

Level C Data Package Deliverables

Wet Chemistry



Applied P & Ch Laboratory

Applied P & Ch Laboratory
Wet Analysis Results for Method SM2320B

Client Name: GEOFON, Inc.

Project No: 04-4428.10

Anal. Method SM2320B

Project ID: JPL

Service ID: 33015

Collected by:

Component Name: Bicarbonate

CAS No:

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-3015-1	DUPE-5-2Q03	Water	05/01/03	05/01/03	05/01/03	03W2665	mg/L	2	181	
03-3015-2	EB-9-5/1/03	Water	05/01/03	05/01/03	05/01/03	03W2665	mg/L	2	< 2	U
03-3015-3	MW-3-1	Water	05/01/03	05/01/03	05/01/03	03W2665	mg/L	2	202	
03-3015-4	MW-3-2	Water	05/01/03	05/01/03	05/01/03	03W2665	mg/L	2	187	
03-3015-5	MW-3-3	Water	05/01/03	05/01/03	05/01/03	03W2665	mg/L	2	143	
03-3015-6	MW-3-4	Water	05/01/03	05/01/03	05/01/03	03W2665	mg/L	2	128	
03-3015-7	MW-3-5	Water	05/01/03	05/01/03	05/01/03	03W2665	mg/L	2	88.3	
03W2665-MB-01	03W2665-MB-01	Water	05/01/03	05/01/03	05/01/03	03W2665	mg/L	2	< 2	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

Applied P & Ch Laboratory
Wet Analysis Results for Method SM2320B

Client Name: GEOFON, Inc.
Project ID: JPL

Project No: 04-4428.10
Service ID: 33015

Anal. Method SM2320B
Collected by:

Component Name: Carbonate
CAS No:

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-3015-1	DUPE-5-2Q03	Water	05/01/03	05/01/03	05/01/03	03W2665	mg-CaCO ₃ /L	2	<2	U
03-3015-2	EB-9-5/1/03	Water	05/01/03	05/01/03	05/01/03	03W2665	mg-CaCO ₃ /L	2	<2	U
03-3015-3	MW-3-1	Water	05/01/03	05/01/03	05/01/03	03W2665	mg-CaCO ₃ /L	2	<2	U
03-3015-4	MW-3-2	Water	05/01/03	05/01/03	05/01/03	03W2665	mg-CaCO ₃ /L	2	<2	U
03-3015-5	MW-3-3	Water	05/01/03	05/01/03	05/01/03	03W2665	mg-CaCO ₃ /L	2	<2	U
03-3015-6	MW-3-4	Water	05/01/03	05/01/03	05/01/03	03W2665	mg-CaCO ₃ /L	2	5.2	
03-3015-7	MW-3-5	Water	05/01/03	05/01/03	05/01/03	03W2665	mg-CaCO ₃ /L	2	40.8	
03W2665-MB-01	03W2665-MB-01	Water	05/01/03	05/01/03	05/01/03	03W2665	mg-CaCO ₃ /L	2	<2	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

Applied P & Ch Laboratory
Wet Analysis Results for Method 9040

Client Name: GEOFON, Inc.
Project ID: JPL

Project No: 04-4428.10
Service ID: 33015

Anal. Method 9040
Collected by:

Component Name: pH
CAS No: 10-29-7

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-3015-1	DUPE-5-2Q03	Water	05/01/03	05/01/03	05/01/03	03W2661	pH unit	0.01	7.55	
03-3015-2	EB-9-5/1/03	Water	05/01/03	05/01/03	05/01/03	03W2661	pH unit	0.01	6.98	
03-3015-3	MW-3-1	Water	05/01/03	05/01/03	05/01/03	03W2661	pH unit	0.01	7.72	
03-3015-4	MW-3-2	Water	05/01/03	05/01/03	05/01/03	03W2661	pH unit	0.01	8.05	
03-3015-5	MW-3-3	Water	05/01/03	05/01/03	05/01/03	03W2661	pH unit	0.01	8.00	
03-3015-6	MW-3-4	Water	05/01/03	05/01/03	05/01/03	03W2661	pH unit	0.01	8.66	
03-3015-7	MW-3-5	Water	05/01/03	05/01/03	05/01/03	03W2661	pH unit	0.01	9.64	
03W2661-MB-01	03W2661-MB-01	Water	05/01/03	05/01/03	05/01/03	03W2661	pH unit	0.01	6.89	

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

Applied P & Ch Laboratory
Wet Analysis Results for Method 160.1

Client Name: GEOFON, Inc.
Project ID: JPL

Project No: 04-4428.10
Service ID: 33015

Anal. Method 160.1
Collected by:

Component Name: Solids, Total Dissolved (TDS)
CAS No: 10-33-3

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-3015-1	DUPE-5-2Q03	Water	05/01/03	05/01/03	05/05/03	03W2722	mg/L	10	249	
03-3015-2	EB-9-5/1/03	Water	05/01/03	05/01/03	05/05/03	03W2722	mg/L	10	9.0	B
03-3015-3	MW-3-1	Water	05/01/03	05/01/03	05/05/03	03W2722	mg/L	10	350	
03-3015-4	MW-3-2	Water	05/01/03	05/01/03	05/05/03	03W2722	mg/L	10	278	
03-3015-5	MW-3-3	Water	05/01/03	05/01/03	05/05/03	03W2722	mg/L	10	249	
03-3015-6	MW-3-4	Water	05/01/03	05/01/03	05/05/03	03W2722	mg/L	10	200	
03-3015-7	MW-3-5	Water	05/01/03	05/01/03	05/05/03	03W2722	mg/L	10	259	
03W2722-MB-01	03W2722-MB-01	Water	05/05/03	05/05/03	05/05/03	03W2722	mg/L	10	<10	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

Applied P & Ch Laboratory
Wet Analysis Results for Method 7196

Client Name: GEOFON, Inc.

Project No: 04-4428.10

Anal. Method 7196

Project ID: JPL

Service ID: 33015

Collected by:

Component Name: Chromium (VI)

CAS No: 1333-82-0

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-3015-1	DUPE-5-2Q03	Water	05/01/03	05/01/03	05/01/03	03W2664	mg/L	0.01	<0.01	U
03-3015-2	EB-9-5/1/03	Water	05/01/03	05/01/03	05/01/03	03W2664	mg/L	0.01	<0.01	U
03-3015-3	MW-3-1	Water	05/01/03	05/01/03	05/01/03	03W2664	mg/L	0.01	<0.01	U
03-3015-4	MW-3-2	Water	05/01/03	05/01/03	05/01/03	03W2664	mg/L	0.01	<0.01	U
03-3015-5	MW-3-3	Water	05/01/03	05/01/03	05/01/03	03W2664	mg/L	0.01	<0.01	U
03-3015-6	MW-3-4	Water	05/01/03	05/01/03	05/01/03	03W2664	mg/L	0.01	<0.01	U
03-3015-7	MW-3-5	Water	05/01/03	05/01/03	05/01/03	03W2664	mg/L	0.01	<0.01	U
03W2664-MB-01	03W2664-MB-01	Water	05/01/03	05/01/03	05/01/03	03W2664	mg/L	0.01	<0.01	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

Applied P & Ch Laboratory
Wet Analysis Results for Method 314.0

Client Name: GEOFON, Inc.

Project No: 04-4428.10

Anal. Method 314.0

Project ID: JPL

Service ID: 33015

Collected by:

Component Name: Perchlorate

CAS No:

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-3015-1	DUPE-5-2Q03	Water	05/01/03	05/01/03	05/05/03	03W2719	µg/L	4	5.8	
03-3015-2	EB-9-5/1/03	Water	05/01/03	05/01/03	05/05/03	03W2719	µg/L	4	<4	U
03-3015-3	MW-3-1	Water	05/01/03	05/01/03	05/05/03	03W2719	µg/L	4	<4	U
03-3015-4	MW-3-2	Water	05/01/03	05/01/03	05/05/03	03W2719	µg/L	4	4.2	
03-3015-5	MW-3-3	Water	05/01/03	05/01/03	05/05/03	03W2719	µg/L	4	<4	U
03-3015-6	MW-3-4	Water	05/01/03	05/01/03	05/05/03	03W2719	µg/L	4	<4	U
03-3015-7	MW-3-5	Water	05/01/03	05/01/03	05/05/03	03W2719	µg/L	4	<4	U
03W2719-MB-01	03W2719-MB-01	Water	05/05/03	05/05/03	05/05/03	03W2719	µg/L	4	<4	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

APCL Perchlorate Analysis Report

Sample Name : 3015-01 F=1

Data File Name : C:\DATA\03W2719K\3015-01_021.DXD

Method File Name : c:\peaknet\method\314-011.met

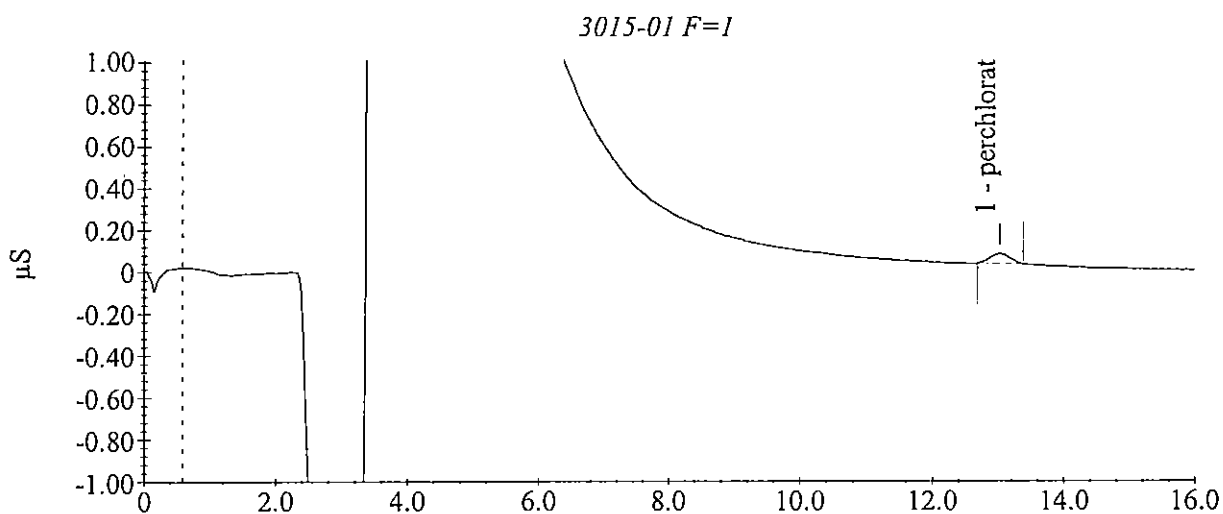
Date Time Collected : 05/05/2003 4:17:02 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	13.02	5.83	9885.45	486.57



APCL Perchlorate Analysis Report

Sample Name : mb

Data File Name : C:\DATA\03W2719K\W2719K K01_007.DXD

Method File Name : c:\peaknet\method\314-011.met

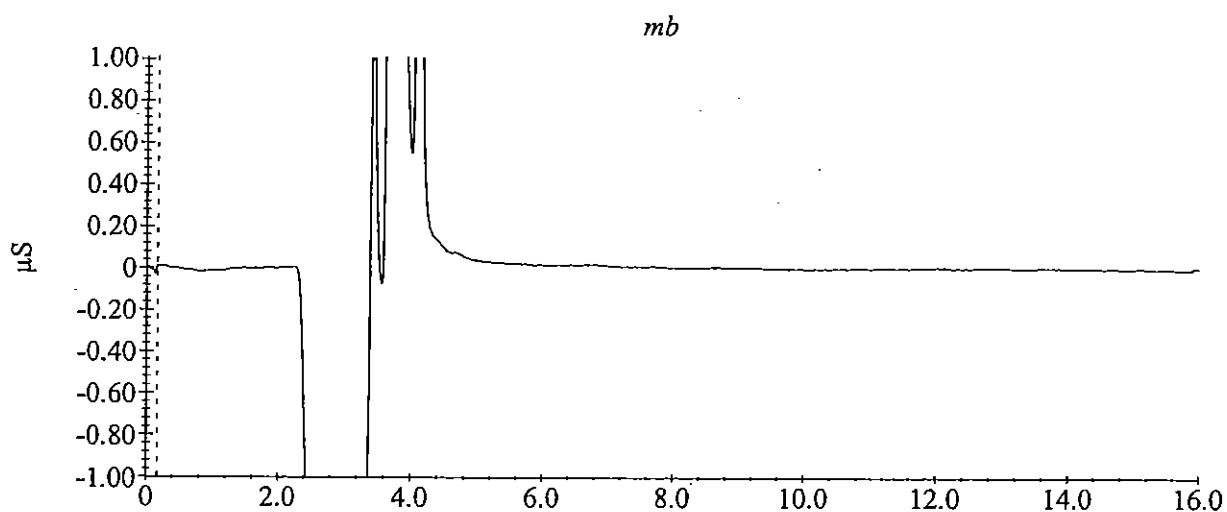
Date Time Collected : 05/05/2003 11:56:55 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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Applied P & Ch Laboratory
Wet Analysis Results for Method 300.0

Client Name: GEOFON, Inc.
Project ID: JPL

Project No: 04-4428.10
Service ID: 33015

Anal. Method 300.0
Collected by:

Component Name: Chloride Cl^-
CAS No: 16887-00-6

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-3015-1	DUPE-5-2Q03	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.8	14.9	
03-3015-2	EB-9-5/1/03	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.25	0.19	B
03-3015-3	MW-3-1	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.8	19.4	
03-3015-4	MW-3-2	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.8	14.2	
03-3015-5	MW-3-3	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	1.6	36.8	
03-3015-6	MW-3-4	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.4	11.5	
03-3015-7	MW-3-5	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.4	9.1	
03W2658-MB-01	03W2658-MB-01	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.2	<0.2	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

Applied P & Ch Laboratory
Wet Analysis Results for Method 300.0

Client Name: GEOFON, Inc.

Project No: 04-4428.10

Anal. Method 300.0

Project ID: JPL

Service ID: 33015

Collected by:

Component Name: Nitrate as N

CAS No: 14797-55-8

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-3015-1	DUPE-5-2Q03	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.16	1.2	
03-3015-2	EB-9-5/1/03	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.05	0.068	
03-3015-3	MW-3-1	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.16	1.6	
03-3015-4	MW-3-2	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.16	1.2	
03-3015-5	MW-3-3	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.32	<0.32	U
03-3015-6	MW-3-4	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.08	0.17	
03-3015-7	MW-3-5	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.08	0.11	
03W2658-MB-01	03W2658-MB-01	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.04	<0.04	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

Applied P & Ch Laboratory
Wet Analysis Results for Method 300.0

Client Name: GEOFON, Inc. Project No: 04-4428.10 Anal. Method 300.0
 Project ID: JPL Service ID: 33015 Collected by:

Component Name: Sulfate SO_4^{--}
 CAS No: 14808-79-8

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-3015-1	DUPE-5-2Q03	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	2	37.5	
03-3015-2	EB-9-5/1/03	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.63	<0.63	U
03-3015-3	MW-3-1	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	2	49.9	
03-3015-4	MW-3-2	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	2	35.7	
03-3015-5	MW-3-3	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	4	40.9	
03-3015-6	MW-3-4	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	1	11.0	
03-3015-7	MW-3-5	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	1	9.5	
03W2658-MB-01	03W2658-MB-01	Water	05/01/03	05/01/03	05/01/03	03W2658	mg/L	0.5	<0.5	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

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=====
Sample Name: 3015-1 F=4                      Date: 05/01/2003 16:35:21
Data File  : C:\DX\DATA\03W2658\3015-101.D23
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 23          Detector: COND
Analyst    : David                          Column: Dionex AS4A-SC
=====

```

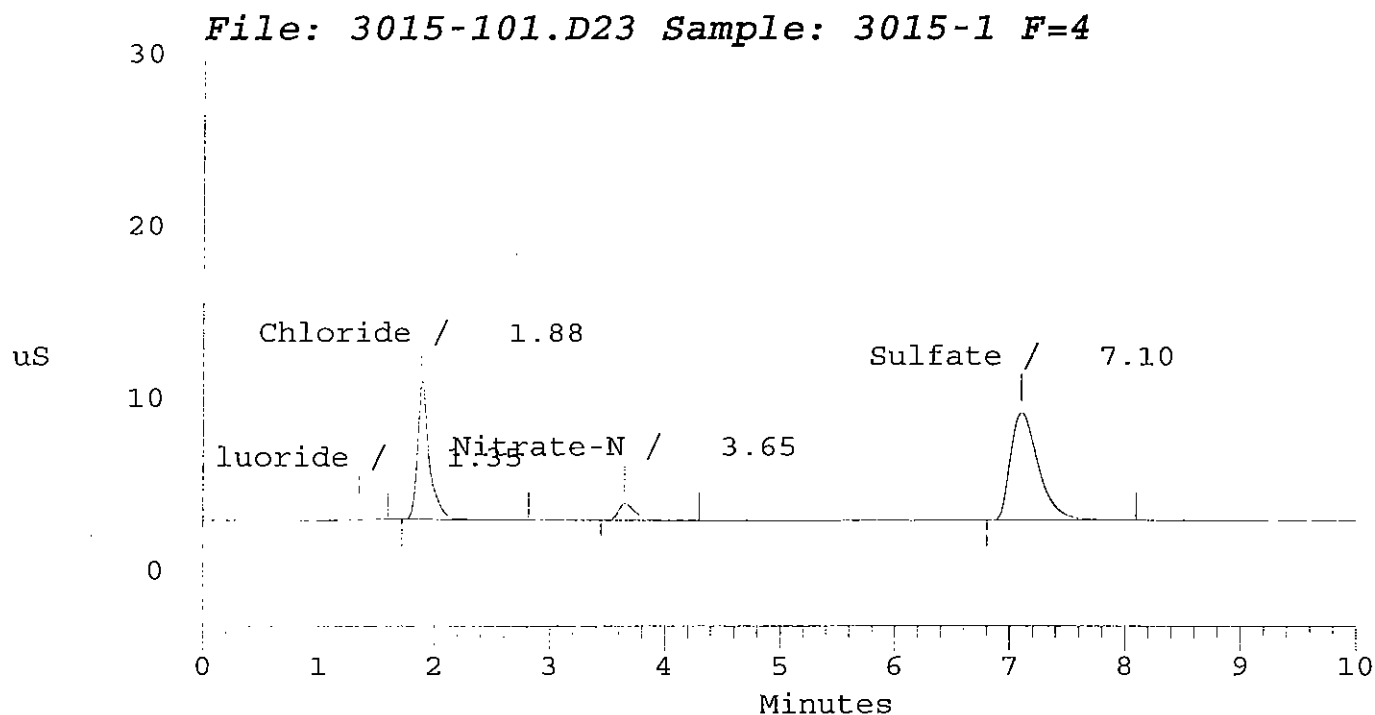
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Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           4    3000   5Hz   0.00 10.00      1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.35	Fluoride	0.660	11515	120633	1	0.00
2	1.88	Chloride	14.878	249546	1838978	1	0.00
0	0.00	Nitrite-N	0.000	0	0	0	0.00
0	0.00	Bromide	0.000	0	0	0	0.00
3	3.65	Nitrate-N	1.242	32966	332880	1	0.00
0	0.00	Phosphate-P	0.000	0	0	0	0.00
4	7.10	Sulfate	37.470	207580	3488751	1	0.00
Totals			54.251	501607	5781242		



```

=====
Sample Name: MB RW1409                      Date: 05/01/2003 10:53:53
Data File  : C:\DX\DATA\03W2658\W2658K01.D02
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 2          Detector: COND
Analyst    : David                          Column: Dionex AS4A-SC
=====

```

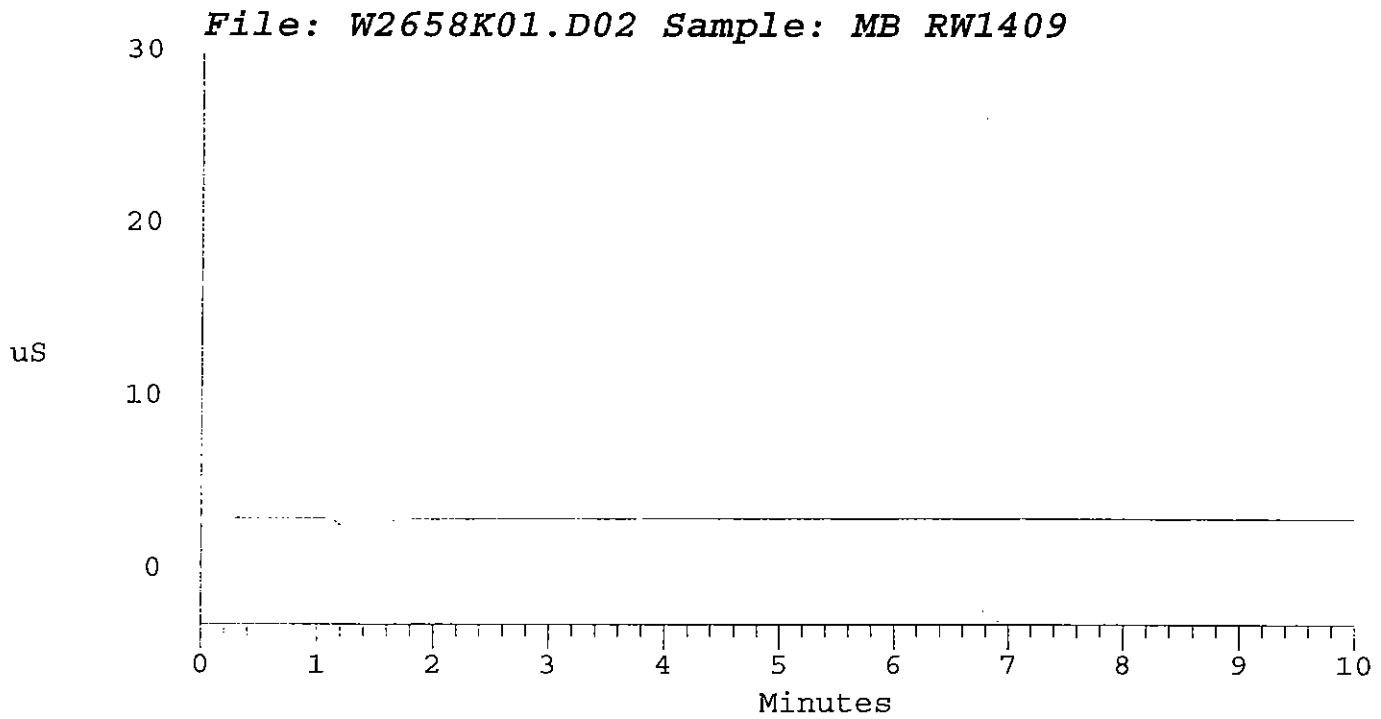
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Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1    3000  5Hz   0.00 10.00      1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
0	0.00	Fluoride	0.000	0	0	0	0.00
0	0.00	Chloride	0.000	0	0	0	0.00
0	0.00	Nitrite-N	0.000	0	0	0	0.00
0	0.00	Bromide	0.000	0	0	0	0.00
0	0.00	Nitrate-N	0.000	0	0	0	0.00
0	0.00	Phosphate-P	0.000	0	0	0	0.00
0	0.00	Sulfate	0.000	0	0	0	0.00
Totals			0.000	0	0		



FORM-3

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 300.0

Client Name: GEOFON, Inc.

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 33015

Project ID: JPL

Project No: 04-4428.10

Sample Matrix: Water

Batch No: 03W2658

LCS Filename: -

Date Analyzed: 050103

Time Analyzed: 11:09

LCSD Filename: -

Date Analyzed: 050103

Time Analyzed: 11:39

Spiked Components	Unit	Spike Added	Concentration		LCS Rec% #	QC Limit, % REC
			Unspiked	LCS		
CHLORIDE CL ⁻	mg/L	4.0	0	3.96	99	80-120
NITRATE AS N	mg/L	1.5	0	1.52	101	80-120
SULFATE SO ₄ ⁻	mg/L	15	0	15.0	100	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
CHLORIDE CL ⁻	mg/L	4.0	3.94	99	0	20	80-120
NITRATE AS N	mg/L	1.5	1.53	102	1	20	80-120
SULFATE SO ₄ ⁻	mg/L	15	15.1	101	1	25	80-120
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

```

=====
Sample Name: LCS W7768-100X                      Date: 05/01/2003 11:09:06
Data File  : C:\DX\DATA\03W2658\W2658L01.D03
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 3
Analyst    : David                               Column: Dionex AS4A-SC
Detector: COND
=====

```

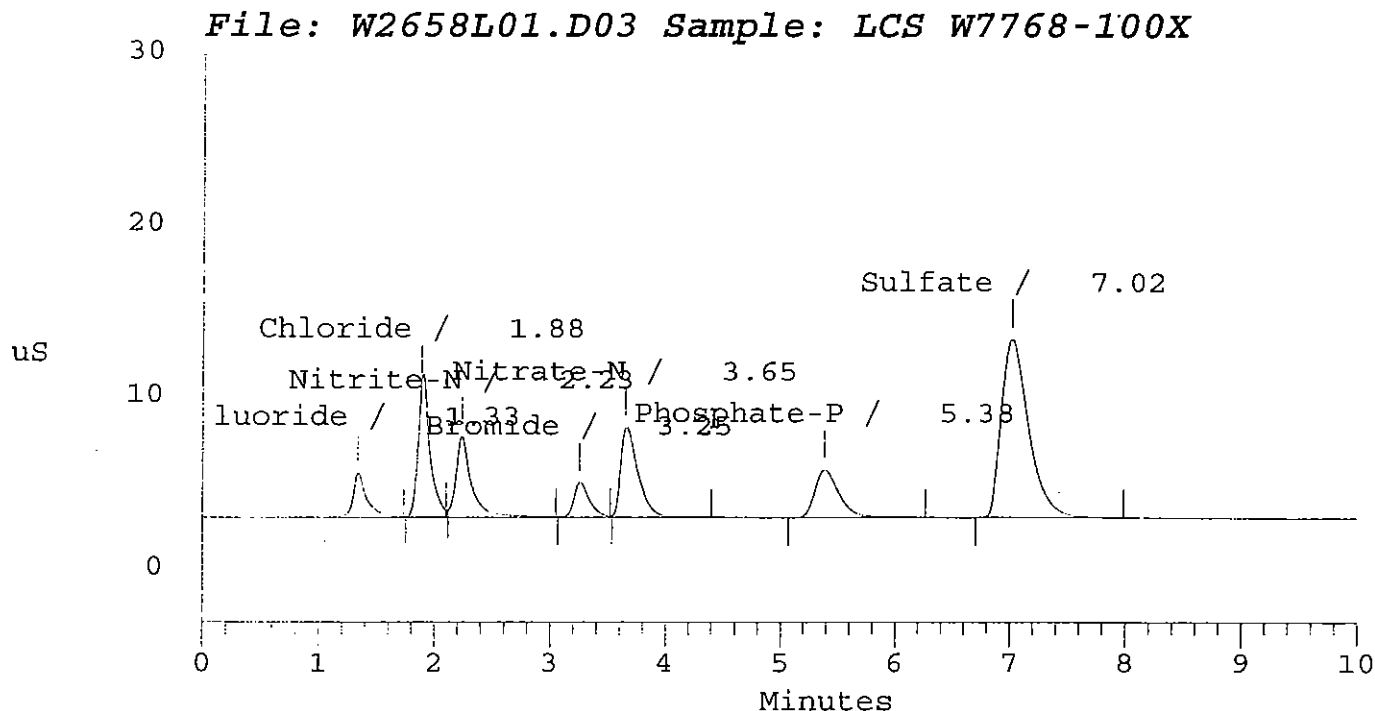
```

Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1 3000 5Hz 0.00 10.00 1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	1.005	85972	730988	2	0.00
2	1.88	Chloride	3.957	256977	1960777	2	0.00
3	2.23	Nitrite-N	1.473	157406	1484023	2	0.14
4	3.25	Bromide	3.081	67617	627960	2	0.54
5	3.65	Nitrate-N	1.519	173104	1832590	2	0.00
6	5.38	Phosphate-P	2.976	92631	1361103	1	0.00
7	7.02	Sulfate	15.043	346222	5729613	1	0.00
Totals			29.052	1179929	13727053		



```

=====
Sample Name: LCSD W7768-100X                      Date: 05/01/2003 11:39:05
Data File  : C:\DX\DATA\03W2658\W2658J01.D04
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 4                Detector: COND
Analyst    : David                               Column: Dionex AS4A-SC
=====

```

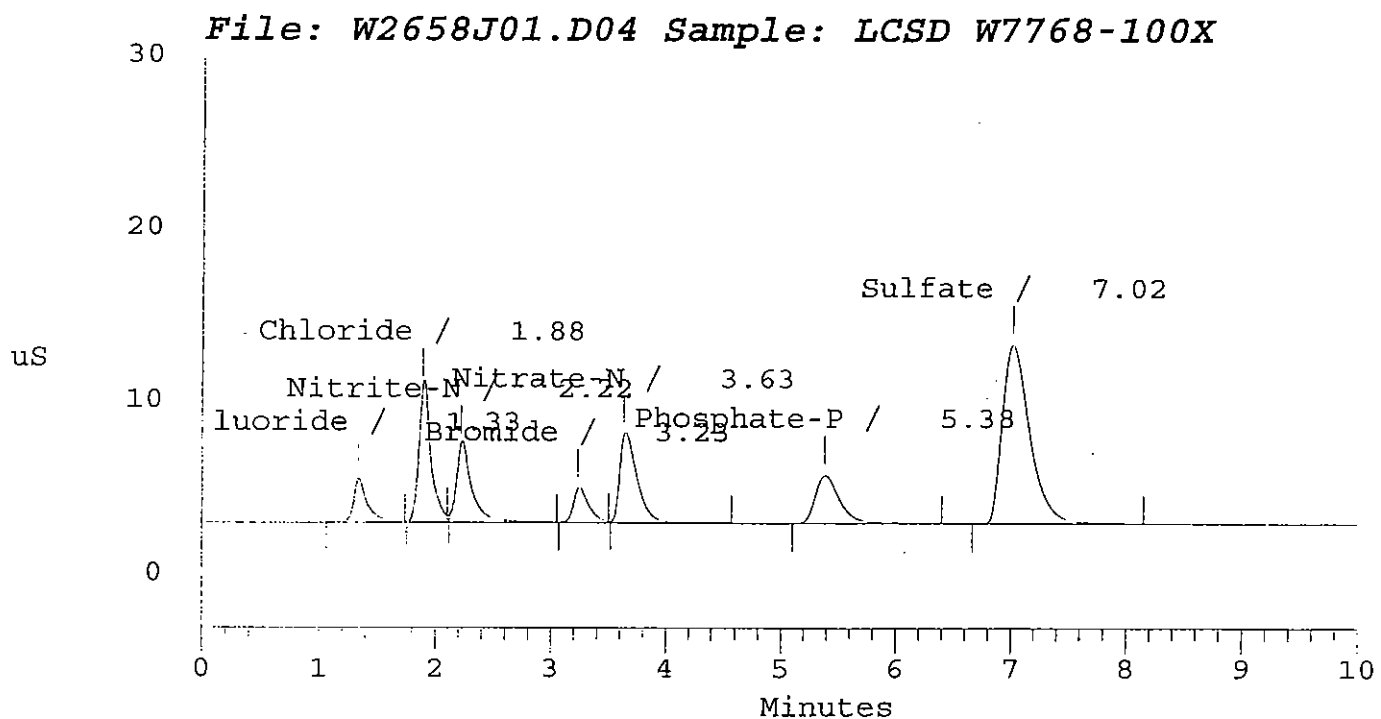
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Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1 3000 5Hz 0.00 10.00      1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	0.999	85657	726536	2	0.00
2	1.88	Chloride	3.937	260473	1950505	2	0.00
3	2.22	Nitrite-N	1.478	150139	1489536	2	-0.61
4	3.23	Bromide	3.105	66113	632935	2	0.48
5	3.63	Nitrate-N	1.525	169735	1840255	2	0.00
6	5.38	Phosphate-P	2.999	92786	1372208	1	0.00
7	7.02	Sulfate	15.080	344524	5744342	1	0.00
Totals			29.123	1169426	13756318		



FORM-3

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 300.0

Client Name: GEOFON, Inc.

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 33015

Project ID: JPL

Project No: 04-4428.10

Sample Matrix: Water

Batch No: 03W2658

MS Filename: -

Date Analyzed: 050103

Time Analyzed: 14:30

MSD Filename: -

Date Analyzed: 050103

Time Analyzed: 14:43

MS Sample No: MW-23-5

Sample Lab ID: 03-2987-6

Spiked Components	Unit	Spike Added	Concentration		MS Rec% #	QC Limit, % REC
			Unspiked	MS		
CHLORIDE CL ⁻	mg/L	20.0	14.5	34.7	101	75-125
NITRATE AS N	mg/L	7.50	0.14	7.51	98	75-125
SULFATE SO ₄ ⁻	mg/L	75.0	2.2	74.8	97	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
CHLORIDE CL ⁻	mg/L	20.0	34.6	101	0	20	75-125
NITRATE AS N	mg/L	7.50	7.49	98	0	20	75-125
SULFATE SO ₄ ⁻	mg/L	75.0	74.3	96	1	25	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

```

=====
Sample Name: $2987-6 MS F=5                      Date: 05/01/2003 14:30:47
Data File  : C:\DX\DATA\03W2658\W2658M01.D14
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 14              Detector:COND
Analyst    : David                               Column: Dionex AS4A-SC
=====

```

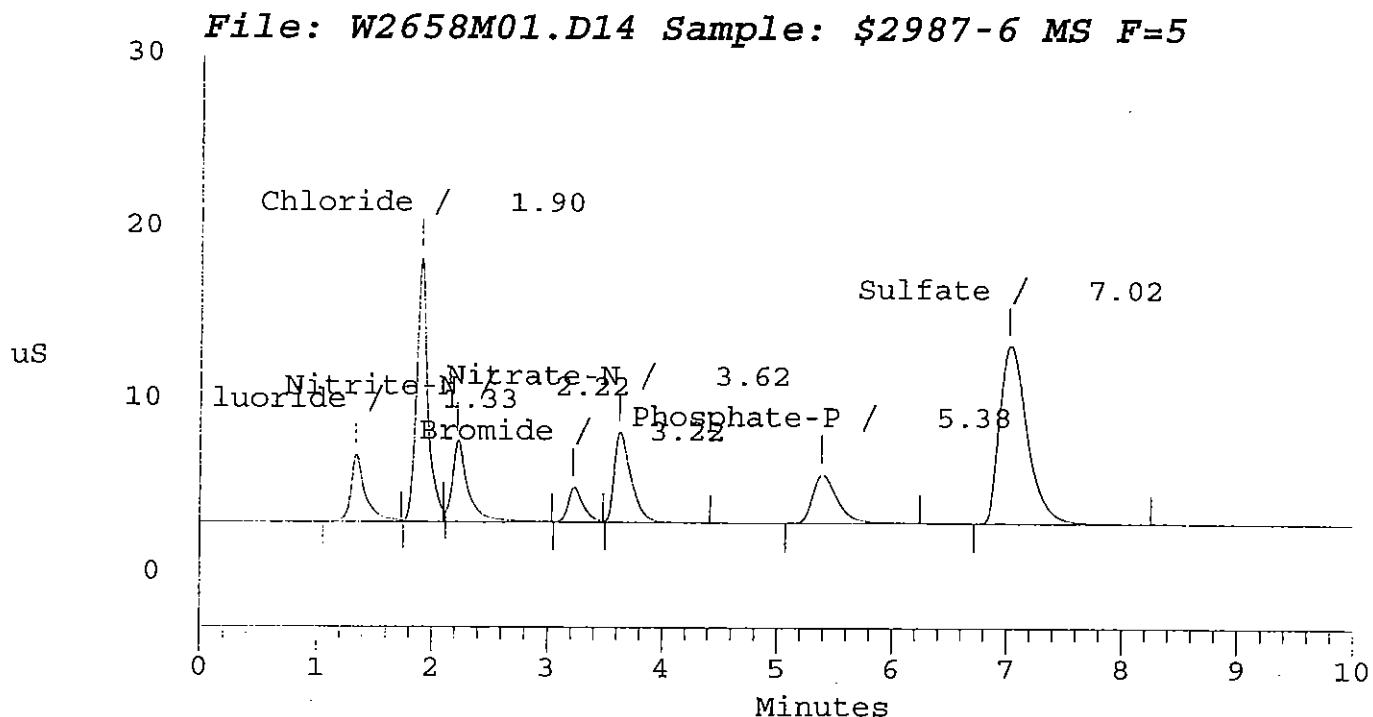
```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           5    3000   5Hz   0.00 10.00      1000
-----

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	7.823	127237	1137678	2	0.00
2	1.90	Chloride	34.744	506808	3492577	2	0.00
3	2.22	Nitrite-N	7.483	152337	1508539	2	-1.48
4	3.22	Bromide	15.273	66227	622575	2	0.42
5	3.62	Nitrate-N	7.512	171838	1812333	2	0.00
6	5.38	Phosphate-P	15.482	93367	1418041	1	0.00
7	7.02	Sulfate	74.821	339637	5698613	1	0.00
Totals			163.137	1457451	15690357		



```

=====
Sample Name: $2987-6 MSD F=5                      Date: 05/01/2003 14:43:30
Data File  : C:\DX\DATA\03W2658\W2658N01.D15
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 15                Detector:COND
Analyst    : David                               Column: Dionex AS4A-SC
=====

```

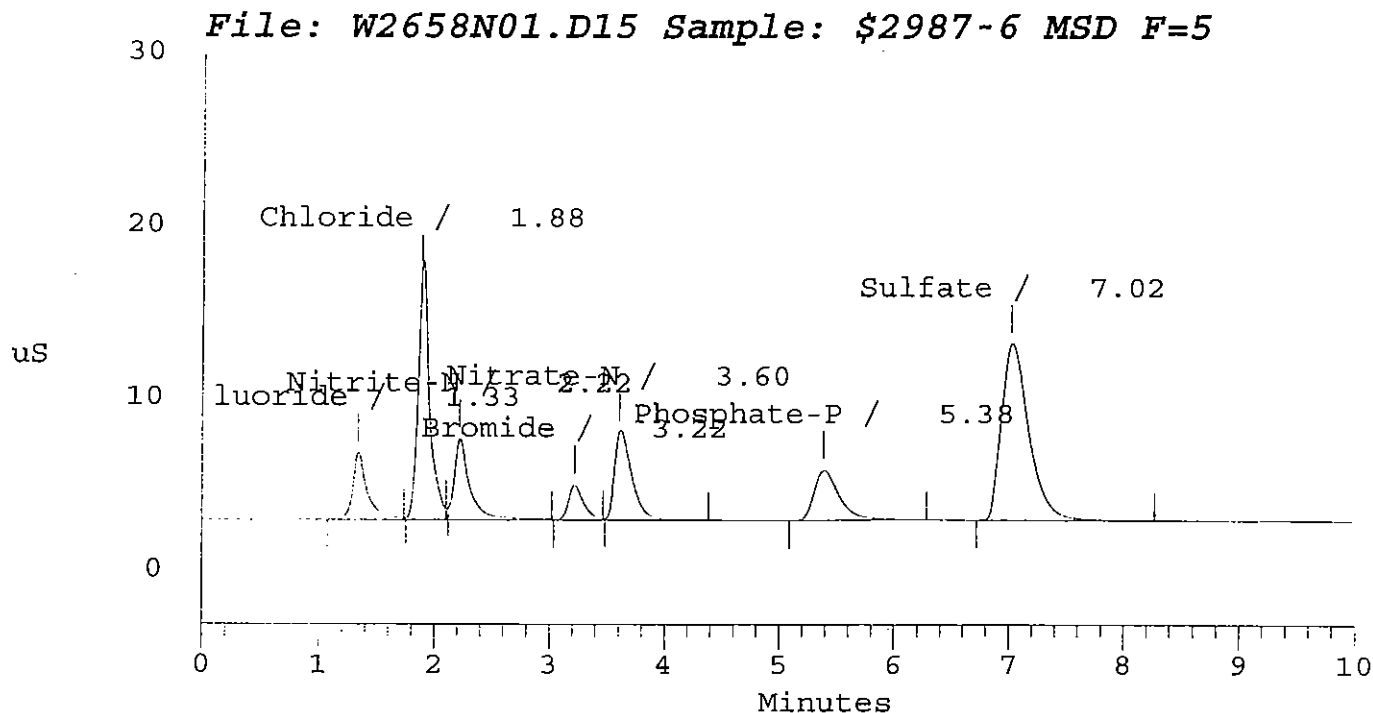
```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           5    3000  5Hz   0.00 10.00      1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	7.821	128858	1137368	2	0.00
2	1.88	Chloride	34.639	474759	3481867	2	0.00
3	2.22	Nitrite-N	7.417	155629	1495100	2	-0.61
4	3.22	Bromide	15.159	67838	617849	2	0.89
5	3.60	Nitrate-N	7.493	168919	1807674	2	0.00
6	5.38	Phosphate-P	16.275	95996	1492801	1	0.00
7	7.02	Sulfate	74.291	339133	5656764	1	0.00
Totals			163.095	1431132	15689422		



```

=====
Sample Name: 2987-6 F=2.5                      Date: 05/01/2003 13:01:18
Data File  : C:\DX\DATA\03W2658\2987-601.D09
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 9             Detector:COND
Analyst    : David                            Column: Dionex AS4A-SC
=====

```

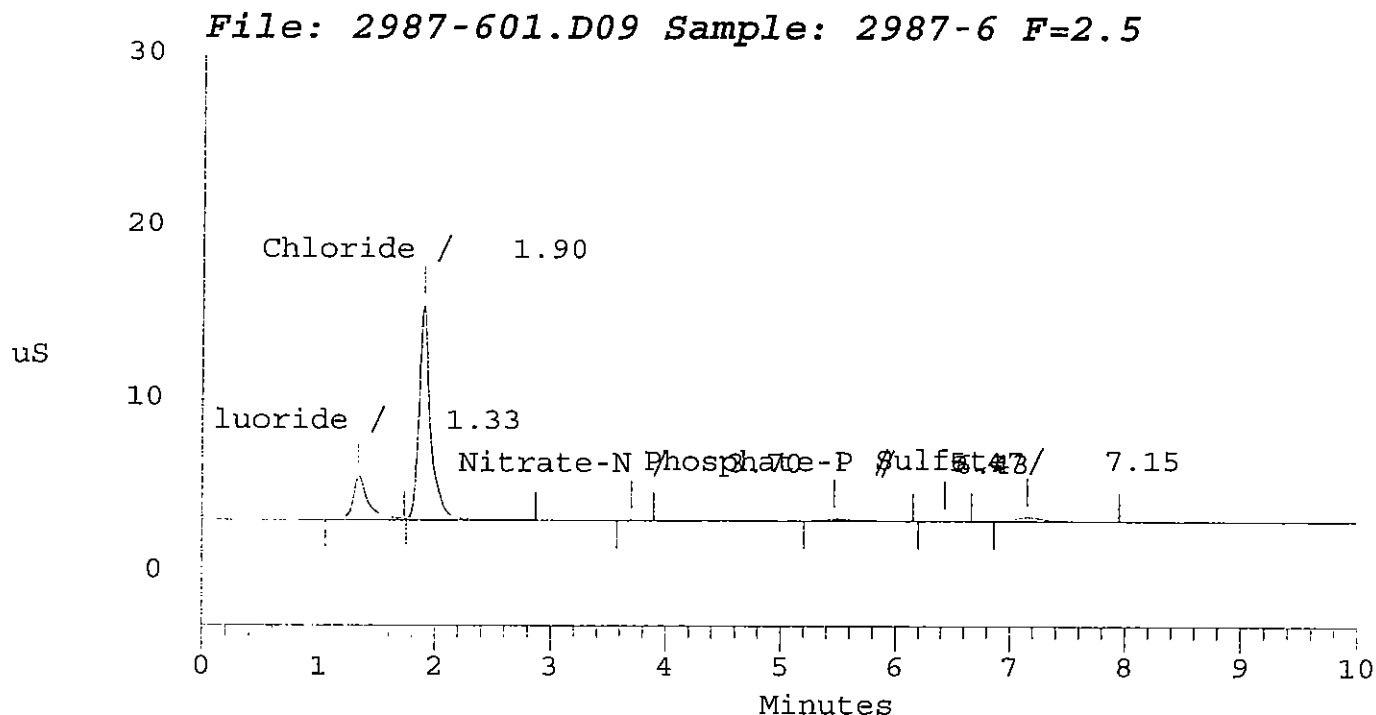
```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          2.5    3000  5Hz   0.00 10.00      1000
-----

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	2.673	83569	777626	2	0.00
2	1.90	Chloride	14.498	412554	2903959	2	0.00
0	0.00	Nitrite-N	0.000	0	0	0	0.00
0	0.00	Bromide	0.000	0	0	0	0.00
3	3.70	Nitrate-N	0.135	1640	14318	1	0.00
4	5.47	Phosphate-P	0.677	4309	86663	2	0.00
6	7.15	Sulfate	2.204	7795	137859	1	0.00
Totals			20.187	509867	3920426		



FORM-3

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 314.0

Client Name: GEOFON, Inc.

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 33015

Project ID: JPL

Project No: 04-4428.10

Sample Matrix: Water

Batch No: 03W2719

LCS Filename: -

Date Analyzed: 050503

Time Analyzed: 11:00

LCSD Filename: -

Date Analyzed: -

Time Analyzed: -

Spiked Components	Unit	Spike Added	Concentration		LCS Rec% #	QC Limit, % REC
			Unspiked	LCS		
PERCHLORATE	$\mu\text{g/L}$	25	0	24.7	99	80-120
# of Out-of-control					0	

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

APCL Perchlorate Analysis Report

Sample Name : lcs 25ppb w7827d

Data File Name : C:\DATA\03W2719K\W2719K L01_004.DXD

Method File Name : c:\peaknet\method\c314-011.met

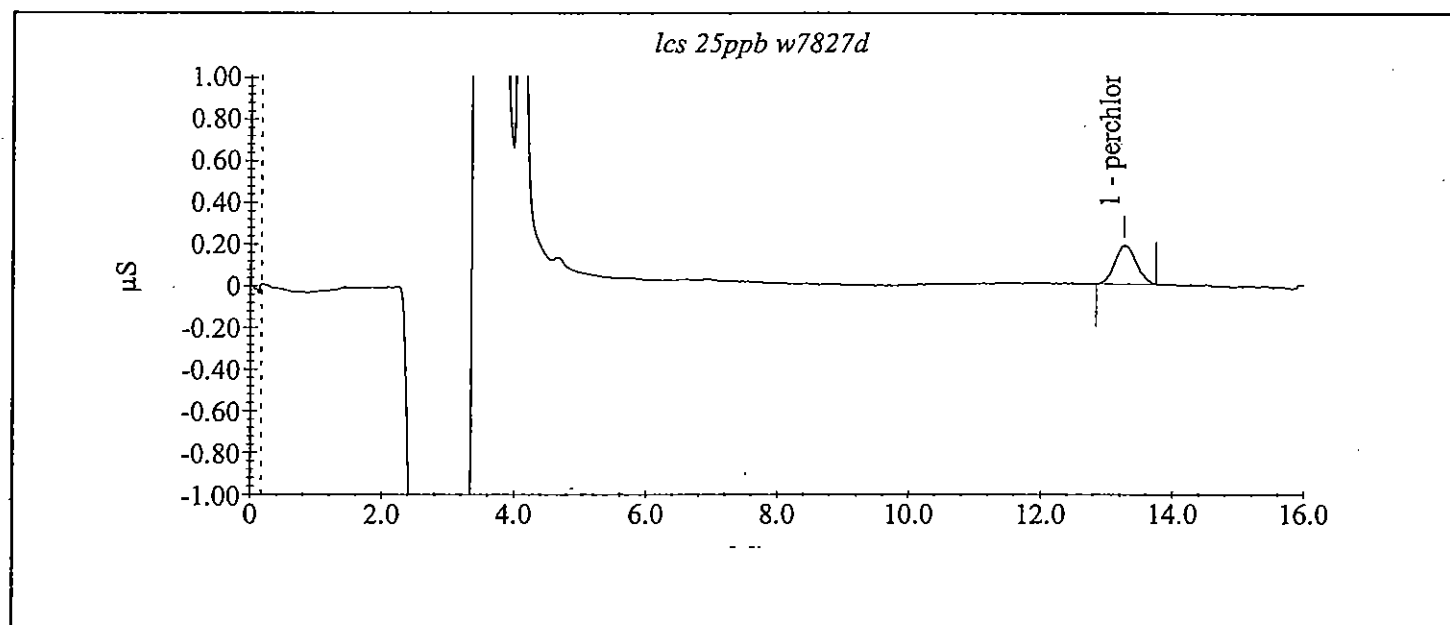
Date Time Collected : 05/05/2003 11:00:24 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	13.25	24.71	41942.60	1833.80



FORM-3

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 314.0

Client Name: GEOFON, Inc.

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 33015

Project ID: JPL

Project No: 04-4428.10

Sample Matrix: Water

Batch No: 03W2719

MS Filename: -

Date Analyzed: 050503

Time Analyzed: 14:44

MSD Filename: -

Date Analyzed: 050503

Time Analyzed: 15:02

MS Sample No: MW-23-5

Sample Lab ID: 03-2987-6

Spiked Components	Unit	Spike Added	Concentration		MS Rec% #	QC Limit, % REC
			Unspiked	MS		
PERCHLORATE	µg/L	50	0	54.2	108	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
PERCHLORATE	µg/L	50	56.2	112	4	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

APCL Perchlorate Analysis Report

Sample Name : 2987-06 ms 50ppb f=1

Data File Name : C:\DATA\03W2719K\W2719K M01_016.DXD

Method File Name : c:\peaknet\method\314-011.met

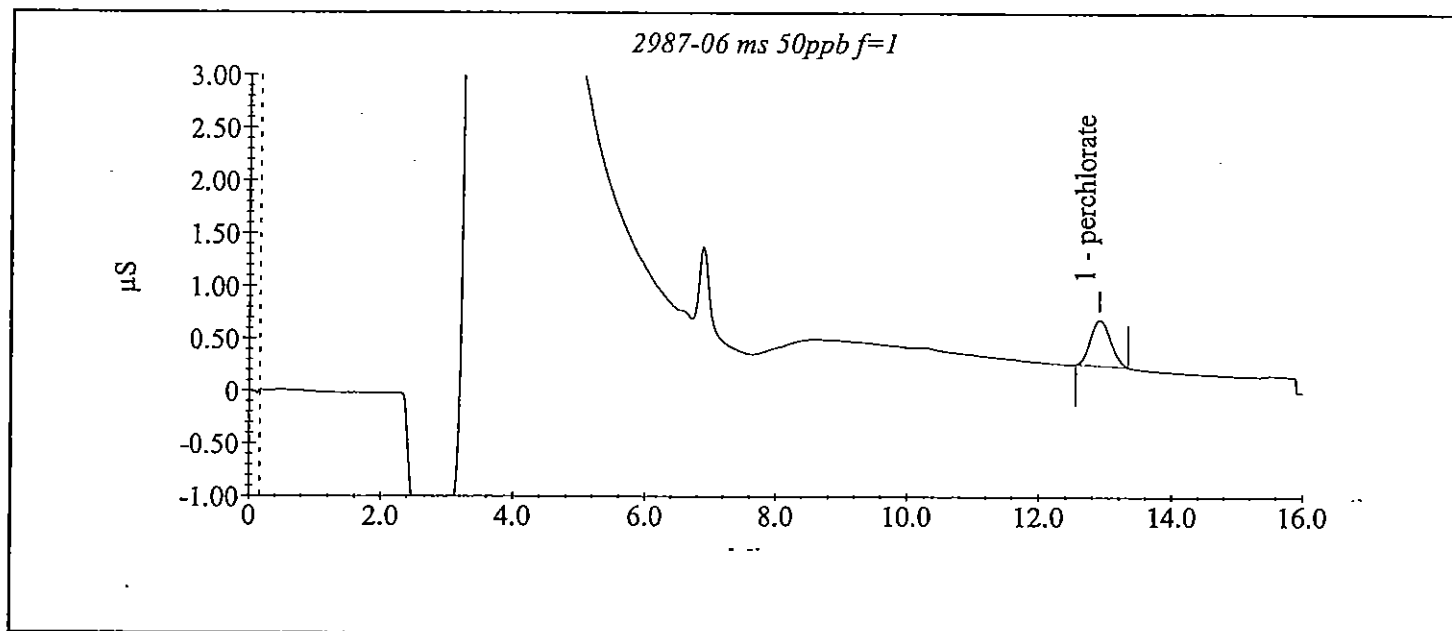
Date Time Collected : 05/05/2003 2:44:12 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	12.90	54.21	91993.65	4354.98



Rev 108.42/0



APCL Perchlorate Analysis Report

Sample Name : 2987-06 msd 50ppb f=1

Data File Name : C:\DATA\03W2719K\W2719K N01_017.DXD

Method File Name : c:\peaknet\method\314-011.met

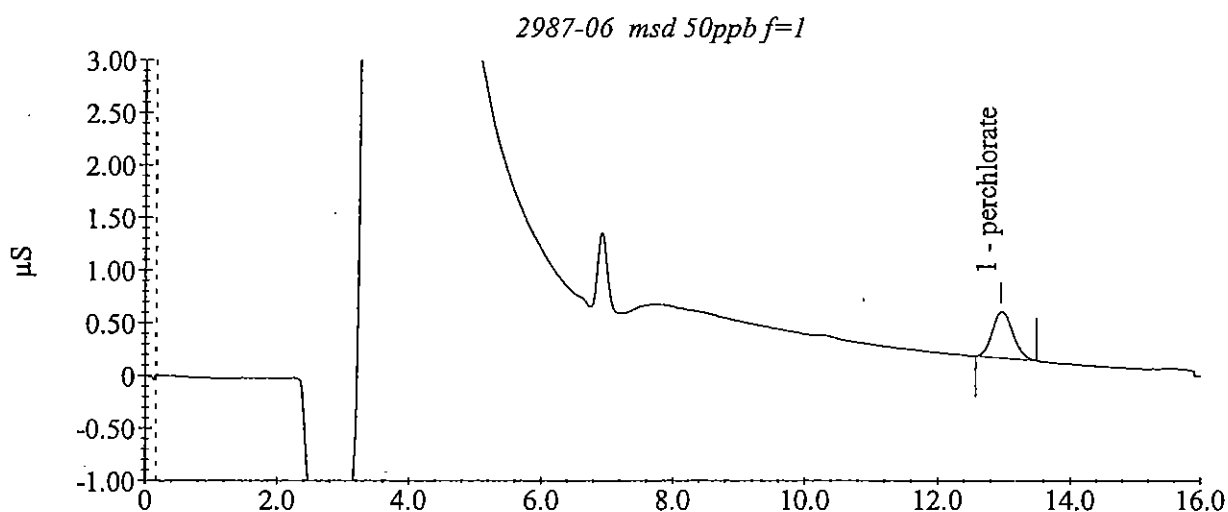
Date Time Collected : 05/05/2003 3:02:54 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	12.95	56.18	95347.00	4363.97



Rev 112.367



APCL Perchlorate Analysis Report

Sample Name : 2987-06 f=1

Data File Name : C:\DATA\03W2719K\2987-06_012.DXD

Method File Name : c:\peaknet\method\314-011.met

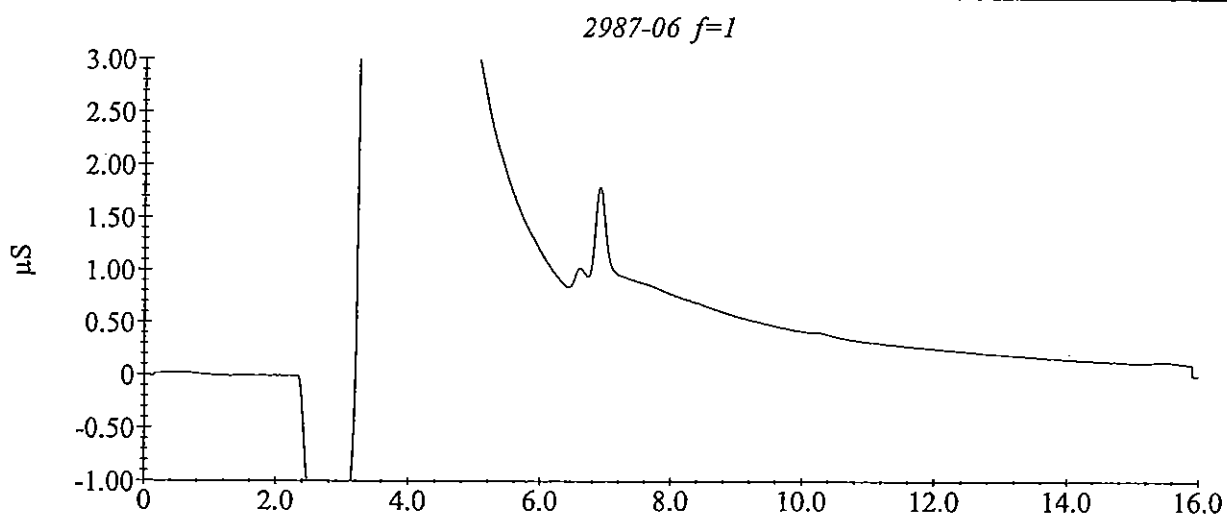
Date Time Collected : 05/05/2003 1:29:52 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
--------	----------------	----------------	--------------	-----------	-------------



FORM-3

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 160.1

Client Name: GEOFON, Inc.

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 33015

Project ID: JPL

Project No: 04-4428.10

Sample Matrix: Water

Batch No: 03W2722

LCS Filename: -

Date Analyzed: 050503

Time Analyzed: 14:56

LCSD Filename: -

Date Analyzed: 050503

Time Analyzed: 14:56

Spiked Components	Unit	Spike Added	Concentration		LCS Rec% #	QC Limit, % REC
			Unspiked	LCS		
SOLIDS, TOTAL DISSOLVED (TDS)	mg/L	400	0	390	98	88-108
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
SOLIDS, TOTAL DISSOLVED (TDS)	mg/L	400	398	100	2	20	88-108
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 160.1

Client Name: GEOFON, Inc.	Contract No:	Lab Code: APCL
Case No:	SAS No:	Service ID: 33015
Project ID: JPL	Project No: 04-4428.10	Sample Matrix: Water
	Batch No: 03W2722	
MS Filename: -	Date Analyzed: 050503	Time Analyzed: 14:56
MSD Filename: -	Date Analyzed: 050503	Time Analyzed: 14:56
MS Sample No: CENTRAL-050403-704	Sample Lab ID: 03-3065-2	

Spiked Components	Unit	Spike Added	Concentration		MS Rec% #	QC Limit, % REC
			Unspiked	MS		
SOLIDS, TOTAL DISSOLVED (TDS)	mg/L	400	1240	1590	88	80-119
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD REC	
						RPD	REC
SOLIDS, TOTAL DISSOLVED (TDS)	mg/L	400	1600	90	2	20	80-119
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 7196

Client Name: GEOFON, Inc.

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 33015

Project ID: JPL

Project No: 04-4428.10

Sample Matrix: Water

Batch No: 03W2664

LCS Filename: -

Date Analyzed: 050103

Time Analyzed: 15:19

LCSD Filename: -

Date Analyzed: 050103

Time Analyzed: 15:19

Spiked Components	Unit	Spike Added	Concentration		LCS Rec% #	QC Limit, % REC
			Unspiked	LCS		
CHROMIUM (VI)	mg/L	0.25	0	0.222	89	80-115
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
CHROMIUM (VI)	mg/L	0.25	0.227	91	2	19	80-115
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 7196

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	33015
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W2664		
MS Filename:	-	Date Analyzed:	050103	Time Analyzed:	15:19
MSD Filename:	-	Date Analyzed:	050103	Time Analyzed:	15:19
MS Sample No:	DUPE-5-2Q03	Sample Lab ID:	03-3015-1		

Spiked Components	Unit	Spike Added	Concentration		MS Rec% #	QC Limit, % REC
			Unspiked	MS		
CHROMIUM (VI)	mg/L	0.25	0	0.219	88	78-115
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
CHROMIUM (VI)	mg/L	0.25	0.217	87	1	19	78-115
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

Wet Chemistry QC Report B
Duplicate Results

Matrix: Water

APCL Service ID: 03-3015

Analysis	Batch ID	Analysis Date	Sample Name	Unit	Result	Duplicate Result	RPD %	RPD Control limit
Bicarbonate	03W2665	05/01/2003	03-2933-2	mg/L	176	175	1	20
Carbonate	03W2665	05/01/2003	03-2933-2	mg-CaCO ₃ /L	ND	ND	NC	20
pH	03W2661	05/01/2003	DUPE-5-2Q03	pH unit	7.55	7.59	1	20

Note: N/A = Not applicable; NR: Not requested; NC= Not Calculated; ND: Not detected.

6A
INITIAL CALIBRATION DATA

Lab Name: Applied P & Ch Lab Contract: _____
Analysis: TRPH Calibration Date: 04/08/2003

Concentration (mg/L)	0	10	50	100	200	400
Absorbance	0.000	0.015	0.069	0.131	0.272	0.410

$A = 0.003 + 0.00129C$

A=Absorbance

C=Concentration (mg/L)

$r = 0.999$

6A

INITIAL CALIBRATION DATA

Lab Name: Applied P & Ch Lab Contract: _____

Analysis: Chromium (VI) Calibration Date: 01/29/2003

Concentration (mg/L)	0.000	0.0125	0.050	0.125	0.250	0.50
Absorbance	0.000	0.006	0.041	0.109	0.214	0.415

$$A = 0.000 + 0.836C$$

A=Absorbance

C=Concentration (mg/L)

$$r = 0.9997$$

DIONEX METHOD PARAMETERS - E300-063.MET

Method Comment: APCL EPA 300 ANALYSIS DX-100
Column ID: Dionex AS4A-SC
Analyst ID: David

System Parameters

```

System Name: DX-100
Number of Detectors..... 1
Run Time (minutes)..... 10.00
Sampling Rate (seconds)..... 0.20

Detector 1 Type..... COND
Detector 1 real time plot scale maximum (uS )..... 30.000
                               minimum..... -3.000
Detector 1 Output Equivalent to 1 Volt (in uS ) ..... 30.00
Detector 1 ACI Analog Input Connection ..... DET1
Save Data File..... Yes
Data File Name: C:\DX\DATA\03W1991\W1991Q01.D10

```

```
-- DETECTOR 1 PARAMETERS --
```

Report Options

```

Report Options
Create ASCII Report File..... No
Print Report..... Yes
Print All Components..... Yes
Print Components Found..... No
Print Missing Components..... No
Print All Peaks..... No
Print Unknown Peaks..... No
Print Chromatogram..... Yes
- Autoscale Chromatogram Maximum..... No
Autoscale Chromatogram Minimum..... No
Fill Peaks with Color ..... No
Draw Grid Lines on Chromatogram..... No
Show Component Fraction Numbers..... No
Label with Peak Number..... No
Label with Retention Times on Chromatogram..... Yes
Label with Component Name..... Yes
Format File Name: C:\DX\METHOD\DEFAULT.PRF

```

Integration Parameters

Starting Peak Width (seconds).....	10.0
Peak Threshold	2.000
Peak Area Reject.....	1000
Area Reject for Reference Peaks.....	1000

Data Events

Time	Description
0.13	Start peak detection
10.00	Stop peak detection

Calibration Parameters

Number Of Levels for Calibration.....	6
Force Calibration Curve Through Origin.....	No
Calibration Fit Type.....	Linear
Replace Or Average Calibrations.....	Replace
External or Internal Calibration.....	External
Calculate Unknowns by Area or Height.....	Area
Default Sample Volume.....	1.0
Default Dilution Factor.....	1.0
Default Response Factor for Unknown Peaks.....	0.0
Calibration Standard Volume	1.0
Internal Standard Amount in Samples	1.0
Amount Units	ppm

Component # 4 Bromide Retention Time 3.45
 Reference Comp. Nitrate-N Window Size 0.20 min.
 Amount = $K0 + K1 \cdot \text{Area}$
 K0 = 4.58974E-002
 K1 = 4.83279E-006

Level	Amount	Area	Height
1	7.50000E-002	13830	1488
2	1.50000E+000	298206	30100
3	3.00000E+000	591234	61776
4	6.00000E+000	1219933	128845
5	7.50000E+000	1559887	166594
6	0.00000E+000	0	0

Component # 5 Nitrate-N Retention Time 3.87
 Reference Comp. Nitrate-N Window Size 0.25 min.
 Amount = $K0 + K1 \cdot \text{Area}$
 K0 = 4.24689E-002
 K1 = 8.05553E-007

Level	Amount	Area	Height
1	3.75000E-002	40157	3802
2	7.50000E-001	849179	77129
3	1.50000E+000	1713421	152776
4	3.00000E+000	3610927	313707
5	3.75000E+000	4688990	396441
6	0.00000E+000	0	0

Component # 6 Phosphate-P Retention Time 6.38
 Reference Comp. Phosphate-P Window Size 0.60 min.
 Amount = $K0 + K1 \cdot \text{Area}$
 K0 = 8.68926E-002
 K1 = 2.12227E-006

Level	Amount	Area	Height
1	7.50000E-002	24783	1450
2	1.50000E+000	642376	38579
3	3.00000E+000	1301126	79971
4	6.00000E+000	2756481	168994
5	7.50000E+000	3546397	217521
6	0.00000E+000	0	0

Component # 1 Fluoride Retention Time 1.32
 Reference Comp. Fluoride Window Size 0.15 min.
 Amount = $K0 + K1 \cdot \text{Area}$
 $K0 = -9.62851\text{E-}004$
 $K1 = 1.37614\text{E-}006$

Level	Amount	Area	Height
1	2.50000E-002	28534	2732
2	5.00000E-001	373164	44629
3	1.00000E+000	707646	82595
4	2.00000E+000	1435865	173007
5	2.50000E+000	1837162	220914
6	0.00000E+000	0	0

Component # 2 Chloride Retention Time 1.97
 Reference Comp. Chloride Window Size 0.15 min.
 Amount = $K0 + K1 \cdot \text{Area}$
 $K0 = 1.28188\text{E-}001$
 $K1 = 1.95287\text{E-}006$

Level	Amount	Area	Height
1	1.00000E-001	51206	7044
2	2.00000E+000	909455	126181
3	4.00000E+000	1856586	261681
4	8.00000E+000	3987563	585791
5	1.00000E+001	5142155	754321
6	0.00000E+000	0	0

Component # 3 Nitrite-N Retention Time 2.33
 Reference Comp. Chloride Window Size 0.15 min.
 Amount = $K0 + K1 \cdot \text{Area}$
 $K0 = 2.38085\text{E-}002$
 $K1 = 9.76240\text{E-}007$

Level	Amount	Area	Height
1	3.75000E-002	30884	3582
2	7.50000E-001	734006	79701
3	1.50000E+000	1468106	162005
4	3.00000E+000	3021523	336616
5	3.75000E+000	3856614	429219
6	0.00000E+000	0	0

Component # 7 Sulfate Retention Time 7.92
 Reference Comp. Sulfate Window Size 0.90 min.
 Amount = K0 + K1*Area
 K0 = 5.32283E-001
 K1 = 2.53252E-006

Level	Amount	Area	Height
1	3.76000E-001	129999	6524
2	7.50000E+000	2598757	138579
3	1.50000E+001	5330209	287851
4	3.00000E+001	11507107	615917
5	3.75000E+001	14859049	776426
6	0.00000E+000	0	0

Timed Events File: C:\DX\METHOD\W761CAL.TE

Step	Time	Description
Init		ACI Autosmp OFF
Init		ACI pump st ON
Init		ACI inject OFF
Init		ACI auto zer OFF
Init		ACI TTL 1 OFF
Init		ACI TTL 2 OFF
Init		ACI TTL 3 OFF
Init		ACI TTL 4 OFF
Init		ACI OFF
Init		ACI OFF
1	0.0	ACI Autosmp ON
1	0.0	ACI auto zer ON
2	2.5	ACI Autosmp OFF
2	2.5	ACI inject ON
2	2.5	ACI TTL 1 ON
2	2.5	Start Sampling

Component: Fluoride

Fit Type: Linear

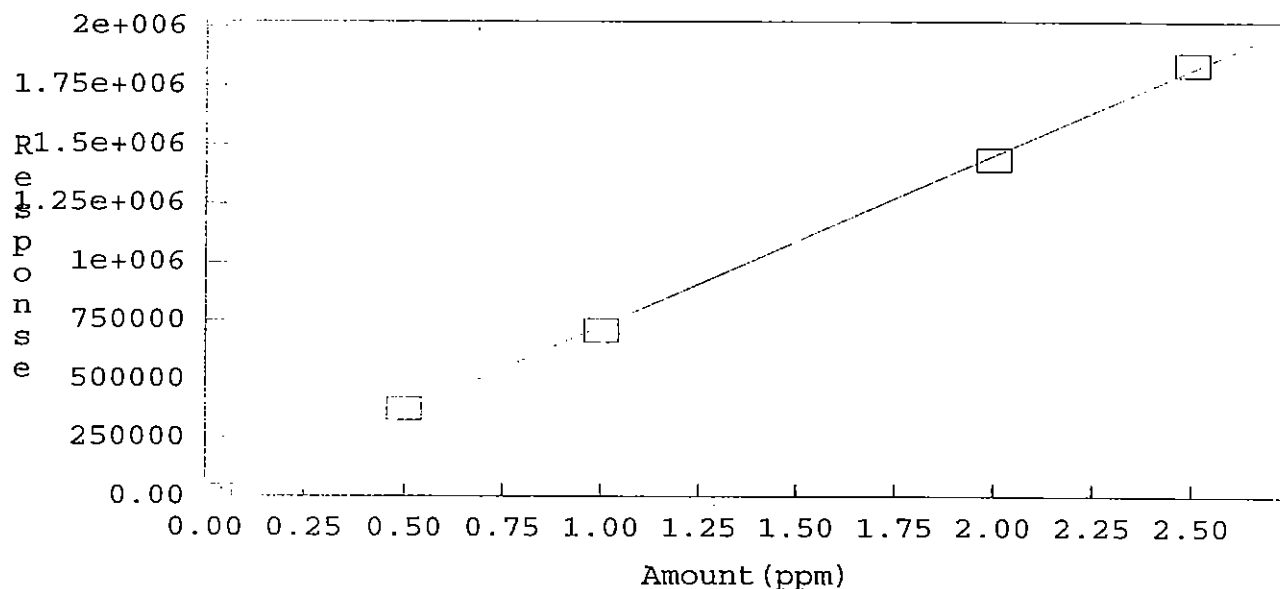
$r^2 = 0.999552$

Amt = Resp * $1.376e-006$ + -0.000962

Resp = Amt * $7.267e+005$ + 699.7

Standardization: External

Calibration: Area



Method: C:\DX\METHOD\E300-063.MET

Component: Chloride

Fit Type: Linear

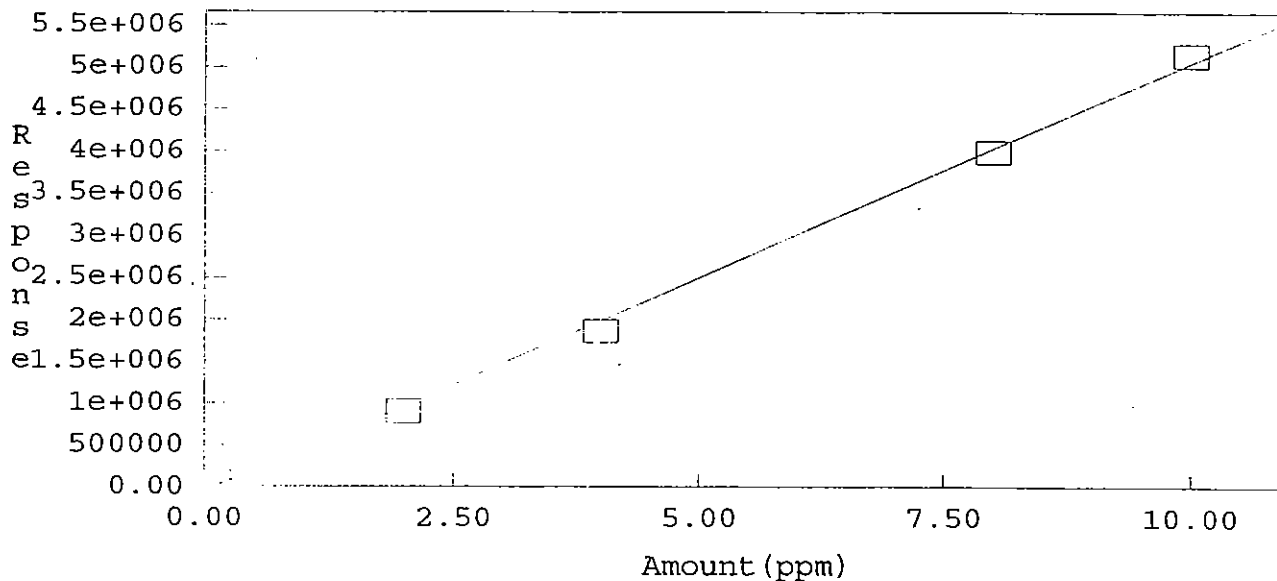
$r^2 = 0.998409$

Amt = Resp * $1.953e-006$ + 0.1282

Resp = Amt * $5.121e+005$ + $-6.564e+00$

Standardization: External

Calibration: Area



Method: C:\DX\METHOD\E300-063.MET

Component: Nitrite-N

Fit Type: Linear

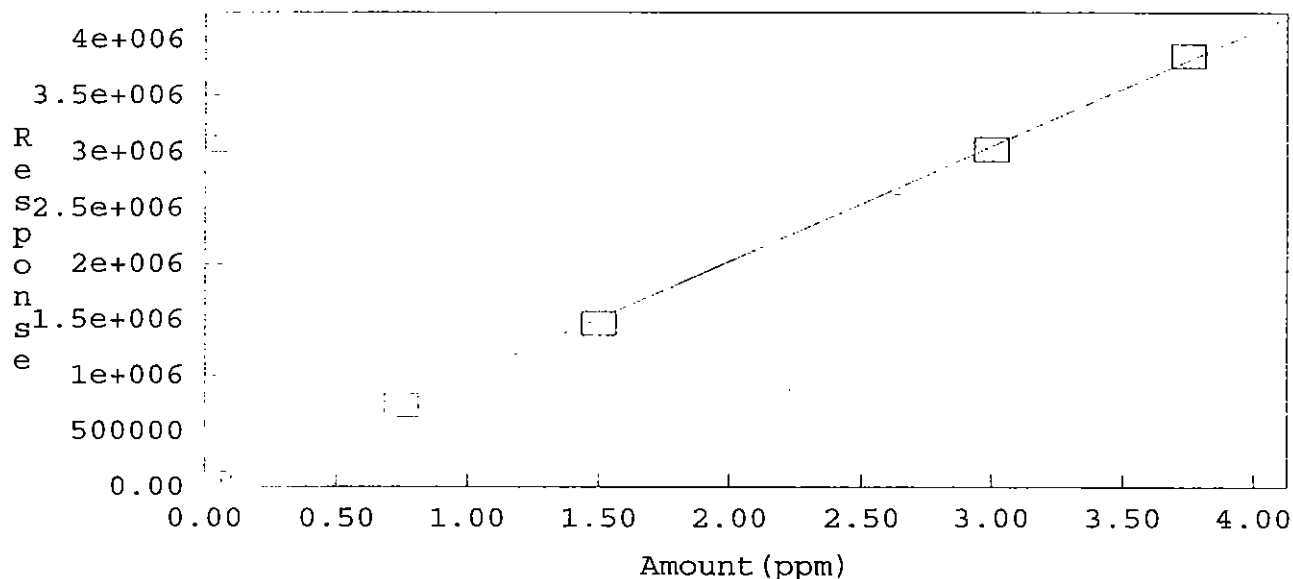
$r^2 = 0.999594$

Amt = Resp * $9.762e-007$ + 0.02381

Resp = Amt * $1.024e+006$ + -2.439e+00

Standardization: External

Calibration: Area



Method: C:\DX\METHOD\E300-063.MET

Component: Bromide

Fit Type: Linear

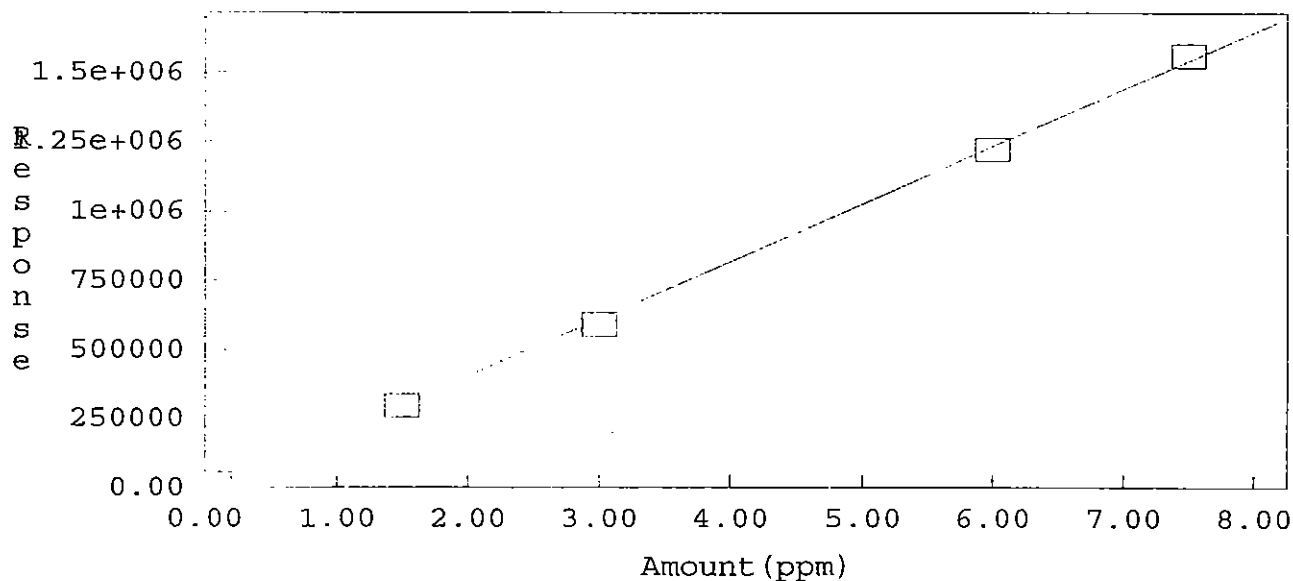
$r^2 = 0.999518$

Amt = Resp * $4.833e-006$ + 0.0459

Resp = Amt * $2.069e+005$ + -9497

Standardization: External

Calibration: Area



Method: C:\DX\METHOD\E300-063.MET

Component: Nitrate-N

Fit Type: Linear

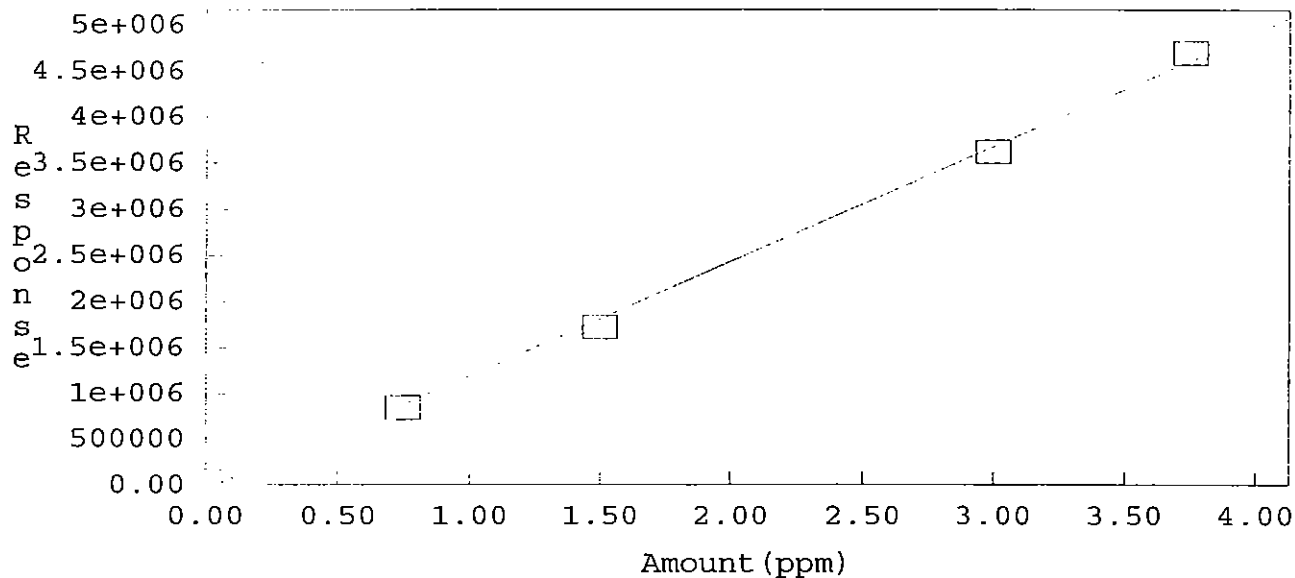
$r^2 = 0.998618$

Amt = Resp * $8.056e-007$ + 0.04247

Resp = Amt * $1.241e+006$ + $-5.272e+00$

Standardization: External

Calibration: Area



Method: C:\DX\METHOD\E300-063.MET

Component: Phosphate-P

Fit Type: Linear

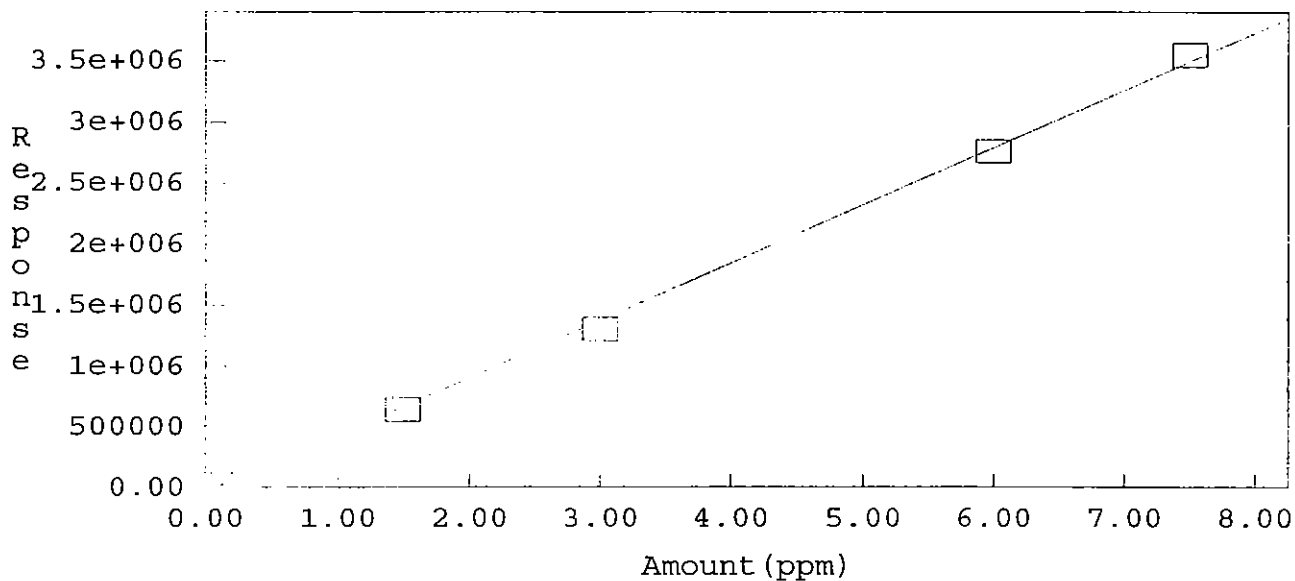
$r^2 = 0.998898$

Amt = Resp * $2.122e-006$ + 0.08689

Resp = Amt * $4.712e+005$ + $-4.094e+00$

Standardization: External

Calibration: Area



Method: C:\DX\METHOD\E300-063.MET

Component: Sulfate

Fit Type: Linear

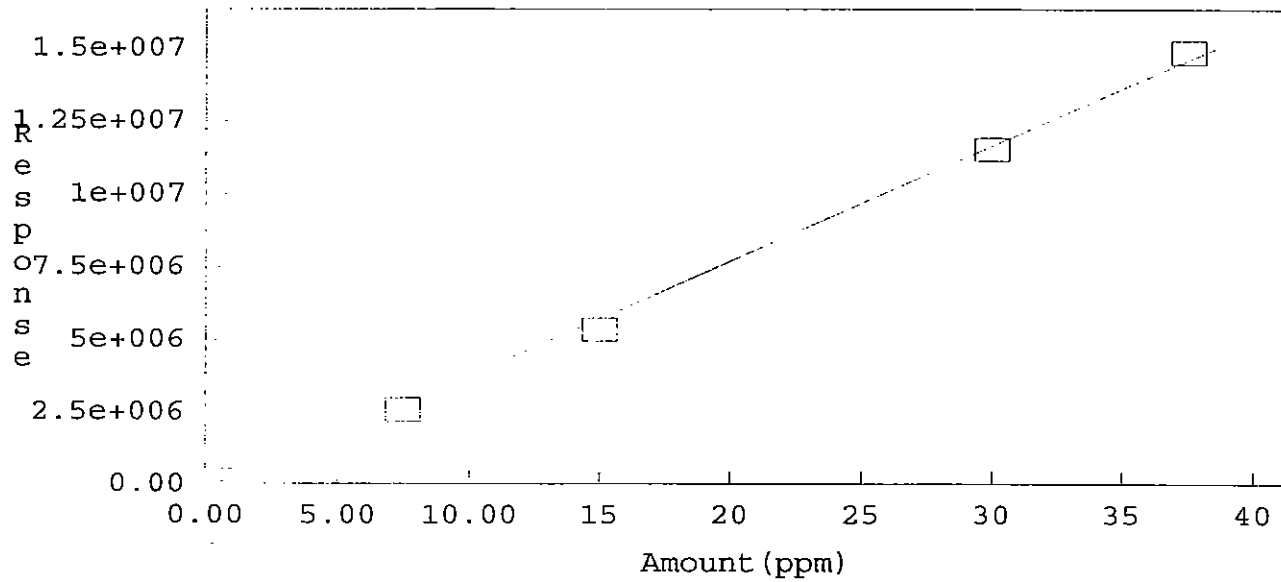
$r^2 = 0.998245$

Amt = Resp * $2.533\text{e-}006$ + 0.5323

Resp = Amt * $3.949\text{e+}005$ + $-2.102\text{e+}00$

Standardization: External

Calibration: Area



```

=====
Sample Name: ICV-W7768-100X                      Date: 03/21/2003 17:56:33
Data File  : C:\DX\DATA\e300-063\W7768Q01.D07
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 7              Detector: COND
Analyst    : David                               Column: Dionex AS4A-SC
=====

```

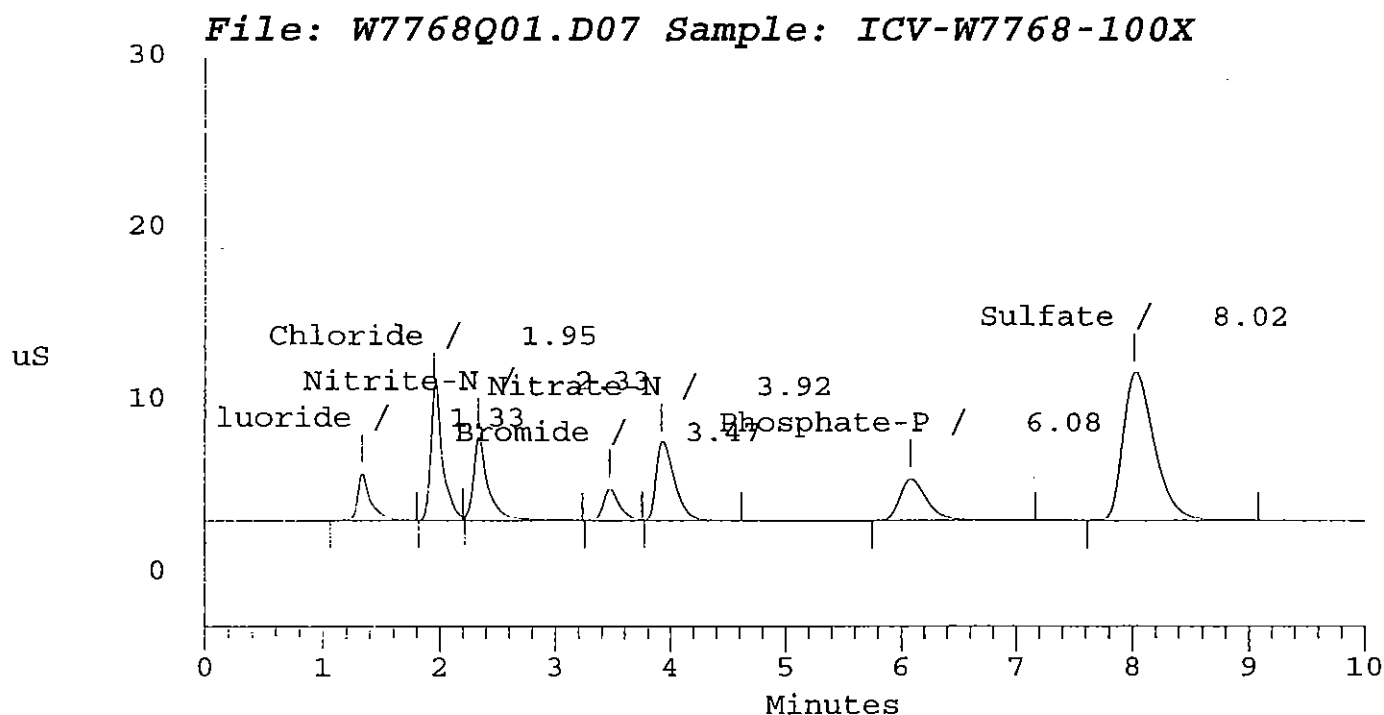
```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1 3000 5Hz 0.00 10.00          1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	0.999	89896	726672	2	0.00
2	1.95	Chloride	3.767	248158	1863483	2	0.00
3	2.33	Nitrite-N	1.445	160603	1455681	2	1.17
4	3.47	Bromide	2.881	61007	586729	2	-0.71
5	3.92	Nitrate-N	1.410	149958	1697030	2	0.00
6	6.08	Phosphate-P	2.852	79916	1302965	1	0.00
7	8.02	Sulfate	13.993	285121	5314983	1	0.00
Totals			27.347	1074659	12947545		



```

=====
Sample Name: ICB                               Date: 03/21/2003 18:21:00
Data File  : C:\DX\DATA\E300-063\W7767Q01.D08
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 8            Detector: COND
Analyst    : David                           Column: Dionex AS4A-SC
=====

```

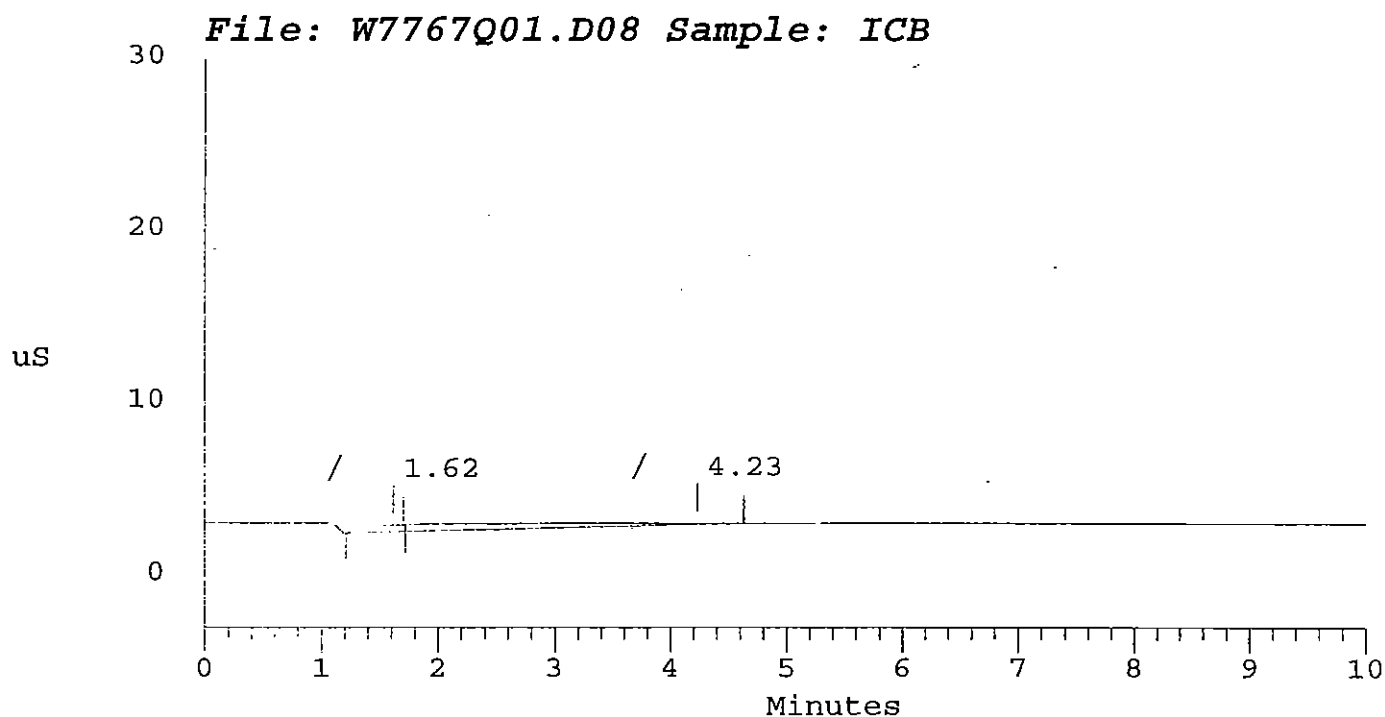
```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1  3000  5Hz   0.00 10.00      1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
0	0.00	Fluoride	0.000	0	0	0	0.00
0	0.00	Chloride	0.000	0	0	0	0.00
0	0.00	Nitrite-N	0.000	0	0	0	0.00
0	0.00	Bromide	0.000	0	0	0	0.00
0	0.00	Nitrate-N	0.000	0	0	0	0.00
0	0.00	Phosphate-P	0.000	0	0	0	0.00
0	0.00	Sulfate	0.000	0	0	0	0.00
Totals			0.000	0	0		



```

=====
Sample Name: AUTOCAL1R                      Date: 03/21/2003 16:23:08
Data File  : C:\DX\DATA\E300-063\W7767Q01.D01
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 1          Detector: COND
Analyst    : David                          Column: Dionex AS4A-SC
=====

```

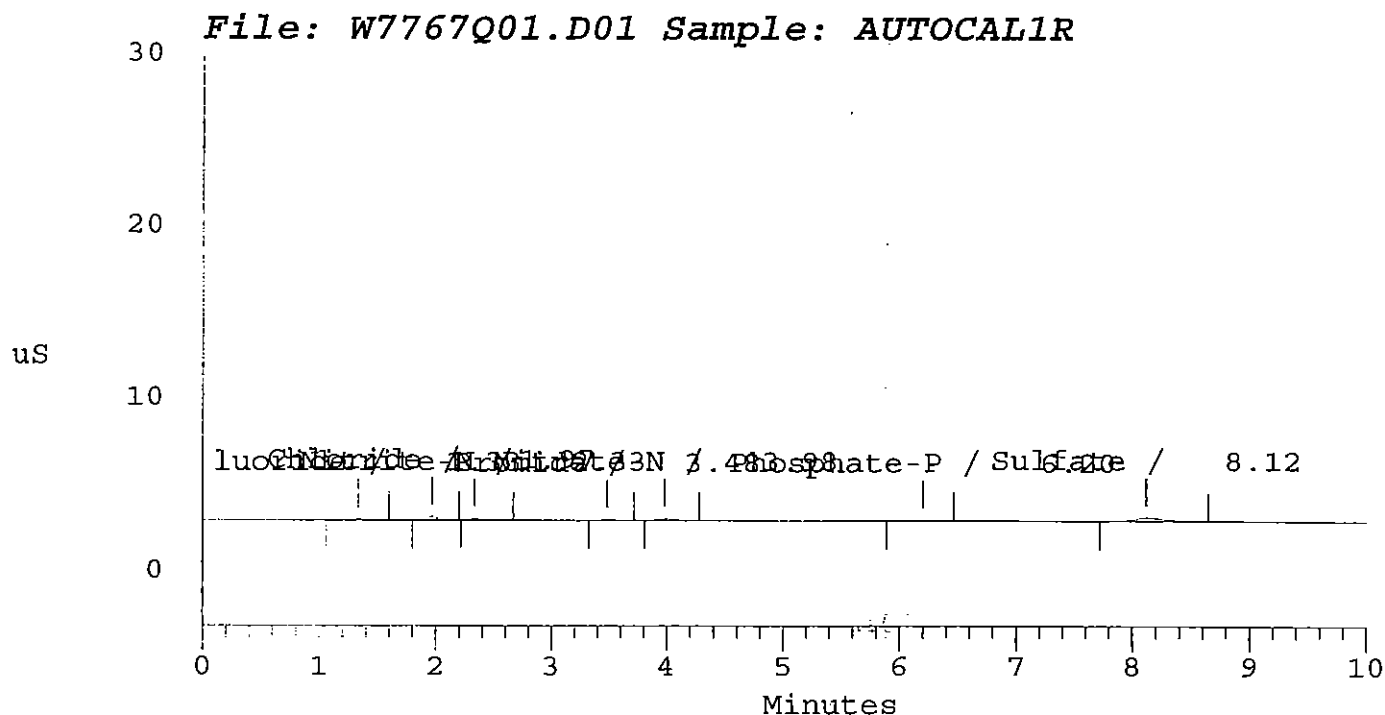
```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1 3000 5Hz 0.00 10.00      1000
-----

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	0.025	2732	28534	1	0.00
2	1.97	Chloride	0.100	7044	51206	2	0.00
3	2.33	Nitrite-N	0.038	3582	30884	2	-3.33
4	3.48	Bromide	0.075	1488	13830	1	-1.47
5	3.98	Nitrate-N	0.038	3802	40157	1	0.00
6	6.20	Phosphate-P	0.075	1450	24783	1	0.00
7	8.12	Sulfate	0.376	6524	129999	1	0.00
Totals			0.726	26621	319393		



```

=====
Sample Name: AUTOCAL2R                      Date: 03/21/2003 16:35:53
Data File  : C:\DX\DATA\E300-063\W7767Q01.D02
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 2          Detector: COND
Analyst    : David                          Column: Dionex AS4A-SC
=====

```

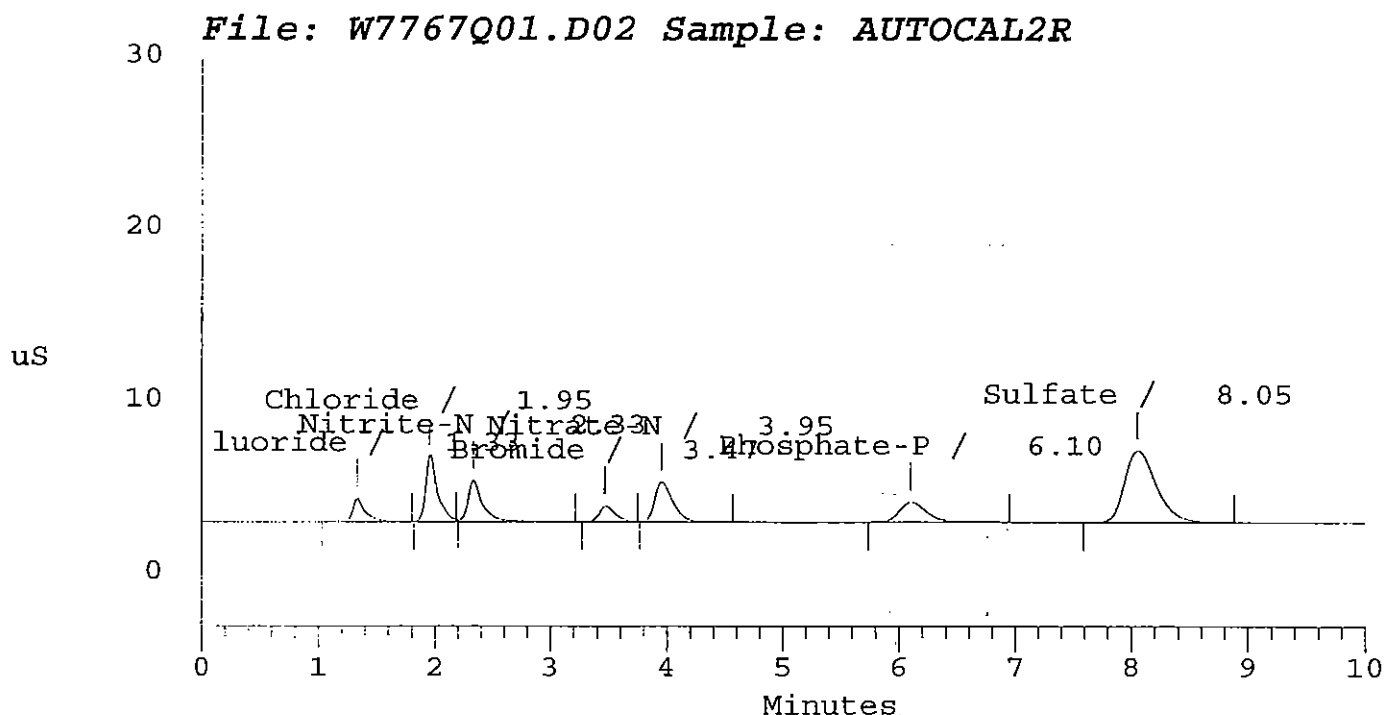
```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1  3000  5Hz   0.00 10.00         1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	0.500	44629	373164	2	0.00
2	1.95	Chloride	2.000	126181	909455	2	0.00
3	2.33	Nitrite-N	0.750	79701	734006	2	0.85
4	3.47	Bromide	1.500	30100	298206	2	0.36
5	3.95	Nitrate-N	0.750	77129	849179	2	0.00
6	6.10	Phosphate-P	1.500	38579	642376	1	0.00
7	8.05	Sulfate	7.500	138579	2598757	1	0.00
Totals			14.500	534896	6405142		



```

=====
Sample Name: AUTOCAL3R                      Date: 03/21/2003 16:48:37
Data File  : C:\DX\DATA\E300-063\W7767Q01.D03
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 3         Detector: COND
Analyst    : David                          Column: Dionex AS4A-SC
=====

```

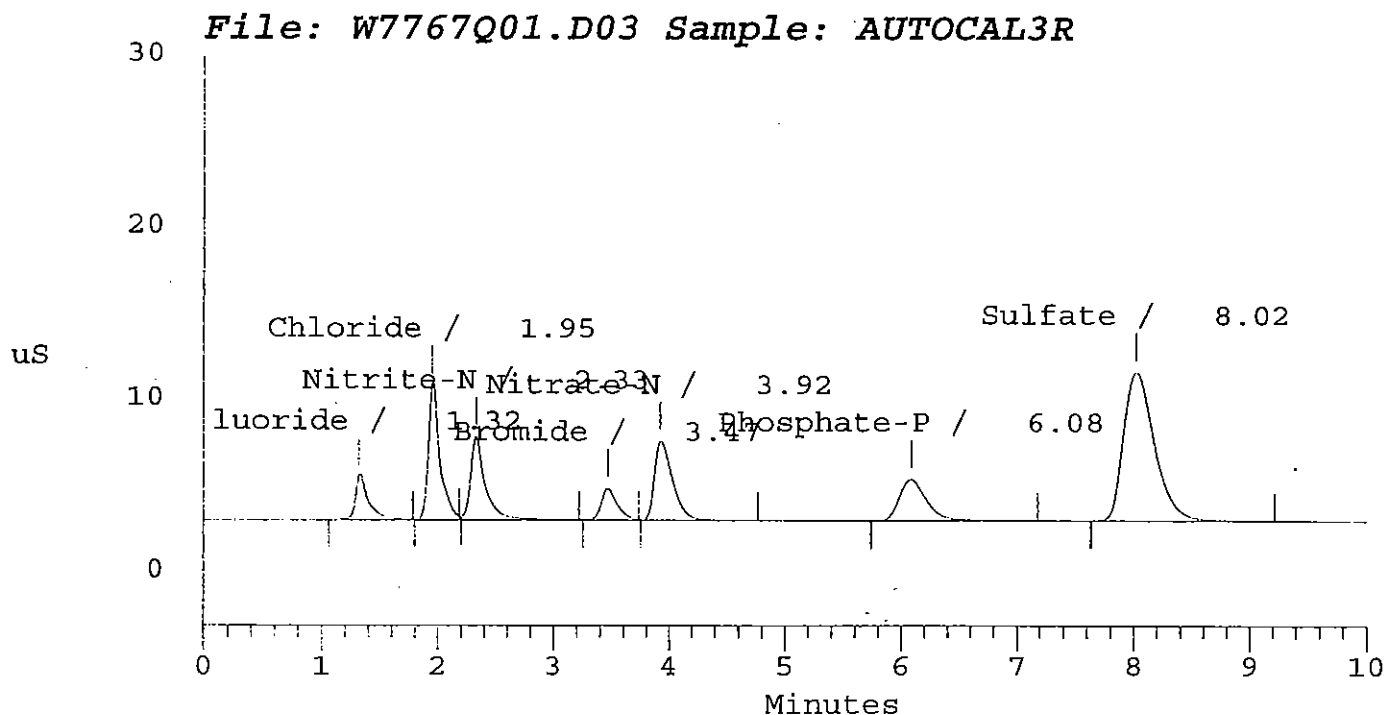
```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1 3000 5Hz 0.00 10.00          1000
-----

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.32	Fluoride	1.000	82595	707646	2	0.00
2	1.95	Chloride	4.000	261681	1856586	2	0.00
3	2.33	Nitrite-N	1.500	162005	1468106	2	0.00
4	3.47	Bromide	3.000	61776	591234	2	0.85
5	3.92	Nitrate-N	1.500	152776	1713421	2	0.00
6	6.08	Phosphate-P	3.000	79971	1301126	1	0.00
7	8.02	Sulfate	15.000	287851	5330209	1	0.00
Totals			29.000	1088657	12968327		



```

=====
Sample Name: AUTOCAL4R                      Date: 03/21/2003 17:01:21
Data File  : C:\DX\DATA\E300-063\W7767Q01.D04
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 4          Detector: COND
Analyst    : David                          Column: Dionex AS4A-SC
=====

```

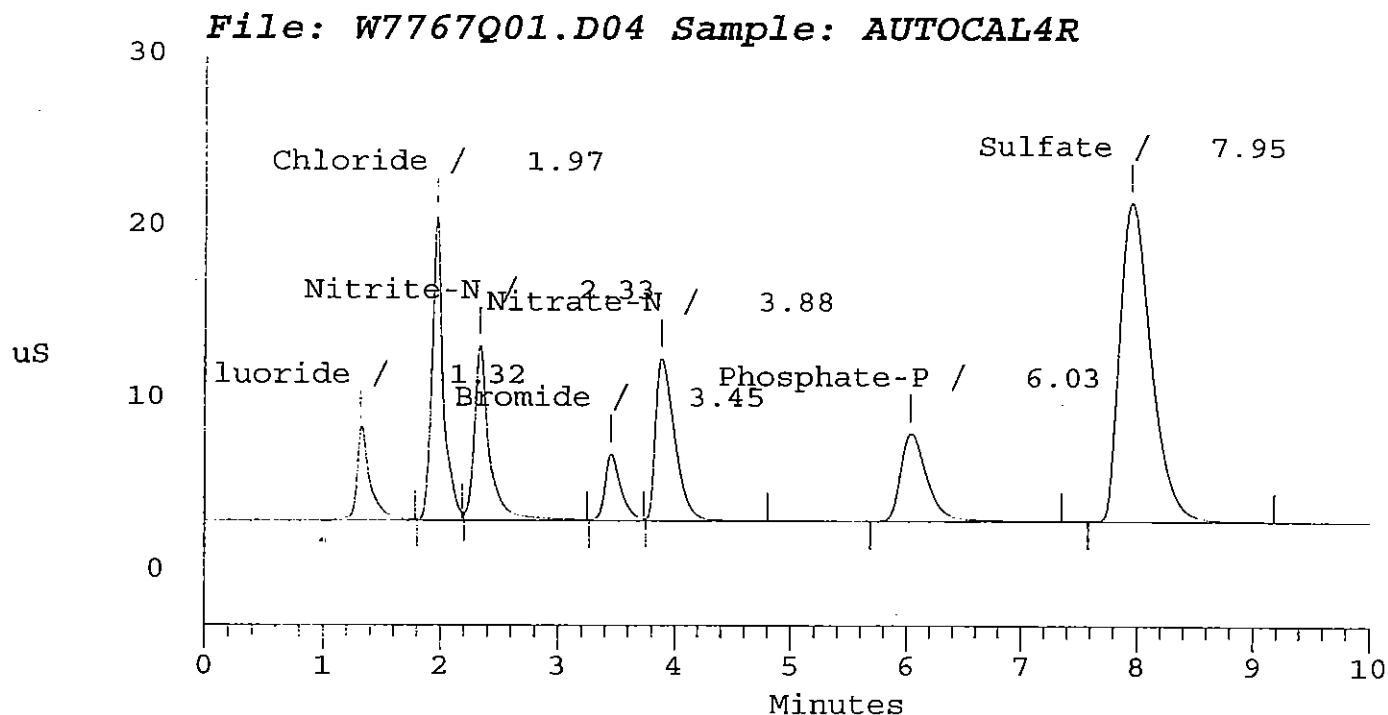
```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1    3000  5Hz   0.00 10.00          1000
-----

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.32	Fluoride	2.000	173007	1435865	2	0.00
2	1.97	Chloride	8.000	585791	3987563	2	0.00
3	2.33	Nitrite-N	3.000	336616	3021523	2	-0.85
4	3.45	Bromide	6.000	128845	1219933	2	0.37
5	3.88	Nitrate-N	3.000	313707	3610927	2	0.00
6	6.03	Phosphate-P	6.000	168994	2756481	2	0.00
7	7.95	Sulfate	30.000	615917	11507107	2	0.00
Totals			58.000	2322876	27539399		



```

=====
Sample Name: AUTOCAL5R                      Date: 03/21/2003 17:14:05
Data File  : C:\DX\DATA\E300-063\W7767Q01.D05
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 5          Detector: COND
Analyst    : David                          Column: Dionex AS4A-SC
=====

```

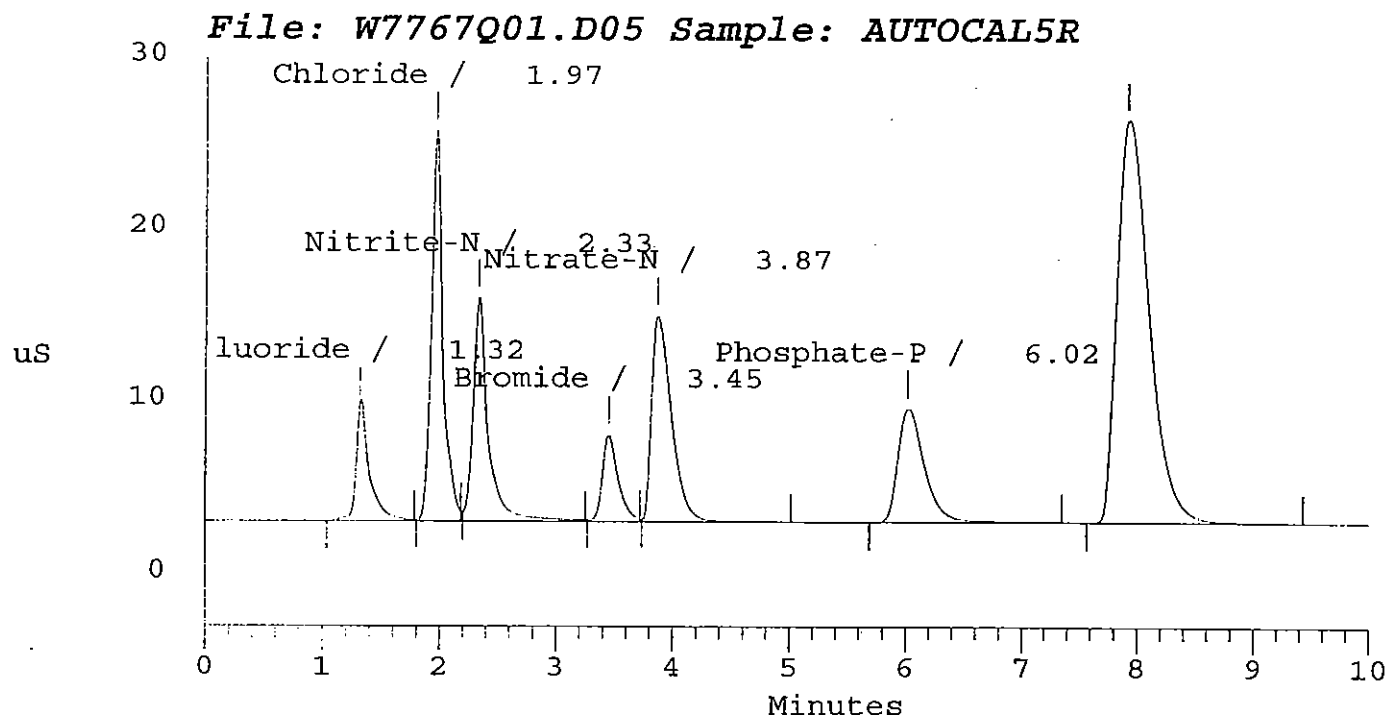
```

Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1 3000 5Hz 0.00 10.00          1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.32	Fluoride	2.500	220914	1837162	2	0.00
2	1.97	Chloride	10.000	754321	5142155	2	0.00
3	2.33	Nitrite-N	3.750	429219	3856614	2	0.00
4	3.45	Bromide	7.500	166594	1559887	2	0.43
5	3.87	Nitrate-N	3.750	396441	4688990	2	0.00
6	6.02	Phosphate-P	7.500	217521	3546397	2	0.00
7	7.92	Sulfate	37.500	776426	14859049	2	0.00
Totals			72.500	2961435	35490255		



Data Reprocessed On 03/21/2003 17:39:26

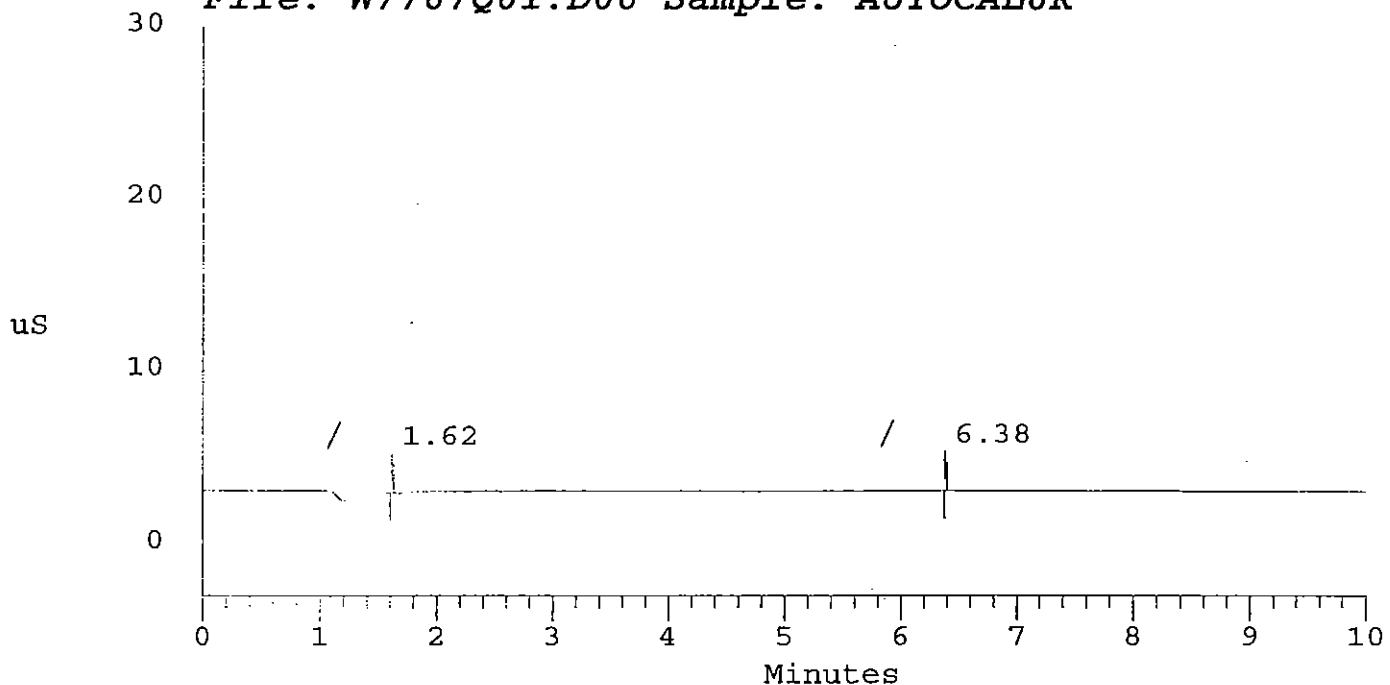
Sample Name: AUTOCAL6R Date: 03/21/2003 17:37:58
Data File : C:\DX\DATA\E300-063\W7767Q01.D06
Method : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 6 Detector: COND
Analyst : David Column: Dionex AS4A-SC

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		1000

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
0	0.00	Fluoride	0.000	0	0	0	0.00
0	0.00	Chloride	0.000	0	0	0	0.00
0	0.00	Nitrite-N	0.000	0	0	0	0.00
0	0.00	Bromide	0.000	0	0	0	0.00
0	0.00	Nitrate-N	0.000	0	0	0	0.00
0	0.00	Phosphate-P	0.000	0	0	0	0.00
0	0.00	Sulfate	0.000	0	0	0	0.00
Totals			0.000	0	0		

File: W7767Q01.D06 Sample: AUTOCAL6R



After
3/25/03
V.L.Sim. 3.2

```

=====
Sample Name: AUTOCAL6R                      Date: 03/21/2003 17:37:58
Data File  : C:\DX\DATA\E300-063\W7767Q01.D06
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 6          Detector: COND
Analyst    : David                          Column: Dionex AS4A-SC
=====

```

```

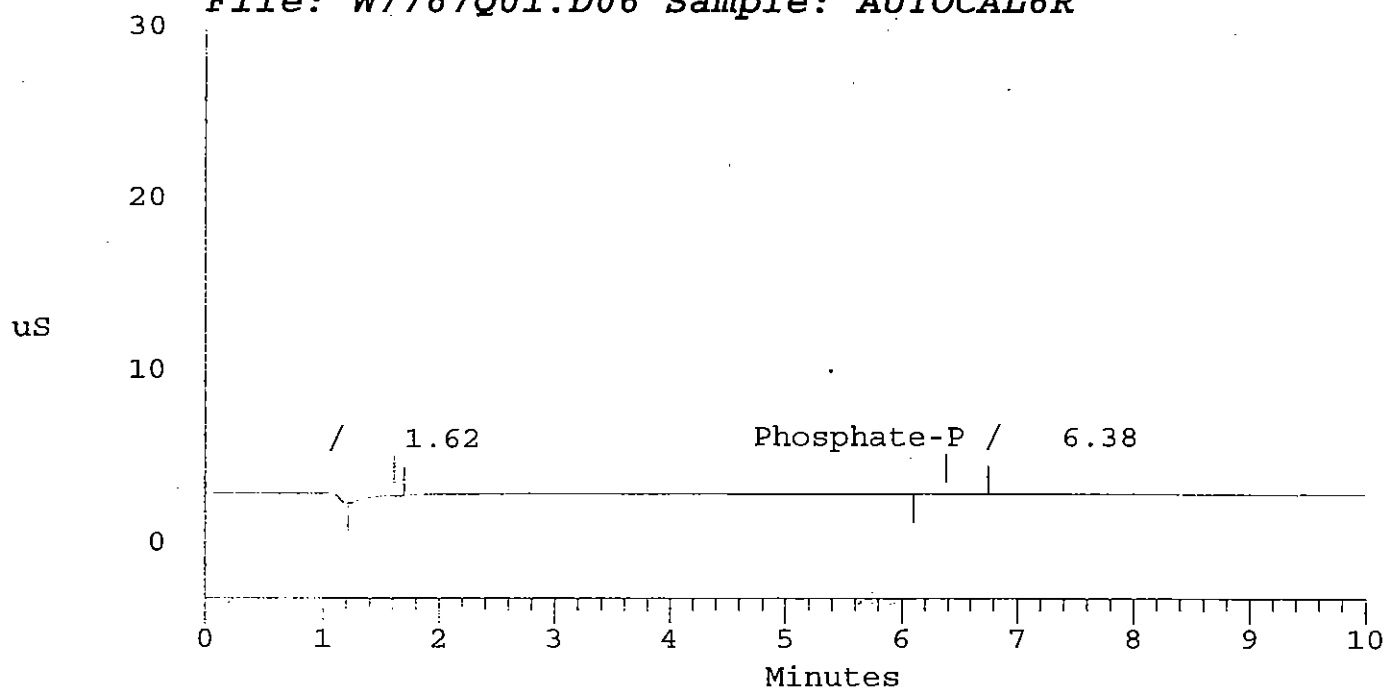
-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1 . 3000 5Hz  0.00 10.00      1000
-----

```

***** Component Report: All Components *****

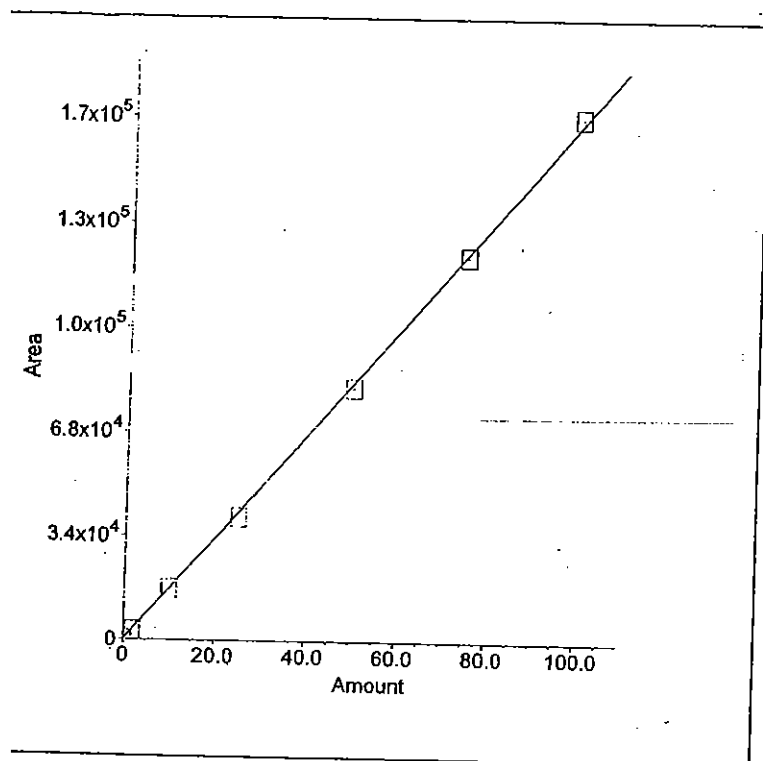
Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
0	0.00	Fluoride	0.000	0	0	0	0.00
0	0.00	Chloride	0.000	0	0	0	0.00
0	0.00	Nitrite-N	0.000	0	0	0	0.00
0	0.00	Bromide	0.000	0	0	0	0.00
0	0.00	Nitrate-N	0.000	0	0	0	0.00
2	6.38	Phosphate-P	0.000	582	11752	1	0.00
0	0.00	Sulfate	0.000	0	0	0	0.00
Totals			0.000	582	11752		

File: W7767Q01.D06 Sample: AUTOCAL6R



Before

1. Component: perchlorate
Standard: External Fit Type: Linear
Origin: Force Calibration: Area
 $r^2=0.999492$
Amt=0.0005893*Resp+0



Calibration : 7 points , 0, 2, 10, 25, 50, 75, 100 ppb

Analyst C. W
Date 03/12/03
Instrument IC-1c

APCL Perchlorate Analysis Report

Sample Name : Cal blank

Data File Name : C:\data\E314-011\Mb_001.DXD

Method File Name : c:\peaknet\method\e314-011.met

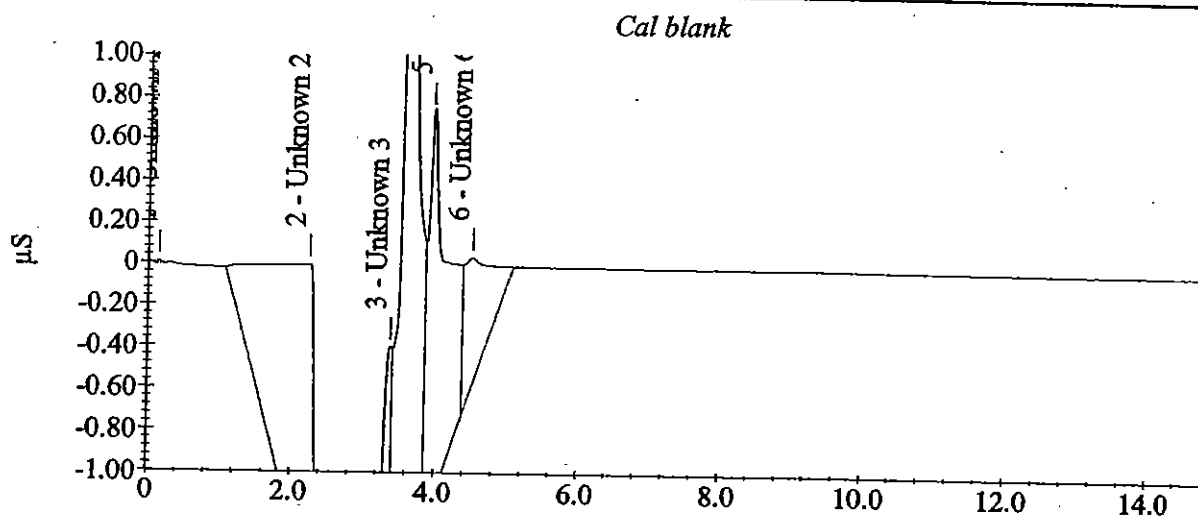
Date Time Collected : 03/12/2003 5:55:39 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
--------	----------------	----------------	--------------	-----------	-------------



APCL Perchlorate Analysis Report

Sample Name : cal standard 2ppb W7827a

Data File Name : C:\DATA\E314-011\std-2pb_002.DXD

Method File Name : C:\PEAKNET\METHOD\314-011.met

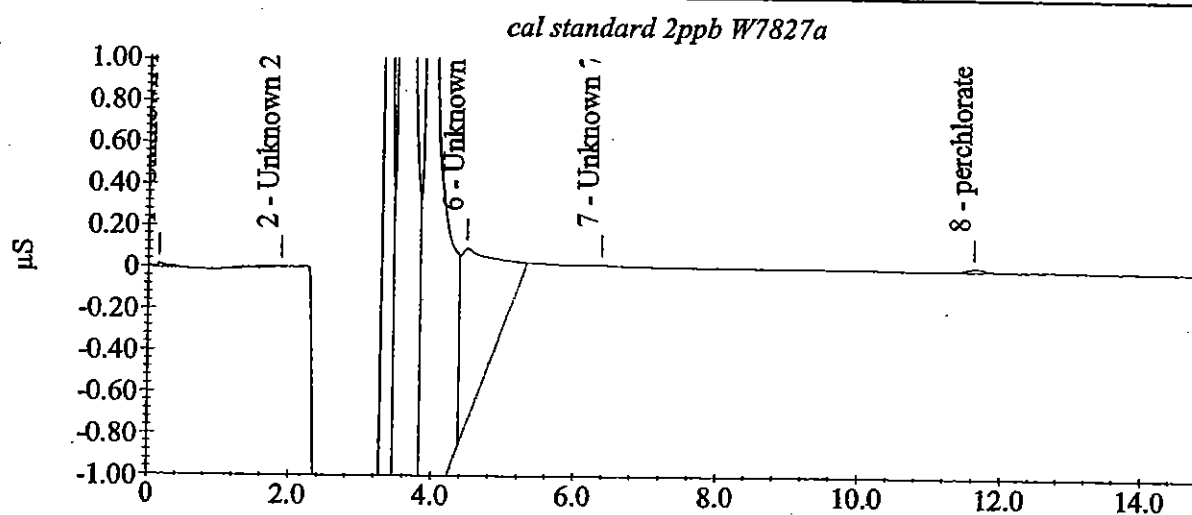
Date Time Collected : 03/12/2003 6:13:12 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
8	perchlorate	11.62	1.92	2910	164



APCL Perchlorate Analysis Report

Sample Name : cal standard 10ppb W7827c

Data File Name : C:\DATA\E314-011\std-10pb_004.DXD

Method File Name : C:\PEAKNET\METHOD\314-011.met

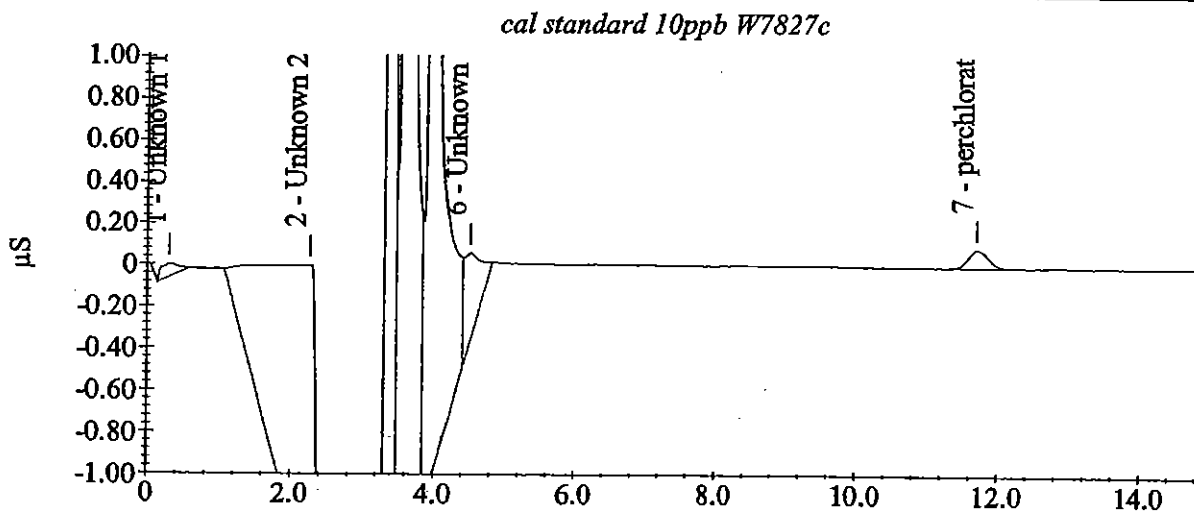
Date Time Collected : 03/12/2003 6:48:21 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
7	perchlorate	11.70	11.16	16917	879



APCL Perchlorate Analysis Report

Sample Name : cal standard 25ppb W7827d

Data File Name : C:\DATA\E314-011\std-25pb_005.DXD

Method File Name : C:\PEAKNET\METHOD\314-011.met

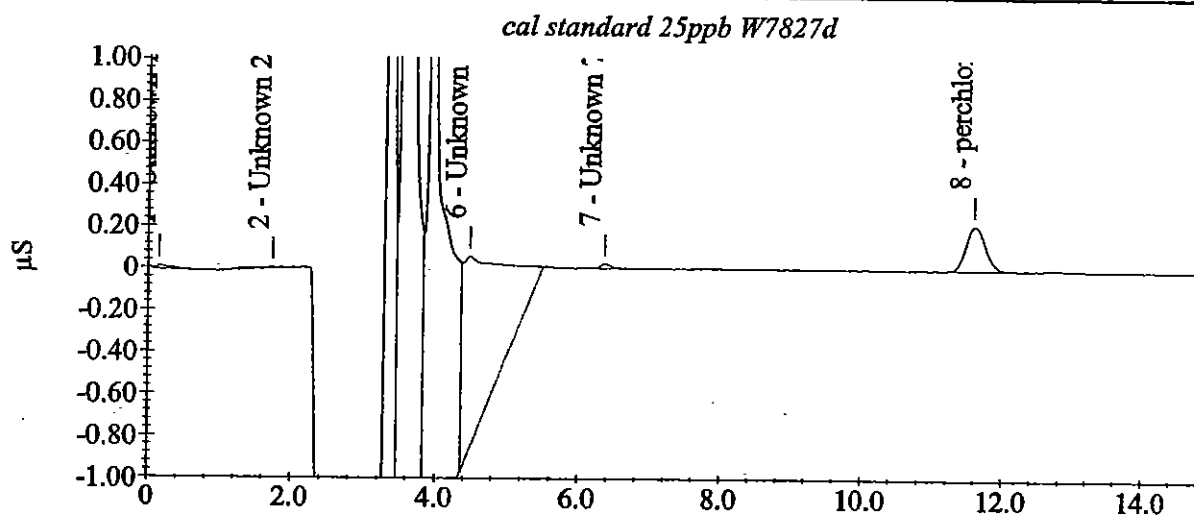
Date Time Collected : 03/12/2003 7:05:54 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
8	perchlorate	11.60	26.84	40702	2125



APCL Perchlorate Analysis Report

Sample Name : cal standard 50ppb W7827e

Data File Name : C:\DATA\E314-011\std-50pb_006.DXD

Method File Name : C:\PEAKNET\METHOD\314-011.met

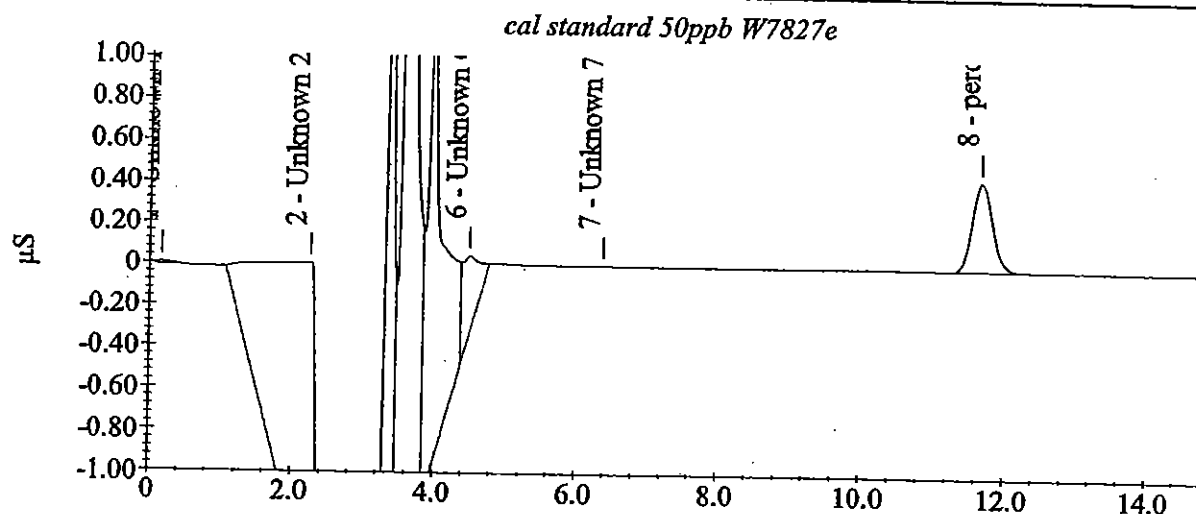
Date Time Collected : 03/12/2003 7:23:30 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
8	perchlorate	11.67	54.89	83240	4320



APCL Perchlorate Analysis Report

Sample Name : cal standard 75ppb W7827f

Data File Name : C:\DATA\E314-011\std-75pb_007.DXD

Method File Name : C:\PEAKNET\METHOD\314-011.met

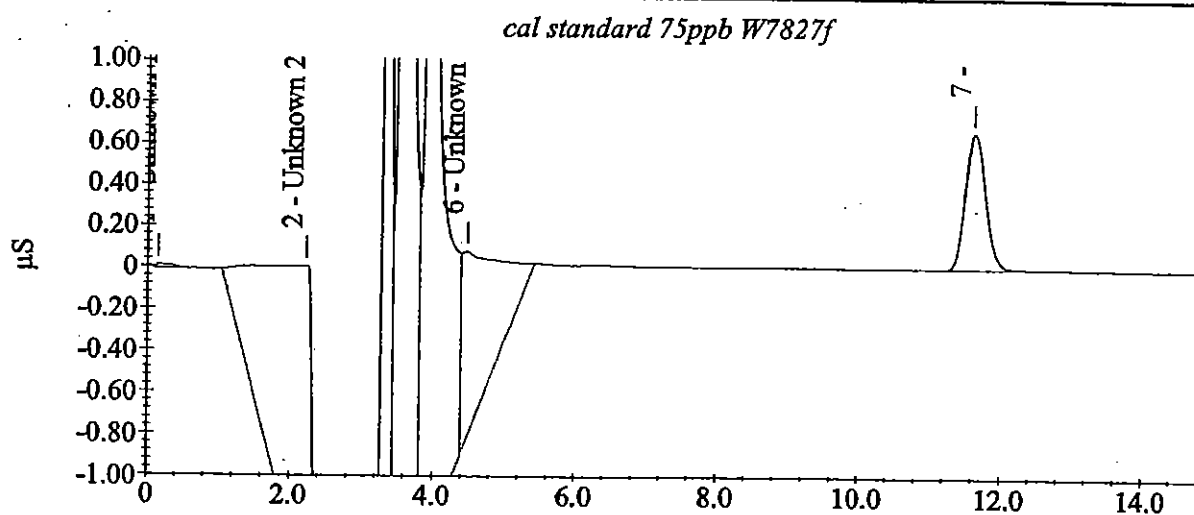
Date Time Collected : 03/12/2003 7:41:05 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
7	perchlorate	11.62	83.23	126224	6553



APCL Perchlorate Analysis Report

Sample Name : cal standard 100ppb W7827g

Data File Name : C:\DATA\E314-011\std-100pb_008.DXD

Method File Name : C:\PEAKNET\METHOD\314-011.met

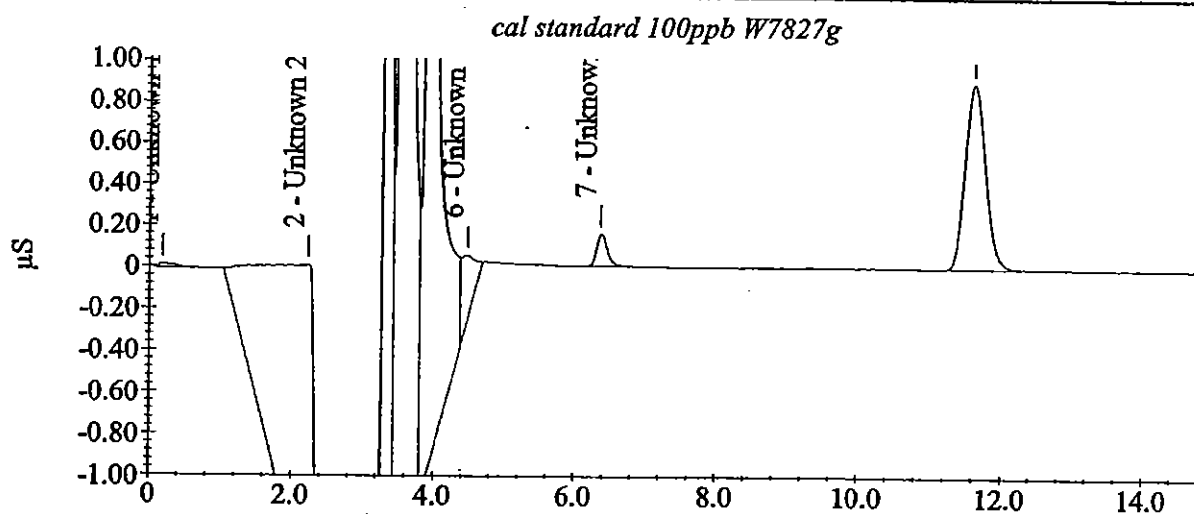
Date Time Collected : 03/12/2003 7:58:39 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
8	perchlorate	11.62	113.21	171686	892.3



APCL Perchlorate Analysis Report

Sample Name : ICV 50 ppb w7828a

Data File Name : C:\DATA\E314-011\icv-50pb_009.DXD

Method File Name : C:\PEAKNET\METHOD\E314-011.met

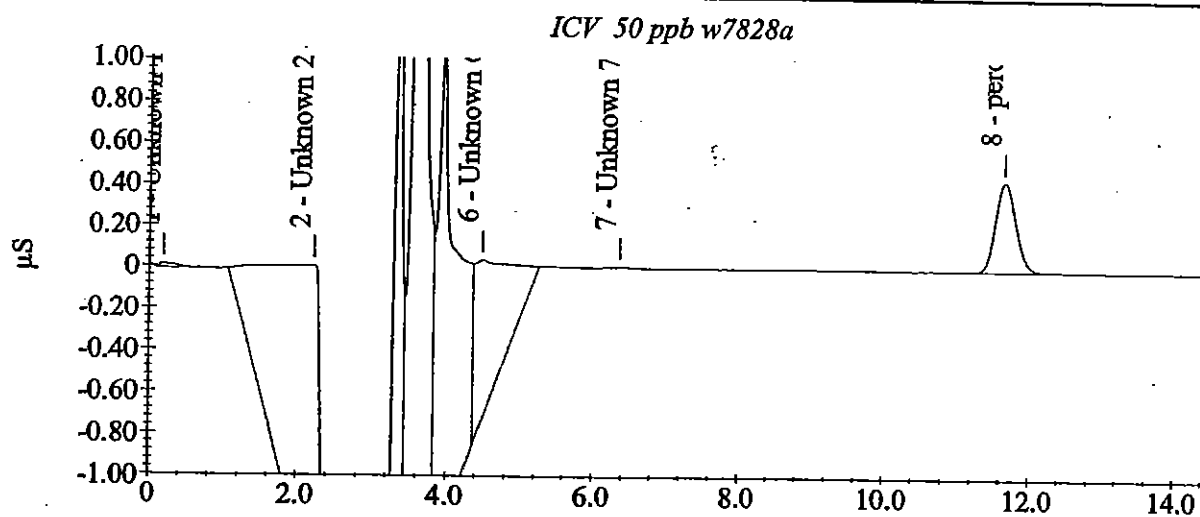
Date Time Collected : 03/12/2003 8:16:15 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
8	perchlorate	11.65	49.49	83990	4321



APCL Perchlorate Analysis Report

Sample Name : icb

Data File Name : C:\DATA\E314-011\ICB_010.DXD

Method File Name : c:\PeakNet\method\E314-011.met

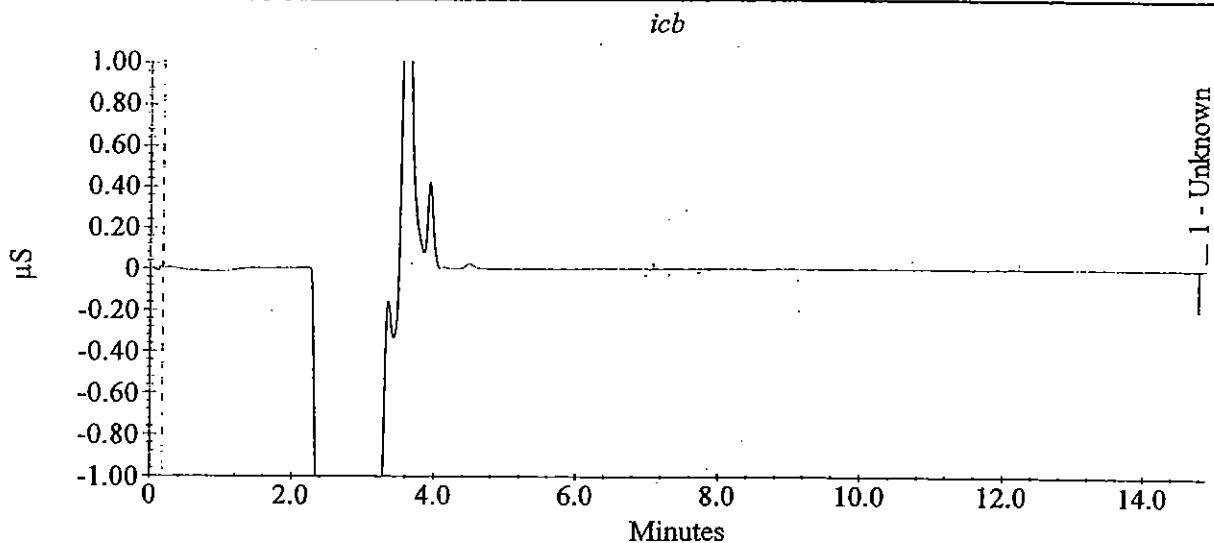
Date Time Collected : 03/12/2003 8:33:51 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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FORM-7
Applied P & Ch Laboratory
CCV Recovery for Wet Analysis

Client Name: GEOFON, Inc.
Case No:
Project ID: JPL

Contract No.:
SAS No.:
Project No.: 04-4428.10

Lab Code: APCL
Service ID: 33015

#	Component Name	Method	Batch No.	Unit	Expected	Test Result	Rec. %	Dev. %	Flag	Control Limit, %	Test Date
1	Chloride Cl^-	300.0	03W2658	mg/L	4.0	4.02	101	1	✓	90-110	05/01/2003
	NITRATE as N-NO_3^- , BY	300.0	03W2658	mg/L	1.5	1.51	101	1	✓	90-110	05/01/2003
	SULFATE SO_4^{--} , BY I	300.0	03W2658	mg/L	15	15.1	101	1	✓	90-110	05/01/2003
	Chloride Cl^-	300.0	03W2658	mg/L	4.0	3.95	99	-1	✓	90-110	05/01/2003
	NITRATE as N-NO_3^- , BY	300.0	03W2658	mg/L	1.5	1.51	101	1	✓	90-110	05/01/2003
	SULFATE SO_4^{--} , BY I	300.0	03W2658	mg/L	15	15.0	100	0	✓	90-110	05/01/2003
	Chloride Cl^-	300.0	03W2658	mg/L	4.0	3.89	97	-3	✓	90-110	05/01/2003
	NITRATE as N-NO_3^- , BY	300.0	03W2658	mg/L	1.5	1.51	101	1	✓	90-110	05/01/2003
	SULFATE SO_4^{--} , BY I	300.0	03W2658	mg/L	15	14.9	99	-1	✓	90-110	05/01/2003
	Chloride Cl^-	300.0	03W2658	mg/L	4.0	3.92	98	-2	✓	90-110	05/01/2003
	NITRATE as N-NO_3^- , BY	300.0	03W2658	mg/L	1.5	1.52	101	1	✓	90-110	05/01/2003
	SULFATE SO_4^{--} , BY I	300.0	03W2658	mg/L	15	14.9	99	-1	✓	90-110	05/01/2003
2	Perchlorate	314.0	03W2719	$\mu\text{g/L}$	50	50.6	101	1	✓	90-110	05/05/2003
	Perchlorate	314.0	03W2719	$\mu\text{g/L}$	50	50.4	101	1	✓	90-110	05/05/2003
	Perchlorate	314.0	03W2719	$\mu\text{g/L}$	50	50.9	102	2	✓	90-110	05/05/2003
	Perchlorate	314.0	03W2719	$\mu\text{g/L}$	50	50.7	101	1	✓	90-110	05/05/2003
3	Chromium (VI)	7196	03W2664	mg/L	0.25	0.238	95	-5	✓	90-110	05/01/2003
	Chromium (VI)	7196	03W2664	mg/L	0.25	0.252	101	1	✓	90-110	05/01/2003

```

=====
Sample Name: CCV4W7767-100X          Date: 05/01/2003 18:04:18
Data File  : C:\DX\DATA\03W2658\W2658Q01.D30
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 30      Detector: COND
Analyst    : David      Column: Dionex AS4A-SC
=====

```

```

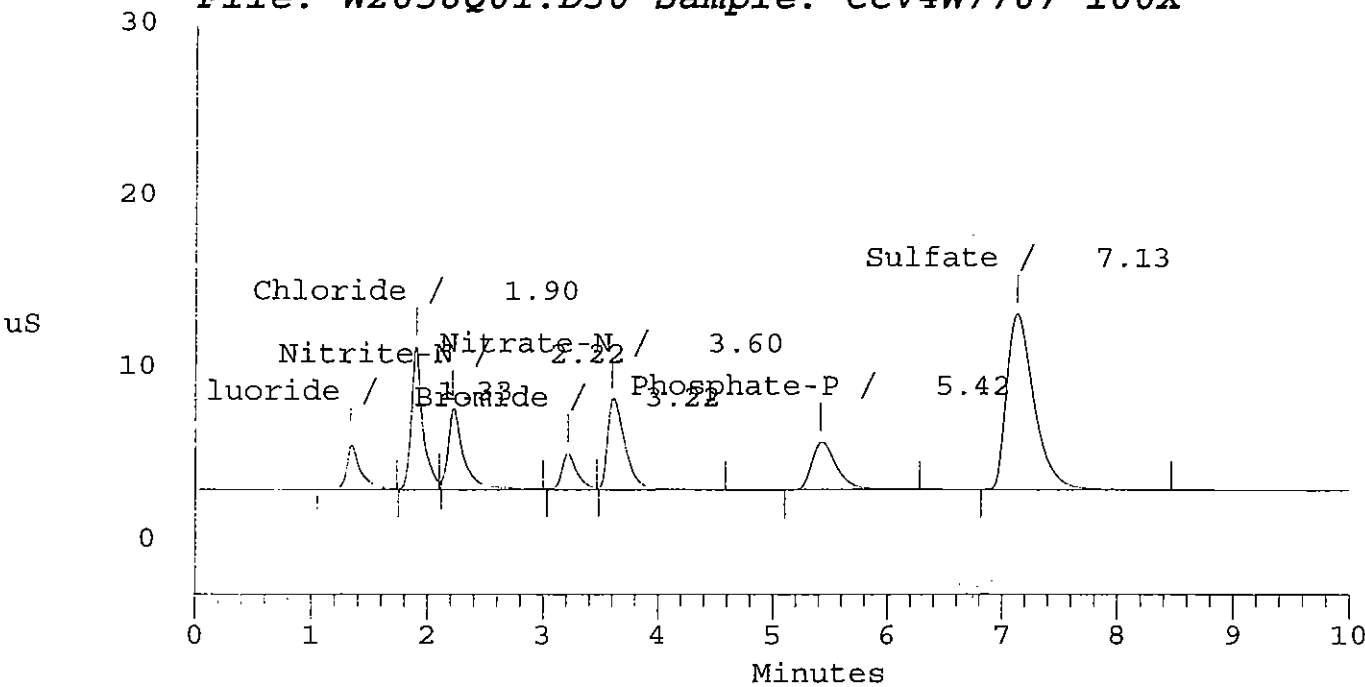
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1    3000  5Hz   0.00 10.00      1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	1.005	81040	730680	2	0.00
2	1.90	Chloride	3.921	275377	1941988	2	0.00
3	2.22	Nitrite-N	1.484	152969	1495643	2	-1.48
4	3.22	Bromide	3.094	68949	630678	2	0.89
5	3.60	Nitrate-N	1.522	173088	1836427	2	0.00
6	5.42	Phosphate-P	3.000	91114	1372808	1	0.00
7	7.13	Sulfate	14.888	339282	5668487	1	0.00
Totals			28.913	1181819	13676711		

File: W2658Q01.D30 Sample: CCV4W7767-100X



```

=====
Sample Name: ##03W2658, W CCVW7767-100X      Date: 05/01/2003 10:28:40
Data File  : C:\DX\DATA\03W2658\W2658Q01.D01
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 1           Detector:COND
Analyst    : David                          Column: Dionex AS4A-SC
=====

```

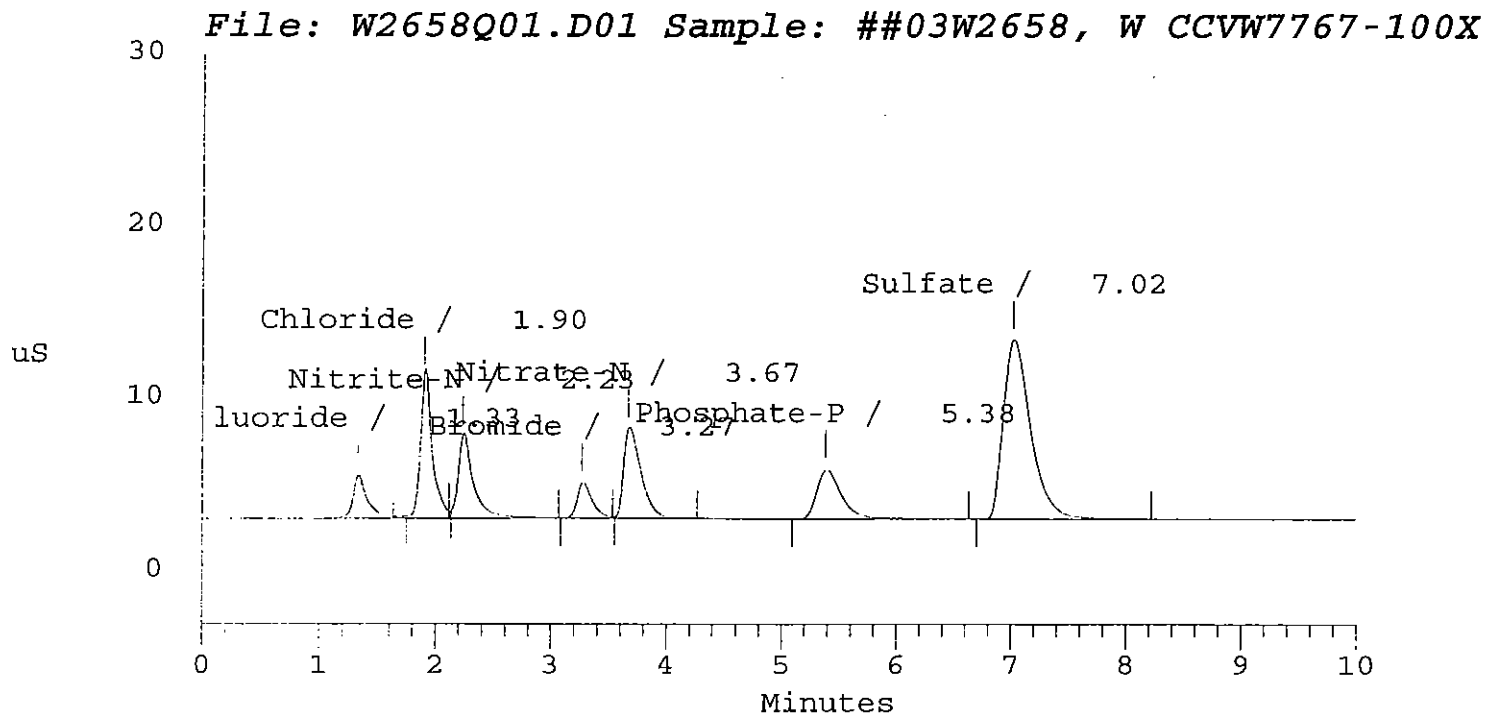
```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1    3000  5Hz   0.00 10.00      1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	0.991	83269	720966	2	0.00
2	1.90	Chloride	4.022	273355	1993904	2	0.00
3	2.23	Nitrite-N	1.503	157524	1514898	2	-0.74
4	3.27	Bromide	3.047	67107	620921	2	0.60
5	3.67	Nitrate-N	1.509	171468	1821065	2	0.00
6	5.38	Phosphate-P	3.155	93509	1445511	2	0.00
7	7.02	Sulfate	15.075	343700	5742294	2	0.00
Totals			29.301	1189931	13859559		



```

=====
Sample Name: CCV2W7767-100X                      Date: 05/01/2003 13:39:28
Data File  : C:\DX\DATA\03W2658\W2658Q01.D12
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 12              Detector: COND
Analyst    : David                               Column: Dionex AS4A-SC
=====

```

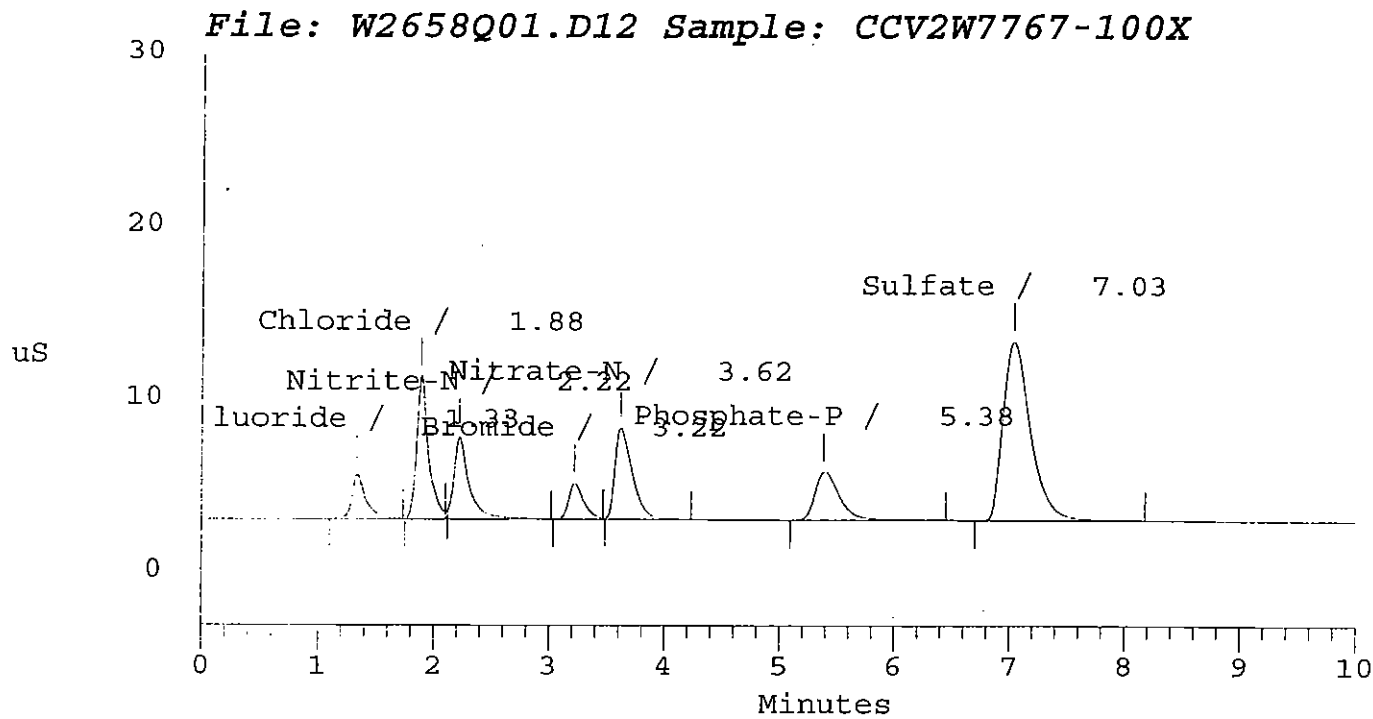
```

Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1    3000  5Hz   0.00 10.00      1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	0.992	85279	721602	2	0.00
2	1.88	Chloride	3.947	272010	1955662	2	0.00
3	2.22	Nitrite-N	1.450	156698	1460678	2	-0.61
4	3.22	Bromide	3.029	68324	617342	2	0.42
5	3.62	Nitrate-N	1.511	176001	1823548	2	0.00
6	5.38	Phosphate-P	3.085	91854	1412710	2	0.00
7	7.03	Sulfate	15.024	343414	5722199	2	0.00
Totals			29.039	1193580	13713742		



```

=====
Sample Name: CCV3W7767-100X          Date: 05/01/2003 15:59:43
Data File  : C:\DX\DATA\03W2658\W2658Q01.D21
Method     : C:\DX\METHOD\E300-063.MET
ACI Address: 1 System: 1 Inject#: 21      Detector: COND
Analyst    : David                   Column: Dionex AS4A-SC
=====

```

```

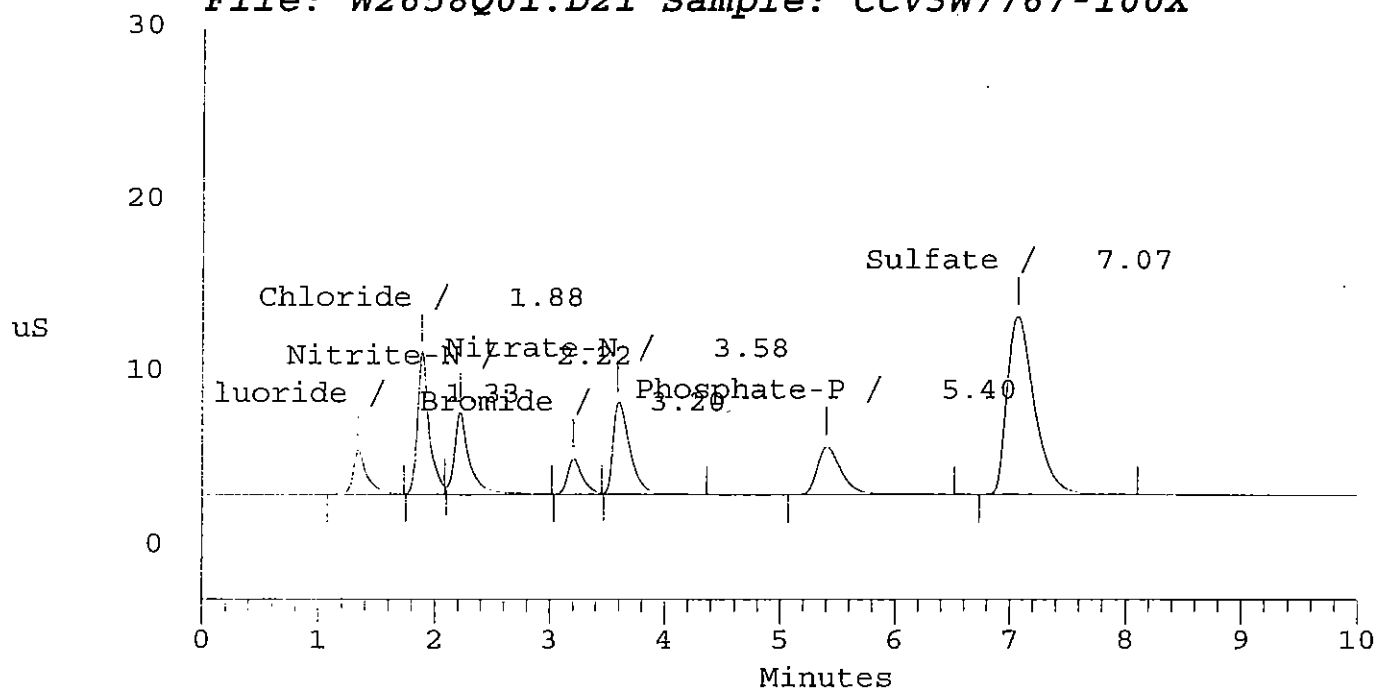
-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1    3000  5Hz   0.00 10.00      1000

```

***** Component Report: All Components *****

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33	Fluoride	0.997	84736	725295	2	0.00
2	1.88	Chloride	3.890	270274	1926149	2	0.00
3	2.22	Nitrite-N	1.472	157587	1483605	2	-0.61
4	3.20	Bromide	3.061	68756	623822	2	0.83
5	3.58	Nitrate-N	1.513	171697	1826033	2	0.00
6	5.40	Phosphate-P	3.039	92136	1391171	2	0.00
7	7.07	Sulfate	14.850	342510	5653450	2	0.00
Totals			28.822	1187697	13629526		

File: W2658Q01.D21 Sample: CCV3W7767-100X



APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w7827e

Data File Name : C:\DATA\03W2719K\W2719K Q01_002.DXD

Method File Name : c:\peaknet\method\c314-011.met

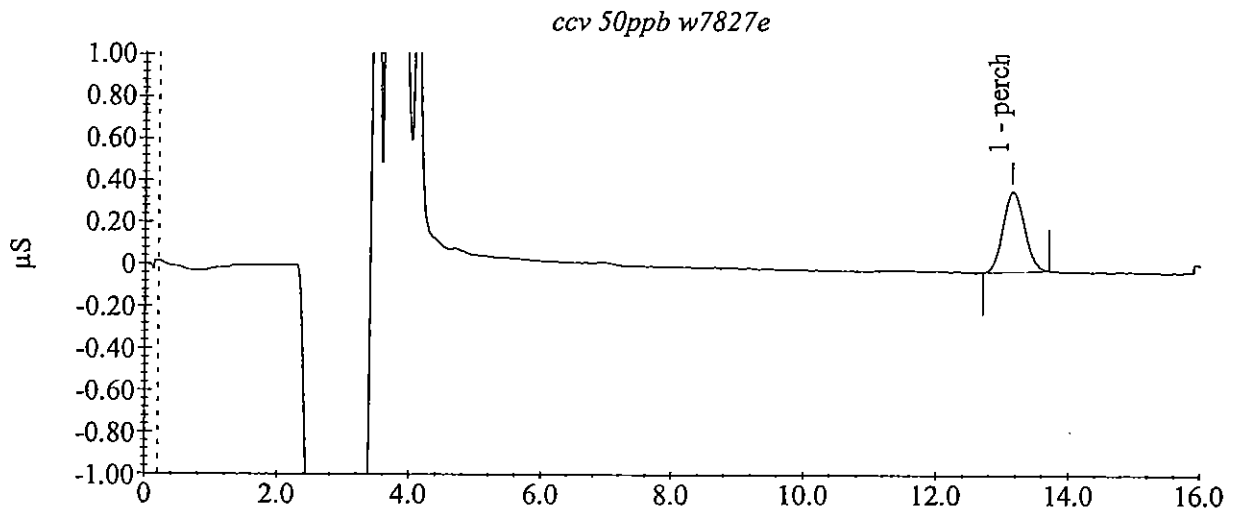
Date Time Collected : 05/05/2003 10:22:41 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	13.13	50.56	85809.05	3807.65



APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w7827e

Data File Name : C:\DATA\03W2719K\W2719K Q02_013.DXD

Method File Name : c:\peaknet\method\ve314-011.met

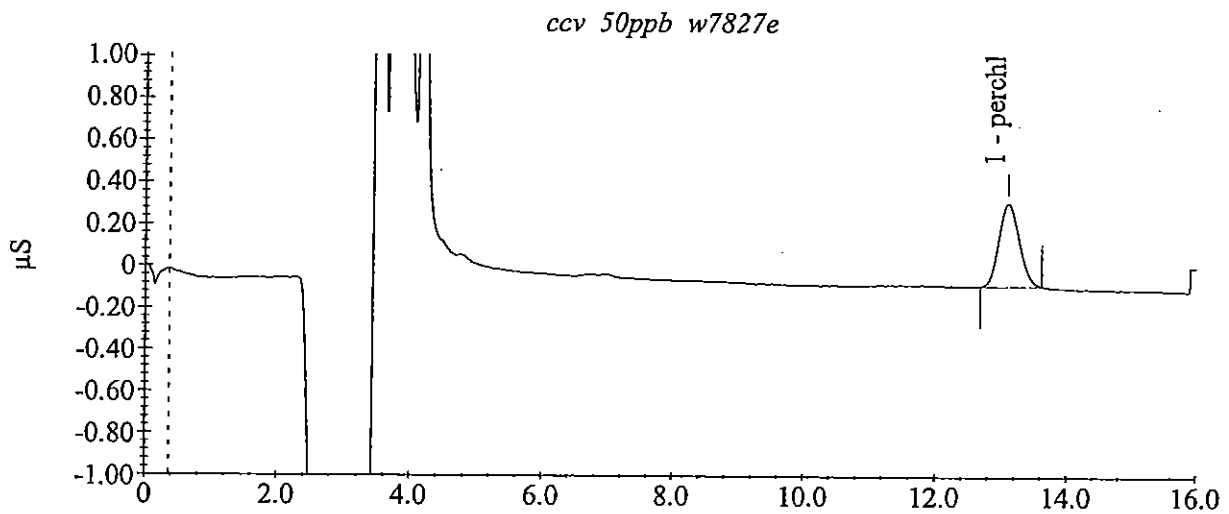
Date Time Collected : 05/05/2003 1:48:27 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	13.10	50.42	85571.10	3951.66



APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w7827e

Data File Name : C:\DATA\03W2719K\W2719K Q03_024.DXD

Method File Name : c:\peaknet\method\c314-011.met

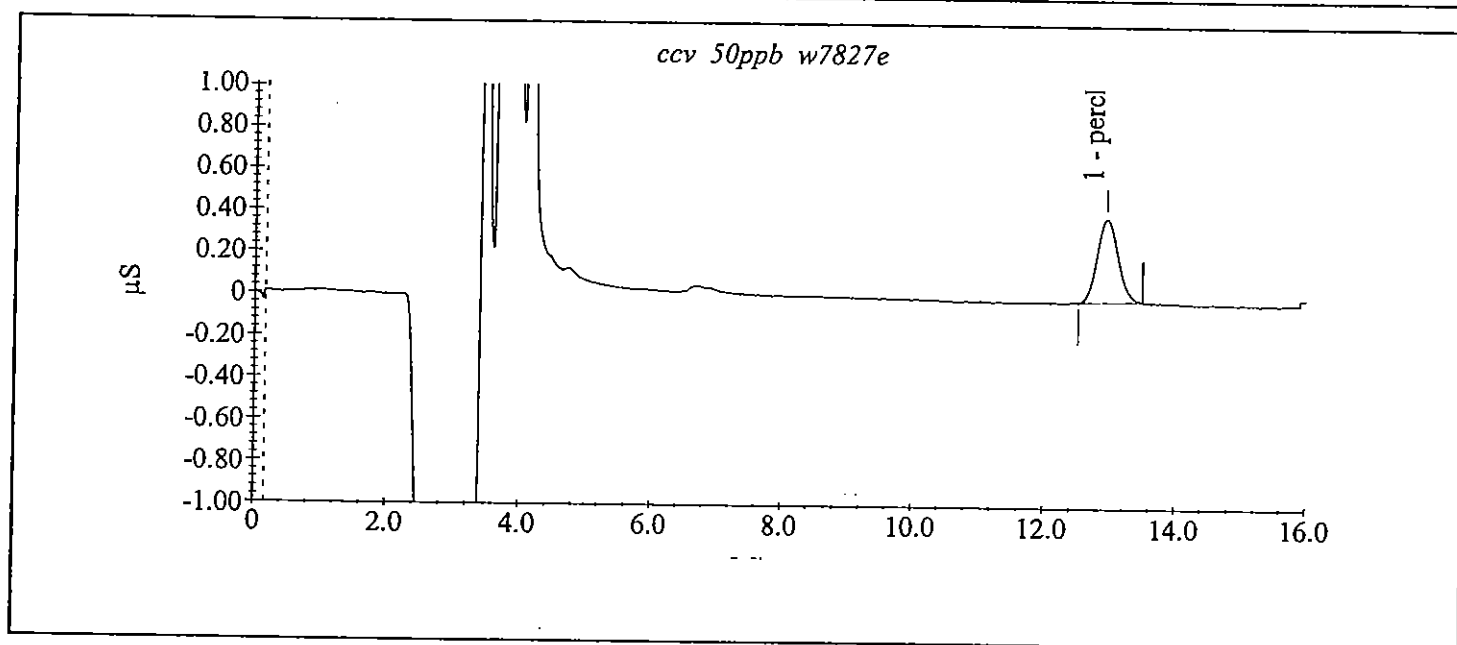
Date Time Collected : 05/05/2003 5:12:50 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	12.93	50.89	86364.65	3980.02



APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w7827e

Data File Name : C:\DATA\03W2719K\W2719K Q04_030.DXD

Method File Name : c:\peaknet\method\c314-011.met

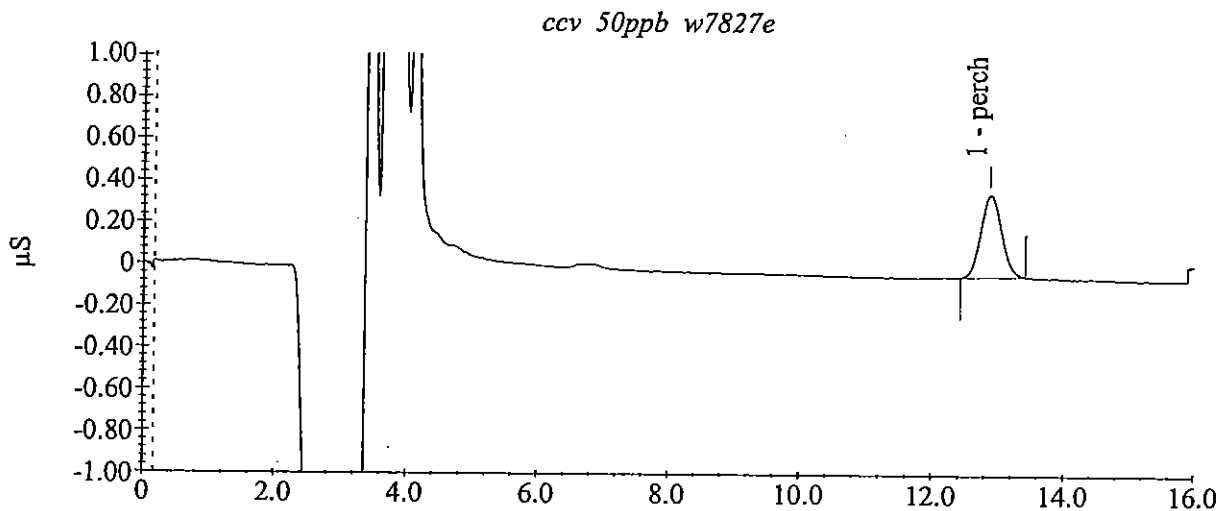
Date Time Collected : 05/05/2003 7:05:15 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	12.87	50.68	86013.30	3916.47



APCL Perchlorate Analysis Report

Sample Name : ICCS 4ppb w7827b

Data File Name : C:\DATA\03W2719K\W2719K ICCS 4PPB_006.DXD

Method File Name : c:\peaknet\method\314-011.met

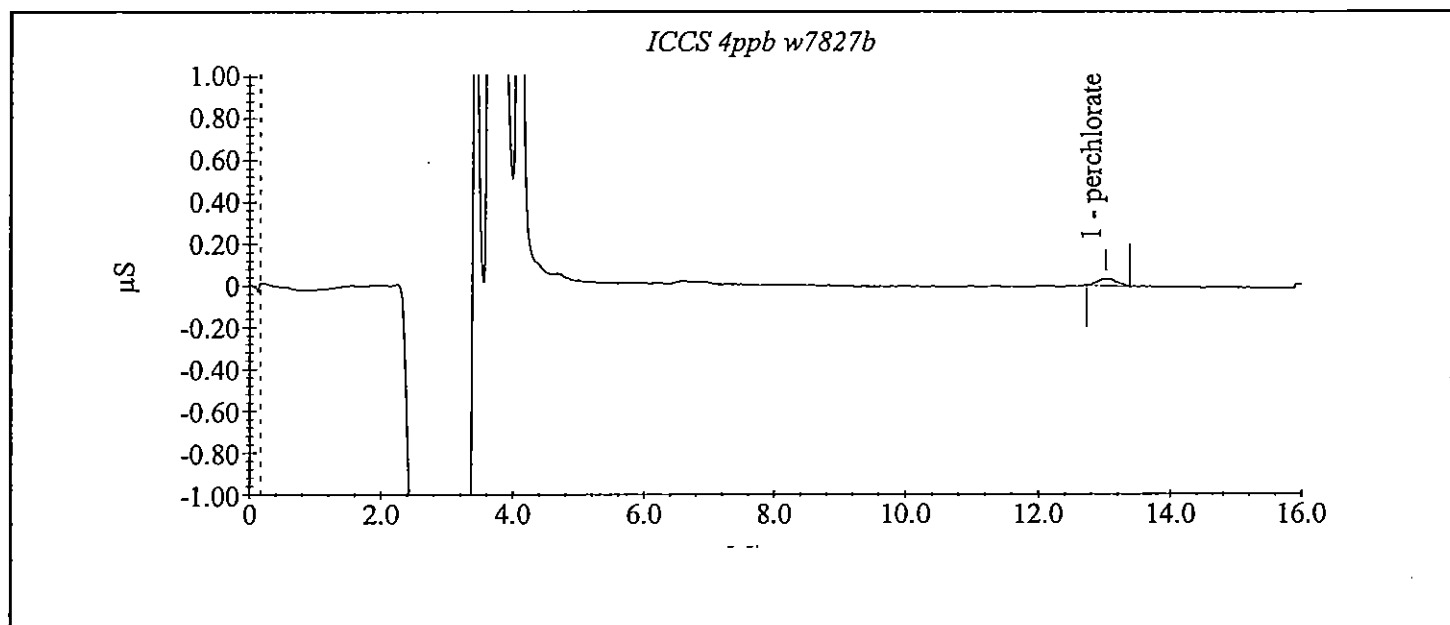
Date Time Collected : 05/05/2003 11:38:01 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	13.02	4.14	7028.90	331.20



APCL Perchlorate Analysis Report

Sample Name : ##03w2719kw ipc 25ppb w7759

Data File Name : C:\DATA\03W2719K\W2719K IPC 25PPB_001.DXD

Method File Name : c:\peaknet\method\314-011.met

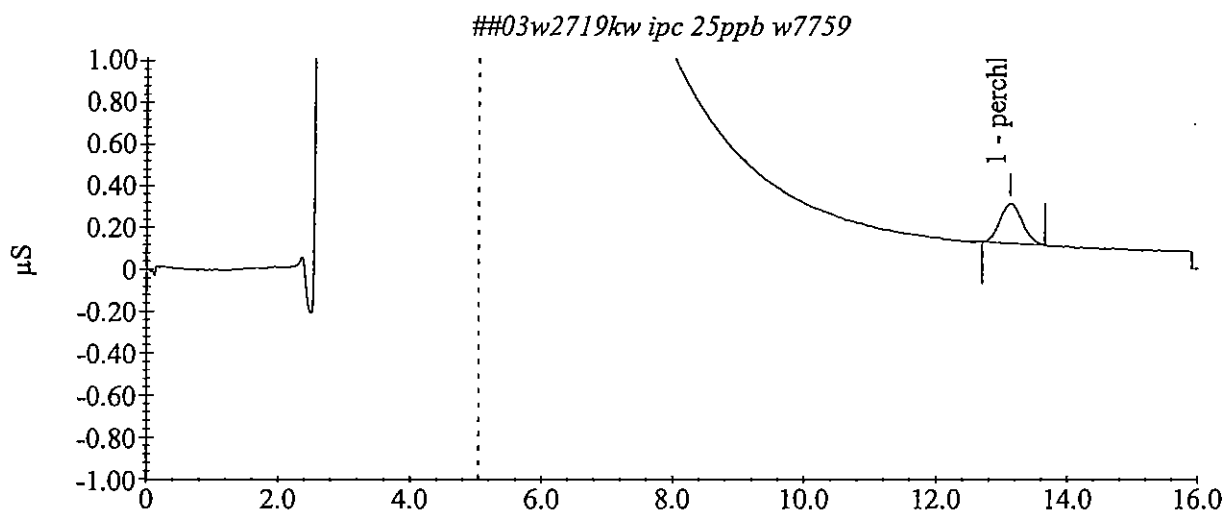
Date Time Collected : 05/05/2003 10:03:24 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	13.12	25.95	44036.30	1883.19



APCL Perchlorate Analysis Report

Sample Name : ccb

Data File Name : C:\DATA\03W2719K\W2719K CCB01_003.DXD

Method File Name : c:\peaknet\method\314-011.met

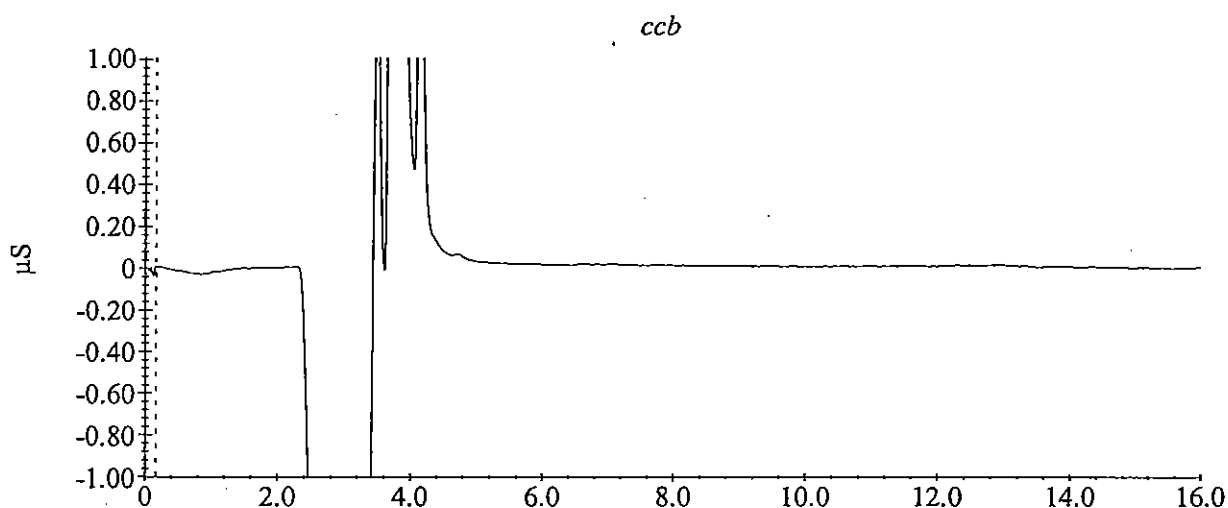
Date Time Collected : 05/05/2003 10:41:26 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : CCB

Data File Name : C:\DATA\03W2719K\W2719K K03_025.DXD

Method File Name : c:\peaknet\method\c314-011.met

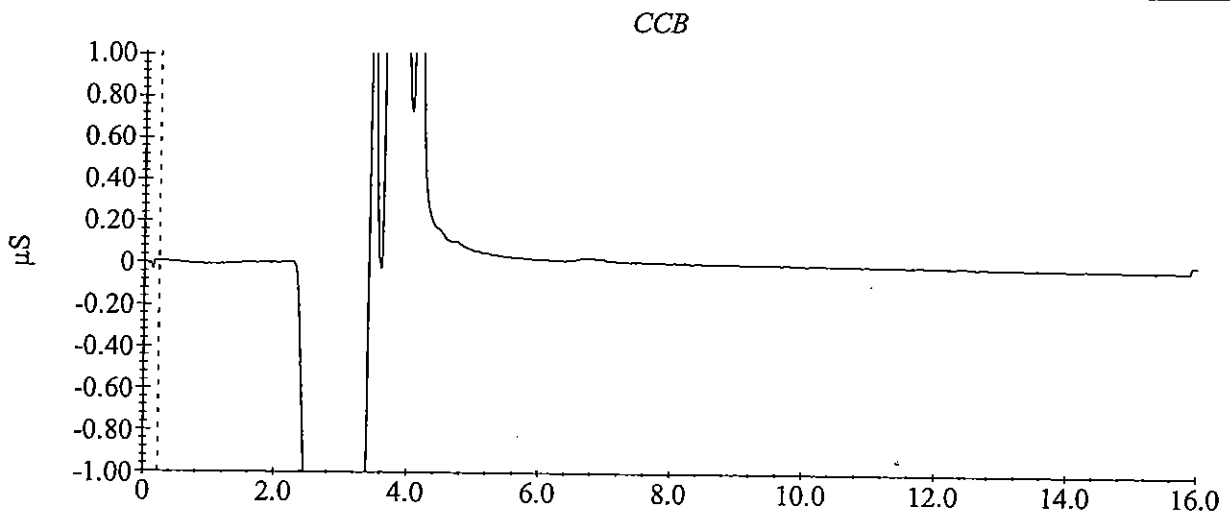
Date Time Collected : 05/05/2003 5:31:36 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : ccb

Data File Name : C:\DATA\03W2719K\W2719K K02_014.DXD

Method File Name : c:\peaknet\method\314-011.met

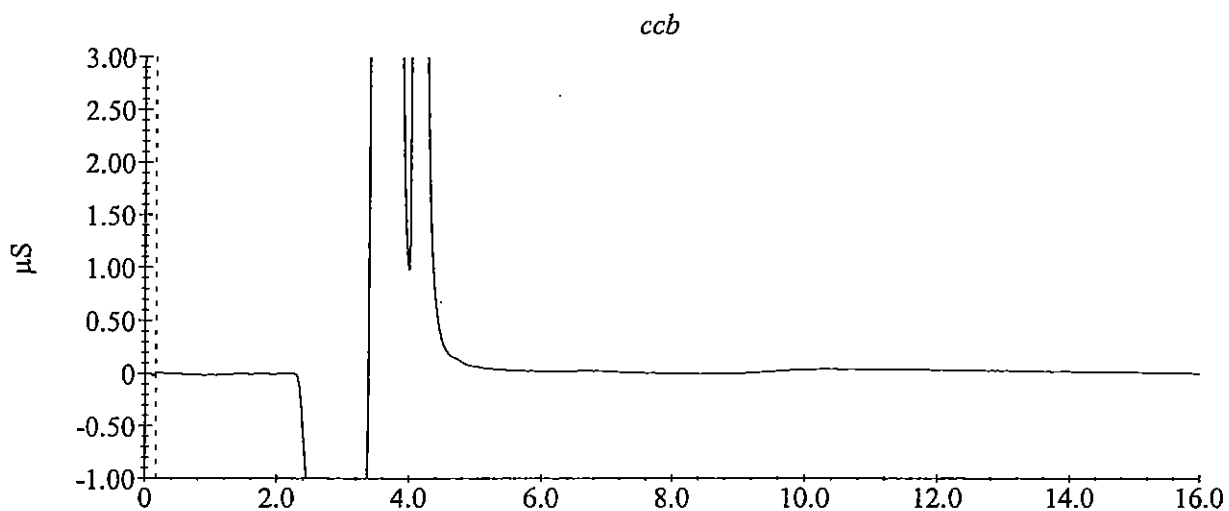
Date Time Collected : 05/05/2003 2:07:09 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : CCB

Data File Name : C:\DATA\03W2719K\W2719K K03_025.DXD

Method File Name : c:\peaknet\method\c314-011.met

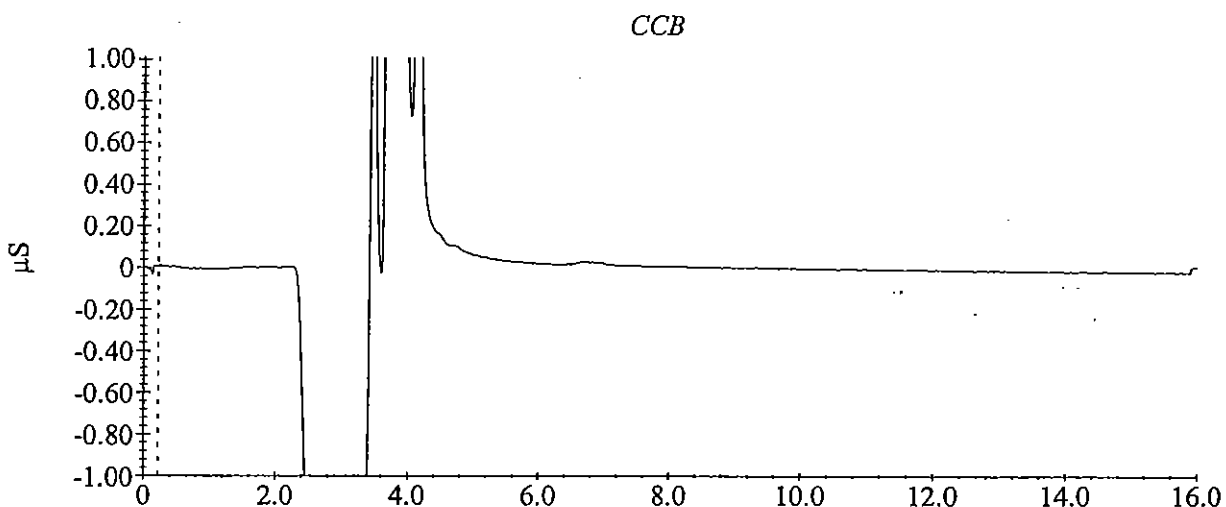
Date Time Collected : 05/05/2003 5:31:36 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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Applied P & Ch Laboratory

260 Magnolia Ave. Chino CA 91710

(909) 590-1828 Fax: (909) 590-1498

Conductance (120.1) Worksheet

 Cell # for reference Matrix: W
 Cell Constant 1 Calibration STD: 0.0100M KCl
Test Date: 5/5/03 Analyst: W

SOP: G-45

#	Sample ID	Treatment $V/X=f_0$	Dilution $V_f/V_i=f_1$	Temperature $T, ^\circ\text{C}$	$C_{25}=C_T f_1/[1-0.0191(25-T)]$		$\rho=1/C_{25}$ $\text{M}\Omega\text{ cm}$	Note & Anomaly
Cal.	Lot #:	-	-	<u>25°C</u>				$C_{25}=1,413\pm 20$
MB		/ =	/ =					
1	<u>2P87-1</u>	/ =	/ =			<u>31.8</u>		<u>for eq</u>
2	<u>-2</u>	/ =	/ =			<u>1.5</u>		
3	<u>-3</u>	/ =	/ =			<u>980</u>		
4	<u>-4</u>	/ =	/ =			<u>431</u>		
5	<u>-5</u>	/ =	/ =			<u>354</u>		
6	<u>✓ -6</u>	/ =	/ =			<u>483</u>		
7	<u>3015-1</u>	/ =	/ =			<u>448</u>		
8	<u>-2</u>	/ =	/ =			<u>234</u>		
9	<u>-3</u>	/ =	/ =			<u>560</u>		
10	<u>-4</u>	/ =	/ =			<u>399</u>		
11	<u>-5</u>	/ =	/ =			<u>535</u>		
12	<u>-6</u>	/ =	/ =			<u>325</u>		
13	<u>✓ -7</u>	/ =	/ =			<u>38 360</u>		
14	<u>3000-4</u>	/ =	/ =	<u>✓</u>		<u>569</u>		<u>✓</u>
15		/ =	/ =					
16		/ =	/ =					
17		/ =	/ =					
18		/ =	/ =					
19		/ =	/ =					
20		/ =	/ =					
Dup.		/ =	/ =					

13760 Magnolia Ave. Chino CA 91710

Solid Analysis (160.1, 160.2, 160.3) Worksheet

Tel: (909) 590-1828 Fax: (909) 590-1498

Batch # 03W272K Matrix ✓Method: 160.1

Balance No. _____

Date: 5/5/03Analyst: DL

EPA 160.1 TDS - Total Dissolved (filterable) Solids — Dry for 1hr. or more at 180 °C

EPA 160.2 TSS - Total Suspended (nonfilterable) Solids — Dry for 1hr. or more at 103-105 °C

EPA 160.3 TS - Total Solids — Dry for 1hr. or more at 103-105 °C

Other method (specify): _____

Result = $10^6 \times \Delta W \times f_1 / V$

SOP: G-81

#	Analysis Type	Sample ID (STD Lot #)	Treatment Ratio $V_f/X=f_1$	Volume V, mL	W ₁ g	W ₂ 1st, g	W ₂ 2nd, g	$\Delta W = W_2 - W_1$, g	Results (ppm)	Note
1	Blank	T116	1 =	100	117.8965	117.8968	117.8967	0.0002	2	7
2	LCS	T116	1 =	100	114.7448	114.7889	114.7888	0.0390	390	XX
3	Sample-1	3037-1	1 =	100	113.0607	113.0949	113.0950	0.0343	343	PR
4	MS on S-1	3065-2	1 =	100	108.5432	108.7023	108.7021	0.1589	1589	1P
5	MSD on S-1	↓ - 2	1 =	100	112.9002	113.0601	113.0600	0.1598	1598	木
6	Sample-2	3037-2	1 =	100	117.6087	117.6317	117.6319	0.0232	232	X5
7	Sample-3	3	1 =	100	115.9136	115.9382	115.9383	0.0247	247	19
8	Sample-4	4	1 =	100	106.3180	106.3409	106.3407	0.0227	227	8
9	Sample-5	5	1 =	100	113.8604	113.8814	113.8817	0.0213	213	6
10	Sample-6	3015-1	1 =	100	114.3069	114.3365	114.3363	0.0294	249	H
11	Sample-7	3015-2	1 =	100	116.9511	116.9522	116.9520	0.0009	9	W
12	Sample-8	3015-3	1 =	100	103.3042	103.3390	103.3392	0.0350	350	L
13	Sample-9	3015-4	1 =	100	116.0612	116.0892	116.0890	0.0278	278	31
14	Sample-10	3015-5	1 =	100	109.3072	109.3320	109.3321	0.0249	249	3
15	LCSD	T116	1 =	100	115.1108	115.1507	115.1506	0.0398	398	G
16	Sample-11	3015-6	1 =	100	98.0928	98.1129	98.1128	0.0200	200	11
17	Sample-12	3015-7	1 =	100	113.1728	113.1988	113.1987	0.0259	259	25
18	Sample-13	3050-1	1 =	20.0	115.2909	115.4253	115.4252	0.1343	6715	38
19	Sample-14	3015-1	1 =	100	114.2628	114.3919	114.3916	0.1291	1291	N
20	Sample-15	3065-7	1 =	100	114.1689	114.1972	114.1973	0.0284	284	41
21	Sample-16	3065-6	1 =	100	115.8605	115.8898	115.8899	0.0294	294	30
22	Sample-17	↓ - 2	5/4/03 =	100	113.9032	114.0252	114.0251	0.1219	1219	P
23	Sample-18	3065-9	1 =	100	114.8284	114.8663	114.8665	0.0379	379	12
24	Sample-19	3052-1	1 =	10.0	114.9034	114.3919	114.3916	0.1282	12820	N
25	Sample-20	3065-2	1 =	100	112.2697	112.3937	112.3935	0.1238	1238	24
26	Mtx Dup.		1 =							

Type	STD Lot #	CSTD(μg/mL) × VSTD(mL) / X(g or mL) = T	Spike Rec.	Ctl Limit (W/S)	PQL/MDL (in ppm)
MS	W- 708	x / = 40 ppm	%	85-115 %/80-120 %	PQL(w) 10
MSD	W- ↓	x / = ppm	%		PQL(s) 50
LCS	W- 7659	x / = ppm	%	90-110 %/85-115 %	MDL(w) 4
LCSD	W- ↓	x / = ppm	%		MDL(s) 20

Balance Daily Calibration Worksheet

Weight Set S/N: 1200690

Calib. Date	Lab Balance					Digital Balance					Analytical Balance					Calib. by
	Balance #	1 g ±0.05g	10 g ±0.1g	200 g ±0.5g	Note (C)	Balance #	1 g ±0.02g	10 g ±0.05g	200 g ±0.10g	Note (D) (C) (AR)	Balance #	1 g ±0.0002g	10 g ±0.0005g	200 g ±0.0010g	Note (D) (C) (AR)	
5/1/03	A-01	Met	in use	✓		B-01	1.00	10.01	200.00	✓✓✓	C-01	1.0000	10.0000	200.0000	✓✓✓	1/2
	A-02					B-02	1.00	10.00	200.00	✓✓✓	C-02	1.0000	9.9999	200.0000	✓✓✓	
	A-03	1.00	9.99	200.00	✓	B-06	1.00	10.01	200.00	✓✓✓	C-					
	A-04					B-07	1.00	9.99	199.99	✓✓✓	C-					
	A-					B-				C-						
5/2/03	A-01	Met	in use	✓		B-01	1.00	10.00	200.00	✓✓✓	C-01	1.0000	10.0001	200.0000	✓✓✓	1/2
	A-02					B-02	1.00	10.01	200.00	✓✓✓	C-02	1.0000	9.9999	200.0001	✓✓✓	
	A-03	1.00	9.99	200.00	✓	B-06	1.00	9.99	200.00	✓✓✓	C-					
	A-04					B-07	1.00	10.00	200.00	✓✓✓	C-					
	A-					B-				C-						
5/3/03	A-01	Met	in use	✓		B-01	1.00	10.00	200.00	✓✓✓	C-01	1.0000	10.0001	200.0000	✓✓✓	1/2
	A-02					B-02	1.00	10.01	200.00	✓✓✓	C-02	1.0000	10.0000	200.0001	✓✓✓	
	A-03	1.00	9.99	200.00	✓	B-06	1.00	9.99	200.00	✓✓✓	C-					
	A-04					B-07	1.00	10.00	200.00	✓✓✓	C-					
	A-					B-				C-						
5/6/03	A-01	Met	in use	✓		B-01	1.00	10.00	200.00	✓✓✓	C-01	1.0000	10.0000	200.0000	✓✓✓	1/2
	A-02					B-02	1.00	10.01	200.01	✓✓✓	C-02	1.0001	10.0001	200.0001	✓✓✓	
	A-03	1.00	9.99	200.00	✓	B-06	1.00	9.99	200.00	✓✓✓	C-					
	A-04					B-07	1.00	10.00	200.00	✓✓✓	C-					
	A-					B-				C-						

Notation: (C) - Cleanliness; (D) - Display; (AR) - Auto Rerzeroing.
APCL form 4-213, March 30, 1995, Ver. 4.0 No pencil. Use blue pen for record. Use red pen for correction.
File: [CUST:DOC:LAB]BAL-CAL-TEX Root-File: BAL-CAL-ROOT-TEX 1-Page-File: BAL-CAL-1-TEX

Temperature compensation must be performed by the instrument automatically.

Analyst PL

SOP: G-44

Batch # <u>03W2661</u> Analysis Date: <u>5.01.03</u>					Batch # <u>03W2675</u> Analysis Date: <u>5.2.03</u>				
Starting Time: <u>12:10</u> Ending Time: _____					Starting Time: <u>08:45</u> Ending Time: _____				
Matrix ☒ Aqueous ☐ Soil					Matrix ☒ Aqueous ☐ Soil				
Standard	4.00	7.00	10.00		Standard	4.00	7.00	10.00	
Lot #		<u>2120</u>	<u>030659-24</u>		Lot #		<u>2120</u>	<u>030659-24</u>	
Temperature °C		<u>24.2</u>	<u>24.2</u>		Temperature °C		<u>23.8</u>	<u>23.8</u>	
pH Reading		<u>7.01</u>	<u>10.02</u>		pH Reading		<u>7.02</u>	<u>10.03</u>	
T-corrected pH		<u>7.00</u>	<u>10.01</u>		T-corrected pH		<u>7.00</u>	<u>10.02</u>	
Control Limit	±0.05 pH unit				Control Limit	±0.05 pH unit			

#	Sample ID	Pre-treat	pH	Note	#	Sample ID	Pre-treat	pH	Note
MB	<u>T1116</u>		<u>6.89</u>		MB	<u>T1116</u>		<u>6.80</u>	
1	<u>2999-1</u>		<u>7.44</u>		1	<u>3037-1</u>		<u>7.36</u>	
2	<u>-2</u>		<u>7.07</u>		2	<u>-2</u>		<u>7.75</u>	
3	<u>-3</u>		<u>7.22</u>		3	<u>-3</u>		<u>7.71</u>	
4	<u>-4</u>		<u>7.65</u>		4	<u>-4</u>		<u>7.23</u>	
5	<u>-5</u>		<u>7.64</u>		5	<u>-5</u>		<u>6.68</u>	
6	<u>3020-2</u>		<u>9.04</u>		6	<u>3038-1</u>		<u>6.64</u>	
7	<u>3015-1</u>		<u>7.55</u>		7	<u>1-2</u>		<u>7.07</u>	
8	<u>-2</u>		<u>6.98</u>		8				
9	<u>-3</u>		<u>7.72</u>		9				
10	<u>-4</u>		<u>8.05</u>		10				
11	<u>-5</u>		<u>8.00</u>		11				
12	<u>-6</u>		<u>8.66</u>		12				
13	<u>-7</u>		<u>9.64</u>		13				
14					14				
15					15				
16					16				
17					17				
18					18				
19					19				
20					20				
Dup.	<u>3015-1</u>		<u>7.59</u>		Dup.	<u>3037-1</u>		<u>7.32</u>	

Applied P & Ch Laboratory

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Chromium (VI) (7196) Worksheet

Batch # 03W2664 Matrix: W

[Holding Time: 24 hours!!]

Test Date: 5/1/03Analyst: h

Lot #: Reagent Water

Diphenylcazide solution

Test Time: 15:19

SOP: G-22

Calibration	STD Lot #	$C_{std} \times V_{std} / V_f = C_i$	A_i	$RF_i = A_i / C_i$	Calibration results	Note
STD-1	W-	x / = mg/L			Least Square [RF]=	Cal. Code:
STD-2	W-	x / = mg/L			Average RF=	
STD-3	W-	x / = mg/L			C.C. = <u>0.9997</u> (≥ 0.995)	
STD-4	W-	x / = mg/L			RSD= % ($\leq 15\%$)	
STD-5	W-	x / = mg/L			Ref. page	
STD-6	W-	x / = mg/L			<u>A = 0.000 + 0.836 C</u>	

Analysis Type	Sample ID or Lot #	Samp. Amnt X ₀ (g or mL)	Dilu./Ext X/X ₀ =f ₁	Treat. Ratio V/X=f ₂	540 nm A	Concentration C'=A/RF	C (Sample) C=f ₁ f ₂ C'	Anomaly Note
CCV	Lot: W- <u>7853</u>	Expected Conc.: x	/	= <u>0.75</u> mg/L	<u>0.199</u>	<u>0.238</u> mg/L	REC. %	90-110 %
Method Blank	Bl. Lot: <u>71116</u>		/X ₀ =	95.0/ =	<u>0.000</u>	mg/L	<u>0.000</u> ppm	
LCS1	Bl. Lot: <u>1</u>		/X ₀ =	95.0/ =	<u>0.186</u>	mg/L	<u>0.222</u> ppm	
Sample 1	<u>3015-1</u>		/X ₀ =	95.0/ =	<u>0.000</u>	mg/L	<u>0.000</u> ppm	
MS on S-1	<u>1</u>		/X ₀ =	95.0/ =	<u>0.183</u>	mg/L	<u>0.219</u> ppm	
MSD on S-1	<u>1</u>		/X ₀ =	95.0/ =	<u>0.181</u>	mg/L	<u>0.217</u> ppm	
Sample 2	<u>2</u>		/X ₀ =	95.0/ =	<u>0.003</u>	mg/L	<u>0.001</u> ppm	
Sample 3	<u>3</u>		/X ₀ =	95.0/ =	<u>0.003</u>	mg/L	<u>0.004</u> ppm	
Sample 4	<u>4</u>		/X ₀ =	95.0/ =	<u>0.002</u>	mg/L	<u>0.002</u> ppm	
Sample 5	<u>5</u>		/X ₀ =	95.0/ =	<u>0.001</u>	mg/L	<u>0.001</u> ppm	
Sample 6	<u>6</u>		/X ₀ =	95.0/ =	<u>0.001</u>	mg/L	<u>0.001</u> ppm	
Sample 7	<u>7</u>		/X ₀ =	95.0/ =	<u>0.001</u>	mg/L	<u>0.001</u> ppm	
Sample 8			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 9			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 10			/X ₀ =	95.0/ =		mg/L	ppm	
Blank	Lot:		/X ₀ =	95.0/ =		mg/L	ppm	
LCS2	Bl. Lot: <u>71116</u>		/X ₀ =	95.0/ =	<u>0.190</u>	mg/L	<u>0.227</u> ppm	
Sample 11			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 12			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 13			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 14			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 15			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 16			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 17			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 18			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 19			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 20			/X ₀ =	95.0/ =		mg/L	ppm	
MTX Dup.	<u>closing 0.25 mg/L</u>		/X ₀ =	95.0/ =	<u>0.211</u>	<u>0.25</u> mg/L	ppm	

Type	STD Lot #	$C_{STD}(\mu\text{g/mL}) \times V_{STD}(\text{mL}) / X(\text{g or mL}) = T$	Spike Rec.	Ctl Limit (W/S)	PQL/MDL (in ppm)	
MS	W- <u>7853</u>	x / = <u>0.75</u> ppm	%	80-120 %/80-120 %	PQL(w)	0.01
MSD	W- <u>1</u>	x / = ppm	%		PQL(s)	0.05
LCS	W- <u>7759</u>	x / = ppm	%	80-120 %/80-120 %	MDL(w)	0.005
LCS2	W- <u>1</u>	x / = ppm	%		MDL(s)	0.025

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Chromium (VI) (7196) Worksheet

Batch # 03W1295 Matrix: W

[Holding Time: 24 hours!!]

Test Date: 1/24/03 Analyst: br

Lot #: Reagent Water _____ Diphenylcazide solution _____ Test Time: _____ SOP: G-22

Calibration	STD Lot #	$C_{std} \times V_{std} / V_f = C_i$	A_i	$RF_i = A_i / C_i$	Calibration results	Note
STD-1	W-7191	x / = 0.000mg/L	0.000		Least Square [RF]=	Cal. Code:
STD-2	W-	x / = 0.012mg/L	0.006		Average RF=	A=0.000+0.836C
STD-3	W-	x / = 0.030mg/L	0.001		C.C.=0.997 (> 0.995)	
STD-4	W-	x / = 0.125mg/L	0.009		RSD= % (≤ 15%)	
STD-5	W-	x / = 0.250mg/L	0.014		Ref. page	
STD-6	W-✓	x / = 0.500mg/L	0.015		A=0.003+0.0014C	

Analysis Type	Sample ID or Lot #	Samp. Amnt X ₀ (g or mL)	Dilu./Ext X/X ₀ =f ₁	Treat. Ratio V/X=f ₂	540 nm A	Concentration C'=A/RF	C (Sample) C=f ₁ f ₂ C'	Anomaly Note
CCV	Lot: W-7076	Expected Conc.: x	/ = 0.25 mg/L		0.246	0.258 mg/L	REC. %	90-110 %
Method Blank	Bl. Lot: 71115		/X ₀ = 1	95.0/ =	0.000	mg/L	0.00 ppm	
LCS1	Bl. Lot: 4		/X ₀ =	95.0/ =	0.204	mg/L	0.244 ppm	
Sample-1	1369-1		/X ₀ =	95.0/ =	0.000	mg/L	0.00 ppm	
MS on S-1	6		/X ₀ =	95.0/ =	0.223	mg/L	0.266 ppm	
MSD on S-1	6		/X ₀ =	95.0/ =	0.230	mg/L	0.275 ppm	
Sample 2	12		/X ₀ =	95.0/ =	0.004	mg/L	0.005 ppm	
Sample 3	3		/X ₀ =	95.0/ =	0.002	mg/L	0.002 ppm	
Sample 4	4		/X ₀ =	95.0/ =	0.001	mg/L	0.001 ppm	
Sample 5	5		/X ₀ =	95.0/ =	0.002	mg/L	0.002 ppm	
Sample 6	6		/X ₀ = ✓	95.0/ =	0.004	mg/L	0.005 ppm	
Sample 7	-		/X ₀ =	95.0/ =		mg/L	ppm	
Sample 8			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 9			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 10			/X ₀ =	95.0/ =		mg/L	ppm	
Blank	Lot:		/X ₀ =	95.0/ =		mg/L	ppm	
LCS2	Bl. Lot: 71115		/X ₀ = 1	95.0/ =	0.210	mg/L	0.251 ppm	
Sample 11			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 12			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 13			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 14			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 15			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 16			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 17			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 18			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 19			/X ₀ =	95.0/ =		mg/L	ppm	
Sample 20			/X ₀ =	95.0/ =		mg/L	ppm	
MTX Dup.	0.25mg/L		/X ₀ =	95.0/ =	0.204	mg/L	0.244 ppm	

Type	STD Lot #	$C_{STD}(\mu\text{g/mL}) \times V_{STD}(\text{mL}) / X(\text{g or mL}) = T$	Spike Rec.	Ctl Limit (W/S)	PQL/MDL (in ppm)
MS	W-7076	x / = 0.25 ppm	%	80-120 %/80-120 %	PQL(w) 0.01
MSD	W-✓	x / = ppm	%		PQL(s) 0.05
LCS	W-7191	x / = ppm	%	80-120 %/80-120 %	MDL(w) 0.005
LCSD	W-✓	x / = ppm	%		MDL(s) 0.025

TRPH/OG (418.1/9071/413.2 IR) Worksheet

Lot #: C₂Cl₃F₃ (F112)Na₂SO₄MgSO₄·H₂OSilica gel

SOP: G-31, G-35

Calibration	STD Lot #	$C_{std} \times V_{std} / V_f = C_i$	A_i	$RF_i = A_i / C_i$	Calibration results	Note
STD-1	W- <u>7874</u>	x / = <u>0.00</u> mg/L	<u>0.000</u>		Least Square [RF]=	Cal. Code:
STD-2	W-	x / = <u>10.0</u> mg/L	<u>0.015</u>		Average RF=	
STD-3	W-	x / = <u>50.0</u> mg/L	<u>0.069</u>		C.C.= <u>0.999</u> (≥ 0.995)	
STD-4	W-	x / = <u>100.0</u> mg/L	<u>0.131</u>		RSD= % ($\leq 15\%$)	
STD-5	W-	x / = <u>200.0</u> mg/L	<u>0.272</u>		Ref. page	
STD-6	W- <u>✓</u>	x / = <u>400.0</u> mg/L	<u>0.410</u>		<u>A=0.003+0.00129C</u>	

Analysis Type	Sample ID or Lot #	Samp. Amnt X (g or mL)	C ₂ Cl ₃ F ₃ ratio V(mL)/X=f ₁	2nd Dilu./Ext V ₁ /V ₂ =f ₂	2930 cm ⁻¹ Abs. A	Concentration C'=A/RF	C (Sample) C=f ₁ f ₂ C'	Anomaly Note
CCV	Lot: W- <u>7875</u>	Expected Conc.: x	/ = <u>200</u> mg/L		<u>0.243</u>	<u>186</u> mg/L	REC. %	90-110 %
M-Blk	Bl. Lot: <u>T115</u>	<u>1000</u>	<u>50</u> /X= <u>0.05</u>	/ =	<u>0.000</u>	mg/L	<u>0.00</u> ppm	
LCS1	Bl. Lot: <u>1</u>		/X=	/ =	<u>0.264</u>	mg/L	<u>9.98</u> ppm	
Smpl-1	<u>2532-1</u>	<u>✓</u>	<u>✓</u> /X= <u>✓</u>	/ =	<u>0.200</u>	mg/L	<u>7.64</u> ppm	
MS on S-1			/X=	/ =		mg/L	ppm	
MSD on S-1			/X=	/ =		mg/L	ppm	
Smpl 2	<u>2582-1</u>	<u>1000</u>	<u>50</u> /X= <u>0.05</u>	/ =	<u>0.013</u>	mg/L	<u>0.388</u> ppm	
Smpl 3			/X=	/ =		mg/L	ppm	
Smpl 4			/X=	/ =		mg/L	ppm	
Smpl 5			/X=	/ =		mg/L	ppm	
Smpl 6			/X=	/ =		mg/L	ppm	
Smpl 7			/X=	/ =		mg/L	ppm	
Smpl 8			/X=	/ =		mg/L	ppm	
Smpl 9			/X=	/ =		mg/L	ppm	
Smpl 10			/X=	/ =		mg/L	ppm	
Blank	Lot:		/X=	/ =		mg/L	ppm	
LCS2	Bl. Lot: <u>T115</u>	<u>1000</u>	<u>50</u> /X= <u>0.05</u>	/ =	<u>0.260</u>	mg/L	<u>9.96</u> ppm	
Smpl 11			/X=	/ =		mg/L	ppm	
Smpl 12			/X=	/ =		mg/L	ppm	
Smpl 13			/X=	/ =		mg/L	ppm	
Smpl 14			/X=	/ =		mg/L	ppm	
Smpl 15			/X=	/ =		mg/L	ppm	
Smpl 16			/X=	/ =		mg/L	ppm	
Smpl 17			/X=	/ =		mg/L	ppm	
Smpl 18			/X=	/ =		mg/L	ppm	
Smpl 19			/X=	/ =		mg/L	ppm	
Smpl 20			/X=	/ =		mg/L	ppm	
Mtx Dup.	<u>205 mg 200 mg/L</u>		/X=	/ =	<u>0.251</u>	mg/L	ppm	
					<u>0.451</u>	mg/L	ppm	
					<u>0.451</u>	mg/L	ppm	
Type	STD Lot #	$C_{STD}(\mu\text{g/mL}) \times V_{STD}(\text{mL}) / X(\text{g or mL}) = T$			Spike Rec.	Ctl Limit (W/S)	PQL/MDL (in ppm)	
MS	W-	x / =	ppm	%	76-113 %/75-120 %	PQL(w)	1	
MSD	W-	x / =	ppm	%		PQL(s)	10	
LCS	W- <u>7875</u>	x / = <u>10.0</u>	ppm	%	80-120 %/80-120 %	MDL(w)	0.24	
LCSD	W- <u>1</u>	x / = <u>✓</u>	ppm	%		MDL(s)	5	

Alkalinity / OH / CO₃ / HCO₃ (310.1 / SM12320B) WorksheetBatch # 23026614 Matrix: W Titrant H₂SO₄ Lot # 617900 Concentration (C) 0.025N Test Date: 5/1/03 Analyst: W SOP: G-51

#	Sample ID	Dilution V ₁ /V ₂ =f ₁	Sample Amt V ₁ , mL	H ₂ SO ₄ (mL) by Phen S _A E _A A	H ₂ SO ₄ (mL) by MR-BCG S _B E _B B	Phen-Alk., P (in unit of mgCaCO ₃ /L)	Tot. Alk., T	OH ⁻	CO ₃ ²⁻	HCO ₃ ⁻	Note & Anomaly
1	MB: T114	1 =	100	0	0	0	0	0	0	0	
2	LS	1 =	100		7.90	100.9					
3	165D	1 =	100		8.60	102.2					
4	2933-1	1 =	10-0	0	0	0	0	0	0	0	
5	-2	1 =	10.0	0	6.90	176.3	0	0	176.3		
6	-3	1 =	10.0	0	6.40	163.5	0	0	163.5		
7	-4	1 =	10.0	0	6.55	167.4	0	0	167.4		
8	-5	1 =	10.0	0	5.35	136.7	0	0	136.7		
9	-6	1 =	10.0	0	6.10	157.9	0	0	157.9		
10	2015-1	1 =	10.0	0	7.10	181.4	0	0	181.4		
11	-2	1 =	10.0	0	0	0	0	0	0		
12	-3	1 =	10.0	0	7.90	201.8	0	0	201.8		
13	-4	1 =	10.0	0	7.30	186.5	0	0	186.5		
14	-5	1 =	10.0	0	5.60	143.1	0	0	143.1		
15	-6	1 =	10.0	0.10	5.10	2.6	132.9	0	5.25	127.7	
16	-7	1 =	10.0	0.80	4.25	20.4	132.9	0	40.8	88.3	
17	2964-1	=	10.0	0.20	4.60	5.1	122.6	0	10.2	112.4	
18	2964-2	=	10.0	0	0	0	0	0	0	0	
19	-3	=	10.0	0	6.90	163.5	0	0	163.5		
20	-4	=	10.0	0.2	4.65	5.1	123.9	0	10.2	113.7	
Dup.	2933-2	=	10.0	0	6.85	175.6	0	0	175.6		

Calculations:

A = S_A · E_A

B = S_B · E_B

P = 50,000 f₁ A C / V

T = 50,000 f₁ (A+B) C / V

Titration Results	OH ⁻ (CaCO ₃ mg/L)	CO ₃ ²⁻ (CaCO ₃ mg/L)	HCO ₃ ⁻ (CaCO ₃ mg/L)
P=0	0	0	T
P<T/2	0	2P	T-2P
P=T/2	0	2P	0
P>T/2	2P-T	2(T-P)	0
P=T	T	0	0

DIONEX SCHEDULE - C:\DX\SCHEDULE\E300-063.SCH

Inj#	Sample Name	Method	Data File	Vol.	Dil.	Int.Std.
1	autocal1r	..\E300-063	..\W7767Q01.D01	1	1	1
2	autocal2r	..\E300-063	..\W7767Q01.D02	1	1	1
3	autocal3r	..\E300-063	..\W7767Q01.D03	1	1	1
4	autocal4r	..\E300-063	..\W7767Q01.D04	1	1	1
5	autocal5r	..\E300-063	..\W7767Q01.D05	1	1	1
6	autocal6r	..\E300-063	..\W7767Q01.D06	1	1	1
7	icv-w7768-100X	..\E300-063	..\W7768Q01.D07	1	1	1
8	icb	..\E300-063	..\W7767Q01.D08	1	1	1

Comment:

Analyst DrDate 3/21/03Instrument J

DIONEX SCHEDULE - C:\DX\SCHEDULE\03W2658.SCH

Inj#	Sample Name	Method	Data File	Vol.	Dil.	Int.Std.
1	##03W2658, W CCVW77	..\E300-063	..\W2658Q01.D01	1	1	1
2	MB RW1409	..\E300-063	..\W2658K01.D02	1	1	1
3	LCS W7768-100X	..\E300-063	..\W2658L01.D03	1	1	1
4	LCSD W7768-100X	..\E300-063	..\W2658J01.D04	1	1	1
5	2987-2 F=20	..\E300-063	..\2987-201.D05	1	20	1
6	2987-3 F=10	..\E300-063	..\2987-301.D06	1	10	1
7	2987-4 F=2	..\E300-063	..\2987-401.D07	1	2	1
8	2987-5 F=2	..\E300-063	..\2987-501.D08	1	2	1
9	2987-6 F=2.5	..\E300-063	..\2987-601.D09	1	2.5	1
10	2987-4 F=4	..\E300-063	..\2987-401.D10	1	4	1
11	2987-1 F=1.25	..\E300-063	..\2987-101.D11	1	1.25	1
12	CCV2W7767-100X	..\E300-063	..\W2658Q01.D12	1	1	1
13	MB RW1409	..\E300-063	..\W2658K01.D13	1	1	1
14	\$2987-6 MS F=5	..\E300-063	..\W2658M01.D14	1	5	1
15	\$2987-6 MSD F=5	..\E300-063	..\W2658N01.D15	1	5	1
16	2999-1 F=25	..\E300-063	..\2999-101.D16	1	25	1
17	2999-2 F=25	..\E300-063	..\2999-201.D17	1	25	1
18	2999-3 F=25	..\E300-063	..\2999-301.D18	1	25	1
19	2999-4 F=1.25	..\E300-063	..\2999-401.D19	1	1.25	1
20	2999-5 F=1.25	..\E300-063	..\2999-501.D20	1	1.25	1
21	CCV3W7767-100X	..\E300-063	..\W2658Q01.D21	1	1	1
22	MB RW1409	..\E300-063	..\W2658K01.D22	1	1	1
23	3015-1 F=4	..\E300-063	..\3015-101.D23	1	4	1
24	3015-3 F=4	..\E300-063	..\3015-301.D24	1	4	1
25	3015-4 F=4	..\E300-063	..\3015-401.D25	1	4	1
26	3015-5 F=8	..\E300-063	..\3015-501.D26	1	8	1
27	3015-6 F=2	..\E300-063	..\3015-601.D27	1	2	1
28	3015-7 F=2	..\E300-063	..\3015-701.D28	1	2	1
29	3015-2 F=1.25	..\E300-063	..\3015-201.D29	1	1.25	1
30	CCV4W7767-100X	..\E300-063	..\W2658Q01.D30	1	1	1
31		..\STOP.MET		1	1	1

Comment:

LCS/LCSD LOT # W7768

MS/MSD LOT # W7767

ELUENT LOT # W7868

ANALYTICAL METHOD 9056/E300 MATRIX WAnalyst DeDate 5/12/03Instrument I

e	Sample	Sample Type	Level	Method	Data File	Volume	Dilution
	##03w2719kw ipc 25ppb w7759	Sample		e314-011.met	c:\data\03w2719kw2719k ipc 25ppb	1	1
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2719kw2719k q01	1	1
	ccb	Sample		e314-011.met	c:\data\03w2719kw2719k ccb01	1	1
	lcs 25ppb w7827d	Sample		e314-011.met	c:\data\03w2719kw2719k i01	1	1
	LCS 18PPB W7685D	Sample		e314-011.met	c:\data\03w2719kw2719k j01	1	1
	ICCS 4ppb w7827b	Sample		e314-011.met	c:\data\03w2719kw2719k iccs 4ppb	1	1
	mb	Sample		e314-011.met	c:\data\03w2719kw2719k k01	1	1
	2964-06 F=1	Sample		e314-011.met	c:\data\03w2719k\2964-06	1	1
	2964-07 f=1	Sample		e314-011.met	c:\data\03w2719k\2964-07	1	1
	3000-04 F=1	Sample		e314-011.met	c:\data\03w2719k\3000-04	1	1
	2987-01 F=1	Sample		e314-011.met	c:\data\03w2719k\2987-01	1	1
	2987-06 f=1	Sample		e314-011.met	c:\data\03w2719k\2987-06	1	1
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2719kw2719k q02	1	1
	ccb	Sample		e314-011.met	c:\data\03w2719kw2719k k02	1	1
	2987-02 f=1	Sample		e314-011.met	c:\data\03w2719k\2987-02	1	1
	2987-06 ms 50ppb f=1	Sample		e314-011.met	c:\data\03w2719kw2719k m01	1	1
	2987-06 msd 50ppb f=1	Sample		e314-011.met	c:\data\03w2719kw2719k n01	1	1
	2987-03 F=1	Sample		e314-011.met	c:\data\03w2719k\2987-03	1	1
	2987-04 F=1	Sample		e314-011.met	c:\data\03w2719k\2987-04	1	1
	2987-05 F=1	Sample		e314-011.met	c:\data\03w2719k\2987-05	1	1
	3015-01 F=1	Sample		e314-011.met	c:\data\03w2719k\3015-01	1	1
	3015-02 F=1	Sample		e314-011.met	c:\data\03w2719k\3015-02	1	1
	3015-03 F=1	Sample		e314-011.met	c:\data\03w2719k\3015-03	1	1
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2719kw2719k q03	1	1
	CCB	Sample		e314-011.met	c:\data\03w2719kw2719k k03	1	1
	3015-04 F=1	Sample		e314-011.met	c:\data\03w2719k\3015-04	1	1
	3015-05 F=1	Sample		e314-011.met	c:\data\03w2719k\3015-05	1	1
	3015-06 F=1	Sample		e314-011.met	c:\data\03w2719k\3015-06	1	1
	3015-07 f=1	Sample		e314-011.met	c:\data\03w2719k\3015-07	1	1
	ccv 50ppb w7827e	Sample		e314-011.met	c:\data\03w2719kw2719k q04	1	1
		Sample		aastopcl.met		1	1

Analyst Ulei Wang
 Date 5/5/03
 Instrument IC-K

Line	Sample	Sample Type	Level	Method	Data File	Volume	Dilution
1	Cal blank	Sample		e314-011.met	c:\data\314-011\mb_001.dxd	1	1
2	cal standard 2ppb W7827a	Sample		e314-011.met	c:\data\314-011\std-2pb_002.dxd	1	1
3	cal standard 4ppb W7827b	Sample		e314-011.met	c:\data\314-011\std-4pb_003.dxd	1	1
4	cal standard 10ppb W7827c	Sample		e314-011.met	c:\data\314-011\std-10pb_004.dxd	1	1
5	cal standard 25ppb W7827d	Sample		e314-011.met	c:\data\314-011\std-25pb_005.dxd	1	1
6	cal standard 50ppb W7827e	Sample		e314-011.met	c:\data\314-011\std-50pb_006.dxd	1	1
7	cal standard 75ppb W7827f	Sample		e314-011.met	c:\data\314-011\std-75pb_007.dxd	1	1
8	cal standard 100ppb W7827g	Sample		e314-011.met	c:\data\314-011\std-100pb_008.dxd	1	1
9	ICV 50 ppb w7828a	Sample		e314-011.met	c:\data\314-011\icv-50pb_009.dxd	1	1
0	icb	Sample		e314-011.met	c:\data\314-011\icb_010.dxd	1	1
1	anion 100pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-100_011.dxd	1	1
2	anion 200pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-200_012.dxd	1	1
3	anion 300pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-300_013.dxd	1	1
4	anion 400pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-400_014.dxd	1	1
5	anion 500pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-500_015.dxd	1	1
6	anion 600pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-600_016.dxd	1	1
7	anion 800pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-800_017.dxd	1	1
8	anion 1000pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-1000_018.dxd	1	1
9	anion 400pm each 2pb	Sample		e314-011.met	c:\data\314-011\ipc-2pb_019.dxd	1	1
0	anion 400pm each 4pb	Sample		e314-011.met	c:\data\314-011\ipc-4pb_020.dxd	1	1
1	anion 400pm each 25pb	Sample		e314-011.met	c:\data\314-011\ipc-25pb_021.dxd	1	1
2	ICV 50 ppb	Sample		e314-011.met	c:\data\314-011\ccv-50pb	1	1
3	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-02_023.dxd	1	1
4	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-03_024.dxd	1	1
5	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-04	1	1
6	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-05	1	1
7	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-06	1	1
8	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-07	1	1
9	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-08	1	1
0	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
1	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
2	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
3	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
4	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
5	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
6	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
7	MCT anion 800pm each, 25pbCLO4	Sample		e314-011.met	c:\data\314-011\ipc-25pb	1	1
8	MCT anion 800pm each, 25pbCLO4	Sample		e314-011.met	c:\data\314-011\ipc-25pb	1	1
9	MCT anion 800pm each, 4pbCLO4	Sample		e314-011.met	c:\data\314-011\ipc-4pb	1	1
0	MCT anion 800pm each, 4pbCLO4	Sample		e314-011.met	c:\data\314-011\ipc-4pb	1	1
1	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s01	1	5
2	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s02	1	5
3	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s03	1	5
4	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s04	1	5
5	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s05	1	5
6	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s06	1	5
7	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s07	1	5
8	standard 25ppb W7827d	Sample		e314-011.met	c:\data\314-011\std-25pb	1	1
9	anion 100pm each,4pb CLO4	Sample		e314-011.met	c:\data\314-011\am-100-4pb	1	1
0	anion 200pm each ,4pb CLO4	Sample		e314-011.met	c:\data\314-011\am-200-4pb	1	1
1	anion 300pm each ,4pb CLO4	Sample		e314-011.met	c:\data\314-011\am-300-4pb	1	1
2	anion 100pm each,2pb CLO4	Sample		e314-011.met	c:\data\314-011\am-100-2pb	1	1
3	anion 200pm each,2pb CLO4	Sample		e314-011.met	c:\data\314-011\am-200-2pb	1	1
4	anion 300pm each,2pb CLO4	Sample		e314-011.met	c:\data\314-011\am-300-2pb	1	1
5	1982-01 B S.C 4450us/cm	Sample		e314-011.met	c:\data\314-011\1982-01	1	1
6	1982-01 B S.C 4450us/cm	Sample		e314-011.met	c:\data\314-011\1982-01	1	2
7	1982-02 f=10	Sample		e314-011.met	c:\data\314-011\1982-02_057.dxd	1	10
8		Sample		aastopcl.met		1	1



Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel. (909) 590-1828 Fax (909) 590-1498

May 23, 2003

GEOFON, Inc.
Attention: Leo Williamson
22632 Golden Spring Dr Ste 270
Diamond Bar CA 91765

Dear Leo,

This package contains samples in our Service ID 03-2809 and your project : 04-4428.10 JPL
Enclosed please find:

- (1) Original analytical report.
- (2) Original Chain of Custody.
- (3) One diskette containing EDD deliverable.
- (4) One original Level C Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Regina Kirakozova
Associate QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498
Submitted to:

GEOFON, Inc.

Attention: Leo Williamson

22632 Golden Spring Dr Ste 270

Diamond Bar CA 91765

Tel: (909) 396-7662 Fax: (909) 396-1455

APCL Analytical Report

Service ID #: 801-032809

Collected by: Leo Williamson

Collected on: 04/21/03

Received: 04/21/03

Extracted: 04/23/03

Tested: 04/21-24/03

Reported: 04/28/03

Sample Description: Water from MW-4.

Project Description: 04-4428.10 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result		
				DUPE-1-2Q03 03-02809-1	EB-2-4/21/03 03-02809-2	MW-4-1 03-02809-3
BICARBONATE	SM2320B	mg/L	2	161	<2	179
CARBONATE	SM2320B	mg-CaCO ₃ /L	2	<2	<2	<2
PH	9040B	pH unit	0.01	7.88	7.85	7.28
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	221	<10	244
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01
Dilution Factor				1	1	1
PERCHLORATE	314.0	µg/L	4	<4	<4	<4
Dilution Factor				2.5	1.25	2
CHLORIDE CL ⁻	300.0	mg/L	0.2	24.2	0.25J	18.8
NITRATE AS N	300.0	mg/L	0.04	1.7	0.078	1.5
SULFATE SO ₄ ⁻⁻	300.0	mg/L	0.5	9.5	0.73	40.7
Dilution Factor				1	1	1
ARSENIC	200.9	µg/L	5	<5	<5	1.7J
CALCIUM	200.7	µg/L	200	24,500	89.4J	54,200
IRON	200.7	µg/L	50	231	<50	274
MAGNESIUM	200.7	µg/L	100	11,900	<100	17,700
POTASSIUM	200.7	µg/L	400	1,930	80.7J	2,510
SODIUM	200.7	µg/L	2000	37,500	398J	19,100
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
BENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
N-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-BUTANONE	524.2	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result		
				DUPE-1-2Q03 03-02809-1	EB-2-4/21/03 03-02809-2	MW-4-1 03-02809-3
4-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	µg/L	1.1 (a)	<1.1	<1.1	<1.1
1,2-DIBROMOETHANE (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1.8 (a)	<1.8	<1.8	<1.8
METHYL-T-BUTYL ETHER (MTBE)	524.2	µg/L	1	<1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	524.2	µg/L	10	<10	<10	<10
NAPHTHALENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
STYRENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TRICHLORO-1,1,2,2-TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
O-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
M/P-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-4-2 03-02809-4	MW-4-3 03-02809-5	MW-4-4 03-02809-6
BICARBONATE	SM2320B	mg/L	2	224	197	147
CARBONATE	SM2320B	mg-CaCO ₃ /L	2	<2	<2	<2
PH	9040B	pH unit	0.01	7.05	7.58	8.01
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	587	226	191
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01
Dilution Factor				1	1	1
PERCHLORATE	314.0	µg/L	4	6.6	<4	<4
Dilution Factor				20	4	4
CHLORIDE CL ⁻	300.0	mg/L	0.2	95.4	27.4	22.7
NITRATE AS N	300.0	mg/L	0.04	10.0	0.24	1.7
SULFATE SO ₄ ²⁻	300.0	mg/L	0.5	124	2.3	10.2
Dilution Factor				1	1	1
ARSENIC	200.9	µg/L	5	1.6J	<5	<5
CALCIUM	200.7	µg/L	200	115,000	38,200	24,500
IRON	200.7	µg/L	50	592	6,410	243
MAGNESIUM	200.7	µg/L	100	39,300	16,100	11,800
POTASSIUM	200.7	µg/L	400	2,990	2,320	1,920
SODIUM	200.7	µg/L	2000	32,500	32,700	37,000
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
BENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
N-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-BUTANONE	524.2	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	524.2	µg/L	0.5	<0.5	1.8	<0.5
2-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	µg/L	1.1 (a)	<1.1	<1.1	<1.1
1,2-DIBROMOETHANE (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-4-2 03-02809-4	MW-4-3 03-02809-5	MW-4-4 03-02809-6
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	524.2	µg/L	0.5	<0.5	1.9	<0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1.8 ^(a)	<1.8	<1.8	<1.8
METHYL-T-BUTYL ETHER (MTBE)	524.2	µg/L	1	<1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	524.2	µg/L	10	<10	<10	<10
NAPHTHALENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
STYRENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	µg/L	0.5	0.7	<0.5	<0.5
TOLUENE	524.2	µg/L	0.5	<0.5	0.3J	<0.5
1,2,3-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	0.4J	<0.5	<0.5
TRICHLOROFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
O-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
M/P-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-4-5 03-02809-7	SOURCE-2Q03 03-02809-8	TB-2-4/21/03 03-02809-9
BICARBONATE	SM2320B	mg/L	2	120	<2	-
CARBONATE	SM2320B	mg-CaCO ₃ /L	2	10.2	<2	-
PH	9040B	pH unit	0.01	8.47	6.60	-
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	133	<10	-
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	-
Dilution Factor				1	1	1
PERCHLORATE	314.0	µg/L	4	<4	<4	-
Dilution Factor				4	1.25	1
CHLORIDE CL ⁻	300.0	mg/L	0.2	22.5	0.21J	-
NITRATE AS N	300.0	mg/L	0.04	0.20	0.075	-
SULFATE SO ₄ ⁻²	300.0	mg/L	0.5	8.2	<0.63	-
Dilution Factor				1	1	1
ARSENIC	200.9	µg/L	5	<5	<5	-
CALCIUM	200.7	µg/L	200	16,400	<200	-
IRON	200.7	µg/L	50	1,280	<50	-
MAGNESIUM	200.7	µg/L	100	11,200	<100	-
POTASSIUM	200.7	µg/L	400	1,930	66.7J	-
SODIUM	200.7	µg/L	2000	37,000	341J	-

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-4-5 03-02809-7	SOURCE-2Q03 03-02809-8	TB-2-4/21/03 03-02809-9
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
BENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
N-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-BUTANONE	524.2	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	µg/L	1.1 (a)	<1.1	<1.1	<1.1
1,2-DIBROMOETHANE (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	1.8 (a)	<1.8	<1.8	<1.8

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-4-5 03-02809-7	SOURCE-2Q03 03-02809-8	TB-2-4/21/03 03-02809-9
METHYL-T-BUTYL ETHER (MTBE)	524.2	µg/L	1	<1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	524.2	µg/L	10	<10	<10	<10
NAPHTHALENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
STYRENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2,3,3-HEPTACHLORO-1,2,2,3,3,3-HEPTACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
O-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5
M/P-XYLENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result	
				MW-4-1 03-02809-3	
Dilution Factor				1	
1,4-DIOXANE	8270-SIM	µg/L	1	<1	

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit.

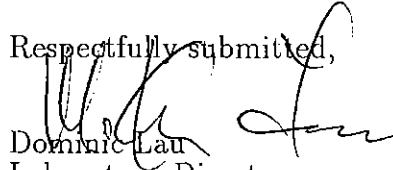
"-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

(a) MDL reported.

Respectfully submitted,


 Dominic Lau
 Laboratory Director
 Applied P & Ch Laboratory

Level C Data Package Deliverables

General Information

Project: 04-4418.10 JPL

APCL Service ID: 03-2809



Applied P & Ch Laboratory

13760 Magnolia Ave. Chino, CA 91710

Telephone (909)590-1828

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Case Narrative

Project: JPL/04-4428.10

For GEOFON, Inc.

APCL Service No: 03-2809

1. Sample Identification

The sample identifications are listed in the following table:

GEOFON, Inc. Sample ID	APCL Sample ID
MW-4-5	03-02809-7
MW-4-4	03-02809-6
MW-4-3	03-02809-5
MW-4-2	03-02809-4
MW-4-1	03-02809-3
TB-2-4/21/03	03-02809-9
EB-2-4/21/03	03-02809-2
DUPE-1-2Q03	03-02809-1
SOURCE-2Q03	03-02809-8

2. Analytical Methodology

Samples are analyzed by EPA methods

SM2320B (Bicarbonate and Carbonate),
9040B (pH),
160.1 (Solids, Total Dissolved (TDS)),
7196 (Chromium (VI)),
314.0 (Perchlorate, low level),
300.0 (Anion by IC),
200.9 (Arsenic, As, by GFAA),
200.7 (Metal by ICP),
524.2 (Volatile Organic Compounds),
8270-SIM (1,4-Dioxane),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

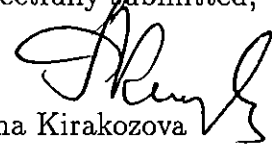
None

6. Anomaly

None

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Regina Kirakozova', written over the printed name.

Regina Kirakozova
Associate QA/QC Director
Applied P & Ch Laboratory



IN C O R P O R A T E D
22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-4 0018

GEOFON, LAB COORDINATOR

LAB COORDINATOR'S PHONE

LAB COORDINATOR'S FAX

LABORATORY SERVICE ID

LABORATORY CONTACT

MAIL REPORT (COMPANY NAME)

PROJECT NAME

PROJECT ADDRESS

PROJECT PHONE NUMBER

PROJECT FAX

PROJECT NUMBER

LABORATORY PHONE

LABORATORY FAX

REQUIREMENT NAME

PROJECT CONTACT

CITY, STATE AND ZIP CODE

CLIENT

PROJECT MANAGER'S FAX

LABORATORY ADDRESS

CITY, STATE AND ZIP CODE

ADDRESS

PROJECT ADDRESS

CITY, STATE AND ZIP CODE

CLIENT

PROJECT MANAGER'S FAX

LABORATORY ADDRESS

CITY, STATE AND ZIP CODE

ADDRESS

PROJECT ADDRESS

CITY, STATE AND ZIP CODE

CLIENT

PROJECT MANAGER'S FAX

LABORATORY ADDRESS

CITY, STATE AND ZIP CODE

ADDRESS

PROJECT ADDRESS

CITY, STATE AND ZIP CODE

CLIENT

PROJECT MANAGER'S FAX

LABORATORY ADDRESS

CITY, STATE AND ZIP CODE

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Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager



GEOFON

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

INCORPORATED
22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

MW-4 0019

GEOFON - LAB COORDINATOR		LAB COORDINATOR'S PHONE		LAB COORDINATOR'S FAX		LABORATORY SERVICE ID		LABORATORY CONTACT		MAIL REPORT (COMPANY NAME)	
Brad Shojae		(909) 396-7662		(909) 396-1455		-		Kenny Chan		GEOFON, INC.	
PROJECT NAME: SPR. CAN. MON-2903		PROJECT LOCATION MW-4 (SE Facility Perimeter)		PROJECT NUMBER 04-442810		LABORATORY PHONE (909) 396-1828		LABORATORY FAX (909) 396-1498		RECIPIENT NAME Leo W. Williamson	
PROJECT CONTACT Leo W. Williamson		PROJECT PHONE NUMBER (714) 920-8729		PROJECT FAX (909) 396-1455		LABORATORY ADDRESS 13760 State Rd. 91765		LABORATORY CITY, STATE AND ZIP CODE Diamond Bar, CA 91765		ADDRESS 22632 Golden Springs Dr. #270	
PROJECT ADDRESS 4800 Oakhurst Dr.		CITY, STATE AND ZIP CODE Pasadena, CA		CLIENT US NAVY SUBCIV		LABORATORY ADDRESS Ching A. 91710		LABORATORY CITY, STATE AND ZIP CODE Diamond Bar, CA 91765		ADDRESS 22632 Golden Springs Dr. #270	
PROJECT MANAGER Astrid Fahren		PROJECT MANAGER'S PHONE (909) 396-7662		PROJECT MANAGER'S FAX (909) 396-1455		LABORATORY ADDRESS Ching A. 91710		LABORATORY CITY, STATE AND ZIP CODE Diamond Bar, CA 91765		ADDRESS 22632 Golden Springs Dr. #270	
Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Comments		
1	MW-4-1	H ₂ O	4/21/03	1330	NONE	24+	III	Normal	X	X	
2											
3											
4											
5											
6											
7											
8											
9											
10											
SAMPLES COLLECTED BY: Leo W. Williamson											
COURIER AND AIR BILL NUMBER:											
COOL BR. TEMPERATURE UPON RECEIPT											
SAMPLE'S CONDITION UPON RECEIPT											
REINQUIRED BY: Leo W. Williamson											
DATE / TIME: 4/21/03 14:35											
4/21/03 17:00											
Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager											

2809

Sample Receiving Checklist

APCL ServiceID: **2809** Client Name/Project: Geofan

1. Sample Arrival

Date/Time Received 4/21/03 1700 Date/Time Opened 4/21/03 1700 By (name): Paul Kern
Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☒ APCL Empl: Adam Wood

2. Chain-of-Custody (CoC)

☒ With Samples? ☐ Faxed? ☒ Client has Copy? ☐ Signed, dated? By: _____
☒ Project ID? ☒ Analyses Clear? ☐ Hold Samples? # on Hold _____ # Received _____
☒ CoC/Docs Zip-Locked under lid? ☐ Compos. #: _____ ☒ #Samples OK? _____
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs): _____

3. Shipping Container/Cooler

☒ Cooler Used? # of 2 Cooled by: ☒ Ice ☐ Blue Ice ☐ Dry Ice ☐ None
Temp °C 2.4°C 3.8°C
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ pH <2 ☐ pH >12
If Not, pH = _____ Preserved by: ☐ Client ☐ APCL ☐ Third Party _____

5. Holding-time Requirements

☒ pH 24hr ☐ BACT 6/24hr ☒ Cr^{VI} 24hr ☒ NO₃ 48hr ☐ BOD 48hr
☐ Cl₂ ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP
☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☒ Intact? ☐ Broken? ☐ Documented? Number: _____
Type: ☒ plastic ☒ glass ☐ Tube: brass/SS ☐ Tedlar Bag
☒ Quantity OK? ☐ Leaking? ☐ Anomaly?
☒ Caps tight? ☐ Air Bubbles? ☐ Anomaly?
Labels: ☒ Unique ID? ☐ Date/Time ☐ Preserved?

7. Turn Around Time

☒ RUSH TAT: 5 days ☐ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H₂O ☒ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: _____
☐ Ground H₂O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☒ ALL OK? (if not, attach docs) ☐ Client Contact? (Name: _____) Date/Time: _____
Received/Checked by: Paul K Date: 21 Apr 2003 Time: 7:38 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

03-02809 (0470_ 128) (2202777_ 128)

04/22/03

Part 1: General Information

☐	Company Information	Name:	<i>GEOFON, Inc.</i>
		Address:	<i>22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765</i>
☐	Project Information	Project Description:	<i>JPL</i>
		Project #:	<i>04-4428.10</i>
☐	Billing Information	P.O. #:	
		Bill Address:	<i>22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765</i>
		Lab Project ID:	
		Client Database #:	<i>3</i>
☐	Receiving Information	Who Received Sample?	<i>Paul Kou</i>
		Receiving Date/Time:	<i>04/21/03 1700</i>
		CDC No.	
☐	Shipping Information	Shipping Company	<i>APCL pick up</i>
		Packing Information:	<i>Cooler/Ice Chester</i>
		Cooler Temperature:	<i>2.9 3.8 °C</i>
☐	Container Information	Container Provider:	<i>Client</i>
☐	Sampling Information	Sampling Person:	
		Sampling Company:	<i>Client</i>
☐	Turn-Around-Time Option:		<i>Rush 5 working day(s)</i>
☐	QC Option:		<i>NEESA C</i>
☐	Disposal Option:		<i>Not specify</i>

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont- tainer	Preser- vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	MW-4-5 ,	VOC	03-02809-7- α	W	V	C	40	3	G	042103	N	0	6	☐
	MW-4-5	Metal	03-02809-7- β	W	P	N	500	1	G	042103	N	0	6	☐
	MW-4-5	Anion	03-02809-7- γ	W	P		500	1	G	042103	N	0	6	☐
2	MW-4-4 ,	VOC	03-02809-6- α	W	V	C	40	3	G	042103	N	0	6	☐
	MW-4-4	Metal	03-02809-6- β	W	P	N	500	1	G	042103	N	0	6	☐
	MW-4-4	Anion	03-02809-6- γ	W	P		500	1	G	042103	N	0	6	☐
3	MW-4-3 ,	VOC	03-02809-5- α	W	V	C	40	3	G	042103	N	0	6	☐
	MW-4-3	Metal	03-02809-5- β	W	P	N	500	1	G	042103	N	0	6	☐
	MW-4-3	Anion	03-02809-5- γ	W	P		500	1	G	042103	N	0	6	☐
4	MW-4-2 ,	VOC	03-02809-4- α	W	V	C	40	6	G	042103	N	0	6	☐
	MW-4-2	Metal	03-02809-4- β	W	P	N	500	2	G	042103	N	0	6	☐
	MW-4-2	Anion	03-02809-4- γ	W	P		500	2	G	042103	N	0	6	☐
5	MW-4-1 ,	VOC	03-02809-3- α	W	V	C	40	3	G	042103	N	0	6	☐
	MW-4-1	Metal	03-02809-3- β	W	P	N	500	1	G	042103	N	0	6	☐
	MW-4-1	Anion	03-02809-3- γ	W	P		500	1	G	042103	N	0	6	☐
	MW-4-1	Dioxane	03-02809-3- δ	W	G		1000	2	G	042103	N	0	6	☐
6	TB-2-4/21/03 ,	VOC	03-02809-9	W	V	C	40	2	G	042103	N	0	6	☐
7	EB-2-4/21/03 ,	VOC	03-02809-2- α	W	V	C	40	3	G	042103	N	0	6	☐
	EB-2-4/21/03	Metal	03-02809-2- β	W	P	N	500	1	G	042103	N	0	6	☐
	EB-2-4/21/03	Anion	03-02809-2- γ	W	P		500	1	G	042103	N	0	6	☐
8	DUPE-1-2Q03 ,	VOC	03-02809-1- α	W	V	C	40	3	G	042103	N	0	6	☐
	DUPE-1-2Q03	Metal	03-02809-1- β	W	P	N	500	1	G	042103	N	0	6	☐
	DUPE-1-2Q03	Anion	03-02809-1- γ	W	P		500	1	G	042103	N	0	6	☐
9	SOURCE-2Q03 ,	VOC	03-02809-8- α	W	V	C	40	3	G	042103	N	0	6	☐
	SOURCE-2Q03	Metal	03-02809-8- β	W	P	N	500	1	G	042103	N	0	6	☐
	SOURCE-2Q03	Anion	03-02809-8- γ	W	P		500	1	G	042103	N	0	6	☐

Part 3: Analysis Information

Test Items:

- ☒ 524.2 Volatile Organic Compounds
- ☒ 7196A Chromium (VI)
- ☒ 314.0/300.0 Perchlorate, low level
- ☒ 300.0 Chloride Cl^- by IC
- ☒ 300.0 Sulfate (SO_4^{--}), by IC
- ☒ 300.0/SM4500NO $_3$ Nitrate (NO_3^-) as N by IC
- ☒ SM2320B Carbonate
- ☒ SM2320B Bicarbonate
- ☒ 9040B/150.1 pH
- ☒ 160.1 Solids, Total Dissolved (TDS)