

ANALYTICAL REPORT

Job Number: 460-39947-1
Job Description: DOW Waterloo, NY

For:
CH2M Hill, Inc.
1034 S Brentwood Blvd
Suite 2300
Richmond Heights, MO 63117
Attention: Ms. Shane Lowe



Approved for release.
Jannel O Franklin
Project Manager I
5/23/2012 10:16 AM

Designee for
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05/23/2012

cc: Ms. Monica Calabria
Ms. Lisa La Fortune

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CASE NARRATIVE

Client: CH2M Hill, Inc.

Project: DOW Waterloo, NY

Report Number: 460-39947-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 5/8/2012 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

Except:

This Job was received already exceeding more than 50% of the holding time.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

HEXAVALENT CHROMIUM

Samples 460-39947-1 through 460-39947-3 were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7199. The samples were analyzed on 05/08/2012.

The following samples were received with significantly greater than 50% of holding time expired: Dup-GW-050712 (460-39947-3), MW-02-050712 (460-39947-2), MW-03-050712 (460-39947-1), MW-03-050712 (460-39947-1 DU). As such, the laboratory had insufficient time remaining to perform the analysis within holding time.

The matrix spike and post spike (MS/PSD) recoveries for batch 113148 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. As per procedure the PDS was reanalyzed on a 40x and 80x sample dilution (2x and 4x on original dilution of 20x) and both of these recoveries were also outside control limits. All three PDS results have been reported.

Refer to the QC report for details.

Samples 460-39947-1 through 460-39947-3(20X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the hexchrome Cr6 analyses.

All other quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-39947-1	MW-03-050712	Water	05/07/2012 1200	05/08/2012 0730
460-39947-1DU	MW-03-050712	Water	05/07/2012 1200	05/08/2012 0730
460-39947-2	MW-02-050712	Water	05/07/2012 1435	05/08/2012 0730
460-39947-3	Dup-GW-050712	Water	05/07/2012 1530	05/08/2012 0730

EXECUTIVE SUMMARY - Detections

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
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No Detections

METHOD SUMMARY

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Description		Lab Location	Method	Preparation Method
Matrix	Water			
Chromium, Hexavalent (IC)		TAL EDI	SW846 7199	

Lab References:

TAL EDI = TestAmerica Edison

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Method	Analyst	Analyst ID
SW846 7199	Demone, Laura	LD

Analytical Data

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

General Chemistry

Client Sample ID: **MW-03-050712**

Lab Sample ID: 460-39947-1

Date Sampled: 05/07/2012 1200

Client Matrix: Water

Date Received: 05/08/2012 0730

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chromium (hexavalent)	11.3	U H	ug/L	11.3	20.0	20	7199
Analysis Batch: 460-113148		Analysis Date: 05/08/2012 1928					

Analytical Data

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

General Chemistry**Client Sample ID:** MW-02-050712

Lab Sample ID: 460-39947-2

Date Sampled: 05/07/2012 1435

Client Matrix: Water

Date Received: 05/08/2012 0730

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chromium (hexavalent)	11.3	U H	ug/L	11.3	20.0	20	7199

Analysis Batch: 460-113148 Analysis Date: 05/08/2012 2051

Analytical Data

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

General Chemistry

Client Sample ID: Dup-GW-050712

Lab Sample ID: 460-39947-3

Date Sampled: 05/07/2012 1530

Client Matrix: Water

Date Received: 05/08/2012 0730

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chromium (hexavalent)	11.3	U H	ug/L	11.3	20.0	20	7199

Analysis Batch: 460-113148 Analysis Date: 05/08/2012 2108

Quality Control Results

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Method Blank - Batch: 460-113148

Method: 7199

Preparation: N/A

Lab Sample ID: MB 460-113148/8
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/08/2012 1855
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-113148
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: IC
Lab File ID: 5081855.CHW
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Chromium (hexavalent)	0.56	U	0.56	1.0

Lab Control Sample - Batch: 460-113148

Method: 7199

Preparation: N/A

Lab Sample ID: LCS 460-113148/10
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/08/2012 1911
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-113148
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: IC
Lab File ID: 5081911.CHW
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chromium (hexavalent)	20.7	19.30	93	85 - 115	

Quality Control Results

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Matrix Spike - Batch: 460-113148

Method: 7199
Preparation: N/A

Lab Sample ID:	460-39947-1	Analysis Batch:	460-113148	Instrument ID:	IC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	5082009.CHW
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/08/2012 2009	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chromium (hexavalent)	11.3 U	800	11.3	0	85 - 115	U F

Post Digestion Spike - Batch: 460-113148

Method: 7199
Preparation: N/A

Lab Sample ID:	460-39947-1	Analysis Batch:	460-113148	Instrument ID:	IC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	5082035.CHW
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/08/2012 2035	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chromium (hexavalent)	11.3 U	100	11.3	6	85 - 115	U W

Post Digestion Spike - Batch: 460-113148

Method: 7199
Preparation: N/A

Lab Sample ID:	460-39947-1	Analysis Batch:	460-113148	Instrument ID:	IC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	5082125.CHW
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/08/2012 2125	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chromium (hexavalent)	11.3 U	200	22.5	0	85 - 115	U W

Quality Control Results

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Post Digestion Spike - Batch: 460-113148

Method: 7199

Preparation: N/A

Lab Sample ID:	460-39947-1	Analysis Batch:	460-113148	Instrument ID:	IC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	5082142.CHW
Dilution:	80	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/08/2012 2142	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chromium (hexavalent)	11.3 U	400	188.2	47	85 - 115	W

Duplicate - Batch: 460-113148

Method: 7199

Preparation: N/A

Lab Sample ID:	460-39947-1	Analysis Batch:	460-113148	Instrument ID:	IC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	5081944.CHW
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/08/2012 1944	Units:	ug/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chromium (hexavalent)	11.3 U	11.3	NC	20	U H

DATA REPORTING QUALIFIERS

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Lab Section	Qualifier	Description
General Chemistry		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits
	W	PS: Post-digestion spike was outside control limits
	H	Sample was prepped or analyzed beyond the specified holding time

Quality Control Results

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
General Chemistry					
Analysis Batch:460-113148					
LCS 460-113148/10	Lab Control Sample	T	Water	7199	
MB 460-113148/8	Method Blank	T	Water	7199	
460-39947-1	MW-03-050712	T	Water	7199	
460-39947-1DU	Duplicate	T	Water	7199	
460-39947-1MS	Matrix Spike	T	Water	7199	
460-39947-2	MW-02-050712	T	Water	7199	
460-39947-3	Dup-GW-050712	T	Water	7199	

Report Basis

T = Total

Quality Control Results

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Laboratory Chronicle

Lab ID: 460-39947-1

Client ID: MW-03-050712

Sample Date/Time: 05/07/2012 12:00

Received Date/Time: 05/08/2012 07:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7199	460-39947-A-1 ^20		460-113148		05/08/2012 19:28	20	TAL EDI	LD

Lab ID: 460-39947-1 MS

Client ID: MW-03-050712

Sample Date/Time: 05/07/2012 12:00

Received Date/Time: 05/08/2012 07:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7199	460-39947-A-1 MS ^20		460-113148		05/08/2012 20:09	20	TAL EDI	LD

Lab ID: 460-39947-1

Client ID: MW-03-050712

Sample Date/Time: 05/07/2012 12:00

Received Date/Time: 05/08/2012 07:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7199	460-39947-A-1 DU ^20		460-113148		05/08/2012 19:44	20	TAL EDI	LD

Lab ID: 460-39947-1 PDS

Client ID: MW-03-050712

Sample Date/Time: 05/07/2012 12:00

Received Date/Time: 05/08/2012 07:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7199	460-39947-A-1 PDS ^20		460-113148		05/08/2012 20:35	20	TAL EDI	LD
A:7199	460-39947-A-1 PDS ^40		460-113148		05/08/2012 21:25	40	TAL EDI	LD
A:7199	460-39947-A-1 PDS ^80		460-113148		05/08/2012 21:42	80	TAL EDI	LD

Lab ID: 460-39947-2

Client ID: MW-02-050712

Sample Date/Time: 05/07/2012 14:35

Received Date/Time: 05/08/2012 07:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7199	460-39947-A-2 ^20		460-113148		05/08/2012 20:51	20	TAL EDI	LD

Lab ID: 460-39947-3

Client ID: Dup-GW-050712

Sample Date/Time: 05/07/2012 15:30

Received Date/Time: 05/08/2012 07:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7199	460-39947-A-3 ^20		460-113148		05/08/2012 21:08	20	TAL EDI	LD

Quality Control Results

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Laboratory Chronicle

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7199	MB 460-113148/8		460-113148		05/08/2012 18:55	1	TAL EDI	LD

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7199	LCS 460-113148/10		460-113148		05/08/2012 19:11	1	TAL EDI	LD

Lab References:

TAL EDI = TestAmerica Edison

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-39947-1

SDG No.: _____

Project: DOW Waterloo, NY

Client Sample ID

MW-03-050712

MW-02-050712

Dup-GW-050712

Lab Sample ID

460-39947-1

460-39947-2

460-39947-3

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MW-03-050712 Lab Sample ID: 460-39947-1
Lab Name: TestAmerica Edison Job No.: 460-39947-1
SDG ID.:
Matrix: Water Date Sampled: 05/07/2012 12:00
Reporting Basis: WET Date Received: 05/08/2012 07:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18540-29-9	Chromium (hexavalent)	11.3	20.0	11.3	ug/L	U	H	20	7199

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MW-02-050712 Lab Sample ID: 460-39947-2

Lab Name: TestAmerica Edison Job No.: 460-39947-1

SDG ID.: _____

Matrix: Water Date Sampled: 05/07/2012 14:35

Reporting Basis: WET Date Received: 05/08/2012 07:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18540-29-9	Chromium (hexavalent)	11.3	20.0	11.3	ug/L	U	H	20	7199

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Dup-GW-050712 Lab Sample ID: 460-39947-3
Lab Name: TestAmerica Edison Job No.: 460-39947-1
SDG ID.:
Matrix: Water Date Sampled: 05/07/2012 15:30
Reporting Basis: WET Date Received: 05/08/2012 07:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18540-29-9	Chromium (hexavalent)	11.3	20.0	11.3	ug/L	U	H	20	7199

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-39947-1
SDG No.: _____
Analyst: LD Batch Start Date: 05/08/2012
Reporting Units: ug/L Analytical Batch No.: 113148

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
6	ICV	18:38	Chromium (hexavalent)	24.31	25.0	97	90-110		WThcrIM6_00376
7	ICB	18:46	Chromium (hexavalent)	0.56				U	
18	CCV	20:18	Chromium (hexavalent)	23.55	25.0	94	90-110		WThcrIM6_00376
19	CCB	20:26	Chromium (hexavalent)	0.56				U	
30	CCV	21:58	Chromium (hexavalent)	23.19	25.0	93	90-110		WThcrIM6_00376
31	CCB	22:07	Chromium (hexavalent)	0.56				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-39947-1

SDG No.: _____

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 113148 Date: 05/08/2012 18:55							
7199	MB 460-113148/8	Chromium (hexavalent)	0.56	U	ug/L	1.0	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-39947-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 113148 Date: 05/08/2012 20:09											
7199	460-39947-1	Chromium (hexavalent)	11.3	U	ug/L						H
7199	460-39947-1	Chromium (hexavalent)	11.3	U	ug/L	800	0	85-115			F
MS											

Calculations are performed before rounding to avoid round-off errors in calculated results.

5-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-39947-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 113148 Date: 05/08/2012 20:35											
7199	460-39947-1	Chromium (hexavalent)	11.3	U	ug/L						H
7199	460-39947-1	Chromium (hexavalent)	11.3	U	ug/L	100	6	85-115			W
PDS											
Batch ID: 113148 Date: 05/08/2012 21:25											
7199	460-39947-1	Chromium (hexavalent)	11.3	U	ug/L						H
7199	460-39947-1	Chromium (hexavalent)	22.5	U	ug/L	200	0	85-115			W
PDS											
Batch ID: 113148 Date: 05/08/2012 21:42											
7199	460-39947-1	Chromium (hexavalent)	11.3	U	ug/L						H
7199	460-39947-1	Chromium (hexavalent)	188.2		ug/L	400	47	85-115			W
PDS											

Calculations are performed before rounding to avoid round-off errors in calculated results.

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-39947-1

SDG No.: _____

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 113148 Date: 05/08/2012 19:44								
7199	MW-03-050712	460-39947-1	Chromium (hexavalent)	11.3	ug/L			U
7199	MW-03-050712	460-39947-1 DU	Chromium (hexavalent)	11.3	ug/L	NC	20	U H

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-39947-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 113148		Date: 05/08/2012 19:11									
						LCS Source: WThcrsLCS_00058					
7199	LCS 460-113148/10	Chromium (hexavalent)	19.30		ug/L	20.7	93	85-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-39947-1
SDG Number: _____
Matrix: Water Instrument ID: IC
Method: 7199 MDL Date: 08/06/2010 10:12

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Chromium (hexavalent)		1	0.563

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-39947-1
SDG Number: _____
Matrix: Water Instrument ID: IC
Method: 7199 XMDL Date: 08/06/2010 10:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Chromium (hexavalent)		1	0.563

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-39947-1

SDG No.: _____

Instrument ID: IC Method: 7199

Start Date: 05/08/2012 17:57 End Date: 05/08/2012 22:07

Lab Sample ID	D / F	T y p e	Time	Analytes															
				C r 6															
ZZZZZZ			17:57																
ZZZZZZ			18:05																
ZZZZZZ			18:13																
ZZZZZZ			18:22																
ZZZZZZ			18:30																
ICV 460-113148/6	1		18:38	X															
ICB 460-113148/7	1		18:46	X															
MB 460-113148/8	1	T	18:55	X															
ZZZZZZ			19:03																
LCS 460-113148/10	1	T	19:11	X															
ZZZZZZ			19:19																
460-39947-1	20	T	19:28	X															
ZZZZZZ			19:36																
460-39947-1 DU	20	T	19:44	X															
ZZZZZZ			19:53																
ZZZZZZ			20:01																
460-39947-1 MS	20	T	20:09	X															
CCV 460-113148/18	1		20:18	X															
CCB 460-113148/19	1		20:26	X															
460-39947-1 PDS	20	T	20:35	X															
ZZZZZZ			20:43																
460-39947-2	20	T	20:51	X															
ZZZZZZ			21:00																
460-39947-3	20	T	21:08	X															
ZZZZZZ			21:17																
460-39947-1 PDS	40	T	21:25	X															
ZZZZZZ			21:33																
460-39947-1 PDS	80	T	21:42	X															
ZZZZZZ			21:50																
CCV 460-113148/30	1		21:58	X															
CCB 460-113148/31	1		22:07	X															

Prep Types

T = Total/NA

Report date: 5/18/2012 12:42:24 PM
Printed by: TestAmerica - Edison

Ident: 0.0 ppb
Analysis from: 5/8/2012 5:57:26 PM
File: w5081757.chw

Last save: 5/9/2012 9:05:01 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36525

Last save: 5/8/2012 5:24:4

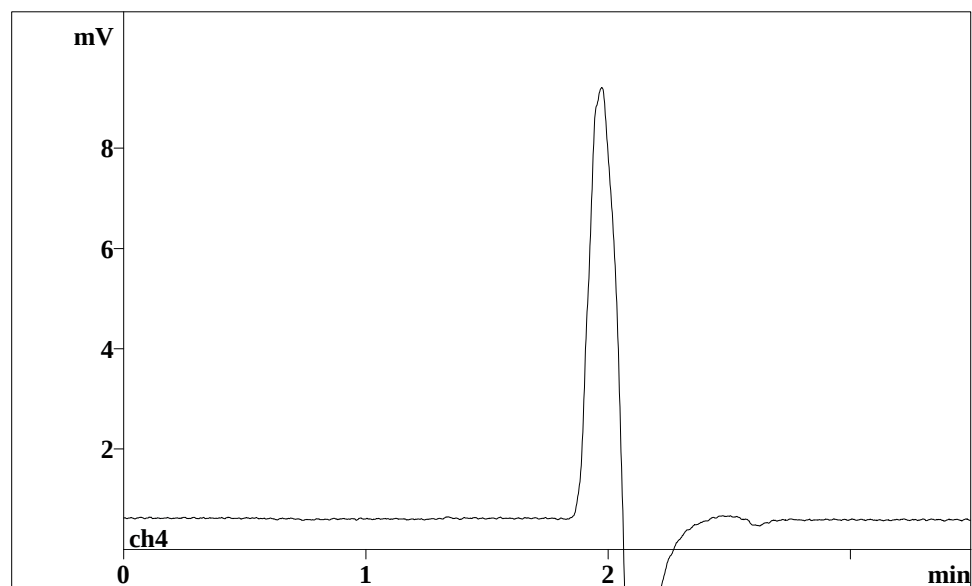
SAMPLE:

Vial number: 1
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 6.9 MPa



No peaks

Report date: 5/18/2012 12:42:32 PM
Printed by: TestAmerica - Edison

Ident: 1.0 ppb
Analysis from: 5/8/2012 6:05:38 PM
File: w5081805.chw

Last save: 5/9/2012 9:05:01 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36526

Last save: 5/8/2012 5:24:4

SAMPLE:

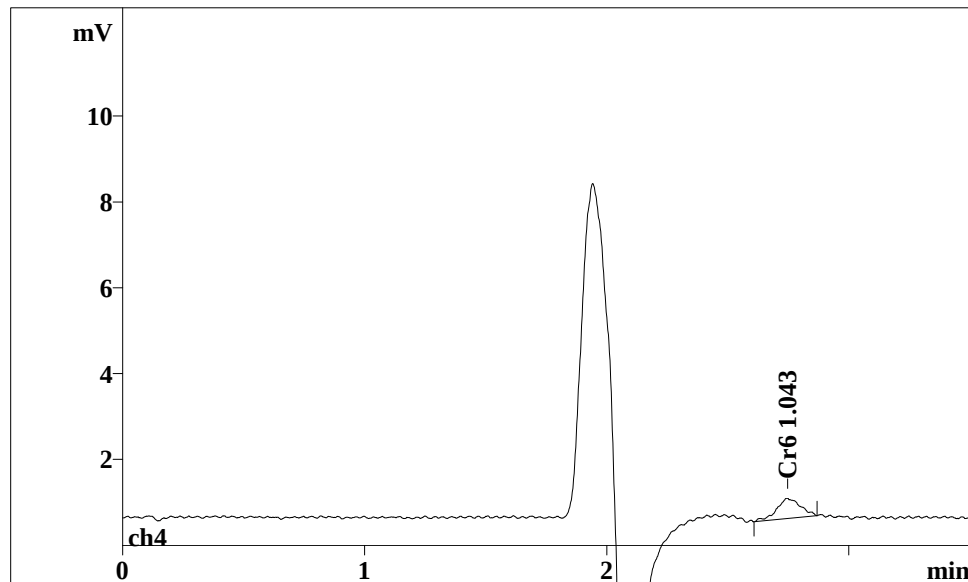
:

Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.74;	0.105;	0.48;	100.15;	3.214;	100.00;	0.00;	0.00;

37

Report date: 5/18/2012 12:42:37 PM
Printed by: TestAmerica - Edison

Ident: 5.0 ppb
Analysis from: 5/8/2012 6:13:50 PM
File: w5081813.chw Last save: 5/9/2012 9:05:01 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36527

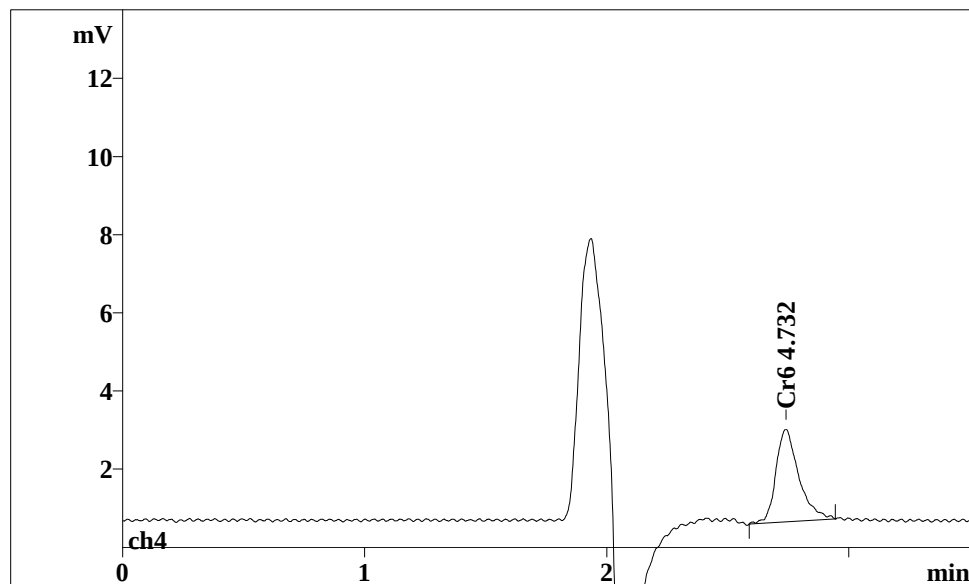
SAMPLE:

Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.74;	0.095;	2.38;	100.07;	15.558;	100.00;	0.00;	0.00;

39

Report date: 5/18/2012 12:42:40 PM
Printed by: TestAmerica - Edison

Ident: 25.0 ppb
Analysis from: 5/8/2012 6:22:04 PM
File: w5081822.chw Last save: 5/9/2012 9:05:01 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36528

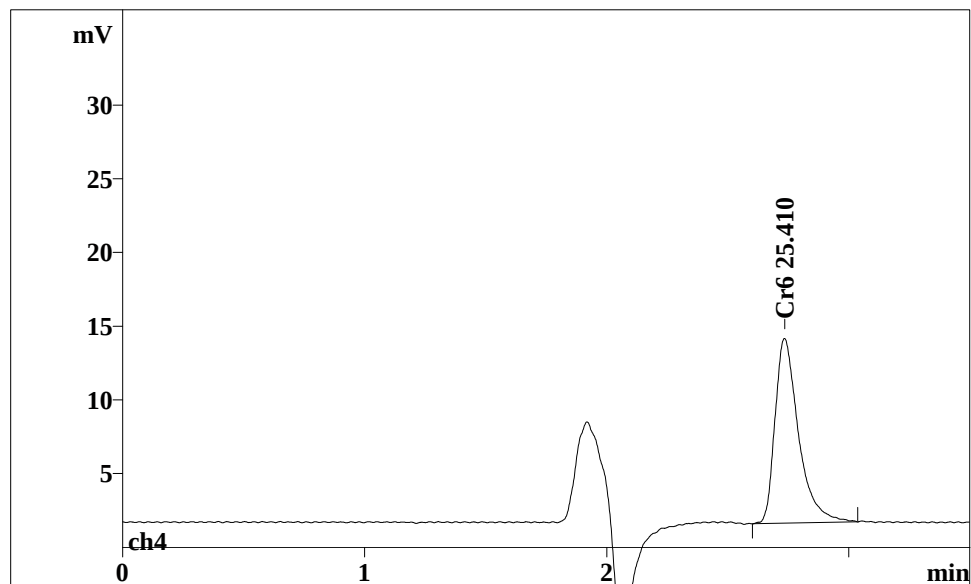
SAMPLE:

Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.73;	0.099;	12.54;	99.99;	84.761;	100.00;	0.00;	0.00;

37

Report date: 5/18/2012 12:42:46 PM
Printed by: TestAmerica - Edison

Ident: 50.0 ppb
Analysis from: 5/8/2012 6:30:18 PM
File: w5081830.chw Last save: 5/18/2012 12:37:09 PM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36529

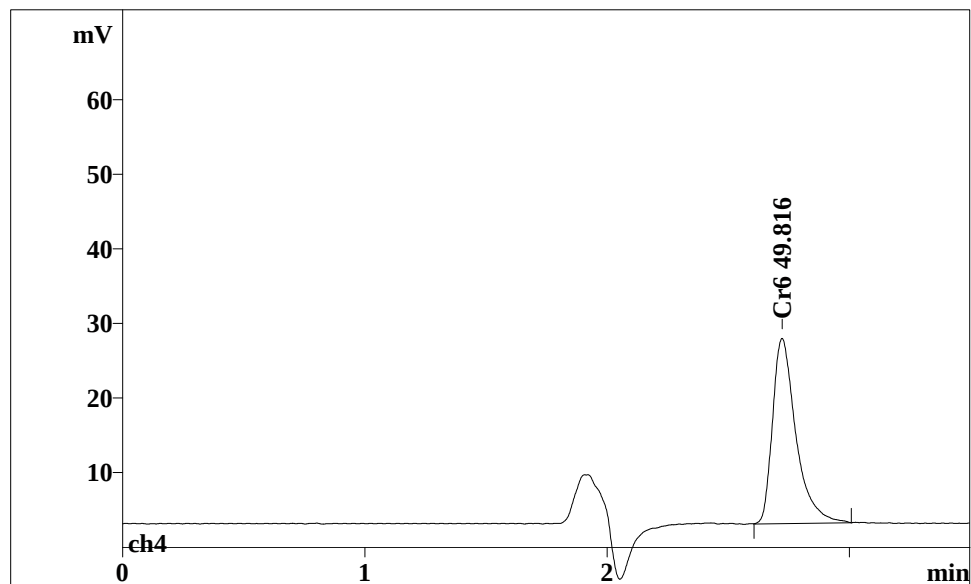
SAMPLE:

Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa

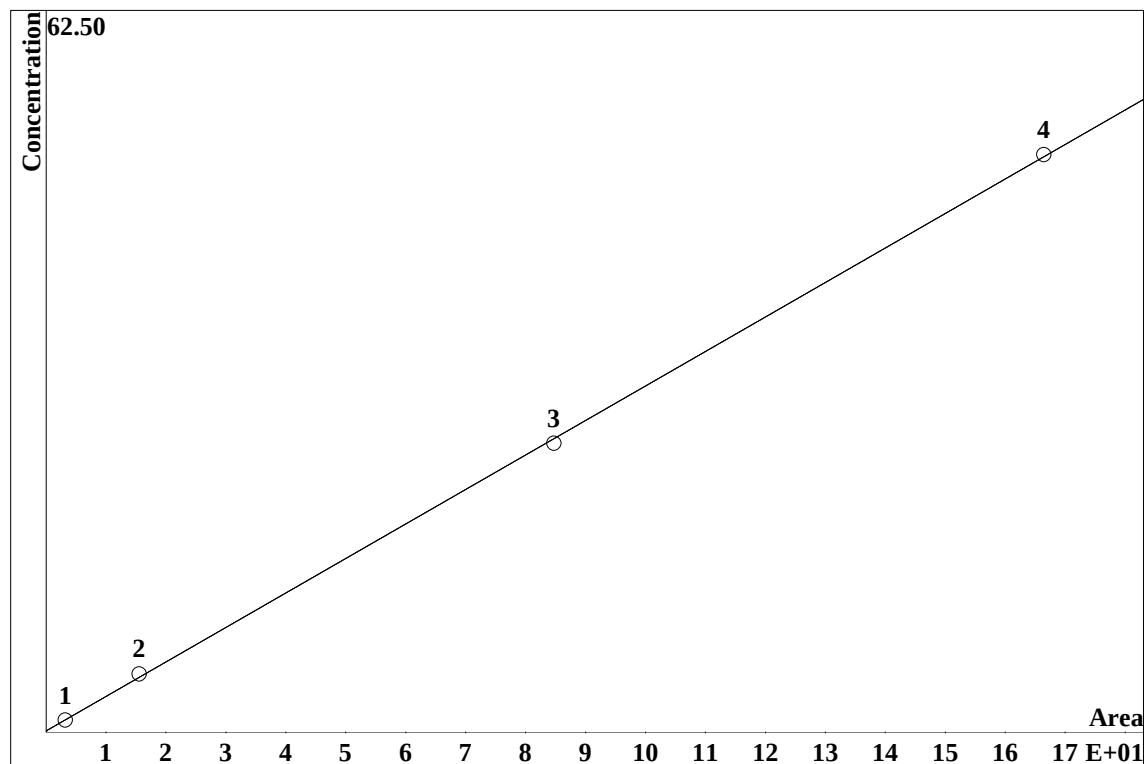


No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.72;	0.097;	24.83;	99.99;	166.440;	100.00;	0.00;	0.00;

37

CALIBRATION OF COMPONENT Cr6

Method: stl_hexchrome_water5.mtw
Equation: $Q = 0.298804 \cdot A + 0.0828199$
RSD: 1.833 %
Correlation coefficient: 0.999909



K3 = 0 K2 = 0 K1 = 0.298804 K0 = 0.0828199

Base: Area

Ref.channel: ch4

ISTD:

Formula: Linear

Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention Used File
1;	0.4759;	3.214;	1;	1;	2.744; Yes;w5081805.chw
2;	2.374;	15.56;	5;	1;	2.744; Yes;w5081813.chw
3;	12.54;	84.76;	25;	1;	2.744; Yes;w5081822.chw
4;	24.83;	166.4;	50;	1;	2.744; Yes;w5081830.chw

Report date: 5/18/2012 12:42:59 PM
Printed by: TestAmerica - Edison

Ident: ICV
Analysis from: 5/8/2012 6:38:33 PM
File: w5081838.chw Last save: 5/9/2012 9:05:02 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36530

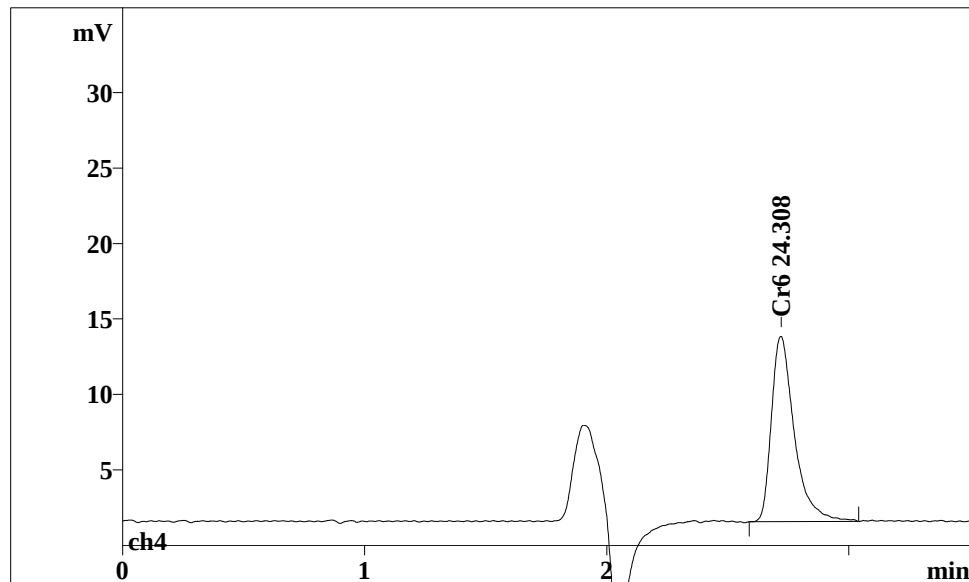
SAMPLE:

Vial number: 6
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.72;	0.096;	12.29;	100.03;	81.075;	100.00;	0.00;	0.00;

38

Report date: 5/18/2012 12:43:02 PM
Printed by: TestAmerica - Edison

Ident: ICB
Analysis from: 5/8/2012 6:46:49 PM
File: w5081846.chw Last save: 5/9/2012 9:05:02 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36531

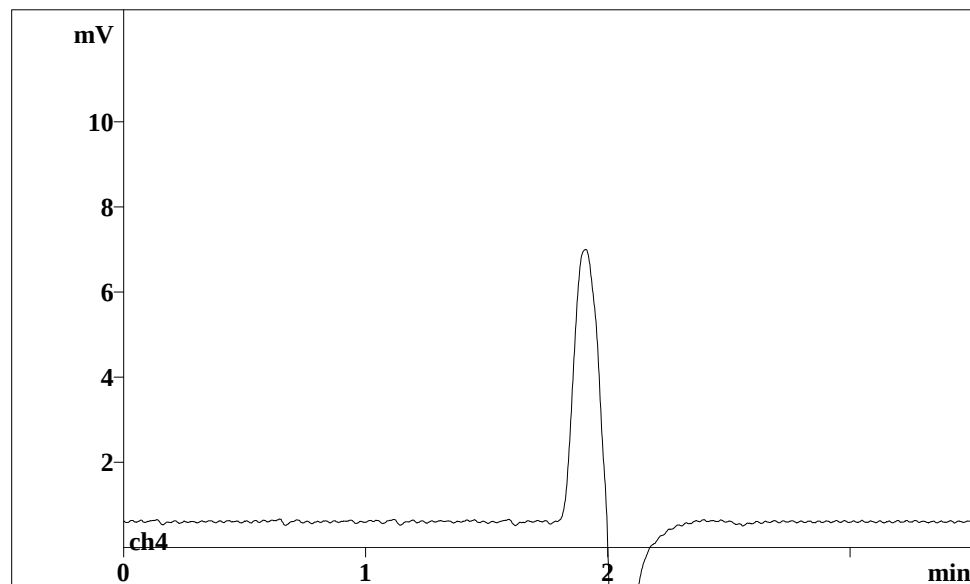
SAMPLE:

Vial number: 7
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No peaks

Report date: 5/18/2012 12:43:08 PM
Printed by: TestAmerica - Edison

Ident: MB
Analysis from: 5/8/2012 6:55:05 PM
File: w5081855.chw Last save: 5/9/2012 9:05:02 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36532

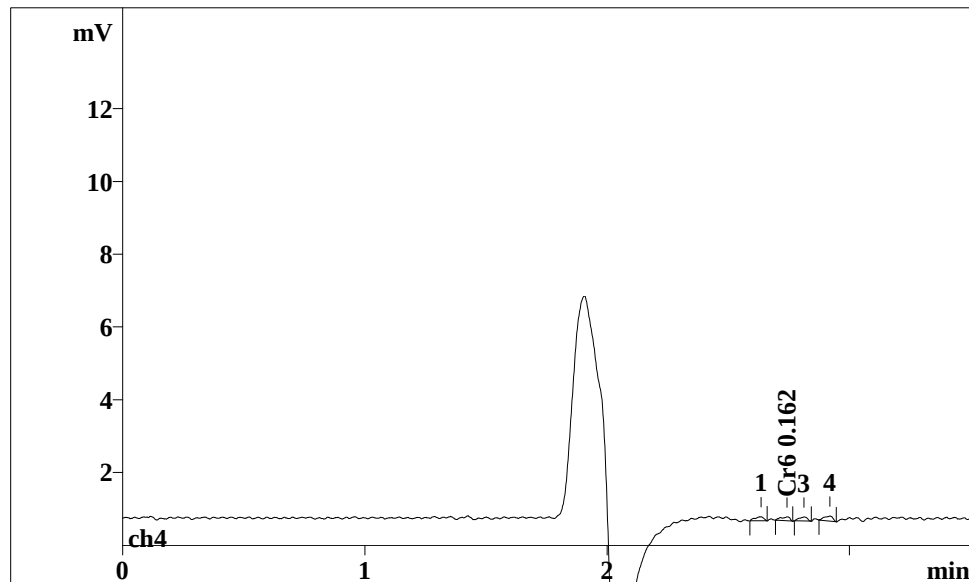
SAMPLE:

Vial number: 8
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.74;	0.048;	0.10;	22.08;	0.264;	23.19;	0.00;	0.85; 271

Report date: 5/18/2012 12:43:12 PM
Printed by: TestAmerica - Edison

Ident: MB
Analysis from: 5/8/2012 7:03:22 PM
File: w5081903.chw Last save: 5/9/2012 9:05:02 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36533

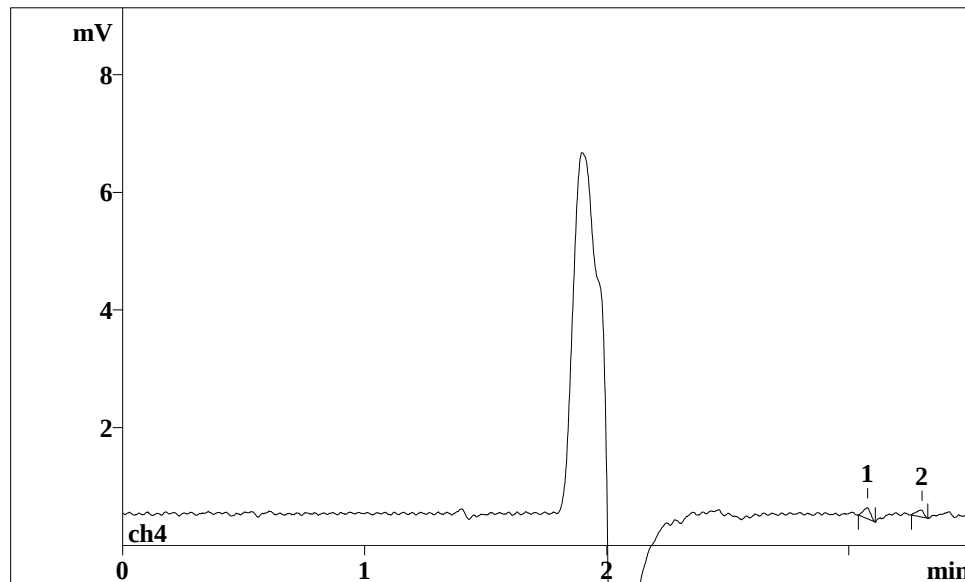
SAMPLE:

Vial number: 9
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 6.9 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	0.00;	0.000;	0.00;	0.00;	0.000;	0.00;	0.00;	0.00;

Report date: 5/18/2012 12:43:16 PM
Printed by: TestAmerica - Edison

Ident: LCS
Analysis from: 5/8/2012 7:11:39 PM
File: w5081911.chw Last save: 5/9/2012 9:05:02 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36534

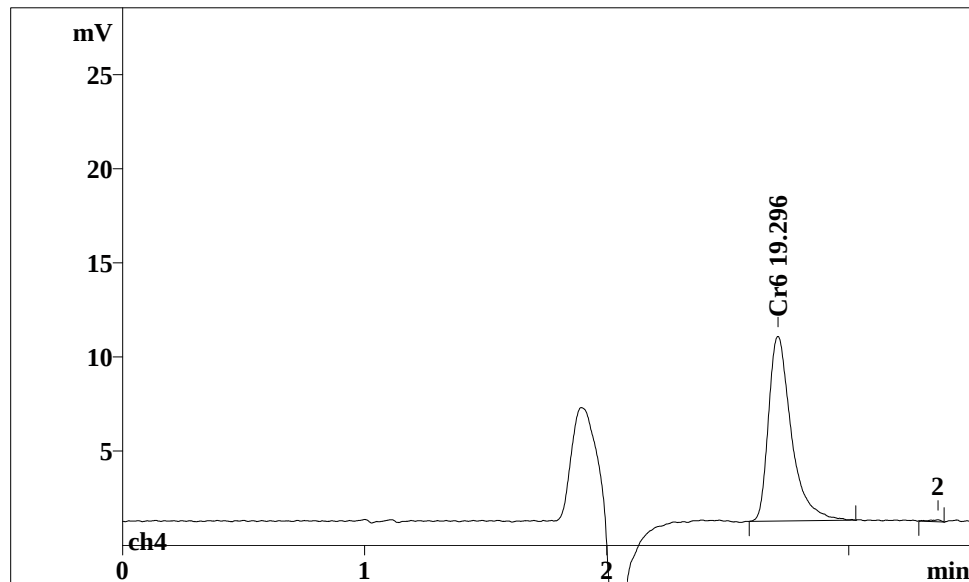
SAMPLE:

Vial number: 10
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 6.9 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.71;	0.096;	9.81;	98.99;	64.301;	99.50;	0.00;	5.23;

38

Report date: 5/18/2012 12:43:19 PM
Printed by: TestAmerica - Edison

Ident: LCS
Analysis from: 5/8/2012 7:19:58 PM
File: w5081919.chw Last save: 5/9/2012 9:05:02 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36535

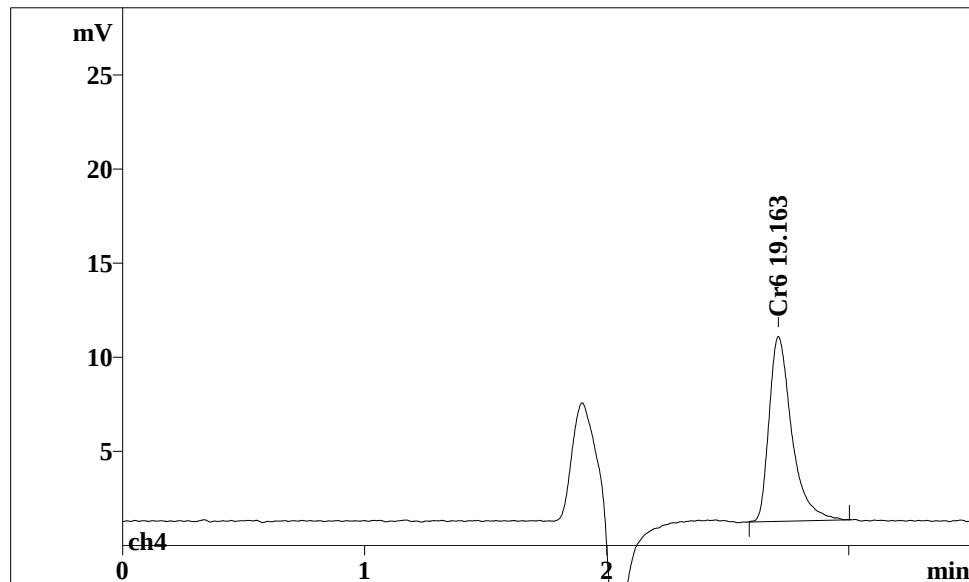
SAMPLE:

Vial number: 11
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.71;	0.095;	9.83;	99.96;	63.854;	100.00;	0.00;	0.00;

39

Report date: 5/18/2012 12:43:23 PM
Printed by: TestAmerica - Edison

Ident: MW-03@20
Analysis from: 5/8/2012 7:28:16 PM
File: w5081928.chw Last save: 5/9/2012 9:05:02 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36536

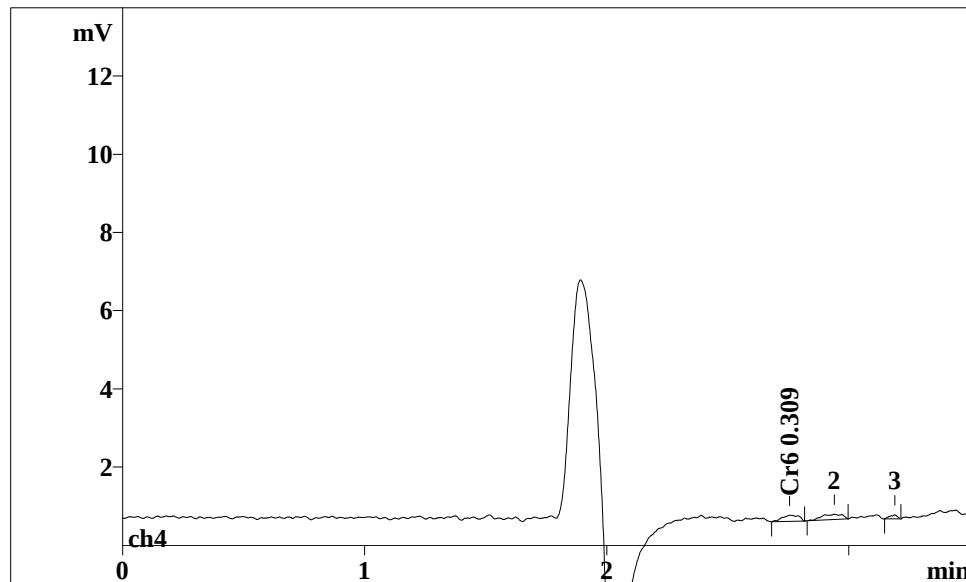
SAMPLE:

Vial number: 12
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 6.9 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.76;	0.086;	0.16;	39.73;	0.757;	43.11;	0.00;	1.06;

75

Report date: 5/18/2012 12:43:28 PM
Printed by: TestAmerica - Edison

Ident: MW-03@20
Analysis from: 5/8/2012 7:36:36 PM
File: w5081936.chw Last save: 5/9/2012 9:05:02 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36537

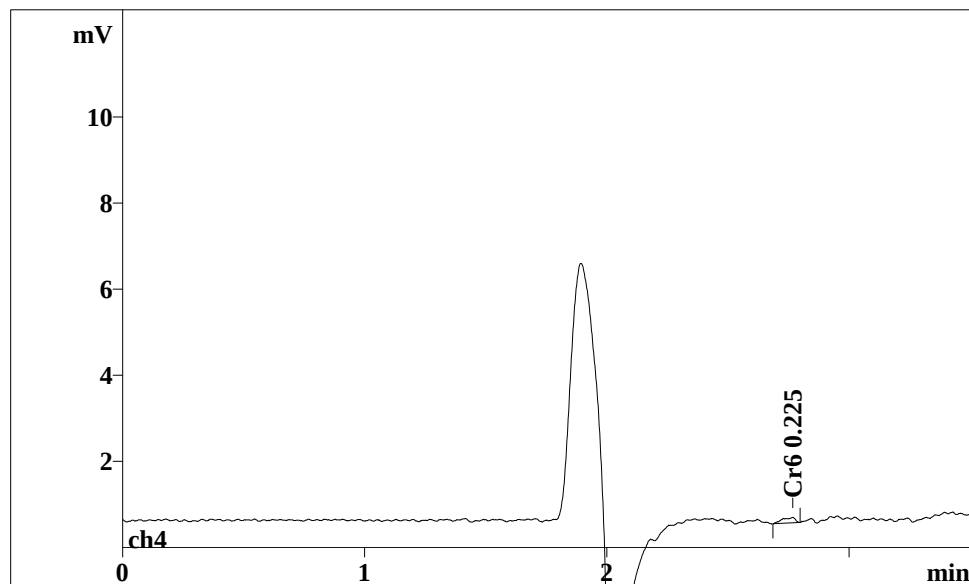
SAMPLE:

Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 6.9 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.77;	0.065;	0.13;	100.01;	0.477;	100.00;	0.00;	0.00; 120

Report date: 5/18/2012 12:43:32 PM
Printed by: TestAmerica - Edison

Ident: MW-03 DU@20
Analysis from: 5/8/2012 7:44:55 PM
File: w5081944.chw

Last save: 5/9/2012 9:05:02 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36538

Last save: 5/8/2012 5:24:4

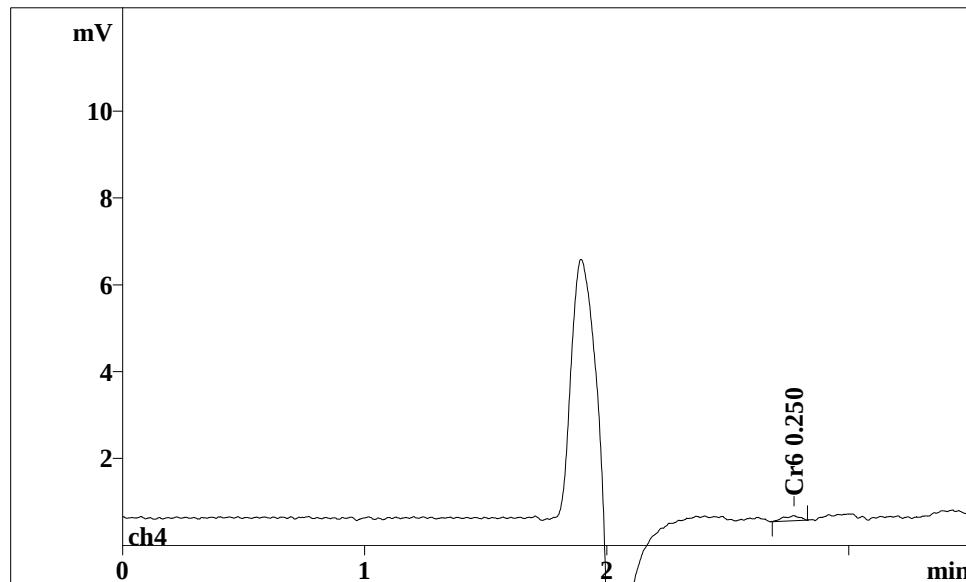
SAMPLE:

Vial number: 14
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.77;	0.090;	0.12;	99.35;	0.558;	100.00;	0.00;	0.00;

79

Report date: 5/18/2012 12:43:37 PM
Printed by: TestAmerica - Edison

Ident: MW-03 DU@20
Analysis from: 5/8/2012 7:53:16 PM
File: w5081953.chw

Last save: 5/9/2012 9:05:03 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36539

Last save: 5/8/2012 5:24:4

SAMPLE:

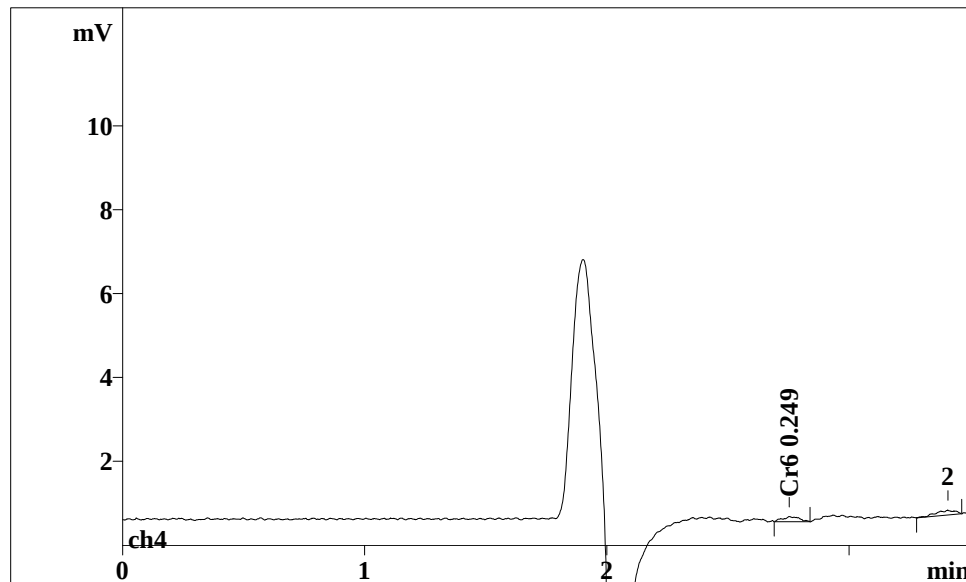
:

Vial number: 15
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.75;	0.089;	0.12;	49.69;	0.558;	46.49;	0.00;	4.65;

76

Report date: 5/18/2012 12:43:42 PM
Printed by: TestAmerica - Edison

Ident: MW-03 MS@20
Analysis from: 5/8/2012 8:01:37 PM
File: w5082001.chw

Last save: 5/9/2012 9:05:03 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36540

Last save: 5/8/2012 5:24:4

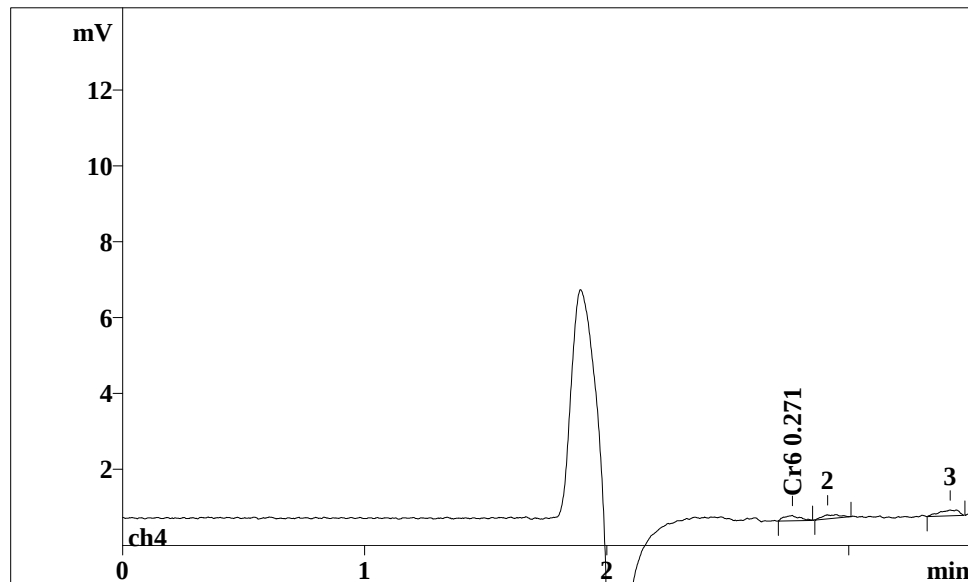
SAMPLE:

Vial number: 16
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;	
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;	
1;	2.76;	0.085;	0.14;	34.64;	0.628;	31.54;	0.00;	1.16;	86

Report date: 5/18/2012 12:43:46 PM
Printed by: TestAmerica - Edison

Ident: MW-03 MS@20
Analysis from: 5/8/2012 8:09:59 PM
File: w5082009.chw

Last save: 5/9/2012 9:05:03 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36541

Last save: 5/8/2012 5:24:4

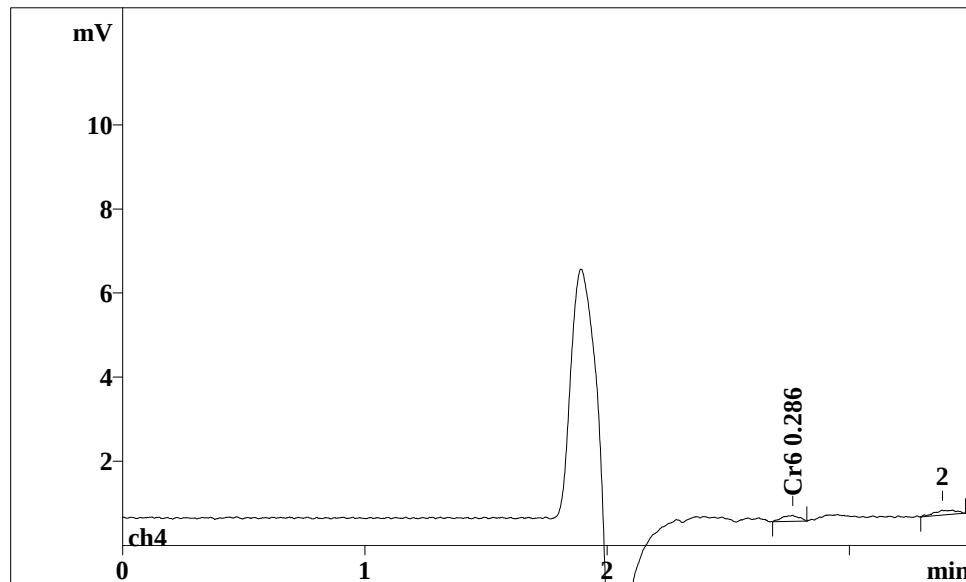
SAMPLE:

Vial number: 17
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.76;	0.087;	0.14;	53.26;	0.681;	49.68;	0.00;	3.93;

75

Report date: 5/18/2012 12:43:51 PM
Printed by: TestAmerica - Edison

Ident: CCV
Analysis from: 5/8/2012 8:18:22 PM
File: w5082018.chw Last save: 5/9/2012 9:05:03 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36542

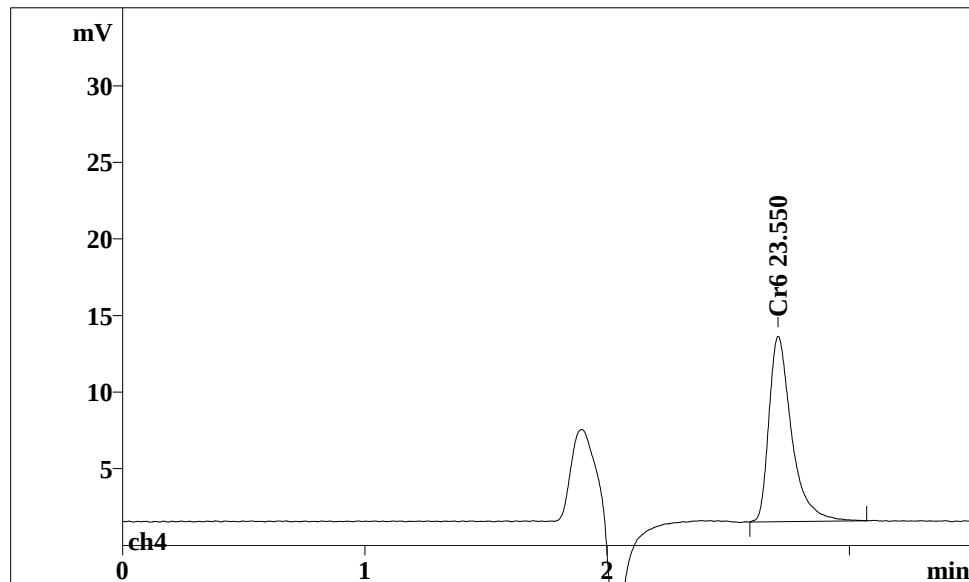
SAMPLE:

Vial number: 18
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.71;	0.094;	12.10;	100.02;	78.537;	100.00;	0.00;	0.00;

39

Report date: 5/18/2012 12:43:55 PM
Printed by: TestAmerica - Edison

Ident: CCB
Analysis from: 5/8/2012 8:26:44 PM
File: w5082026.chw Last save: 5/9/2012 9:05:03 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36543

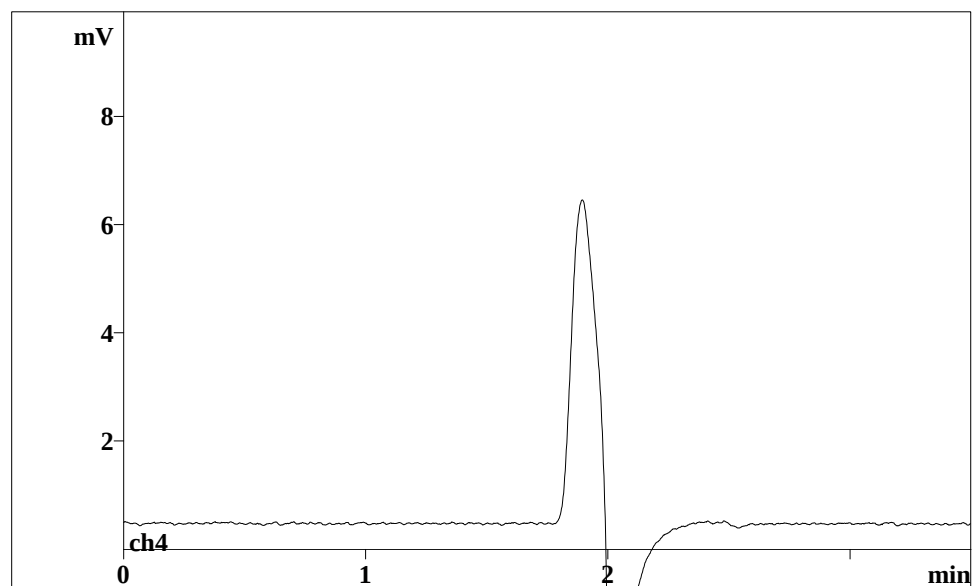
SAMPLE:

:
Vial number: 19
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No peaks

Report date: 5/18/2012 12:43:59 PM
Printed by: TestAmerica - Edison

Ident: MW-03 PDS@20
Analysis from: 5/8/2012 8:35:06 PM
File: w5082035.chw

Last save: 5/9/2012 9:05:03 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36544

Last save: 5/8/2012 5:24:4

SAMPLE:

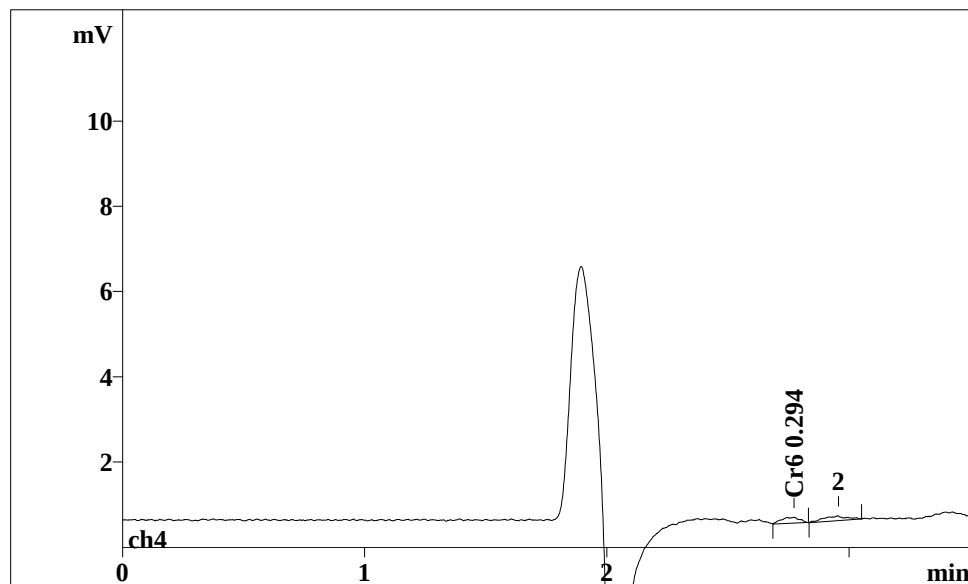
:

Vial number: 20
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;	
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;	
1;	2.77;	0.098;	0.13;	53.80;	0.708;	48.01;	0.00;	1.11;	63

Report date: 5/18/2012 12:44:04 PM
Printed by: TestAmerica - Edison

Ident: MW-03 PDS@20
Analysis from: 5/8/2012 8:43:29 PM
File: w5082043.chw

Last save: 5/9/2012 9:05:03 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36545

Last save: 5/8/2012 5:24:4

SAMPLE:

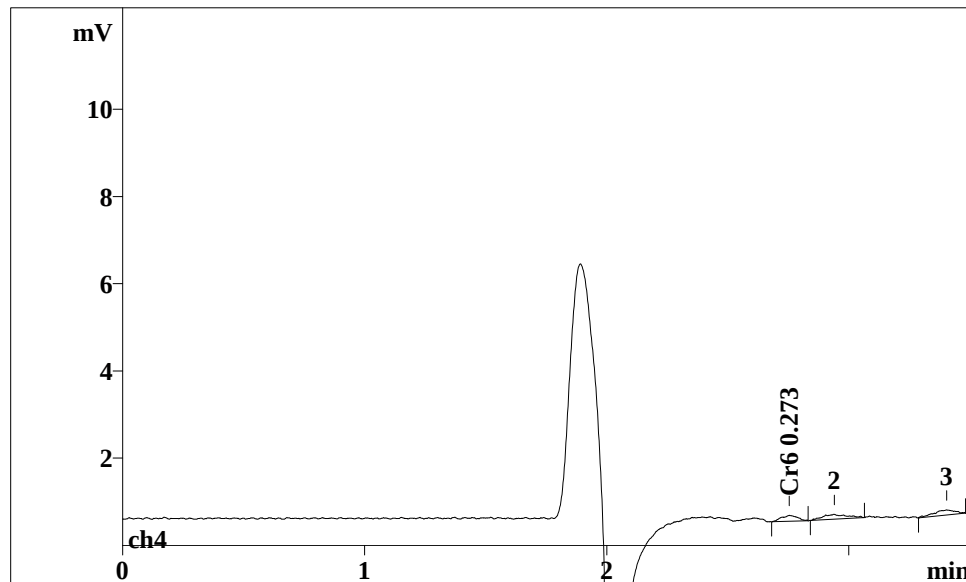
:

Vial number: 21
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;	
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;	
1;	2.75;	0.084;	0.14;	37.32;	0.638;	30.47;	0.00;	1.13;	83

Report date: 5/18/2012 12:44:08 PM
Printed by: TestAmerica - Edison

Ident: MW-02@20
Analysis from: 5/8/2012 8:51:52 PM
File: w5082051.chw

Last save: 5/9/2012 9:05:03 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36546

Last save: 5/8/2012 5:24:4

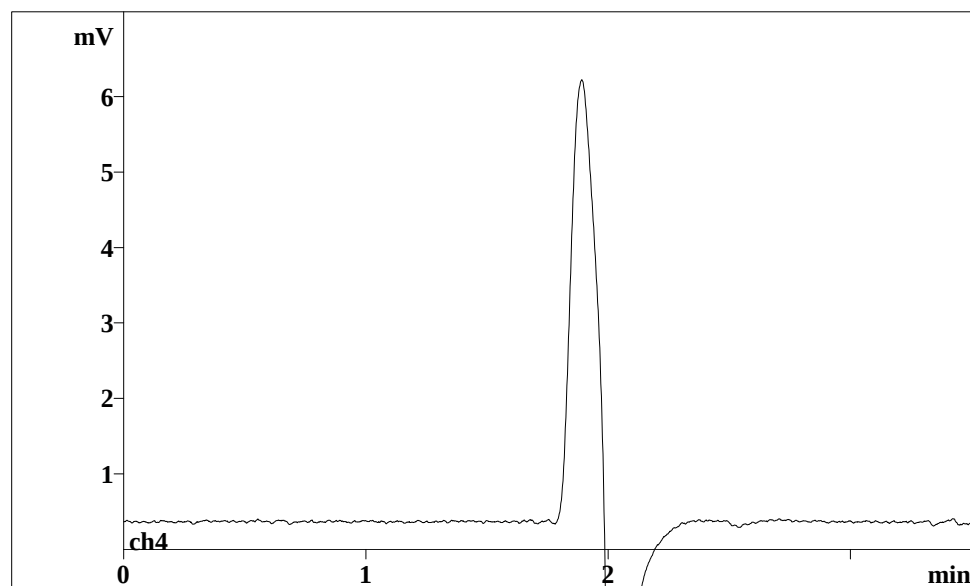
SAMPLE:

Vial number: 22
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No peaks

Report date: 5/18/2012 12:44:12 PM
Printed by: TestAmerica - Edison

Ident: MW-02@20
Analysis from: 5/8/2012 9:00:15 PM
File: w5082100.chw Last save: 5/9/2012 9:05:04 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36547

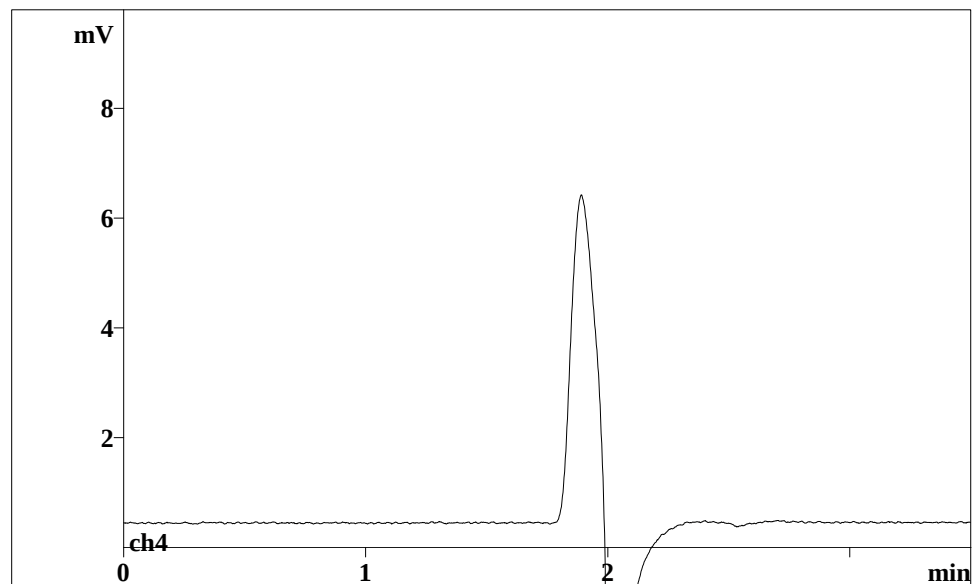
SAMPLE:

Vial number: 23
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No peaks

Report date: 5/18/2012 12:44:16 PM
Printed by: TestAmerica - Edison

Ident: DUP-GW@20
Analysis from: 5/8/2012 9:08:37 PM
File: w5082108.chw

Last save: 5/9/2012 9:05:04 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36548

Last save: 5/8/2012 5:24:4

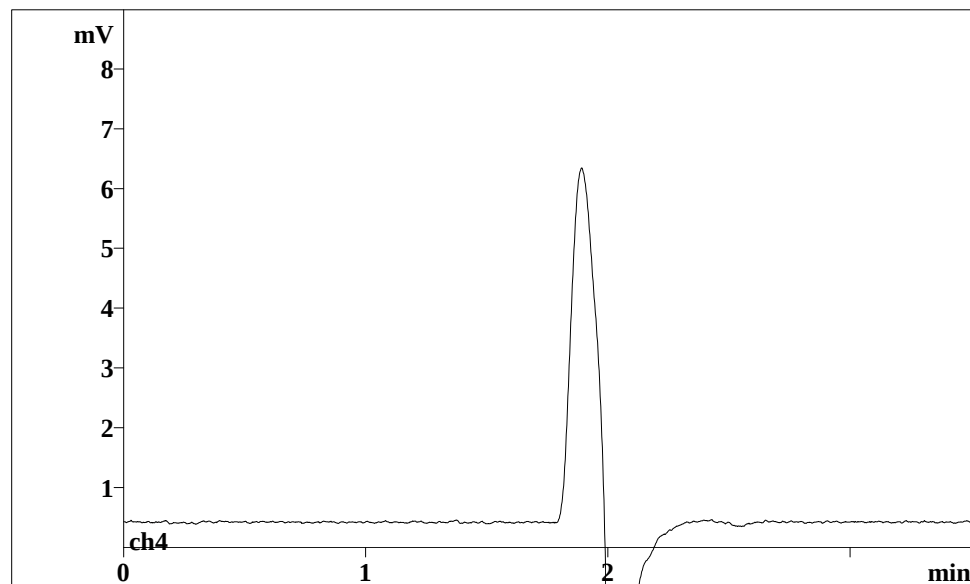
SAMPLE:

Vial number: 24
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No peaks

Report date: 5/18/2012 12:44:21 PM
Printed by: TestAmerica - Edison

Ident: DUP-GW@20
Analysis from: 5/8/2012 9:17:00 PM
File: w5082117.chw

Last save: 5/9/2012 9:05:04 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36549

Last save: 5/8/2012 5:24:4

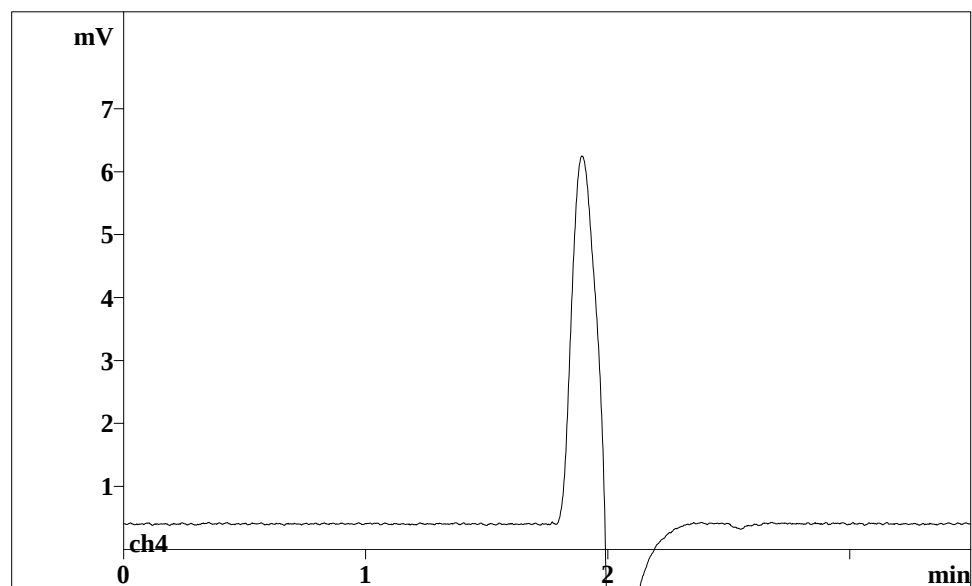
SAMPLE:

Vial number: 25
Volume: 1.0 μ L
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 μ m

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No peaks

Report date: 5/18/2012 12:44:25 PM
Printed by: TestAmerica - Edison

Ident: MW-03 PDS@40
Analysis from: 5/8/2012 9:25:22 PM
File: w5082125.chw

Last save: 5/9/2012 9:05:04 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36550

Last save: 5/8/2012 5:24:4

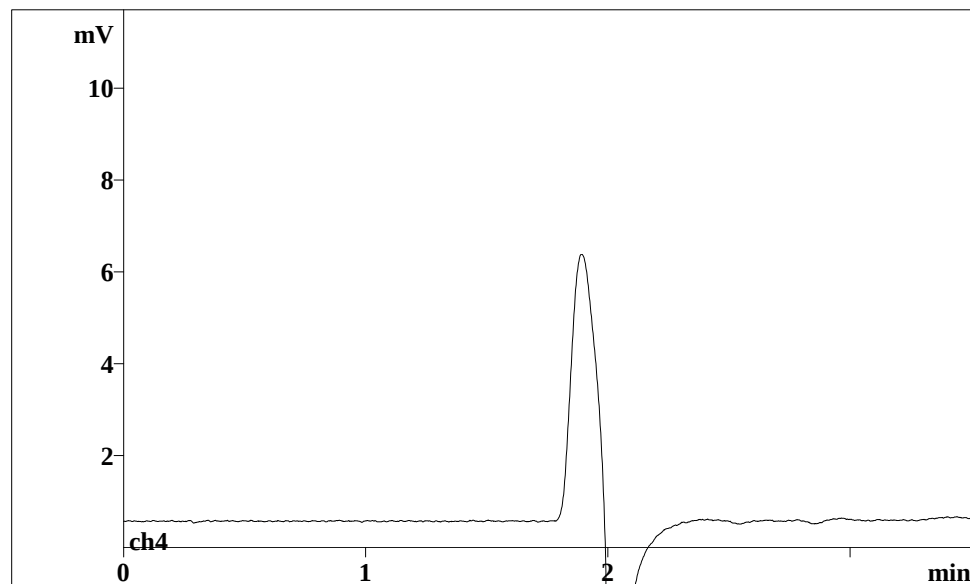
SAMPLE:

Vial number: 26
Volume: 1.0 μ L
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 μ m

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No peaks

Report date: 5/18/2012 12:44:30 PM
Printed by: TestAmerica - Edison

Ident: MW-03 PDS@40
Analysis from: 5/8/2012 9:33:44 PM
File: w5082133.chw

Last save: 5/9/2012 9:05:04 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36551

Last save: 5/8/2012 5:24:4

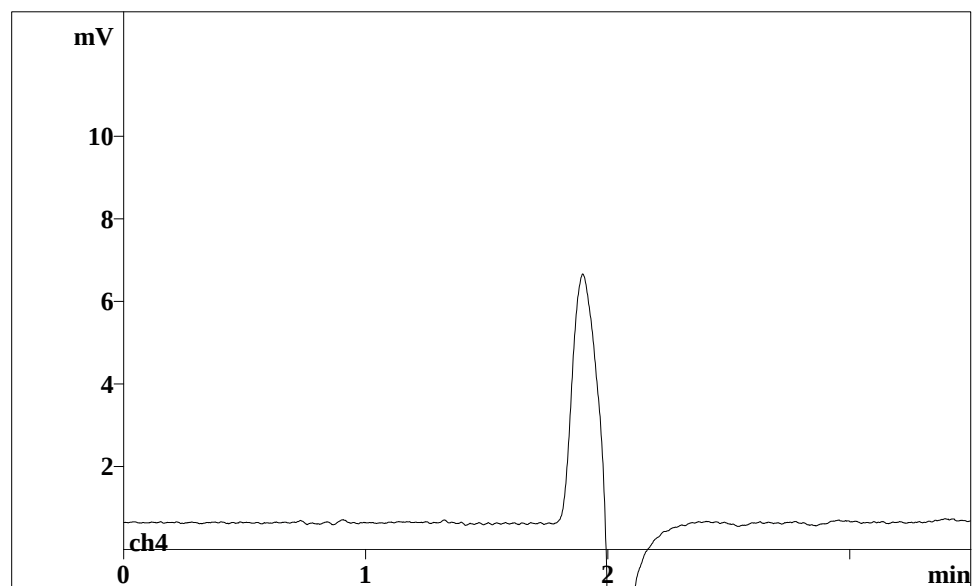
SAMPLE:

Vial number: 27
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No peaks

Report date: 5/18/2012 12:44:34 PM
Printed by: TestAmerica - Edison

Ident: MW-03 PDS@80
Analysis from: 5/8/2012 9:42:06 PM
File: w5082142.chw

Last save: 5/9/2012 9:05:04 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36552

Last save: 5/8/2012 5:24:4

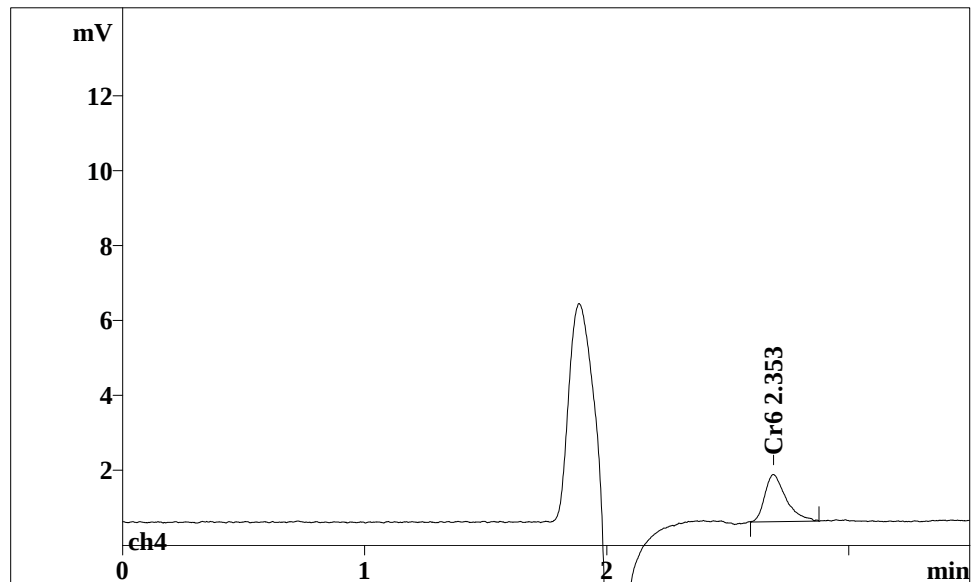
SAMPLE:

Vial number: 28
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.69;	0.090;	1.26;	99.95;	7.598;	100.00;	0.00;	0.00;

44

Report date: 5/18/2012 12:44:37 PM
Printed by: TestAmerica - Edison

Ident: MW-03 PDS@80
Analysis from: 5/8/2012 9:50:27 PM
File: w5082150.chw

Last save: 5/9/2012 9:05:04 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36553

Last save: 5/8/2012 5:24:4

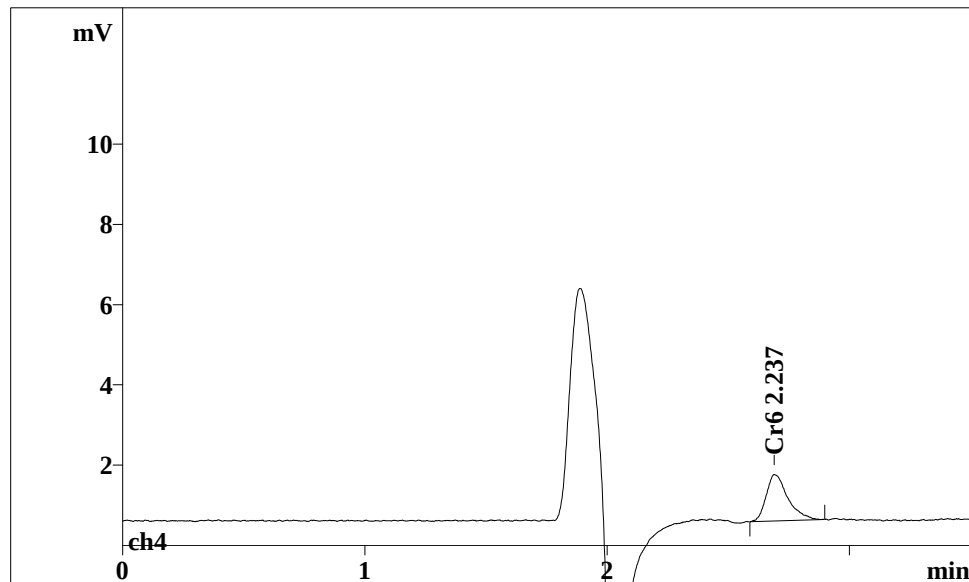
SAMPLE:

Vial number: 29
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 7.0 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.69;	0.091;	1.16;	99.79;	7.209;	100.00;	0.00;	0.00;

42

Report date: 5/18/2012 12:44:42 PM
Printed by: TestAmerica - Edison

Ident: CCV
Analysis from: 5/8/2012 9:58:47 PM
File: w5082158.chw Last save: 5/9/2012 9:05:05 AM

Method: stl_hexchrome_water5.mtw Last save: 5/8/2012 5:24:4
Run operator: TestAmerica - Edison
Analysis number: 36554

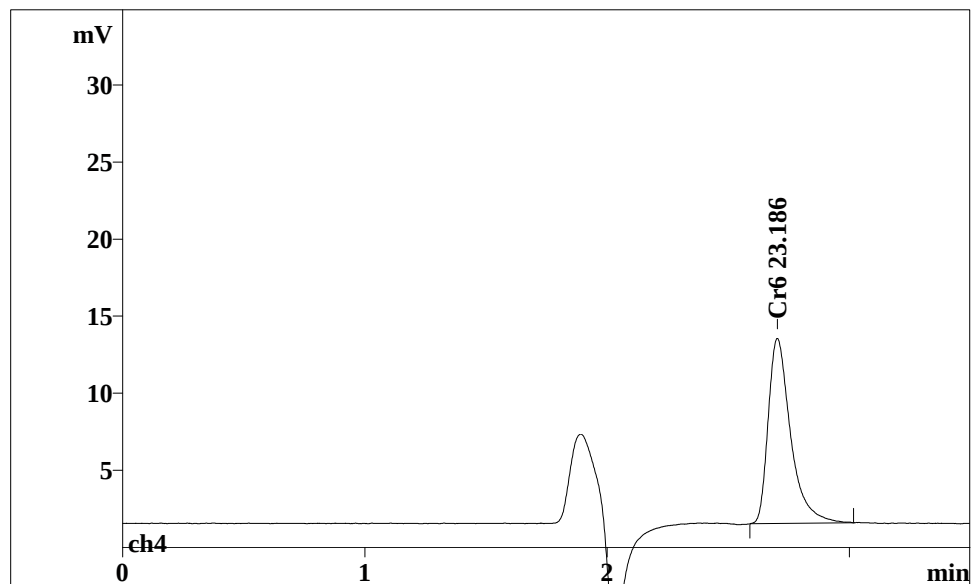
SAMPLE:

Vial number: 30
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 6.9 MPa



No;	Retention;	Width/2;	Height;	Height;	Area;	Area;	K';	Resolution;
;	min;	min;	mV;	%;	mV*sec;	%;	;	n, n+1;
1;	2.70;	0.094;	12.02;	100.02;	77.319;	100.00;	0.00;	0.00;

39

Report date: 5/18/2012 12:44:47 PM
Printed by: TestAmerica - Edison

Ident: CCB
Analysis from: 5/8/2012 10:07:07 PM
File: w5082207.chw

Last save: 5/9/2012 9:05:05 AM

Method: stl_hexchrome_water5.mtw
Run operator: TestAmerica - Edison
Analysis number: 36555

Last save: 5/8/2012 5:24:4

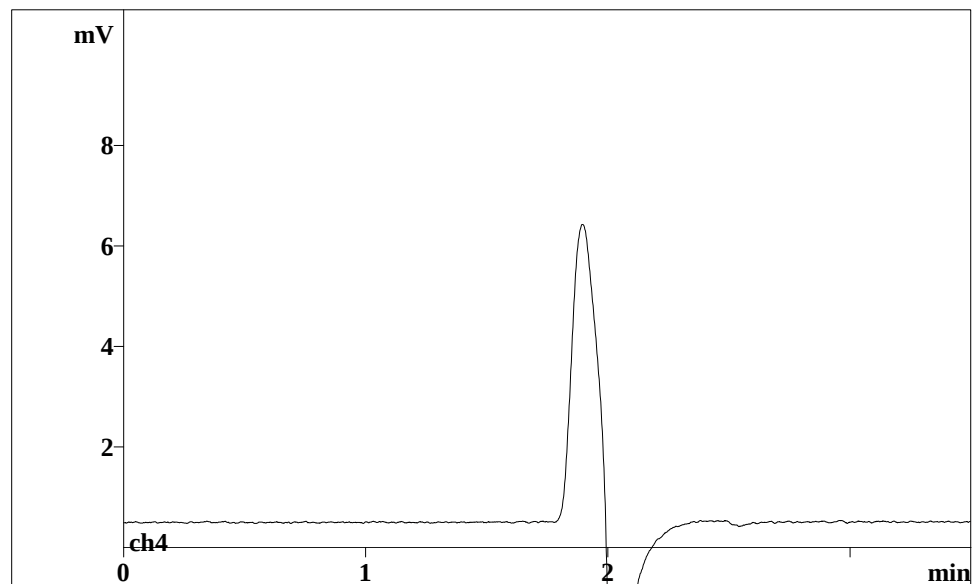
SAMPLE:

Vial number: 31
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000

COLUMN: A Supp 5-150
Size: 4.6 x 150 mm
Number:
Part.size: 7.0 µm

ELUENT: 250 mM (NH₄)SO₄ / 100 mM NH₄OH

Flow: 0.75 mL/min
Temperature: 35.0°C
Pressure: 6.9 MPa



No peaks

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-39947-1

SDG No.: _____

Batch Number: 113148 Batch Start Date: 05/08/12 17:57 Batch Analyst: Demone, LauraBatch Method: 7199 Batch End Date: 05/08/12 22:07

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	Initial pH	WThcrIM5 00387	WThcrIM6 00376	WThcrsLCS 00058	AnalysisComment
ICV 460-113148/6		7199		100 mL	9.23		2.5 mL		All samples run in duplicate as per the method. Higher result reported as primary, lower result rejected.
ICB 460-113148/7		7199			9.27				Initial pH = pH (in SU between 9 and 9.5) after adjustment with IC buffer reagent
MB 460-113148/8		7199			9.27				
LCS 460-113148/10		7199		100 mL	9.32			0.17 mL	Samples run on a 20x dilution (2.5 ml sample to final volume of 50 ml with dilution water) due to sample matrix
460-39947-A-1 ^20	MW-03-050712	7199	T		9.29				40x dilution (1.25 ml to FV 50 ml with dilution water) 80x dilution (0.625 ml sample to FV 50 ml with dilution water)
460-39947-A-1 DU ^20	MW-03-050712	7199	T		9.32				
460-39947-A-1 MS ^20	MW-03-050712	7199	T	50 mL	9.26	2 mL			
CCV 460-113148/18		7199		100 mL	9.23		2.5 mL		
CCB 460-113148/19		7199			9.27				
460-39947-A-1 PDS ^20	MW-03-050712	7199	T	50 mL	9.25	0.25 mL			

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-39947-1

SDG No.: _____

Batch Number: 113148 Batch Start Date: 05/08/12 17:57 Batch Analyst: Demone, LauraBatch Method: 7199 Batch End Date: 05/08/12 22:07

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	Initial pH	WThcrIM5 00387	WThcrIM6 00376	WThcrsLCS 00058	AnalysisComment
460-39947-A-2 ^20	MW-02-050712	7199	T		9.19				
460-39947-A-3 ^20	Dup-GW-050712	7199	T		9.23				
460-39947-A-1 PDS ^40	MW-03-050712	7199	T	50 mL	9.26	0.25 mL			
460-39947-A-1 PDS ^80	MW-03-050712	7199	T	50 mL	9.29	0.25 mL			
CCV 460-113148/30		7199		100 mL	9.23		2.5 mL		
CCB 460-113148/31		7199			9.27				

Batch Notes	
Batch Comment	Cal curve: IC (1729-1732) 12; CCV: IC (1733) 12 exp: 5/8/12
Buffer Lot #	C-7908-12 exp: 8/17/12
Eluent 1 Lot	1204-12 exp: 5/10/12
Filter Lot #	Nalgene Lot # 1062377
pH Meter ID	D
Post Column Reagent Lot	1206-12 exp: 5/13/12

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 460-39947-1

Login Number: 39947

List Source: TestAmerica Edison

List Number: 1

Creator: Villadarez, Gerson Timothy S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present.
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8°C IR#50
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	See NCM
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	