01671	-.0226	-.0062	-.0636
#2	-.0100	538.4	-.01639	-.0242	-.0073	-.0873

Check ?	None	QC Pass	None	None	None	None
Value		500.0				
Range		20.00%				

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0385	.0027	.0160	-.0326	-.0023	.0047
Stddev	.0174	.0025	.0040	.0020	.0015	.0033
%RSD	45.14	92.14	24.73	5.999	65.73	71.27

#1	-.0507	.0009	.0188	-.0312	-.0034	.0070
#2	-.0262	.0044	.0132	-.0339	-.0013	.0023

Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: ICSA Run Time: 02/01/11 16:10

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1322	-.0182	.00527	.0429	.01297	.03211
Stddev	.0052	.0004	.00018	.0032	.00006	.00018
GRSD	3.905	2.094	3.3320	7.378	.46060	.54697
#1	-.1285	-.0185	.00514	.0406	.01301	.03223
#2	-.1358	-.0179	.00539	.0451	.01293	.03198
Check ?	None	None	None	None	None	None
Value						
Range						
Int. Std.	Sc3572					
Units	Cts/S					
Avg	220.91					
Stddev	1.03					
GRSD	.46806					
#1	221.64					
#2	220.17					

Method:	2011A	Sample Name:	ICSAB	<i>Scps-31-6</i>	Operator:	
Comment:						
Run Time:	02/01/11 16:13	Type:	QC	Mode: CONC	Corr.Fact:	1.000000
Elem	A12373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	513.3	1.012	-.0333	.44454	.53769	.0040
Stddev	3.9	.019	.0324	.00507	.00147	.0003
%RSD	.7570	1.856	97.26	1.1398	.27298	7.077
#1	510.5	.9984	-.0562	.44096	.53873	.0042
#2	516.0	1.025	-.0104	.44812	.53665	.0038
Check ?	None	QC Pass	None	QC Pass	QC Pass	None
Value		1.000		.50000	.50000	
Range		20.00%		20.000%	20.000%	
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9016	499.2	.4752	.4615	.4581	195.0
Stddev	.0096	5.1	.0075	.0035	.0011	1.0
%RSD	1.067	1.023	1.569	.7680	.2383	.5219
#1	.8948	495.6	.4699	.4590	.4588	194.3
#2	.9084	502.8	.4805	.4640	.4573	195.7
Check ?	QC Pass	None	QC Pass	QC Pass	QC Pass	None
Value	1.000		.5000	.5000	.5000	
Range	20.00%		20.00%	20.00%	20.00%	
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9450	527.9	.41960	-.0226	.8945	-.0627
Stddev	.0112	15.9	.00312	.0040	.0111	.0119
%RSD	1.180	3.014	.74270	17.53	1.246	18.90
#1	.9372	516.6	.41740	-.0198	.8866	-.0711
#2	.9529	539.1	.42180	-.0254	.9024	-.0543
Check ?	QC Pass	None	QC Pass	None	QC Pass	None
Value	1.000		.50000	1.000		
Range	20.00%		20.000%	20.00%		
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0262	.9462	.0184	-.0177	.4778	.9184
Stddev	.0069	.0043	.0014	.0133	.0054	.0089
%RSD	26.52	.4595	7.865	75.07	1.131	.9698
#1	-.0311	.9492	.0174	-.0083	.4816	.9121
#2	-.0213	.9431	.0194	-.0271	.4739	.9247
Check ?	None	QC Pass	None	None	QC Pass	QC Pass
Value		1.000			.5000	1.000
Range		20.00%			20.00%	20.00%

Sample Name: ICSAB Run Time: 02/01/11 16:13

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1406	.0054	.00446	.0494	.01276	.03207
Stddev	.0058	.0021	.00275	.0143	.00014	.00016
RSD	4.141	38.22	61.684	29.02	1.0780	.49500
#1	-.1365	.0039	.00251	.0393	.01266	.03219
#2	-.1448	.0069	.00640	.0595	.01286	.03196
Check ?	None	None	None	None	None	None
Value						
Range						
Int. Std.	Sc3572					
Units	Cts/S					
Avg	224.10					
Stddev	.06					
RSD	.02465					
#1	224.13					
#2	224.06					

Method: 2011A

Sample Name: ICSAB

Operator:

Comment:

Run Time: 02/01/11 16:16 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	A12373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	513.8	1.047	.0583	.45077	.54551	.0027
Stddev	5.2	.024	.0048	.00422	.00238	.0002
%RSD	1.021	2.250	8.189	.93575	.43546	7.149

#1	510.1	1.031	-.0617	.44778	.54383	.0028
#2	517.5	1.064	-.0549	.45375	.54719	.0026

Check ?	None	QC Pass	None	QC Pass	QC Pass	None
Value		1.000		.50000	.50000	
Range		20.00%		20.000%	20.000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9154	502.3	.4810	.4662	.4639	198.1
Stddev	.0144	5.4	.0063	.0041	.0060	2.1
%RSD	1.570	1.084	1.310	.8879	1.298	1.071

#1	.9052	498.4	.4766	.4633	.4597	196.6
#2	.9255	506.2	.4855	.4691	.4682	199.6

Check ?	QC Pass	None	QC Pass	QC Pass	QC Pass	None
Value	1.000		.5000	.5000	.5000	
Range	20.00%		20.00%	20.00%	20.00%	

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9519	529.6	.42540	-.0239	.9050	-.0731
Stddev	.0015	11.2	.00562	.0010	.0089	.0250
%RSD	.1535	2.116	1.3200	4.078	.9854	34.24

#1	.9530	521.7	.42142	-.0246	.8987	-.0908
#2	.9509	537.5	.42937	-.0233	.9113	-.0554

Check ?	QC Pass	None	QC Pass	None	QC Pass	None
Value	1.000		.50000		1.000	
Range	20.00%		20.000%		20.00%	

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0295	.9454	.0170	-.0169	.4895	.9346
Stddev	.0347	.0034	.0010	.0039	.0069	.0156
%RSD	117.9	.3645	5.913	23.06	1.413	1.667

#1	-.0049	.9429	.0177	-.0141	.4846	.9235
#2	-.0540	.9478	.0163	-.0196	.4944	.9456

Check ?	None	QC Pass	None	None	QC Pass	QC Pass
Value		1.000			.5000	1.000
Range		20.00%			20.00%	20.00%

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Sample Name: ICSAB Run Time: 02/01/11 16:16

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1361	.0037	.00551	.0386	.01304	.03228
Stddev	.0277	.0024	.00088	.0100	.00002	.00051
%RSD	20.35	64.77	16.034	25.97	.17223	1.5830
#1	-.1165	.0020	.00613	.0457	.01305	.03264
#2	-.1557	.0054	.00488	.0315	.01302	.03192
Check ?	None	None	None	None	None	None
Value						
Range						
Int. Std.	Sc3572					
Units	Cts/S					
Avg	222.39					
Stddev	.42					
%RSD	.18982					
#1	222.69					
#2	222.09					

WS
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Method: 2011A

Sample Name: CCVB

Operator:

Comment:

Run Time: 02/01/11 16:19 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.215	.0007	.0007	2.5460	.05107	.0073
Stddev	.100	.0014	.0146	.0236	.00014	.0001
%RSD	1.917	199.0	2123.	.92823	.26696	1.254

#1	5.286	.0003	.0110	2.5292	.05097	.0073
#2	5.145	-.0017	-.0097	2.5627	.05116	.0074

Check ?	QC Pass	None	None	QC Pass	QC Pass	None
Value	5.000			2.5000	.05000	
Range	10.00%			10.000%	10.000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024	25.95	.0050	-.0021	-.0011	25.80
Stddev	.0009	.27	.0004	.0001	.0014	.04
%RSD	39.38	1.052	7.876	5.727	129.8	.1366

#1	.0031	25.76	.0053	-.0022	-.0021	25.82
#2	.0017	26.14	.0047	-.0020	-.0001	25.77

Check ?	None	QC Pass	None	None	None	QC Pass
Value		25.00				25.00
Range		10.00%				10.00%

Elem	Pb2203	Mg2025	Mn2939	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0059	25.76	5.126	-.0123	-.0046	10.23
Stddev	.0006	.18	.017	.0022	.0015	.04
%RSD	9.636	.6953	.3381	18.18	33.14	.3785

#1	-.0063	25.89	5.114	-.0107	-.0035	10.26
#2	-.0055	25.64	5.139	-.0139	-.0057	10.21

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		25.00	5.000			10.00
Range		10.00%	10.00%			10.00%

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0041	-.0012	10.18	-.0022	.0066	.0016
Stddev	.0266	.0025	.02	.0004	.0007	.0009
%RSD	651.2	205.4	.1926	15.92	10.09	58.00

#1	-.0229	.0005	10.19	-.0025	.0061	.0022
#2	.0147	-.0030	10.17	-.0020	.0070	.0009

Check ?	None	None	QC Pass	None	None	None
Value			10.00			
Range			10.00%			

Sample Name: CCVB Run Time: 02/01/11 16:19

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.14	2.567	.00069	.0008	.50691	.51610
Stddev	.01	.006	.00028	.0027	.00295	.00002
%RSD	.1370	.2449	40.256	336.8	.58188	.00439
#1	10.13	2.562	.00089	.0027	.50900	.51611
#2	10.15	2.571	.00050	-.0011	.50483	.51608
Check ?	QC Pass	QC Pass	None	None	QC Pass	QC Pass
Value	10.00	2.500			.50000	.50000
Range	10.00%	10.00%			10.000%	10.000%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	236.49					
Stddev	.31					
%RSD	.13047					
#1	236.71					
#2	236.27					

Method: 2011A		Sample Name: CCVA		Operator:									
Comment:													
Run Time: 02/01/11 16:22 Type: QC													
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497							
Units	ppm	ppm	ppm	ppm	ppm	ppm							
Avg	.4959	2.491	2.500	.47073	.56538	.5039							
Stddev	.0054	.005	.023	.00335	.00183	.0005							
%RSD	1.084	.2207	.9259	.71204	.32421	.0958							
#1	.4921	2.487	2.483	.46836	.56409	.5043							
#2	.4997	2.495	2.516	.47310	.56668	.5036							
Check ?	None	QC Pass	QC Pass	None	None	QC Pass							
Value		2.500	2.500			.5000							
Range		10.00%	10.00%			10.00%							
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599							
Units	ppm	ppm	ppm	ppm	ppm	ppm							
Avg	.5172	2.579	.5013	.5034	.5134	.5323							
Stddev	.0030	.021	.0021	.0012	.0029	.0174							
%RSD	.5889	.8304	.4285	.2285	.5657	3.271							
#1	.5150	2.564	.4998	.5042	.5114	.5446							
#2	.5193	2.595	.5028	.5026	.5155	.5200							
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass							
Value	.5000	2.500	.5000	.5000	.5000	.5000							
Range	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%							
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664							
Units	ppm	ppm	ppm	ppm	ppm	ppm							
Avg	2.526	2.0715	1.0231	.9971	.5062	.5100							
Stddev	.035	.0002	.0067	.0112	.0029	.038							
%RSD	1.371	.01173	.65938	1.122	.5765	.7423							
#1	2.501	2.0713	1.0183	.9892	.5041	5.127							
#2	2.550	2.0716	1.0279	1.005	.5082	5.073							
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	None							
Value	2.500	2.0000	1.0000	1.000	.5000								
Range	10.00%	10.000%	10.000%	10.00%	10.00%								
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062							
Units	ppm	ppm	ppm	ppm	ppm	ppm							
Avg	2.446	.4976	.5152	2.496	.5102	.5158							
Stddev	.022	.0005	.0068	.013	.0064	.0045							
%RSD	.9027	.1062	1.323	.5206	1.248	.8690							
#1	2.462	.4980	.5104	2.487	.5057	.5126							
#2	2.431	.4972	.5200	2.505	.5147	.5190							
Check ?	QC Pass	QC Pass	None	QC Pass	QC Pass	QC Pass							
Value	2.500	.5000		2.500	.5000	.5000							
Range	10.00%	10.00%		10.00%	10.00%	10.00%							

Sample Name: CCVA Run Time: 02/01/11 16:22

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0089	.2506	.49844	5.024	.50370	.51301
Stddev	.0071	.0035	.00153	.064	.00097	.00158
%RSD	80.22	1.402	.30680	1.274	.19230	.30833
#1	-.0140	.2481	.49952	4.979	.50438	.51189
#2	-.0039	.2531	.49736	5.070	.50301	.51413
Check ?	None	None	QC Pass	QC Pass	None	None
Value			.50000	5.000		
Range			10.000%	10.00%		
Int. Std.	Sc3572					
Units	Cts/S					
Avg	237.60					
Stddev	.80					
%RSD	.33525					
#1	238.16					
#2	237.04					

Method: 2011A

Sample Name: CCB

Operator:

Comment:

Run Time: 02/01/11 16:25 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038	-.0163	.0050	-.00043	.00015	-.0004
Stddev	.0097	.0114	.0076	.00047	.00009	.0000
%RSD	252.6	69.95	151.5	110.64	61.865	6.248

#1	-.0030	-.0244	-.0004	-.00009	.00021	-.0004
#2	.0107	-.0082	.0103	-.00076	.00008	-.0004

Check ?	QC Pass					
Value	.0000	.0000	.0000	.00000	.00000	.0000
Range	±.0500	±.0500	±.1000	±.00500	±.00500	±.0500

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0005	.0009	-.0014	-.0004	.0011
Stddev	.0006	.0095	.0004	.0007	.0007	.0010
%RSD	147.4	1995.	44.26	51.53	182.7	92.27

#1	.0009	.0072	.0007	-.0009	-.0009	.0018
#2	.0000	-.0062	.0012	-.0020	.0001	.0004

Check ?	QC Pass					
Value	.0000	.0000	.0000	.0000	.0000	.0000
Range	±.0050	±.0500	±.0050	±.0100	±.0100	±.0200

Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040	.00213	.00057	-.0053	-.0012	-.0364
Stddev	.0060	.00007	.00032	.0031	.0015	.0002
%RSD	149.7	3.0552	57.098	58.37	116.6	.5266

#1	.0083	.00218	.00080	-.0031	-.0002	-.0365
#2	-.0002	.00208	.00034	-.0074	-.0023	-.0362

Check ?	QC Pass					
Value	.0000	.00000	.00000	.0000	.0000	.0000
Range	±.0500	±.02000	±.00500	±.0100	±.0200	±.4000

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0220	-.0034	-.0006	.0043	.0025	-.0002
Stddev	.0035	.0012	.0028	.0047	.0019	.0003
%RSD	15.71	34.15	490.4	109.4	78.24	109.0

#1	-.0245	-.0026	-.0025	.0077	.0038	-.0001
#2	-.0196	-.0042	.0014	.0010	.0011	-.0004

Check ?	QC Pass					
Value	.0000	.0000	.0000	.0000	.0000	.0000
Range	±.1000	±.0100	±.2000	±.0500	±.0100	±.0100

Sample Name: CCB Run Time: 02/01/11 16:25

	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Elem						
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054	-.0004	.00197	-.0019	.00010	.00007
Stddev	.0072	.0041	.00226	.0013	.00021	.00004
%RSD	133.1	1046.	114.58	67.78	205.21	57.952
#1	-.0105	.0025	.00357	-.0028	.00026	.00010
#2	-.0003	-.0033	.00037	-.0010	-.00005	.00004
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.2000	±.01000	±.2000	±.01000	±.01000
Int. Std.	Sc3572					
Units	Cts/S					
Avg	232.27					
Stddev	1.98					
%RSD	.85093					
#1	230.87					
#2	233.67					

Method: 2011A		Sample Name: RB		Operator:	
Comment: 020111B					
Run Time: 02/01/11 16:28		Type: Unk	Mode: CONC	Corr.Fact: 1.000000	
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0098	-.0083	-.0014	-.00082	.00005
#1	-.0106	-.0045	-.0068	-.00090	.00015
#2	-.0091	-.0121	.0039	-.00075	-.00004
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0015	.0002	-.0008	.0006	-.0019
#1	-.0016	.0005	.0002	.0016	-.0028
#2	-.0014	-.0001	-.0018	-.0003	-.0010
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	-.0025	-.0017	-.00061	-.00046
#1	-.0003	-.0028	.0019	-.00060	-.00045
#2	-.0007	-.0022	-.0053	-.00062	-.00048
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0094	-.0009	-.0241	-.0008	-.0001
#1	-.0092	-.0001	-.0224	.0180	-.0012
#2	-.0096	-.0018	-.0257	-.0196	.0009
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0045	-.0010	-.0002	-.0009	-.0043
#1	.0071	.0015	.0006	-.0006	-.0103
#2	.0018	-.0035	-.0009	-.0011	.0018
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0035	.00065	-.0174	-.00030	-.00006
#1	-.0047	-.00053	-.0163	-.00038	-.00008
#2	-.0023	.00182	-.0184	-.00023	-.00003
Int. Std.	Sc3572				
Units	Cts/S				
Avg	238.93				
#1	243.64				
#2	234.22				

Method: 2011A		Sample Name: K1100767-MB		Operator:	
Comment: 020111B					
Run Time: 02/01/11 16:31		Type: Unk	Mode: CONC	Corr.Fact: 1.000000	
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0060	-.0116	.0093	-.00088	.00001
#1	-.0106	-.0083	.0125	-.00099	.00002
#2	-.0015	-.0150	.0061	-.00078	.00001
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0018	-.0003	.0014	.0007	-.0016
#1	-.0022	-.0004	-.0011	.0008	-.0006
#2	-.0013	-.0003	.0040	.0007	-.0026
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0011	-.0027	.0042	-.00070	-.00032
#1	-.0012	-.0025	-.0007	-.00072	-.00026
#2	-.0010	-.0028	.0091	-.00068	-.00038
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0095	-.0008	-.0330	-.0106	-.0030
#1	-.0089	-.0017	-.0330	-.0180	-.0026
#2	-.0101	.0001	-.0330	-.0033	-.0035
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0002	-.0045	-.0018	-.0005	.1929
#1	-.0024	-.0047	-.0021	-.0003	.1849
#2	.0020	-.0043	-.0014	-.0007	.2009
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0064	.00065	.0103	.00020	-.00006
#1	-.0042	.00095	.0142	.00073	-.00008
#2	-.0085	.00035	.0065	-.00033	-.00005
Int. Std.	Sc3572				
Units	Cts/S				
Avg	236.67				
#1	236.66				
#2	236.68				

Method: 2011A

Sample Name: LCSW

Operator:

Comment: 020111B

Run Time: 02/01/11 16:34 Type: Unk

Mode: CONC

Corr.Fact: 1.000000

Elem	A12373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.152	2.555	2.565	5.2469	.12945	.9928
#1	5.134	2.538	2.547	5.2085	.12956	.9910
#2	5.169	2.573	2.583	5.2852	.12934	.9947
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.238	13.19	.5097	1.254	.6330	2.431
#1	1.232	13.05	.5075	1.245	.6316	2.422
#2	1.244	13.32	.5120	1.262	.6344	2.441
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.489	12.91	1.2338	.9760	1.248	12.74
#1	2.467	12.90	1.2303	.9683	1.239	12.71
#2	2.512	12.93	1.2372	.9837	1.256	12.78
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.533	.6252	12.31	.0103	1.239	1.251
#1	2.529	.6232	12.31	.0118	1.240	1.243
#2	2.536	.6272	12.30	.0089	1.239	1.260
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2276	-.0588	10.470	2.490	-.00001	.00468
#1	.2223	-.0607	10.446	2.461	.00045	.00463
#2	.2329	-.0570	10.494	2.520	-.00046	.00472
Int. Std.	Sc3572					
Units	Cts/S					
Avg	240.77					
#1	240.31					
#2	241.22					

Method: 2011A		Sample Name: DW MRL		Operator:		
Comment: 020111B						
Run Time: 02/01/11 16:36 Type: Unk		Mode: CONC		Corr.Fact: 1.000000		
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0372	-.0092	.0025	.01000	-.00003	-.0004
#1	.0410	-.0139	.0053	.01138	-.00003	-.0003
#2	.0334	-.0045	-.0004	.00861	-.00003	-.0005
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0427	.0017	-.0015	.0084	.0187
#1	.0005	.0413	.0019	-.0006	.0077	.0205
#2	.0000	.0441	.0015	-.0025	.0092	.0168
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0041	.01683	.00912	-.0065	.0001	-.0351
#1	-.0057	.01708	.00942	-.0038	.0007	-.0487
#2	-.0025	.01659	.00882	-.0092	-.0006	-.0216
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0090	.0008	.1897	-.0003	-.0029	.0083
#1	.0000	.0000	.1884	.0028	-.0036	.0094
#2	-.0180	.0016	.1911	-.0034	-.0023	.0072
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2256	.3867	.00118	.0099	.00016	-.00002
#1	.2129	.3869	.00136	.0137	.00012	-.00003
#2	.2384	.3865	.00101	.0060	.00020	-.00001
Int. Std.	Sc3572					
Units	Cts/S					
Avg	241.99					
#1	241.12					
#2	242.85					

Method: 2011A

Sample Name: K1100661-001

Operator:

Comment: 020111B

Run Time: 02/01/11 16:39

Type: Unk

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018	-.0106	-.0010	.07919	-.00004	.0182

#1	.0033	-.0035	-.0046	.07777	-.00005	.0178
#2	.0003	-.0178	.0025	.08061	-.00003	.0187

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	46.53	.0020	-.0005	-.0029	.0155

#1	-.0002	45.95	.0025	-.0009	-.0026	.0147
#2	.0008	47.11	.0015	-.0002	-.0032	.0164

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050	12.82	.00348	-.0090	.0000	28.27

#1	.0088	12.70	.00351	-.0080	.0001	28.18
#2	.0011	12.95	.00344	-.0101	-.0001	28.36

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0074	-.0035	85.53	-.0044	.0055	.0004

#1	-.0065	-.0016	85.39	-.0080	.0061	.0010
#2	-.0082	-.0054	85.67	-.0008	.0050	-.0002

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2615	24.91	.00086	-.0014	.00701	.22984

#1	.2624	24.74	.00003	.0079	.00723	.23004
#2	.2607	25.08	.00170	-.0108	.00679	.22964

Int. Std.	Sc3572
Units	Cts/S
Avg	242.86

#1	242.56
#2	243.16

Method: 2011A		Sample Name: K1100661-001L		Operator:	
Comment: 020111B 5					
Run Time: 02/01/11 16:42		Type: Unk	Mode: CONC	Corr.Fact: 1.000000	
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0075	-.0207	-.0018	.01542	-.00003
#1	-.0045	-.0188	-.0060	.01519	-.00006
#2	-.0106	-.0226	.0025	.01564	.00000
Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0031	-.0002	9.446	-.0001	-.0009
#1	.0027	-.0001	9.474	.0000	-.0012
#2	.0035	-.0002	9.418	-.0002	-.0007
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0009	.0014	-.0009	2.6960	.00045
#1	.0004	.0013	-.0041	2.6959	.00047
#2	-.0022	.0015	.0024	2.6962	.00044
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0100	-.0008	5.587	-.0049	-.0038
#1	-.0105	-.0003	5.597	-.0033	-.0030
#2	-.0095	-.0012	5.576	-.0065	-.0047
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.47	-.0019	-.0020	-.0006	.0594
#1	17.23	-.0007	-.0030	-.0005	.0540
#2	17.72	-.0031	-.0011	-.0007	.0648
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.606	.00086	-.0023	.00162	.04559
#1	4.594	.00173	-.0033	.00166	.04510
#2	4.617	-.00002	-.0013	.00159	.04608
Int. Std.	Sc3572				
Units	Cts/S				
Avg	242.18				
#1	244.15				
#2	240.20				

Method: 2011A Sample Name: K1100661-001D Operator:
 Comment: 020111B
 Run Time: 02/01/11 16:45 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042	-.0173	.0040	.08044	-.00006	.0195
#1	.0019	-.0178	-.0068	.08016	-.00009	.0191
#2	.0064	-.0168	.0147	.08071	-.00004	.0199
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	46.73	.0009	-.0001	-.0021	.0153
#1	.0002	46.34	.0003	-.0008	-.0024	.0151
#2	.0006	47.13	.0014	.0005	-.0019	.0155
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043	13.06	.00347	-.0100	-.0003	28.87
#1	.0065	12.99	.00335	-.0112	-.0011	28.89
#2	.0020	13.13	.00360	-.0089	.0004	28.85
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0016	.0016	89.41	-.0049	.0042	.0008
#1	.0016	-.0007	89.61	-.0076	.0042	-.0001
#2	-.0049	.0040	89.20	-.0022	.0042	.0017
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2972	25.16	.00039	-.0013	.00740	.23666
#1	.3048	25.04	.00090	.0006	.00693	.23706
#2	.2895	25.29	-.00012	-.0032	.00786	.23625
Int. Std.	Sc3572					
Units	Cts/S					
Avg	240.46					
#1	239.76					
#2	241.15					

Method: 2011A

Sample Name: K1100661-001S

Operator:

Comment: 020111B

Run Time: 02/01/11 16:48

Type: Unk

Mode: CONC

Corr.Fact: 1.000000

Elem	A12373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.104	.4828	1.028	2.1501	.05195	1.050

#1	2.101	.4754	1.018	2.1428	.05218	1.044
#2	2.106	.4902	1.038	2.1574	.05171	1.056

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0507	57.87	.2037	.4942	.2406	.9993

#1	.0499	57.35	.2055	.4910	.2398	.9959
#2	.0515	58.40	.2018	.4974	.2414	1.003

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4873	23.70	.47144	1.036	.4926	39.42

#1	.4772	23.62	.46879	1.026	.4900	39.39
#2	.4973	23.78	.47409	1.046	.4952	39.46

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9749	.0433	101.8	.0020	.5074	.5016

#1	.9479	.0429	102.1	-.0008	.5061	.4941
#2	1.002	.0437	101.5	.0048	.5088	.5091

Elem	P_2149	Si2516	Ti3234	Tl11908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3258	25.46	10.934	.9558	.00758	.24184

#1	.3214	25.36	10.943	.9325	.00744	.24223
#2	.3301	25.55	10.924	.9790	.00772	.24145

Int. Std.	Sc3572
Units	Cts/S
Avg	236.14

#1	235.50
#2	236.78

Method:	2011A	Sample Name:	K1100692-002	Operator:	
Comment:	020111B				
Run Time:	02/01/11 16:51	Type:	Unk	Mode:	CONC
				Corr.Fact:	1.000000
Elem Units Avg	Al2373 ppm -.0302	Sb2068 ppm -.0087	As1890 ppm -.0025	Ba2335 ppm .36241	Be3130 ppm -.00007
#1	-.0332	-.0130	-.0039	.36143	.00000
#2	-.0271	-.0044	-.0010	.36339	-.00014
Elem Units Avg	B_2497 ppm .0464	Cd2265 ppm .0004	Ca2112 ppm 154.7	Cr2677 ppm .0009	Co2286 ppm -.0026
#1	.0463	.0004	153.3	.0027	-.0020
#2	.0466	.0004	156.1	-.0008	-.0031
Elem Units Avg	Cu3247 ppm -.0031	Fe2599 ppm .0133	Pb2203 ppm .0006	Mg2025 ppm 46.53	Mn2576 ppm .00338
#1	-.0041	.0148	.0055	46.49	.00351
#2	-.0022	.0119	-.0044	46.58	.00325
Elem Units Avg	Mo2020 ppm -.0066	Ni2316 ppm -.0013	K_7664 ppm 27.86	Se1960 ppm -.0106	Ag3280 ppm -.0003
#1	-.0040	-.0014	27.77	-.0147	.0009
#2	-.0092	-.0012	27.94	-.0065	-.0002
Elem Units Avg	Na5895 ppm >180.0	Sn1899 ppm .0000	V_3102 ppm .0053	Zn2062 ppm .0009	P_2149 ppm .2007
#1	>180.0	-.0049	.0055	.0007	.2115
#2	>180.0	.0049	.0051	.0012	.1898
Elem Units Avg	Si2516 ppm 24.81	Ti3234 ppm .00215	Tl1908 ppm .0161	Li6707 ppm .01920	Sr4077 ppm .79758
#1	24.69	.00424	.0131	.01958	.79736
#2	24.93	.00005	.0190	.01882	.79781
Int. Std. Units Avg	Sc3572 Cts/S 229.34	* 500 dilution WS 2/2/11			
#1	229.12				
#2	229.56				

Method: 2011A		Sample Name: K1100692-002D		Operator:	
Comment: 020111B					
Run Time: 02/01/11 16:54		Type: Unk	Mode: CONC	Corr.Fact: 1.000000	
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0081	-.0092	.0000	.35722	-.00003
#1	-.0301	-.0034	.0018	.35643	.00000
#2	.0140	-.0150	-.0018	.35801	-.00007
Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0457	.0007	152.7	.0016	-.0025
#1	.0455	.0002	151.9	.0003	-.0027
#2	.0459	.0012	153.6	.0028	-.0023
Elem	Cu3247	Fe2599	Pb2203	Mg2025	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0045	.0124	-.0003	45.90	.00331
#1	-.0046	.0123	.0029	45.87	.00325
#2	-.0044	.0125	-.0035	45.94	.00337
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0102	-.0005	27.50	-.0016	-.0006
#1	-.0077	-.0013	27.44	.0000	-.0019
#2	-.0127	.0004	27.56	-.0033	.0007
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	>180.0	-.0036	.0040	.0004	.2081
#1	>180.0	-.0058	.0040	.0012	.2055
#2	>180.0	-.0015	.0039	-.0004	.2107
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.49	.00143	.0081	.01875	.78842
#1	24.42	.00118	.0072	.01827	.79125
#2	24.57	.00167	.0091	.01922	.78558
Int. Std.	Sc3572	soe dilution			
Units	Cts/S	WS			
Avg	229.58	H-H11			
#1	229.01				
#2	230.15				

Method: 2011A

Sample Name: CCVB

Operator:

Comment:

Run Time: 02/01/11 16:57 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.030	-.0102	.0096	2.5535	.05082	.0060
Stddev	.041	.0068	.0081	.0160	.00012	.0004
%RSD	.8174	66.67	84.33	.62527	.24236	6.483

#1	5.059	-.0054	.0153	2.5422	.05091	.0057
#2	5.001	-.0151	.0039	2.5647	.05073	.0062

Check ?	QC Pass	None	None	QC Pass	QC Pass	None
Value	5.000			2.5000	.05000	
Range	10.00%			10.000%	10.000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010	25.72	.0058	-.0020	.0008	25.40
Stddev	.0007	.07	.0012	.0002	.0012	.17
%RSD	69.38	.2724	20.40	12.06	139.1	.6518

#1	.0005	25.67	.0050	-.0018	.0017	25.29
#2	.0015	25.77	.0067	-.0022	.0000	25.52

Check ?	None	QC Pass	None	None	None	QC Pass
Value		25.00				25.00
Range		10.00%				10.00%

Elem	Pb2203	Mg2025	Mn2939	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	25.40	5.058	-.0109	-.0023	10.00
Stddev	.0044	.07	.022	.0018	.0012	.03
%RSD	497.3	.2949	.4421	16.59	53.76	.3351

#1	.0040	25.35	5.043	-.0096	-.0031	10.03
#2	-.0022	25.45	5.074	-.0122	-.0014	9.978

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		25.00	5.000			10.00
Range		10.00%	10.00%			10.00%

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0008	.0004	9.898	-.0009	.0037	.0013
Stddev	.0012	.0015	.052	.0021	.0017	.0004
%RSD	142.5	337.9	.5296	237.8	46.95	32.85

#1	.0000	-.0006	9.935	-.0024	.0025	.0016
#2	-.0016	.0015	9.861	.0006	.0050	.0010

Check ?	None	None	QC Pass	None	None	None
Value			10.00			
Range			10.000%			

Sample Name: CCVB Run Time: 02/01/11 16:57

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.09	2.545	.00114	.0162	.49789	.50836
Stddev	.02	.009	.00175	.0109	.00142	.00095
%RSD	.1520	.3616	154.13	67.18	.28557	.18734
#1	10.07	2.539	.00238	.0238	.49889	.50904
#2	10.10	2.552	-.00010	.0085	.49688	.50769
Check ?	QC Pass	QC Pass	None	None	QC Pass	QC Pass
Value	10.00	2.500			.50000	.50000
Range	10.00%	10.00%			10.000%	10.000%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	236.56					
Stddev	.31					
%RSD	.12922					
#1	236.78					
#2	236.35					

Method: 2011A

Sample Name: CCVA

Operator:

Comment:

Run Time: 02/01/11 17:00 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4747	2.473	2.493	.47141	.55833	.5061
Stddev	.0099	.012	.010	.00117	.00281	.0014
%RSD	2.086	.4879	.3870	.24908	.50326	.2785

#1	.4817	2.464	2.486	.47224	.56031	.5051
#2	.4677	2.482	2.500	.47058	.55634	.5071

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		2.500	2.500			.5000
Range		10.00%	10.00%			10.00%

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5049	2.568	.5034	.5043	.5044	.5229
Stddev	.0012	.022	.0010	.0034	.0031	.0179
%RSD	.2449	.8602	.1917	.6705	.6134	.3.429

#1	.5058	2.584	.5027	.5067	.5022	.5355
#2	.5040	2.553	.5040	.5019	.5065	.5102

Check ?	QC Pass					
Value	.5000	2.500	.5000	.5000	.5000	.5000
Range	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.503	2.0852	.99553	.9925	.5073	5.070
Stddev	.004	.0053	.01095	.0099	.0025	.030
%RSD	.1393	.25438	1.1002	.9997	.4920	.6024

#1	2.500	2.0890	1.0033	.9855	.5055	5.048
#2	2.505	2.0815	.98778	.9995	.5090	5.091

Check ?	QC Pass	None				
Value	2.500	2.0000	1.0000	1.000	.5000	
Range	10.00%	10.000%	10.000%	10.00%	10.00%	

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.475	.4985	.4943	2.491	.5000	.5081
Stddev	.001	.0074	.0035	.029	.0048	.0016
%RSD	.0382	1.484	.7052	1.173	.9531	.3208

#1	2.476	.5038	.4967	2.511	.5033	.5070
#2	2.474	.4933	.4918	2.470	.4966	.5093

Check ?	QC Pass	QC Pass	None	QC Pass	QC Pass	QC Pass
Value	2.500	.5000		2.500	.5000	.5000
Range	10.00%	10.00%		10.00%	10.00%	10.00%

Sample Name: CCVA Run Time: 02/01/11 17:00

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091	.2527	.50070	4.953	.49917	.50245
Stddev	.0215	.0008	.00086	.004	.00147	.00230
%RSD	236.5	.3097	.17256	.0772	.29463	.45859
#1	.0061	.2522	.50131	4.950	.49813	.50408
#2	-.0243	.2533	.50009	4.956	.50021	.50083
Check ?	None	None	QC Pass	QC Pass	None	None
Value			.50000	5.000		
Range			10.000%	10.00%		
Int. Std.	Sc3572					
Units	Cts/S					
Avg	240.84					
Stddev	1.34					
%RSD	.55608					
#1	239.90					
#2	241.79					

Method: 2011A		Sample Name: CCB		Operator:		
Comment:						
Run Time: 02/01/11 17:03		Type: QC	Mode: CONC	Corr.Fact: 1.000000		
Elem	A12373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061	-.0197	-.0064	-.00043	.00014	-.0007
Stddev	.0065	.0067	.0045	.00016	.00000	.0010
%RSD	107.0	34.12	70.69	36.648	.47407	133.0
#1	.0015	-.0244	-.0032	-.00032	.00014	.0000
#2	.0106	-.0149	-.0096	-.00054	.00014	-.0014
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000
Range	±.0500	±.0500	±.1000	±.00500	±.00500	±.0500
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0013	.0007	-.0009	.0003	.0004
Stddev	.0009	.0025	.0032	.0003	.0005	.0004
%RSD	934.9	194.2	498.8	26.90	140.9	93.01
#1	.0007	-.0005	.0029	-.0008	.0007	.0007
#2	-.0005	.0030	-.0016	-.0011	.0000	.0001
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000
Range	±.0050	±.0500	±.0050	±.0100	±.0100	±.0200
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029	.00286	.00047	-.0060	-.0016	-.0242
Stddev	.0110	.00006	.00018	.0045	.0021	.0178
%RSD	375.7	2.2467	39.358	75.08	130.8	73.50
#1	.0108	.00290	.00060	-.0028	-.0001	-.0368
#2	-.0049	.00281	.00034	-.0092	-.0030	-.0116
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.00000	.00000	.0000	.0000	.0000
Range	±.0500	±.02000	±.00500	±.0100	±.0200	±.4000
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0114	-.0026	-.0004	.0023	-.0014	.0001
Stddev	.0231	.0007	.0014	.0021	.0015	.0005
%RSD	202.0	25.78	371.9	92.32	108.4	638.5
#1	.0049	-.0021	-.0013	.0038	-.0003	-.0003
#2	-.0278	-.0030	.0006	.0008	-.0024	.0004
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000
Range	±.1000	±.0100	±.2000	±.0500	±.0100	±.0100

Sample Name: CCB Run Time: 02/01/11 17:03

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0155	-.0005	.00057	.0084	-.00027	.00012
Stddev	.0022	.0011	.00292	.0027	.00010	.00004
%RSD	14.41	212.9	511.04	32.29	38.760	31.473
#1	-.0140	.0003	-.00149	.0103	-.00034	.00015
#2	-.0171	-.0013	.00264	.0064	-.00019	.00010
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.2000	±.01000	±.2000	±.01000	±.01000
Int. Std.	Sc3572					
Units	Cts/S					
Avg	237.31					
Stddev	.17					
%RSD	.07240					
#1	237.19					
#2	237.43					

Method: 2011A

Sample Name: K1100692-002S

Operator:

Comment: 020111B

Run Time: 02/01/11 17:08

Type: Unk

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.997	.4641	.9422	2.3701	.04942	1.002

#1	1.998	.4629	.9355	2.3407	.04921	.9952
#2	1.996	.4653	.9490	2.3994	.04963	1.008

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0476	165.4	.1969	.4695	.2218	.9432

#1	.0476	164.0	.1946	.4656	.2220	.9347
#2	.0476	166.8	.1993	.4733	.2216	.9518

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4832	57.20	.44069	.9715	.4659	37.89

#1	.4844	56.91	.43849	.9562	.4599	37.89
#2	.4821	57.49	.44289	.9867	.4718	37.89

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9569	.0402	>180.0	.0030	.4813	.4662

#1	.9479	.0404	>180.0	.0049	.4811	.4620
#2	.9659	.0401	>180.0	.0011	.4815	.4704

Elem	P_2149	Si2516	Ti3234	Tl11908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2337	24.95	10.514	.8985	.01887	.78017

#1	.2464	24.90	10.483	.9085	.01893	.78025
#2	.2209	25.00	10.544	.8885	.01881	.78009

Int. Std.

Sc3572

* see dilution

Units

Cts/S

2/12/11

Avg

232.86

WS

#1

232.79

#2

232.92

Method: 2011A Sample Name: K1100661-002 Operator:
 Comment: 020111B
 Run Time: 02/01/11 17:11 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4824	-.0139	-.0038	.05122	-.00005	.0062
#1	.4824	-.0149	-.0117	.05105	-.00006	.0058
#2	.4824	-.0130	.0041	.05138	-.00004	.0067
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	95.65	.0031	.0001	-.0003	.9411
#1	.0005	94.90	.0030	.0002	-.0001	.9397
#2	.0005	96.41	.0032	.0000	-.0005	.9426
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0083	29.72	.16744	-.0049	.0012	5.899
#1	-.0016	29.58	.16700	-.0038	.0013	5.898
#2	-.0150	29.86	.16789	-.0060	.0011	5.901
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0016	-.0007	24.26	-.0040	.0013	.0043
#1	-.0016	.0002	24.31	-.0008	.0015	.0044
#2	-.0016	-.0017	24.21	-.0073	.0012	.0041
Elem	P_2149	Si2516	Ti3234	Tl11908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2453	22.95	.04233	-.0136	.01128	.34253
#1	.2319	22.86	.04219	-.0107	.01112	.34315
#2	.2586	23.03	.04248	-.0164	.01144	.34191
Int. Std.	Sc3572					
Units	Cts/S					
Avg	241.46					
#1	240.91					
#2	242.02					

Method: 2011A Sample Name: K1100661-003 Operator:
 Comment: 020111B
 Run Time: 02/01/11 17:14 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0058	-.0063	.0000	.17521	-.00003
#1	-.0241	-.0073	.0025	.17317	-.00002
#2	.0125	-.0054	-.0025	.17726	-.00005
Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0195	.0007	178.4	.0010	-.0011
#1	.0197	.0003	176.0	.0005	-.0015
#2	.0193	.0011	180.7	.0015	-.0007
Elem	Cu3247	Fe2599	Pb2203	Mg2025	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0030	.0096	.0014	58.16	.11610
#1	-.0021	.0102	-.0028	57.98	.11475
#2	-.0039	.0091	.0056	58.34	.11745
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0107	.0001	29.93	-.0180	-.0005
#1	-.0111	.0002	29.85	-.0426	.0009
#2	-.0103	.0000	30.00	.0066	-.0019
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	153.6	.0008	.0032	.0087	.2123
#1	152.6	.0042	.0015	.0090	.1952
#2	154.6	-.0027	.0048	.0085	.2294
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.66	.00087	.0134	.01337	.95395
#1	24.52	.00166	.0278	.01289	.95035
#2	24.80	.00007	-.0011	.01385	.95755
Int. Std.	Sc3572				
Units	Cts/S				
Avg	235.71				
#1	235.99				
#2	235.43				

Method:	2011A	Sample Name:	K1100661-004	Operator:	
Comment:	020111B				
Run Time:	02/01/11 17:17	Type:	Unk	Mode:	CONC
				Corr. Fact:	1.000000
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0179	-.0025	-.0057	.03923	-.00005
#1	.0064	-.0006	-.0082	.03904	.00003
#2	-.0423	-.0044	-.0032	.03942	-.00013
Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0029	.0004	81.99	.0012	-.0019
#1	.0025	-.0001	81.24	.0016	-.0013
#2	.0034	.0009	82.74	.0007	-.0024
Elem	Cu3247	Fe2599	Pb2203	Mg2025	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0025	.0031	.0038	32.47	.00420
#1	-.0023	.0037	.0060	32.38	.00409
#2	-.0027	.0025	.0016	32.56	.00431
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0098	-.0017	4.249	-.0090	.0017
#1	-.0107	-.0008	4.256	-.0213	.0035
#2	-.0089	-.0026	4.242	.0033	.0000
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	31.78	-.0044	.0052	-.0001	.2480
#1	31.74	-.0027	.0065	-.0004	.2458
#2	31.83	-.0060	.0039	.0001	.2502
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.86	.00195	-.0004	.00685	.40051
#1	23.75	.00253	-.0051	.00758	.40079
#2	23.97	.00138	.0043	.00612	.40023
Int. Std.	Sc3572				
Units	Cts/S				
Avg	241.10				
#1	241.41				
#2	240.79				

Method:	2011A	Sample Name:	K1100661-005	Operator:		
Comment:	020111B					
Run Time:	02/01/11 17:20		Type: Unk	Mode: CONC	Corr.Fact: 1.000000	
Elem.	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0239	-.0116	-.0018	.12314	-.00004	.0062
#1	.0109	-.0025	-.0010	.12263	-.00006	.0064
#2	.0368	-.0207	-.0025	.12365	-.00002	.0060
Elem.	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	73.34	.0023	-.0002	-.0035	.0220
#1	-.0002	72.75	.0030	.0000	-.0019	.0220
#2	.0006	73.93	.0015	-.0004	-.0050	.0220
Elem.	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0036	22.83	.02505	-.0085	-.0006	5.090
#1	-.0077	22.74	.02487	-.0081	-.0006	5.082
#2	.0005	22.93	.02523	-.0088	-.0006	5.097
Elem.	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0188	.0014	23.61	-.0019	.0040	-.0002
#1	-.0213	.0021	23.56	.0011	.0033	-.0001
#2	-.0164	.0007	23.66	-.0049	.0047	-.0003
Elem.	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2844	23.18	-.00012	.0092	.00953	.26209
#1	.2848	23.13	.00009	.0026	.00952	.26217
#2	.2841	23.24	-.00032	.0159	.00953	.26200
Int. Std.	Sc3572					
Units	Cts/S					
Avg	238.99					
#1	239.14					
#2	238.84					

Method:	2011A	Sample Name:	K1100661-006	Operator:	
Comment:	020111B				
Run Time:	02/01/11 17:23	Type:	Unk	Mode:	CONC
				Corr.Fact:	1.000000
Elem	A12373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0091	-.0102	.0096	-.00039	-.00002
#1	-.0197	-.0035	.0210	-.00057	-.00007
#2	.0015	-.0169	-.0018	-.00021	.00003
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0021	.0001	.0594	.0008	-.0016
#1	-.0021	.0003	.0588	.0015	-.0020
#2	-.0021	-.0001	.0600	.0001	-.0013
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0012	-.0047	.01743	-.00011
#1	.0009	.0013	-.0065	.01776	-.00009
#2	-.0005	.0010	-.0028	.01709	-.00014
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0101	.0006	-.0151	-.0188	-.0005
#1	-.0108	-.0003	-.0135	-.0082	-.0007
#2	-.0095	.0016	-.0168	-.0294	-.0002
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	.1714	-.0029	-.0009	.0003	.2694
#1	.1715	-.0025	-.0023	.0007	.2607
#2	.1713	-.0032	.0005	-.0001	.2781
Elem	Si2516	Ti3234	Tl11908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0112	-.00143	-.0003	-.00032	.00027
#1	.0134	-.00214	-.0013	-.00047	.00027
#2	.0090	-.00072	.0007	-.00017	.00027
Int. Std.	Sc3572				
Units	Cts/S				
Avg	238.84				
#1	239.35				
#2	238.33				

Method:	2011A	Sample Name:	K1100681-001	Operator:		
Comment:	020111B		WS 2/3/11			
Run Time:	02/01/11 17:26	Type:	Unk	Mode: CONC	Corr.Fact: 1.000000	
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0114	-.0169	-.0007	-.00004	-.00008	-.0023
#1	.0106	-.0246	-.0018	-.00017	-.00004	-.0027
#2	.0121	-.0092	.0004	.00008	-.00011	-.0019
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.1773	.0029	-.0011	.0021	.0204
#1	-.0005	.1773	.0036	-.0019	.0036	.0201
#2	.0009	.1772	.0021	-.0003	.0007	.0207
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033	.05887	.00186	-.0103	.0001	.0167
#1	.0022	.05877	.00177	-.0114	.0008	.0108
#2	.0043	.05898	.00196	-.0092	-.0005	.0225
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0131	.0020	.8616	-.0016	.0023	.0017
#1	-.0033	.0019	.8563	-.0009	.0022	.0020
#2	-.0229	.0021	.8669	-.0022	.0024	.0014
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3339	.0605	.00040	.0009	-.00045	.00085
#1	.3370	.0618	-.00060	.0009	.00016	.00085
#2	.3308	.0593	.00139	.0009	-.00107	.00086
Int. Std.	Sc3572					
Units	Cts/S					
Avg	234.38					
#1	234.40					
#2	234.37					

Method: 2011A	Sample Name: K1100692-001	Operator:			
Comment: 020111B		WS20111			
Run Time: 02/01/11 17:29	Type: Unk	Mode: CONC			
		Corr.Fact: 1.000000			
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0066	-.0120	-.0071	-.00002	.00000
#1	.0018	-.0216	.0061	-.00015	-.00003
#2	-.0149	-.0025	-.0203	.00012	.00002
Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0112	-.0002	19.63	.0005	-.0012
#1	.0114	-.0002	19.37	.0003	-.0011
#2	.0111	-.0002	19.89	.0007	-.0013
Elem	Cu3247	Fe2599	Pb2203	Mg2025	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0024	.0215	-.0013	10.01	.14241
#1	-.0022	.0208	-.0008	9.938	.14093
#2	-.0026	.0223	-.0017	10.08	.14390
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0084	-.0019	1.046	-.0180	-.0017
#1	-.0074	-.0024	1.051	-.0229	.0004
#2	-.0094	-.0014	1.042	-.0131	-.0037
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.50	-.0069	-.0001	.0125	.2334
#1	11.52	-.0074	.0008	.0120	.2158
#2	11.49	-.0065	-.0010	.0130	.2510
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.73	-.00071	.0043	.00279	.07394
#1	25.55	-.00202	.0081	.00274	.07391
#2	25.91	.00061	.0006	.00285	.07397
Int. Std.	Sc3572				
Units	Cts/S				
Avg	241.18				
#1	241.24				
#2	241.11				

Method:	2011A	Sample Name:	K1100692-003	Operator:	
Comment:	020111B			wsd/HII	
Run Time:	02/01/11 17:32	Type:	Unk	Mode: CONC	Corr.Fact: 1.000000
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0157	-.0068	-.0135	.35826	.00002
#1	-.0148	-.0121	-.0175	.35678	-.00004
#2	-.0165	-.0016	-.0096	.35974	.00008
Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0441	.0011	155.4	.0010	-.0013
#1	.0446	.0010	154.4	.0012	-.0007
#2	.0436	.0013	156.4	.0009	-.0018
Elem	Cu3247	Fe2599	Pb2203	Mg2025	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0031	.0126	.0023	46.72	.00315
#1	-.0030	.0121	.0035	46.78	.00317
#2	-.0033	.0131	.0010	46.65	.00313
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0116	-.0015	27.60	-.0057	.0038
#1	-.0109	-.0022	27.62	-.0098	.0035
#2	-.0123	-.0009	27.59	-.0016	.0042
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm *	ppm	ppm	ppm	ppm
Avg	>180.0	-.0056	.0027	-.0004	.1832
#1	>180.0	.0015	.0028	-.0003	.1761
#2	>180.0	-.0127	.0027	-.0005	.1903
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.85	.00033	.0251	.01836	.77478
#1	24.79	.00093	.0145	.01815	.77680
#2	24.91	-.00026	.0356	.01856	.77276
Int. Std.	Sc3572	* see dilution			
Units	Cts/S				
Avg	234.59				
#1	234.08	ws HII			
#2	235.10				

Method:	2011A	Sample Name:	K1100712_001	Operator:		
Comment:	020111B					
Run Time:	02/01/11 17:35	Type:	Unk	Mode:	CONC	
				Corr.Fact:	1.000000	
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0068	-.0117	-.0032	-.00072	-.00002	-.0020
#1	.0121	-.0083	.0018	-.00054	-.00002	-.0024
#2	.0016	-.0150	-.0082	-.00090	-.00002	-.0016
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0002	.0223	.0021	-.0012	-.0016	-.0023
#1	-.0008	.0234	.0019	-.0010	-.0026	-.0025
#2	.0003	.0212	.0024	-.0014	-.0007	-.0022
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.00423	-.00013	-.0110	-.0022	-.0057
#1	.0133	.00498	-.00025	-.0110	-.0027	.0038
#2	-.0130	.00349	.00000	-.0111	-.0017	-.0151
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0098	-.0008	.0644	-.0001	-.0021	.0005
#1	-.0049	.0014	.0724	-.0015	-.0009	.0008
#2	-.0147	-.0030	.0564	.0013	-.0032	.0003
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1950	.0010	.00018	.0014	-.00015	.00011
#1	.1928	.0029	.00031	.0043	.00016	.00013
#2	.1972	-.0009	.00005	-.0014	-.00046	.00009
Int. Std.	Sc3572					
Units	Cts/S					
Avg	241.86					
#1	241.29					
#2	242.43					

Method: 2011A		Sample Name: CCVB		Operator:			
Comment:				Mode: CONC		Corr.Fact: 1.000000	
Run Time:	02/01/11 17:38	Type:	QC				
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497	ppm
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.024	-.0055	.0049	2.5284	.04925	.0047	
Stddev	.028	.0013	.0025	.0086	.00000	.0009	
%RSD	.5553	24.69	51.64	.34077	.00304	18.47	
#1	5.004	-.0045	.0066	2.5223	.04925	.0053	
#2	5.044	-.0064	.0031	2.5345	.04925	.0041	
Check ?	QC Pass	None	None	QC Pass	QC Pass	QC Pass	None
Value	5.000			2.5000	.05000		
Range	10.00%			10.000%	10.000%		
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714	ppm
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017	25.54	.0049	-.0022	-.0006	24.76	
Stddev	.0001	.33	.0019	.0010	.0032	.13	
%RSD	4.049	1.310	39.59	45.15	520.7	.5391	
#1	.0016	25.30	.0035	-.0029	.0016	24.66	
#2	.0017	25.78	.0063	-.0015	-.0029	24.85	
Check ?	None	QC Pass	None	None	None	QC Pass	
Value		25.00				25.00	
Range		10.00%				10.00%	
Elem	Pb2203	Mg2025	Mn2939	Mo2020	Ni2316	K_7664	ppm
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0039	25.37	4.972	-.0117	-.0030	10.01	
Stddev	.0074	.17	.010	.0017	.0002	.02	
%RSD	189.7	.6848	.2029	14.52	5.260	.2144	
#1	.0013	25.25	4.965	-.0129	-.0031	9.990	
#2	-.0092	25.49	4.979	-.0105	-.0029	10.02	
Check ?	None	QC Pass	QC Pass	None	None	QC Pass	
Value		25.00	5.000			10.00	
Range		10.00%	10.00%			10.00%	
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062	ppm
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	-.0023	9.366	-.0074	.0011	.0008	
Stddev	.0012	.0028	.103	.0011	.0005	.0007	
%RSD	140.7	119.5	1.103	14.68	43.50	94.82	
#1	.0016	-.0043	9.439	-.0082	.0015	.0013	
#2	.0000	-.0004	9.293	-.0067	.0008	.0003	
Check ?	None	None	QC Pass	None	None	None	
Value			10.00				
Range			10.00%				

Sample Name: CCVB Run Time: 02/01/11 17:38

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.24	2.547	.00057	.0015	.49455	.49161
Stddev	.13	.018	.00081	.0093	.00278	.00193
*RSD	1.313	.7255	142.08	632.0	.56250	.39254
#1	10.14	2.534	.00000	.0081	.49652	.49297
#2	10.33	2.560	-.00115	-.0051	.49259	.49024
Check ?	QC Pass	QC Pass	None	None	QC Pass	QC Pass
Value	10.00	2.500			.50000	.50000
Range	10.00%	10.00%			10.000%	10.000%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	241.73					
Stddev	.88					
*RSD	.36417					
#1	241.11					
#2	242.35					

Method: 2011A		Sample Name: CCVA		Operator:			
Comment:				Mode: CONC		Corr.Fact: 1.000000	
Run Time: 02/01/11 17:41 Type: QC							
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497	ppm
Units	ppm	ppm	ppm	ppm	ppm	.5034	ppm
Avg	.4775	2.508	2.415	.46467	.54080	.0021	
Stddev	.0034	.013	.002	.00156	.00018	.4096	
%RSD	.7050	.5239	.0859	.33502	.03358		
#1	.4799	2.499	2.417	.46577	.54093	.5049	
#2	.4751	2.517	2.414	.46357	.54068	.5020	
Check ?	None	QC Pass	QC Pass	None	None	QC Pass	
Value		2.500	2.500			.5000	
Range		10.00%	10.00%			10.00%	
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	ppm
Units	ppm	ppm	ppm	ppm	ppm	.5029	ppm
Avg	.4791	2.494	.4983	.4953	.4805	.0240	
Stddev	.0004	.013	.0032	.0030	.0002	.4.772	
%RSD	.0885	.5053	.6338	.6022	.0491		
#1	.4788	2.485	.5005	.4974	.4807	.5199	
#2	.4794	2.503	.4960	.4932	.4803	.4859	
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	
Value	.5000	2.500	.5000	.5000	.5000	.5000	
Range	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664	ppm
Units	ppm	ppm	ppm	ppm	ppm	.022	ppm
Avg	2.437	2.0590	.95163	.9792	.5010	.026	
Stddev	.003	.0033	.00882	.0086	.0014	.5210	
%RSD	.1114	.16054	.92719	.8763	.2887		
#1	2.438	2.0614	.94539	.9731	.5020	5.004	
#2	2.435	2.0567	.95787	.9852	.5000	5.041	
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	None	
Value	2.500	2.0000	1.0000	1.000	.5000		
Range	10.00%	10.000%	10.000%	10.00%	10.00%		
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062	ppm
Units	ppm	ppm	ppm	ppm	ppm	.4853	ppm
Avg	2.438	.4978	.4613	2.425	.4881	.0003	
Stddev	.032	.0031	.0068	.003	.0024	.0611	
%RSD	1.307	.6278	1.479	.1116	.4893		
#1	2.416	.4956	.4565	2.427	.4864	.4851	
#2	2.461	.5001	.4662	2.423	.4898	.4855	
Check ?	QC Pass	QC Pass	None	QC Pass	QC Pass	QC Pass	
Value	2.500	.5000		2.500	.5000	.5000	
Range	10.00%	10.00%		10.00%	10.00%	10.00%	

Sample Name: CCVA Run Time: 02/01/11 17:41

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0103	.2487	.49409	4.803	.48922	.48259
Stddev	.0000	.0007	.00098	.049	.00125	.00040
%RSD	.4506	.2704	.19859	1.025	.25519	.08271
#1	-.0103	.2483	.49340	4.768	.49010	.48231
#2	-.0103	.2492	.49478	4.838	.48833	.48288
Check ?	None	None	QC Pass	QC Pass	None	None
Value			.50000	5.000		
Range			10.000%	10.00%		
Int. Std.	Sc3572					
Units	Cts/S					
Avg	245.26					
Stddev	.30					
%RSD	.12320					
#1	245.05					
#2	245.48					

Method: 2011A		Sample Name: CCB		Operator:	
Comment:					
Run Time:	02/01/11 17:44	Type:	QC	Mode:	CONC
Corr.Fact:	1.000000				
Elem	A12373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0068	.0164	.0039	.00068	.00011
Stddev	.0011	.0101	.0010	.00023	.00007
%RSD	16.73	61.48	25.65	33.756	62.290
#1	-.0060	-.0235	-.0046	-.00052	.00006
#2	-.0076	-.0092	-.0032	-.00084	.00016
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0500	±.0500	±.1000	±.00500	±.00500
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0016	.0006	-.0011	.0020	-.0016
Stddev	.0004	.0000	.0000	.0009	.0006
%RSD	26.11	8.151	.5813	43.92	36.89
#1	-.0013	.0006	-.0011	.0026	-.0012
#2	-.0019	.0006	-.0011	.0014	-.0020
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0500	±.0050	±.0500	±.0050	±.0100
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0005	.0043	.00306	.00044
Stddev	.0012	.0012	.0096	.00007	.00021
%RSD	302.7	217.3	222.8	2.3585	47.625
#1	.0012	.0014	.0111	.00301	.00059
#2	-.0004	-.0003	-.0025	.00311	.00029
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0100	±.0200	±.0500	±.02000	±.00500
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0070	.0000	-.0166	-.0033	-.0024
Stddev	.0038	.0002	.0002	.0162	.0015
%RSD	54.45	500.4	1.084	495.8	60.46
#1	-.0043	-.0001	-.0168	.0082	-.0035
#2	-.0097	.0002	-.0165	-.0147	-.0014
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0100	±.0200	±.4000	±.1000	±.0100

Sample Name: CCB Run Time: 02/01/11 17:44

	Na5895	Sn1899	V_3102	Zn2062	P_2149
Elem					
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0072	.0054	-.0032	-.0011	-.0117
Stddev	.0028	.0001	.0011	.0003	.0181
%RSD	38.63	1.349	35.18	31.18	154.2
#1	.0091	.0053	-.0024	-.0013	-.0245
#2	.0052	.0054	-.0040	-.0008	.0011
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.2000	±.0500	±.0100	±.0100	±.2000
	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Elem					
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0006	.00026	.0063	.00028	.00008
Stddev	.0015	.00065	.0161	.00052	.00003
%RSD	259.8	248.92	254.9	184.11	38.030
#1	.0005	.00072	.0177	.00065	.00010
#2	-.0016	-.00020	-.0051	-.00009	.00006
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.01000	±.2000	±.01000	±.01000
Int. Std.	Sc3572				
Units	Cts/S				
Avg	239.48				
Stddev	1.11				
%RSD	.46439				
#1	238.69				
#2	240.26				

Service Request K1100661 _____
Calibration _____ 020211C _____
QC in calibration 020211C _____
QC Service Request # K1100661 _____
STARLIMS Batch # 234653 _____

ICP-MS Data Review Form

	Yes	No	NA
1. Appropriate standardization completed	X	_____	_____
2. ICV within 10 % of true value	X	_____	_____
3. CCV's in control	X	_____	_____
4. CCB's and/or ICB's below MRL	X	_____	_____
5. Method blank below MRL	X	_____	_____
6. LCS in control	X	_____	_____
7. Spike and duplicate in control	X	_____	_____
8. All analytes within instrument linear range	X	_____	_____
9. Adequate rinse out time allowed	X	_____	_____
10. Internal standards in control	X	_____	_____
11. Interferences checked	X	_____	_____
12. Se over MRL	_____	X	_____
13. CRA run	X	_____	_____
14. ICSA and ICSAB in control	_____	_____	X
15. Serial dilution run	_____	_____	X
16. Post spike in control	_____	_____	X

Comments:

Primary Review by _____

Secondary Review by _____

R:\icpl\misc\data review forms\PQ ExCell review form

Date 2/2/11

Date 2/2/11

Sample List

Num	Label	Type	Weight	Volume	Dilution	Rack	Row	Column	Height
1	Cal. Blk	Blank	0 kg	0 ml	1.00	0	1	1	145
2	Cal. Stn	Fully Quant Standard	0 kg	0 ml	1.00	0	1	2	145
3	ICV1	Unknown	0 kg	0 ml	1.00	0	1	3	145
4	CCV1	Unknown	0 kg	0 ml	1.00	0	1	2	145
5	ICB1	Unknown	0 kg	0 ml	1.00	0	1	1	145
6	CCB1	Unknown	0 kg	0 ml	1.00	0	1	1	145
7	WATER CRA	Unknown	0 kg	0 ml	1.00	0	1	4	145
8	K1100661-MB	Unknown	0 kg	0 ml	1.00	1	1	1	145
9	LCSW K1100661	Unknown	0 kg	0 ml	1.00	1	1	2	145
10	MRL CHECK	Unknown	0 kg	0 ml	1.00	1	1	3	145
11	K1100661-001	Unknown	0 kg	0 ml	1.00	1	1	4	145
12	K1100661-001D	Unknown	0 kg	0 ml	1.00	1	1	5	145
13	K1100661-001S	Unknown	0 kg	0 ml	1.00	1	1	6	145
14	K1100661-002	Unknown	0 kg	0 ml	1.00	1	1	7	145
15	K1100661-003	Unknown	0 kg	0 ml	1.00	1	1	8	145
16	K1100661-004	Unknown	0 kg	0 ml	1.00	1	1	9	145
17	K1100661-005	Unknown	0 kg	0 ml	1.00	1	1	10	145
18	CCV2	Unknown	0 kg	0 ml	1.00	0	1	2	145
19	CCB2	Unknown	0 kg	0 ml	1.00	0	1	1	145
20	K1100661-006	Unknown	0 kg	0 ml	1.00	1	1	11	145
21	K1100661-007	Unknown	0 kg	0 ml	1.00	1	1	12	145
22	K1100692-002	Unknown	0 kg	0 ml	1.00	1	2	1	145
23	K1100692-002D	Unknown	0 kg	0 ml	1.00	1	2	2	145
24	K1100692-002S	Unknown	0 kg	0 ml	1.00	1	2	3	145
25	K1100692-001	Unknown	0 kg	0 ml	1.00	1	2	4	145
26	K1100692-003	Unknown	0 kg	0 ml	1.00	1	2	5	145
27	CCV3	Unknown	0 kg	0 ml	1.00	0	1	2	145
28	CCB3	Unknown	0 kg	0 ml	1.00	0	1	1	145

Instrument Setup - Sample Configuration

Sample	Configuration	Date
All Samples	acqmet11	12:08:09 2/2/11

Instrument Setup - Configurations**Configuration Name -** acqmet11**Description -** PQExcell CCT Sim Default**Date -** 12:08:09 2/2/11**Maximum Uptake Time -** 0**Maximum Washout Time -** 0**S-Option Pump Running -** No**Plasma Screen Forward -** No**Makeup Gas On -** No**Use CCT -** No**Use Accessory Gas -** No

Setting	Value
Extraction	-650.00
Lens1	5.00
Lens2	-35.00
Lens3	-30.00
Pole Bias	5.00
Sampling Depth	375.00
Horizontal	-5.00
Vertical	65.00
Cool	13.00
Auxiliary	0.90
Nebuliser	0.83
Forward power	1,350.00
HT1 Voltage	1,900.00
HT2 Voltage	2,600.00
D1	-36.00
Focus	10.00

ExCell Mass Calibration

Date: 2/2/2011

Mass	Mass DAC	Peak Width (AMU)	Error (AMU)	Include	Masses in Tune Solution
6.015	1287	0.716	-0.036	TRUE	
7.016	1547	0.716	-0.015	TRUE	Li-7
9.012	2060	0.767	0.006	TRUE	Be-9
23.985	5874	0.715	0.026	TRUE	Mg-24
25.983	6381	0.715	0.021	TRUE	Co-59
45.953	11471	0.715	0.055	TRUE	In-115
50.944	12725	0.766	-0.009	TRUE	Ce-140
51.94	12972	0.766	-0.035	TRUE	Pb-208
53.949	13492	0.766	0	TRUE	Bi-209
55.935	13999	0.766	0.006	TRUE	U-238
56.935	14259	0.766	0.027	TRUE	
58.933	14753	0.766	-0.03	TRUE	
69.925	17561	0.766	0.011	TRUE	
75.92	19082	0.766	-0.01	TRUE	
112.904	28495	0.766	-0.026	TRUE	
114.904	29009	0.715	-0.007	TRUE	
139.905	35379	0.714	-0.002	TRUE	
141.908	35892	0.765	0.009	TRUE	
205.974	52220	0.663	0.007	TRUE	
206.976	52474	0.714	0.002	TRUE	
207.977	52727	0.663	-0.007	TRUE	
208.98	52987	0.663	0.009	TRUE	
238.051	60397	0.663	-0.005	TRUE	

Excluded in Calib		Excluded in Results		Multi Element		Internal Standard		Standard Addition	
Uncorrected ICPS Per Mass				S-Calibration Has Edited Standard	E-Calibration Edited	I-Invalid Calibration	V-Valley Integration Failed		
Run	Label	TimeStamp		7Li	9Be	59Co	115In	208Pb	
1	Stability 02-02-2011	2/2/2011 7:55:47 AM		(P)0.167	(P)22393.204	(P)5588.593	(P)20711.340	(P)32448.483	(P)15612.360
2	Stability 02-02-2011	2/2/2011 7:57:03 AM		(P)0.000	(P)22672.310	(P)5458.709	(P)20256.188	(P)32116.062	(P)15644.397
3	Stability 02-02-2011	2/2/2011 7:58:18 AM		(P)0.167	(P)22025.800	(P)5433.200	(P)19916.042	(P)31606.427	(P)15518.592
4	Stability 02-02-2011	2/2/2011 7:59:33 AM		(P)0.167	(P)22237.297	(P)5572.587	(P)20186.753	(P)31710.493	(P)15404.136
5	Stability 02-02-2011	2/2/2011 8:00:48 AM		(P)0.000	(P)22154.165	(P)5502.226	(P)20071.761	(P)31586.887	(P)15200.752
Mean of Stability 02-02		2/2/2011 7:55:47 AM		(P)0.100	(P)22296.555	(P)5511.063	(P)20228.417	(P)31893.671	(P)15476.047
SD of Stability 02-02-20				(P)0.091	(P)248.811	(P)68.333	(P)299.099	(P)376.647	(P)180.063
%RSD of Stability 02				(P)91.287	(P)1.116	(P)1.240	(P)1.479	(P)1.181	(P)1.163
Run	Label	TimeStamp		209Bi	230Th	238U			
1	Stability 02-02-2011	2/2/2011 7:55:47 AM		(P)25626.634	(P)0.000	(P)30739.038			
2	Stability 02-02-2011	2/2/2011 7:57:03 AM		(P)25286.528	(P)0.167	(P)30640.660			
3	Stability 02-02-2011	2/2/2011 7:58:18 AM		(P)24885.998	(P)0.000	(P)30299.439			
4	Stability 02-02-2011	2/2/2011 7:59:33 AM		(P)24885.993	(P)0.167	(P)30427.538			
5	Stability 02-02-2011	2/2/2011 8:00:48 AM		(P)24555.256	(P)0.167	(P)29656.255			
Mean of Stability 02-02		2/2/2011 7:55:47 AM		(P)25048.082	(P)0.100	(P)30352.586			
SD of Stability 02-02-20				(P)414.427	(P)0.091	(P)425.925			
%RSD of Stability 02				(P)1.655	(P)91.287	(P)1.403			

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	Cal. Blk	Mean	SD	%RSD
TimeStamp	2/2/11 12:25			
Arsenic	75	-0.0178	0.0293	-0.0115
Selenium	77	0.0771	-0.0336	-0.0435
Selenium	78	-0.1059	-0.03	0.136
Selenium	82	-0.0982	0.0998	-0.0016

Internal Standard

Factors:

Gallium	71	1.009	0.985	1.006	1.009	n/a
Rhodium	103	1.021	0.973	1.008	1.021	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	Cal. Stn			Mean	SD	%RSD	
TimeStamp		2/2/11 12:27					
Arsenic	75	24.77	25.46	24.77	25	0.3958	1.583
Selenium	77	24.64	25	25.36	25	0.3571	1.428
Selenium	78	24.15	25.98	24.87	25	0.92	3.68
Selenium	82	24.41	25.3	25.28	25	0.5079	2.031

**Internal Standard
Factors:**

Gallium	71	1.037	1.049	1.047	1.037	n/a	n/a
Rhodium	103	1.011	1.033	1.03	1.011	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	ICV1	Mean	SD	%RSD
TimeStamp	2/2/11 12:30			
Arsenic	75	25.02	24.52	25.05
Selenium	77	26.35	25.23	25.95
Selenium	78	25.68	24.88	24.56
Selenium	82	25.67	25.07	25.6

Internal Standard

Factors:

Gallium	71	1.098	1.074	1.094	1.098	n/a	n/a
Rhodium	103	1.078	1.062	1.084	1.078	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	CCV1			Mean	SD	%RSD	
TimeStamp	2/2/11 12:32						
Arsenic	75	25.03	24.73	24.34	24.7	0.3426	1.387
Selenium	77	24.51	25.27	24.74	24.84	0.3889	1.566
Selenium	78	24.69	24.46	24.36	24.5	0.1692	0.6904
Selenium	82	24.83	24.38	24.6	24.6	0.2233	0.9076

Internal Standard

Factors:

Gallium	71	1.111	1.108	1.12	1.111 n/a	n/a
Rhodium	103	1.078	1.074	1.104	1.078 n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	ICB1			Mean	SD	%RSD
TimeStamp	2/2/11 12:34					
Arsenic	75	-0.0145	-0.0791	0	-0.0312	0.0421
Selenium	77	-0.14	-0.2749	-0.3337	-0.2495	0.0993
Selenium	78	-0.0169	-0.1711	-0.0129	-0.067	0.0902
Selenium	82	-0.0963	-0.3773	-0.0735	-0.1823	0.1692

**Internal Standard
Factors:**

Gallium	71	1.134	1.12	1.125	1.134	n/a
Rhodium	103	1.098	1.088	1.106	1.098	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	CCB1	Mean	SD	%RSD			
TimeStamp	2/2/11 12:36						
Arsenic	75	-0.0824	-0.0992	0.0364	-0.0484	0.0739	152.8
Selenium	77	-0.1028	-0.1156	-0.3888	-0.2024	0.1615	79.79
Selenium	78	-0.1735	0.1697	-0.0909	-0.0316	0.1791	567.6
Selenium	82	-0.275	-0.2563	0.0743	-0.1523	0.1965	129

Internal Standard

Factors:

Gallium	71	1.124	1.161	1.117	1.124	n/a	n/a
Rhodium	103	1.081	1.111	1.095	1.081	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	WATER CRA	Mean	SD	%RSD			
TimeStamp	2/2/11 12:39						
Arsenic	75	0.4724	0.5761	0.508	0.5188	0.0527	10.15
Selenium	77	1.026	0.7526	0.7291	0.836	0.1652	19.76
Selenium	78	0.7468	1.058	0.9213	0.9088	0.156	17.17
Selenium	82	0.9115	1.171	0.9653	1.016	0.1372	13.51

Internal Standard

Factors:

Gallium	71	1.148	1.144	1.132	1.148	n/a	n/a
Rhodium	103	1.106	1.089	1.097	1.106	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100661-MB	Mean	SD	%RSD			
TimeStamp	2/2/11 12:41						
Arsenic	75	-0.0469	0.0066	-0.0449	-0.0284	0.0303	106.7
Selenium	77	-0.1607	-0.1976	-0.2469	-0.2017	0.0433	21.45
Selenium	78	-0.0934	-0.2236	-0.1009	-0.1393	0.0731	52.51
Selenium	82	-0.2143	-0.0022	-0.159	-0.1252	0.11	87.87

Internal Standard

Factors:

Gallium	71	1.119	1.126	1.138	1.119 n/a	n/a
Rhodium	103	1.096	1.106	1.125	1.096 n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	LCSW K1100661			Mean	SD	%RSD
TimeStamp	2/2/11 12:43					
Arsenic	75	19.72	19.65	19.5	19.62	0.1121
Selenium	77	19.57	19.74	20.1	19.8	0.2732
Selenium	78	19.9	19.84	19.51	19.75	0.2121
Selenium	82	19.82	19.34	19.92	19.69	0.3094

Internal Standard

Factors:

Gallium	71	1.139	1.153	1.159	1.139	n/a
Rhodium	103	1.112	1.129	1.133	1.112	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	MRL CHECK	Mean	SD	%RSD
TimeStamp	2/2/11 12:45			
Arsenic	75	1.071	0.9726	1.009
Selenium	77	1.09	1.013	0.9907
Selenium	78	0.8902	0.7219	1.143
Selenium	82	1.099	0.8431	0.944

**Internal Standard
Factors:**

Gallium	71	1.144	1.143	1.166	1.144	n/a	n/a
Rhodium	103	1.127	1.13	1.127	1.127	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100661-001				Mean	SD	%RSD
TimeStamp	2/2/11 12:47						
Arsenic	75	0.9017	0.893	0.9131	0.9026	0.0101	1.12
Selenium	77	1.302	1.057	0.8776	1.079	0.2131	19.75
Selenium	78	0.9635	1.101	0.997	1.021	0.0719	7.044
Selenium	82	0.2502	0.2414	0.0119	0.1678	0.1351	80.51

**Internal Standard
Factors:**

Gallium	71	1.262	1.244	1.259	1.262	n/a	n/a
Rhodium	103	1.335	1.351	1.328	1.335	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100661-001D				Mean	SD	%RSD
TimeStamp	2/2/11 12:50						
Arsenic	75	1.009	0.9427	0.8986	0.9499	0.0553	5.825
Selenium	77	1.534	1.167	1.11	1.27	0.2298	18.09
Selenium	78	0.8513	0.6651	0.7926	0.7696	0.0952	12.37
Selenium	82	0.2134	0.1485	-0.1765	0.0618	0.2089	338.1

**Internal Standard
Factors:**

Gallium	71	1.235	1.226	1.246	1.235	n/a	n/a
Rhodium	103	1.338	1.3	1.341	1.338	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100661-001S	Mean	SD	%RSD			
TimeStamp	2/2/11 12:52						
Arsenic	75	21.12	22.45	21.78	0.6658	3.057	
Selenium	77	21.91	22.03	21.37	21.77	0.3523	1.618
Selenium	78	20.61	21.59	21.09	21.1	0.4898	2.322
Selenium	82	20.21	21.14	20.75	20.7	0.465	2.246

**Internal Standard
Factors:**

Gallium	71	1.236	1.282	1.258	1.236	n/a	n/a
Rhodium	103	1.321	1.355	1.345	1.321	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: $\mu\text{g/L}$ (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100661-002	Mean	SD	%RSD
TimeStamp	2/2/11 12:54			
Arsenic	75	0.8481	0.9975	0.8663
Selenium	77	2.15	1.668	1.567
Selenium	78	1.09	1.268	0.871
Selenium	82	0.0996	0.5073	0.109

**Internal Standard
Factors:**

Gallium	71	1.18	1.214	1.228	1.18 n/a	n/a
Rhodium	103	1.238	1.279	1.308	1.238 n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100661-003				Mean	SD	%RSD
TimeStamp	2/2/11 12:56						
Arsenic	75	0.4699	0.5235	0.5009	0.4981	0.0269	5.401
Selenium	77	4.724	4.874	4.773	4.79	0.0766	1.599
Selenium	78	1.174	1.339	1.606	1.373	0.2176	15.85
Selenium	82	0.317	0.4975	0.6181	0.4775	0.1516	31.74

**Internal Standard
Factors:**

Gallium	71	1.353	1.41	1.406	1.353	n/a	n/a
Rhodium	103	1.473	1.521	1.55	1.473	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100661-004	Mean	SD	%RSD
TimeStamp	2/2/11 12:58			
Arsenic	75	0.8053	0.7653	0.7591
Selenium	77	2.597	2.097	1.796
Selenium	78	1.513	1.692	1.04
Selenium	82	0.4534	0.079	0.4482

Internal Standard

Factors:

Gallium	71	1.201	1.227	1.181	1.201	n/a	n/a
Rhodium	103	1.223	1.276	1.224	1.223	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100661-005	Mean	SD	%RSD
TimeStamp	2/2/11 13:01			
Arsenic	75	2.726	2.702	2.735
Selenium	77	2.16	1.966	1.67
Selenium	78	1.318	1.452	1.147
Selenium	82	0.0751	0.1692	0.2546
				0.1663
				0.0898
				53.99

Internal Standard

Factors:

Gallium	71	1.185	1.195	1.196	1.185	n/a
Rhodium	103	1.219	1.212	1.238	1.219	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	CCV2	Mean	SD	%RSD
TimeStamp	2/2/11 13:03			
Arsenic	75	24.53	25.44	24.84
Selenium	77	26.75	26.23	27.04
Selenium	78	25.59	26.05	25.6
Selenium	82	24.73	25.05	24.91

Internal Standard

Factors:

Gallium	71	1.048	1.078	1.092	1.048	n/a	n/a
Rhodium	103	1.087	1.088	1.112	1.087	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	CCB2	Mean	SD	%RSD
TimeStamp	2/2/11 13:05			
Arsenic	75	-0.0716	-0.0106	-0.0104
Selenium	77	1.713	1.205	0.9467
Selenium	78	0.3341	0.5807	0.484
Selenium	82	-0.3131	-0.2187	-0.124

Internal Standard

Factors:

Gallium	71	1.087	1.09	1.096	1.087	n/a	n/a
Rhodium	103	1.111	1.118	1.123	1.111	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100661-006	Mean	SD	%RSD
TimeStamp	2/2/11 13:07			
Arsenic	75	-0.0251	-0.0094	-0.0076
Selenium	77	1.383	1.087	0.6564
Selenium	78	0.3028	0.6281	0.4983
Selenium	82	-0.3064	-0.2431	-0.4466

**Internal Standard
Factors:**

Gallium	71	1.09	1.089	1.086	1.09 n/a	n/a
Rhodium	103	1.102	1.107	1.119	1.102 n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100661-007	Mean	SD	%RSD
TimeStamp	2/2/11 13:10			
Arsenic	75	0.0053	-0.0282	0.0224
Selenium	77	1.241	1.05	0.6189
Selenium	78	0.1754	0.0227	0.3961
Selenium	82	-0.211	-0.177	-0.2013

**Internal Standard
Factors:**

Gallium	71	1.111	1.079	1.099	1.111	n/a	n/a
Rhodium	103	1.11	1.13	1.132	1.11	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100692-002			Mean	SD	%RSD	
TimeStamp	2/2/11 13:12						
Arsenic	75	0.7579	0.8638	0.9232	0.8483	0.0837	9.868
Selenium	77	5.69	5.261	5.115	5.355	0.2987	5.578
Selenium	78	1.323	1.707	1.401	1.477	0.2027	13.73
Selenium	82	0.4181	0.4564	0.407	0.4272	0.0259	6.066

**Internal Standard
Factors:**

Gallium	71	1.407	1.44	1.457	1.407	n/a	n/a
Rhodium	103	1.528	1.544	1.574	1.528	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100692-002D				Mean	SD	%RSD
TimeStamp	2/2/11 13:14						
Arsenic	75	0.8987	0.945	0.8023	0.882	0.0728	8.253
Selenium	77	5.64	5.438	5.758	5.612	0.1615	2.878
Selenium	78	1.816	1.613	1.753	1.727	0.104	6.024
Selenium	82	0.8085	0.795	0.4892	0.6976	0.1806	25.89

**Internal Standard
Factors:**

Gallium	71	1.409	1.412	1.448	1.409	n/a	n/a
Rhodium	103	1.531	1.496	1.554	1.531	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100692-002S	Mean	SD	%RSD
TimeStamp	2/2/11 13:16			
Arsenic	75	21.38	20.94	20.79
Selenium	77	25.63	26.26	25.77
Selenium	78	21.44	21.32	21.16
Selenium	82	20.59	19.8	19.34

**Internal Standard
Factors:**

Gallium	71	1.392	1.417	1.434	1.392	n/a	n/a
Rhodium	103	1.488	1.521	1.529	1.488	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100692-001	Mean	SD	%RSD
TimeStamp	2/2/11 13:18			
Arsenic	75	0.8752	0.8553	0.9402
Selenium	77	5.923	5.88	5.857
Selenium	78	2.284	2.256	2.076
Selenium	82	0.7532	0.7858	0.773

**Internal Standard
Factors:**

Gallium	71	1.411	1.435	1.454	1.411	n/a	n/a
Rhodium	103	1.544	1.514	1.561	1.544	n/a	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	K1100692-003			Mean	SD	%RSD
TimeStamp	2/2/11 13:21					
Arsenic	75	0.009	0.0499	-0.0971	-0.0127	0.0759
Selenium	77	1.084	0.823	1.008	0.9717	0.1344
Selenium	78	1.094	0.9935	0.9951	1.027	0.0573
Selenium	82	-0.0411	-0.0807	-0.3159	-0.1459	0.1486

**Internal Standard
Factors:**

Gallium	71	1.114	1.127	1.125	1.114	n/a
Rhodium	103	1.131	1.153	1.145	1.131	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	CCV3	Mean	SD	%RSD
TimeStamp	2/2/11 13:23			
Arsenic	75	24.76	25.17	24.83
Selenium	77	25.87	25.79	25.41
Selenium	78	27.66	29.98	28.24
Selenium	82	24.54	25.05	24.43

**Internal Standard
Factors:**

Gallium	71	1.085	1.105	1.116	1.085	n/a
Rhodium	103	1.105	1.142	1.169	1.105	n/a

Instrument ID: K-ICP-MS-02
Experiment: 02-02-11C
Units: µg/L (ppb)

Method: EPA 200.8
Analyst: Greg Jasper
STARLIMS #234653

Sample Name:	CCB3	Mean	SD	%RSD
TimeStamp	2/2/11 13:25			
Arsenic	75	-0.07	-0.0155	-0.0223
Selenium	77	0.0338	-0.1528	-0.1802
Selenium	78	3.721	3.092	2.546
Selenium	82	-0.2336	-0.1526	-0.1706

**Internal Standard
Factors:**

Gallium	71	1.093	1.111	1.124	1.093	n/a
Rhodium	103	1.146	1.173	1.184	1.146	n/a