Level C Data Package Deliverables

Wet Chemistry

Applied P & Ch Laboratory

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 GW Mon-4Q03 Service ID: 36002 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
03-6002-1	DUPE-7-4-Q03	Water	11/06/03	11/06/03	11/06/03	03W5082	mg/L	0.01	<0.01	U
03-6002-2	MW-5	Water	11/06/03	11/06/03	11/06/03	03W5082	mg/L	0.01	<0.01	U
03-6002-3	MW-8	Water	11/06/03	11/06/03	11/06/03	03W5082	mg/L	0.01	0.0080	B
03-6002-4	MW-10	Water	11/06/03	11/06/03	11/06/03	03W5082	mg/L	0.01	<0.01	U
03W5082-MB-01	03W5082-MB-01	Water	11/06/03	11/06/03	11/06/03	03W5082	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 GW Mon-4Q03 Service ID: 36002 Collected by:

Component Name: Perchlorate

CAS No:

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-6002-1	DUPE-7-4-Q03	Water	11/06/03	11/06/03	11/10/03	03W5108	µg/L	4	20.2	
03-6002-2	MW-5	Water	11/06/03	11/06/03	11/11/03	03W5120	µg/L	4	<4	U
03-6002-3	MW-8	Water	11/06/03	11/06/03	11/10/03	03W5108	µg/L	4	20.2	
03-6002-4	MW-10	Water	11/06/03	11/06/03	11/11/03	03W5120	µg/L	4	21.9	
03W5108-MB-01	03W5108-MB-01	Water	11/10/03	11/10/03	11/10/03	03W5108	µg/L	4	<4	U
03W5120-MB-01	03W5120-MB-01	Water	11/11/03	11/11/03	11/11/03	03W5120	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.

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:	36002
Project ID:	JPL GW Mon-4Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W5108		
LCS Filename:	-	Date Analyzed:	111003	Time Analyzed:	
LCSD Filename:	-	Date Analyzed:	111003	Time Analyzed:	

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
PERCHLORATE	µg/L	25	0	26.2	105	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
PERCHLORATE	µg/L	25	28.0	112	6	20	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: _____

_____

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:	36002
Project ID:	JPL GW Mon-4Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W5108		
MS Filename:	-	Date Analyzed:	111003	Time Analyzed:	
MSD Filename:	-	Date Analyzed:	111003	Time Analyzed:	
MS Sample No:	**MW-3-1**	Sample Lab ID:	03-5973-2		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
PERCHLORATE	µg/L	25	0	26.2	105	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
PERCHLORATE	µg/L	25	26.7	107	2	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: _____

_____

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:	36002
Project ID:	JPL GW Mon-4Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W5082		
LCS Filename:	-	Date Analyzed:	110603	Time Analyzed:	12:00
LCSD Filename:	-	Date Analyzed:	110603	Time Analyzed:	12:00

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0	0.242	97	80-115
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0.246	98	1	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:	36002
Project ID:	JPL GW Mon-4Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W5082		
MS Filename:	-	Date Analyzed:	110603	Time Analyzed:	12:00
MSD Filename:	-	Date Analyzed:	110603	Time Analyzed:	12:00
MS Sample No:	**MW-5**	Sample Lab ID:	03-6002-2		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0	0.226	90	78-115
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0.233	93	3	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: _____

_____

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:	36002
Project ID:	JPL GW Mon-4Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W5120		
LCS Filename:	-	Date Analyzed:	111103	Time Analyzed:	
LCSD Filename:	-	Date Analyzed:	111103	Time Analyzed:	

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
PERCHLORATE	µg/L	25	0	28.8	115	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
PERCHLORATE	µg/L	25	28.7	115	0	20	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: _____

_____

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:	36002
Project ID:	JPL GW Mon-4Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W5120		
MS Filename:	-	Date Analyzed:	111103	Time Analyzed:	
MSD Filename:	-	Date Analyzed:	111103	Time Analyzed:	
MS Sample No:	**MW-5**	Sample Lab ID:	03-6002-2		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
PERCHLORATE	µg/L	25	0	30.0	120	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
PERCHLORATE	µg/L	25	30.1	120	0	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: _____

_____

6A

INITIAL CALIBRATION DATA

Lab Name: Applied P & Ch Lab Contract: 36002

Analysis: Chromium (VI) Calibration Date: 7/28/03

Concentration (mg/L)	0.000	0.0125	0.025	0.125	0.250	0.50
Absorbance	0.000	0.007	0.017	0.107	0.212	0.420

A=-0.001+ 0.846C

A=Absorbance

C=Concentration (mg/L)

r= 0.9999

FORM-7

Applied P & Ch Laboratory

CCV Recovery for Wet Analysis

Client Name: GEOFON, Inc. Contract No.: Lab Code: APCL

Case No: SAS No.: Service ID: 36002

Project ID: JPL GW Mon-4Q03 Project No.: 04-4428.10

#	Component Name	Method	Batch No.	Unit	Expe-cted	Test Result	Rec. %	Dev. %	Flag	Control Limit, %	Test Date
1	Perchlorate	314.0	03W5108	µg/L	50	57.0	114	14	√	85-115	11/10/2003
	Perchlorate	314.0	03W5108	µg/L	50	57.3	115	15	√	85-115	11/10/2003
	Perchlorate	314.0	03W5108	µg/L	50	57.1	114	14	√	85-115	11/10/2003
	Perchlorate	314.0	03W5108	µg/L	50	57.2	114	14	√	85-115	11/10/2003
2	Chromium (VI)	7196	03W5082	mg/L	0.25	0.251	100	0	√	90-110	11/06/2003
	Chromium (VI)	7196	03W5082	mg/L	0.25	0.255	102	2	√	90-110	11/06/2003
3	Perchlorate	314.0	03W5120	µg/L	50	57.0	114	14	√	85-115	11/11/2003
	Perchlorate	314.0	03W5120	µg/L	50	57.3	115	15	√	85-115	11/11/2003
	Perchlorate	314.0	03W5120	µg/L	50	57.1	114	14	√	85-115	11/11/2003
	Perchlorate	314.0	03W5120	µg/L	50	57.1	114	14	√	85-115	11/11/2003

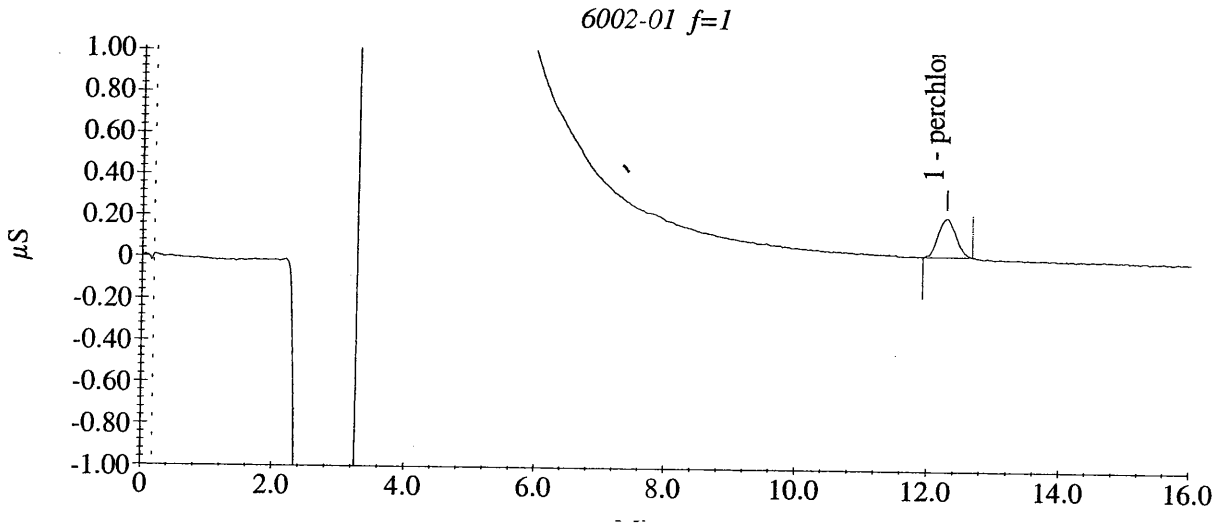
APCL Perchlorate Analysis Report

Sample Name : 6002-01 f=1
Data File Name : C:\DATA\03W5108K\6002-01_031.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/11/2003 1:42:15 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	12.27	20.18	34253.20	1862.10



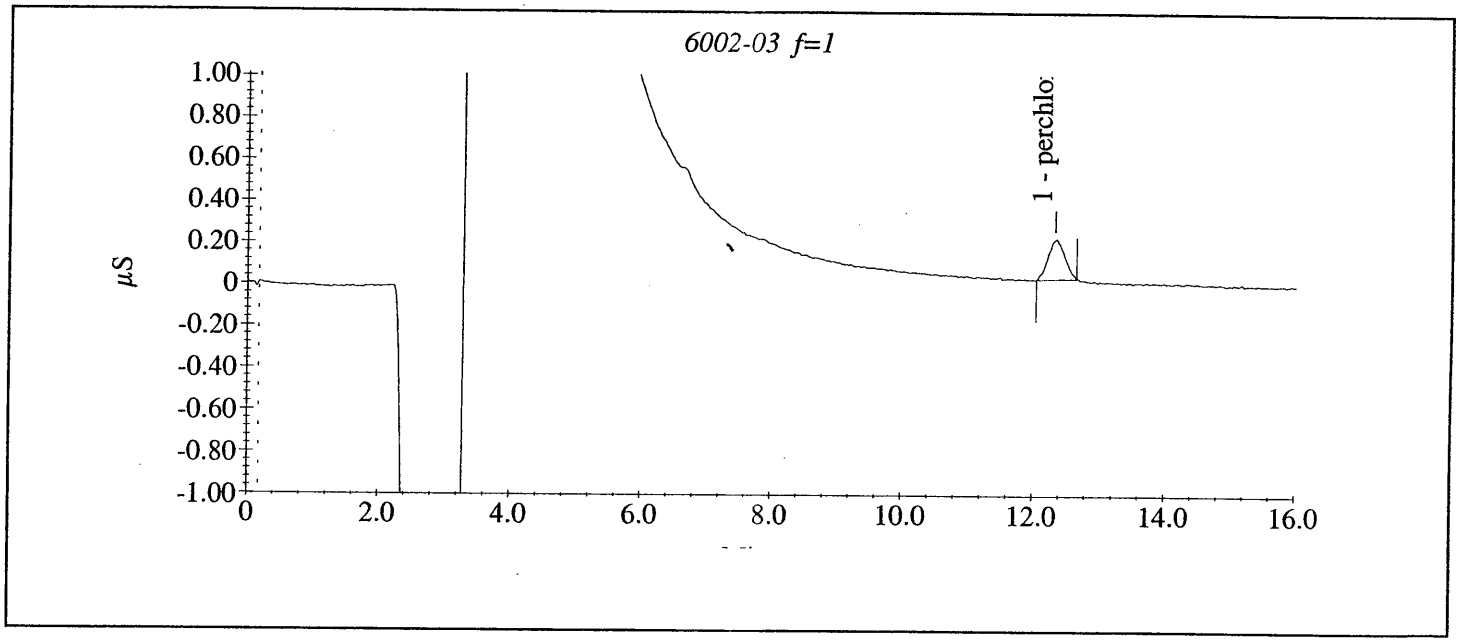
APCL Perchlorate Analysis Report

Sample Name : 6002-03 f=1
Data File Name : C:\DATA\03W5108K\6002-03_032.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/11/2003 2:00:39 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	12.33	20.16	34211.60	1896.41



Schedule File: C:\PeakNet\schedule\03w5108k.sch

Line	Sample	Sample Type	Level	Method	Data File	Volume	Dilution
1	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w5108k\w5108k q01	1	1
2	lcs 25ppb w8087	Sample		e314-011.met	c:\data\03w5108k\w5108k l01_002.dxd	1	1
3	Lcsd 25PPB W8257	Sample		e314-011.met	c:\data\03w5108k\w5108k j01_003.dxd	1	1
4	ICCS 4ppb w8088	Sample		e314-011.met	c:\data\03w5108k\w5108k iccs 4ppb_004.dxd	1	1
5	##03W5108K IPC 25PPB W8032	Sample		e314-011.met	c:\data\03w5108k\w5108k ipc 25ppb_005.dxd	1	1
6	mb	Sample		e314-011.met	c:\data\03w5108k\w5108k k01_006.dxd	1	1
7	5951-02 f=1	Sample		e314-011.met	c:\data\03w5108k\5951-02_007.dxd	1	1
8	5951-03 f=1	Sample		e314-011.met	c:\data\03w5108k\5951-03_008.dxd	1	1
9	5951-04 f=1	Sample		e314-011.met	c:\data\03w5108k\5951-04_009.dxd	1	1
10	5973-01 f=1	Sample		e314-011.met	c:\data\03w5108k\5973-01_010.dxd	1	1
11	5973-02 f=1	Sample		e314-011.met	c:\data\03w5108k\5973-02_011.dxd	1	1
12	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w5108k\w5108k q02_012.dxd	1	1
13	ccb	Sample		e314-011.met	c:\data\03w5108k\w5108k ccb_013.dxd	1	1
14	5973-03 f=1	Sample		e314-011.met	c:\data\03w5108k\5973-03_014.dxd	1	1
15	5973-02 ms 25ppb f=1	Sample		e314-011.met	c:\data\03w5108k\w5108k m01_015.dxd	1	1
16	5973-02 msd 25ppb f=1	Sample		e314-011.met	c:\data\03w5108k\w5108k n01_016.dxd	1	1
17	5971-09 f=1	Sample		e314-011.met	c:\data\03w5108k\5971-09_017.dxd	1	1
18	5971-01 f=1	Sample		e314-011.met	c:\data\03w5108k\5971-01_018.dxd	1	1
19	5971-02 f=1	Sample		e314-011.met	c:\data\03w5108k\5971-02_019.dxd	1	1
20	5971-03 f=1	Sample		e314-011.met	c:\data\03w5108k\5971-03_020.dxd	1	1
21	5971-04 f=1	Sample		e314-011.met	c:\data\03w5108k\5971-04_021.dxd	1	1
22	5971-06 F=1	Sample		e314-011.met	c:\data\03w5108k\5971-06_022.dxd	1	1
23	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w5108k\w5108k q03_023.dxd	1	1
24	ccb	Sample		e314-011.met	c:\data\03w5108k\w5108k ccb_024.dxd	1	1
25	5971-10 F=1	Sample		e314-011.met	c:\data\03w5108k\5971-10_025.dxd	1	1
26	5995-04 f=1	Sample		e314-011.met	c:\data\03w5108k\5995-04_026.dxd	1	1
27	5995-05 f=1	Sample		e314-011.met	c:\data\03w5108k\5995-05_027.dxd	1	1
28	5995-11 f=1	Sample		e314-011.met	c:\data\03w5108k\5995-11_028.dxd	1	1
29	5995-12 f=1	Sample		e314-011.met	c:\data\03w5108k\5995-12_029.dxd	1	1
30	5995-13 f=1	Sample		e314-011.met	c:\data\03w5108k\5995-13_030.dxd	1	1
31	6002-01 f=1	Sample		e314-011.met	c:\data\03w5108k\6002-01_031.dxd	1	1
32	6002-03 f=1	Sample		e314-011.met	c:\data\03w5108k\6002-03_032.dxd	1	1
33	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w5108k\w5108k q04_033.dxd	1	1
34		Sample		aastopcl.met		1	1

Analyst W. W

Date 11/10/03

Instrument EC-1

1519

Schedule File: C:\PeakNet\schedule\03w5108k.sch

Line	Weight	Int. Std.	Comment
1	1	1	
2	1	1	
3	1	1	
4	1	1	
5	1	1	
6	1	1	
7	1	1	
8	1	1	
9	1	1	
10	1	1	
11	1	1	
12	1	1	
13	1	1	
14	1	1	
15	1	1	
16	1	1	
17	1	1	
18	1	1	
19	1	1	
20	1	1	
21	1	1	
22	1	1	
23	1	1	
24	1	1	
25	1	1	
26	1	1	
27	1	1	
28	1	1	
29	1	1	
30	1	1	
31	1	1	
32	1	1	
33	1	1	
34	1	1	

Default Method Path: C:\PEAKNET\METHOD
Default Data Path: C:\DATA\03W5052K
Comment:

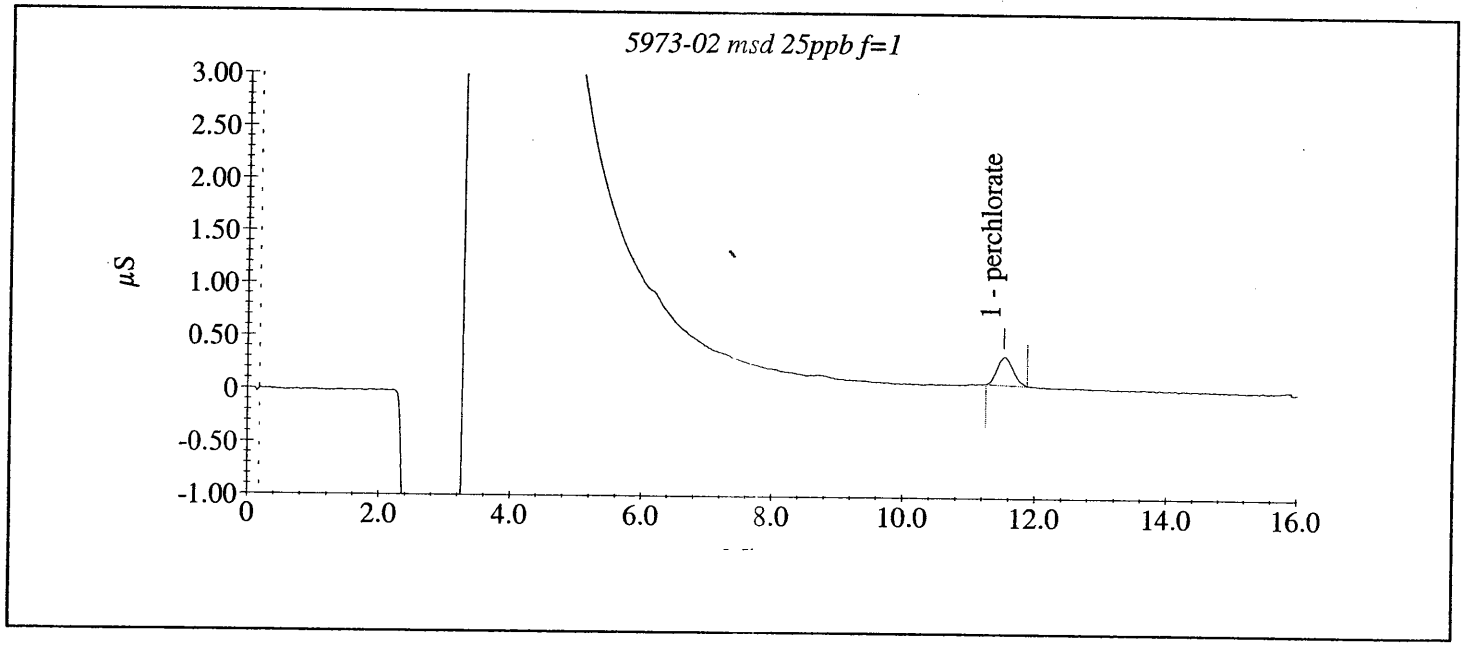
APCL Perchlorate Analysis Report

Sample Name : 5973-02 msd 25ppb f=1
Data File Name : C:\DATA\03W5108K\W5108K N01_016.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 9:06:07 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	11.52	26.73	45370.45	2652.08



Rec 106.92%

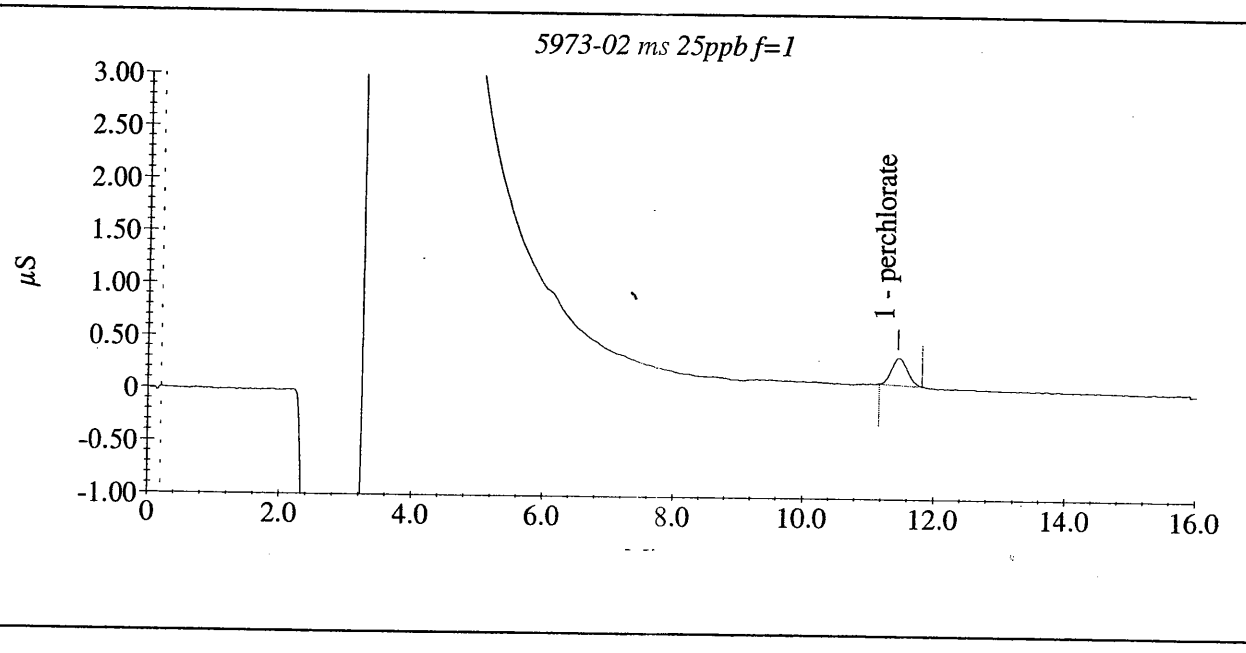
APCL Perchlorate Analysis Report

Sample Name : 5973-02 ms 25ppb f=1
Data File Name : C:\DATA\03W5108K\W5108K M01_015.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 8:47:41 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	11.43	26.20	44461.00	2600.57



Rec 104.8%

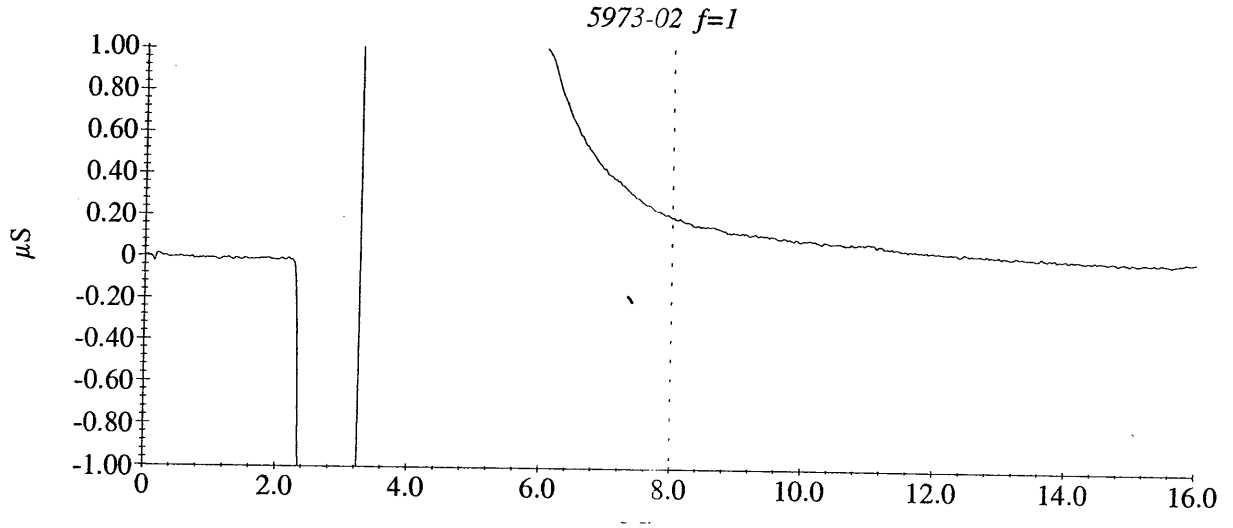
APCL Perchlorate Analysis Report

Sample Name : 5973-02 f=1
Data File Name : C:\DATA\03W5108K\5973-02_011.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 7:33:49 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



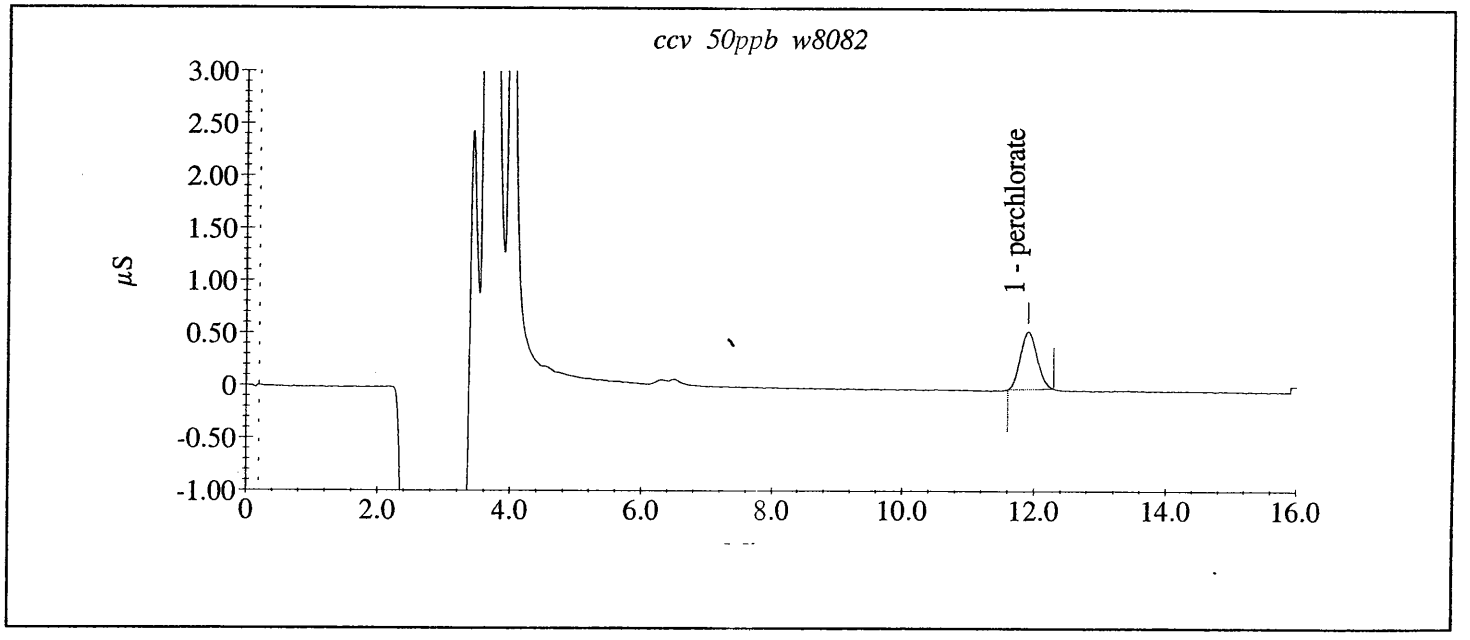
APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082
Data File Name : C:\DATA\03W5108K\W5108K Q03_023.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 11:14:59 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	11.90	57.11	96922.40	5514.72



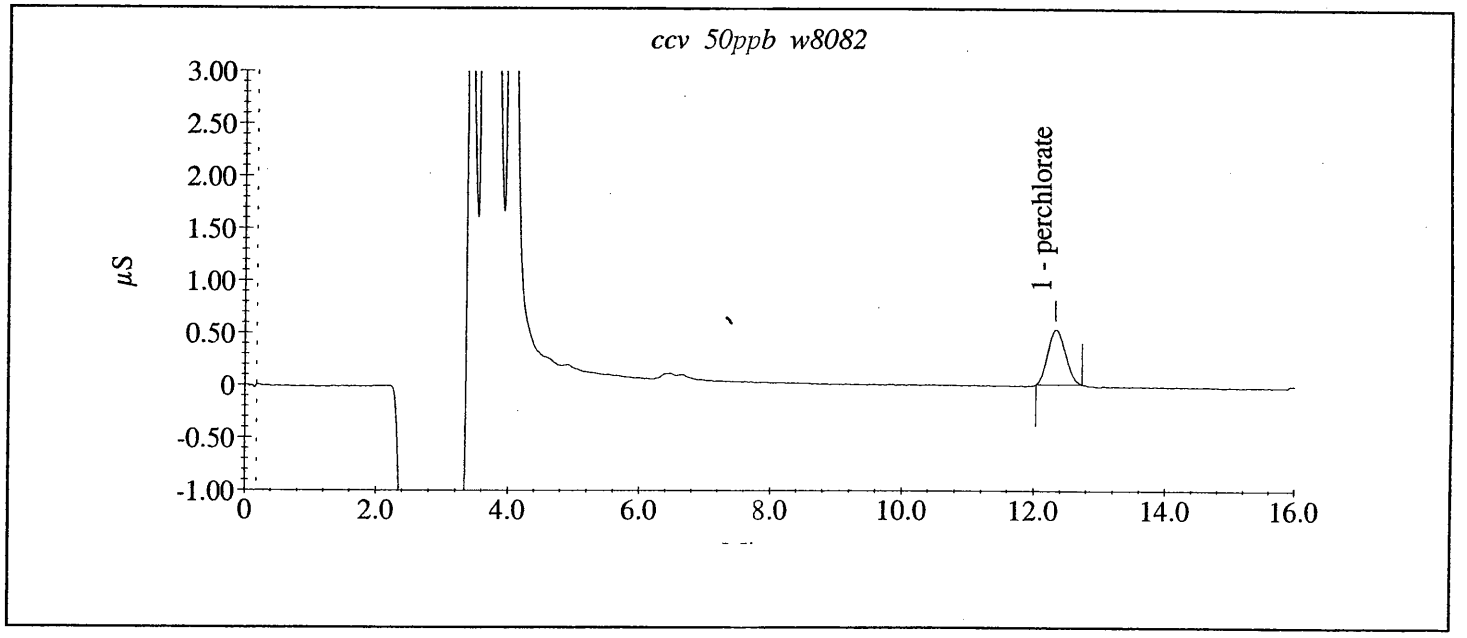
APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082
Data File Name : C:\DATA\03W5108K\W5108K Q04_033.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/11/2003 2:19:05 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	12.32	57.20	97068.15	5286.31



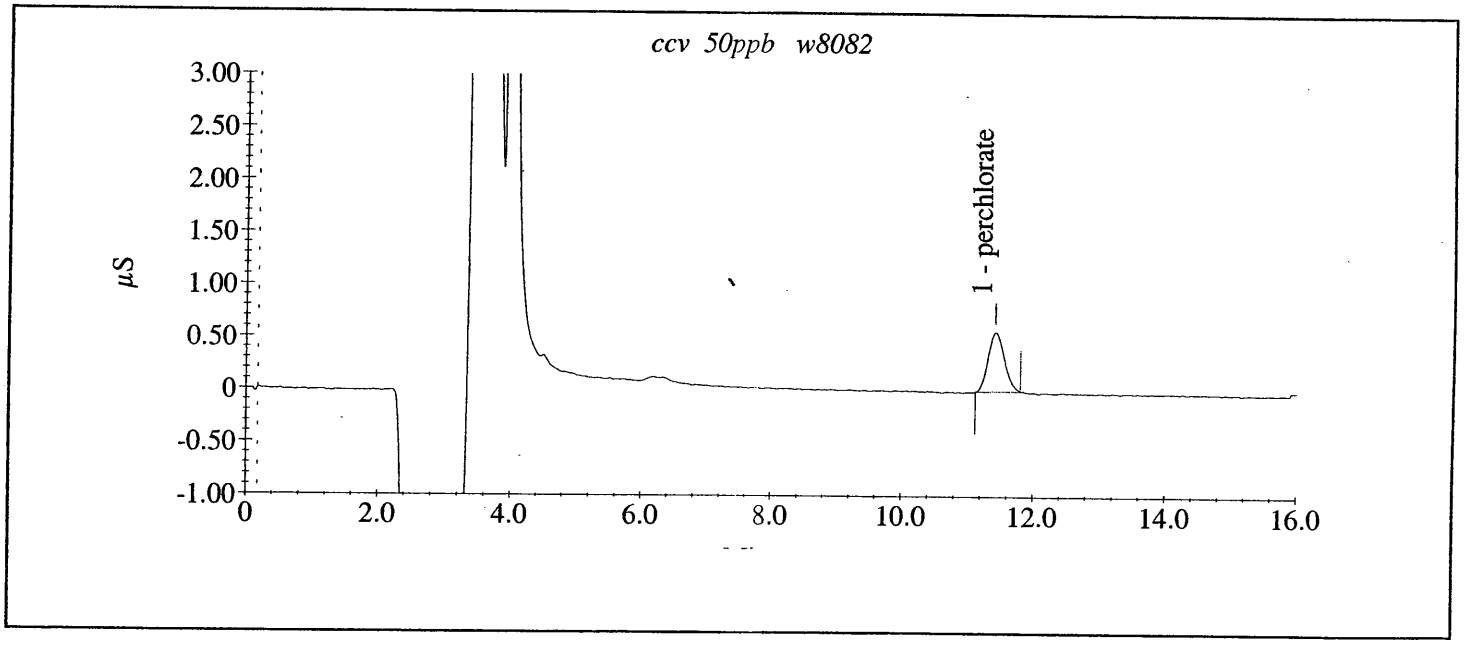
APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082
Data File Name : C:\DATA\03W5108K\W5108K Q02_012.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 7:52:17 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	11.42	57.31	97262.60	5686.38



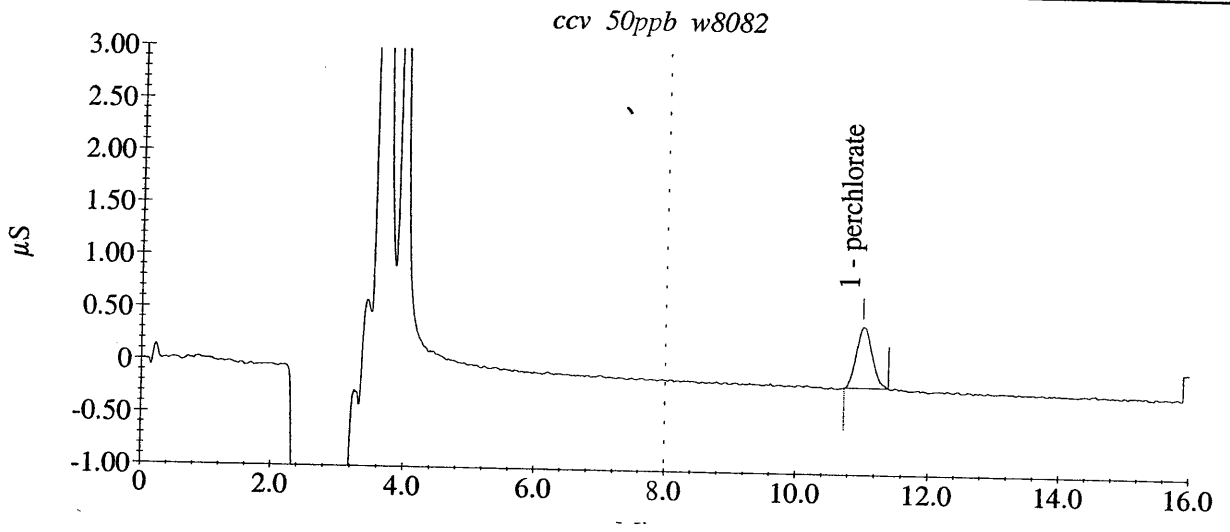
APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082
Data File Name : C:\DATA\03W5108K\W5108K Q01_001.DXD

Method File Name : C:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 4:27:18 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	11.00	57.01	96748.70	5815.69



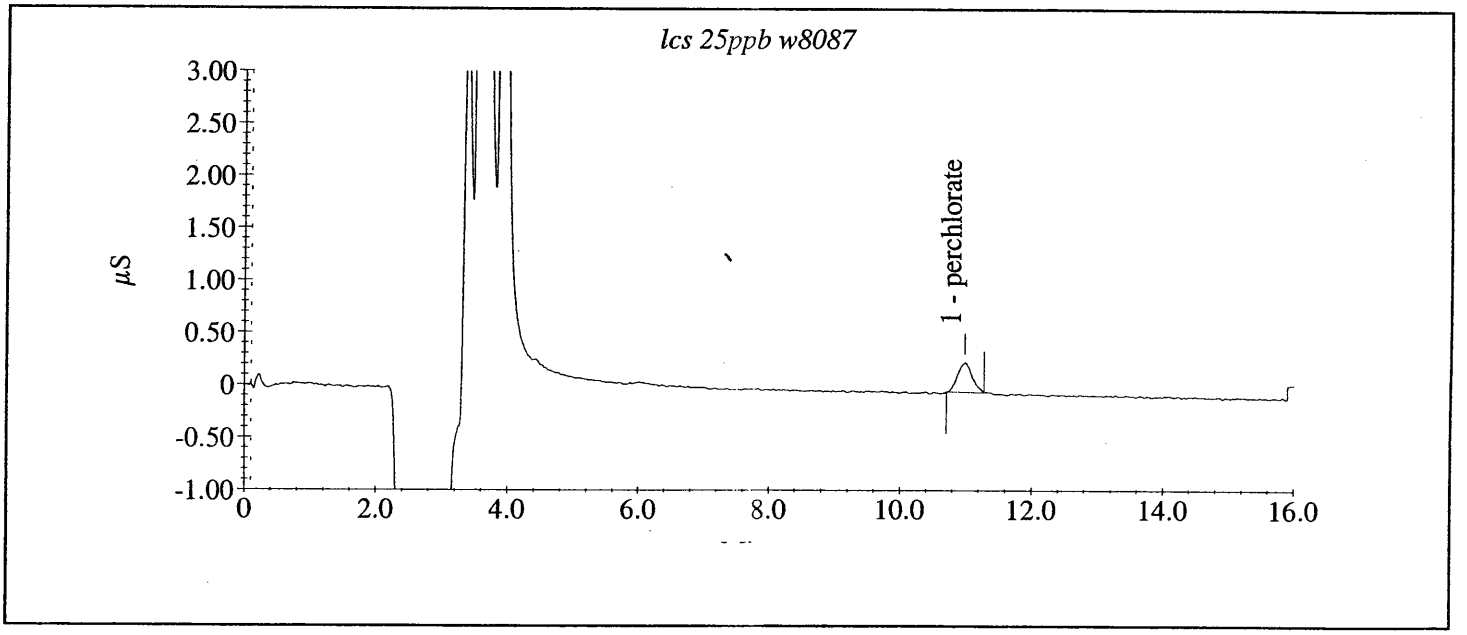
APCL Perchlorate Analysis Report

Sample Name : lcs 25ppb w8087
Data File Name : C:\DATA\03W5108K\W5108K L01_002.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 4:47:17 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	10.98	26.23	44506.70	2828.34



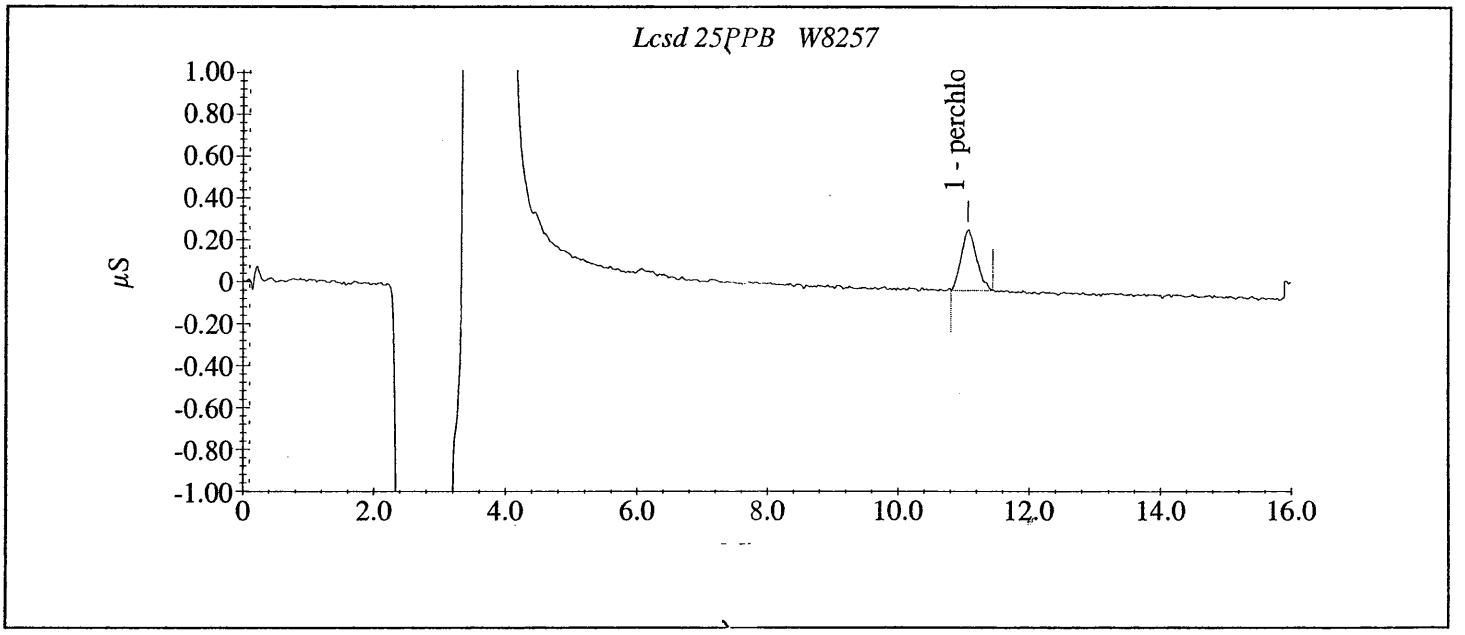
APCL Perchlorate Analysis Report

Sample Name : Lcsd 25PPB W8257
Data File Name : C:\DATA\03W5108K\W5108K J01_003.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 5:05:55 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	11.07	28.04	47583.00	2860.19



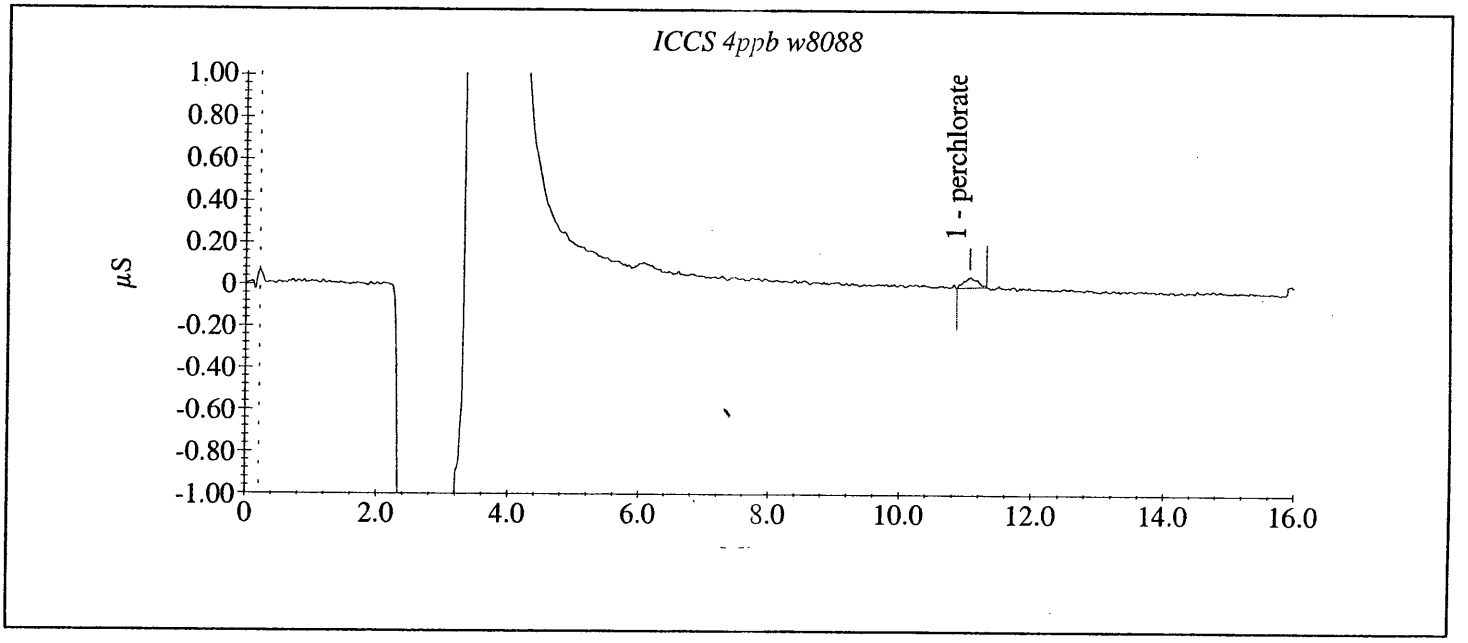
APCL Perchlorate Analysis Report

Sample Name : ICCS 4ppb w8088
Data File Name : C:\DATA\03W5108K\W5108K ICCS 4PPB_004.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 5:24:30 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	11.07	4.17	7075.90	492.73



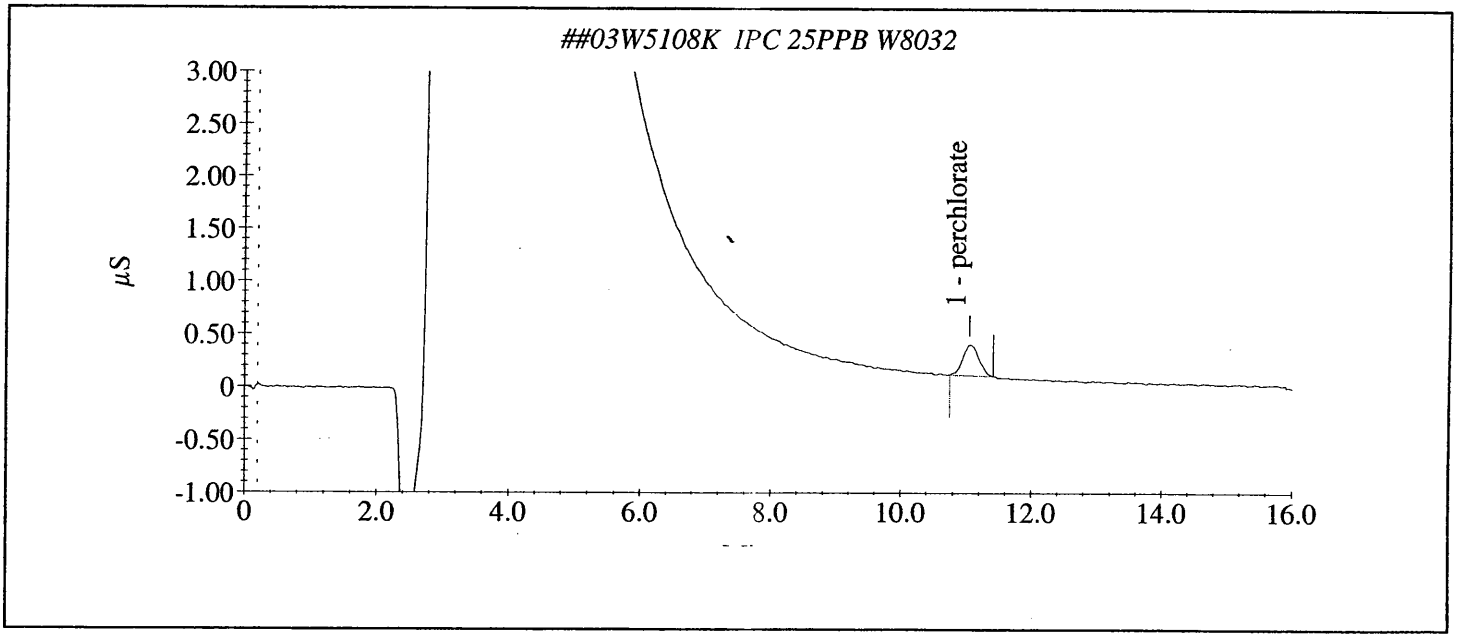
APCL Perchlorate Analysis Report

Sample Name : ##03W5108K IPC 25PPB W8032
Data File Name : C:\DATA\03W5108K\W5108K IPC 25PPB_005.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 5:43:02 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	11.05	29.25	49637.40	2902.69



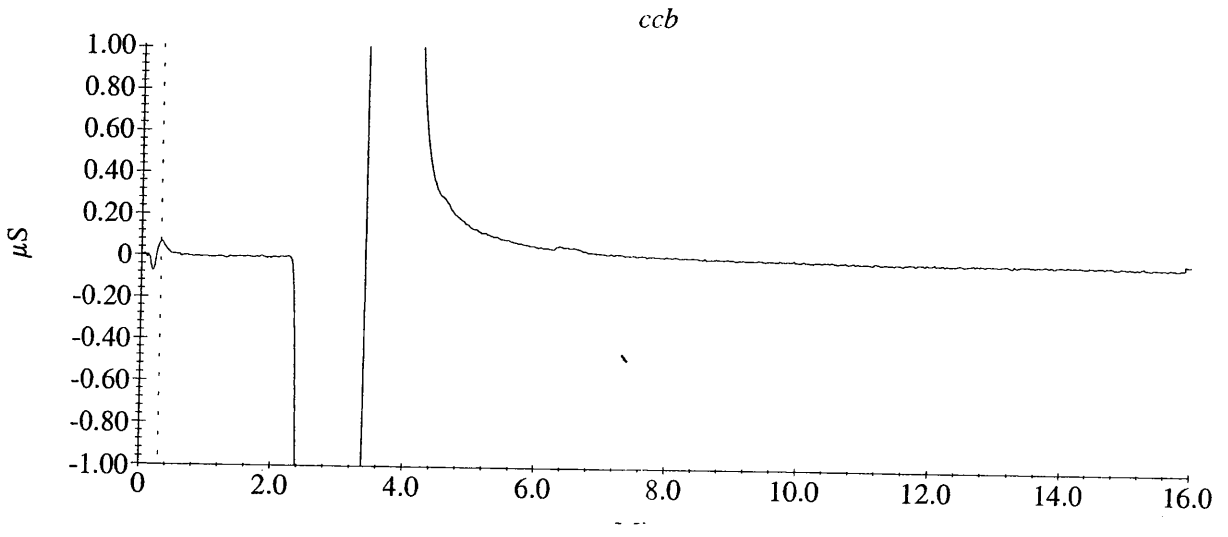
APCL Perchlorate Analysis Report

Sample Name : ccb
Data File Name : C:\DATA\03W5108K\W5108K CCB_024.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 11:33:27 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



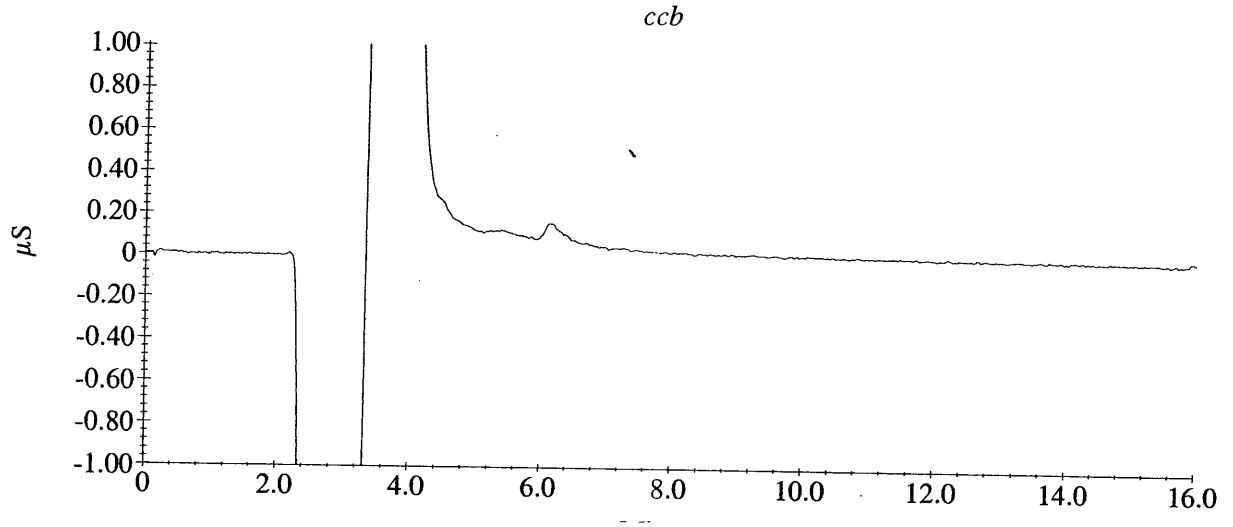
APCL Perchlorate Analysis Report

Sample Name : ccb
Data File Name : C:\DATA\03W5108K\W5108K CCB_013.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 11/10/2003 8:10:48 PM
System Operator : C.W and W.W
Dilution Factor : 1.00

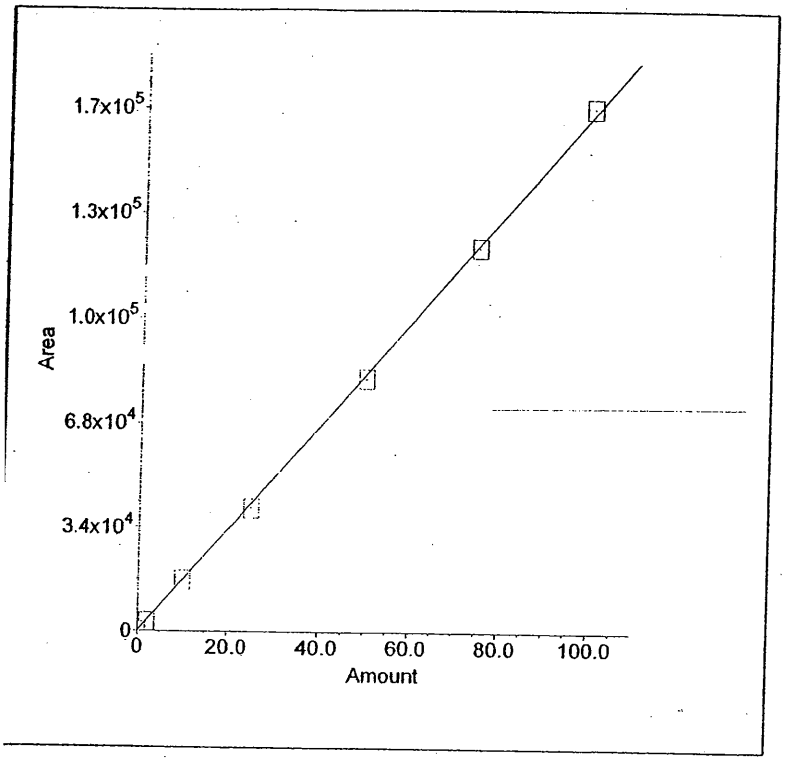
Peak Information : All Components

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



Method:C:\PEAKNET\METHOD\E314-011.MET Updated:03/13/2003 10:39:48 AM Total:1

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

1534

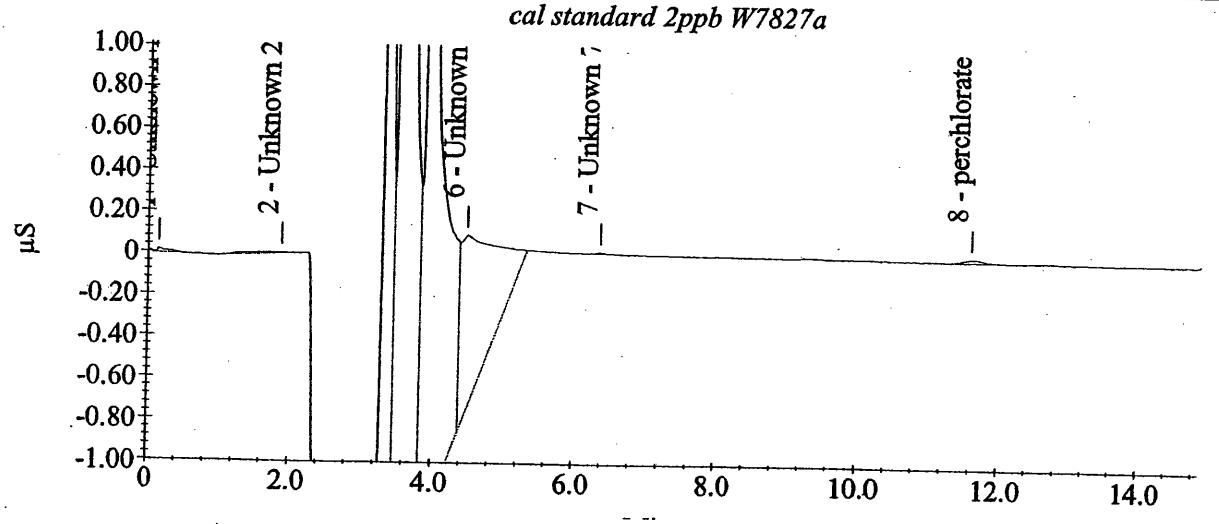
APCL Perchlorate Analysis Report

Sample Name : cal standard 2ppb W7827a
Data File Name : C:\DATA\E314-011\std-2pb_002.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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



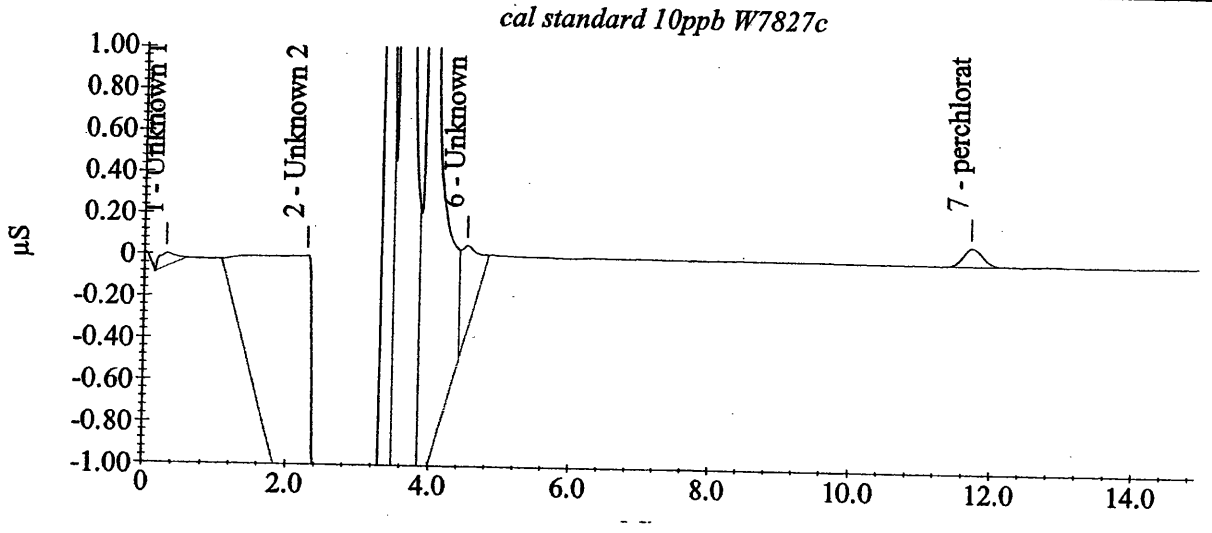
APCL Perchlorate Analysis Report

Sample Name : cal standard 10ppb W7827c
Data File Name : C:\DATA\E314-011\std-10pb_004.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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



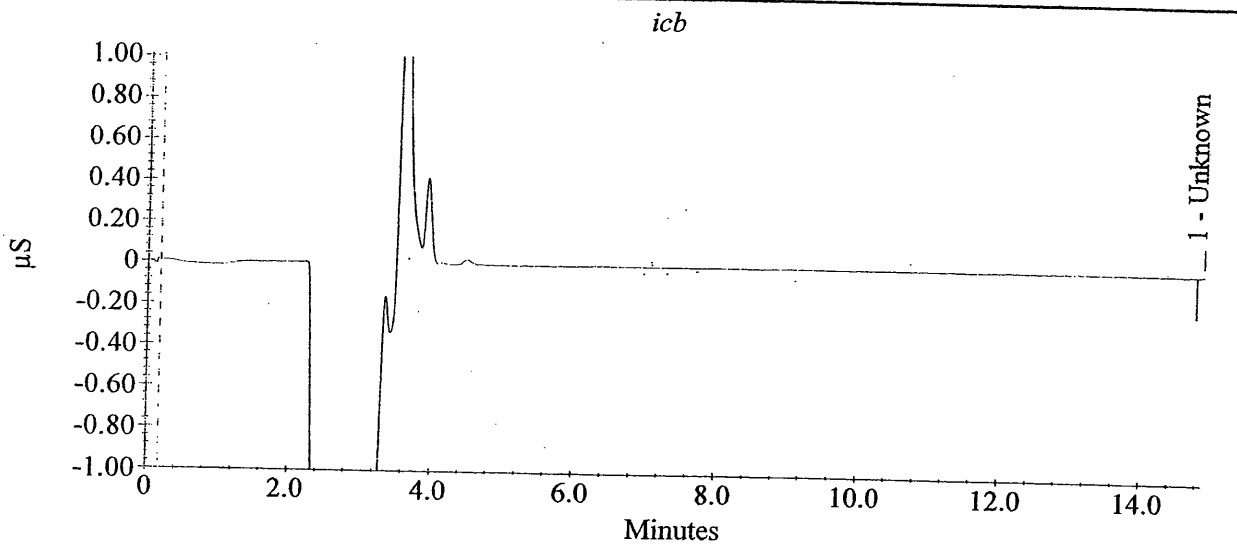
APCL Perchlorate Analysis Report

Sample Name : 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



APCL Perchlorate Analysis Report

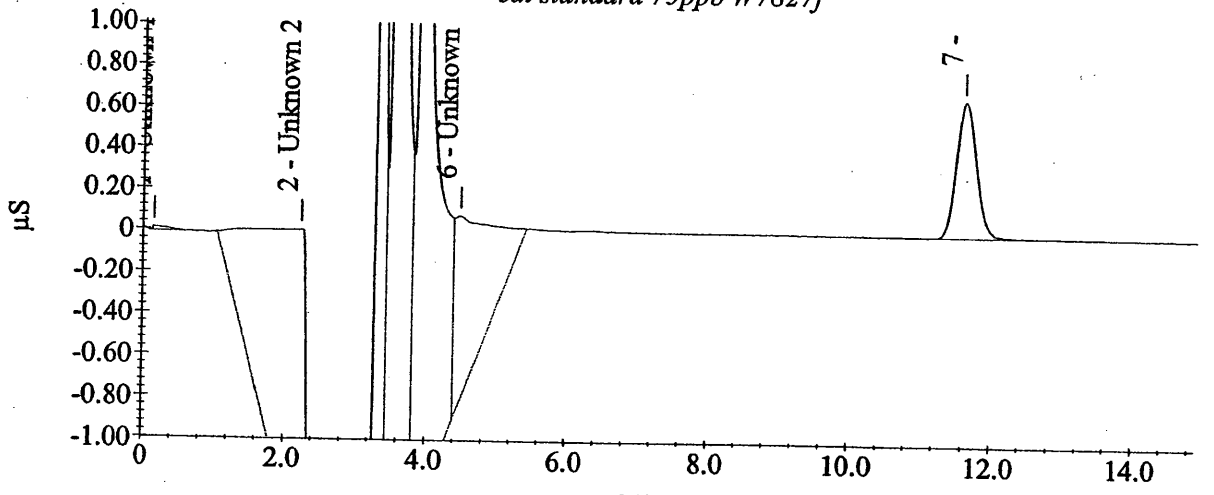
Sample Name : cal standard 75ppb W7827f
Data File Name : C:\DATA\E314-011\std-75pb_007.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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

cal standard 75ppb W7827f



APCL Perchlorate Analysis Report

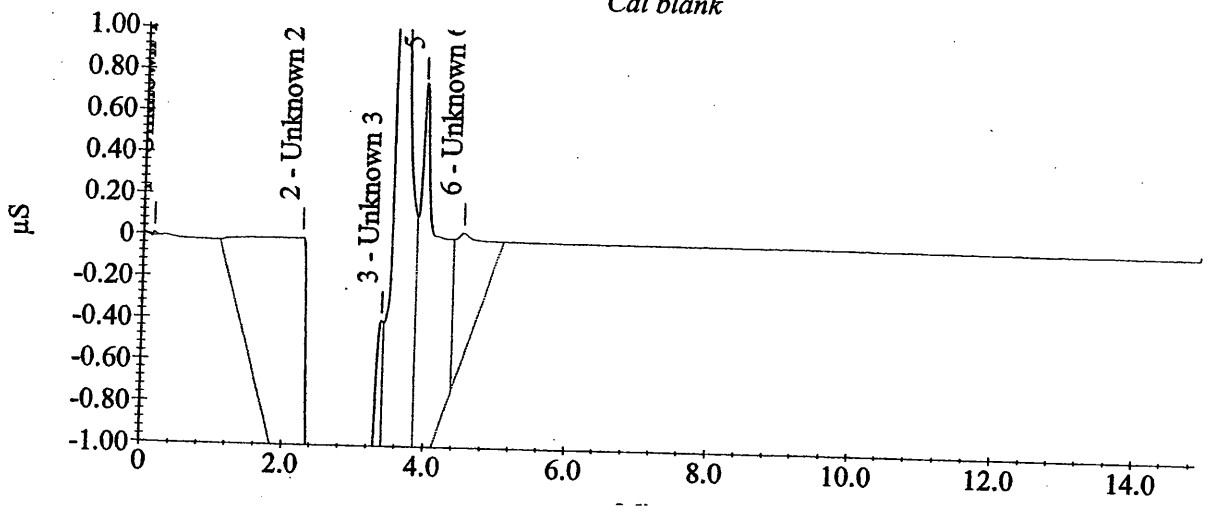
Sample Name : Cal blank
Data File Name : C:\data\E314-011\Mb_001.DXD

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

Cal blank



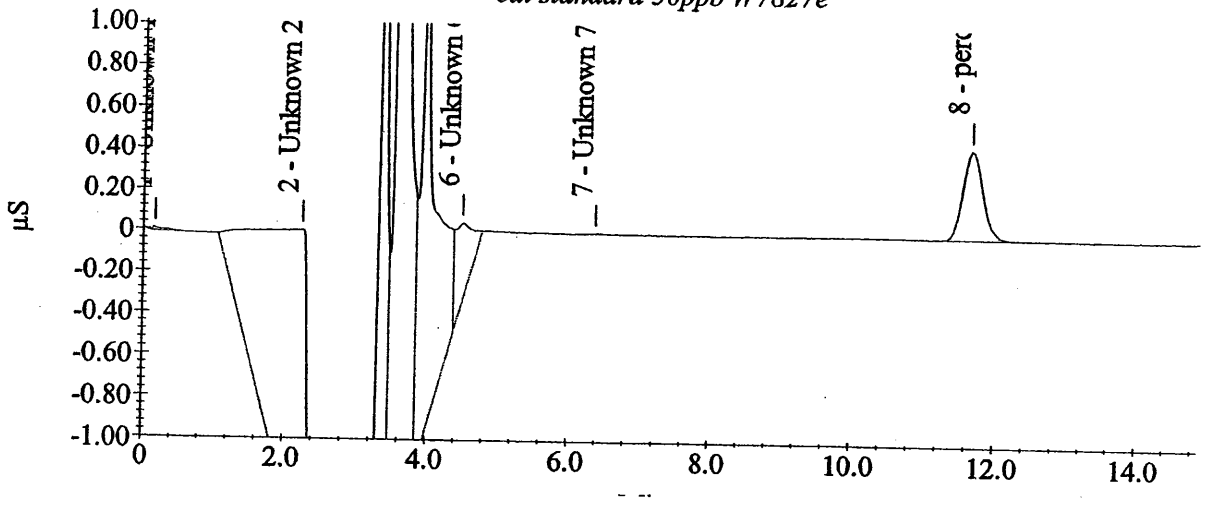
APCL Perchlorate Analysis Report

Sample Name : cal standard 50ppb W7827e
Data File Name : C:\DATA\E314-011\std-50pb_006.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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



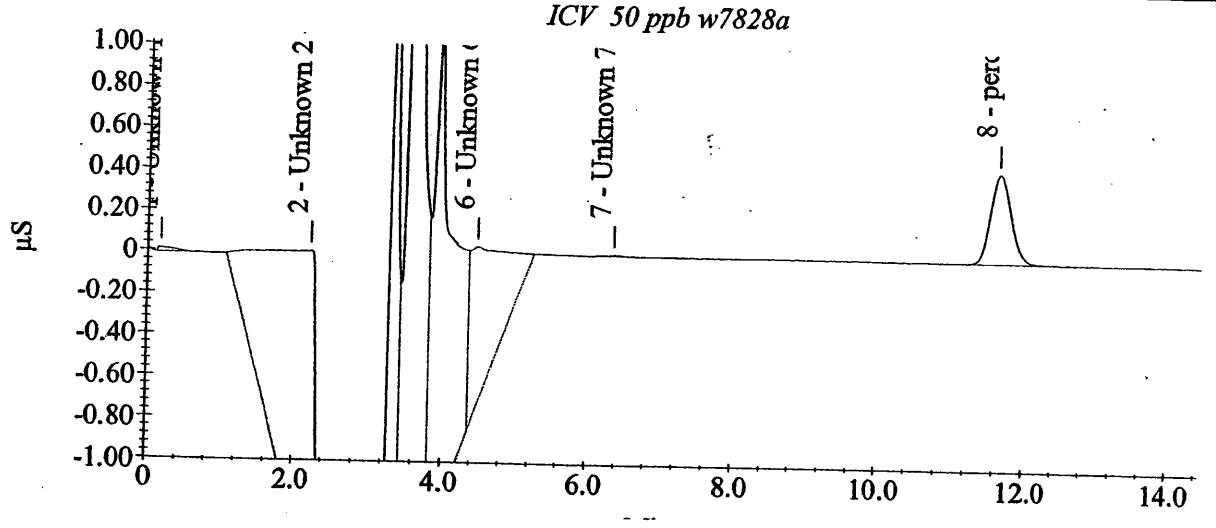
APCL Perchlorate Analysis Report

Sample Name : 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

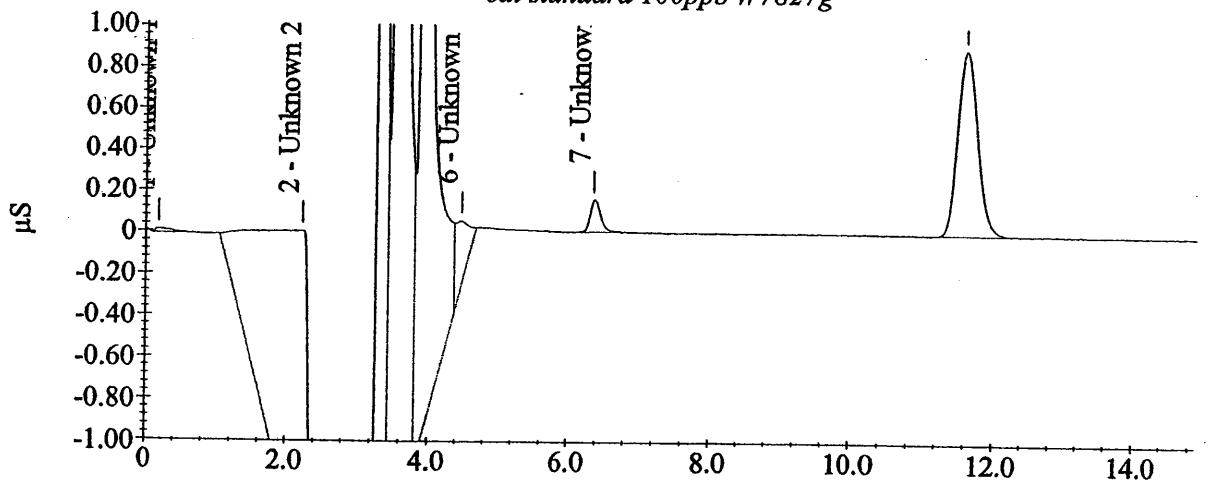
Sample Name : cal standard 100ppb W7827g
Data File Name : C:\DATA\E314-011\std-100pb_008.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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	89271

cal standard 100ppb W7827g



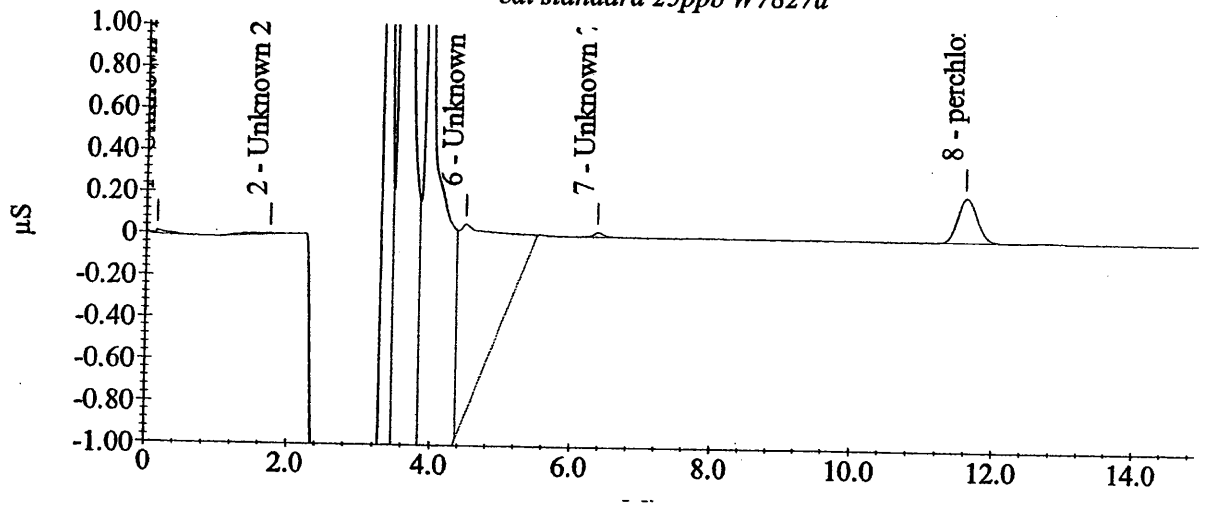
APCL Perchlorate Analysis Report

Sample Name : cal standard 25ppb W7827d
Data File Name : C:\DATA\E314-011\std-25pb_005.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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



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

Line	Weight	Int. Std.	Comment
1	1	1	
2	1	1	
3	1	1	
4	1	1	
5	1	1	
6	1	1	
7	1	1	
8	1	1	
9	1	1	
10	1	1	
11	1	1	
12	1	1	
13	1	1	
14	1	1	
15	1	1	
16	1	1	
17	1	1	
18	1	1	
19	1	1	
20	1	1	
21	1	1	
22	1	1	
23	1	1	
24	1	1	
25	1	1	
26	1	1	
27	1	1	
28	1	1	
29	1	1	
30	1	1	
31	1	1	
32	1	1	
33	1	1	
34	1	1	
35	1	1	
36	1	1	
37	1	1	
38	1	1	
39	1	1	
40	1	1	
41	1	1	
42	1	1	
43	1	1	
44	1	1	
45	1	1	
46	1	1	
47	1	1	
48	1	1	
49	1	1	
50	1	1	
51	1	1	
52	1	1	
53	1	1	
54	1	1	
55	1	1	
56	1	1	
57	1	1	
58	1	1	

Default Method Path: C:\PEAKNET\METHOD
Default Data Path: C:\DATA\03W1286K
Comment:
Remark:

Condition information:

1. Column

Separator column: AS16 4mm

Guard column: AS16 4mm

2. Eluent : NaOH 38mM

3. Flow rate: 1.2mL/min

4. Suppressor: ASRS-ULTRA 4mm

5.Detector: CD20

6.Analyst: Charles Wu and Wei Wang

7.Date: 03 / 12 / 2003

8.Instrument: IC-K DX-500 Dionex

Line	Sample	Sample Type	Level	Method	Data File	Volume	Dilution	Weight
1	##03w5120k ipc 25ppb w8032	Sample		e314-011.met	c:\data\03w5120k\w5120k ipc25ppb	1	1	1
2	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w5120k\w5120k q01	1	1	1
3	lcs 25ppb w8087	Sample		e314-011.met	c:\data\03w5120k\w5120k l01	1	1	1
4	Lcsd 25PPB W8257	Sample		e314-011.met	c:\data\03w5120k\w5120k j01	1	1	1
5	ICCS 4ppb w8088	Sample		e314-011.met	c:\data\03w5120k\w5120k iccs 4ppb	1	1	1
6	mb	Sample		e314-011.met	c:\data\03w5120k\w5120k k01	1	1	1
7	5975-01 f=1	Sample		e314-011.met	c:\data\03w5120k\5975-01	1	1	1
8	5975-02 f=1	Sample		e314-011.met	c:\data\03w5120k\5975-02	1	1	1
9	5975-03 f=1	Sample		e314-011.met	c:\data\03w5120k\5975-03	1	1	1
10	6002-02 f=1	Sample		e314-011.met	c:\data\03w5120k\6002-02	1	1	1
11	6002-04 f=1	Sample		e314-011.met	c:\data\03w5120k\6002-04	1	1	1
12	6034-03 f=1	Sample		e314-011.met	c:\data\03w5120k\6034-03	1	1	1
13	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w5120k\w5120k q02	1	1	1
14	ccb	Sample		e314-011.met	c:\data\03w5120k\w5120k ccb	1	1	1
15	6002-02 ms 25ppb f=1	Sample		e314-011.met	c:\data\03w5120k\w5120k m01	1	1	1
16	6002-02 msd 25ppb f=1	Sample		e314-011.met	c:\data\03w5120k\w5120k n01	1	1	1
17	6034-03 MS 25PPB F=5	Sample		e314-011.met	c:\data\03w5120k\w5120k m02	1	5	1
18	6034-03 MSD 25PPB F=5	Sample		e314-011.met	c:\data\03w5120k\w5120k n02	1	5	1
19	6034-01 F=1	Sample		e314-011.met	c:\data\03w5120k\6034-01	1	1	1
20	6034-02 F=1	Sample		e314-011.met	c:\data\03w5120k\6034-02	1	1	1
21	6034-04 f=1	Sample		e314-011.met	c:\data\03w5120k\6034-04	1	1	1
22	6047-01 F=1	Sample		e314-011.met	c:\data\03w5120k\6047-01	1	1	1
23	6047-02 F=1	Sample		e314-011.met	c:\data\03w5120k\6047-02	1	1	1
24	CCV 50PPB W8082	Sample		e314-011.met	c:\data\03w5120k\w5120k q03	1	1	1
25	6047-03 F=1	Sample		e314-011.met	c:\data\03w5120k\6047-03	1	1	1
26	6034-03 F=5	Sample		e314-011.met	c:\data\03w5120k\6034-03a	1	5	1
27	6047-02 F=50	Sample		e314-011.met	c:\data\03w5120k\6047-02a	1	50	1
28	6047-03 F=25	Sample		e314-011.met	c:\data\03w5120k\6047-03a	1	25	1
29	CCV 50PPB W8082	Sample		e314-011.met	c:\data\03w5120k\w5120k q04	1	1	1
30		Sample		aastopcl.met		1	1	1
31	MDL 4PPB WATER	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-w01	1	1	1
32	MDL 4PPB WATER	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-w02	1	1	1
33	MDL 4PPB WATER	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-w03	1	1	1
34	MDL 4PPB WATER	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-w04	1	1	1
35	MDL 4PPB WATER	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-w05	1	1	1
36	MDL 4PPB WATER	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-w06	1	1	1
37	MDL 4PPB WATER	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-w07	1	1	1
38	MDL 20PPB SOIL	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-s01	1	5	1
39	MDL 20PPB SOIL	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-s02	1	5	1
40	MDL 20PPB SOIL	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-s03	1	5	1
41	MDL 20PPB SOIL	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-s04	1	5	1
42	MDL 20PPB SOIL	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-s05	1	5	1
43	MDL 20PPB SOIL	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-s06	1	5	1
44	MDL 20PPB SOIL	Sample		e314-011.met	c:\data\03w5120k\w5120k mdl-s07	1	5	1
45		Sample		aastopcl.met		1	1	1

Analyst W. W

Date 11/11/03

Instrument ZC-1C

Line	Int. Std.	Comment
1	1	
2	1	
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	1	
10	1	
11	1	
12	1	
13	1	
14	1	
15	1	
16	1	
7	1	
8	1	
9	1	
0	1	
1	1	
2	1	
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	1	
0	1	
1	1	
2	1	
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	1	
0	1	
1	1	
2	1	
3	1	
4	1	

fault Method Path: C:\PEAKNET\METHOD
fault Data Path: C:\DATA\03W5052K
mment:

plied P & Ch Laboratory
60 Magnolia Ave. Chino CA 91710
el: (909) 590-1828 Fax: (909) 590-1498

Chromium (VI) (7196) Worksheet

Batch #03W508 Matrix: W [Holding Time: 24 hours!!] Test Date: 11/6/03 Analyst: BC

Lot #: Reagent Water _____ Diphenylcazide solution _____ Test Time: 12:20 SOP: G-2

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-	× / = mg/L			Least Square [RF]=	Cal. Code:
STD-2	W-	× / = mg/L			Average $\overline{RF}$=	
STD-3	W-	× / = mg/L			C.C.=0.9999 (≥ 0.995)	
STD-4	W-	× / = mg/L			RSD= % (≤ 15%)	
STD-5	W-	× / = mg/L			Ref. page	
STD-6	W-	× / = mg/L			A=-0.001+0.846C	

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 $C' = A/\overline{RF}$	C (Sample) $C = f_1 f_2 C'$	Anomaly Note
CCV	Lot: W-7757	Expected Conc.: × / = 0.25 mg/L			0.221	0.25 mg/L	REC. %	90-110 %
Method Blank	Bl. Lot: T1118		/X_0 = 1	95.0/ =	0.000	mg/L	0.00 ppm	
LCS1	Bl. Lot:		/X_0 =	95.0/ =	0.204	mg/L	0.242 ppm	
Sample-1	6002-1		/X_0 =	95.0/ =	0.002	mg/L	0.004 ppm	
MS on S-1	2		/X_0 =	95.0/ =	0.190	mg/L	0.226 ppm	
MSD on S-1	2		/X_0 =	95.0/ =	0.196	mg/L	0.233 ppm	
Sample 2	2		/X_0 =	95.0/ =	0.002	mg/L	0.004 ppm	
Sample 3	3		/X_0 =	95.0/ =	0.006	mg/L	0.008 ppm	
Sample 4	4		/X_0 = √	95.0/ =	0.004	mg/L	0.006 ppm	
Sample 5			/X_0 =	95.0/ =		mg/L	ppm	
Sample 6			/X_0 =	95.0/ =		mg/L	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 = BC 11/6/03	95.0/ =		mg/L	ppm	
Blank	Lot:		/X_0 =	95.0/ =		mg/L	ppm	
LCS2	Bl. Lot: T1118		/X_0 =	95.0/ =		mg/L	ppm	
Sample 11			/X_0 = 1	95.0/ =	0.207	mg/L	0.246 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 = BC 11/6/03	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.	doing 0.25 mg/L		/X_0 =	95.0/ =	0.215	0.255 mg/L	ppm	

Type	STD Lot #	$C_{STD}(\mu g/mL) \times V_{STD}(mL) / X(g \text{ or } mL) = T$	Spike Rec.	Ctl Limit (W/S)
MS	W- 7757	× / = 0.25 ppm	%	80-120 %/80-120 %
MSD	W-	× / = ppm	%	.. ..
LCS	W- 7853	× / = ppm	%	80-120 %/80-120 %
LCSD	W-	× / = ppm	%	.. ..

PQL/MDL (in ppm)	
PQL(w)	0.01
PQL(s)	0.05
MDL(w)	0.005
MDL(s)	0.025

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chromium (VI) (7196) Worksheet

Batch # PZ Matrix: W&GS [Holding Time: 24 hours!!] Test Date: 7/28/03 Analyst: Br.

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

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-7757	× / = 0.00 mg/L	0.000		Least Square [RF]=	Cal. Code:
STD-2	W-	× / = 0.025 mg/L	0.007		Average $\overline{RF}$=	
STD-3	W-	× / 0.025 = 0.050 mg/L	0.017		C.C. 0.9999 (≥ 0.995)	
STD-4	W-	× / = 0.125 mg/L	0.107		RSD= % (≤ 15%)	
STD-5	W-	× / = 0.250 mg/L	0.212		Ref. page	
STD-6	W-	× / = 0.50 mg/L	0.420		A = -0.001 + 0.846C	

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 $C' = A/\overline{RF}$	C (Sample) $C = f_1 f_2 C'$	Anom: Note
CCV	Lot: W-7853	Expected Conc.:	×	/ = 0.25 mg/L	0.218	0.259 mg/L	REC. %	90-110
Method Blank	Bl. Lot:		$/X_0$ =	95.0/ =	0.000	0.000 mg/L	ppm	
LCS1	Bl. Lot:		$/X_0$ =	95.0/ =	0.210	0.250 mg/L	ppm	
Sample-1	4177-37	1ml → 100ml	$/X_0$ = 1	95.0/ = 2	0.290	0.689 mg/L	ppm	
MS on S-1	37	0.5ml → 100ml	$/X_0$ =	95.0/ = 2	0.287	0.682 mg/L	report	
MSD on S-1	4175-15	10.0g	50.0ml $/X_0$ = 5	95.0/ = 10	0.050	3.04 mg/L	ppm	
Sample 2	15	4	$/X_0$ =	95.0/ = 2	0.247	2.94 mg/L	report	
Sample 3			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 4			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 5			$/X_0$ =	95.0/ =		mg/L	ppm	
Sample 6			$/X_0$ =	95.0/ =		mg/L	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:		$/X_0$ =	95.0/ =		mg/L	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.	closing 0.25 mg/L		$/X_0$ =	95.0/ =	0.218	0.259 mg/L	ppm	

Type	STD Lot #	$C_{STD}(\mu g/mL) \times V_{STD}(mL)/X(g \text{ or } mL) = T$	Spike Rec.	Ctl Limit (W/S)
MS	W-	× / = ppm	%	80-120 %/80-120 %
MSD	W-	× / = ppm	%	.. ..
LCS	W-	× / = ppm	%	80-120 %/80-120 %
LCSD	W-	× / = ppm	%	.. ..

PQL/MDL (in ppm)	
PQL(w)	0.01
PQL(s)	0.05
MDL(w)	0.005
MDL(s)	0.025

APCL form 5-155 May 08, 1996. Ver. 3.1 No pencil. Use blue pen for record. Use red pen for correction.
File:[CUST.DOC.WET]CR6.TEX Root-file: CR6_ROOT.TEX 1-Page-File: CR61.TEX
Control limits are subjected to change. The updated values are given in the latest version of APCL Technical Handbook Vol. 2

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

December 8, 2003

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

Dear Brad,

This package contains samples in our Service ID 03-6034 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

APCL Analytical Report

Submitted to:
GEOFON, Inc.
Attention: Brad Shojaee
22632 Golden Spring Dr Ste 270
Diamond Bar CA 91765
Tel: (909)396-7662 Fax: (909)396-1455

Service ID #: 801-036034
Collected by: JR
Collected on: 11/07/03

Received: 11/07/03
Extracted: N/A
Tested: 11/07-12/03
Reported: 11/13/03

Sample Description: Water
Project Description: 04-4428.10 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result DUPE-2-4-Q03 03-06034-1	Analysis Result MW-6 03-06034-2
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01
Dilution Factor				1	1
PERCHLORATE	314.0	µg/L	4	<4	3.6J
VOLATILE ORGANIC COMPOUNDS					
Dilution Factor				1	1
BENZENE	524.2	µg/L	0.5	<0.5	<0.5
BROMOBENZENE	524.2	µg/L	0.5	<0.5	<0.5
BROMOCHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5
BROMODICHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5
BROMOFORM	524.2	µg/L	0.5	<0.5	<0.5
BROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5
N-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5
SEC-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5
TERT-BUTYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5
2-BUTANONE	524.2	µg/L	10	<10	<10
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	<0.5
CHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5
CHLORODIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5
CHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	0.3J
CHLOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5
2-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5
4-CHLOROTOLUENE	524.2	µg/L	0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	524.2	µg/L	0.5	<0.5	<0.5
DIBROMOMETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	0.9
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	0.8
CIS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result DUPE-2-4-Q03 03-06034-1	Analysis Result MW-6 03-06034-2
TRANS-1,2-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	524.2	µg/L	0.5	<0.5	<0.5
ETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	524.2	µg/L	0.5	<0.5	<0.5
ISOPROPYLBENZENE (CUMENE)	524.2	µg/L	0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	524.2	µg/L	0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	µg/L	0.5	<0.5	<0.5
METHYL-T-BUTYL ETHER (MTBE)	524.2	µg/L	1	<1	<1
4-METHYL-2-PENTANONE (MIBK)	524.2	µg/L	10	<10	<10
NAPHTHALENE	524.2	µg/L	0.5	<0.5	<0.5
N-PROPYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5
STYRENE	524.2	µg/L	0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	3.0
TOLUENE	524.2	µg/L	0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	524.2	µg/L	0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	524.2	µg/L	0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	524.2	µg/L	0.5	<0.5	<0.5
VINYL CHLORIDE	524.2	µg/L	0.5	<0.5	<0.5
O-XYLENE	524.2	µg/L	0.5	<0.5	<0.5
M/P-XYLENE	524.2	µg/L	0.5	<0.5	<0.5

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-13 03-06034-3	MW-15 03-06034-4	TB-12-11-7-03 03-06034-5
CHROMIUM (VI)	7196	mg/L	0.01	0.020	<0.01	-
Dilution Factor				5	1	1
PERCHLORATE	314.0	µg/L	4	223	<4	-
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	1.5	<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	1.7	<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	0.5	<0.5	<0.5	<0.5
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	0.4J	<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

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-13 03-06034-3	MW-15 03-06034-4	TB-12-11-7-03 03-06034-5
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	0.5	<0.5	<0.5	<0.5
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	0.9	<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	9.0	<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

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

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level C Data Package Deliverables

General Information

Project: 04-4428.10 JPL

APCL Service ID: 03-6034

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: JPL/04-4428.10

For GEOFON, Inc.

APCL Service No: 03-6034

1. Sample Identification

The sample identifications are listed in the following table:

GEOFON, Inc. Sample ID	APCL Sample ID
MW-13	03-06034-3
MW-6	03-06034-2
MW-15	03-06034-4
DUPE-2-4-Q03	03-06034-1
TB-12-11-7-03	03-06034-5

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),
7196 (Chromium (VI)),
314.0 (Perchlorate, low level),

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,

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

0023

GEOFON INCORPORATED

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

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

Shallow Wells

GEOFON's LAB COORDINATOR	LAB COORDINATOR'S PHONE	LAB COORDINATOR'S FAX	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
Brad Shipley	909 396 7662	909 396 1455		Kenny Chen	Geofon
PROJECT NAME: SPLC GW Mon. 4-003	**PROJECT LOCATION** MW-13, MW-6 + MW-15	**PROJECT NUMBER** 04-4428.10	**LABORATORY PHONE** 909 590 1828	**LABORATORY FAX** 909 590 1498	**RECIPIENT NAME** Tony Ford
PROJECT CONTACT Scott Buehner	**PROJECT PHONE NUMBER** 909 396 7662	**PROJECT FAX** 909 396 1455	**LABORATORY ADDRESS** 13760 Magnolia Ave.		**ADDRESS** Ste 270 22632 Golden Springs Dr.
PROJECT ADDRESS 4800 Oak Grove Dr.	**CITY, STATE AND ZIPCODE** Pasadena, CA	**CLIENT** US Navy SWDIV	**CITY, STATE AND ZIPCODE** Chino, CA 91710		**CITY, STATE AND ZIPCODE** Diamond Bar, CA 91765
PROJECT MANAGER Tony Ford	**PROJECT MANAGER'S PHONE** 909 396 7662	**PROJECT MANAGER'S FAX** 909 396 1455			

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: 524.0 (VOC)	314.0 (Clo4)	200.8 (Cr)	Comments
1	MW-13	W	11.7.03	0757	HCl HNO3 NONE	10	III	Normal	X	X	X	X	MS/MSD
2	MW-6			0926		5			X	X	X	X	
3	TB-12-11-7-03			—		3			X				
4	MW-15			1003		5			X	X	X	X	
5	Dupe-2-4-003			1007		5	IV		X	X	X	X	
6													
7													
8								a					
9								11.7.03					
10													

6034

SAMPLES COLLECTED BY: ST

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
Richard Stinson	Richard Stinson	11-7-03	1508	
		11-7-03	1555	

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

Applied P & Ch Laboratory
13760 Magnolia Ave., Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: 6034 **Client Name/Project:** Geofon

1. Sample Arrival

Date/Time Received 11/7/03 1555 Date/Time Opened 11/7/03 1555 By (name): Jason

Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☒ APCL Empl: Richard

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 1 Cooled by: ☒ Ice ☐ Blue Ice ☐ Dry Ice ☐ None

Temp °C 3.1

(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 ☐ NO_3^- 48hr ☐ BOD 48hr

☐ Cl_2 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 day ☐ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H_2O ☐ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: _____

☒ Ground H_2O ☐ 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: _____ Printed: 7 Nov 2003 7:33 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.

DocumentFile: [neal.texfiles]smprcl.tex.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

03-06034 (0470_ 189) (2202777_ 189)

11/07/03

Part 1: General Information

☐	Company Information	Name:	*GEOFON, Inc.*
		Address:	*22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765*
☐	Project Information	Project Description:	*JPL*
		Project #:	*04-4428.10*
☐	Billing Information	P.O. #:	
		Bill Address:	*22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765*
		Lab Project ID:	
		Client Database #:	*3*
☐	Receiving Information	Who Received Sample?	*Jason N.*
		Receiving Date/Time:	*11/07/03 1555*
		COC No.	*0073*
☐	Shipping Information	Shipping Company	*APCL pick up*
		Packing Information:	*Cooler/Ice Chester*
		Cooler Temperature:	*3.1 °C*
☐	Container Information	Container Provider:	*Client*
☐	Sampling Information	Sampling Person:	*JR*
		Sampling Company:	*Client*
☐	Turn-Around-Time Option:		*Rush 5 working day(s)*
☐	QC Option:		*NEESA C*
☐	Disposal Option:		*Not specify*

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-13	VOC	03-06034-3-α	W	V	C	40	6	G	110703	N	0	7	☐
	MW-13	CrVI	03-06034-3-β	W	P		500	2	G	110703	N	0	7	☐
2	MW-6	VOC	03-06034-2-α	W	V	C	40	3	G	110703	N	0	7	☐
	MW-6	CrVI	03-06034-2-β	W	P		500	1	G	110703	N	0	7	☐
3	MW-15	VOC	03-06034-4-α	W	V	C	40	3	G	110703	N	0	7	☐
	MW-15	CrVI	03-06034-4-β	W	P		500	1	G	110703	N	0	7	☐
4	DUPE-2-4-Q03	VOC	03-06034-1-α	W	V	C	40	3	G	110703	N	0	7	☐
	DUPE-2-4-Q03	CrVI	03-06034-1-β	W	P		500	1	G	110703	N	0	7	☐
5	TB-12-11-7-03	VOC	03-06034-5	W	V	C	40	3	G	110703	N	0	7	☐

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/SM4500NO3C*	Nitrate (NO_3^-) as N by IC
☐ *SM2320B*	Carbonate
☐ *SM2320B*	Bicarbonate
☐ *9040B/150.1*	pH
☐ *160.1*	Solids, Total Dissolved (TDS)
☐ *200.7/6010B*	Sodium, Na, by ICP
☐ *200.7/6010B*	Calcium, Ca, by ICP
☐ *200.7/6010B*	Potassium, K, by ICP
☐ *200.7/6010B*	Magnesium, Mg, by ICP
☐ *200.7/6010B*	Iron, Fe, by ICP
☐ *206.2/7060A*	Arsenic, As, by GFAA
☐ *8270-SIM*	1,4-Dioxane

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	524.2	CHROMIUM	PERCH	CL	SO4	NO3	CARBON	BICARB	
1	MW-13	VOC	03-06034-3-α	W	X								☐
	MW-13	CrVI	03-06034-3-β	W		X	X						☐
2	MW-6	VOC	03-06034-2-α	W	X								☐