

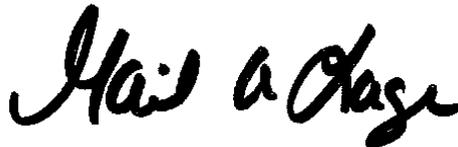
ANALYTICAL REPORT

Job Number: 490-158232-1

Job Description: CUF_BS_20180828_1A

For:

Environmental Standards Inc.
1140 Valley Forge Road
PO BOX 810
Valley Forge, PA 19482-0810
Attention: Jennifer N. Gable



Approved for release.
Gail Lage
Senior Project Manager
2/8/2019 10:38 AM

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Definitions/Glossary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
490-158232-1

Revised Report

This report was revised to include the ICPMS data from TestAmerica Pittsburgh. The L4 with the TA-Pittsburgh data will be reported separately as 490-158232-2

Receipt

The samples were received on 8/28/2018 8:12 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 4.2° C, 4.4° C and 5.7° C.

HPLC/IC

Method(s) 9056A: The method blank for analytical batch 490-539643 contained Chloride and Sulfate above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Client Sample ID: CUF-BS-FB06-20180828

Lab Sample ID: 490-158232-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.259	J B	1.00	0.200	mg/L	1		9056A	Total/NA
Sulfate	0.435	J B	1.00	0.0300	mg/L	1		9056A	Total/NA

Client Sample ID: CUF-BS-BG13-0.0/0.5-20180828

Lab Sample ID: 490-158232-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.02		1.23	0.985	mg/Kg	1	☼	9056A	Soluble
Sulfate	8.77	J	12.3	7.39	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0526	J	0.122	0.0366	mg/Kg	1	☼	7471B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.0		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG13-0.75/2.75-20180828

Lab Sample ID: 490-158232-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.80		1.35	1.08	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0502	J	0.133	0.0400	mg/Kg	1	☼	7471B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.7		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG13-6.5/8.5-20180828

Lab Sample ID: 490-158232-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.45		1.29	1.03	mg/Kg	1	☼	9056A	Soluble
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.9		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-FD02-20180828

Lab Sample ID: 490-158232-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.43		1.25	0.997	mg/Kg	1	☼	9056A	Soluble
Sulfate	7.56	J	12.5	7.48	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0481	J	0.123	0.0369	mg/Kg	1	☼	7471B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.3		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG14-0.0/0.5-20180828

Lab Sample ID: 490-158232-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.10		1.23	0.984	mg/Kg	1	☼	9056A	Soluble
Sulfate	20.3		12.3	7.38	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0425	J	0.119	0.0356	mg/Kg	1	☼	7471B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.2		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG14-1.0/3.0-20180828

Lab Sample ID: 490-158232-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.75		1.29	1.03	mg/Kg	1	☼	9056A	Soluble

This Detection Summary does not include radiochemical test results.

TestAmerica Nashville

Detection Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Client Sample ID: CUF-BS-BG14-1.0/3.0-20180828 (Continued)

Lab Sample ID: 490-158232-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	19.6		12.9	7.72	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0716	J	0.123	0.0369	mg/Kg	1	☼	7471B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.3		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG14-6.5/8.5-20180828

Lab Sample ID: 490-158232-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.50		1.21	0.970	mg/Kg	1	☼	9056A	Soluble
Sulfate	8.39	J	12.1	7.27	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0521	J	0.117	0.0352	mg/Kg	1	☼	7471B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.1		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG14-10.3/12.3-20180828

Lab Sample ID: 490-158232-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.34		1.23	0.987	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0597	J	0.121	0.0364	mg/Kg	1	☼	7471B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.9		0.1	0.1	SU	1		9045D	Soluble

This Detection Summary does not include radiochemical test results.

TestAmerica Nashville

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Client Sample ID: CUF-BS-FB06-20180828

Lab Sample ID: 490-158232-1

Date Collected: 08/28/18 09:15

Matrix: Water

Date Received: 08/28/18 20:12

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.259	J B	1.00	0.200	mg/L			08/29/18 17:38	1
Fluoride	ND		0.100	0.0100	mg/L			08/29/18 17:38	1
Sulfate	0.435	J B	1.00	0.0300	mg/L			08/29/18 17:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200	0.000100	mg/L		09/04/18 09:40	09/04/18 16:59	1

Client Sample ID: CUF-BS-BG13-0.0/0.5-20180828

Lab Sample ID: 490-158232-2

Date Collected: 08/28/18 12:21

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 81.1

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.3	8.62	mg/Kg	☼		09/08/18 00:52	1
Fluoride	3.02		1.23	0.985	mg/Kg	☼		09/08/18 00:52	1
Sulfate	8.77	J	12.3	7.39	mg/Kg	☼		09/08/18 00:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0526	J	0.122	0.0366	mg/Kg	☼	09/07/18 15:33	09/08/18 15:41	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0		0.1	0.1	SU			08/29/18 18:48	1

Client Sample ID: CUF-BS-BG13-0.75/2.75-20180828

Lab Sample ID: 490-158232-3

Date Collected: 08/28/18 12:45

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 74.9

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		13.5	9.46	mg/Kg	☼		09/08/18 01:04	1
Fluoride	3.80		1.35	1.08	mg/Kg	☼		09/08/18 01:04	1
Sulfate	ND		13.5	8.10	mg/Kg	☼		09/08/18 01:04	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0502	J	0.133	0.0400	mg/Kg	☼	09/07/18 15:33	09/08/18 15:43	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.1	0.1	SU			08/29/18 18:48	1

Client Sample ID: CUF-BS-BG13-6.5/8.5-20180828

Lab Sample ID: 490-158232-4

Date Collected: 08/28/18 13:05

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 77.0

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.9	9.02	mg/Kg	☼		09/08/18 01:15	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Client Sample ID: CUF-BS-BG13-6.5/8.5-20180828

Lab Sample ID: 490-158232-4

Date Collected: 08/28/18 13:05

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 77.0

Method: 9056A - Anions, Ion Chromatography - Soluble (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	2.45		1.29	1.03	mg/Kg	☼		09/08/18 01:15	1
Sulfate	ND		12.9	7.73	mg/Kg	☼		09/08/18 01:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.130	0.0391	mg/Kg	☼	09/07/18 15:33	09/08/18 15:46	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.1	0.1	SU			08/29/18 18:48	1

Client Sample ID: CUF-BS-FD02-20180828

Lab Sample ID: 490-158232-5

Date Collected: 08/28/18 00:01

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 80.5

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.5	8.73	mg/Kg	☼		09/08/18 01:27	1
Fluoride	3.43		1.25	0.997	mg/Kg	☼		09/08/18 01:27	1
Sulfate	7.56	J	12.5	7.48	mg/Kg	☼		09/08/18 01:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0481	J	0.123	0.0369	mg/Kg	☼	09/07/18 15:33	09/08/18 15:49	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.3		0.1	0.1	SU			08/29/18 18:48	1

Client Sample ID: CUF-BS-BG14-0.0/0.5-20180828

Lab Sample ID: 490-158232-6

Date Collected: 08/28/18 15:10

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 82.1

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.3	8.61	mg/Kg	☼		09/08/18 01:39	1
Fluoride	3.10		1.23	0.984	mg/Kg	☼		09/08/18 01:39	1
Sulfate	20.3		12.3	7.38	mg/Kg	☼		09/08/18 01:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0425	J	0.119	0.0356	mg/Kg	☼	09/07/18 15:33	09/08/18 15:51	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.2		0.1	0.1	SU			08/29/18 18:48	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Client Sample ID: CUF-BS-BG14-1.0/3.0-20180828

Lab Sample ID: 490-158232-7

Date Collected: 08/28/18 15:37

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 78.6

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.9	9.01	mg/Kg	☼		09/08/18 01:50	1
Fluoride	2.75		1.29	1.03	mg/Kg	☼		09/08/18 01:50	1
Sulfate	19.6		12.9	7.72	mg/Kg	☼		09/08/18 01:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0716	J	0.123	0.0369	mg/Kg	☼	09/07/18 15:33	09/08/18 15:54	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.3		0.1	0.1	SU			08/29/18 18:48	1

Client Sample ID: CUF-BS-BG14-6.5/8.5-20180828

Lab Sample ID: 490-158232-8

Date Collected: 08/28/18 15:51

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 83.2

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.1	8.49	mg/Kg	☼		09/08/18 02:02	1
Fluoride	2.50		1.21	0.970	mg/Kg	☼		09/08/18 02:02	1
Sulfate	8.39	J	12.1	7.27	mg/Kg	☼		09/08/18 02:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0521	J	0.117	0.0352	mg/Kg	☼	09/07/18 15:33	09/08/18 15:57	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.1		0.1	0.1	SU			08/29/18 18:48	1

Client Sample ID: CUF-BS-BG14-10.3/12.3-20180828

Lab Sample ID: 490-158232-9

Date Collected: 08/28/18 16:05

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 82.2

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.3	8.64	mg/Kg	☼		09/08/18 02:13	1
Fluoride	3.34		1.23	0.987	mg/Kg	☼		09/08/18 02:13	1
Sulfate	ND		12.3	7.40	mg/Kg	☼		09/08/18 02:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0597	J	0.121	0.0364	mg/Kg	☼	09/07/18 15:33	09/08/18 16:00	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.1	0.1	SU			08/29/18 18:48	1

Default Detection Limits

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Method: 9056A - Anions, Ion Chromatography

Analyte	RL	MDL	Units	Method
Chloride	1.00	0.200	mg/L	9056A
Fluoride	0.100	0.0100	mg/L	9056A
Sulfate	1.00	0.0300	mg/L	9056A

Method: 9056A - Anions, Ion Chromatography - Soluble

Leach: DI Leach

Analyte	RL	MDL	Units	Method
Chloride	10.0	7.00	mg/Kg	9056A
Fluoride	1.00	0.800	mg/Kg	9056A
Sulfate	10.0	6.00	mg/Kg	9056A

Method: 7470A - Mercury (CVAA)

Prep: 7470A

Analyte	RL	MDL	Units	Method
Mercury	0.000200	0.000100	mg/L	7470A

Method: 7471B - Mercury (CVAA)

Prep: 7471B

Analyte	RL	MDL	Units	Method
Mercury	0.100	0.0300	mg/Kg	7471B

General Chemistry - Soluble

Leach: DI Leach

Analyte	RL	RL	Units	Method
pH	0.1	0.1	SU	9045D

QC Sample Results

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 490-539643/3
Matrix: Water
Analysis Batch: 539643

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	0.3023	J	1.00	0.200	mg/L			08/29/18 16:17	1
Fluoride	ND		0.100	0.0100	mg/L			08/29/18 16:17	1
Sulfate	0.4435	J	1.00	0.0300	mg/L			08/29/18 16:17	1

Lab Sample ID: LCS 490-539643/4
Matrix: Water
Analysis Batch: 539643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							RPD	Limit
Chloride	10.0	10.02		mg/L		100	80 - 120	
Fluoride	1.00	0.9281		mg/L		93	80 - 120	
Sulfate	10.0	9.545		mg/L		95	80 - 120	

Lab Sample ID: LCSD 490-539643/5
Matrix: Water
Analysis Batch: 539643

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit	RPD	Limit
Chloride	10.0	9.940		mg/L		99	80 - 120	1	20	
Fluoride	1.00	0.9472		mg/L		95	80 - 120	2	20	
Sulfate	10.0	9.748		mg/L		97	80 - 120	2	20	

Lab Sample ID: MRL 490-541365/1
Matrix: Solid
Analysis Batch: 541365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits	
							RPD	Limit
Chloride	1.00	0.9979	J	mg/L		100		
Fluoride	0.100	0.1141		mg/L		114		
Sulfate	1.00	1.153		mg/L		115		

Lab Sample ID: MRL 490-541365/33
Matrix: Solid
Analysis Batch: 541365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits	
							RPD	Limit
Chloride	1.00	1.018		mg/L		102		
Fluoride	0.100	0.1137		mg/L		114		
Sulfate	1.00	1.143		mg/L		114		

Lab Sample ID: MB 490-541193/1-A
Matrix: Solid
Analysis Batch: 541365

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		9.96	6.97	mg/Kg			09/07/18 23:31	1
Fluoride	ND		0.996	0.797	mg/Kg			09/07/18 23:31	1
Sulfate	ND		9.96	5.97	mg/Kg			09/07/18 23:31	1

TestAmerica Nashville

QC Sample Results

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 490-541193/2-A
Matrix: Solid
Analysis Batch: 541365

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	99.9	99.98		mg/Kg		100	80 - 120
Fluoride	9.99	9.794		mg/Kg		98	80 - 120
Sulfate	100	95.37		mg/Kg		95	80 - 120

Lab Sample ID: LCSD 490-541193/3-A
Matrix: Solid
Analysis Batch: 541365

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	100.6		mg/Kg		101	80 - 120	1	20
Fluoride	10.0	9.411		mg/Kg		94	80 - 120	4	20
Sulfate	100	97.87		mg/Kg		98	80 - 120	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 490-540423/1-A
Matrix: Water
Analysis Batch: 540746

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540423

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200	0.000100	mg/L		09/04/18 09:40	09/04/18 16:23	1

Lab Sample ID: LCS 490-540423/2-A
Matrix: Water
Analysis Batch: 540746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540423

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00100	0.0009734		mg/L		97	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 490-541313/1-A
Matrix: Solid
Analysis Batch: 541520

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 541313

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0992	0.0298	mg/Kg		09/07/18 15:33	09/08/18 15:02	1

Lab Sample ID: LCS 490-541313/2-A
Matrix: Solid
Analysis Batch: 541520

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 541313

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.166	0.1566		mg/Kg		94	80 - 120

QC Sample Results

Client: Environmental Standards Inc.
 Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Method: 9045D - pH

Lab Sample ID: LCS 490-539604/1
Matrix: Solid
Analysis Batch: 539604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		101	98 - 103

Lab Sample ID: 490-158232-2 DU
Matrix: Solid
Analysis Batch: 539604

Client Sample ID: CUF-BS-BG13-0.0/0.5-20180828
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.0		7.0		SU		0	20

QC Association Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

HPLC/IC

Analysis Batch: 539643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158232-1	CUF-BS-FB06-20180828	Total/NA	Water	9056A	
MB 490-539643/3	Method Blank	Total/NA	Water	9056A	
LCS 490-539643/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 490-539643/5	Lab Control Sample Dup	Total/NA	Water	9056A	

Leach Batch: 541193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158232-2	CUF-BS-BG13-0.0/0.5-20180828	Soluble	Solid	DI Leach	
490-158232-3	CUF-BS-BG13-0.75/2.75-20180828	Soluble	Solid	DI Leach	
490-158232-4	CUF-BS-BG13-6.5/8.5-20180828	Soluble	Solid	DI Leach	
490-158232-5	CUF-BS-FD02-20180828	Soluble	Solid	DI Leach	
490-158232-6	CUF-BS-BG14-0.0/0.5-20180828	Soluble	Solid	DI Leach	
490-158232-7	CUF-BS-BG14-1.0/3.0-20180828	Soluble	Solid	DI Leach	
490-158232-8	CUF-BS-BG14-6.5/8.5-20180828	Soluble	Solid	DI Leach	
490-158232-9	CUF-BS-BG14-10.3/12.3-20180828	Soluble	Solid	DI Leach	
MB 490-541193/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 490-541193/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 490-541193/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 541365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158232-2	CUF-BS-BG13-0.0/0.5-20180828	Soluble	Solid	9056A	541193
490-158232-3	CUF-BS-BG13-0.75/2.75-20180828	Soluble	Solid	9056A	541193
490-158232-4	CUF-BS-BG13-6.5/8.5-20180828	Soluble	Solid	9056A	541193
490-158232-5	CUF-BS-FD02-20180828	Soluble	Solid	9056A	541193
490-158232-6	CUF-BS-BG14-0.0/0.5-20180828	Soluble	Solid	9056A	541193
490-158232-7	CUF-BS-BG14-1.0/3.0-20180828	Soluble	Solid	9056A	541193
490-158232-8	CUF-BS-BG14-6.5/8.5-20180828	Soluble	Solid	9056A	541193
490-158232-9	CUF-BS-BG14-10.3/12.3-20180828	Soluble	Solid	9056A	541193
MB 490-541193/1-A	Method Blank	Soluble	Solid	9056A	541193
LCS 490-541193/2-A	Lab Control Sample	Soluble	Solid	9056A	541193
LCSD 490-541193/3-A	Lab Control Sample Dup	Soluble	Solid	9056A	541193
MRL 490-541365/1	Lab Control Sample	Total/NA	Solid	9056A	
MRL 490-541365/33	Lab Control Sample	Total/NA	Solid	9056A	

Metals

Prep Batch: 540423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158232-1	CUF-BS-FB06-20180828	Total/NA	Water	7470A	
MB 490-540423/1-A	Method Blank	Total/NA	Water	7470A	
LCS 490-540423/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 540746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158232-1	CUF-BS-FB06-20180828	Total/NA	Water	7470A	540423
MB 490-540423/1-A	Method Blank	Total/NA	Water	7470A	540423
LCS 490-540423/2-A	Lab Control Sample	Total/NA	Water	7470A	540423

QC Association Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Metals (Continued)

Prep Batch: 541313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158232-2	CUF-BS-BG13-0.0/0.5-20180828	Total/NA	Solid	7471B	
490-158232-3	CUF-BS-BG13-0.75/2.75-20180828	Total/NA	Solid	7471B	
490-158232-4	CUF-BS-BG13-6.5/8.5-20180828	Total/NA	Solid	7471B	
490-158232-5	CUF-BS-FD02-20180828	Total/NA	Solid	7471B	
490-158232-6	CUF-BS-BG14-0.0/0.5-20180828	Total/NA	Solid	7471B	
490-158232-7	CUF-BS-BG14-1.0/3.0-20180828	Total/NA	Solid	7471B	
490-158232-8	CUF-BS-BG14-6.5/8.5-20180828	Total/NA	Solid	7471B	
490-158232-9	CUF-BS-BG14-10.3/12.3-20180828	Total/NA	Solid	7471B	
MB 490-541313/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 490-541313/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 541520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158232-2	CUF-BS-BG13-0.0/0.5-20180828	Total/NA	Solid	7471B	541313
490-158232-3	CUF-BS-BG13-0.75/2.75-20180828	Total/NA	Solid	7471B	541313
490-158232-4	CUF-BS-BG13-6.5/8.5-20180828	Total/NA	Solid	7471B	541313
490-158232-5	CUF-BS-FD02-20180828	Total/NA	Solid	7471B	541313
490-158232-6	CUF-BS-BG14-0.0/0.5-20180828	Total/NA	Solid	7471B	541313
490-158232-7	CUF-BS-BG14-1.0/3.0-20180828	Total/NA	Solid	7471B	541313
490-158232-8	CUF-BS-BG14-6.5/8.5-20180828	Total/NA	Solid	7471B	541313
490-158232-9	CUF-BS-BG14-10.3/12.3-20180828	Total/NA	Solid	7471B	541313
MB 490-541313/1-A	Method Blank	Total/NA	Solid	7471B	541313
LCS 490-541313/2-A	Lab Control Sample	Total/NA	Solid	7471B	541313

General Chemistry

Leach Batch: 539603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158232-2	CUF-BS-BG13-0.0/0.5-20180828	Soluble	Solid	DI Leach	
490-158232-3	CUF-BS-BG13-0.75/2.75-20180828	Soluble	Solid	DI Leach	
490-158232-4	CUF-BS-BG13-6.5/8.5-20180828	Soluble	Solid	DI Leach	
490-158232-5	CUF-BS-FD02-20180828	Soluble	Solid	DI Leach	
490-158232-6	CUF-BS-BG14-0.0/0.5-20180828	Soluble	Solid	DI Leach	
490-158232-7	CUF-BS-BG14-1.0/3.0-20180828	Soluble	Solid	DI Leach	
490-158232-8	CUF-BS-BG14-6.5/8.5-20180828	Soluble	Solid	DI Leach	
490-158232-9	CUF-BS-BG14-10.3/12.3-20180828	Soluble	Solid	DI Leach	
490-158232-2 DU	CUF-BS-BG13-0.0/0.5-20180828	Soluble	Solid	DI Leach	

Analysis Batch: 539604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158232-2	CUF-BS-BG13-0.0/0.5-20180828	Soluble	Solid	9045D	539603
490-158232-3	CUF-BS-BG13-0.75/2.75-20180828	Soluble	Solid	9045D	539603
490-158232-4	CUF-BS-BG13-6.5/8.5-20180828	Soluble	Solid	9045D	539603
490-158232-5	CUF-BS-FD02-20180828	Soluble	Solid	9045D	539603
490-158232-6	CUF-BS-BG14-0.0/0.5-20180828	Soluble	Solid	9045D	539603
490-158232-7	CUF-BS-BG14-1.0/3.0-20180828	Soluble	Solid	9045D	539603
490-158232-8	CUF-BS-BG14-6.5/8.5-20180828	Soluble	Solid	9045D	539603
490-158232-9	CUF-BS-BG14-10.3/12.3-20180828	Soluble	Solid	9045D	539603
LCS 490-539604/1	Lab Control Sample	Total/NA	Solid	9045D	
490-158232-2 DU	CUF-BS-BG13-0.0/0.5-20180828	Soluble	Solid	9045D	539603

TestAmerica Nashville

QC Association Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

General Chemistry (Continued)

Analysis Batch: 539781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158232-2	CUF-BS-BG13-0.0/0.5-20180828	Total/NA	Solid	Moisture	
490-158232-3	CUF-BS-BG13-0.75/2.75-20180828	Total/NA	Solid	Moisture	
490-158232-4	CUF-BS-BG13-6.5/8.5-20180828	Total/NA	Solid	Moisture	
490-158232-5	CUF-BS-FD02-20180828	Total/NA	Solid	Moisture	
490-158232-6	CUF-BS-BG14-0.0/0.5-20180828	Total/NA	Solid	Moisture	
490-158232-7	CUF-BS-BG14-1.0/3.0-20180828	Total/NA	Solid	Moisture	
490-158232-8	CUF-BS-BG14-6.5/8.5-20180828	Total/NA	Solid	Moisture	
490-158232-9	CUF-BS-BG14-10.3/12.3-20180828	Total/NA	Solid	Moisture	
490-158232-2 DU	CUF-BS-BG13-0.0/0.5-20180828	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Client Sample ID: CUF-BS-FB06-20180828

Lab Sample ID: 490-158232-1

Date Collected: 08/28/18 09:15

Matrix: Water

Date Received: 08/28/18 20:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			539643	08/29/18 17:38	SW1	TAL NSH
Total/NA	Prep	7470A			30 mL	30 mL	540423	09/04/18 09:40	CSL	TAL NSH
Total/NA	Analysis	7470A		1			540746	09/04/18 16:59	CSL	TAL NSH

Client Sample ID: CUF-BS-BG13-0.0/0.5-20180828

Lab Sample ID: 490-158232-2

Date Collected: 08/28/18 12:21

Matrix: Solid

Date Received: 08/28/18 20:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539603	08/29/18 18:46	JDG	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539604	08/29/18 18:48	JDG	TAL NSH
Total/NA	Analysis	Moisture		1			539781	08/30/18 12:50	BAA	TAL NSH

Client Sample ID: CUF-BS-BG13-0.0/0.5-20180828

Lab Sample ID: 490-158232-2

Date Collected: 08/28/18 12:21

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			3.0048 g	30 mL	541193	09/07/18 10:13	JHS	TAL NSH
Soluble	Analysis	9056A		1			541365	09/08/18 00:52	JHS	TAL NSH
Total/NA	Prep	7471B			0.607 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:41	CSL	TAL NSH

Client Sample ID: CUF-BS-BG13-0.75/2.75-20180828

Lab Sample ID: 490-158232-3

Date Collected: 08/28/18 12:45

Matrix: Solid

Date Received: 08/28/18 20:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539603	08/29/18 18:46	JDG	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539604	08/29/18 18:48	JDG	TAL NSH
Total/NA	Analysis	Moisture		1			539781	08/30/18 12:50	BAA	TAL NSH

Client Sample ID: CUF-BS-BG13-0.75/2.75-20180828

Lab Sample ID: 490-158232-3

Date Collected: 08/28/18 12:45

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 74.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2.9634 g	30 mL	541193	09/07/18 10:13	JHS	TAL NSH
Soluble	Analysis	9056A		1			541365	09/08/18 01:04	JHS	TAL NSH
Total/NA	Prep	7471B			0.601 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:43	CSL	TAL NSH

TestAmerica Nashville

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Client Sample ID: CUF-BS-BG13-6.5/8.5-20180828

Lab Sample ID: 490-158232-4

Date Collected: 08/28/18 13:05

Matrix: Solid

Date Received: 08/28/18 20:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539603	08/29/18 18:46	JDG	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539604	08/29/18 18:48	JDG	TAL NSH
Total/NA	Analysis	Moisture		1			539781	08/30/18 12:50	BAA	TAL NSH

Client Sample ID: CUF-BS-BG13-6.5/8.5-20180828

Lab Sample ID: 490-158232-4

Date Collected: 08/28/18 13:05

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 77.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			3.0243 g	30 mL	541193	09/07/18 10:13	JHS	TAL NSH
Soluble	Analysis	9056A		1			541365	09/08/18 01:15	JHS	TAL NSH
Total/NA	Prep	7471B			0.598 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:46	CSL	TAL NSH

Client Sample ID: CUF-BS-FD02-20180828

Lab Sample ID: 490-158232-5

Date Collected: 08/28/18 00:01

Matrix: Solid

Date Received: 08/28/18 20:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539603	08/29/18 18:46	JDG	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539604	08/29/18 18:48	JDG	TAL NSH
Total/NA	Analysis	Moisture		1			539781	08/30/18 12:50	BAA	TAL NSH

Client Sample ID: CUF-BS-FD02-20180828

Lab Sample ID: 490-158232-5

Date Collected: 08/28/18 00:01

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2.9907 g	30 mL	541193	09/07/18 10:13	JHS	TAL NSH
Soluble	Analysis	9056A		1			541365	09/08/18 01:27	JHS	TAL NSH
Total/NA	Prep	7471B			0.607 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:49	CSL	TAL NSH

Client Sample ID: CUF-BS-BG14-0.0/0.5-20180828

Lab Sample ID: 490-158232-6

Date Collected: 08/28/18 15:10

Matrix: Solid

Date Received: 08/28/18 20:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539603	08/29/18 18:46	JDG	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539604	08/29/18 18:48	JDG	TAL NSH
Total/NA	Analysis	Moisture		1			539781	08/30/18 12:50	BAA	TAL NSH

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Client Sample ID: CUF-BS-BG14-0.0/0.5-20180828

Lab Sample ID: 490-158232-6

Date Collected: 08/28/18 15:10

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2.9705 g	30 mL	541193	09/07/18 10:13	JHS	TAL NSH
Soluble	Analysis	9056A		1			541365	09/08/18 01:39	JHS	TAL NSH
Total/NA	Prep	7471B			0.616 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:51	CSL	TAL NSH

Client Sample ID: CUF-BS-BG14-1.0/3.0-20180828

Lab Sample ID: 490-158232-7

Date Collected: 08/28/18 15:37

Matrix: Solid

Date Received: 08/28/18 20:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539603	08/29/18 18:46	JDG	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539604	08/29/18 18:48	JDG	TAL NSH
Total/NA	Analysis	Moisture		1			539781	08/30/18 12:50	BAA	TAL NSH

Client Sample ID: CUF-BS-BG14-1.0/3.0-20180828

Lab Sample ID: 490-158232-7

Date Collected: 08/28/18 15:37

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 78.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2.9639 g	30 mL	541193	09/07/18 10:13	JHS	TAL NSH
Soluble	Analysis	9056A		1			541365	09/08/18 01:50	JHS	TAL NSH
Total/NA	Prep	7471B			0.621 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:54	CSL	TAL NSH

Client Sample ID: CUF-BS-BG14-6.5/8.5-20180828

Lab Sample ID: 490-158232-8

Date Collected: 08/28/18 15:51

Matrix: Solid

Date Received: 08/28/18 20:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539603	08/29/18 18:46	JDG	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539604	08/29/18 18:48	JDG	TAL NSH
Total/NA	Analysis	Moisture		1			539781	08/30/18 12:50	BAA	TAL NSH

Client Sample ID: CUF-BS-BG14-6.5/8.5-20180828

Lab Sample ID: 490-158232-8

Date Collected: 08/28/18 15:51

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2.9743 g	30 mL	541193	09/07/18 10:13	JHS	TAL NSH
Soluble	Analysis	9056A		1			541365	09/08/18 02:02	JHS	TAL NSH
Total/NA	Prep	7471B			0.615 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:57	CSL	TAL NSH

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Client Sample ID: CUF-BS-BG14-10.3/12.3-20180828

Lab Sample ID: 490-158232-9

Date Collected: 08/28/18 16:05

Matrix: Solid

Date Received: 08/28/18 20:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539603	08/29/18 18:46	JDG	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539604	08/29/18 18:48	JDG	TAL NSH
Total/NA	Analysis	Moisture		1			539781	08/30/18 12:50	BAA	TAL NSH

Client Sample ID: CUF-BS-BG14-10.3/12.3-20180828

Lab Sample ID: 490-158232-9

Date Collected: 08/28/18 16:05

Matrix: Solid

Date Received: 08/28/18 20:12

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2.9568 g	30 mL	541193	09/07/18 10:13	JHS	TAL NSH
Soluble	Analysis	9056A		1			541365	09/08/18 02:13	JHS	TAL NSH
Total/NA	Prep	7471B			0.601 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 16:00	CSL	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Environmental Standards Inc.
 Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-19
Arizona	State Program	9	AZ0473	05-05-19
Arkansas DEQ	State Program	6	88-0737	04-25-19
California	State Program	9	2938	06-30-19 *
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-19
Georgia	State Program	4	NA: NELAP & A2LA	12-31-19
Illinois	NELAP	5	200010	12-09-18 *
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-19
Kentucky (WW)	State Program	4	90038	12-31-19
Louisiana	NELAP	6	30613	06-30-19
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-19
Massachusetts	State Program	1	M-TN032	06-30-19
Minnesota	NELAP	5	047-999-345	12-31-19
Mississippi	State Program	4	N/A	06-30-19
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-19
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-19
New York	NELAP	2	11342	03-31-19
North Carolina (WW/SW)	State Program	4	387	12-31-19
North Dakota	State Program	8	R-146	06-30-19
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-19
Oregon	NELAP	10	TN200001	04-26-19
Pennsylvania	NELAP	3	68-00585	07-31-19
Rhode Island	State Program	1	LAO00268	12-30-19
South Carolina	State Program	4	84009 (001)	02-28-19
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-19
Virginia	NELAP	3	460152	06-14-19
Washington	State Program	10	C789	07-19-19
West Virginia DEP	State Program	3	219	02-28-19
Wisconsin	State Program	5	998020430	08-31-19
Wyoming (UST)	A2LA	8	453.07	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	TAL NSH
7470A	Mercury (CVAA)	SW846	TAL NSH
7471B	Mercury (CVAA)	SW846	TAL NSH
9045D	pH	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH
7470A	Preparation, Mercury	SW846	TAL NSH
7471B	Preparation, Mercury	SW846	TAL NSH
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL NSH

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180828_1A

TestAmerica Job ID: 490-158232-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-158232-1	CUF-BS-FB06-20180828	Water	08/28/18 09:15	08/28/18 20:12
490-158232-2	CUF-BS-BG13-0.0/0.5-20180828	Solid	08/28/18 12:21	08/28/18 20:12
490-158232-3	CUF-BS-BG13-0.75/2.75-20180828	Solid	08/28/18 12:45	08/28/18 20:12
490-158232-4	CUF-BS-BG13-6.5/8.5-20180828	Solid	08/28/18 13:05	08/28/18 20:12
490-158232-5	CUF-BS-FD02-20180828	Solid	08/28/18 00:01	08/28/18 20:12
490-158232-6	CUF-BS-BG14-0.0/0.5-20180828	Solid	08/28/18 15:10	08/28/18 20:12
490-158232-7	CUF-BS-BG14-1.0/3.0-20180828	Solid	08/28/18 15:37	08/28/18 20:12
490-158232-8	CUF-BS-BG14-6.5/8.5-20180828	Solid	08/28/18 15:51	08/28/18 20:12
490-158232-9	CUF-BS-BG14-10.3/12.3-20180828	Solid	08/28/18 16:05	08/28/18 20:12

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: IC9 Analysis Batch Number: 537313

Lab Sample ID: STD1 490-537313/1 IC Client Sample ID: _____

Date Analyzed: 08/20/18 09:44 Lab File ID: 082018IC9_010dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:47
Chloride	3.21	Baseline Smoothing	statenj	08/20/18 11:47
Bromide	4.58	Baseline Smoothing	statenj	08/20/18 11:47

Lab Sample ID: STD2 490-537313/2 IC Client Sample ID: _____

Date Analyzed: 08/20/18 09:55 Lab File ID: 082018IC9_011dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/20/18 11:50
Chloride	3.22	Baseline Smoothing	statenj	08/20/18 11:50
Bromide	4.56	Baseline Smoothing	statenj	08/20/18 11:50

Lab Sample ID: STD3 490-537313/3 IC Client Sample ID: _____

Date Analyzed: 08/20/18 10:07 Lab File ID: 082018IC9_012dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:50
Chloride	3.22	Baseline Smoothing	statenj	08/20/18 11:50
Bromide	4.55	Baseline Smoothing	statenj	08/20/18 11:50

Lab Sample ID: STD5 490-537313/5 IC Client Sample ID: _____

Date Analyzed: 08/20/18 10:30 Lab File ID: 082018IC9_014dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.34	Baseline Smoothing	statenj	08/20/18 11:52
Chloride	3.20	Baseline Smoothing	statenj	08/20/18 11:51
Bromide	4.52	Baseline Smoothing	statenj	08/20/18 11:51

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: IC9 Analysis Batch Number: 537313

Lab Sample ID: ICRT 490-537313/6 Client Sample ID: _____

Date Analyzed: 08/20/18 10:42 Lab File ID: 082018IC9_015dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:35
Chloride	3.20	Baseline Smoothing	statenj	08/20/18 11:35
Bromide	4.50	Baseline Smoothing	statenj	08/20/18 11:35

Lab Sample ID: STD7 490-537313/7 IC Client Sample ID: _____

Date Analyzed: 08/20/18 10:53 Lab File ID: 082018IC9_016dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:35
Chloride	3.20	Baseline Smoothing	statenj	08/20/18 11:35
Bromide	4.50	Baseline Smoothing	statenj	08/20/18 11:35

Lab Sample ID: STD8 490-537313/8 IC Client Sample ID: _____

Date Analyzed: 08/20/18 11:05 Lab File ID: 082018IC9_017dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/20/18 11:36
Chloride	3.21	Baseline Smoothing	statenj	08/20/18 11:36
Bromide	4.49	Baseline Smoothing	statenj	08/20/18 11:36

Lab Sample ID: STD9 490-537313/9 IC Client Sample ID: _____

Date Analyzed: 08/20/18 11:16 Lab File ID: 082018IC9_018dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:36
Chloride	3.20	Baseline Smoothing	statenj	08/20/18 11:36
Bromide	4.48	Baseline Smoothing	statenj	08/20/18 11:36

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: IC9 Analysis Batch Number: 537313

Lab Sample ID: ICV 490-537313/10 Client Sample ID: _____

Date Analyzed: 08/20/18 11:28 Lab File ID: 082018IC9_019dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:59
Chloride	3.20	Baseline Smoothing	statenj	08/20/18 11:59
Bromide	4.49	Baseline Smoothing	statenj	08/20/18 11:59

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: IC9 Analysis Batch Number: 539643

Lab Sample ID: CCVRT 490-539643/1 Client Sample ID: _____

Date Analyzed: 08/29/18 15:53 Lab File ID: 082918IC9_031dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/30/18 08:29
Chloride	3.20	Baseline Smoothing	statenj	08/30/18 08:29
Bromide	4.45	Baseline Smoothing	statenj	08/30/18 08:29

Lab Sample ID: LCS 490-539643/4 Client Sample ID: _____

Date Analyzed: 08/29/18 16:28 Lab File ID: 082918IC9_034dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/30/18 08:29
Chloride	3.20	Baseline Smoothing	statenj	08/30/18 08:29

Lab Sample ID: LCSD 490-539643/5 Client Sample ID: _____

Date Analyzed: 08/29/18 16:40 Lab File ID: 082918IC9_035dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/30/18 08:30
Chloride	3.19	Baseline Smoothing	statenj	08/30/18 08:30

Lab Sample ID: 490-158232-1 Client Sample ID: CUF-BS-FB06-20180828

Date Analyzed: 08/29/18 17:38 Lab File ID: 082918IC9_040dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.19	Baseline Smoothing	wanguns	08/31/18 10:01

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: IC9 Analysis Batch Number: 539643

Lab Sample ID: CCV 490-539643/11 Client Sample ID: _____

Date Analyzed: 08/29/18 17:49 Lab File ID: 082918IC9_041dat-Conducti GC Column: Metrohm ASupp ID: 4 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/30/18 08:31
Chloride	3.19	Baseline Smoothing	statenj	08/30/18 08:31
Bromide	4.44	Baseline Smoothing	statenj	08/30/18 08:31

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
CCV 100_00022	09/27/18	06/16/18	DI Water, Lot NA	200 mL	IC Primary_00012	2 mL	Chloride	10 ug/mL
							Fluoride	1 ug/mL
							Sulfate	10 ug/mL
.IC Primary_00012	01/04/21	INORGANIC VENTURES, Lot N2-MEB664399			(Purchased Reagent)		Chloride	1000 ug/mL
							Fluoride	100 ug/mL
							Sulfate	1000 ug/mL
							Bromide	1000 ug/mL
							Chloride	1000 ug/mL
							Fluoride	100 ug/mL
							Sulfate	1000 ug/mL
							Sulfate as Sulfur	333.33 ug/mL
IC Secondary_00013	08/31/19	Agilent, Lot CS-3745			(Purchased Reagent)		Bromide	1002 ug/mL
							Chloride	1001 ug/mL
							Fluoride	100.1 ug/mL
							Nitrate as N	100 ug/mL
							Nitrate as NO3	440 ug/mL
							Nitrate Nitrite as N	200.1 ug/mL
							Nitrite as N	100.1 ug/mL
							Nitrite as NO2	330 ug/mL
							Sulfate	1002 ug/mL
							Sulfate as Sulfur	333.333 ug/mL
LCS 100_00028	01/25/19	07/25/18	DI Water, Lot NA	200 mL	IC Secondary_00013	2 mL	Chloride	10.01 ug/mL
							Fluoride	1.001 ug/mL
							Sulfate	10.02 ug/mL
.IC Secondary_00013	08/31/19	Agilent, Lot CS-3745			(Purchased Reagent)		Chloride	1001 ug/mL
							Fluoride	100.1 ug/mL
							Sulfate	1002 ug/mL
LP CCV pH 7.0 00068	10/01/18	Fisher Scientific, Lot 180084			(Purchased Reagent)		pH	7 SU
LP LCS 7.0 00063	10/01/18	Ricca Chemical Company, Lot 2803E24			(Purchased Reagent)		pH	7 SU
MET AquaRegia_00533	09/08/18	09/07/18	DI Water, Lot HNO3/HCL/DI WATER	280 mL	MET_HCL_00118	105 mL	Hydrogen Chloride	37.5 Percent
					MET_HNO3_00209	35 mL	Nitric acid	12.5 Percent
.MET HCL_00118	08/14/22	J.T. Baker, Lot 0000186764			(Purchased Reagent)		Hydrogen Chloride	100 %
.MET HNO3_00209	06/15/19	Fisher Chemical, Lot 1117060			(Purchased Reagent)		Nitric acid	100 %
MET CALSTD 00332	10/01/18	09/05/18	MULTIPLE, Lot MULTIPLE	30 mL	MET_SPKSTD_00279	75 uL	Mercury	2.5 ppb
.MET SPKSTD_00279	10/01/18	08/31/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00027	100 uL	Mercury	1000 ppb
..MET Hg_STOCK_00027	08/31/19	High-Purity Standards, Lot 1801717			(Purchased Reagent)		Mercury	1000 ppm
MET CALSTD 00334	10/01/18	09/05/18	MULTIPLE, Lot MULTIPLE	30 mL	MET_SPKSTD_00277	6 uL	Mercury	0.2 ppb
.MET SPKSTD_00277	10/01/18	08/31/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00030	100 uL	Mercury	1000 ppb
..MET Hg_STOCK_00030	01/13/21	Inorganic Ventures, Lot K2-HG653768			(Purchased Reagent)		Mercury	1000 ppm
MET CALSTD 00335	10/01/18	09/05/18	MULTIPLE, Lot MULTIPLE	30 mL	MET_SPKSTD_00277	60 uL	Mercury	0.002 ppm
.MET SPKSTD_00277	10/01/18	08/31/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00030	100 uL	Mercury	1000 ppb
..MET Hg_STOCK_00030	01/13/21	Inorganic Ventures, Lot K2-HG653768			(Purchased Reagent)		Mercury	1000 ppm
MET_CALSTD_00336	10/06/18	09/07/18	MULTIPLE, Lot MULTIPLE	30 mL	MET_SPKSTD_00282	75 uL	Mercury	2.5 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MET SPKSTD 00282	10/06/18	09/07/18	DI Water, Lot 1	100 mL	MET Hg STOCK 00027	100 uL	Mercury	1000 ppb
..MET Hg STOCK 00027	08/31/19		High-Purity Standards, Lot 1801717		(Purchased Reagent)		Mercury	1000 ppm
MET CALSTD 00337	10/07/18	09/07/18	MULTIPLE, Lot MULTIPLE	100 mL	MET SPKSTD 00281	40 uL	Mercury	0.4 ug/L
.MET SPKSTD 00281	10/07/18	09/07/18	DI Water, Lot 1	100 mL	MET Hg STOCK 00030	100 uL	Mercury	1000 ppb
..MET Hg STOCK 00030	01/13/21		Inorganic Ventures, Lot K2-HG653768		(Purchased Reagent)		Mercury	1000 ppm
MET CALSTD 00339	10/07/18	09/07/18	MULTIPLE, Lot MULTIPLE	30 mL	MET SPKSTD 00281	60 uL	Mercury	0.002 ppm
.MET SPKSTD 00281	10/07/18	09/07/18	DI Water, Lot 1	100 mL	MET Hg STOCK 00030	100 uL	Mercury	1000 ppb
..MET Hg STOCK 00030	01/13/21		Inorganic Ventures, Lot K2-HG653768		(Purchased Reagent)		Mercury	1000 ppm
MET H2SO4 00043	10/10/22		Macron Chemicals, Lot 0000186983		(Purchased Reagent)		Sulfuric acid	100 %
MET Hg Hydrox 00091	11/12/18	08/31/18	DI Water, Lot DI Water	2000 mL	MET Hg NaCl 00009	240 g	Sodium Chloride	12 Percent
					MET HgH8N2O6S 00015	240 g	Hydroxylamine sulfate	12 Percent
.MET Hg NaCl 00009	12/28/23		Macron Chemicals, Lot 0000165462		(Purchased Reagent)		Sodium Chloride	100 Percent
.MET HgH8N2O6S 00015	11/12/18		Fisher Chemical, Lot 174236		(Purchased Reagent)		Hydroxylamine sulfate	100 Percent
MET Hg KMnO4 00058	08/10/19	08/28/18	DI Water, Lot DI Water	1000 mL	MET Hg Rgnt 00343	50 g	Potassium Permanganate	5 Percent
.MET Hg Rgnt 00343	08/10/19		Alfa Aesar, Lot S20D004		(Purchased Reagent)		Potassium Permanganate	100 Percent
MET Hg Kpsulf 00044	10/26/18	08/11/18	DI WATER, Lot DI WATER	1 L	MET Hg Rgnt 00333	50 g	Potassium persulfate	5 % by WT
.MET Hg Rgnt 00333	05/24/20		Macron Chemicals, Lot 0000070212		(Purchased Reagent)		Potassium persulfate	100 Percent
MET HNO3 00246	01/04/23		MACRON, Lot 0000200458		(Purchased Reagent)		Nitric acid	100 %
MET SPKSTD 00277	10/01/18	08/31/18	DI Water, Lot 1	100 mL	MET Hg STOCK 00030	100 uL	Mercury	1000 ppb
					MET HNO3 00209	5 mL	Nitric acid	50000000 ppb
.MET Hg STOCK 00030	01/13/21		Inorganic Ventures, Lot K2-HG653768		(Purchased Reagent)		Mercury	1000 ppm
.MET HNO3 00209	06/15/19		Fisher Chemical, Lot 1117060		(Purchased Reagent)		Nitric acid	100 %
MET SPKSTD 00281	10/07/18	09/07/18	DI Water, Lot 1	100 mL	MET Hg STOCK 00030	100 uL	Mercury	1000 ppb
					MET HNO3 00209	5 mL	Nitric acid	50000000 ppb
.MET Hg STOCK 00030	01/13/21		Inorganic Ventures, Lot K2-HG653768		(Purchased Reagent)		Mercury	1000 ppm
.MET HNO3 00209	06/15/19		Fisher Chemical, Lot 1117060		(Purchased Reagent)		Nitric acid	100 %

Reagent

MET_Hg_STOCK_00027



4286775
 ID MET_Hg_STOCK_00027
 Exp 08/31/19 Prpd RDH
 Sec Src Mercury Stock S

Certificate of Analysis

Product Description:

Mercury

Product Number: **HP100033-1**
 Lot Number: **1801717**
 Matrix: **2% (v/v) HNO₃**

Certified Value:

Element	($\mu\text{g/mL}$)	SRM ID	SRM Lot#
Hg	1000 \pm 6	3133	061204

The Certified value is based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.

* Refer to Traceability Information, Section d

Density: 1.015 g/mL \pm 0.002 g/mL @ 20.0°C \pm 0.3°C

Uncertified Values:

Trace Metal Impurity Scan: The data reported are based upon a scan of this specific lot via ICP-OES/ICP-MS analysis. The values are reported in $\mu\text{g/L}$.

Ag < 1	Cu < 0.02	Li < 0.02	Rb < 0.02	Th < 0.02
Al < 0.05	Dy < 0.02	Lu < 0.02	Re < 0.02	Ti < 0.02
As < 0.05	Er < 0.02	Mg < 0.1	Rh < 0.02	Tl < 0.02
Au < 0.02	Eu < 0.02	Mn < 0.1	Ru < 0.02	Tm < 0.02
B < 1	Fe < 1	Mo < 0.02	Sb < 0.02	U < 0.05
Ba < 0.02	Ga < 0.02	Na < 3	Sc < 0.02	V < 0.05
Be < 0.02	Gd < 0.02	Nb < 0.02	Se < 0.1	W < 0.02
Bi < 0.02	Ge < 0.02	Nd < 0.02	Si < 10	Y < 0.02
Ca < 1	Hf < 0.02	Ni < 0.02	Sm < 0.02	Yb < 0.02
Cd < 0.02	Ho < 0.02	Os < 0.02	Sn < 0.5	Zn < 0.02
Ce < 0.02	In < 0.02	Pb < 0.05	Sr < 0.02	Zr < 0.02
Co < 0.05	Ir < 0.02	Pd < 0.02	Ta < 0.02	Hg M
Cr < 0.05	K < 1	Pr < 0.02	Tb < 0.02	
Cs na	La < 0.02	Pt < 0.02	Te < 0.02	na - not analyzed

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for **eighteen** months from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates

Shipped Date: February 2018

Certificate Issue Date: January 24, 2018

Joe Boyd

Joe Boyd, Director, Environmental Business Segment

Lot No.: **1801717**

Rev. No.: 1.1.0

2345A Charleston Regional Pkwy, Charleston, South Carolina 29492

843-881-6560 • 800-343-5319 • 843-881-3964 (Fax) • EnvExp.com

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Method 9056A

Anions, Ion Chromatography by Method
9056A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 082918IC9_034dat-Conductivity
 Lab ID: LCS 490-539643/4 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Chloride	10.0	10.02	100	80-120	
Fluoride	1.00	0.9281	93	80-120	
Sulfate	10.0	9.545	95	80-120	

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Matrix: Solid (Soluble) Level: Low Lab File ID: 090718IC9_080dat-Conductivity

Lab ID: LCS 490-541193/2-A Client ID: _____

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Chloride	99.9	99.98	100	80-120	
Fluoride	9.99	9.794	98	80-120	
Sulfate	100	95.37	95	80-120	

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 082918IC9_035dat-Conductivity
 Lab ID: LCSD 490-539643/5 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloride	10.0	9.940	99	1	20	80-120	
Fluoride	1.00	0.9472	95	2	20	80-120	
Sulfate	10.0	9.748	97	2	20	80-120	

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Matrix: Solid (Soluble) Level: Low Lab File ID: 090718IC9_106dat-Conductivity

Lab ID: LCSD 490-541193/3-A Client ID: _____

COMPOUND	SPIKE ADDED (mg/Kg)	LCSD CONCENTRATION (mg/Kg)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloride	100	100.6	101	1	20	80-120	
Fluoride	10.0	9.411	94	4	20	80-120	
Sulfate	100	97.87	98	3	20	80-120	

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 090718IC9_006dat-Conductivity
 Lab ID: MRL 490-541365/1 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	MRL CONCENTRATION (mg/L)	MRL % REC	QC LIMITS REC	#
Chloride	1.00	0.9979 J	100		
Fluoride	0.100	0.1141	114		
Sulfate	1.00	1.153	115		

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: 090718IC9_108dat-Conductivity

Lab ID: MRL 490-541365/33 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	MRL CONCENTRATION (mg/L)	MRL % REC	QC LIMITS REC	#
Chloride	1.00	1.018	102		
Fluoride	0.100	0.1137	114		
Sulfate	1.00	1.143	114		

Column to be used to flag recovery and RPD values

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab File ID: 082918IC9_033dat-Conductivity Lab Sample ID: MB 490-539643/3
 Matrix: Water Date Extracted: _____
 Instrument ID: IC9 Date Analyzed: 08/29/2018 16:17
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 490-539643/2	082918IC9_032dat-Conductivity.d	08/29/2018 16:05
	LCS 490-539643/4	082918IC9_034dat-Conductivity.d	08/29/2018 16:28
	LCSD 490-539643/5	082918IC9_035dat-Conductivity.d	08/29/2018 16:40
CUF-BS-FB06-20180828	490-158232-1	082918IC9_040dat-Conductivity.d	08/29/2018 17:38
	CCB 490-539643/12	082918IC9_042dat-Conductivity.d	08/29/2018 18:01

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab File ID: 090718IC9_079dat-Conductivity Lab Sample ID: MB 490-541193/1-A
 Matrix: Solid (Soluble) Date Extracted: _____
 Instrument ID: IC9 Date Analyzed: 09/07/2018 23:31
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 490-541365/3	090718IC9_078dat-Conductivity.d	09/07/2018 23:19
	LCS 490-541193/2-A	090718IC9_080dat-Conductivity.d	09/07/2018 23:43
CUF-BS-BG13-0.0/0.5-20180828	490-158232-2	090718IC9_086dat-Conductivity.d	09/08/2018 00:52
CUF-BS-BG13-0.75/2.75-20180828	490-158232-3	090718IC9_087dat-Conductivity.d	09/08/2018 01:04
CUF-BS-BG13-6.5/8.5-20180828	490-158232-4	090718IC9_088dat-Conductivity.d	09/08/2018 01:15
CUF-BS-FD02-20180828	490-158232-5	090718IC9_089dat-Conductivity.d	09/08/2018 01:27
CUF-BS-BG14-0.0/0.5-20180828	490-158232-6	090718IC9_090dat-Conductivity.d	09/08/2018 01:39
CUF-BS-BG14-1.0/3.0-20180828	490-158232-7	090718IC9_091dat-Conductivity.d	09/08/2018 01:50
CUF-BS-BG14-6.5/8.5-20180828	490-158232-8	090718IC9_092dat-Conductivity.d	09/08/2018 02:02
CUF-BS-BG14-10.3/12.3-20180828	490-158232-9	090718IC9_093dat-Conductivity.d	09/08/2018 02:13
	CCB 490-541365/20	090718IC9_095dat-Conductivity.d	09/08/2018 02:37
	LCSD 490-541193/3-A	090718IC9_106dat-Conductivity.d	09/08/2018 04:44
	CCB 490-541365/32	090718IC9_107dat-Conductivity.d	09/08/2018 04:56
	CCB 490-541365/35	090718IC9_110dat-Conductivity.d	09/08/2018 05:31

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: CUF-BS-FB06-20180828 Lab Sample ID: 490-158232-1
 Matrix: Water Lab File ID: 082918IC9_040dat-Conductivity.
 Analysis Method: 9056A Date Collected: 08/28/2018 09:15
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 08/29/2018 17:38
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 539643 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.259	J B	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.435	J B	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_040dat-Conductivity.d
 Lims ID: 490-158232-B-1
 Client ID: CUF-BS-FB06-20180828
 Sample Type: Client
 Inject. Date: 29-Aug-2018 17:38:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082918IC9_040
 Misc. Info.: 082918IC9_040
 Operator ID: Staten, Joe (TA)\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 31-Aug-2018 10:01:12 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 10:01:12

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride		2.357			ND	
2 Chloride	3.193	3.196	-0.003	21070	0.2585	M
4 Sulfate	7.716	7.696	0.020	1146	0.4352	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_040dat-Conductivity.d

Injection Date: 29-Aug-2018 17:38:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: 490-158232-B-1

Lab Sample ID: 490-158232-1

Worklist Smp#: 10

Client ID: CUF-BS-FB06-20180828

Injection Vol: 1.0 ul

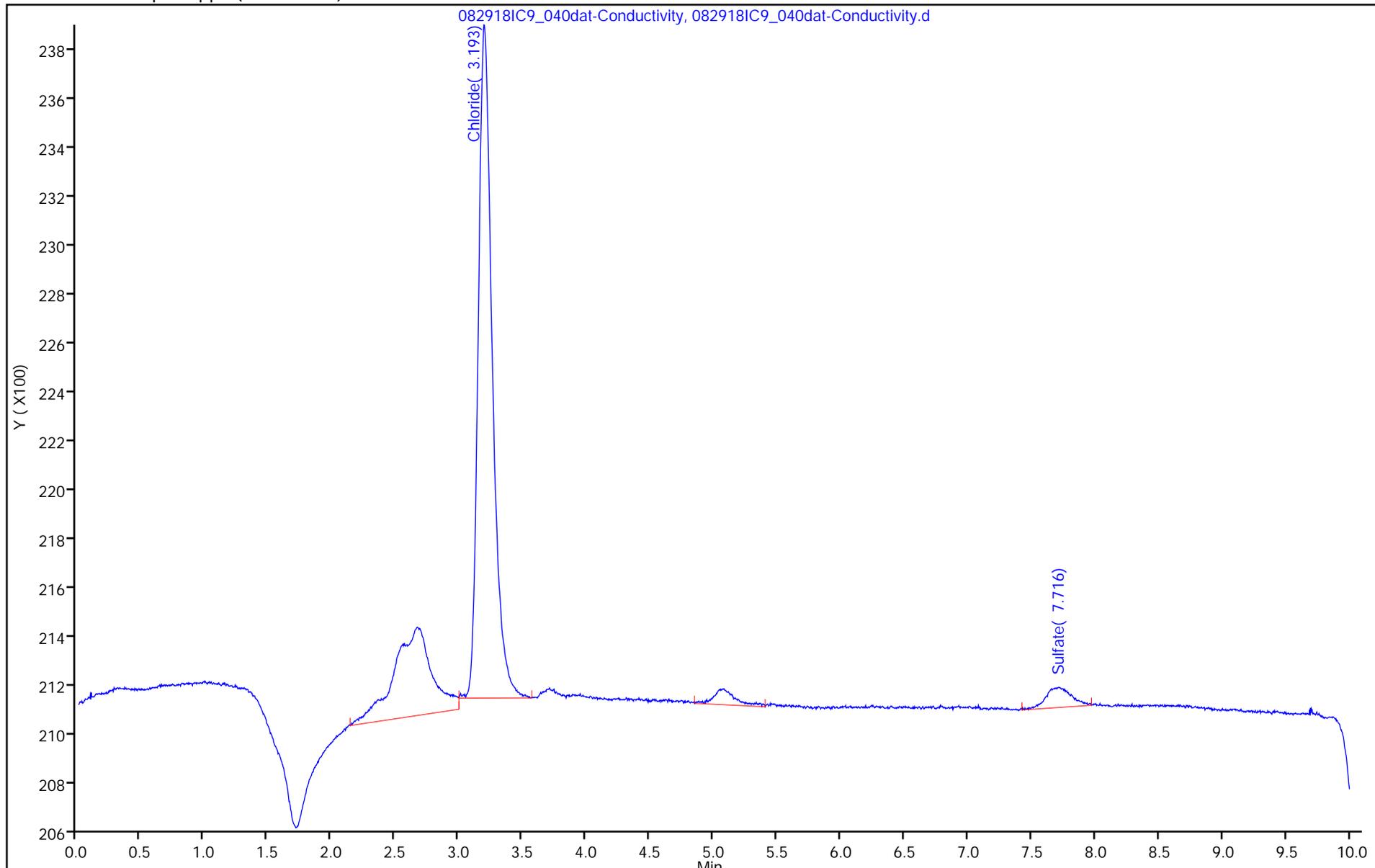
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

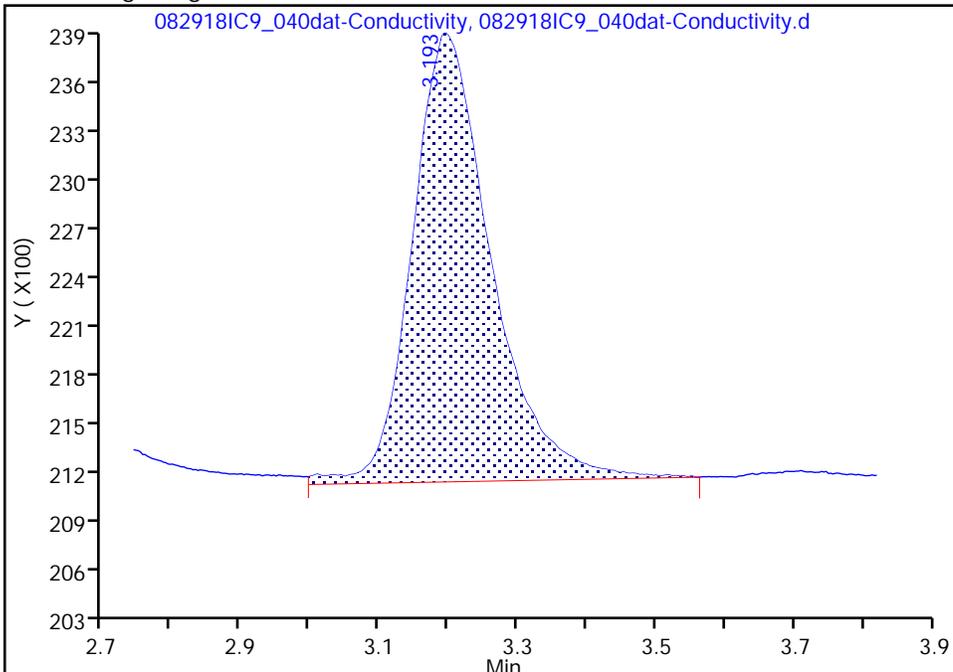
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Injection Date: 29-Aug-2018 17:38:00 Instrument ID: IC9
Lims ID: 490-158232-B-1 Lab Sample ID: 490-158232-1
Client ID: CUF-BS-FB06-20180828
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

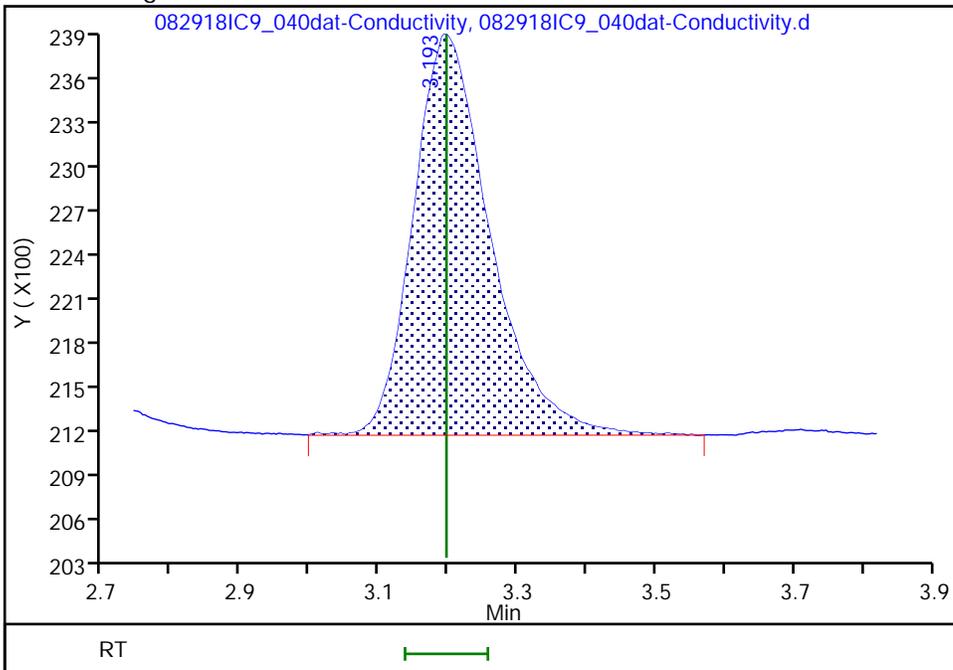
RT: 3.19
Area: 21852
Amount: 0.261327
Amount Units: ug/ml

Processing Integration Results



RT: 3.19
Area: 21070
Amount: 0.258515
Amount Units: ug/ml

Manual Integration Results



Reviewer: wanguns, 31-Aug-2018 10:01:08
Audit Action: Manually Integrated

TestAmerica Nashville
 Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_086dat-Conductivity.d
 Lims ID: 490-158232-A-2-B
 Client ID: CUF-BS-BG13-0.0/0.5-20180828
 Sample Type: Client
 Inject. Date: 08-Sep-2018 00:52:00 ALS Bottle#: 0 Worklist Smp#: 11
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_086
 Misc. Info.: 090718IC9_086
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.363	-0.006	97195	0.2455	
2 Chloride	3.203	3.196	0.007	47226	0.3526	
4 Sulfate	7.586	7.590	-0.004	58569	0.7126	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_086dat-Conductivity.d

Injection Date: 08-Sep-2018 00:52:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: 490-158232-A-2-B

Lab Sample ID: 490-158232-2

Worklist Smp#: 11

Client ID: CUF-BS-BG13-0.0/0.5-20180828

Injection Vol: 1.0 ul

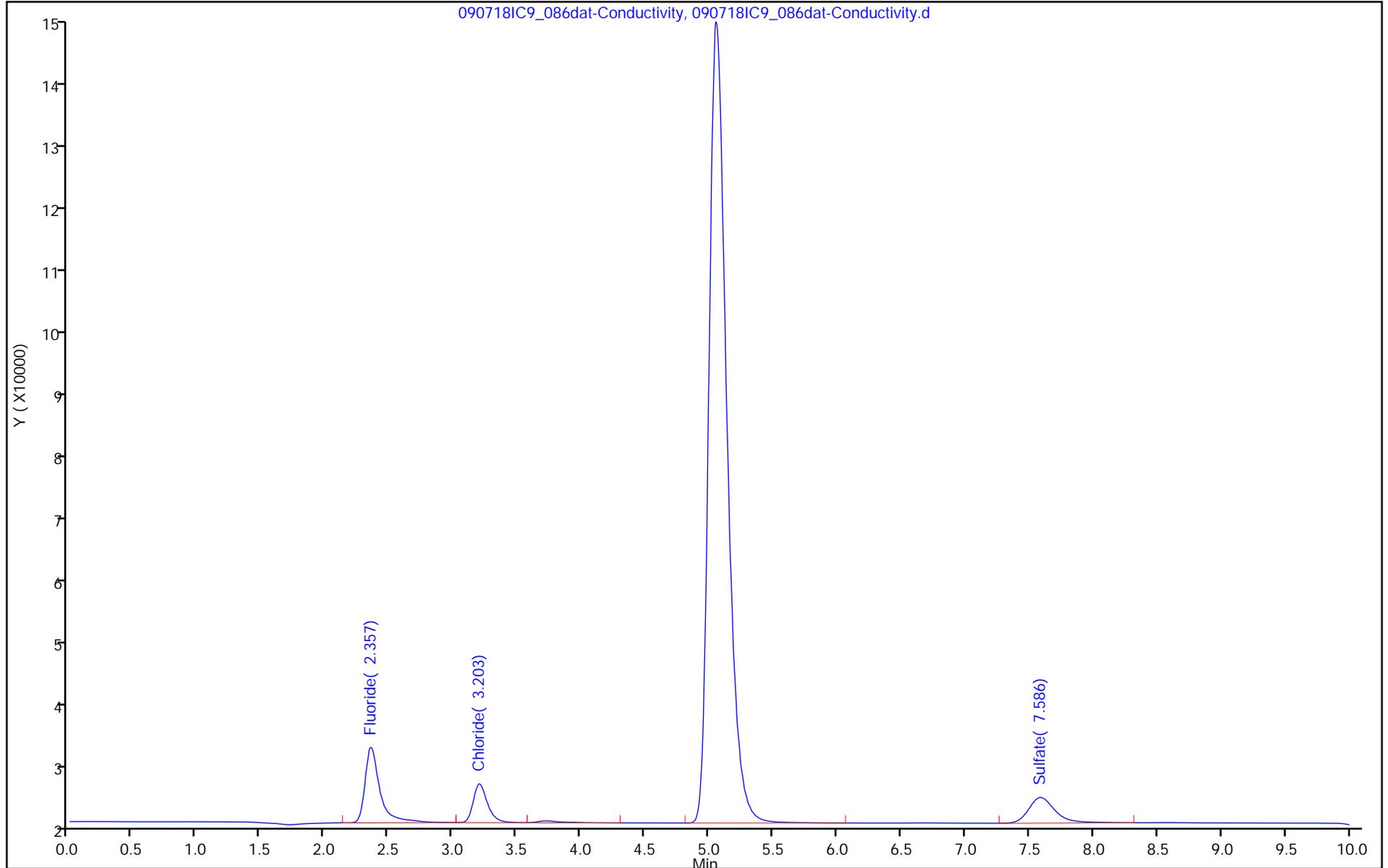
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville
 Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_087dat-Conductivity.d
 Lims ID: 490-158232-A-3-B
 Client ID: CUF-BS-BG13-0.75/2.75-20180828
 Sample Type: Client
 Inject. Date: 08-Sep-2018 01:04:00 ALS Bottle#: 0 Worklist Smp#: 12
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_087
 Misc. Info.: 090718IC9_087
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.363	2.363	0.000	113391	0.2812	
2 Chloride	3.210	3.196	0.014	29818	0.2900	
4 Sulfate	7.600	7.590	0.010	9053	0.4734	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_087dat-Conductivity.d

Injection Date: 08-Sep-2018 01:04:00

Instrument ID: IC9

Operator ID:

Staten, Joe (TA\St

Lims ID: 490-158232-A-3-B

Lab Sample ID: 490-158232-3

Worklist Smp#:

12

Client ID: CUF-BS-BG13-0.75/2.75-20180828

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

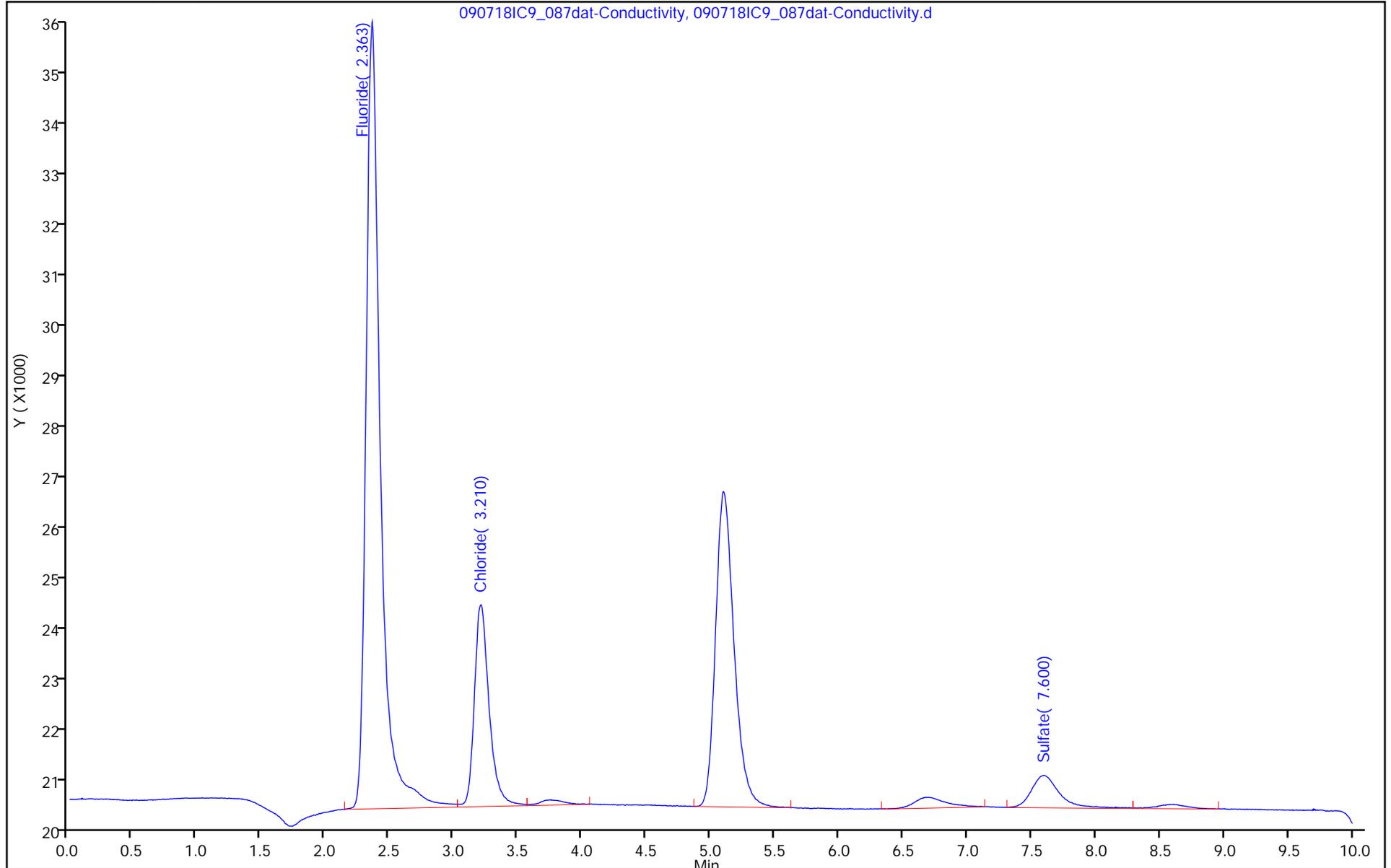
ALS Bottle#:

0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville
 Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_088dat-Conductivity.d
 Lims ID: 490-158232-A-4-B
 Client ID: CUF-BS-BG13-6.5/8.5-20180828
 Sample Type: Client
 Inject. Date: 08-Sep-2018 01:15:00 ALS Bottle#: 0 Worklist Smp#: 13
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_088
 Misc. Info.: 090718IC9_088
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.353	2.363	-0.010	72223	0.1904	
2 Chloride	3.203	3.196	0.007	47475	0.3535	
4 Sulfate	7.583	7.590	-0.007	26593	0.5582	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_088dat-Conductivity.d

Injection Date: 08-Sep-2018 01:15:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: 490-158232-A-4-B

Lab Sample ID: 490-158232-4

Worklist Smp#: 13

Client ID: CUF-BS-BG13-6.5/8.5-20180828

Injection Vol: 1.0 ul

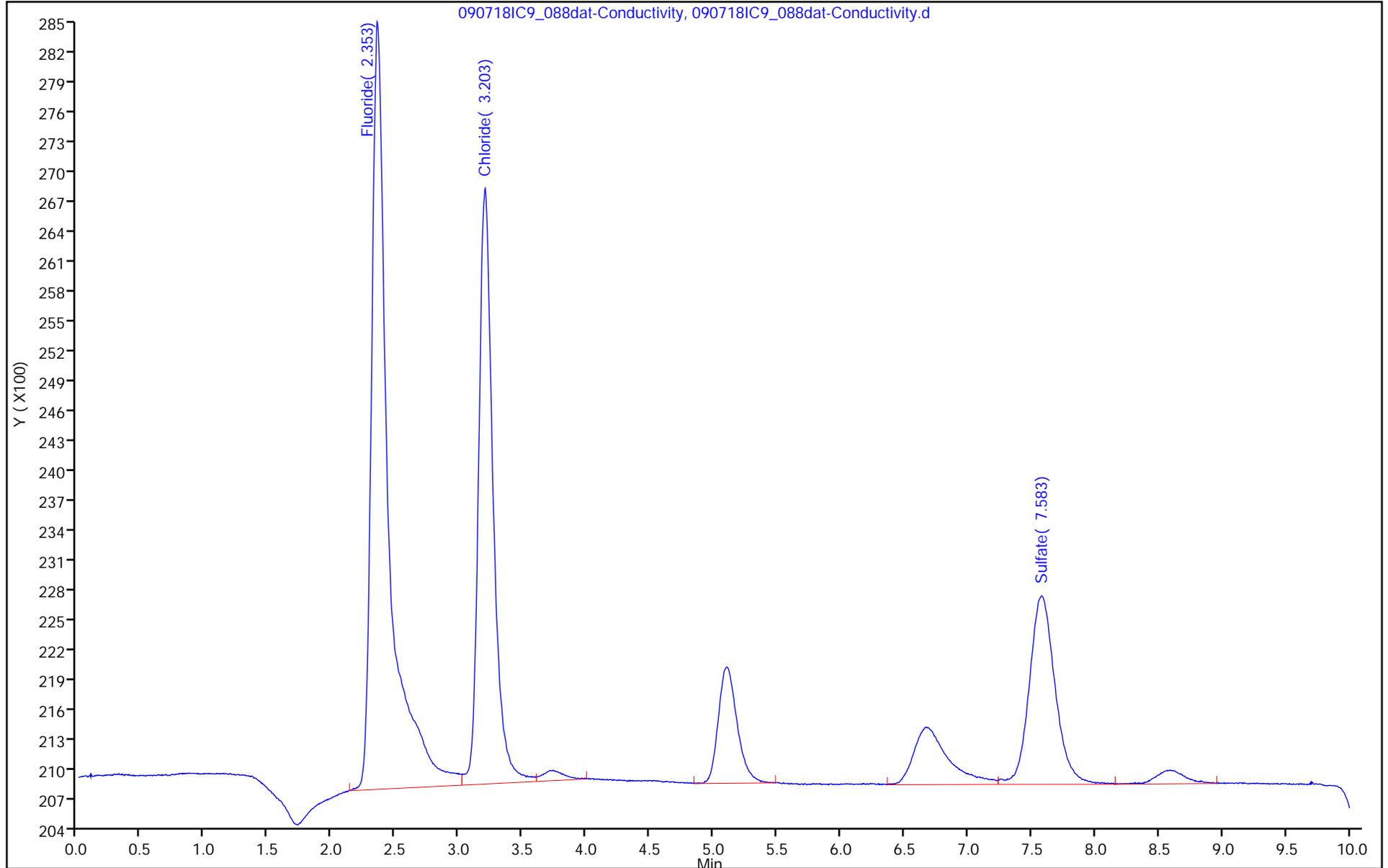
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: CUF-BS-FD02-20180828 Lab Sample ID: 490-158232-5
 Matrix: Solid (Soluble) Lab File ID: 090718IC9_089dat-Conductivity.
 Analysis Method: 9056A Date Collected: 08/28/2018 00:01
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 09/08/2018 01:27
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: 19.5 GPC Cleanup: (Y/N) N
 Analysis Batch No.: 541365 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	ND		12.5	8.73
16984-48-8	Fluoride	3.43		1.25	0.997
14808-79-8	Sulfate	7.56	J	12.5	7.48

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_089dat-Conductivity.d
 Lims ID: 490-158232-A-5-B
 Client ID: CUF-BS-FD02-20180828
 Sample Type: Client
 Inject. Date: 08-Sep-2018 01:27:00 ALS Bottle#: 0 Worklist Smp#: 14
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_089
 Misc. Info.: 090718IC9_089
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.363	2.363	0.000	110544	0.2749	
2 Chloride	3.213	3.196	0.017	37356	0.3171	
4 Sulfate	7.593	7.590	0.003	36562	0.6063	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_089dat-Conductivity.d

Injection Date: 08-Sep-2018 01:27:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: 490-158232-A-5-B

Lab Sample ID: 490-158232-5

Worklist Smp#: 14

Client ID: CUF-BS-FD02-20180828

Injection Vol: 1.0 ul

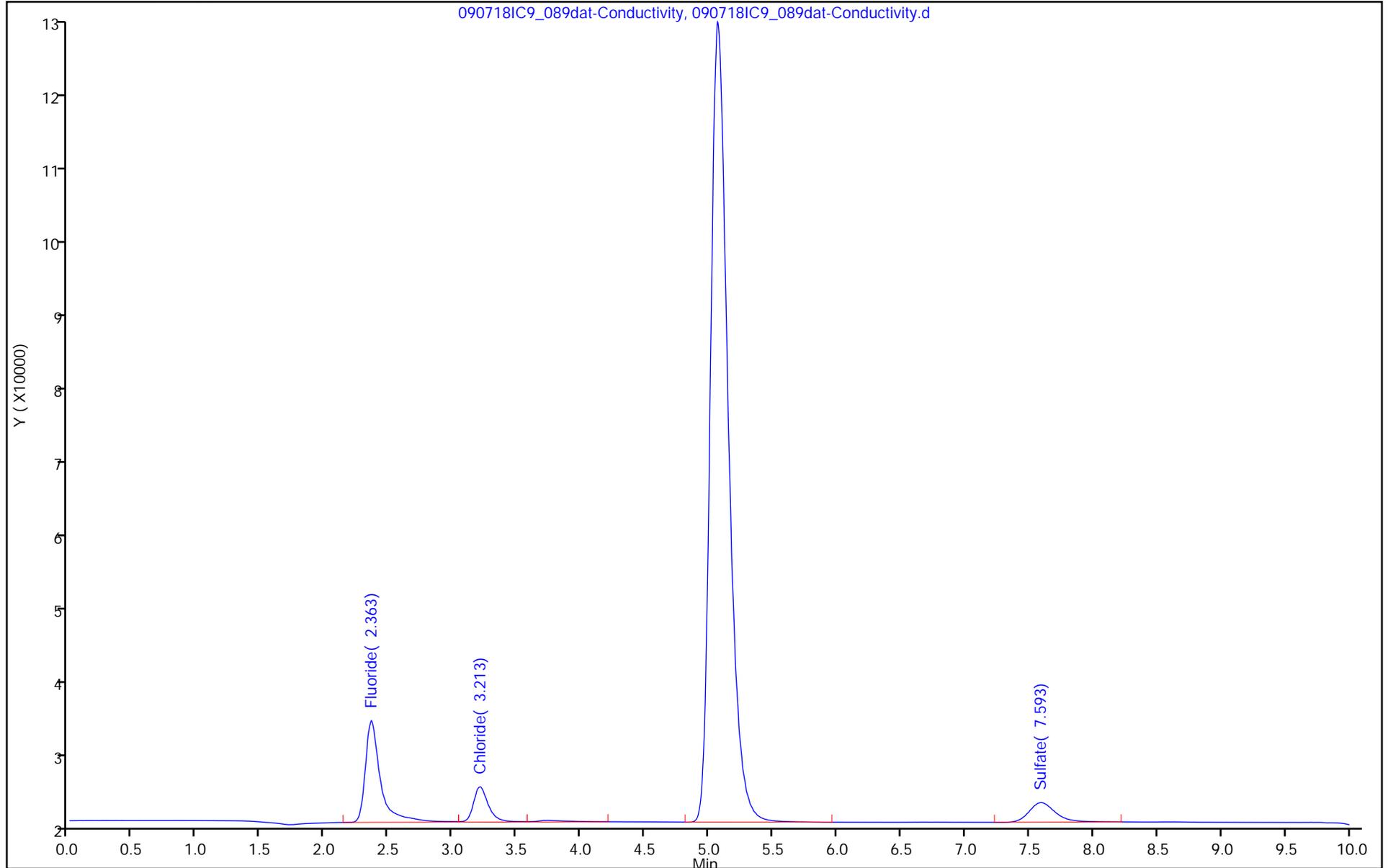
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_090dat-Conductivity.d
 Lims ID: 490-158232-A-6-B
 Client ID: CUF-BS-BG14-0.0/0.5-20180828
 Sample Type: Client
 Inject. Date: 08-Sep-2018 01:39:00 ALS Bottle#: 0 Worklist Smp#: 15
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_090
 Misc. Info.: 090718IC9_090
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.360	2.363	-0.003	100219	0.2521	
2 Chloride	3.210	3.196	0.014	57510	0.3896	
4 Sulfate	7.593	7.590	0.003	252767	1.65	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_090dat-Conductivity.d

Injection Date: 08-Sep-2018 01:39:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: 490-158232-A-6-B

Lab Sample ID: 490-158232-6

Worklist Smp#: 15

Client ID: CUF-BS-BG14-0.0/0.5-20180828

Injection Vol: 1.0 ul

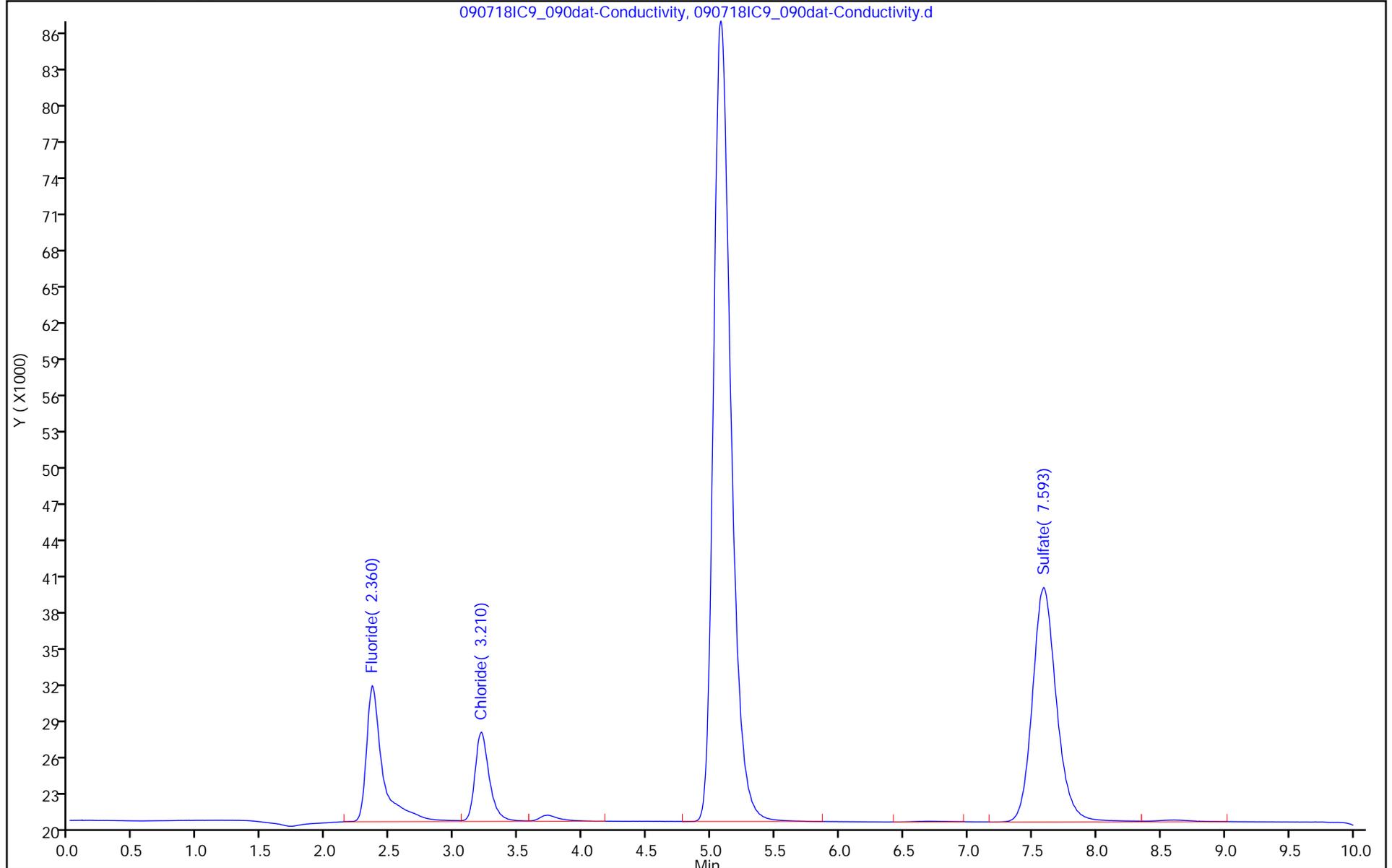
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville
 Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_091dat-Conductivity.d
 Lims ID: 490-158232-A-7-B
 Client ID: CUF-BS-BG14-1.0/3.0-20180828
 Sample Type: Client
 Inject. Date: 08-Sep-2018 01:50:00 ALS Bottle#: 0 Worklist Smp#: 16
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_091
 Misc. Info.: 090718IC9_091
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.360	2.363	-0.003	82906	0.2139	
2 Chloride	3.210	3.196	0.014	26809	0.2792	
4 Sulfate	7.586	7.590	-0.004	226171	1.52	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_091dat-Conductivity.d

Injection Date: 08-Sep-2018 01:50:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: 490-158232-A-7-B

Lab Sample ID: 490-158232-7

Worklist Smp#: 16

Client ID: CUF-BS-BG14-1.0/3.0-20180828

Injection Vol: 1.0 ul

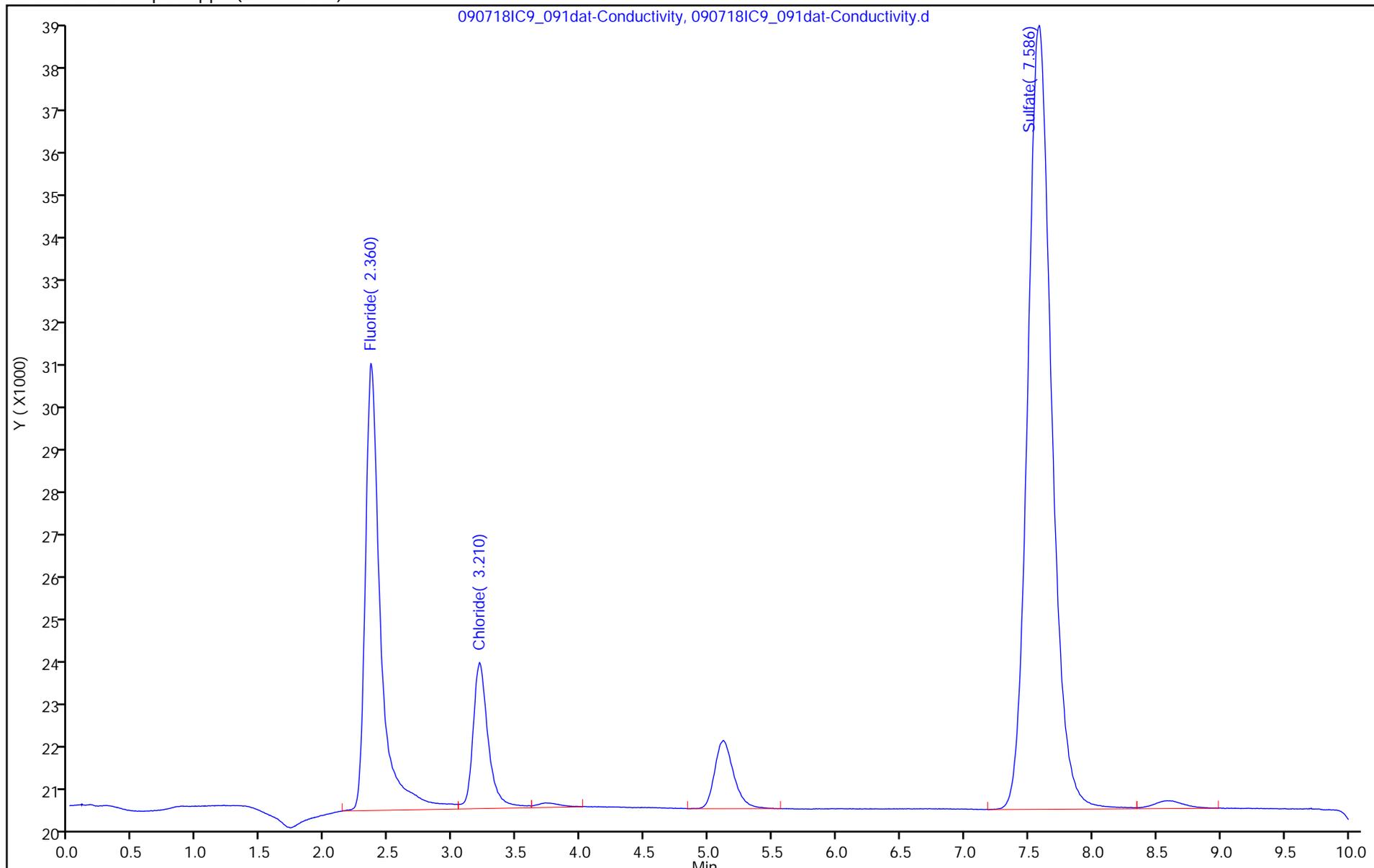
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville
 Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_092dat-Conductivity.d
 Lims ID: 490-158232-A-8-B
 Client ID: CUF-BS-BG14-6.5/8.5-20180828
 Sample Type: Client
 Inject. Date: 08-Sep-2018 02:02:00 ALS Bottle#: 0 Worklist Smp#: 17
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_092
 Misc. Info.: 090718IC9_092
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.363	2.363	0.000	79560	0.2066	
2 Chloride	3.210	3.196	0.014	36312	0.3133	
4 Sulfate	7.593	7.590	0.003	54235	0.6917	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_092dat-Conductivity.d

Injection Date: 08-Sep-2018 02:02:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: 490-158232-A-8-B

Lab Sample ID: 490-158232-8

Worklist Smp#: 17

Client ID: CUF-BS-BG14-6.5/8.5-20180828

Injection Vol: 1.0 ul

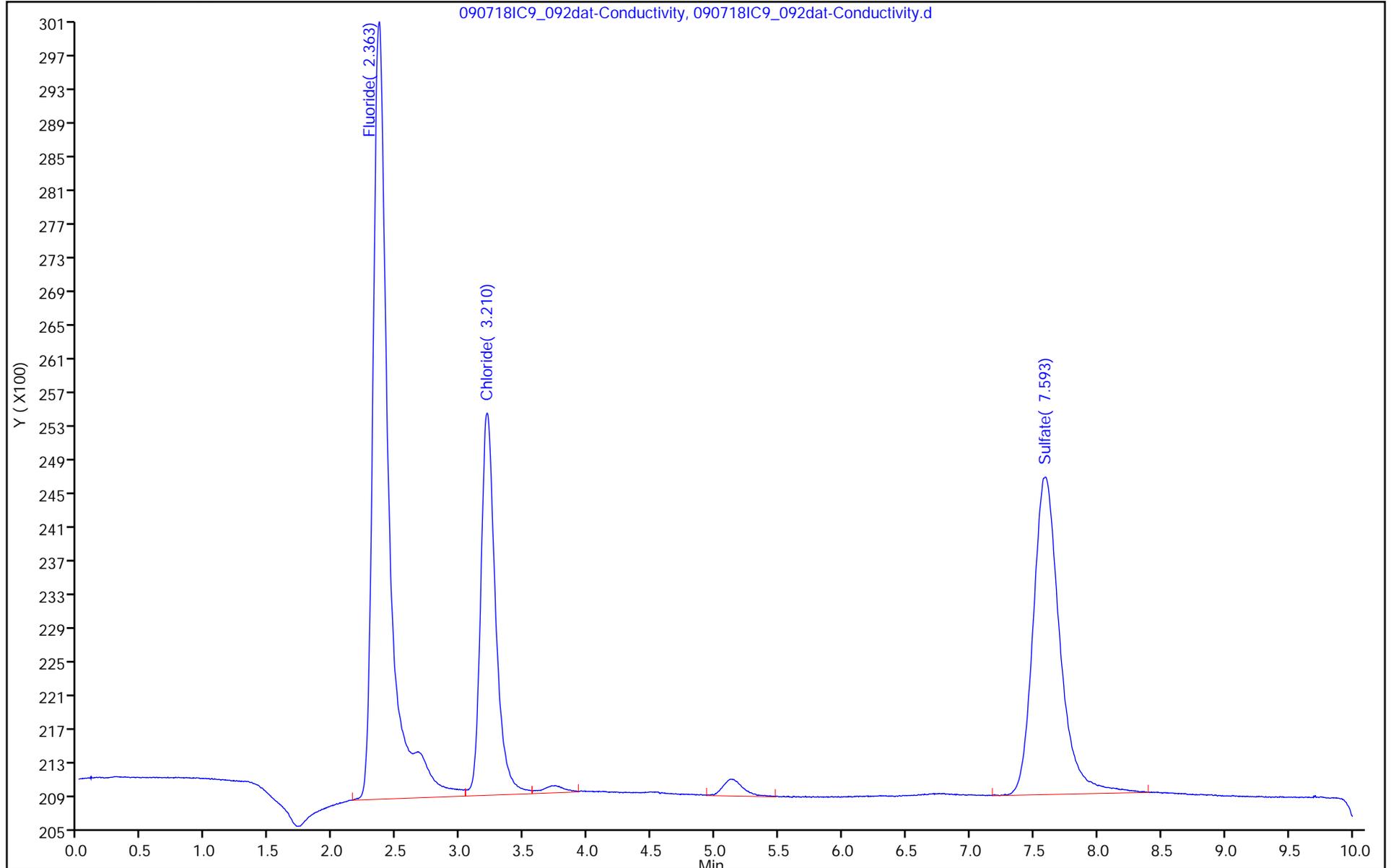
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville
 Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_093dat-Conductivity.d
 Lims ID: 490-158232-A-9-B
 Client ID: CUF-BS-BG14-10.3/12.3-20180828
 Sample Type: Client
 Inject. Date: 08-Sep-2018 02:13:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_093
 Misc. Info.: 090718IC9_093
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:47:02 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.363	-0.006	108610	0.2707	
2 Chloride	3.206	3.196	0.010	52514	0.3716	
4 Sulfate	7.600	7.590	0.010	6194	0.4596	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_093dat-Conductivity.d

Injection Date: 08-Sep-2018 02:13:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: 490-158232-A-9-B

Lab Sample ID: 490-158232-9

Worklist Smp#: 18

Client ID: CUF-BS-BG14-10.3/12.3-20180828

Injection Vol: 1.0 ul

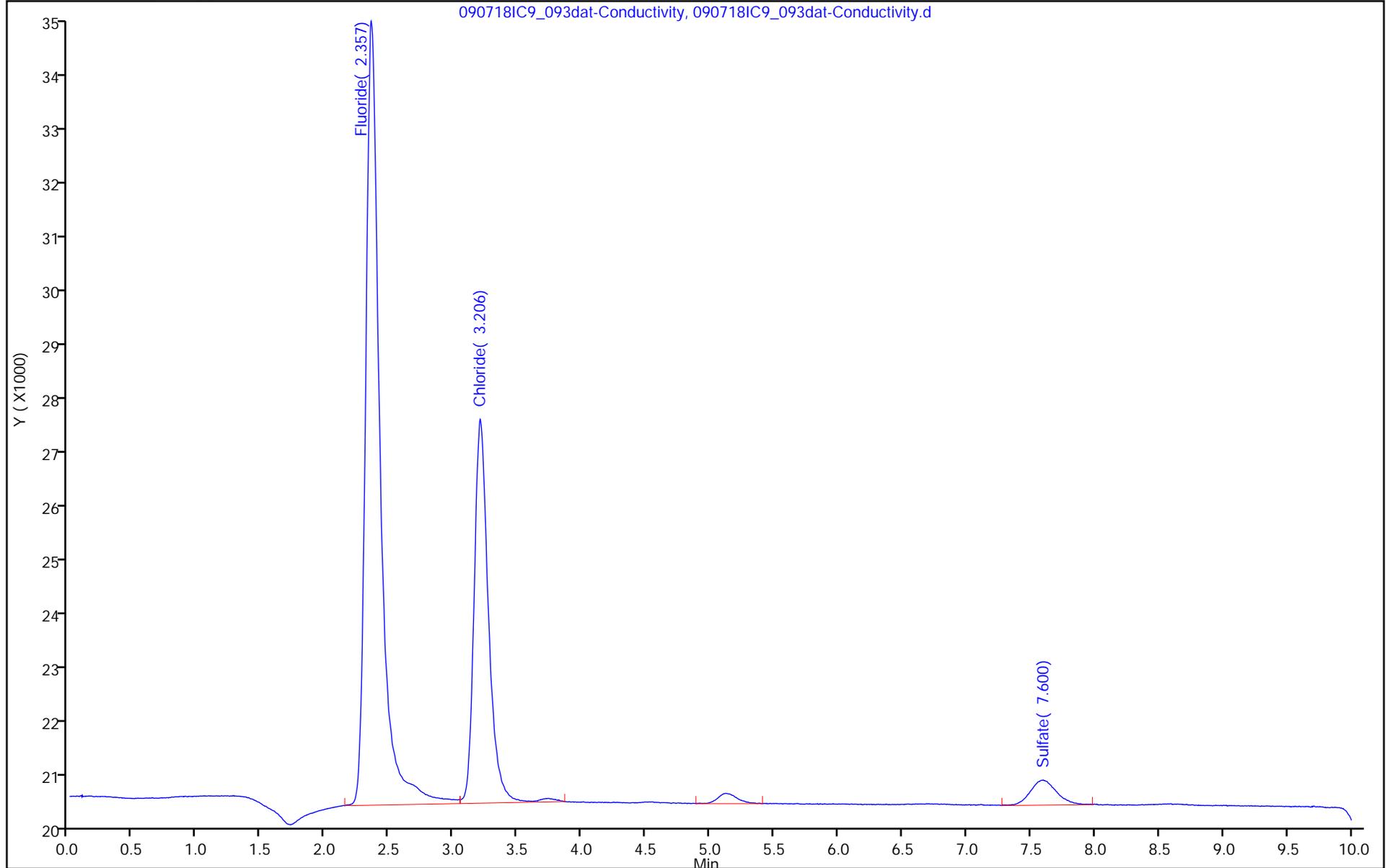
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1 Analy Batch No.: 537313

SDG No.: _____

Instrument ID: IC9 GC Column: Metrohm ASu ID: 4 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/20/2018 09:44 Calibration End Date: 08/20/2018 11:16 Calibration ID: 72334

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-537313/1	082018IC9_010dat-Conductivity.d
Level 2	STD2 490-537313/2	082018IC9_011dat-Conductivity.d
Level 3	STD3 490-537313/3	082018IC9_012dat-Conductivity.d
Level 4	STD4 490-537313/4	082018IC9_013dat-Conductivity.d
Level 5	STD5 490-537313/5	082018IC9_014dat-Conductivity.d
Level 6	ICRT 490-537313/6	082018IC9_015dat-Conductivity.d
Level 7	STD7 490-537313/7	082018IC9_016dat-Conductivity.d
Level 8	STD8 490-537313/8	082018IC9_017dat-Conductivity.d
Level 9	STD9 490-537313/9	082018IC9_018dat-Conductivity.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Fluoride	+++++	+++++	2.353	2.350	2.343	2.347	2.347	2.357	2.347		2.336 - 2.364	2.349
Chloride	+++++	+++++	3.216	3.206	3.203	3.200	3.203	3.210	3.203		3.153 - 3.273	3.206
Bromide	+++++	+++++	4.553	4.540	4.516	4.500	4.496	4.490	4.480		4.436 - 4.716	4.511
Sulfate	+++++	+++++	7.596	7.596	7.600	7.590	7.596	7.590	7.576		7.327 - 7.845	7.592
Sulfate as Sulfur	+++++	+++++	7.596	7.596	7.600	7.590	7.596	7.590	7.576		6.586 - 8.586	7.592

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Nashville Job No.: 490-158232-1 Analy Batch No.: 537313

SDG No.: _____

Instrument ID: IC9 GC Column: Metrohm ASu ID: 4 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/20/2018 09:44 Calibration End Date: 08/20/2018 11:16 Calibration ID: 72334

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-537313/1	082018IC9_010dat-Conductivity.d
Level 2	STD2 490-537313/2	082018IC9_011dat-Conductivity.d
Level 3	STD3 490-537313/3	082018IC9_012dat-Conductivity.d
Level 4	STD4 490-537313/4	082018IC9_013dat-Conductivity.d
Level 5	STD5 490-537313/5	082018IC9_014dat-Conductivity.d
Level 6	ICRT 490-537313/6	082018IC9_015dat-Conductivity.d
Level 7	STD7 490-537313/7	082018IC9_016dat-Conductivity.d
Level 8	STD8 490-537313/8	082018IC9_017dat-Conductivity.d
Level 9	STD9 490-537313/9	082018IC9_018dat-Conductivity.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Fluoride	++++ 396210 454392	++++ 417128	339490 447841	397725 451683	Lin1	-14073.254	453290.442							0.9990		0.9900
Chloride	++++ 261512 274845	++++ 272377	240240 279551	243186 277724	Lin1	-50811.901	278057.170							1.0000		0.9900
Bromide	++++ 103270 122326	++++ 110801	85787 118805	91787 120781	Lin1	-51686.940	121741.765							0.9990		0.9900
Sulfate	++++ 179505 207678	++++ 191014	147312 200955	147635 205328	Lin1	-88963.064	207028.291							0.9990		0.9900
Sulfate as Sulfur	++++ 538520 623041	++++ 573049	441940 602872	442908 615989	Lin1	-88963.064	621091.084							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Nashville Job No.: 490-158232-1 Analy Batch No.: 537313

SDG No.: _____

Instrument ID: IC9 GC Column: Metrohm ASu ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/20/2018 09:44 Calibration End Date: 08/20/2018 11:16 Calibration ID: 72334

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-537313/1	082018IC9_010dat-Conductivity.d
Level 2	STD2 490-537313/2	082018IC9_011dat-Conductivity.d
Level 3	STD3 490-537313/3	082018IC9_012dat-Conductivity.d
Level 4	STD4 490-537313/4	082018IC9_013dat-Conductivity.d
Level 5	STD5 490-537313/5	082018IC9_014dat-Conductivity.d
Level 6	ICRT 490-537313/6	082018IC9_015dat-Conductivity.d
Level 7	STD7 490-537313/7	082018IC9_016dat-Conductivity.d
Level 8	STD8 490-537313/8	082018IC9_017dat-Conductivity.d
Level 9	STD9 490-537313/9	082018IC9_018dat-Conductivity.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6	LVL 7	LVL 8	LVL 9		LVL 6	LVL 7	LVL 8	LVL 9	
Fluoride	Lin1	++++ 417128	++++ 895682	33949 1355049	79545 1817566	198105	++++ 1.00	++++ 2.00	0.100 3.00	0.200 4.00	0.500
Chloride	Lin1	++++ 2723767	++++ 5591014	240240 8331734	486371 10993807	1307558	++++ 10.0	++++ 20.0	1.00 30.0	2.00 40.0	5.00
Bromide	Lin1	++++ 1108008	++++ 2376106	85787 3623429	183573 4893051	516348	++++ 10.0	++++ 20.0	1.00 30.0	2.00 40.0	5.00
Sulfate	Lin1	++++ 1910143	++++ 4019109	147312 6159826	295269 8307131	897524	++++ 10.0	++++ 20.0	1.00 30.0	2.00 40.0	5.00
Sulfate as Sulfur	Lin1	++++ 1910143	++++ 4019109	147312 6159826	295269 8307131	897524	++++ 3.33	++++ 6.67	0.333 10.00	0.667 13.3	1.67

Curve Type Legend:

Lin1 = Linear 1/conc

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_010dat-Conductivity.d
 Lims ID: STD1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 20-Aug-2018 09:44:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082018IC9_010
 Misc. Info.: 082018IC9_010
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 20-Aug-2018 12:39:32 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:33:09

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.350	2.350	0.000	7298	0.0200	0.0471	M
2 Chloride	3.213	3.213	0.000	47126	0.2000	0.3522	M
7 Nitrite as N	3.753	3.753	0.000	9375	NC	NC	M
8 Nitrite as NO2	3.753	3.753	0.000	9375	NC	NC	M
1 Bromide	4.576	4.576	0.000	17532	0.2000	0.5686	M
9 Nitrate as NO3	5.206	5.206	0.000	10412	NC	NC	M
3 Nitrate as N	5.206	5.206	0.000	10412	NC	NC	M
6 Sulfate as Sulfur	7.586	7.586	0.000	23278	0.0667	0.1807	
4 Sulfate	7.586	7.586	0.000	23278	0.2000	0.5422	
S 10 Nitrate Nitrite as N		0.000			0.0400	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

IC Primary_00012

Amount Added: 10.00

Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_010dat-Conductivity.d

Injection Date: 20-Aug-2018 09:44:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: STD1

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 ul

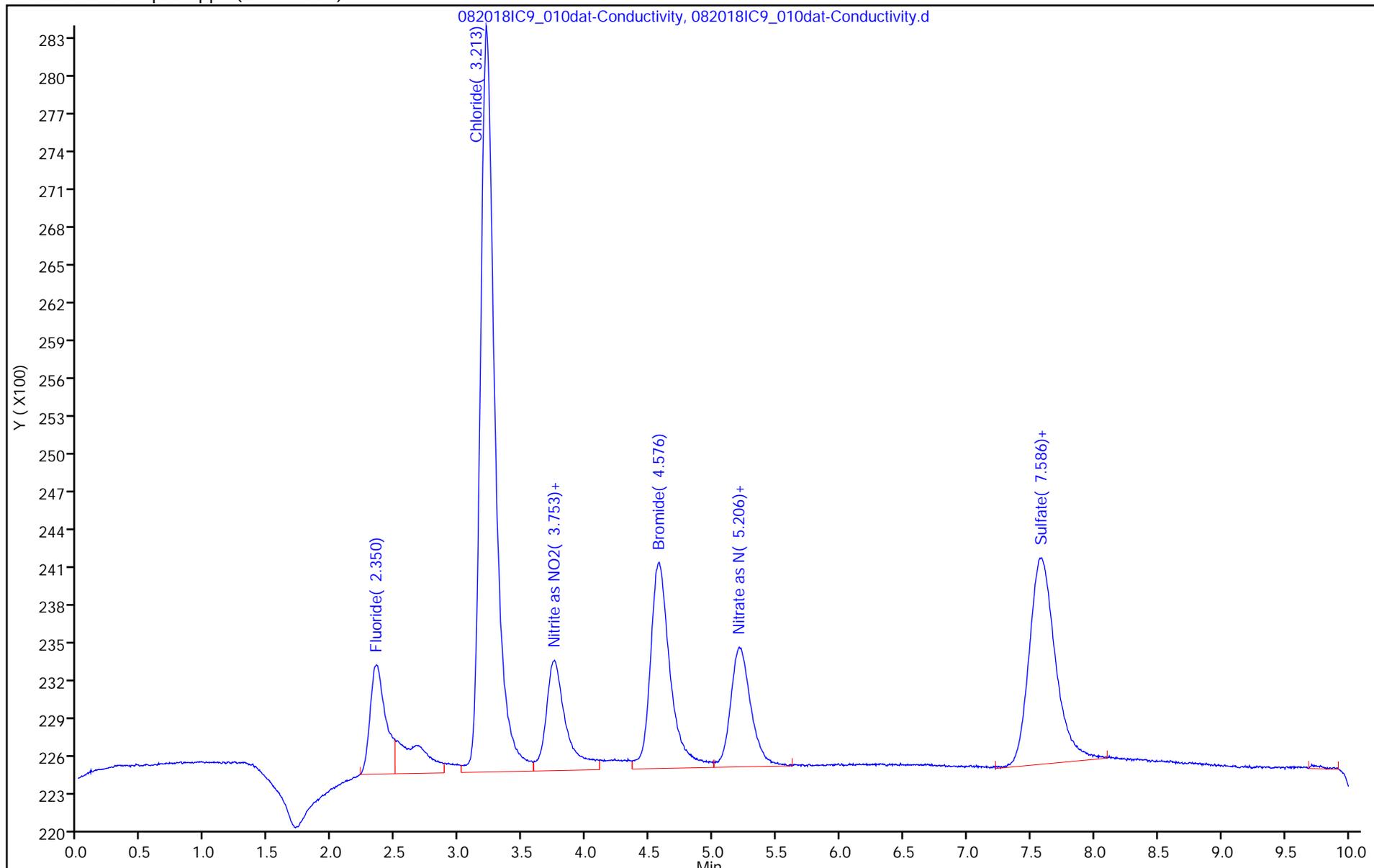
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

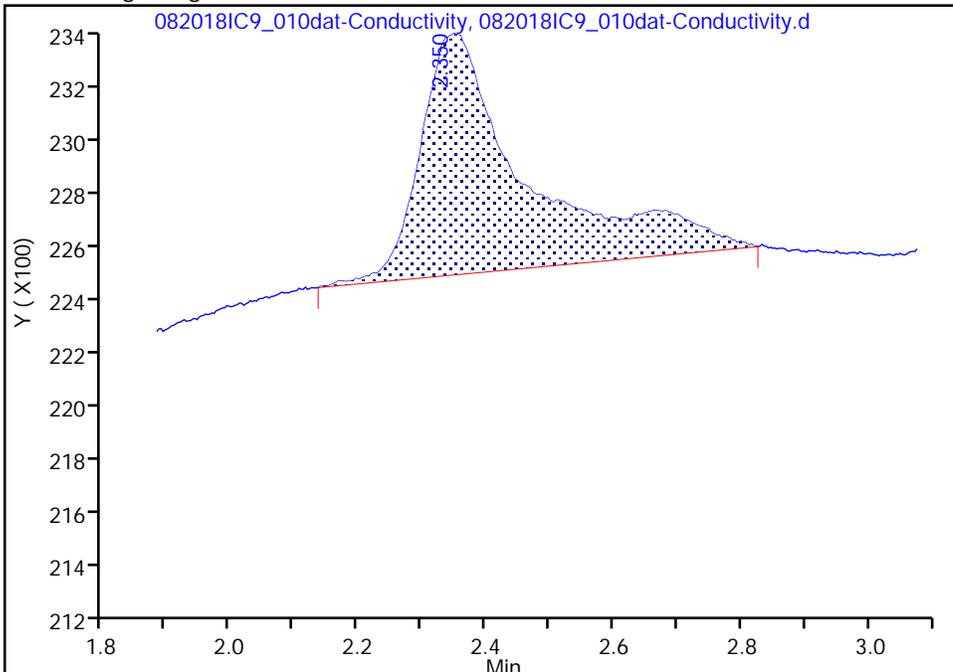
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_010dat-Conductivity.d
Injection Date: 20-Aug-2018 09:44:00 Instrument ID: IC9
Lims ID: STD1
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

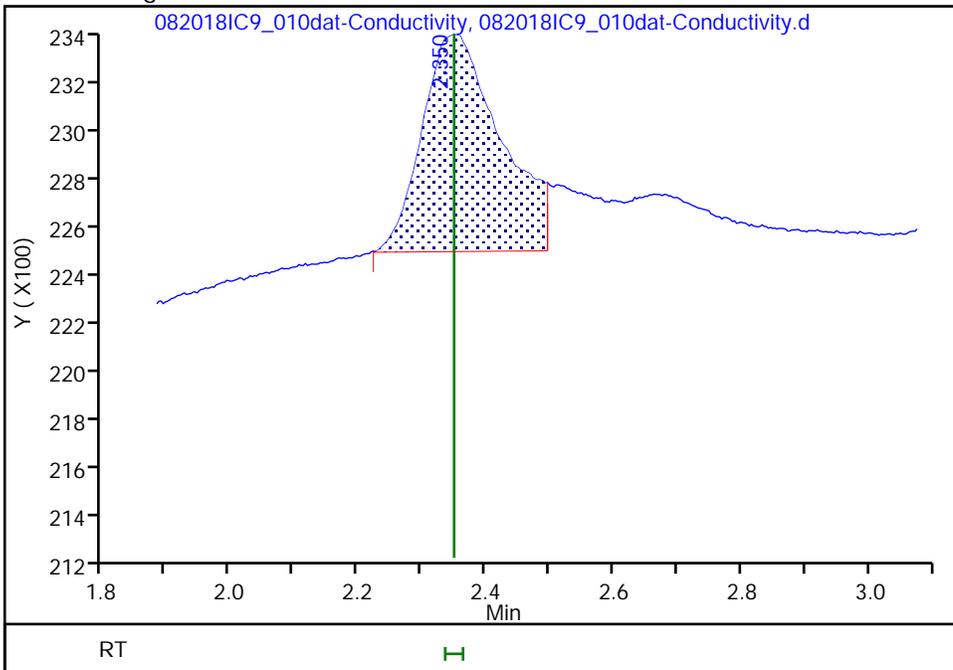
RT: 2.35
Area: 9977
Amount: 0.021006
Amount Units: ug/ml

Processing Integration Results



RT: 2.35
Area: 7298
Amount: 0.047147
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:47:39
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

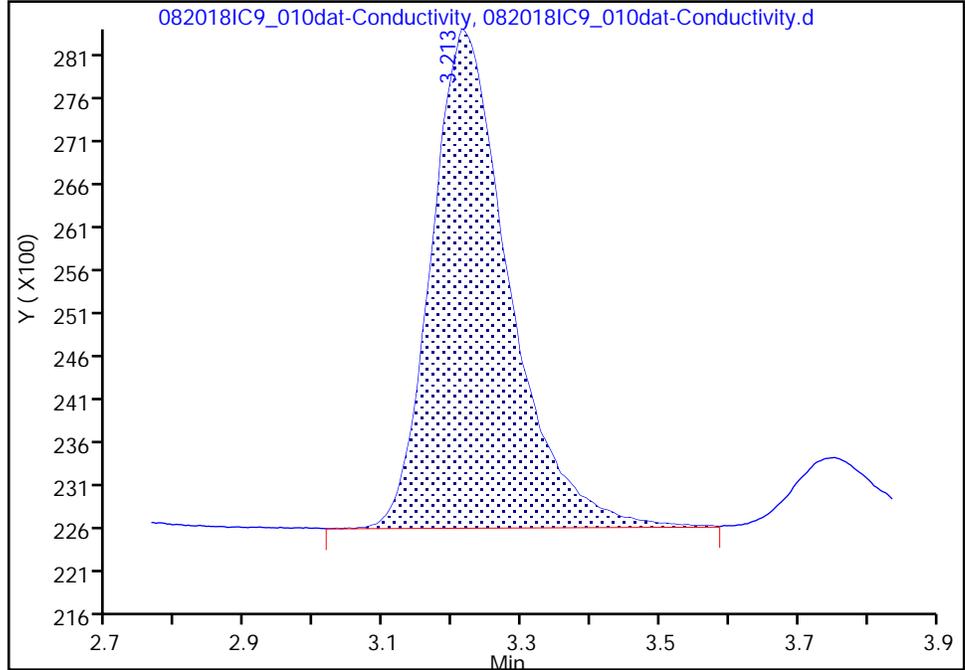
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_010dat-Conductivity.d
Injection Date: 20-Aug-2018 09:44:00 Instrument ID: IC9
Lims ID: STD1
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

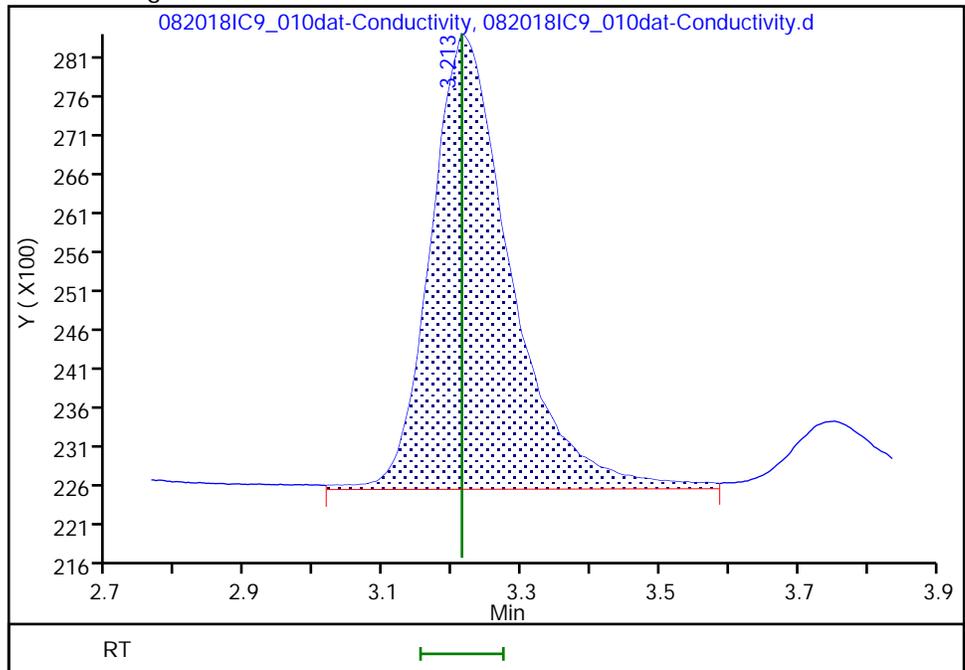
RT: 3.21
Area: 45228
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 3.21
Area: 47126
Amount: 0.352222
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:47:39
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

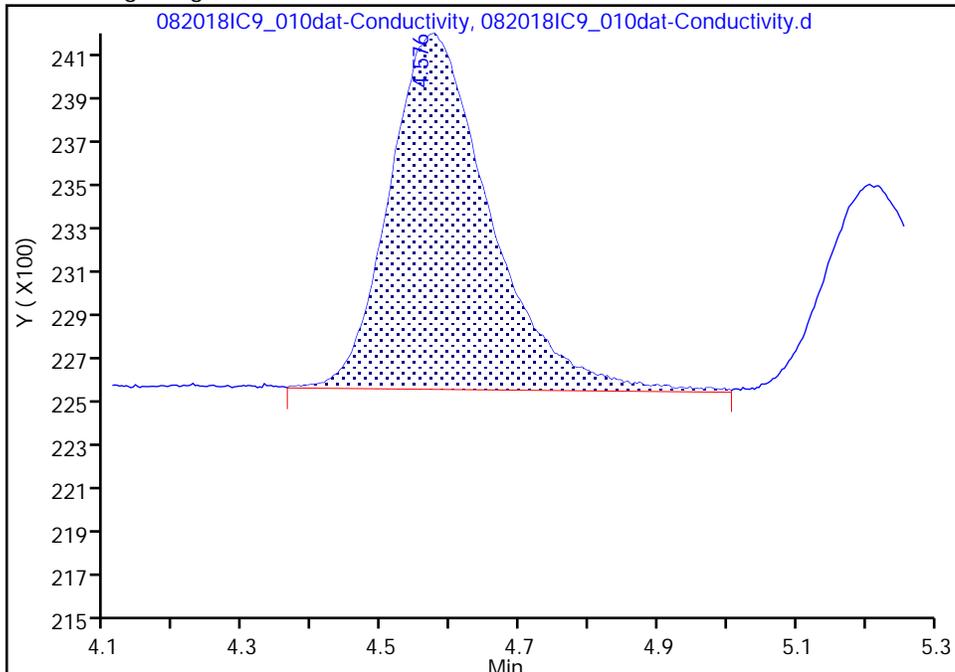
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_010dat-Conductivity.d
Injection Date: 20-Aug-2018 09:44:00 Instrument ID: IC9
Lims ID: STD1
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

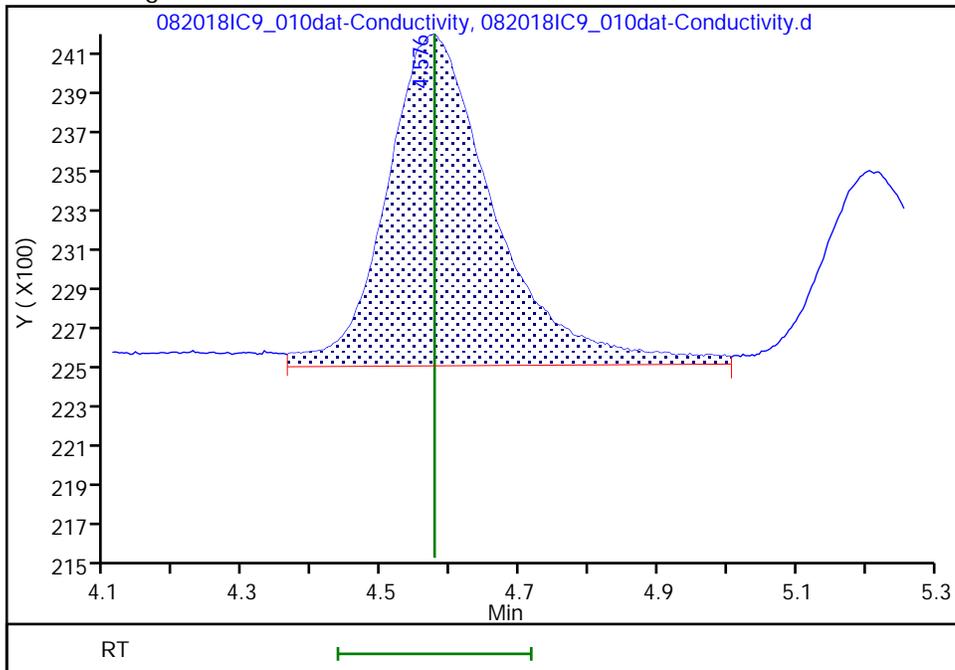
RT: 4.58
Area: 15872
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 4.58
Area: 17532
Amount: 0.568572
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:47:39
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_011dat-Conductivity.d
 Lims ID: STD2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 20-Aug-2018 09:55:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082018IC9_011
 Misc. Info.: 082018IC9_011
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 20-Aug-2018 12:39:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:33:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.360	2.350	0.010	14450	0.0400	0.0629	M
2 Chloride	3.223	3.213	0.010	87457	0.4000	0.4973	M
8 Nitrite as NO2	3.753	3.753	0.000	17713	NC	NC	M
7 Nitrite as N	3.753	3.753	0.000	17713	NC	NC	M
1 Bromide	4.563	4.576	-0.013	35229	0.4000	0.7139	M
3 Nitrate as N	5.193	5.206	-0.013	25361	NC	NC	M
9 Nitrate as NO3	5.193	5.206	-0.013	25361	NC	NC	M
4 Sulfate	7.600	7.586	0.014	59779	0.4000	0.7185	
6 Sulfate as Sulfur	7.600	7.586	0.014	59779	0.1333	0.2395	
S 10 Nitrate Nitrite as N		0.000			0.0800	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

IC Primary_00012 Amount Added: 20.00 Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_011dat-Conductivity.d

Injection Date: 20-Aug-2018 09:55:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: STD2

Worklist Smp#: 2

Client ID:

Injection Vol: 1.0 ul

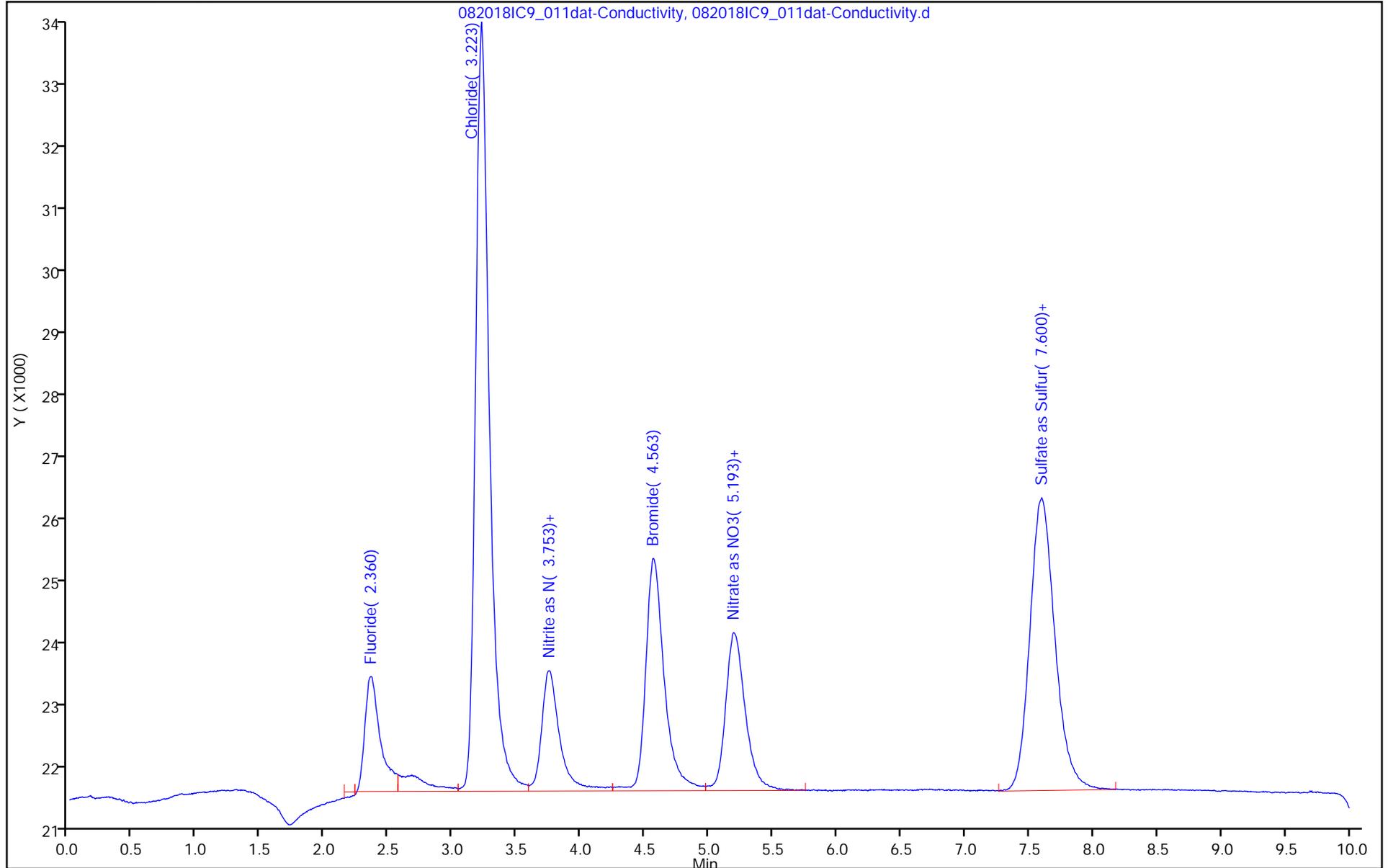
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

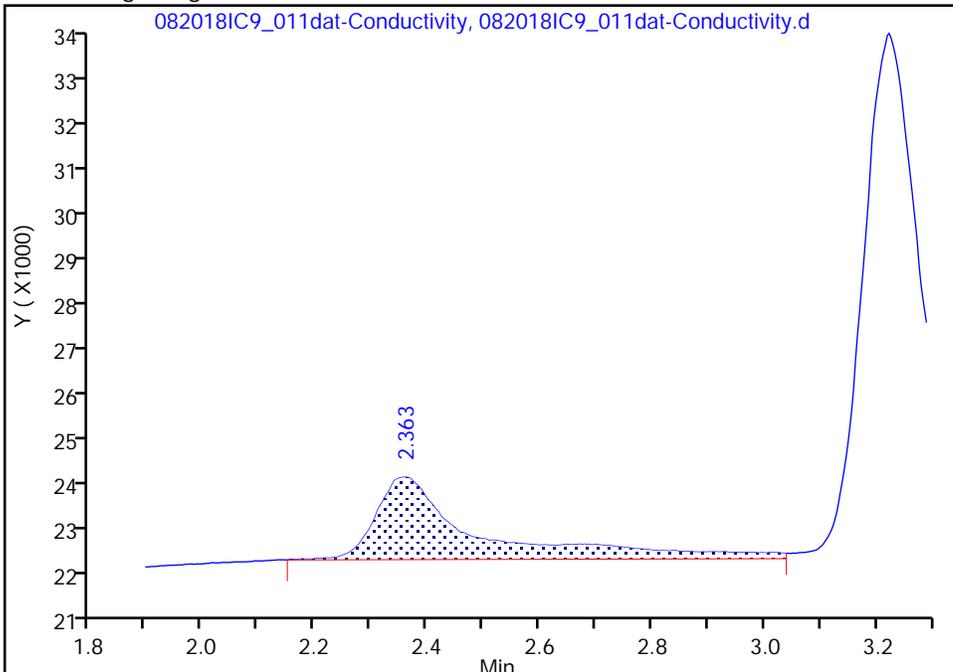
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_011dat-Conductivity.d
Injection Date: 20-Aug-2018 09:55:00 Instrument ID: IC9
Lims ID: STD2
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

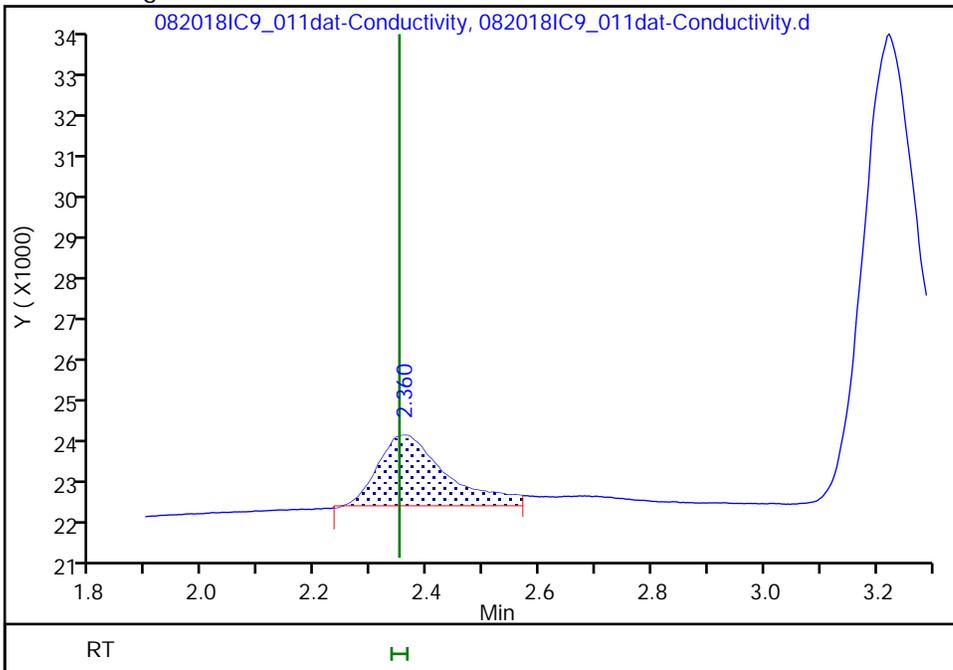
RT: 2.36
Area: 22705
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 2.36
Area: 14450
Amount: 0.062925
Amount Units: ug/ml

Manual Integration Results



TestAmerica Nashville

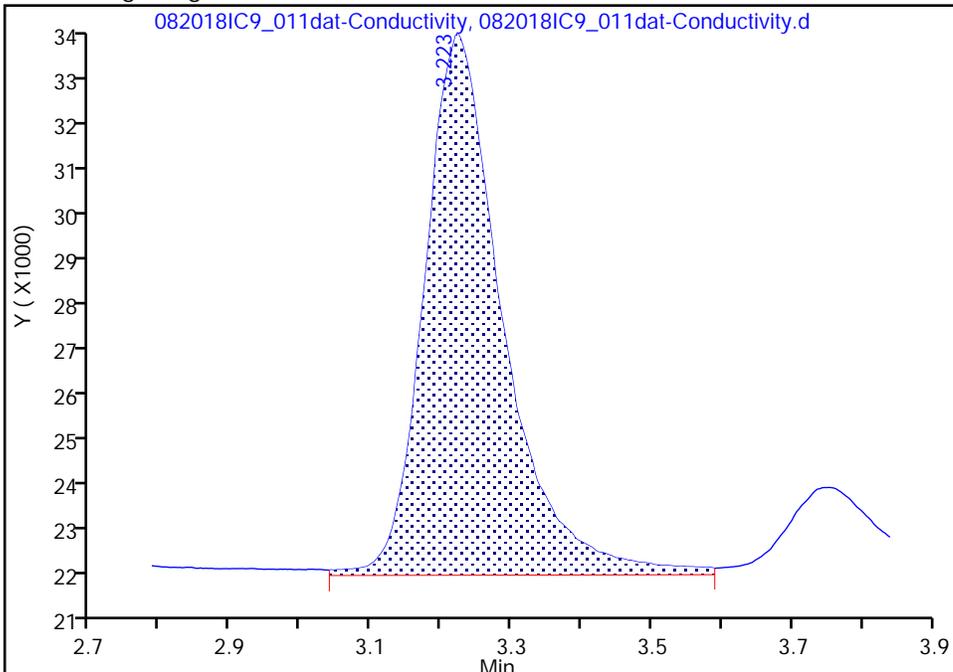
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_011dat-Conductivity.d
Injection Date: 20-Aug-2018 09:55:00 Instrument ID: IC9
Lims ID: STD2
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

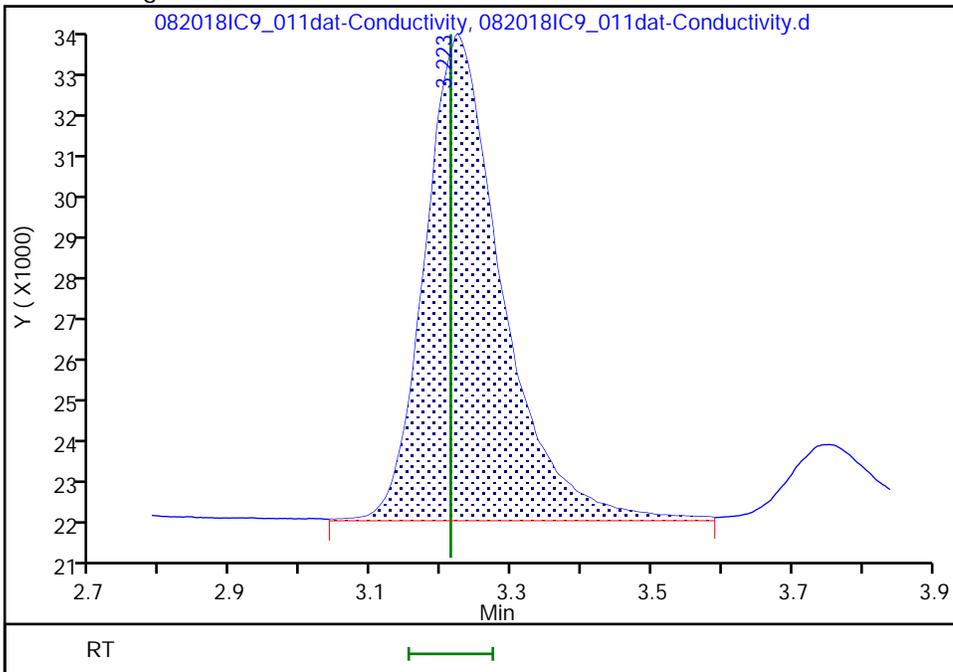
RT: 3.22
Area: 89833
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 3.22
Area: 87457
Amount: 0.497268
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:50:08
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

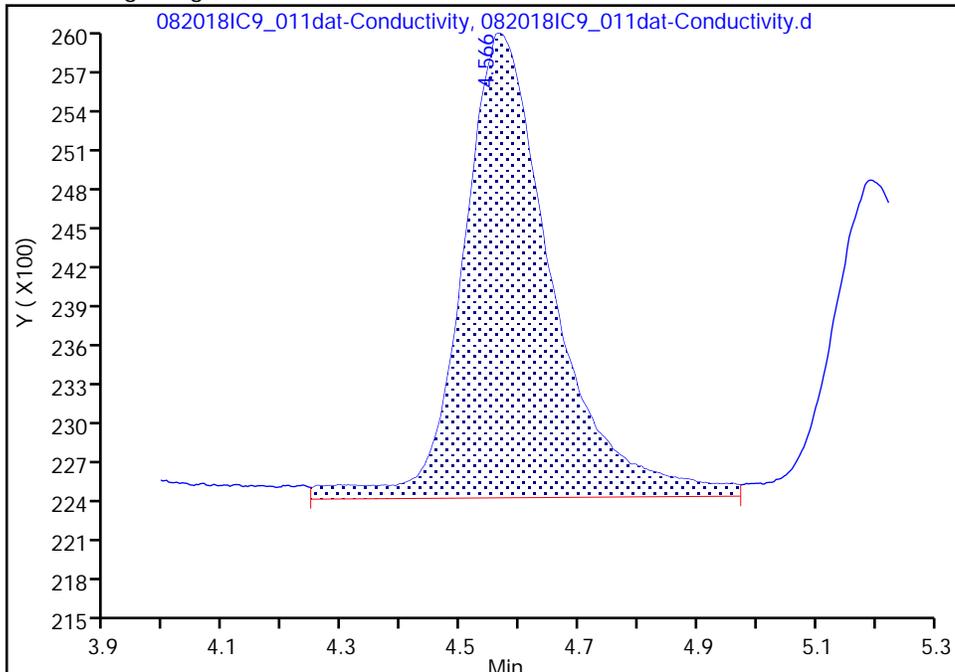
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_011dat-Conductivity.d
Injection Date: 20-Aug-2018 09:55:00 Instrument ID: IC9
Lims ID: STD2
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

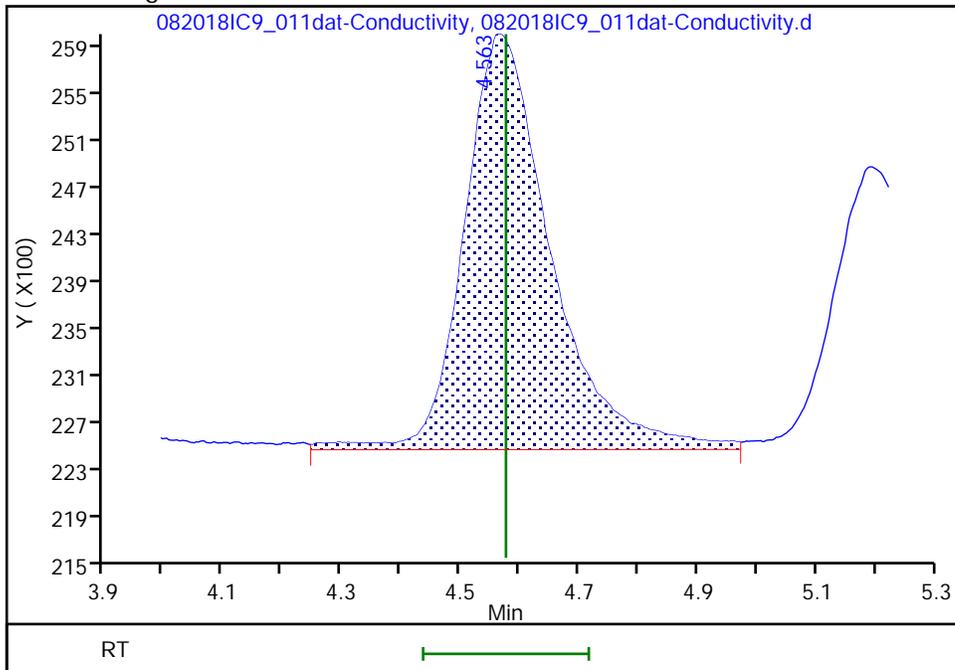
RT: 4.57
Area: 36755
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 4.56
Area: 35229
Amount: 0.713937
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:50:08
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_012dat-Conductivity.d
 Lims ID: STD3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 20-Aug-2018 10:07:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082018IC9_012
 Misc. Info.: 082018IC9_012
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 20-Aug-2018 12:39:38 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:34:13

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.353	2.350	0.003	33949	0.1000	0.1059	M
2 Chloride	3.216	3.213	0.003	240240	1.00	1.05	M
7 Nitrite as N	3.740	3.753	-0.013	43471	NC	NC	M
8 Nitrite as NO2	3.740	3.753	-0.013	43471	NC	NC	M
1 Bromide	4.553	4.576	-0.023	85787	1.00	1.13	M
9 Nitrate as NO3	5.180	5.206	-0.026	52805	NC	NC	M
3 Nitrate as N	5.180	5.206	-0.026	52805	NC	NC	M
6 Sulfate as Sulfur	7.596	7.586	0.010	147312	0.3333	0.3804	
4 Sulfate	7.596	7.586	0.010	147312	1.00	1.14	
S 10 Nitrate Nitrite as N		0.000			0.2000	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

IC Primary_00012

Amount Added: 50.00

Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_012dat-Conductivity.d

Injection Date: 20-Aug-2018 10:07:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: STD3

Worklist Smp#: 3

Client ID:

Injection Vol: 1.0 ul

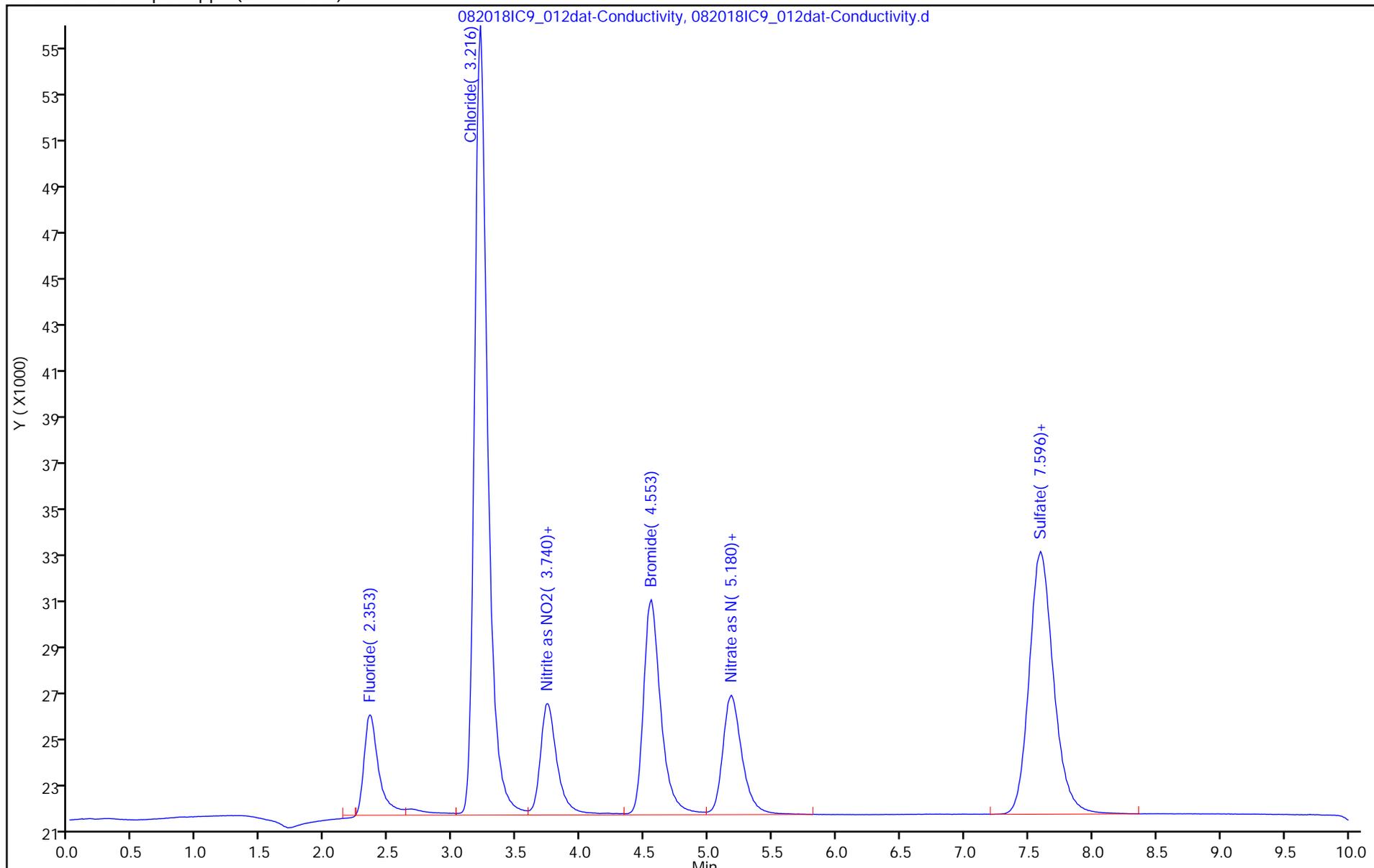
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

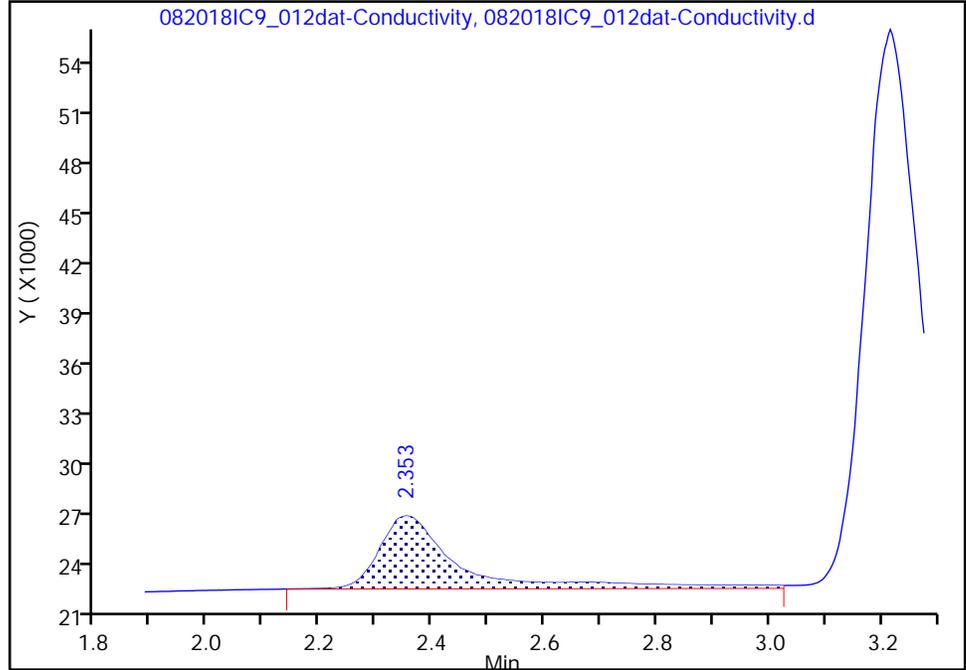
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_012dat-Conductivity.d
Injection Date: 20-Aug-2018 10:07:00 Instrument ID: IC9
Lims ID: STD3
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

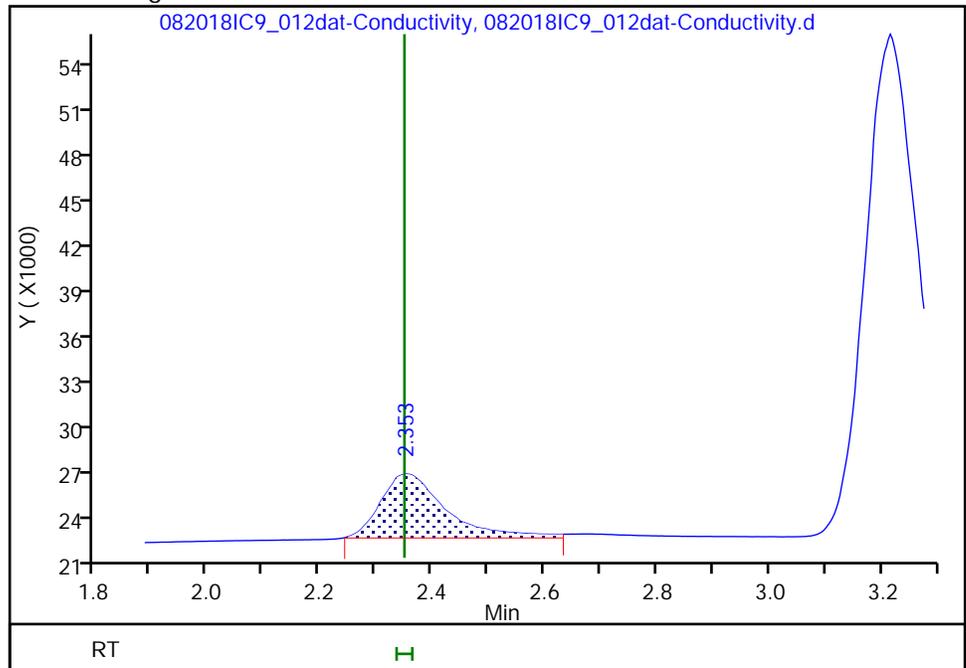
RT: 2.35
Area: 43132
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 2.35
Area: 33949
Amount: 0.105941
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:50:35
Audit Action: Split an Integrated Peak

TestAmerica Nashville

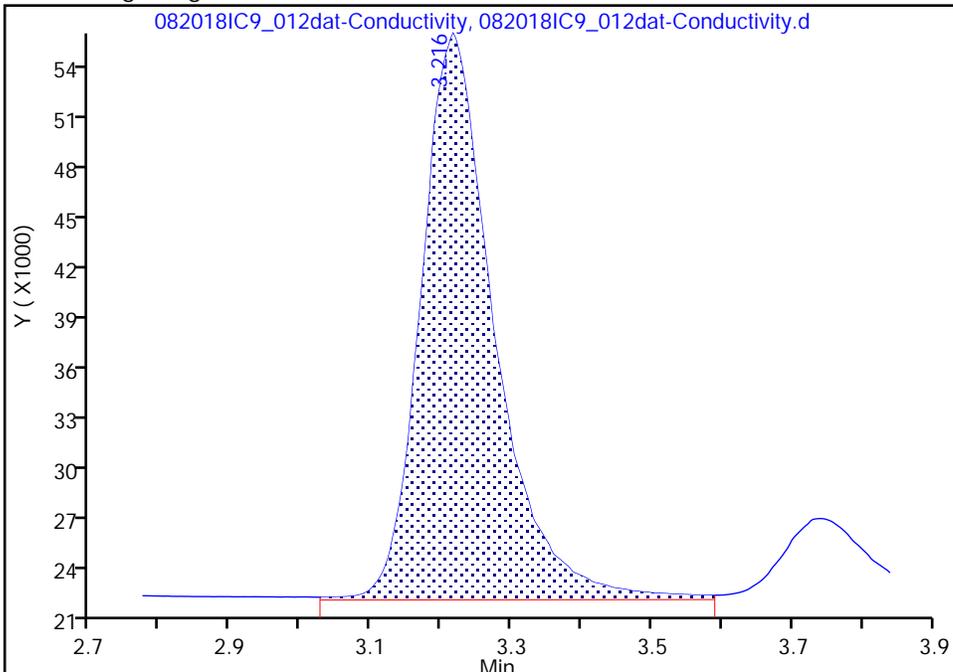
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_012dat-Conductivity.d
Injection Date: 20-Aug-2018 10:07:00 Instrument ID: IC9
Lims ID: STD3
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

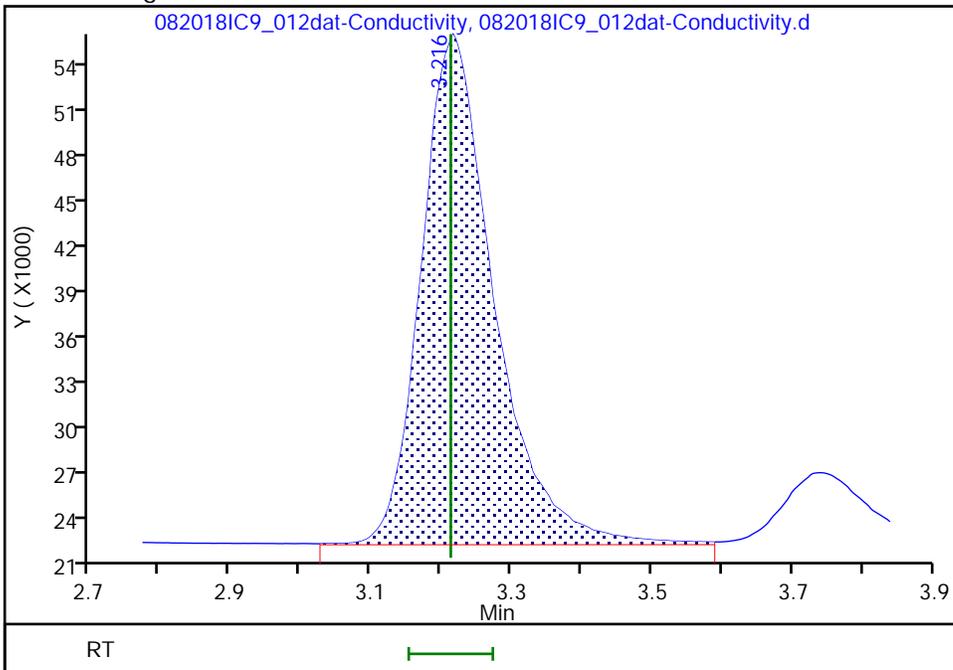
RT: 3.22
Area: 243400
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 3.22
Area: 240240
Amount: 1.046734
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:50:28
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

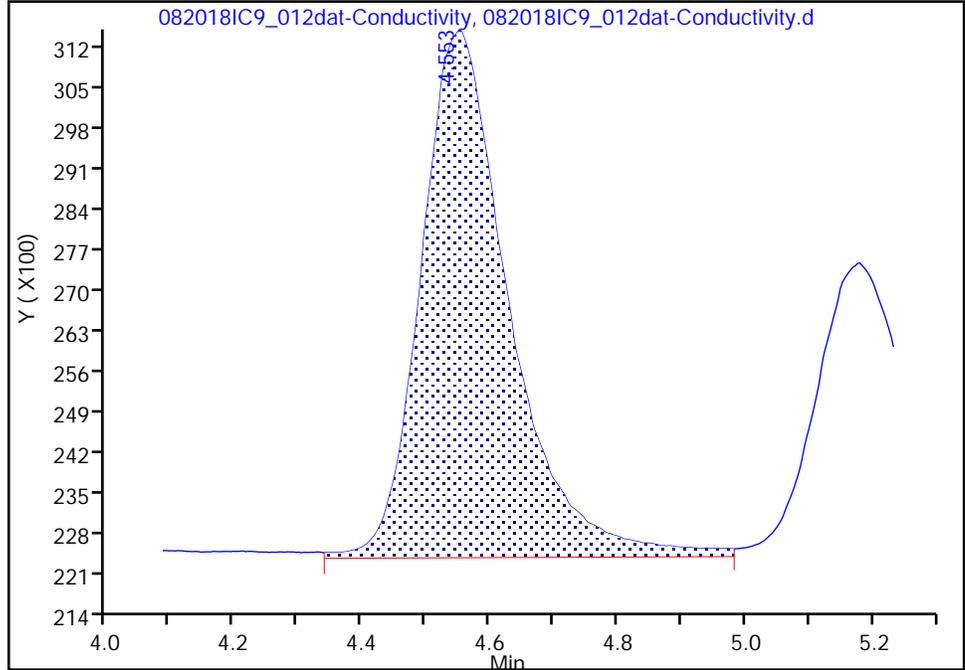
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_012dat-Conductivity.d
Injection Date: 20-Aug-2018 10:07:00 Instrument ID: IC9
Lims ID: STD3
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

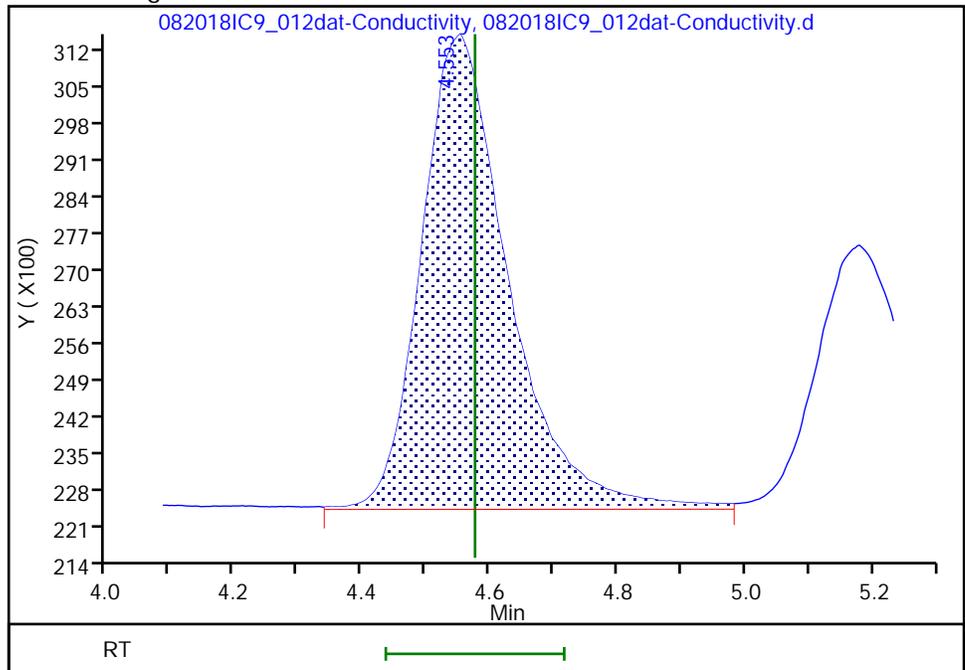
RT: 4.55
Area: 87369
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 4.55
Area: 85787
Amount: 1.129226
Amount Units: ug/ml

Manual Integration Results



TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_013dat-Conductivity.d
 Lims ID: STD4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 20-Aug-2018 10:18:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082018IC9_013
 Misc. Info.: 082018IC9_013
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 20-Aug-2018 12:39:43 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:34:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.350	2.350	0.000	79545	0.2000	0.2065	
2 Chloride	3.206	3.213	-0.007	486371	2.00	1.93	
8 Nitrite as NO2	3.733	3.753	-0.020	84778	NC	NC	
7 Nitrite as N	3.733	3.753	-0.020	84778	NC	NC	
1 Bromide	4.540	4.576	-0.036	183573	2.00	1.93	
3 Nitrate as N	5.163	5.206	-0.043	99784	NC	NC	
9 Nitrate as NO3	5.163	5.206	-0.043	99784	NC	NC	
4 Sulfate	7.596	7.586	0.010	295269	2.00	1.86	
6 Sulfate as Sulfur	7.596	7.586	0.010	295269	0.6667	0.6186	
S 10 Nitrate Nitrite as N		0.000			0.4000	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC Primary_00012

Amount Added: 100.00

Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_013dat-Conductivity.d

Injection Date: 20-Aug-2018 10:18:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: STD4

Worklist Smp#: 4

Client ID:

Injection Vol: 1.0 ul

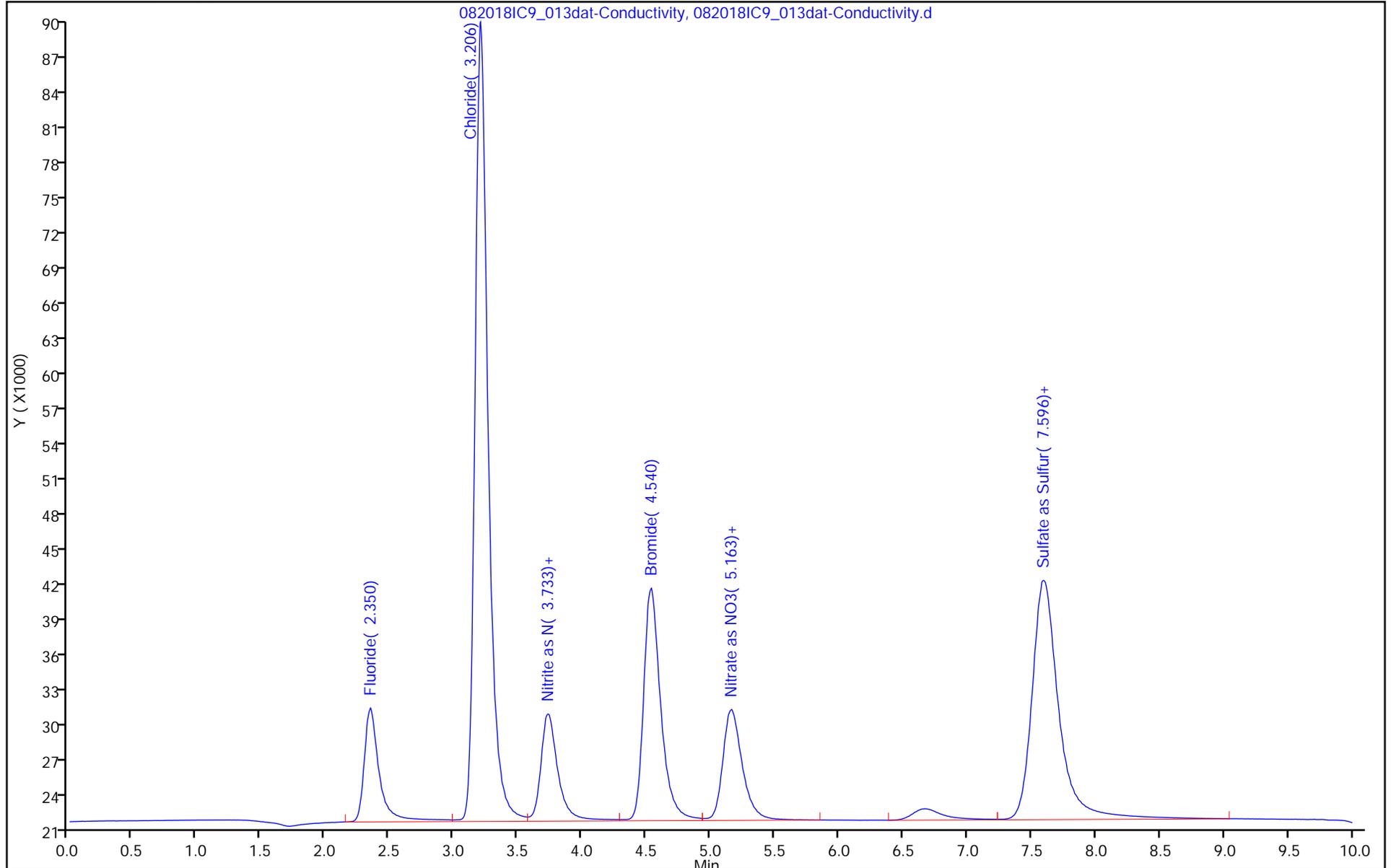
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_014dat-Conductivity.d
 Lims ID: STD5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 20-Aug-2018 10:30:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082018IC9_014
 Misc. Info.: 082018IC9_014
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 20-Aug-2018 12:39:45 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK020

First Level Reviewer: statenj

Date: 20-Aug-2018 11:35:11

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.343	2.350	-0.007	198105	0.5000	0.4681	M
2 Chloride	3.203	3.213	-0.010	1307558	5.00	4.89	M
7 Nitrite as N	3.726	3.753	-0.027	258121	NC	NC	M
8 Nitrite as NO2	3.726	3.753	-0.027	258121	NC	NC	M
1 Bromide	4.516	4.576	-0.060	516348	5.00	4.67	M
9 Nitrate as NO3	5.130	5.206	-0.076	265766	NC	NC	M
3 Nitrate as N	5.130	5.206	-0.076	265766	NC	NC	M
6 Sulfate as Sulfur	7.600	7.586	0.014	897524	1.67	1.59	
4 Sulfate	7.600	7.586	0.014	897524	5.00	4.76	
S 10 Nitrate Nitrite as N		0.000			1.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

IC Primary_00012

Amount Added: 250.00

Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_014dat-Conductivity.d

Injection Date: 20-Aug-2018 10:30:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: STD5

Worklist Smp#: 5

Client ID:

Injection Vol: 1.0 ul

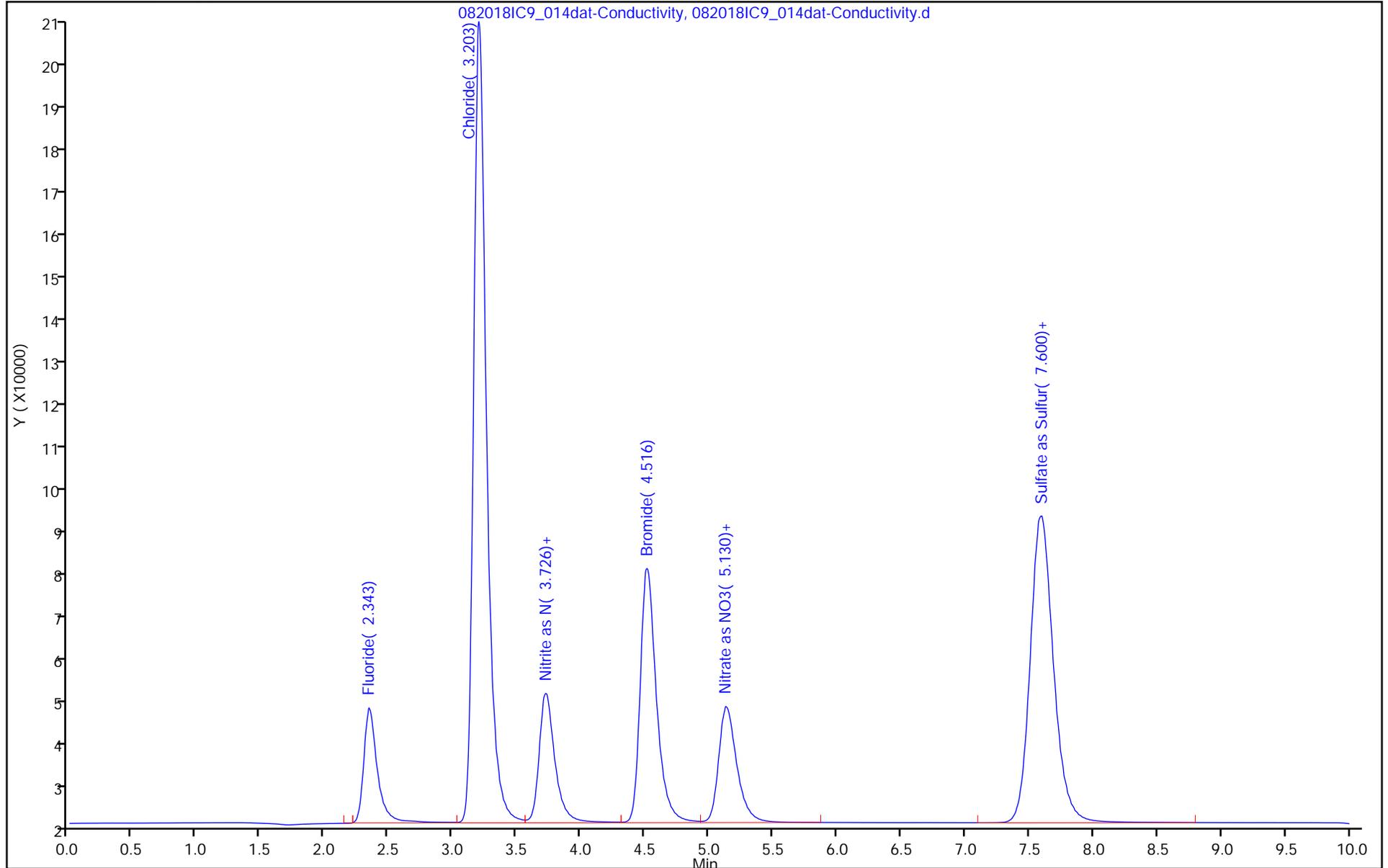
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

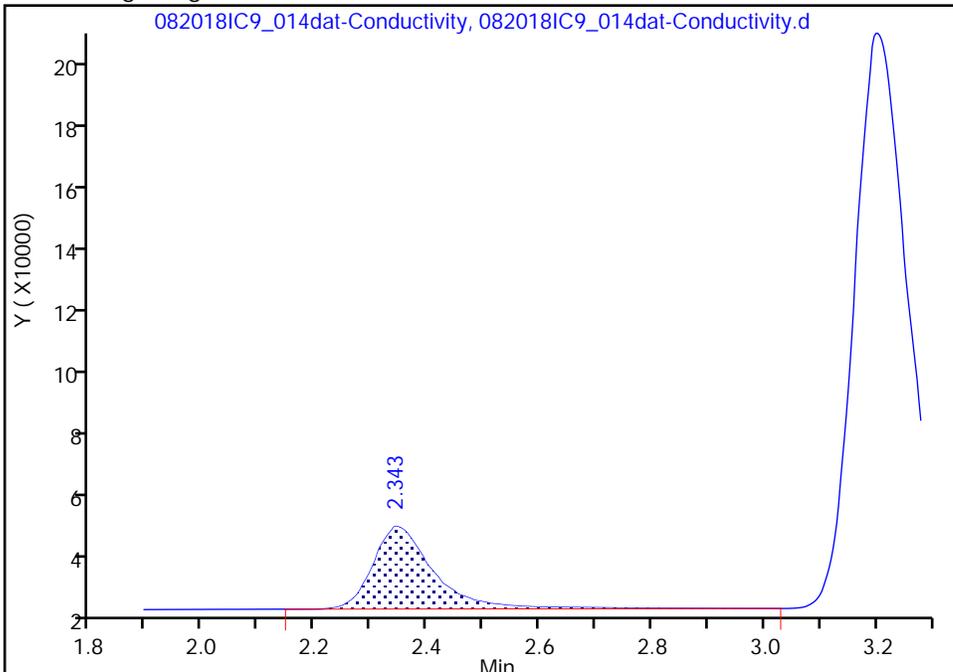
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_014dat-Conductivity.d
Injection Date: 20-Aug-2018 10:30:00 Instrument ID: IC9
Lims ID: STD5
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

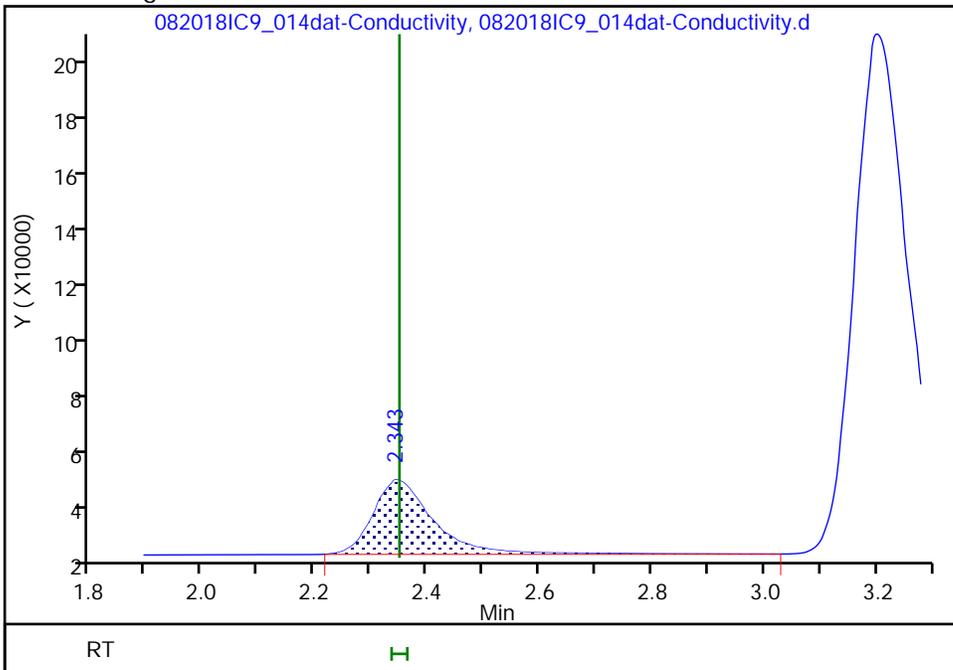
RT: 2.34
Area: 197695
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 2.34
Area: 198105
Amount: 0.468085
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:52:05
Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

TestAmerica Nashville

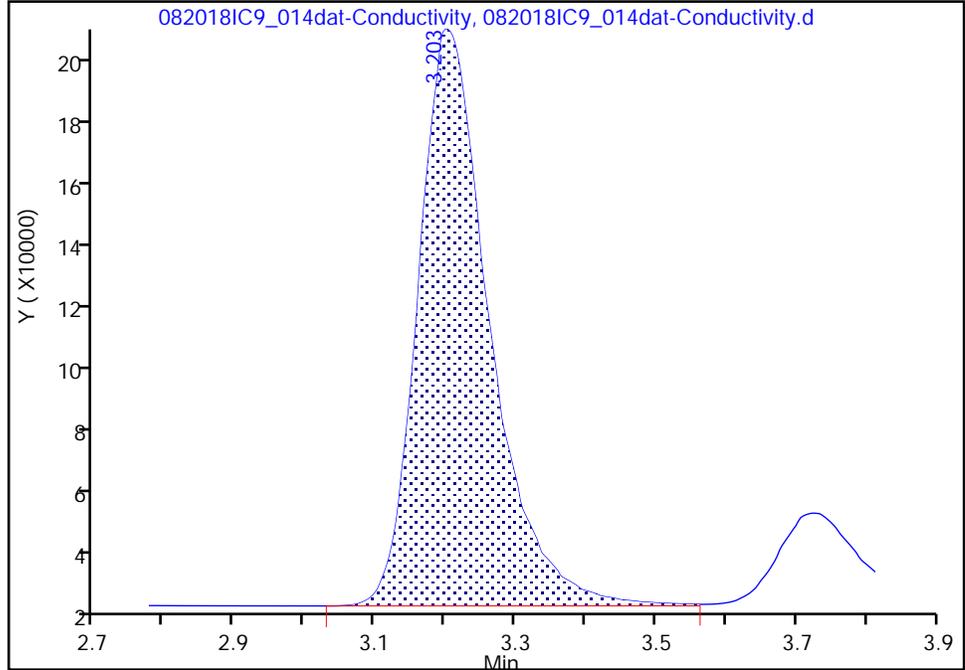
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_014dat-Conductivity.d
Injection Date: 20-Aug-2018 10:30:00 Instrument ID: IC9
Lims ID: STD5
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

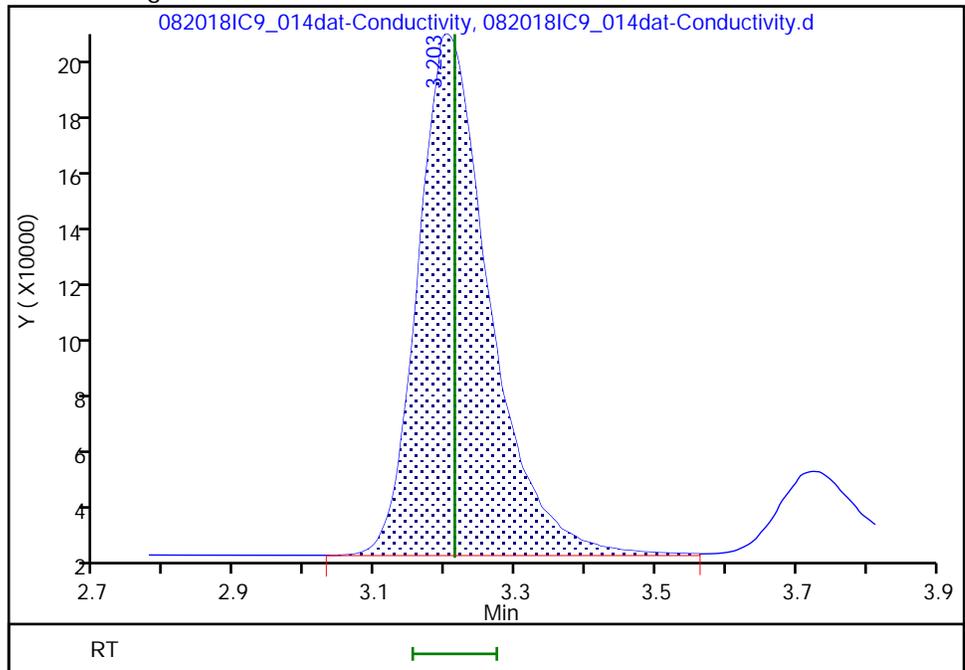
RT: 3.20
Area: 1304182
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 3.20
Area: 1307558
Amount: 4.885218
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:51:57

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

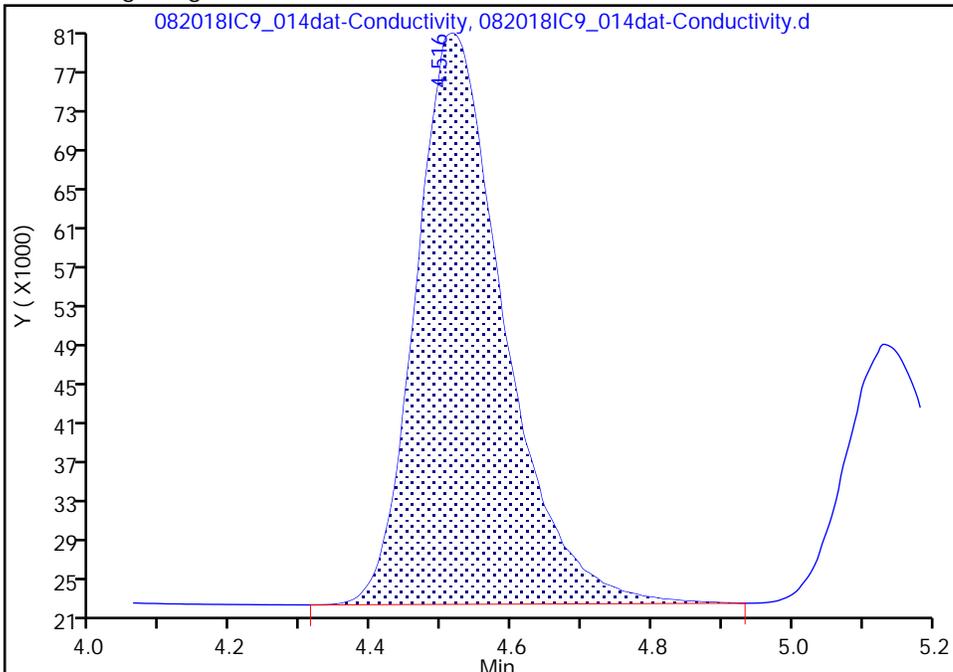
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_014dat-Conductivity.d
Injection Date: 20-Aug-2018 10:30:00 Instrument ID: IC9
Lims ID: STD5
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

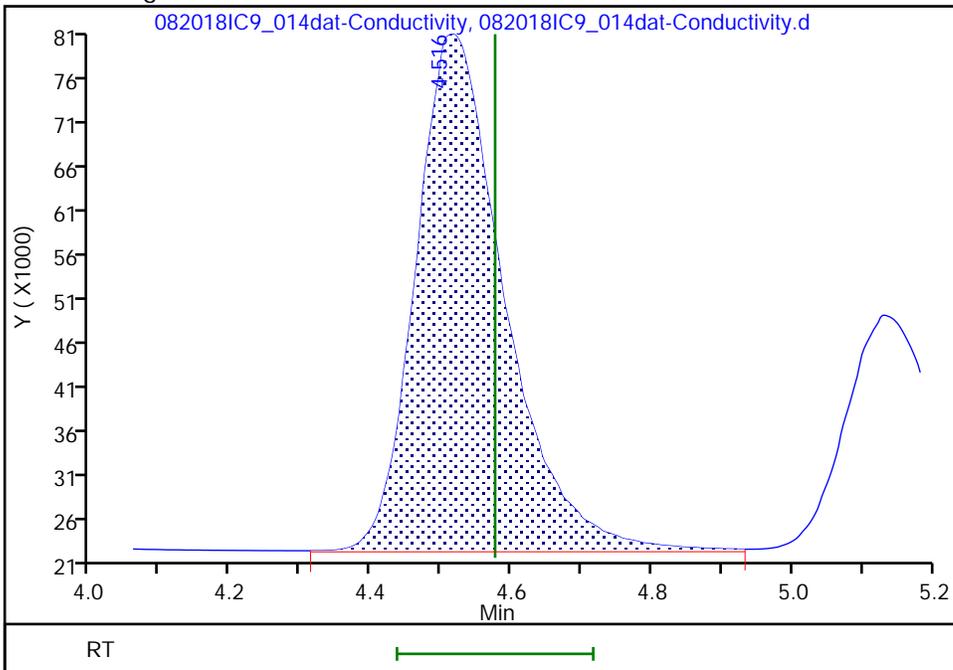
RT: 4.52
Area: 508909
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 4.52
Area: 516348
Amount: 4.665900
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:51:57
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_015dat-Conductivity.d
 Lims ID: ICRT
 Client ID:
 Sample Type: ICRT Calib Level: 6
 Inject. Date: 20-Aug-2018 10:42:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082018IC9_015
 Misc. Info.: 082018IC9_015
 Operator ID: Staten, Joe (TA)\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 20-Aug-2018 12:39:50 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:35:34

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.347	2.347	0.000	417128	1.00	0.9513	M
2 Chloride	3.200	3.200	0.000	2723767	10.0	9.98	M
8 Nitrite as NO2	3.720	3.720	0.000	561260	NC	NC	M
7 Nitrite as N	3.720	3.720	0.000	561260	NC	NC	M
1 Bromide	4.500	4.500	0.000	1108008	10.0	9.53	M
3 Nitrate as N	5.113	5.113	0.000	584159	NC	NC	M
9 Nitrate as NO3	5.113	5.113	0.000	584159	NC	NC	M
4 Sulfate	7.590	7.590	0.000	1910143	10.0	9.66	
6 Sulfate as Sulfur	7.590	7.590	0.000	1910143	3.33	3.22	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

IC Primary_00012 Amount Added: 500.00 Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_015dat-Conductivity.d

Injection Date: 20-Aug-2018 10:42:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: ICRT

Worklist Smp#: 6

Client ID:

Injection Vol: 1.0 ul

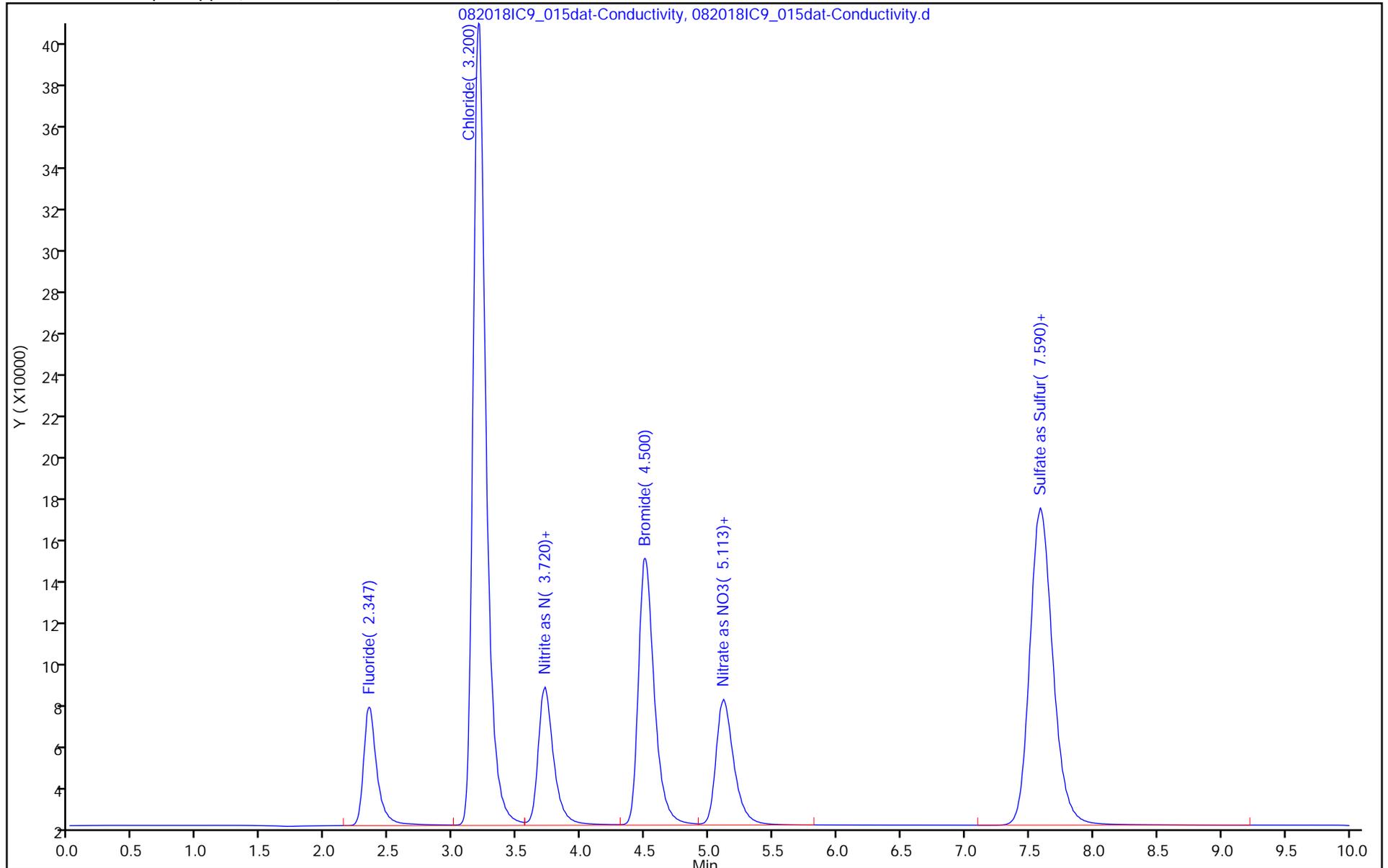
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

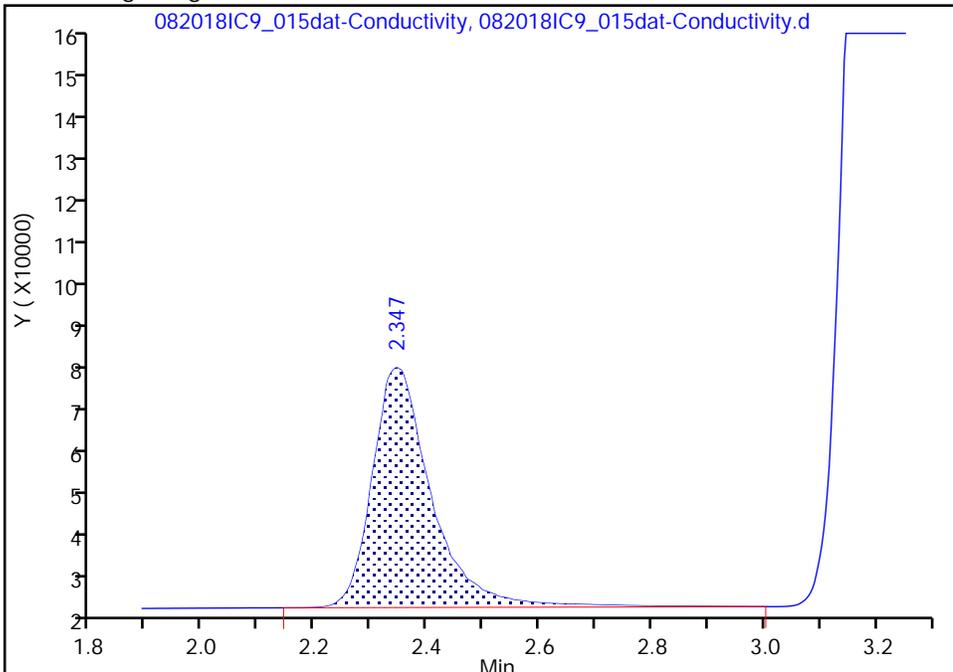
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_015dat-Conductivity.d
Injection Date: 20-Aug-2018 10:42:00 Instrument ID: IC9
Lims ID: ICRT
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

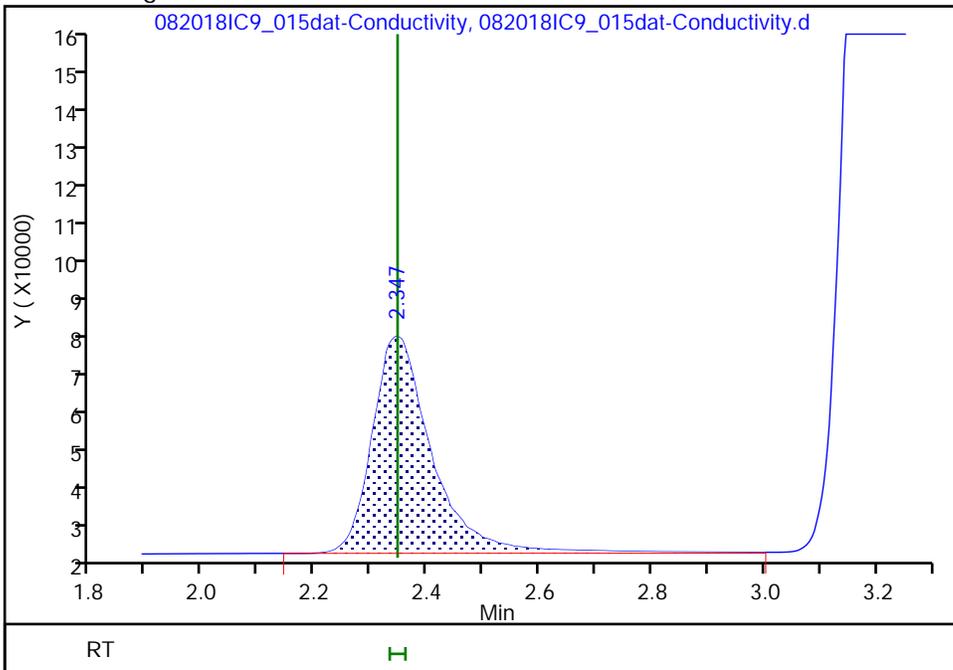
RT: 2.35
Area: 411839
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 2.35
Area: 417128
Amount: 0.951269
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:35:28
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

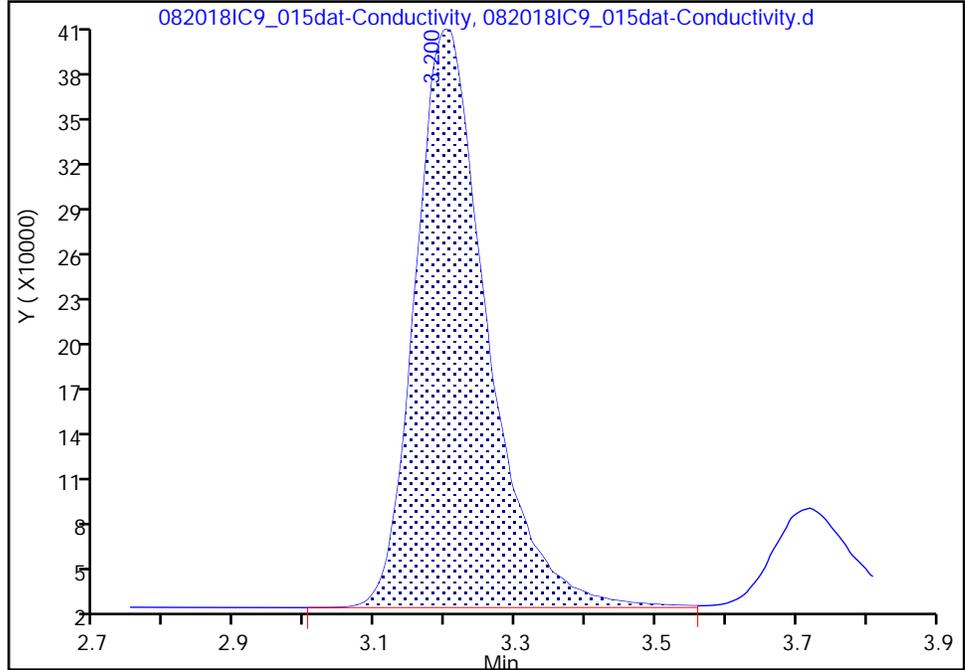
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_015dat-Conductivity.d
Injection Date: 20-Aug-2018 10:42:00 Instrument ID: IC9
Lims ID: ICRT
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

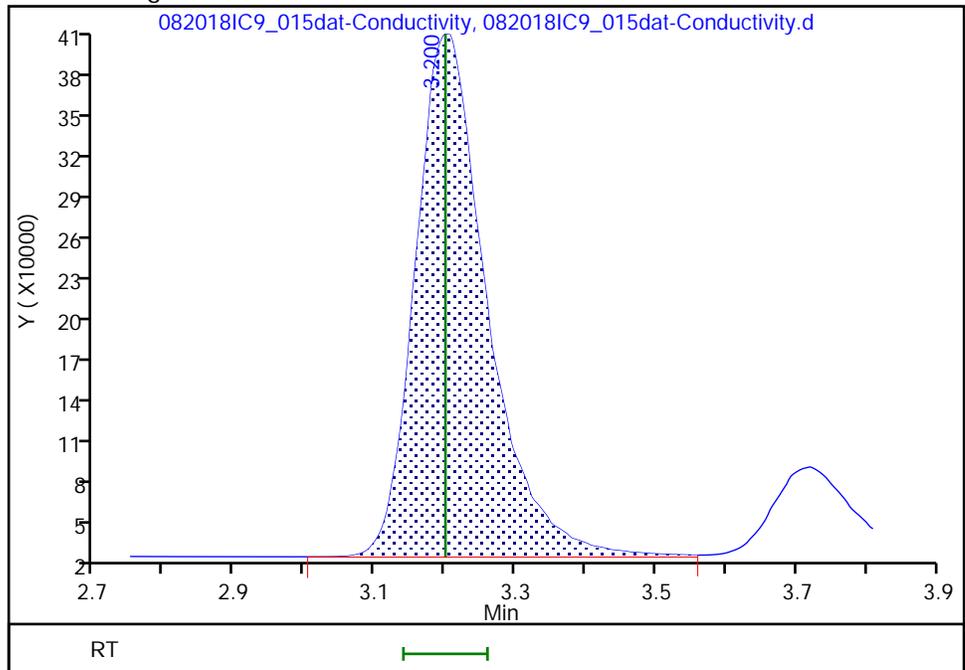
RT: 3.20
Area: 2716286
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 3.20
Area: 2723767
Amount: 9.978448
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:35:28
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing
Page 100 of 309

TestAmerica Nashville

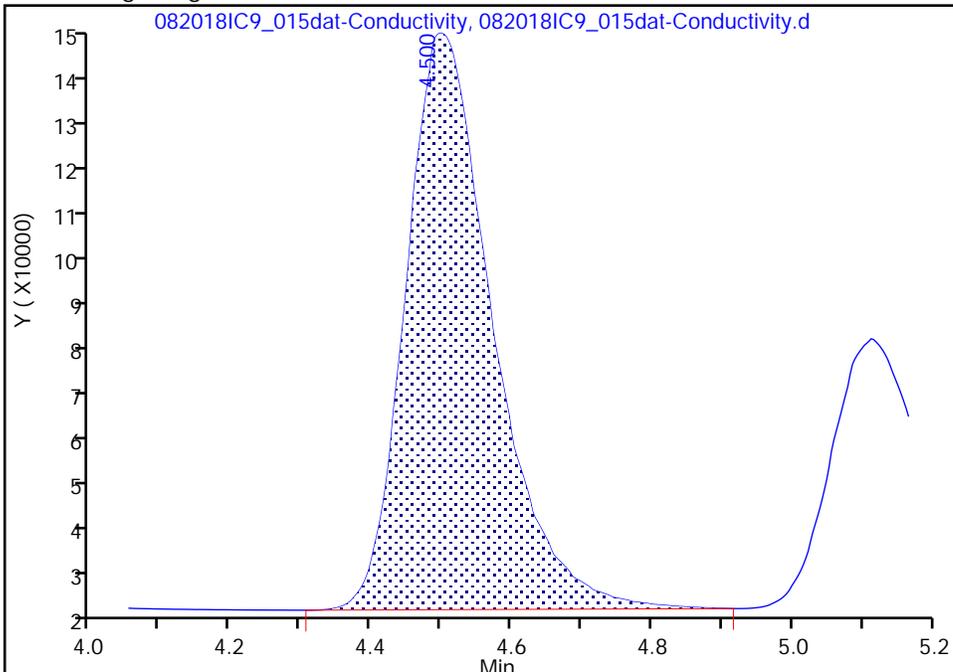
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_015dat-Conductivity.d
Injection Date: 20-Aug-2018 10:42:00 Instrument ID: IC9
Lims ID: ICRT
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

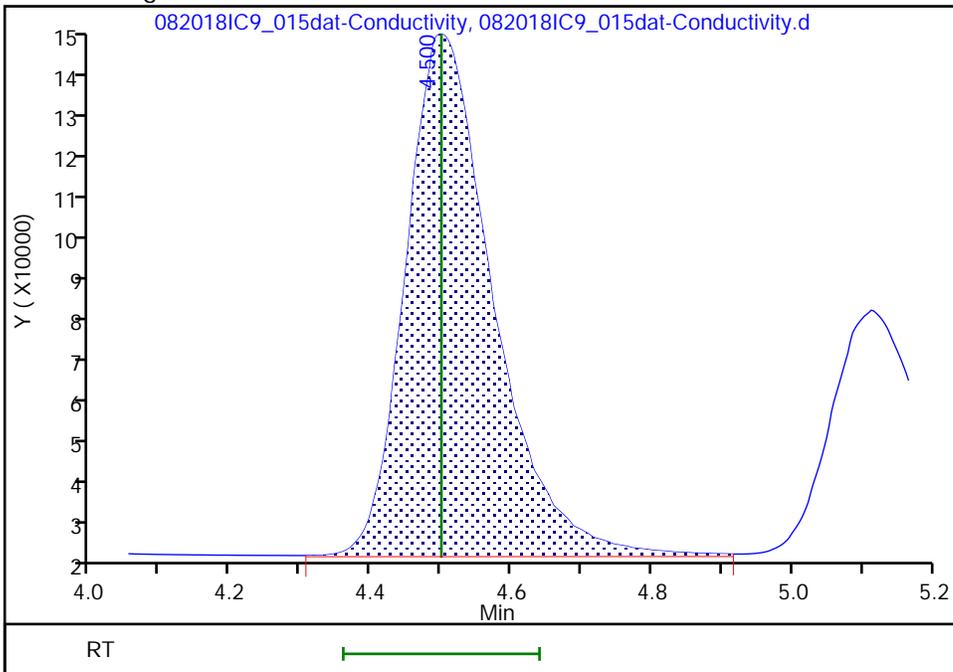
RT: 4.50
Area: 1092015
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 4.50
Area: 1108008
Amount: 9.525859
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:35:28
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_016dat-Conductivity.d
 Lims ID: STD7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 20-Aug-2018 10:53:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082018IC9_016
 Misc. Info.: 082018IC9_016
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 20-Aug-2018 12:39:54 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:35:56

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.347	2.347	0.000	895682	2.00	2.01	M
2 Chloride	3.203	3.200	0.003	5591014	20.0	20.3	M
7 Nitrite as N	3.710	3.720	-0.010	1217673	NC	NC	M
8 Nitrite as NO2	3.710	3.720	-0.010	1217673	NC	NC	M
1 Bromide	4.496	4.500	-0.004	2376106	20.0	19.9	M
9 Nitrate as NO3	5.096	5.113	-0.017	1277112	NC	NC	M
3 Nitrate as N	5.096	5.113	-0.017	1277112	NC	NC	M
6 Sulfate as Sulfur	7.596	7.590	0.006	4019109	6.67	6.61	
4 Sulfate	7.596	7.590	0.006	4019109	20.0	19.8	
S 10 Nitrate Nitrite as N		0.000			4.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

IC Primary_00012 Amount Added: 1000.00 Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_016dat-Conductivity.d

Injection Date: 20-Aug-2018 10:53:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: STD7

Worklist Smp#: 7

Client ID:

Injection Vol: 1.0 ul

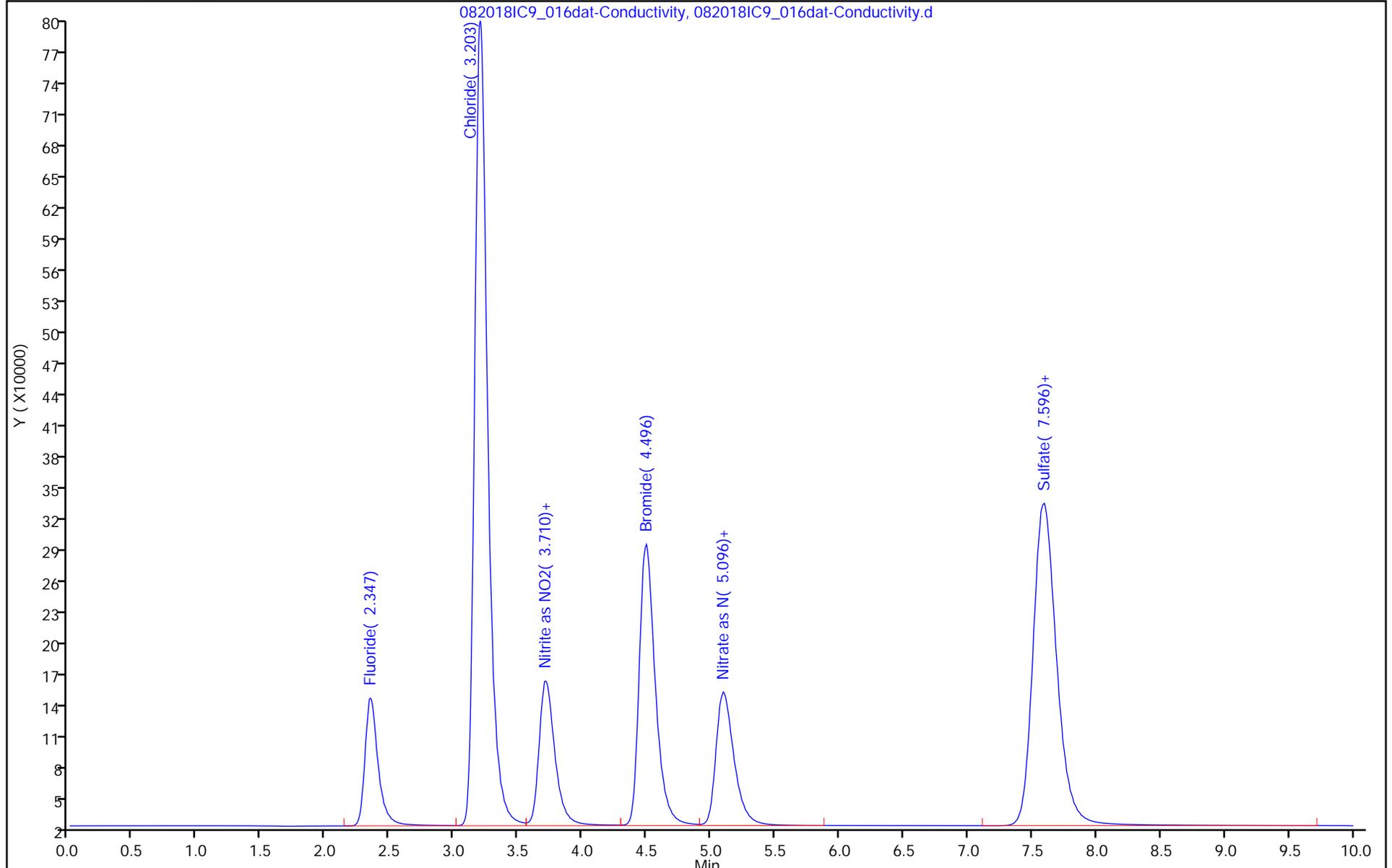
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

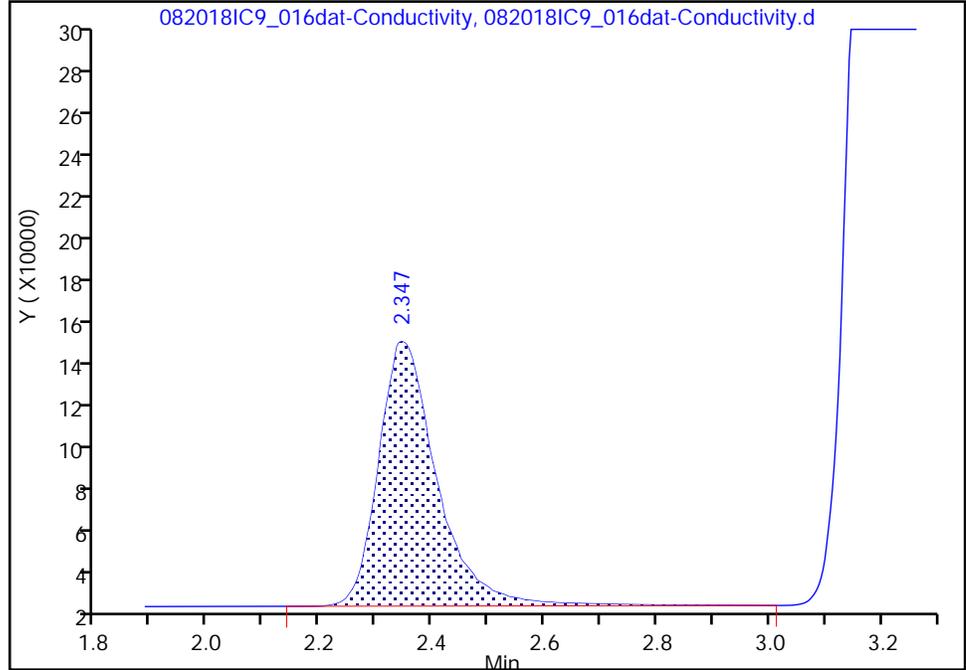
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_016dat-Conductivity.d
Injection Date: 20-Aug-2018 10:53:00 Instrument ID: IC9
Lims ID: STD7
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

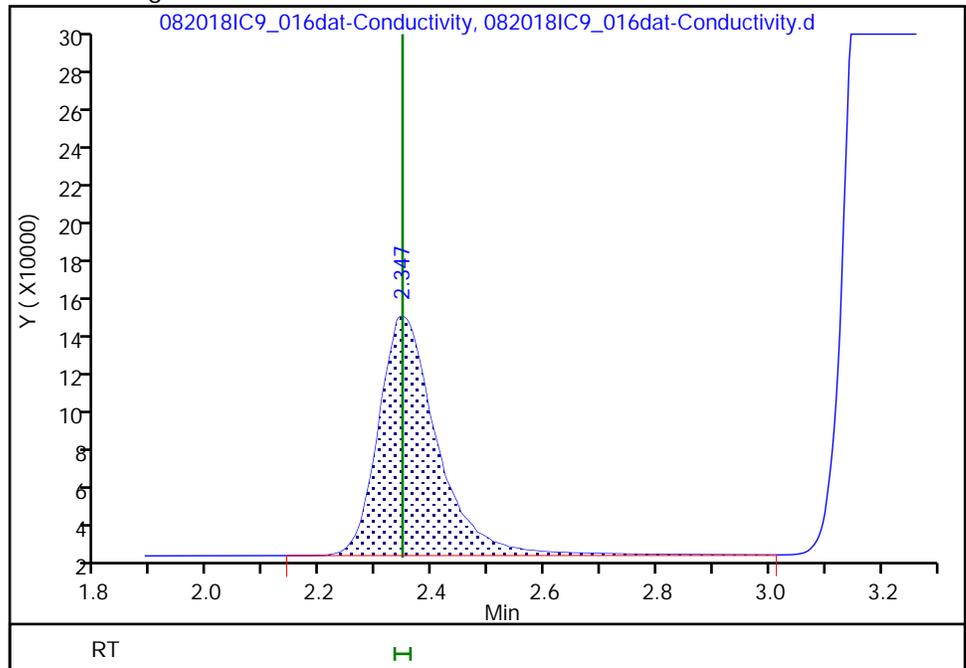
RT: 2.35
Area: 888294
Amount: 2.021738
Amount Units: ug/ml

Processing Integration Results



RT: 2.35
Area: 895682
Amount: 2.007003
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:35:50
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

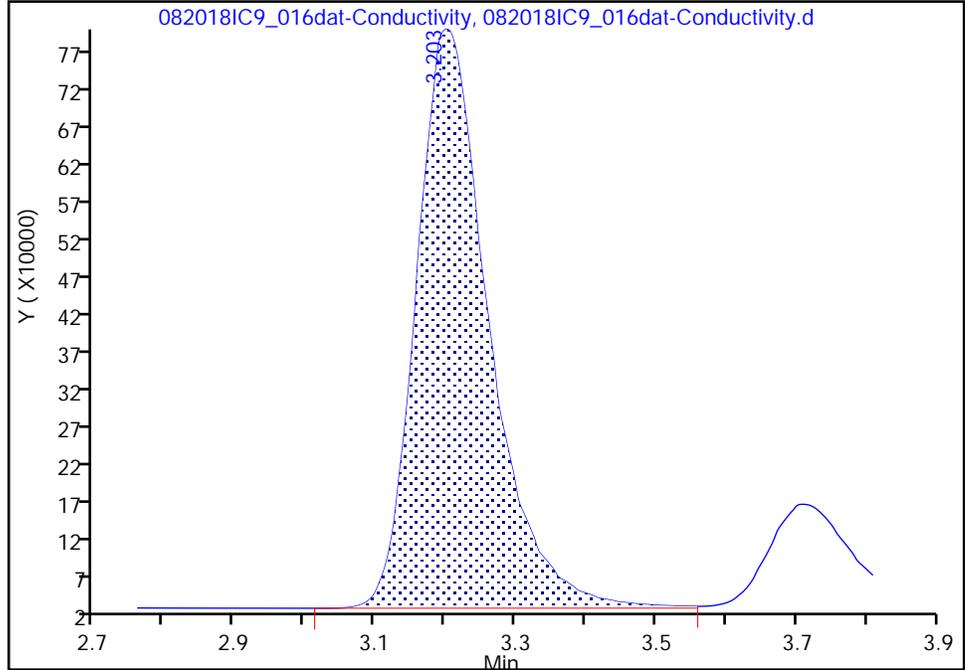
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_016dat-Conductivity.d
Injection Date: 20-Aug-2018 10:53:00 Instrument ID: IC9
Lims ID: STD7
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

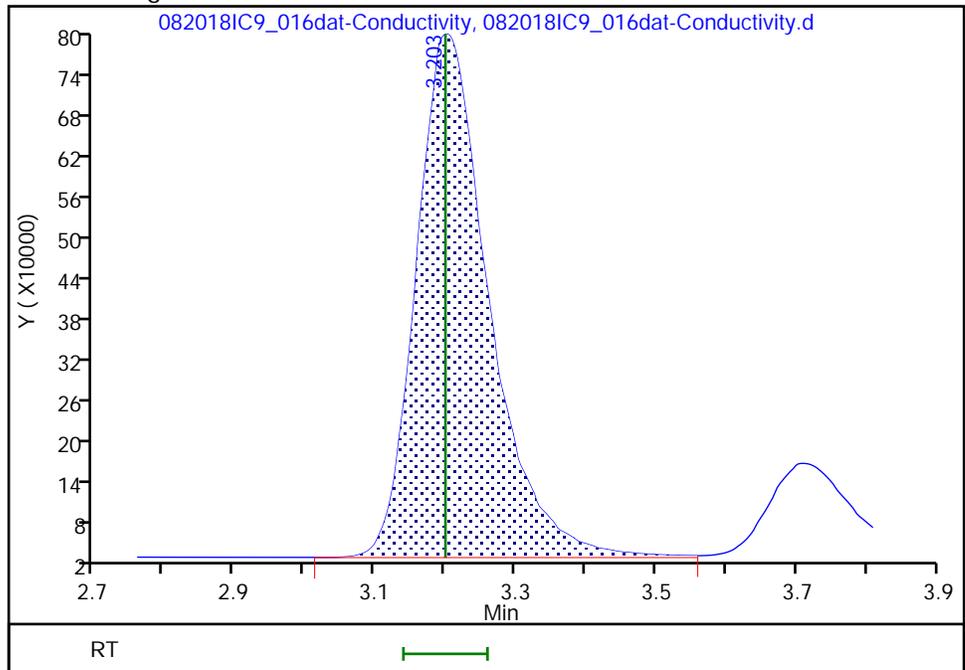
RT: 3.20
Area: 5579518
Amount: 22.160742
Amount Units: ug/ml

Processing Integration Results



RT: 3.20
Area: 5591014
Amount: 20.290165
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:35:50
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

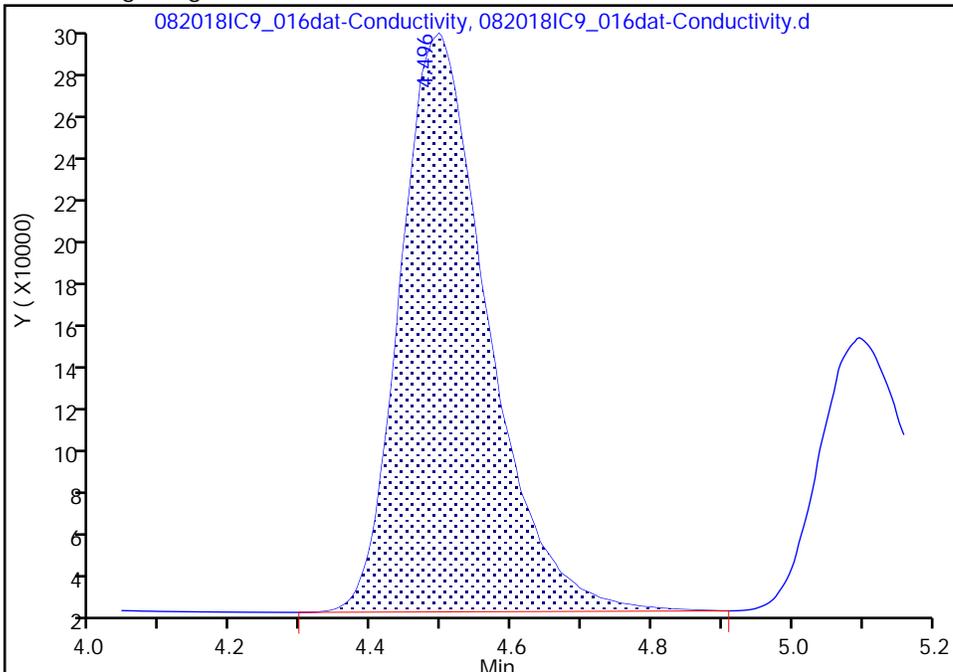
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_016dat-Conductivity.d		
Injection Date:	20-Aug-2018 10:53:00	Instrument ID:	IC9
Lims ID:	STD7		
Client ID:			
Operator ID:	Staten, Joe (TA\St	ALS Bottle#:	0
		Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL
Column:	MetrosepASupp4 (250.00 mm)	Detector:	IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

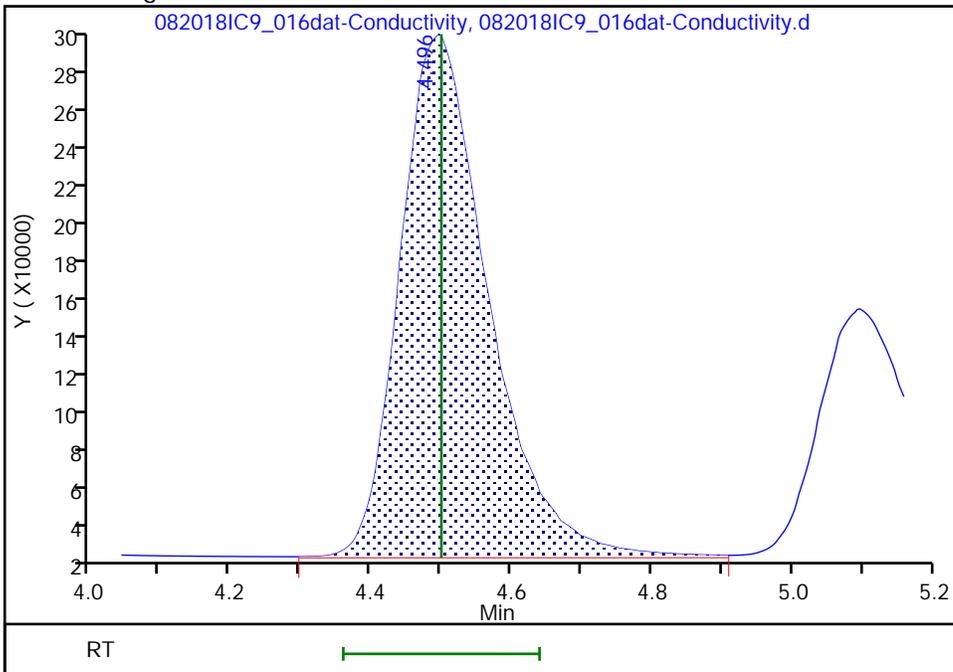
RT: 4.50
 Area: 2343209
 Amount: 20.064484
 Amount Units: ug/ml

Processing Integration Results



RT: 4.50
 Area: 2376106
 Amount: 19.942153
 Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:35:50
 Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_017dat-Conductivity.d
 Lims ID: STD8
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 20-Aug-2018 11:05:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082018IC9_017
 Misc. Info.: 082018IC9_017
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 20-Aug-2018 12:39:57 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:36:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.347	0.010	1355049	3.00	3.02	M
2 Chloride	3.210	3.200	0.010	8331734	30.0	30.1	M
8 Nitrite as NO2	3.713	3.720	-0.007	1863127	NC	NC	M
7 Nitrite as N	3.713	3.720	-0.007	1863127	NC	NC	M
1 Bromide	4.490	4.500	-0.010	3623429	30.0	30.2	M
3 Nitrate as N	5.086	5.113	-0.027	1975844	NC	NC	M
9 Nitrate as NO3	5.086	5.113	-0.027	1975844	NC	NC	M
4 Sulfate	7.590	7.590	0.000	6159826	30.0	30.2	
6 Sulfate as Sulfur	7.590	7.590	0.000	6159826	10.0	10.1	
S 10 Nitrate Nitrite as N		0.000			6.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

IC Primary_00012 Amount Added: 1500.00 Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_017dat-Conductivity.d

Injection Date: 20-Aug-2018 11:05:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: STD8

Worklist Smp#: 8

Client ID:

Injection Vol: 1.0 ul

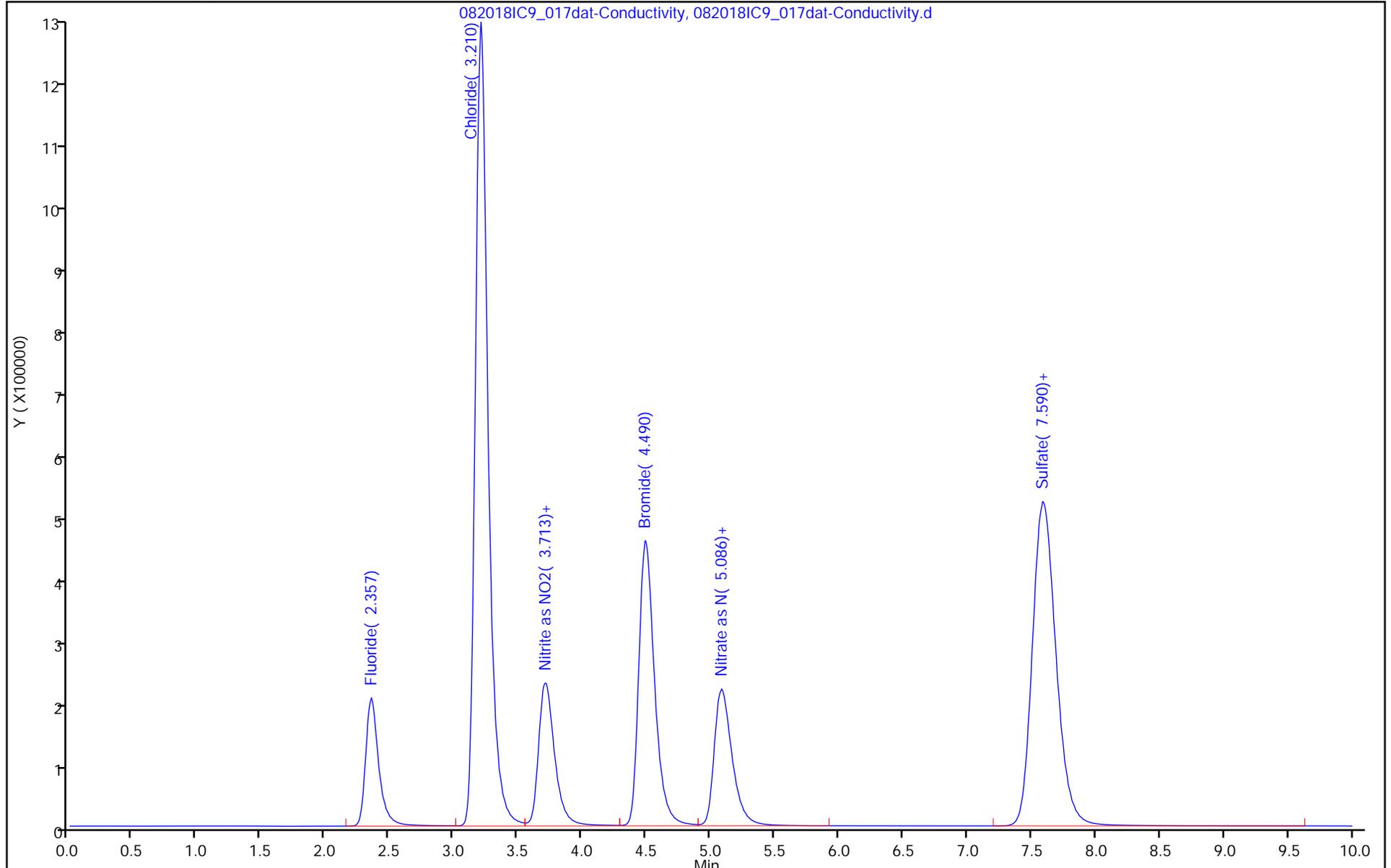
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

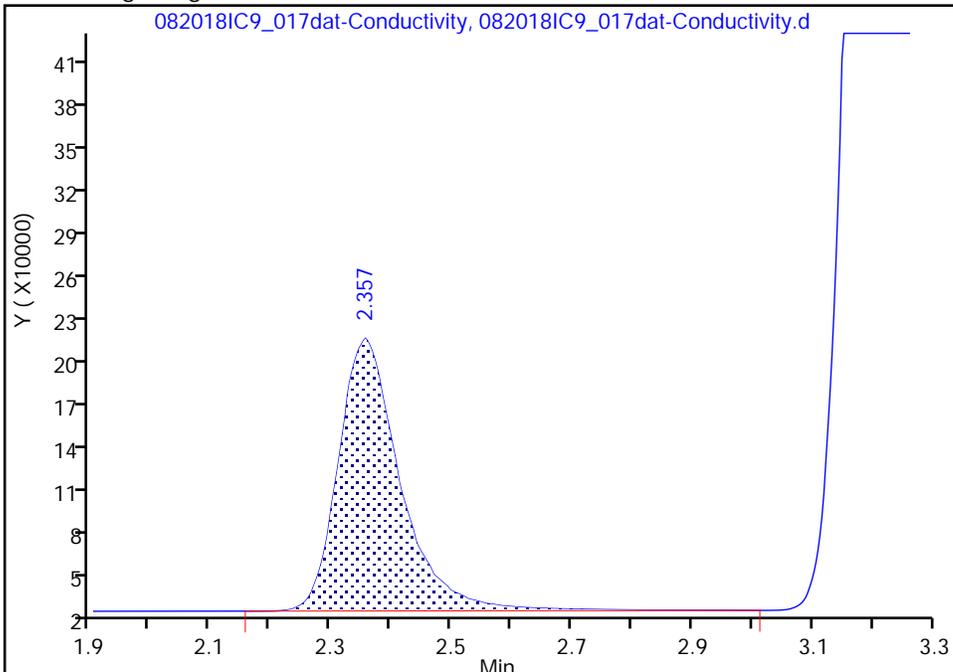
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_017dat-Conductivity.d
Injection Date: 20-Aug-2018 11:05:00 Instrument ID: IC9
Lims ID: STD8
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

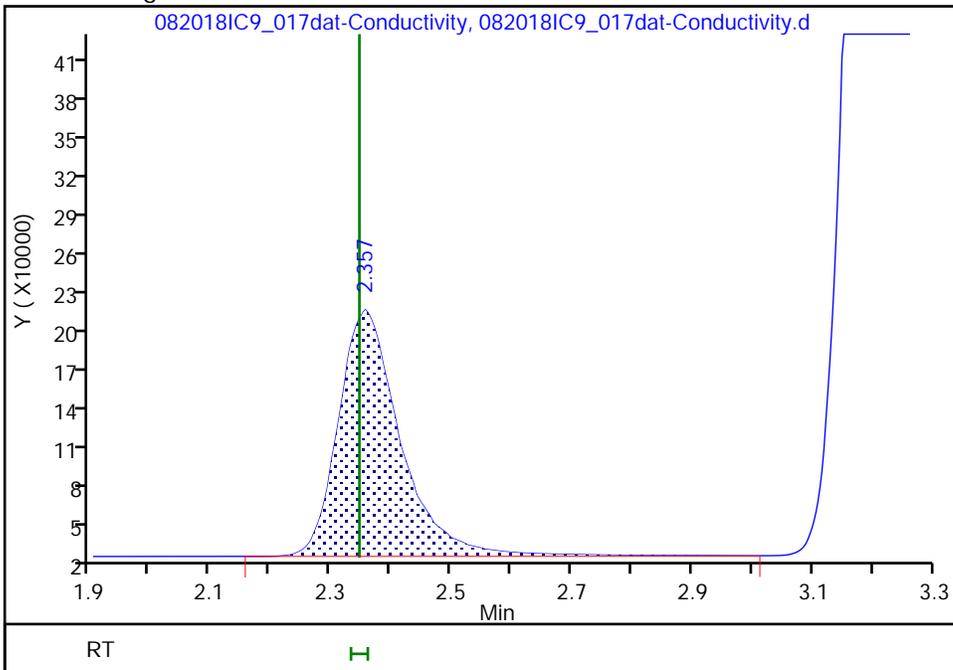
RT: 2.36
Area: 1343947
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 2.36
Area: 1355049
Amount: 3.020408
Amount Units: ug/ml

Manual Integration Results



TestAmerica Nashville

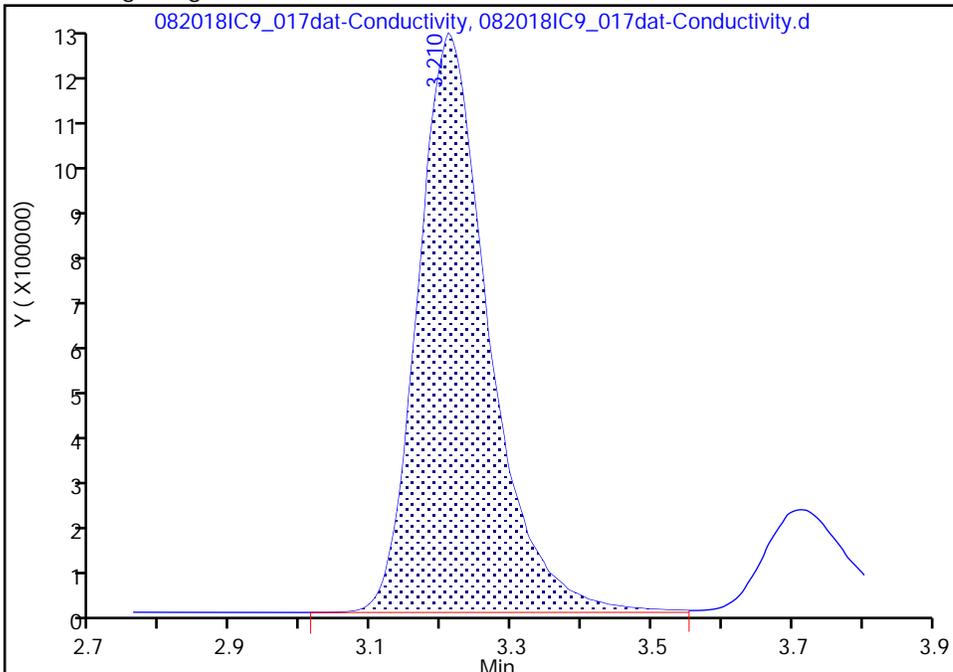
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_017dat-Conductivity.d
Injection Date: 20-Aug-2018 11:05:00 Instrument ID: IC9
Lims ID: STD8
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

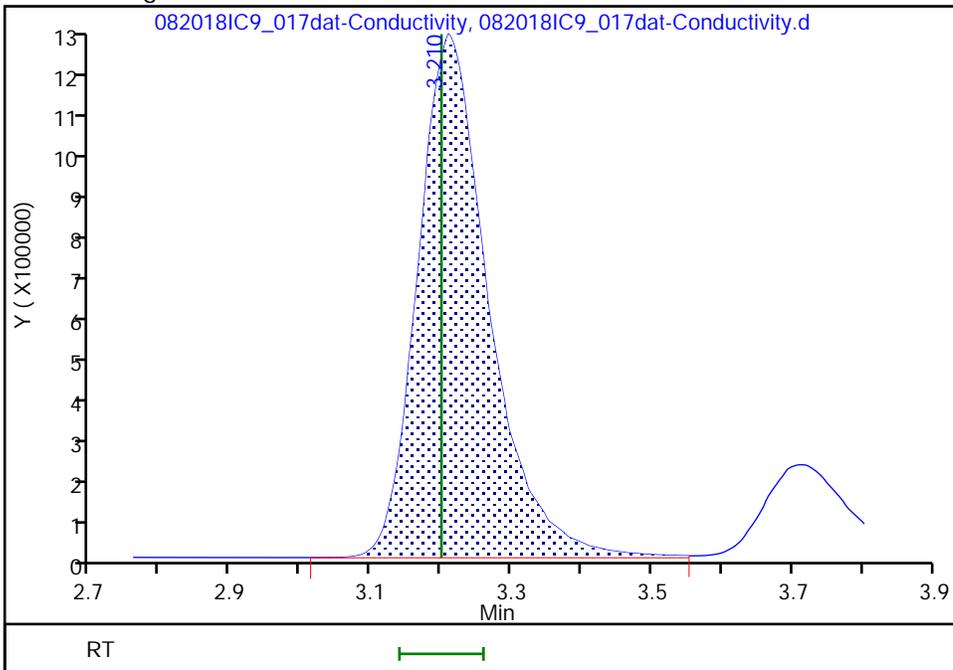
RT: 3.21
Area: 8315632
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 3.21
Area: 8331734
Amount: 30.146843
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:36:14
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing
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TestAmerica Nashville

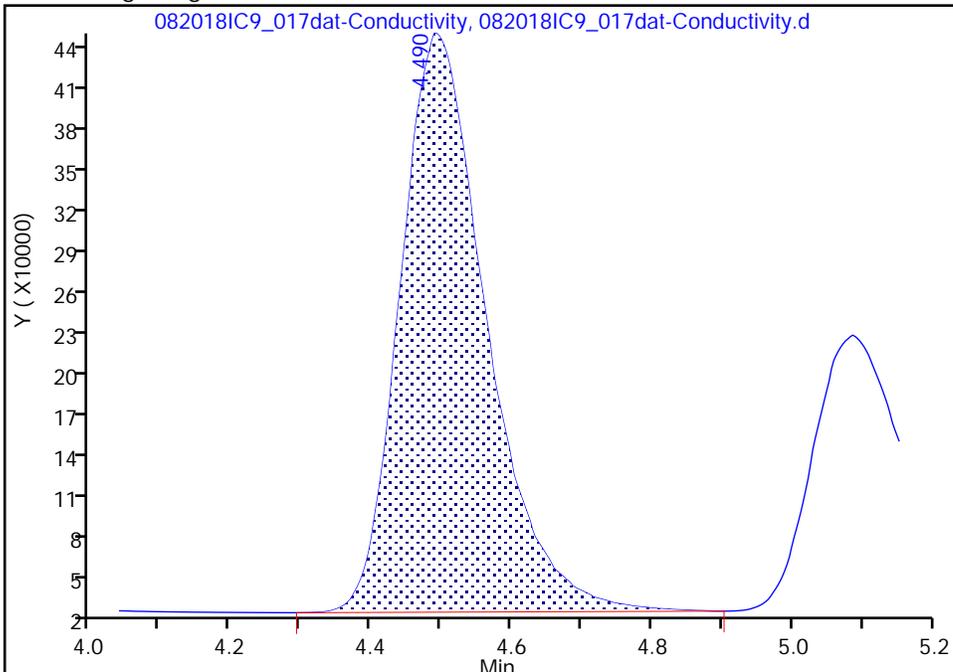
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_017dat-Conductivity.d
Injection Date: 20-Aug-2018 11:05:00 Instrument ID: IC9
Lims ID: STD8
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

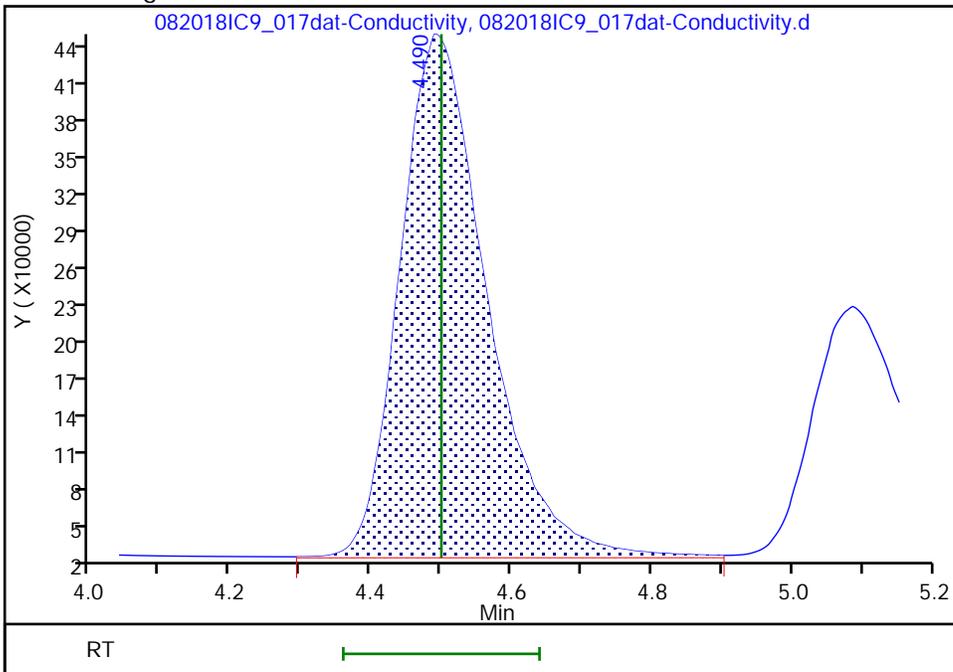
RT: 4.49
Area: 3574114
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 4.49
Area: 3623429
Amount: 30.187799
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:36:14
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Lims ID: STD9
 Client ID:
 Sample Type: IC Calib Level: 9
 Inject. Date: 20-Aug-2018 11:16:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082018IC9_018
 Misc. Info.: 082018IC9_018
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 20-Aug-2018 12:40:02 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:36:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.347	2.347	0.000	1817566	4.00	4.04	M
2 Chloride	3.203	3.200	0.003	10993807	40.0	39.7	M
7 Nitrite as N	3.700	3.720	-0.020	2506173	NC	NC	M
8 Nitrite as NO2	3.700	3.720	-0.020	2506173	NC	NC	M
1 Bromide	4.480	4.500	-0.020	4893051	40.0	40.6	M
9 Nitrate as NO3	5.066	5.113	-0.047	2695925	NC	NC	M
3 Nitrate as N	5.066	5.113	-0.047	2695925	NC	NC	M
6 Sulfate as Sulfur	7.576	7.590	-0.014	8307131	13.3	13.5	
4 Sulfate	7.576	7.590	-0.014	8307131	40.0	40.6	
S 10 Nitrate Nitrite as N		0.000			8.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

IC Primary_00012 Amount Added: 2000.00 Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Injection Date: 20-Aug-2018 11:16:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: STD9

Worklist Smp#: 9

Client ID:

Injection Vol: 1.0 ul

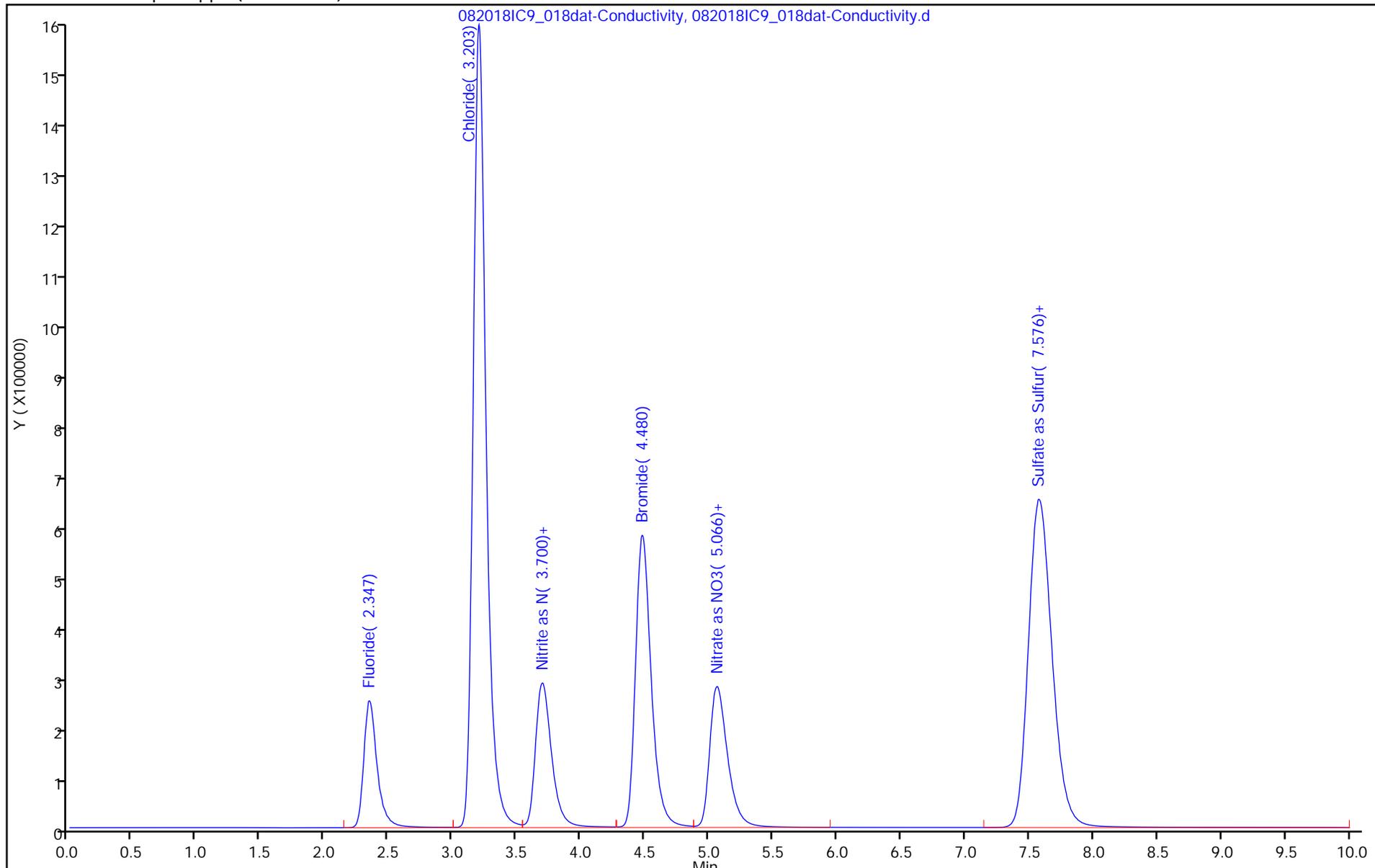
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

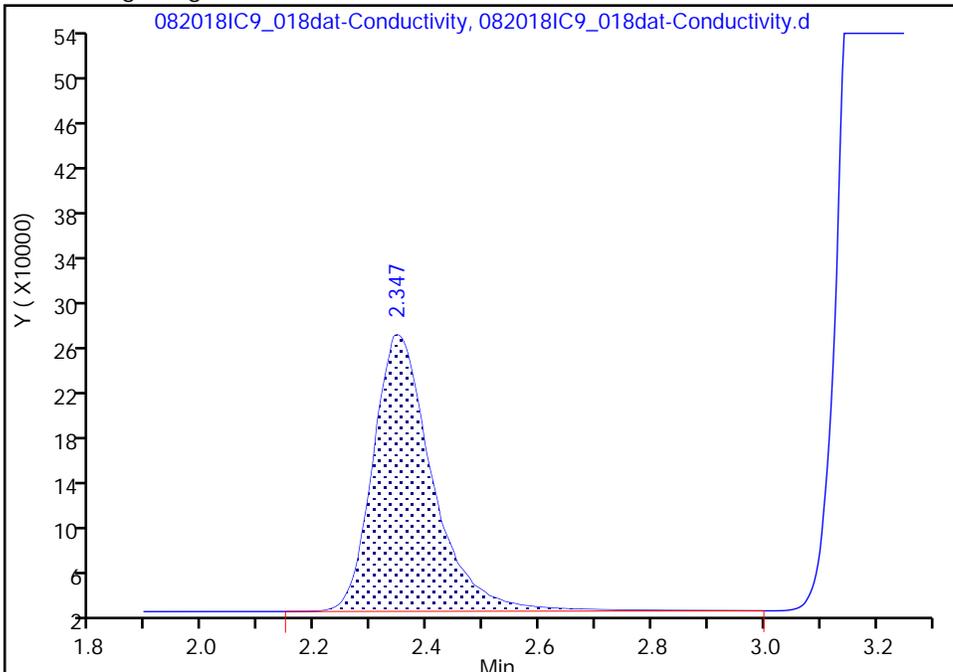
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
Injection Date: 20-Aug-2018 11:16:00 Instrument ID: IC9
Lims ID: STD9
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

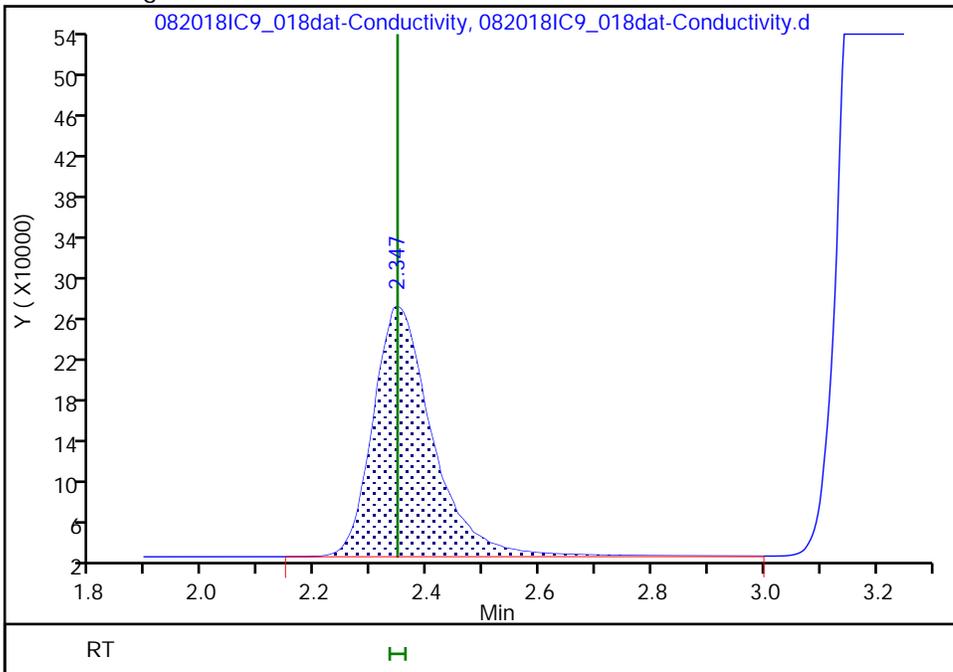
RT: 2.35
Area: 1804204
Amount: 4.059305
Amount Units: ug/ml

Processing Integration Results



RT: 2.35
Area: 1817566
Amount: 4.040763
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:36:38
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing
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TestAmerica Nashville

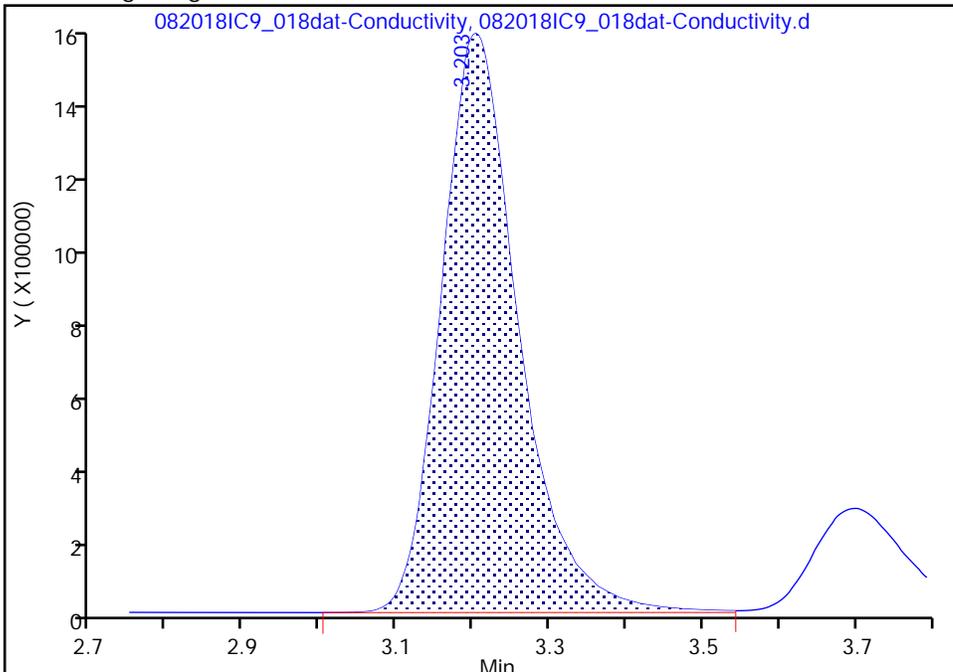
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
Injection Date: 20-Aug-2018 11:16:00 Instrument ID: IC9
Lims ID: STD9
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

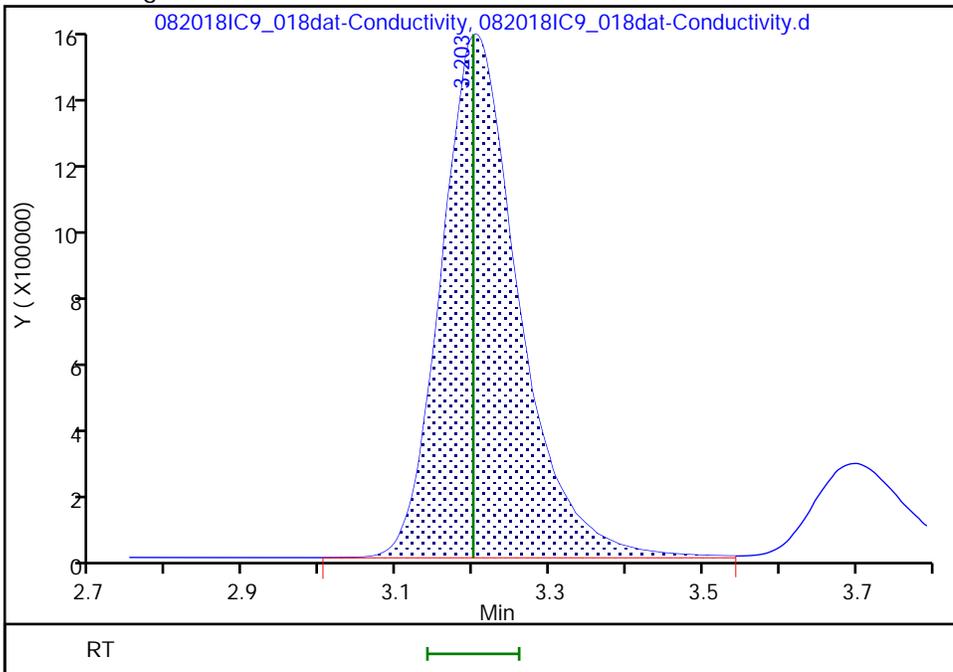
RT: 3.20
Area: 10973558
Amount: 43.080523
Amount Units: ug/ml

Processing Integration Results



RT: 3.20
Area: 10993807
Amount: 39.720677
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:36:38
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

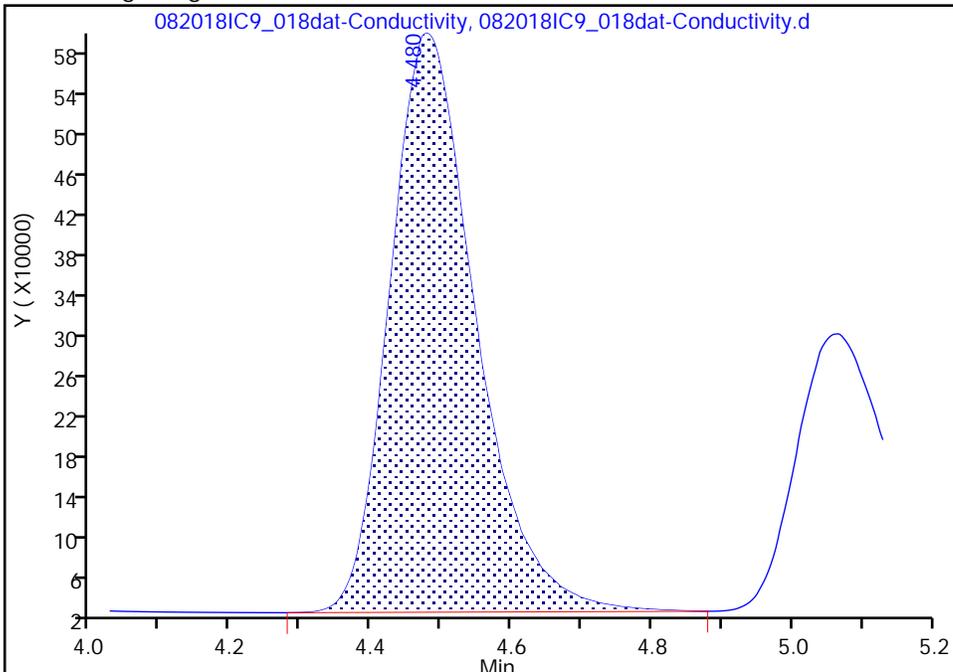
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
Injection Date: 20-Aug-2018 11:16:00 Instrument ID: IC9
Lims ID: STD9
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

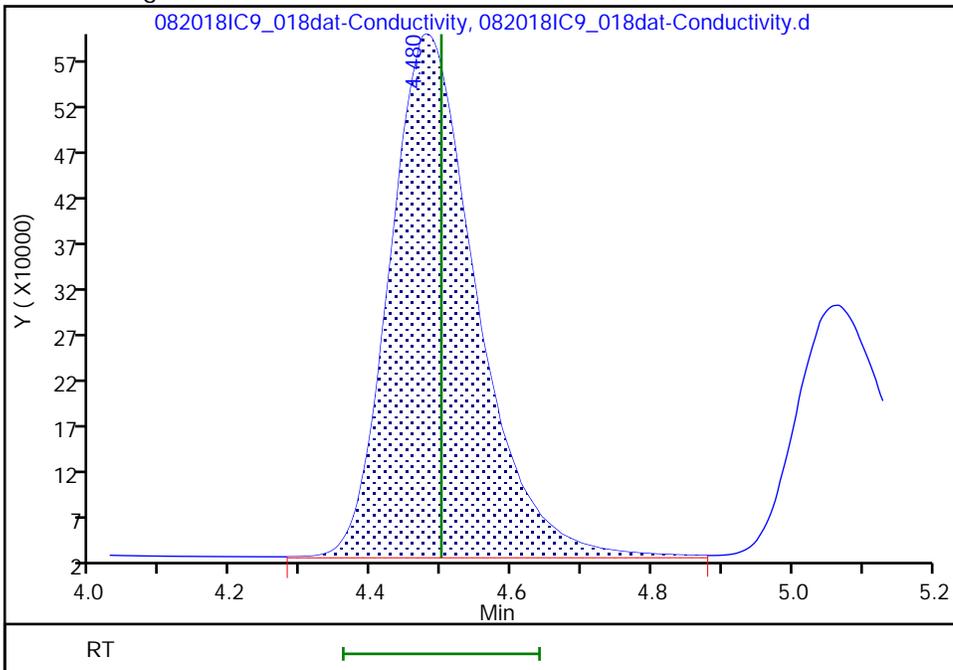
RT: 4.48
Area: 4830325
Amount: 40.743561
Amount Units: ug/ml

Processing Integration Results



RT: 4.48
Area: 4893051
Amount: 40.616611
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:36:38
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: ICV 490-537313/10 Calibration Date: 08/20/2018 11:28
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 082018IC9_019dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		420887		0.961	1.00	-4.0	10.0
Chloride	Lin1		275802		10.1	10.0	1.0	10.0
Bromide	Lin1		112223		9.66	10.0	-3.6	10.0
Sulfate	Lin1		189312		9.59	10.0	-4.3	10.0
Sulfate as Sulfur	Lin1		569073		3.20	3.33	-4.1	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: ICV 490-537313/10 Calibration Date: 08/20/2018 11:28
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 082018IC9_019dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.35	2.33	2.36
Chloride	3.20	3.14	3.26
Bromide	4.49	4.36	4.64
Sulfate	7.61	7.33	7.85
Sulfate as Sulfur	7.61	6.59	8.59

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_019dat-Conductivity.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 20-Aug-2018 11:28:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082018IC9_019
 Misc. Info.: 082018IC9_019
 Operator ID: Staten, Joe (TA)\St Instrument ID: IC9
 Sublist:

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 20-Aug-2018 12:40:02 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:59:55

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.350	2.347	0.003	421308	1.00	0.9605	M
2 Chloride	3.203	3.200	0.003	2760783	10.0	10.1	M
8 Nitrite as NO2	3.716	3.720	-0.004	572313	NC	NC	M
7 Nitrite as N	3.716	3.720	-0.004	572313	NC	NC	M
1 Bromide	4.490	4.500	-0.010	1124479	10.0	9.66	M
3 Nitrate as N	5.100	5.113	-0.013	595981	NC	NC	M
9 Nitrate as NO3	5.100	5.113	-0.013	595981	NC	NC	M
4 Sulfate	7.613	7.590	0.023	1896909	10.0	9.59	
6 Sulfate as Sulfur	7.613	7.590	0.023	1896909	3.33	3.20	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

IC Secondary_00013 Amount Added: 500.00 Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_019dat-Conductivity.d

Injection Date: 20-Aug-2018 11:28:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: ICV

Worklist Smp#: 10

Client ID:

Injection Vol: 1.0 ul

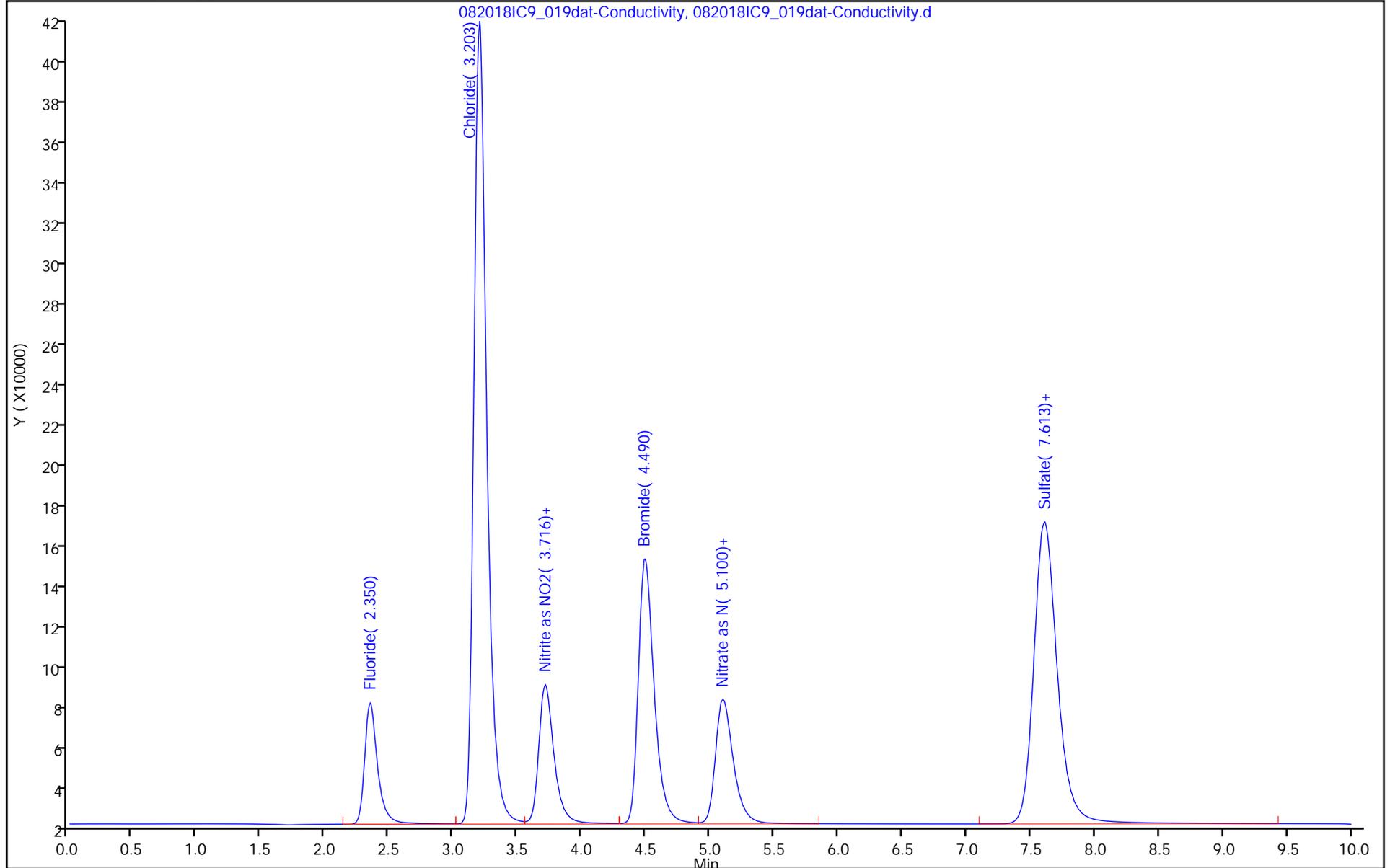
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

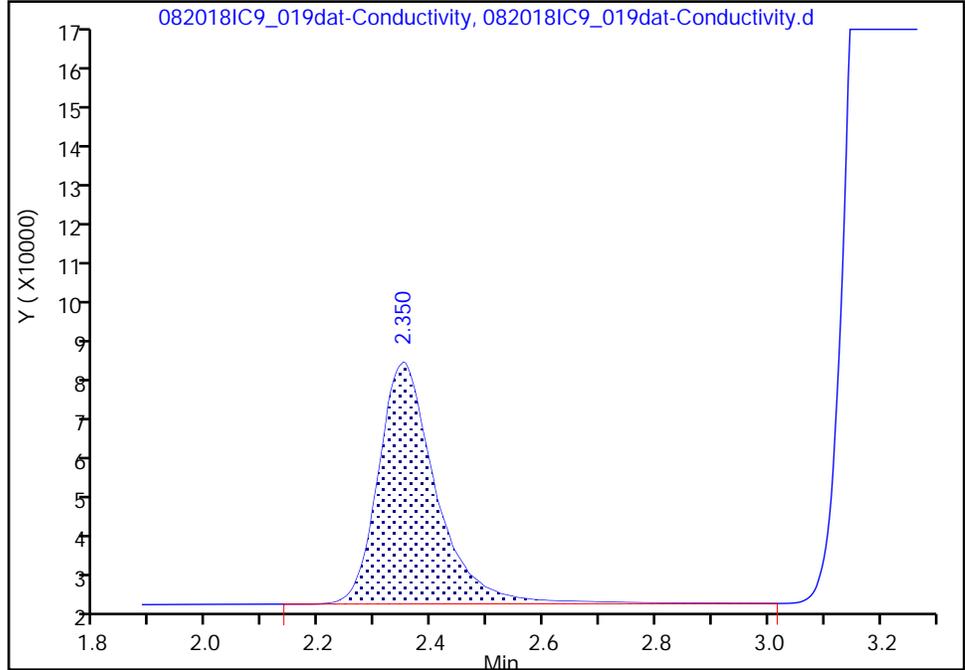
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_019dat-Conductivity.d
Injection Date: 20-Aug-2018 11:28:00 Instrument ID: IC9
Lims ID: ICV
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

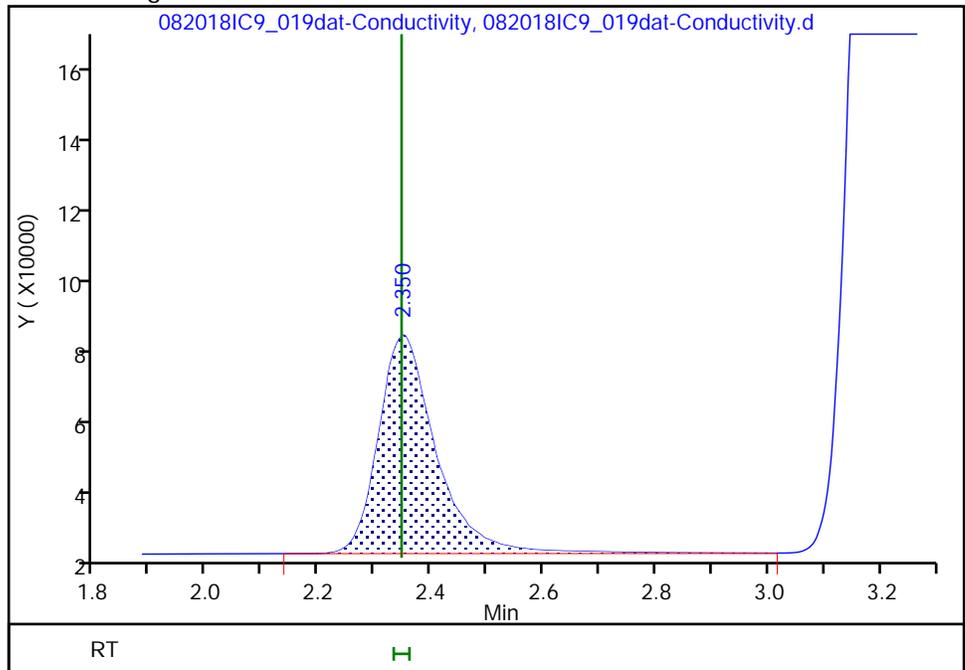
RT: 2.35
Area: 418589
Amount: 0.954492
Amount Units: ug/ml

Processing Integration Results



RT: 2.35
Area: 421308
Amount: 0.960491
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:59:48
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

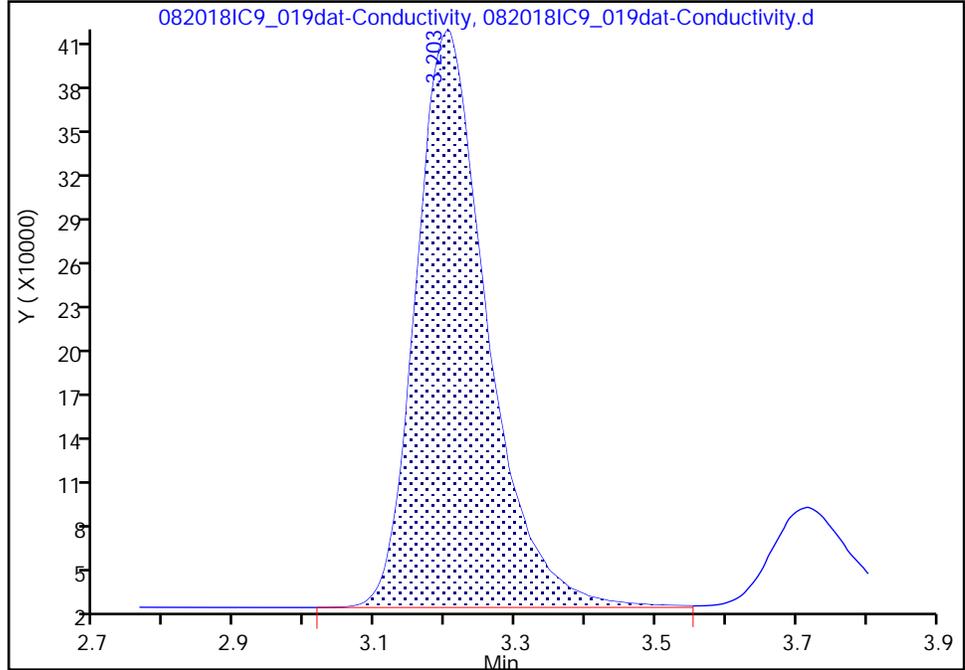
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_019dat-Conductivity.d
Injection Date: 20-Aug-2018 11:28:00 Instrument ID: IC9
Lims ID: ICV
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

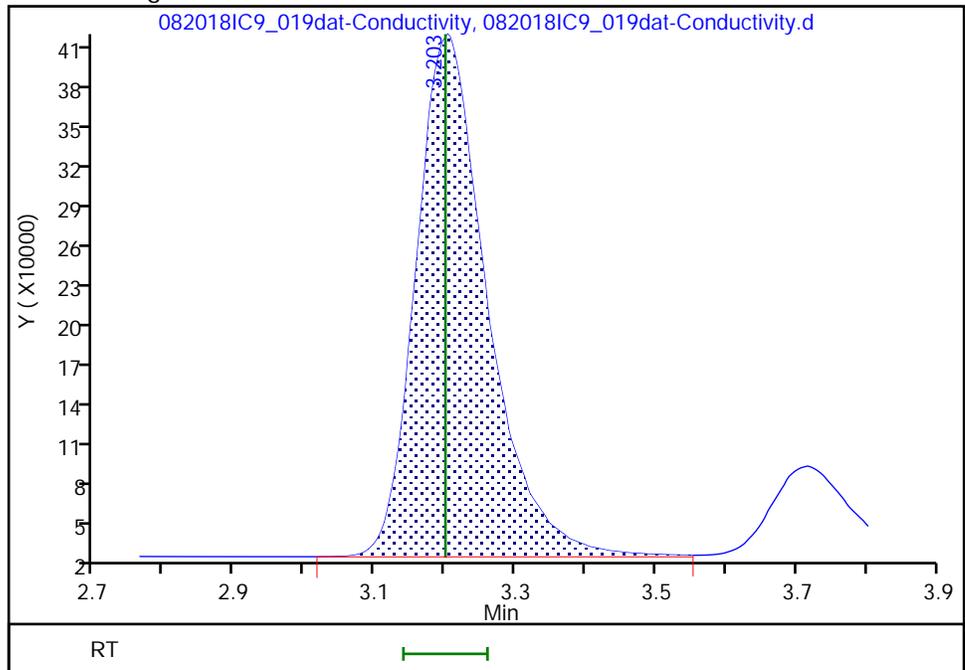
RT: 3.20
Area: 2756533
Amount: 10.096287
Amount Units: ug/ml

Processing Integration Results



RT: 3.20
Area: 2760783
Amount: 10.111571
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:59:48
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing
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TestAmerica Nashville

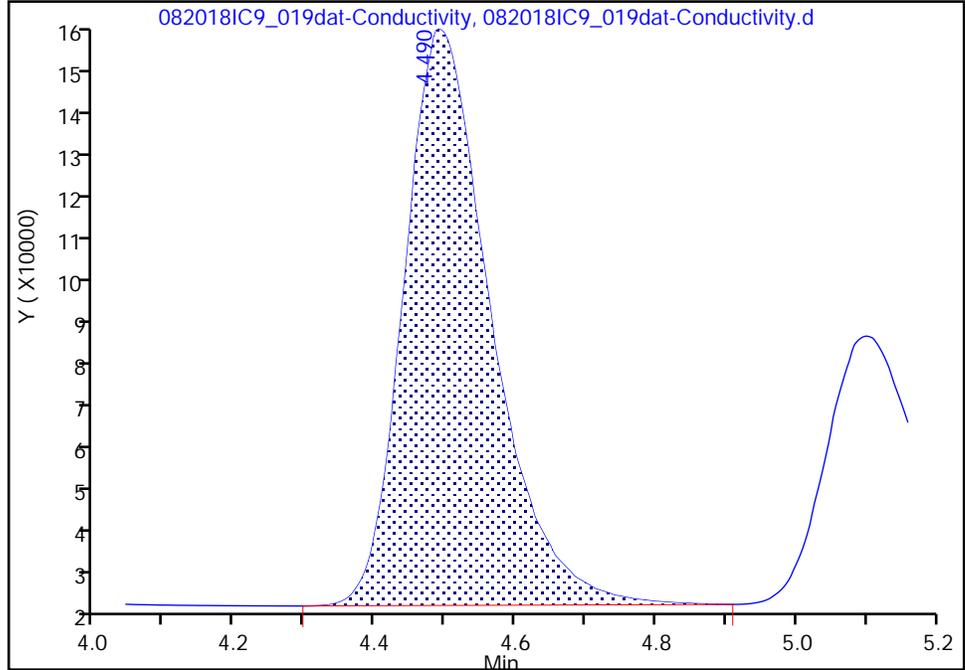
Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_019dat-Conductivity.d
Injection Date: 20-Aug-2018 11:28:00 Instrument ID: IC9
Lims ID: ICV
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

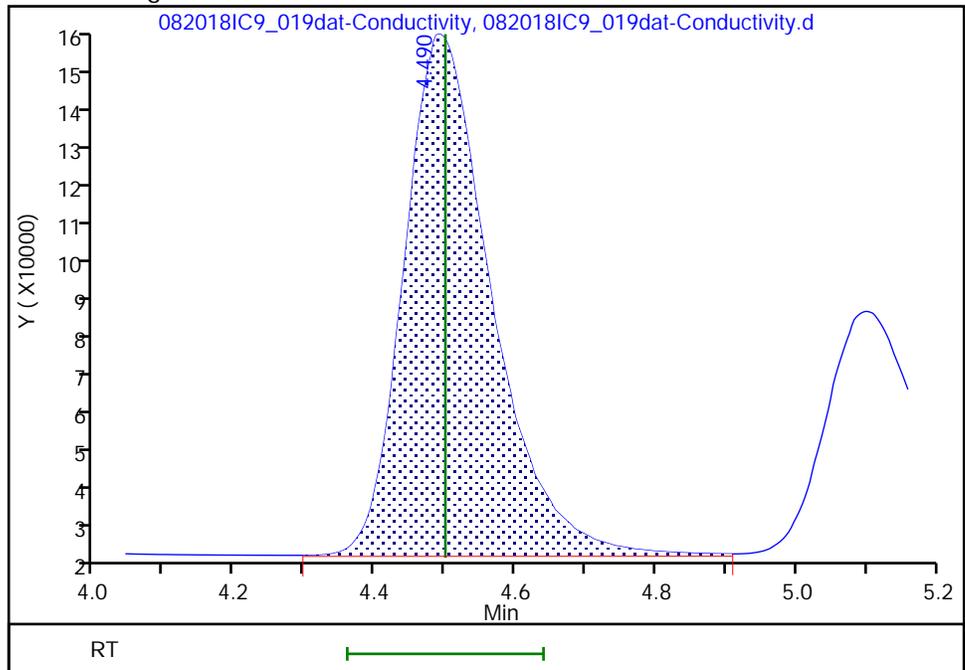
RT: 4.49
Area: 1109263
Amount: 9.536168
Amount Units: ug/ml

Processing Integration Results



RT: 4.49
Area: 1124479
Amount: 9.661154
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 20-Aug-2018 11:59:48
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: CCVRT 490-539643/1 Calibration Date: 08/29/2018 15:53
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 082918IC9_031dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		408910		0.933	1.00	-6.7	10.0
Chloride	Lin1		275944		10.1	10.0	1.1	10.0
Bromide	Lin1		110973		9.54	10.0	-4.6	10.0
Sulfate	Lin1		188181		9.52	10.0	-4.8	10.0
Sulfate as Sulfur	Lin1		564549		3.17	3.33	-4.8	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: CCVRT 490-539643/1 Calibration Date: 08/29/2018 15:53
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 082918IC9_031dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.36	2.34	2.37
Chloride	3.20	3.14	3.26
Bromide	4.45	4.31	4.59
Sulfate	7.70	7.44	7.96
Sulfate as Sulfur	7.70	6.70	8.70

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_031dat-Conductivity.d
 Lims ID: CCVRT
 Client ID:
 Sample Type: CCVRT
 Inject. Date: 29-Aug-2018 15:53:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082918IC9_031
 Misc. Info.: 082918IC9_031
 Operator ID: Staten, Joe (TA)\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 31-Aug-2018 09:52:12 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 09:52:12

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.357	0.000	408910	1.00	0.9331	M
2 Chloride	3.196	3.196	0.000	2759437	10.0	10.1	M
8 Nitrite as NO2	3.693	3.693	0.000	551048	NC	NC	M
7 Nitrite as N	3.693	3.693	0.000	551048	NC	NC	M
1 Bromide	4.446	4.446	0.000	1109727	10.0	9.54	M
3 Nitrate as N	5.030	5.030	0.000	585128	NC	NC	M
9 Nitrate as NO3	5.030	5.030	0.000	585128	NC	NC	M
4 Sulfate	7.696	7.696	0.000	1881811	10.0	9.52	
6 Sulfate as Sulfur	7.696	7.696	0.000	1881811	3.33	3.17	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

CCV 100_00022

Amount Added: 10.00

Units: mL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_031dat-Conductivity.d

Injection Date: 29-Aug-2018 15:53:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCVRT

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 ul

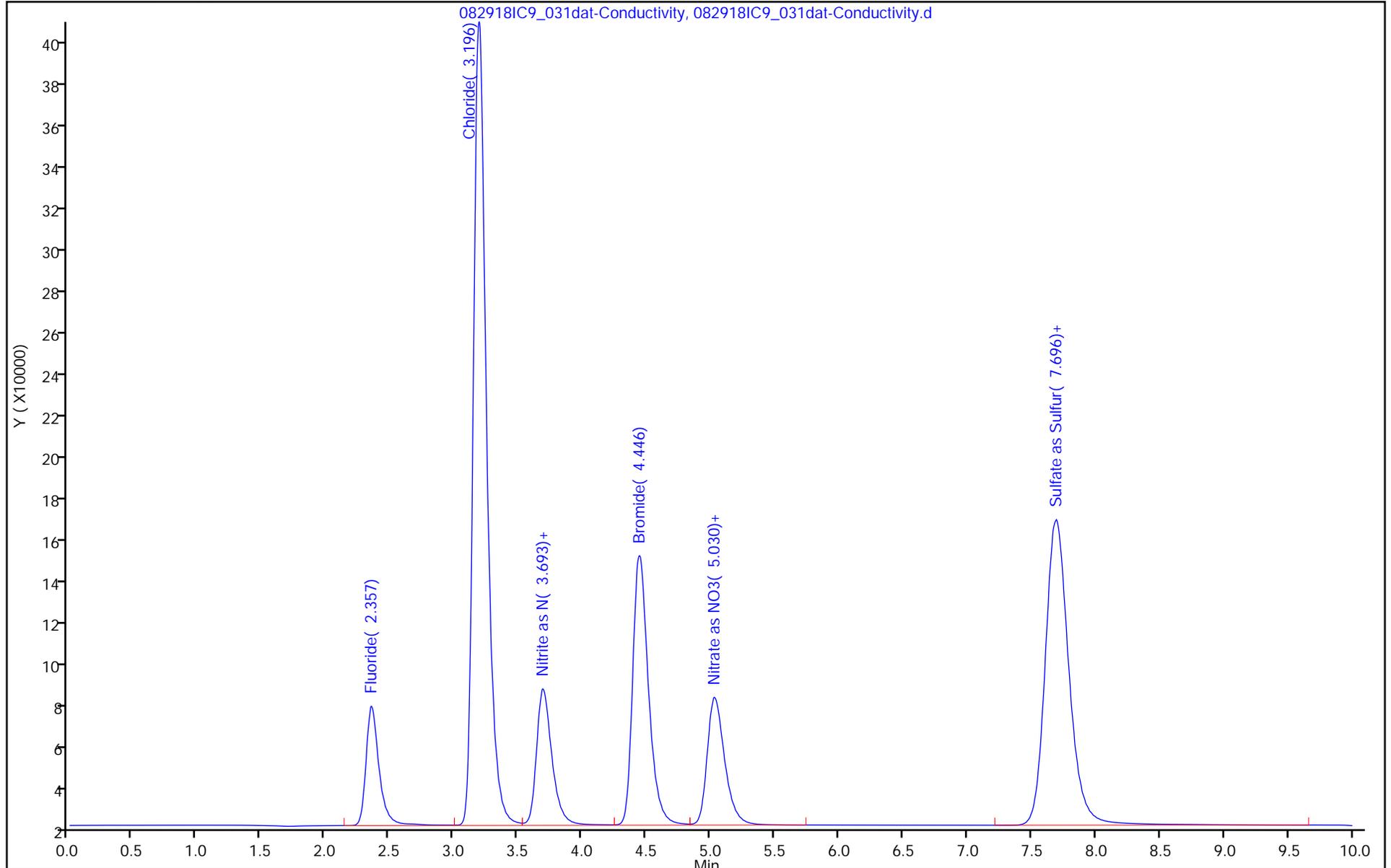
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

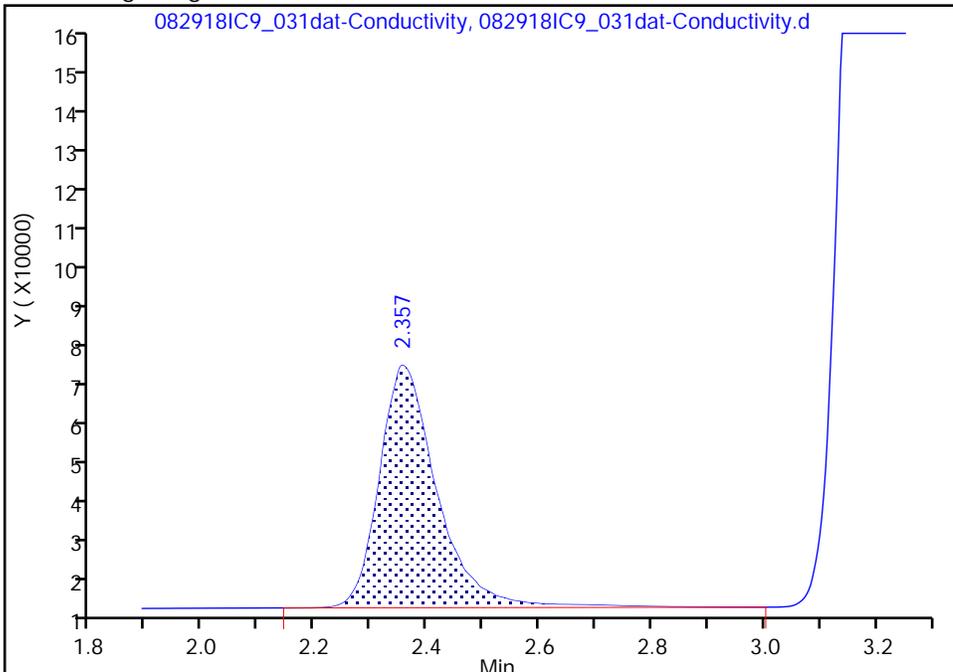
Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_031dat-Conductivity.d
Injection Date: 29-Aug-2018 15:53:00 Instrument ID: IC9
Lims ID: CCVRT
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

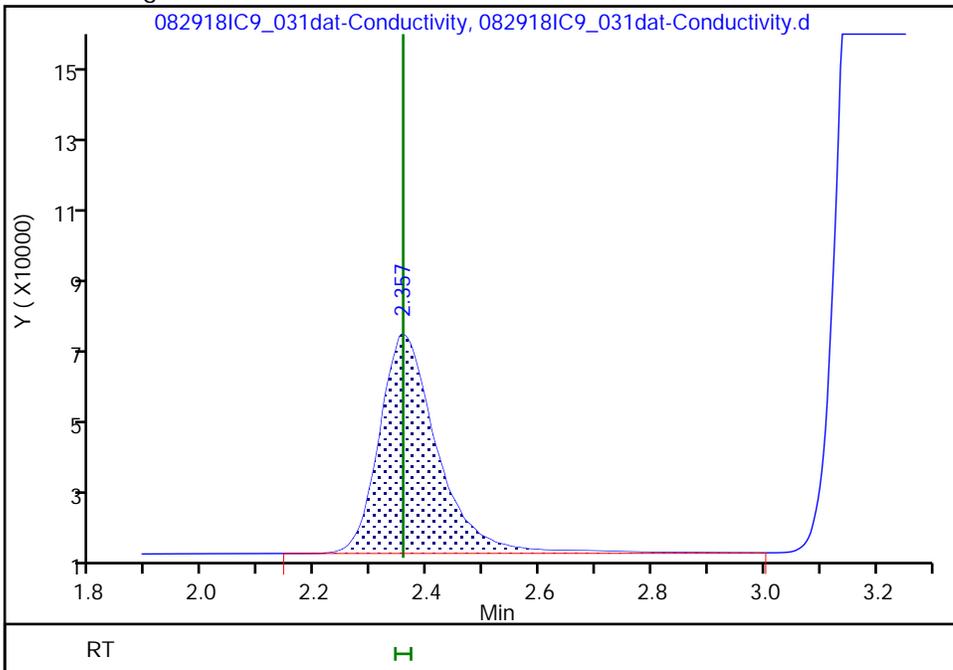
RT: 2.36
Area: 405788
Amount: 0.926252
Amount Units: ug/ml

Processing Integration Results



RT: 2.36
Area: 408910
Amount: 0.933140
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 30-Aug-2018 08:29:29
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing
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TestAmerica Nashville

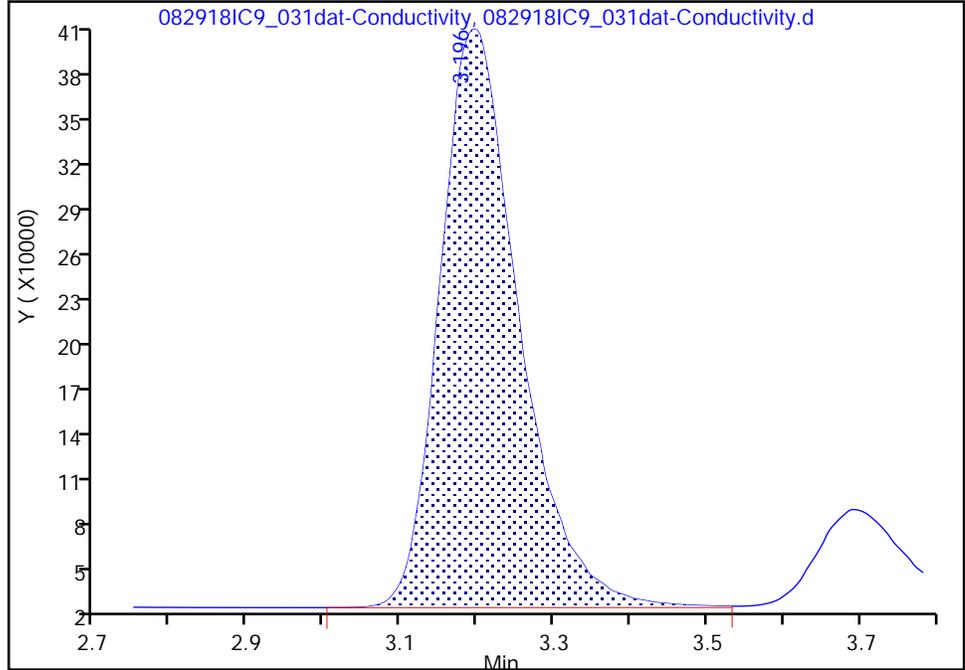
Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_031dat-Conductivity.d
Injection Date: 29-Aug-2018 15:53:00 Instrument ID: IC9
Lims ID: CCVRT
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

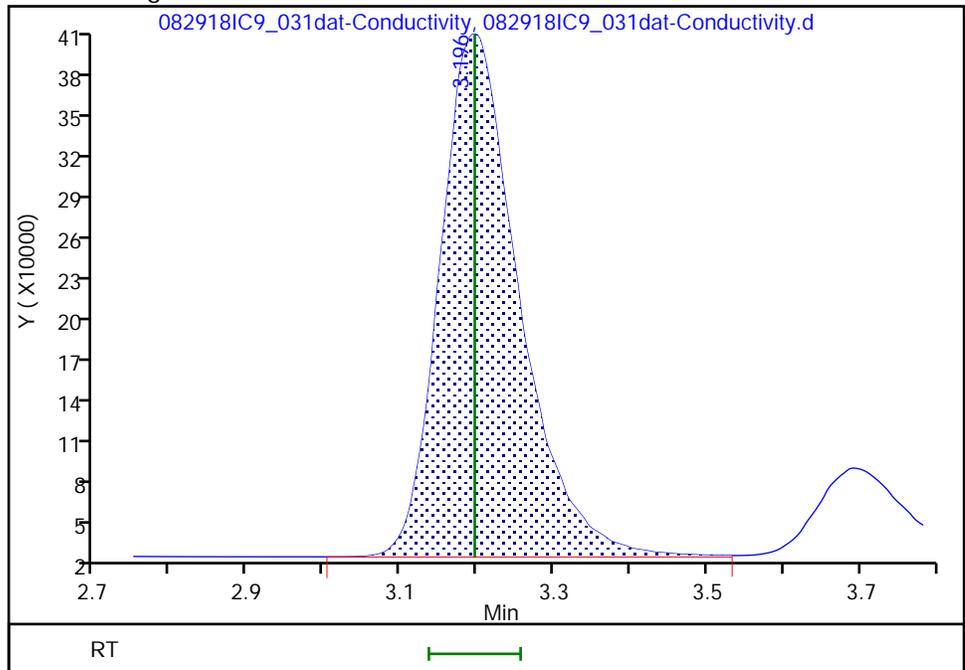
RT: 3.20
Area: 2755002
Amount: 10.090781
Amount Units: ug/ml

Processing Integration Results



RT: 3.20
Area: 2759437
Amount: 10.106731
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 30-Aug-2018 08:29:29
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

TestAmerica Nashville

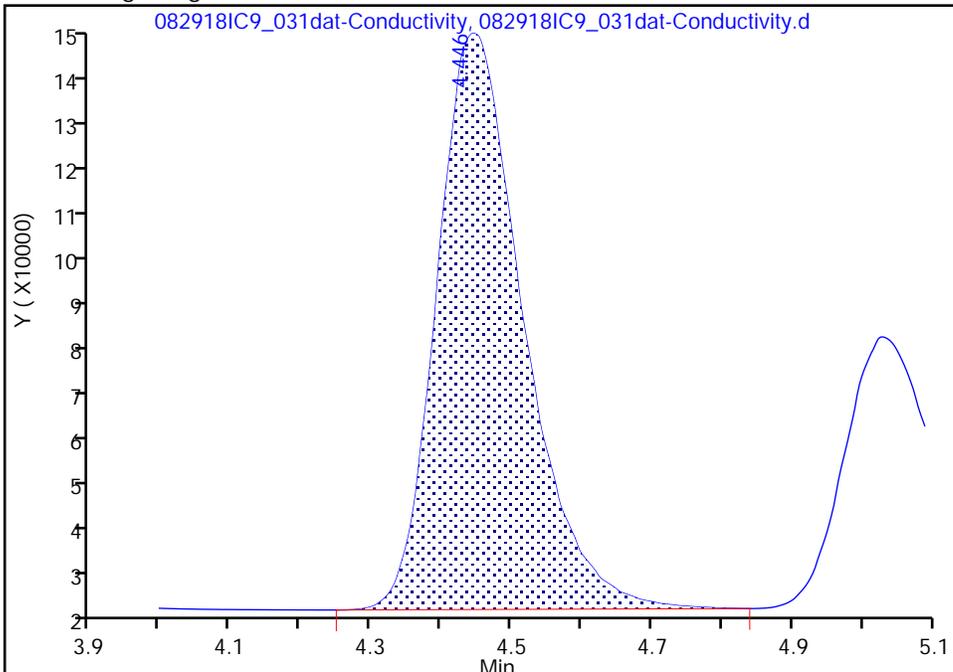
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Injection Date: 29-Aug-2018 15:53:00 Instrument ID: IC9
Lims ID: CCVRT
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

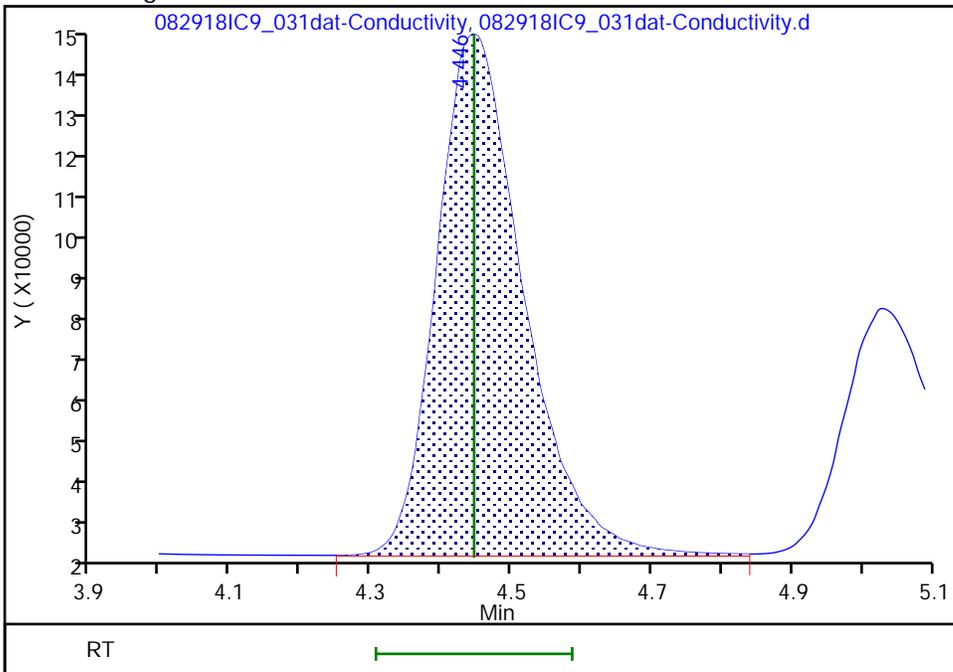
RT: 4.45
Area: 1097285
Amount: 9.437780
Amount Units: ug/ml

Processing Integration Results



RT: 4.45
Area: 1109727
Amount: 9.539980
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 30-Aug-2018 08:29:29
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: CCV 490-539643/11 Calibration Date: 08/29/2018 17:49
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 082918IC9_041dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		414251		0.945	1.00	-5.5	10.0
Chloride	Lin1		273838		10.0	10.0	0.3	10.0
Bromide	Lin1		111342		9.57	10.0	-4.3	10.0
Sulfate	Lin1		192014		9.70	10.0	-3.0	10.0
Sulfate as Sulfur	Lin1		576047		3.24	3.33	-3.0	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: CCV 490-539643/11 Calibration Date: 08/29/2018 17:49
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 082918IC9_041dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.36	2.34	2.37
Chloride	3.19	3.14	3.26
Bromide	4.44	4.31	4.59
Sulfate	7.70	7.44	7.96
Sulfate as Sulfur	7.70	6.70	8.70

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_041dat-Conductivity.d
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 29-Aug-2018 17:49:00 ALS Bottle#: 0 Worklist Smp#: 11
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082918IC9_041
 Misc. Info.: 082918IC9_041
 Operator ID: Staten, Joe (TA)\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 31-Aug-2018 10:01:22 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 10:01:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.357	0.000	414251	1.00	0.9449	M
2 Chloride	3.190	3.196	-0.006	2738381	10.0	10.0	M
8 Nitrite as NO2	3.690	3.693	-0.003	556984	NC	NC	M
7 Nitrite as N	3.690	3.693	-0.003	556984	NC	NC	M
1 Bromide	4.436	4.446	-0.010	1113422	10.0	9.57	M
3 Nitrate as N	5.026	5.030	-0.004	587599	NC	NC	M
9 Nitrate as NO3	5.026	5.030	-0.004	587599	NC	NC	M
4 Sulfate	7.700	7.696	0.004	1920139	10.0	9.70	
6 Sulfate as Sulfur	7.700	7.696	0.004	1920139	3.33	3.23	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

CCV 100_00022

Amount Added: 10.00

Units: mL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_041dat-Conductivity.d

Injection Date: 29-Aug-2018 17:49:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCV

Worklist Smp#: 11

Client ID:

Injection Vol: 1.0 ul

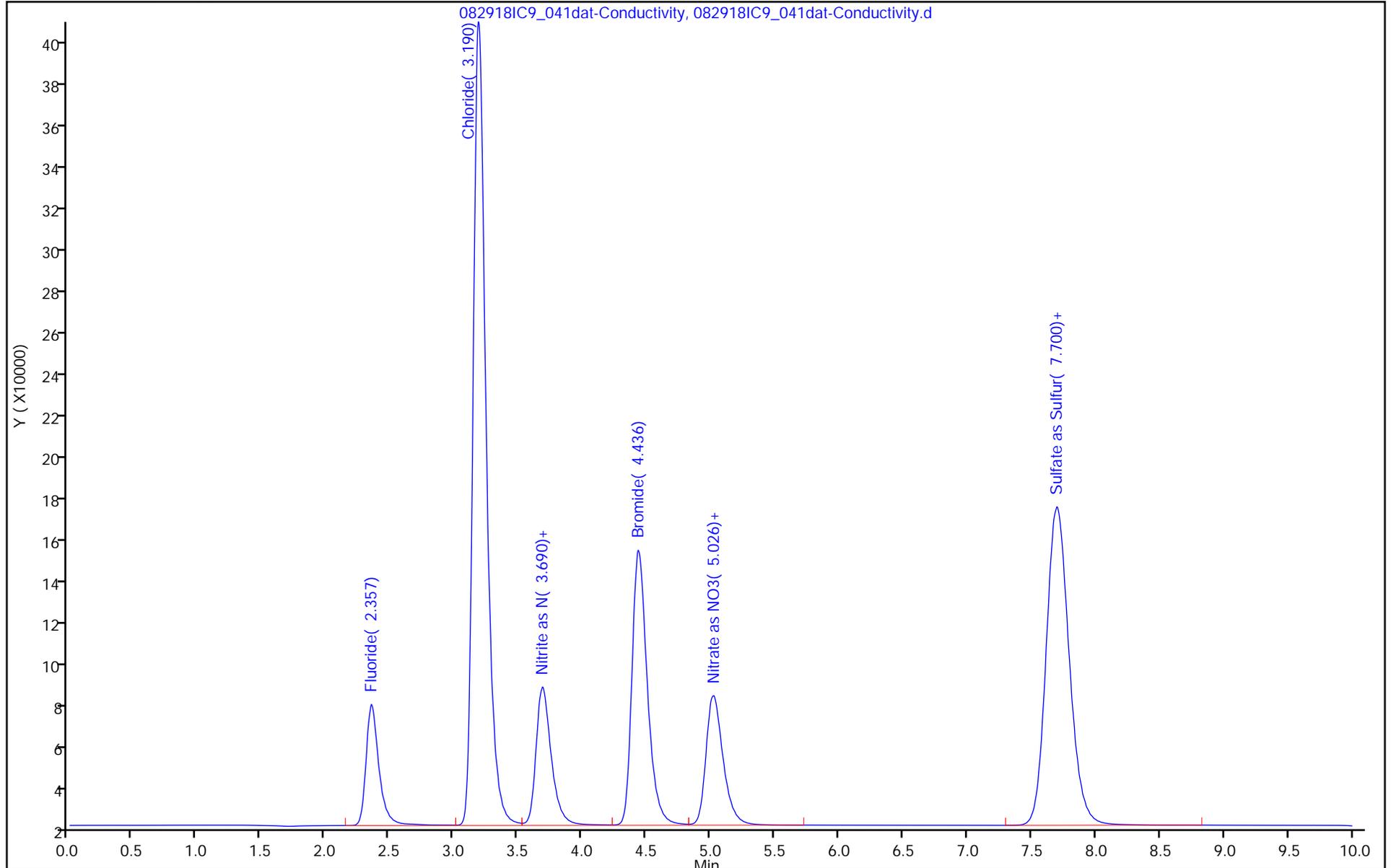
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

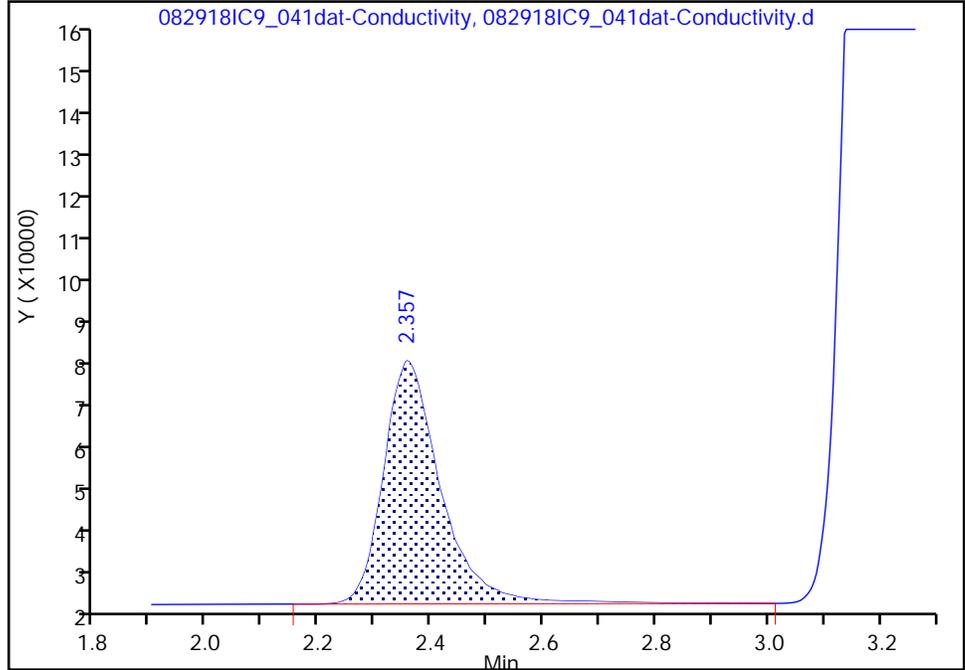
Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_041dat-Conductivity.d
Injection Date: 29-Aug-2018 17:49:00 Instrument ID: IC9
Lims ID: CCV
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

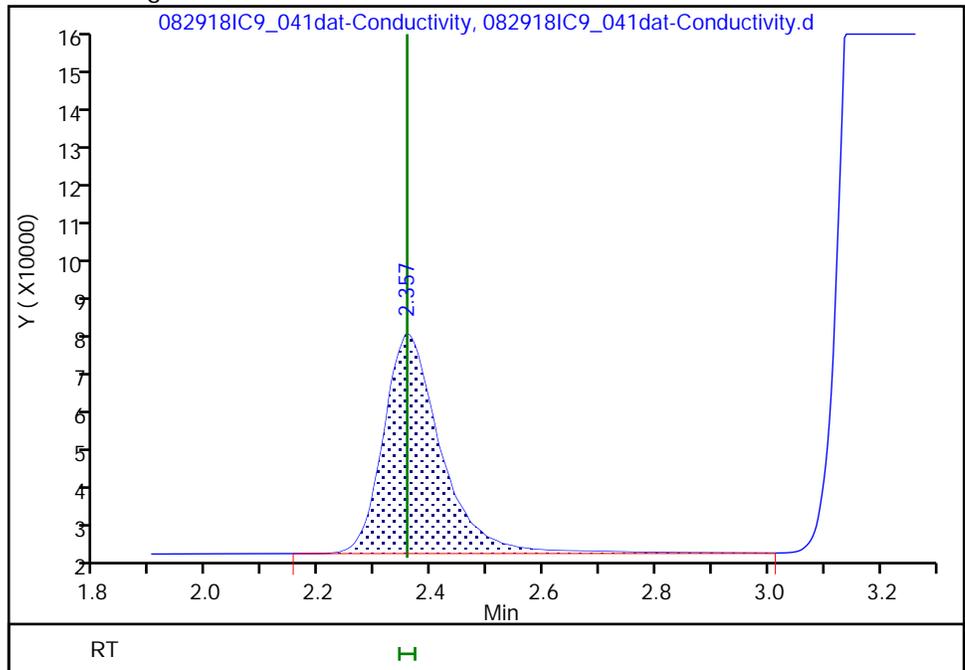
RT: 2.36
Area: 411233
Amount: 0.938264
Amount Units: ug/ml

Processing Integration Results



RT: 2.36
Area: 414251
Amount: 0.944922
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 30-Aug-2018 08:31:50
Audit Action: Assigned New Baseline

TestAmerica Nashville

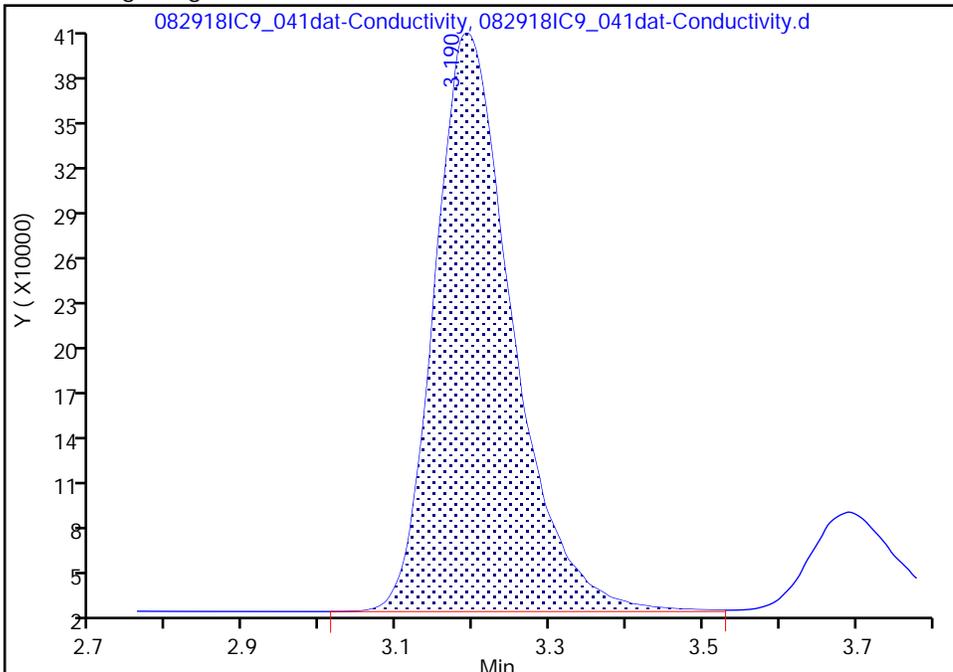
Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_041dat-Conductivity.d
Injection Date: 29-Aug-2018 17:49:00 Instrument ID: IC9
Lims ID: CCV
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

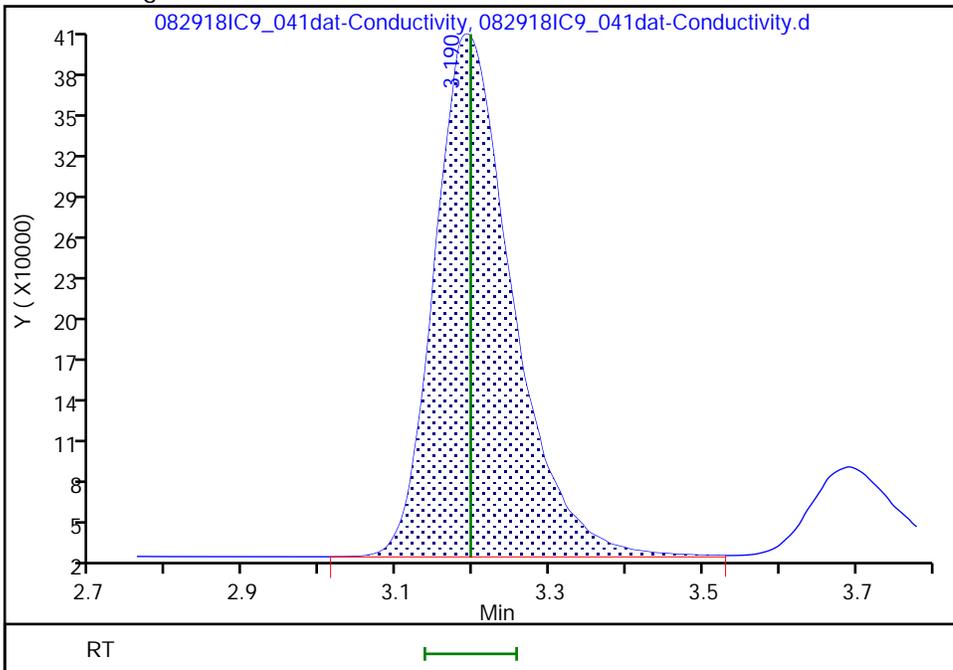
RT: 3.19
Area: 2734290
Amount: 10.016292
Amount Units: ug/ml

Processing Integration Results



RT: 3.19
Area: 2738381
Amount: 10.031005
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 30-Aug-2018 08:31:50
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing
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TestAmerica Nashville

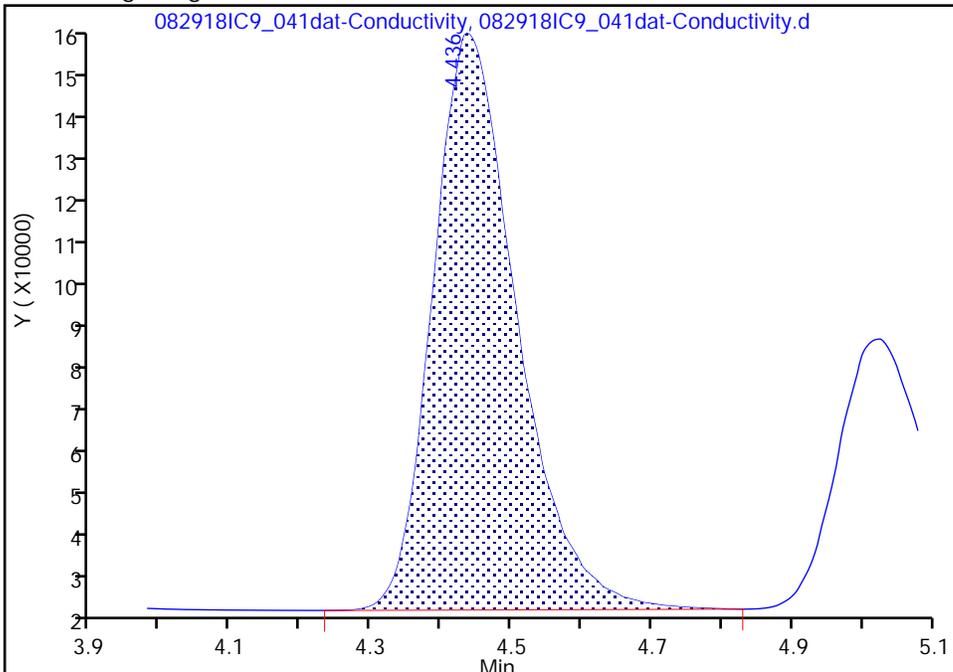
Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_041dat-Conductivity.d
Injection Date: 29-Aug-2018 17:49:00 Instrument ID: IC9
Lims ID: CCV
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

1 Bromide, CAS: 24959-67-9

Signal: 1

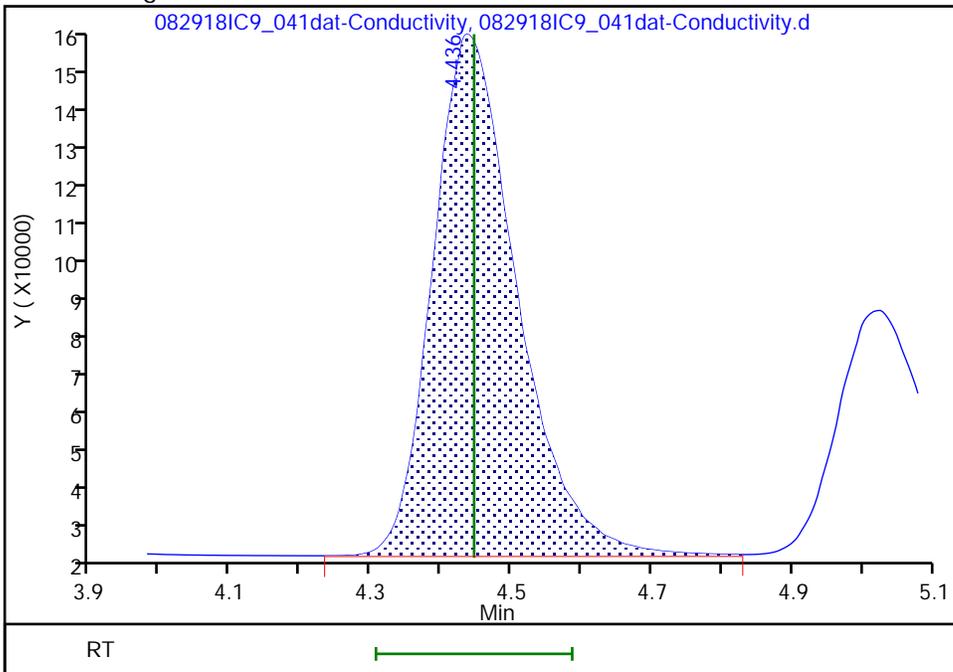
RT: 4.44
Area: 1101717
Amount: 9.474185
Amount Units: ug/ml

Processing Integration Results



RT: 4.44
Area: 1113422
Amount: 9.570331
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 30-Aug-2018 08:31:50
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: CCVRT 490-541365/2 Calibration Date: 09/07/2018 23:08
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 090718IC9_077dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		431367		0.983	1.00	-1.7	10.0
Chloride	Lin1		276320		10.1	10.0	1.2	10.0
Bromide	Lin1		112200		9.64	10.0	-3.6	10.0
Sulfate	Lin1		192545		9.73	10.0	-2.7	10.0
Sulfate as Sulfur	Lin1		577640		3.24	3.33	-2.7	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: CCVRT 490-541365/2 Calibration Date: 09/07/2018 23:08
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 090718IC9_077dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.36	2.35	2.38
Chloride	3.20	3.14	3.26
Bromide	4.47	4.33	4.61
Sulfate	7.59	7.33	7.85
Sulfate as Sulfur	7.59	6.59	8.59

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_077dat-Conductivity.d
 Lims ID: CCVRT
 Client ID:
 Sample Type: CCVRT
 Inject. Date: 07-Sep-2018 23:08:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: xx
 Misc. Info.: xx
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.363	2.363	0.000	431367	1.00	0.9827	
2 Chloride	3.196	3.196	0.000	2763195	10.0	10.1	
8 Nitrite as NO2	3.703	3.703	0.000	559124	NC	NC	
7 Nitrite as N	3.703	3.703	0.000	559124	NC	NC	
1 Bromide	4.470	4.470	0.000	1122002	10.0	9.64	
9 Nitrate as NO3	5.056	5.056	0.000	576073	NC	NC	
3 Nitrate as N	5.056	5.056	0.000	576073	NC	NC	
4 Sulfate	7.590	7.590	0.000	1925447	10.0	9.73	
6 Sulfate as Sulfur	7.590	7.590	0.000	1925447	3.33	3.24	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

CCV 100_00022

Amount Added: 10.00

Units: mL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_077dat-Conductivity.d

Injection Date: 07-Sep-2018 23:08:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCVRT

Worklist Smp#: 2

Client ID:

Injection Vol: 1.0 ul

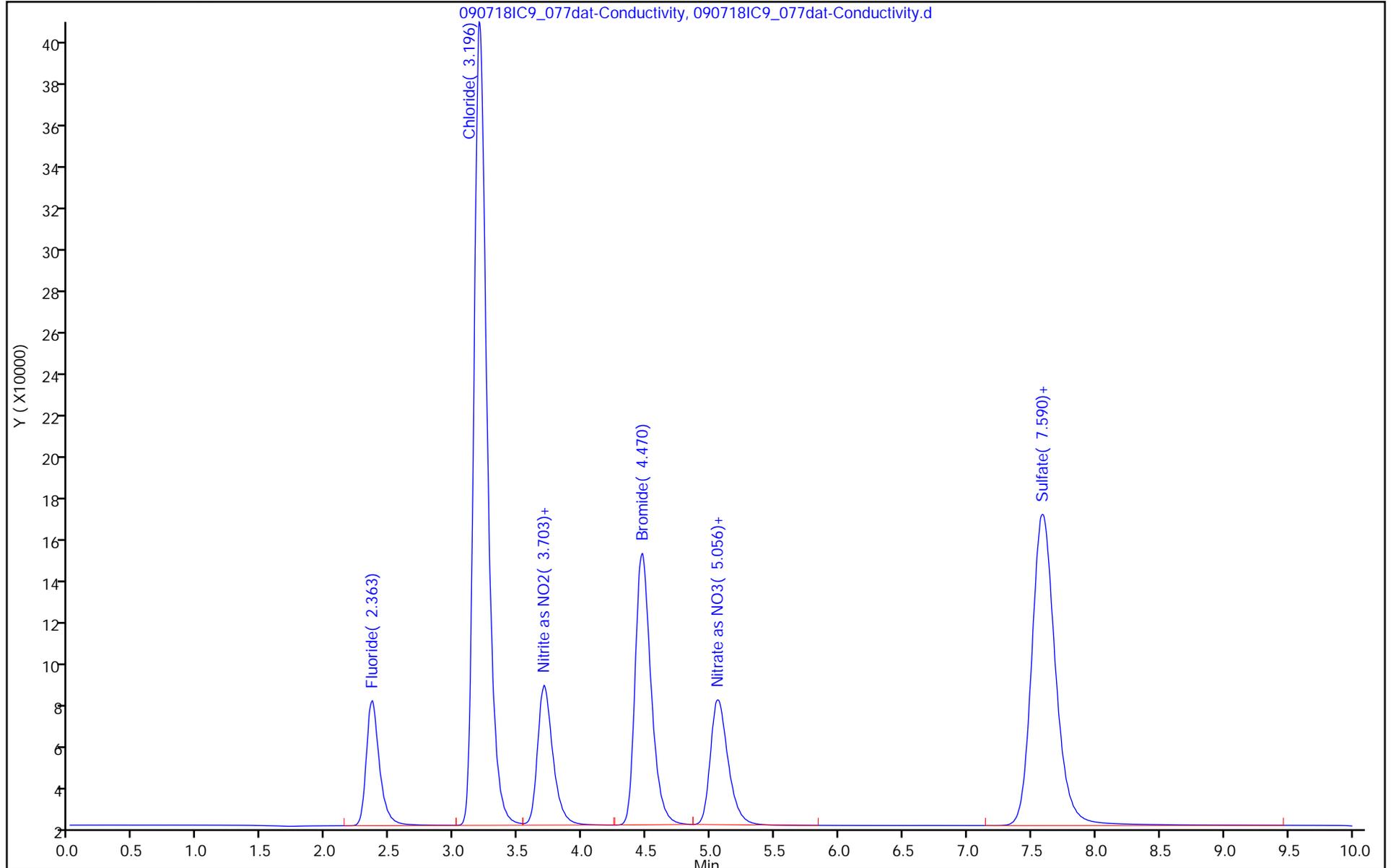
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: CCV 490-541365/19 Calibration Date: 09/08/2018 02:25
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 090718IC9_094dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		426674		0.972	1.00	-2.8	10.0
Chloride	Lin1		277857		10.2	10.0	1.8	10.0
Bromide	Lin1		112010		9.63	10.0	-3.7	10.0
Sulfate	Lin1		195602		9.88	10.0	-1.2	10.0
Sulfate as Sulfur	Lin1		586812		3.29	3.33	-1.2	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: CCV 490-541365/19 Calibration Date: 09/08/2018 02:25
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 090718IC9_094dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.36	2.35	2.38
Chloride	3.20	3.14	3.26
Bromide	4.47	4.33	4.61
Sulfate	7.57	7.33	7.85
Sulfate as Sulfur	7.57	6.59	8.59

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_094dat-Conductivity.d
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 08-Sep-2018 02:25:00 ALS Bottle#: 0 Worklist Smp#: 19
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_094
 Misc. Info.: 090718IC9_094
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:47:06 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

First Level Reviewer: statenj Date: 10-Sep-2018 07:27:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.360	2.363	-0.003	426674	1.00	0.9723	
2 Chloride	3.196	3.196	0.000	2778570	10.0	10.2	
8 Nitrite as NO2	3.703	3.703	0.000	553892	NC	NC	
7 Nitrite as N	3.703	3.703	0.000	553892	NC	NC	
1 Bromide	4.473	4.470	0.003	1120100	10.0	9.63	
9 Nitrate as NO3	5.070	5.056	0.014	575125	NC	NC	
3 Nitrate as N	5.070	5.056	0.014	575125	NC	NC	
4 Sulfate	7.566	7.590	-0.024	1956021	10.0	9.88	
6 Sulfate as Sulfur	7.566	7.590	-0.024	1956021	3.33	3.29	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

CCV 100_00022

Amount Added: 10.00

Units: mL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_094dat-Conductivity.d

Injection Date: 08-Sep-2018 02:25:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCV

Worklist Smp#: 19

Client ID:

Injection Vol: 1.0 ul

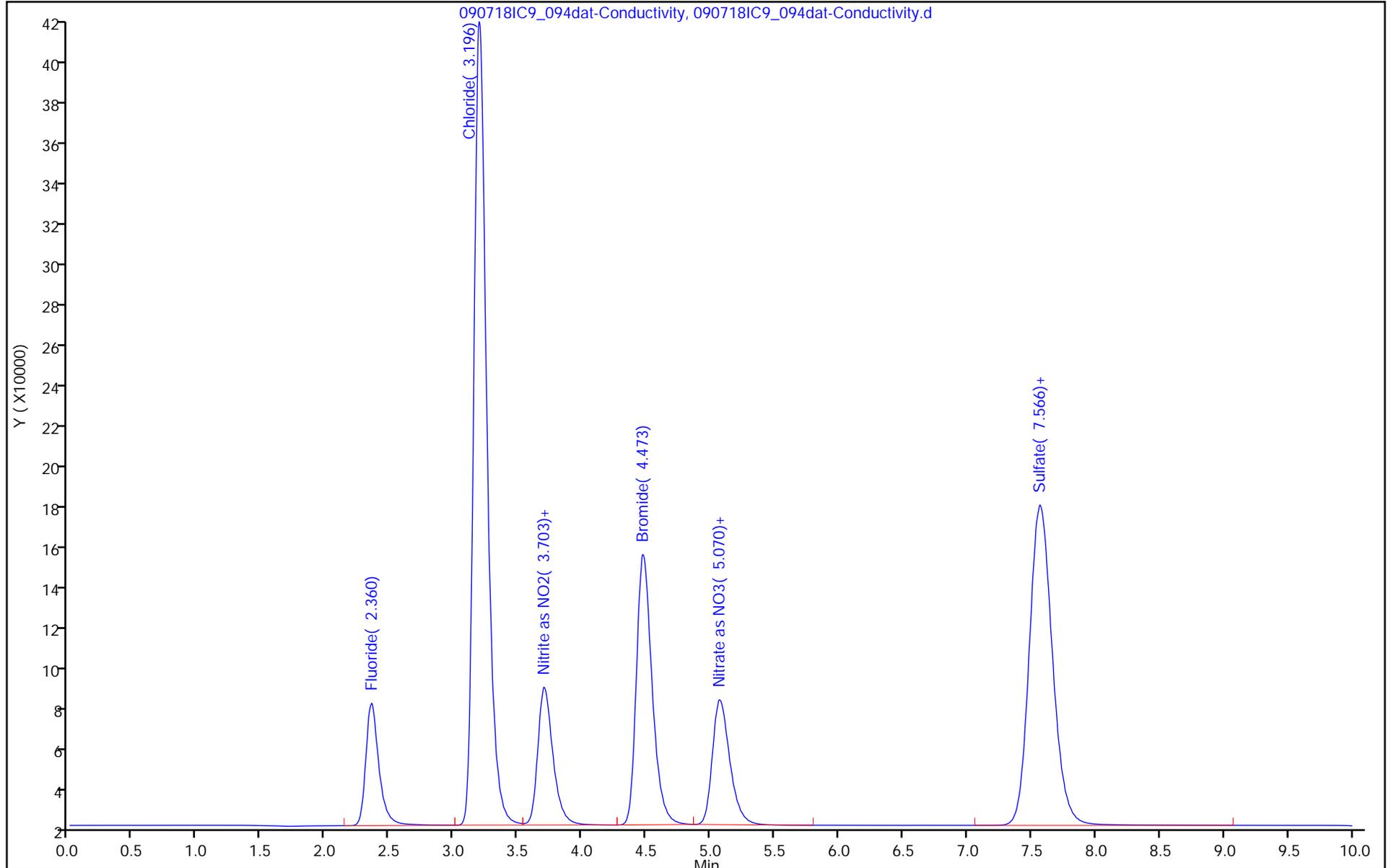
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: CCV 490-541365/34 Calibration Date: 09/08/2018 05:19
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 090718IC9_109dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		417744		0.953	1.00	-4.7	10.0
Chloride	Lin1		274631		10.1	10.0	0.6	10.0
Bromide	Lin1		111684		9.60	10.0	-4.0	10.0
Sulfate	Lin1		194121		9.81	10.0	-1.9	10.0
Sulfate as Sulfur	Lin1		582370		3.27	3.33	-1.9	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: CCV 490-541365/34 Calibration Date: 09/08/2018 05:19
 Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44
 GC Column: Metrohm ASupp4 ID: 4.00 (mm) Calib End Date: 08/20/2018 11:16
 Lab File ID: 090718IC9_109dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.36	2.35	2.38
Chloride	3.21	3.14	3.26
Bromide	4.50	4.33	4.61
Sulfate	7.57	7.33	7.85
Sulfate as Sulfur	7.57	6.59	8.59

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_109dat-Conductivity.d
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 08-Sep-2018 05:19:00 ALS Bottle#: 0 Worklist Smp#: 34
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_109
 Misc. Info.: 090718IC9_109
 Operator ID: Staten, Joe (TA)\St Instrument ID: IC9
 Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:03 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

First Level Reviewer: statenj Date: 10-Sep-2018 07:45:03

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.360	2.363	-0.003	417744	1.00	0.9526	
2 Chloride	3.210	3.196	0.014	2746306	10.0	10.1	
8 Nitrite as NO2	3.720	3.703	0.017	556288	NC	NC	
7 Nitrite as N	3.720	3.703	0.017	556288	NC	NC	
1 Bromide	4.496	4.470	0.026	1116837	10.0	9.60	
9 Nitrate as NO3	5.096	5.056	0.040	573997	NC	NC	
3 Nitrate as N	5.096	5.056	0.040	573997	NC	NC	
4 Sulfate	7.566	7.590	-0.024	1941213	10.0	9.81	
6 Sulfate as Sulfur	7.566	7.590	-0.024	1941213	3.33	3.27	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

CCV 100_00022

Amount Added: 10.00

Units: mL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_109dat-Conductivity.d

Injection Date: 08-Sep-2018 05:19:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCV

Worklist Smp#: 34

Client ID:

Injection Vol: 1.0 ul

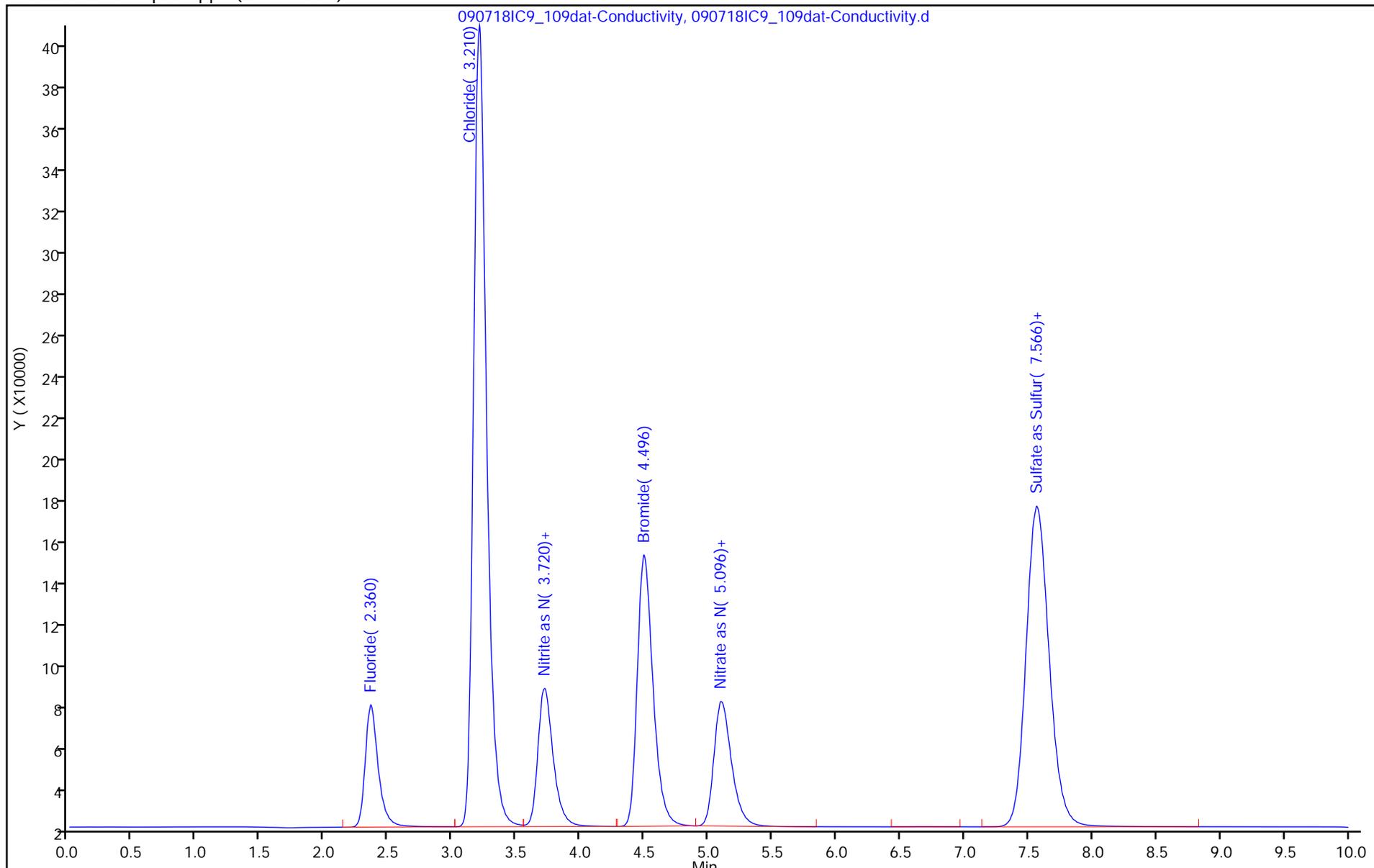
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 490-539643/3
 Matrix: Water Lab File ID: 082918IC9_033dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 08/29/2018 16:17
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 539643 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.3023	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4435	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_033dat-Conductivity.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 29-Aug-2018 16:17:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082918IC9_033
 Misc. Info.: 082918IC9_033
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 31-Aug-2018 09:52:12 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 09:54:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.357				ND	
2 Chloride	3.203	3.196	0.007	33234		0.3023	
8 Nitrite as NO2		3.693				ND	
7 Nitrite as N		3.693				ND	
1 Bromide		4.446				ND	
3 Nitrate as N		5.030				ND	
9 Nitrate as NO3		5.030				ND	
4 Sulfate	7.720	7.696	0.024	2847		0.4435	
6 Sulfate as Sulfur	7.720	7.696	0.024	2847		0.1478	
S 10 Nitrate Nitrite as N		0.000				ND	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_033dat-Conductivity.d

Injection Date: 29-Aug-2018 16:17:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: MB

Worklist Smp#: 3

Client ID:

Injection Vol: 1.0 ul

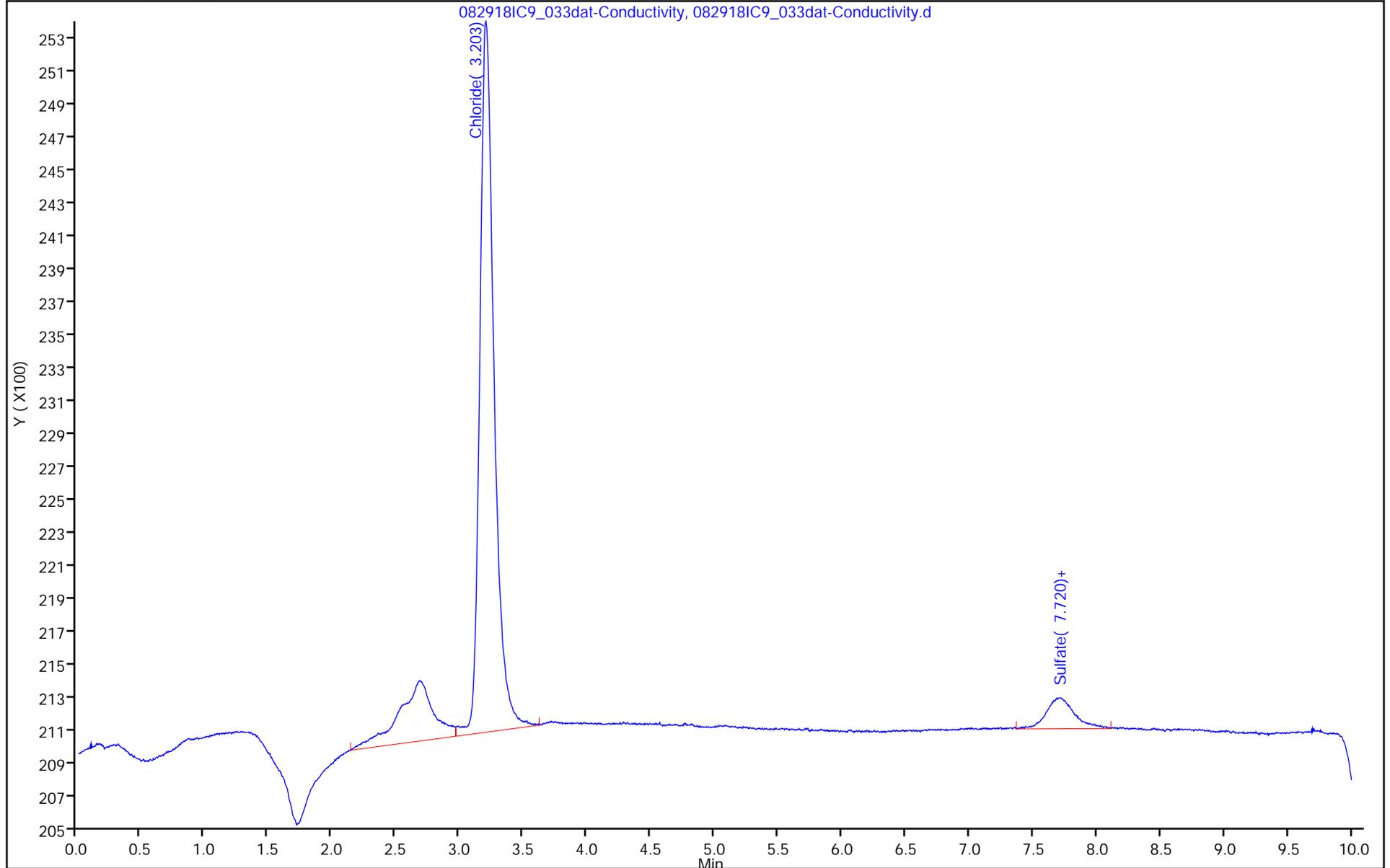
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 490-541193/1-A
 Matrix: Solid (Soluble) Lab File ID: 090718IC9_079dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 09/07/2018 23:31
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 541365 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	ND		9.96	6.97
16984-48-8	Fluoride	ND		0.996	0.797
14808-79-8	Sulfate	ND		9.96	5.97

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_079dat-Conductivity.d
 Lims ID: MB 490-541193/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 07-Sep-2018 23:31:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_079
 Misc. Info.: 090718IC9_079
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.363				ND	
2 Chloride	3.200	3.196	0.004	5048		0.2009	
8 Nitrite as NO2		3.703				ND	
7 Nitrite as N		3.703				ND	
1 Bromide		4.470				ND	
9 Nitrate as NO3		5.056				ND	
3 Nitrate as N		5.056				ND	
4 Sulfate	7.586	7.590	-0.004	1800		0.4384	
6 Sulfate as Sulfur	7.586	7.590	-0.004	1800		0.1461	
S 10 Nitrate Nitrite as N		0.000				ND	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_079dat-Conductivity.d

Injection Date: 07-Sep-2018 23:31:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: MB 490-541193/1-A

Worklist Smp#: 4

Client ID:

Injection Vol: 1.0 ul

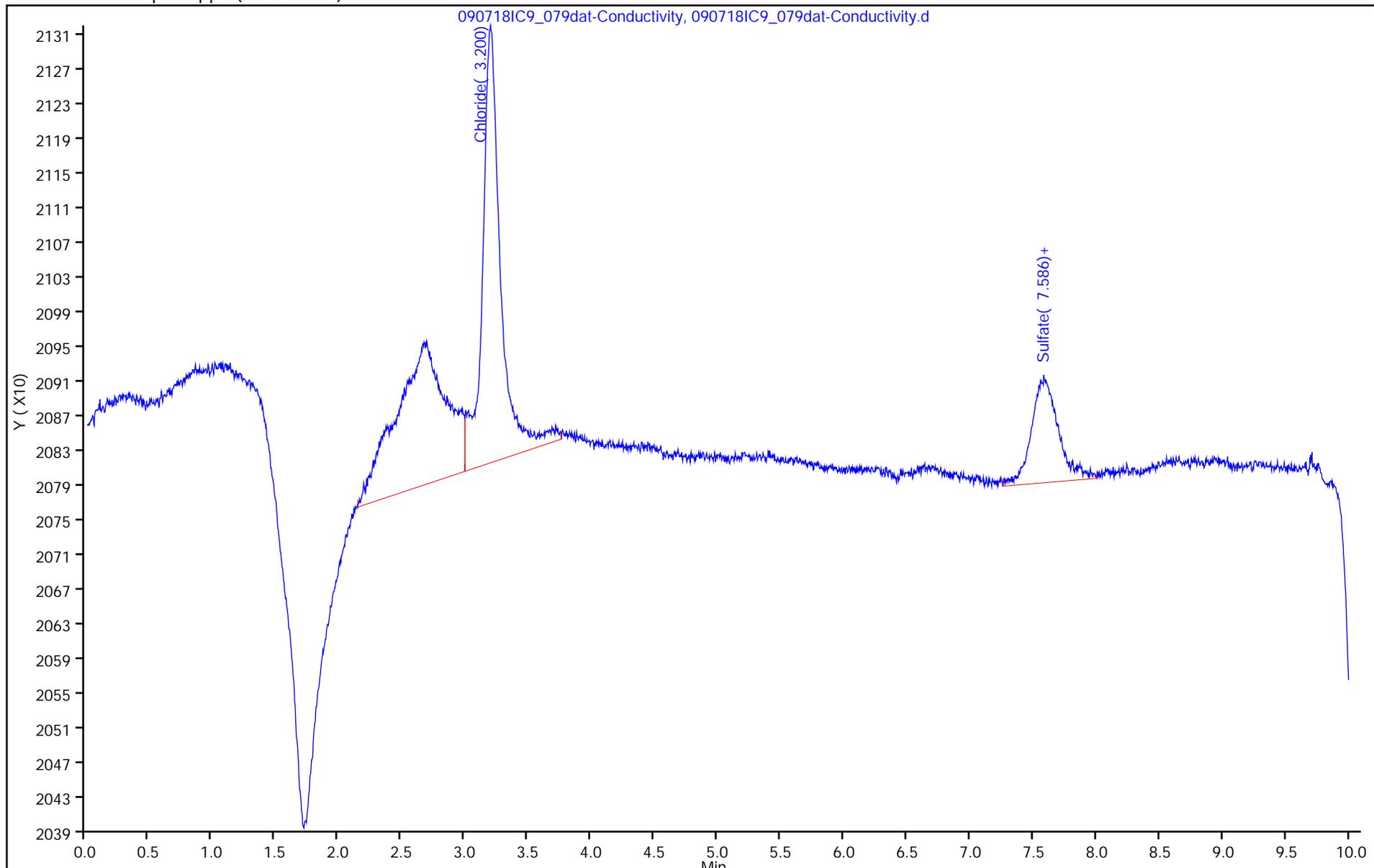
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 490-539643/2
 Matrix: Water Lab File ID: 082918IC9_032dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 08/29/2018 16:05
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 539643 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.2925	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4426	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_032dat-Conductivity.d
 Lims ID: CCB
 Client ID:
 Sample Type: CCB
 Inject. Date: 29-Aug-2018 16:05:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082918IC9_032
 Misc. Info.: 082918IC9_032
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 31-Aug-2018 09:52:12 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 09:53:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.357				ND	
2 Chloride	3.196	3.196	0.000	30515		0.2925	
8 Nitrite as NO2		3.693				ND	
7 Nitrite as N		3.693				ND	
1 Bromide		4.446				ND	
3 Nitrate as N		5.030				ND	
9 Nitrate as NO3		5.030				ND	
4 Sulfate	7.716	7.696	0.020	2676		0.4426	
6 Sulfate as Sulfur	7.716	7.696	0.020	2676		0.1475	
S 10 Nitrate Nitrite as N		0.000				ND	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_032dat-Conductivity.d

Injection Date: 29-Aug-2018 16:05:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCB

Worklist Smp#: 2

Client ID:

Injection Vol: 1.0 ul

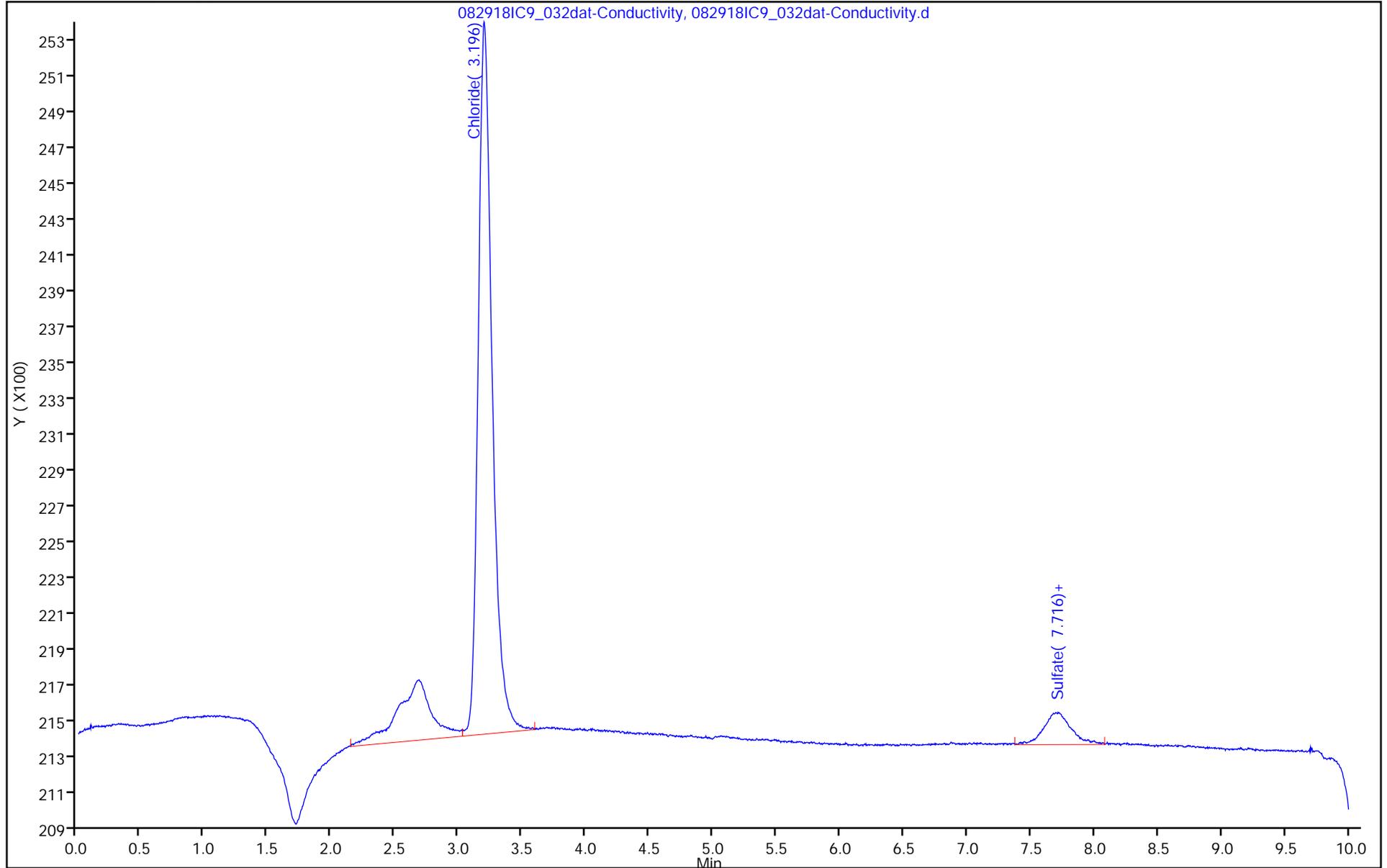
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 490-539643/12
 Matrix: Water Lab File ID: 082918IC9_042dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 08/29/2018 18:01
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 539643 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.3160	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4433	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_042dat-Conductivity.d
 Lims ID: CCB
 Client ID:
 Sample Type: CCB
 Inject. Date: 29-Aug-2018 18:01:00 ALS Bottle#: 0 Worklist Smp#: 12
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082918IC9_042
 Misc. Info.: 082918IC9_042
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 31-Aug-2018 10:01:22 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 10:02:30

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.357				ND	
2 Chloride	3.203	3.196	0.007	37050		0.3160	
8 Nitrite as NO2		3.693				ND	
7 Nitrite as N		3.693				ND	
1 Bromide		4.446				ND	
3 Nitrate as N		5.030				ND	
9 Nitrate as NO3		5.030				ND	
4 Sulfate	7.726	7.696	0.030	2814		0.4433	
6 Sulfate as Sulfur	7.726	7.696	0.030	2814		0.1478	
S 10 Nitrate Nitrite as N		0.000				ND	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_042dat-Conductivity.d

Injection Date: 29-Aug-2018 18:01:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCB

Worklist Smp#: 12

Client ID:

Injection Vol: 1.0 ul

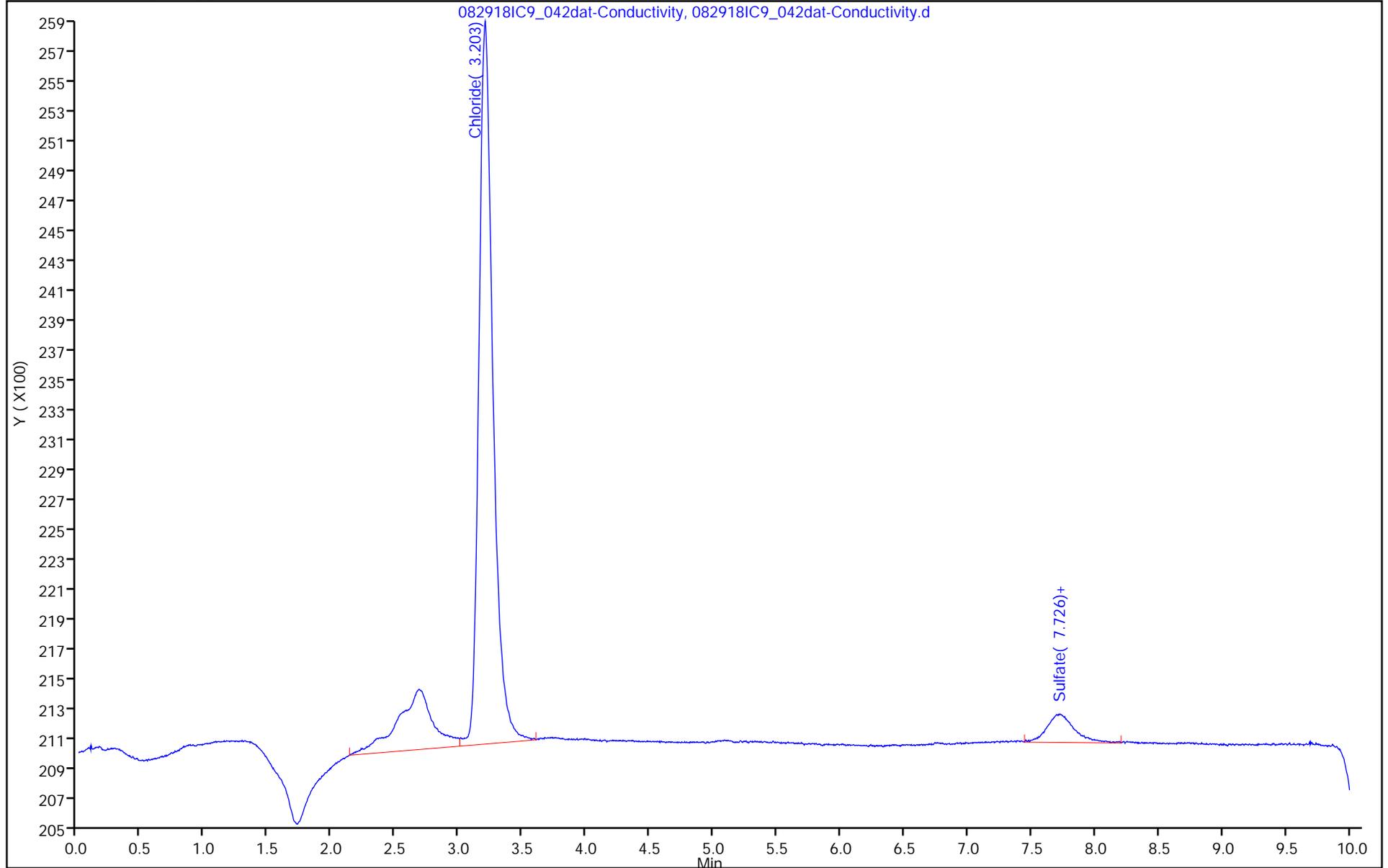
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 490-541365/3
 Matrix: Solid Lab File ID: 090718IC9_078dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 09/07/2018 23:19
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 541365 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.2466	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4355	J	1.00	0.0300

TestAmerica Nashville
 Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_078dat-Conductivity.d
 Lims ID: CCB
 Client ID:
 Sample Type: CCB
 Inject. Date: 07-Sep-2018 23:19:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: xx
 Misc. Info.: xx
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.363				ND	
2 Chloride	3.210	3.196	0.014	17769		0.2466	
8 Nitrite as NO2		3.703				ND	
7 Nitrite as N		3.703				ND	
1 Bromide		4.470				ND	
9 Nitrate as NO3		5.056				ND	
3 Nitrate as N		5.056				ND	
4 Sulfate	7.610	7.590	0.020	1191		0.4355	
6 Sulfate as Sulfur	7.610	7.590	0.020	1191		0.1452	
S 10 Nitrate Nitrite as N		0.000				ND	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_078dat-Conductivity.d

Injection Date: 07-Sep-2018 23:19:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCB

Worklist Smp#: 3

Client ID:

Injection Vol: 1.0 ul

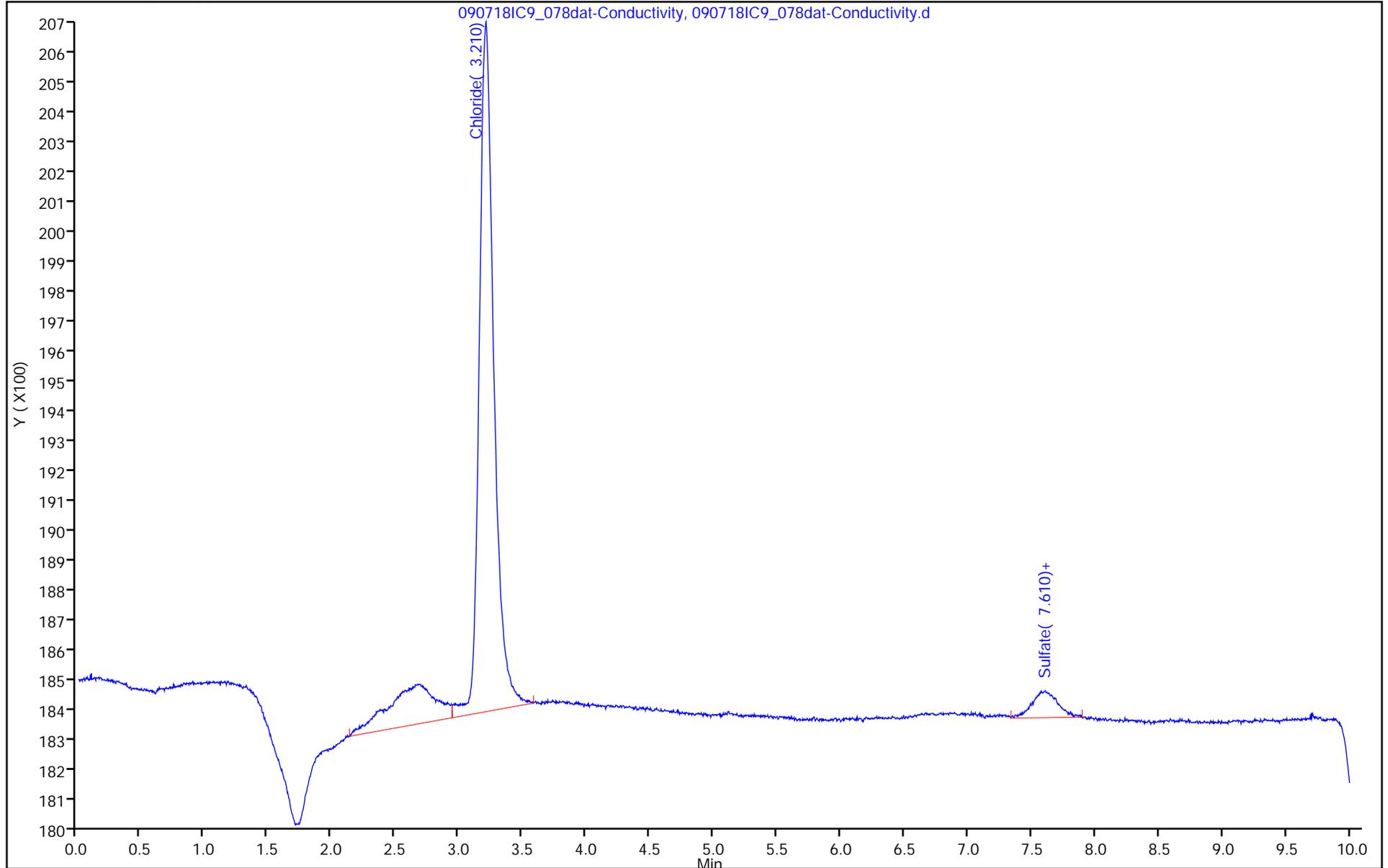
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 490-541365/20
 Matrix: Solid Lab File ID: 090718IC9_095dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 09/08/2018 02:37
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 541365 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.2478	J	1.00	0.200
16984-48-8	Fluoride	0.03292	J	0.100	0.0100
14808-79-8	Sulfate	0.4384	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_095dat-Conductivity.d
 Lims ID: CCB
 Client ID:
 Sample Type: CCB
 Inject. Date: 08-Sep-2018 02:37:00 ALS Bottle#: 0 Worklist Smp#: 20
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_095
 Misc. Info.: 090718IC9_095
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:47:06 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

First Level Reviewer: statenj Date: 10-Sep-2018 07:27:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.427	2.363	0.064	849		0.0329	
2 Chloride	3.216	3.196	0.020	18086		0.2478	
8 Nitrite as NO2		3.703				ND	
7 Nitrite as N		3.703				ND	
1 Bromide		4.470				ND	
9 Nitrate as NO3		5.056				ND	
3 Nitrate as N		5.056				ND	
4 Sulfate	7.603	7.590	0.013	1792		0.4384	
6 Sulfate as Sulfur	7.603	7.590	0.013	1792		0.1461	
S 10 Nitrate Nitrite as N		0.000				ND	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_095dat-Conductivity.d

Injection Date: 08-Sep-2018 02:37:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCB

Worklist Smp#: 20

Client ID:

Injection Vol: 1.0 ul

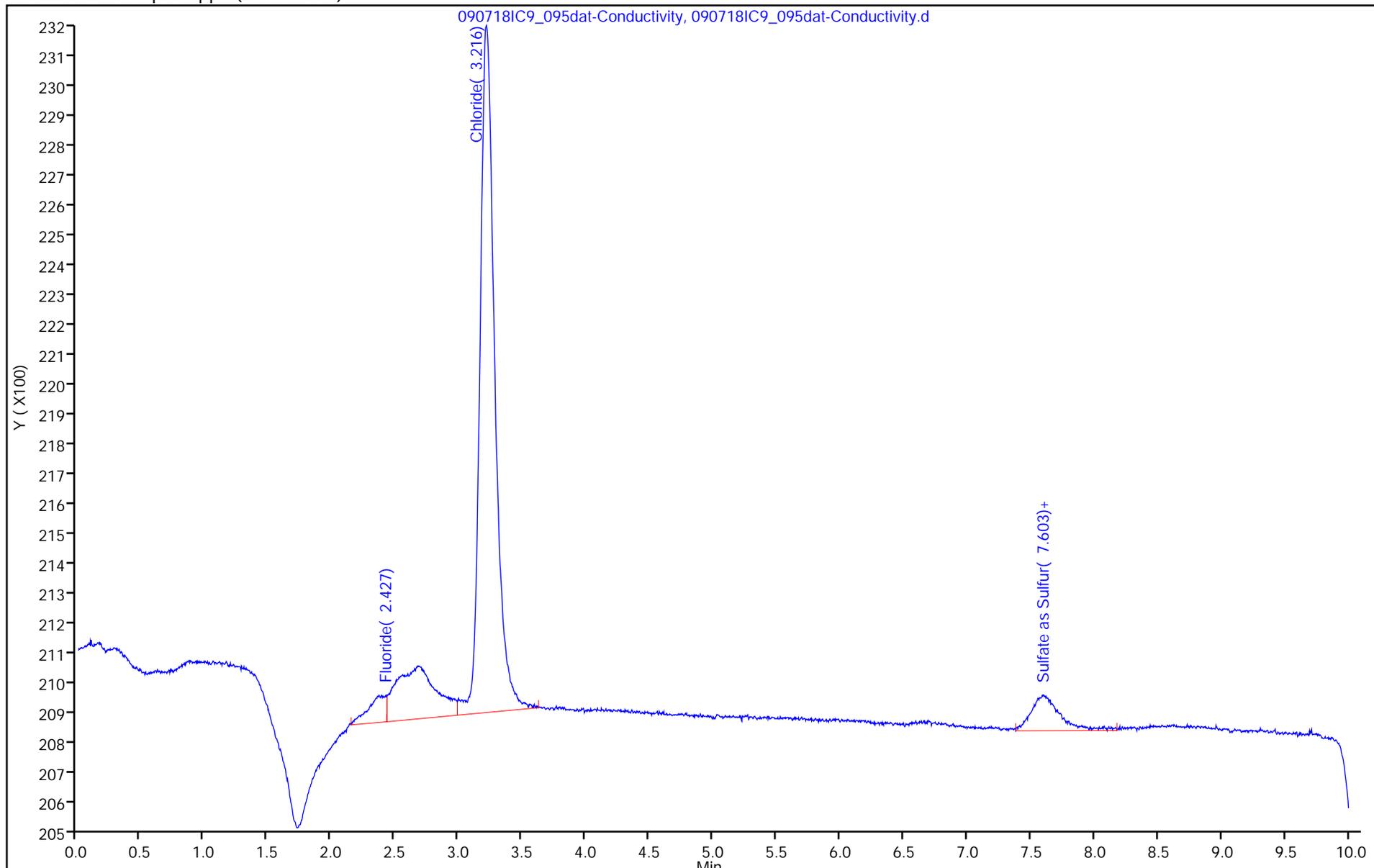
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 490-541365/32
 Matrix: Solid Lab File ID: 090718IC9_107dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 09/08/2018 04:56
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 541365 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.2957	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.5173	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_107dat-Conductivity.d
 Lims ID: CCB
 Client ID:
 Sample Type: CCB
 Inject. Date: 08-Sep-2018 04:56:00 ALS Bottle#: 0 Worklist Smp#: 32
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_107
 Misc. Info.: 090718IC9_107
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:47:06 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.363				ND	
2 Chloride	3.213	3.196	0.017	31411		0.2957	
8 Nitrite as NO2		3.703				ND	
7 Nitrite as N		3.703				ND	
1 Bromide		4.470				ND	
9 Nitrate as NO3		5.056				ND	
3 Nitrate as N		5.056				ND	
4 Sulfate	7.590	7.590	0.000	18128		0.5173	
6 Sulfate as Sulfur	7.590	7.590	0.000	18128		0.1724	
S 10 Nitrate Nitrite as N		0.000				ND	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_107dat-Conductivity.d

Injection Date: 08-Sep-2018 04:56:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCB

Worklist Smp#: 32

Client ID:

Injection Vol: 1.0 ul

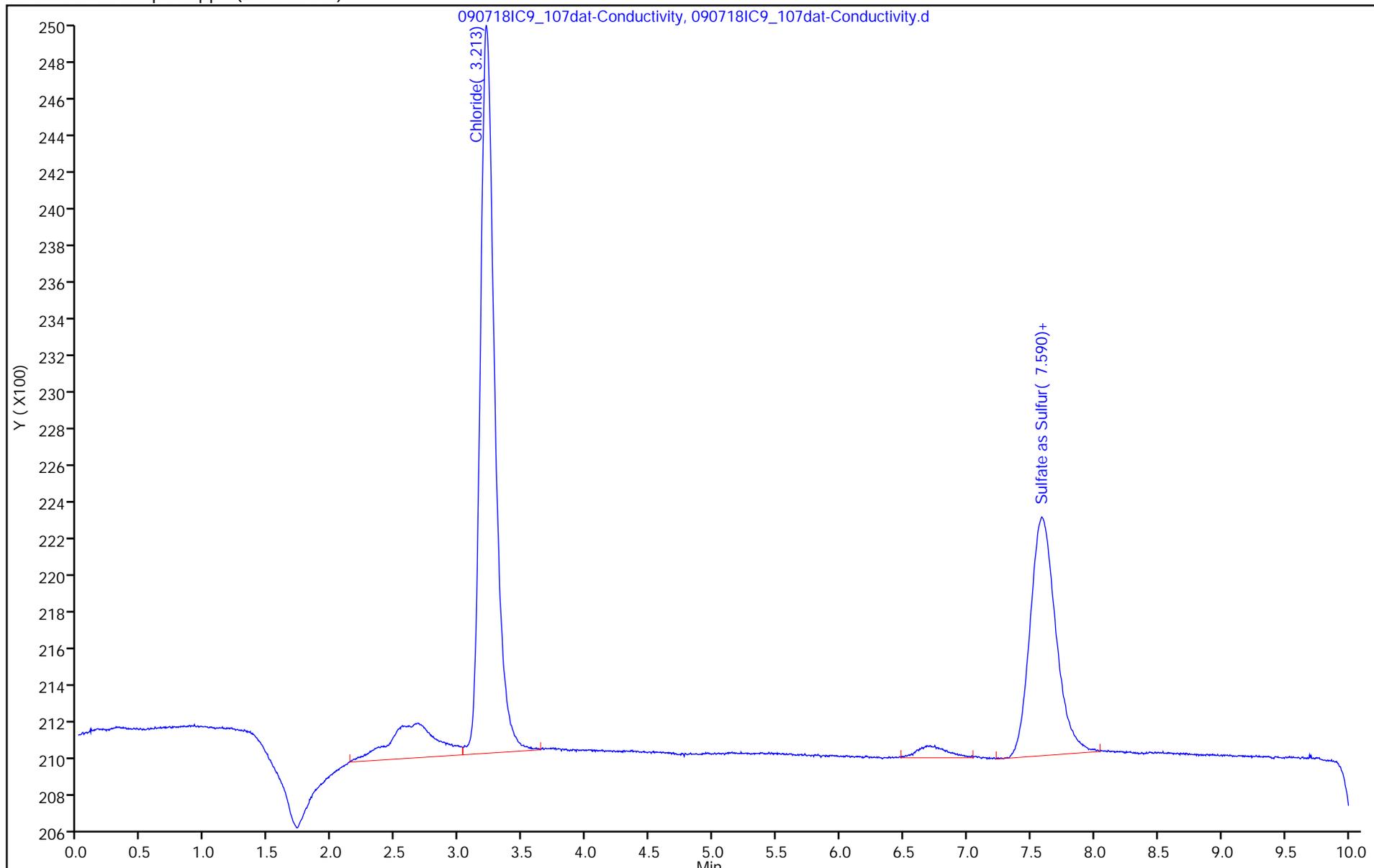
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 490-541365/35
 Matrix: Solid Lab File ID: 090718IC9_110dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 09/08/2018 05:31
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 541365 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.2189	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4361	J	1.00	0.0300

TestAmerica Nashville
 Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_110dat-Conductivity.d
 Lims ID: CCB
 Client ID:
 Sample Type: CCB
 Inject. Date: 08-Sep-2018 05:31:00 ALS Bottle#: 0 Worklist Smp#: 35
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_110
 Misc. Info.: 090718IC9_110
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:03 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

First Level Reviewer: statenj Date: 10-Sep-2018 07:45:13

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.363				ND	
2 Chloride	3.226	3.196	0.030	10067		0.2189	
8 Nitrite as NO2		3.703				ND	
7 Nitrite as N		3.703				ND	
1 Bromide		4.470				ND	
9 Nitrate as NO3		5.056				ND	
3 Nitrate as N		5.056				ND	
4 Sulfate	7.610	7.590	0.020	1323		0.4361	
6 Sulfate as Sulfur	7.610	7.590	0.020	1323		0.1454	
S 10 Nitrate Nitrite as N		0.000				ND	

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_110dat-Conductivity.d

Injection Date: 08-Sep-2018 05:31:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: CCB

Worklist Smp#: 35

Client ID:

Injection Vol: 1.0 ul

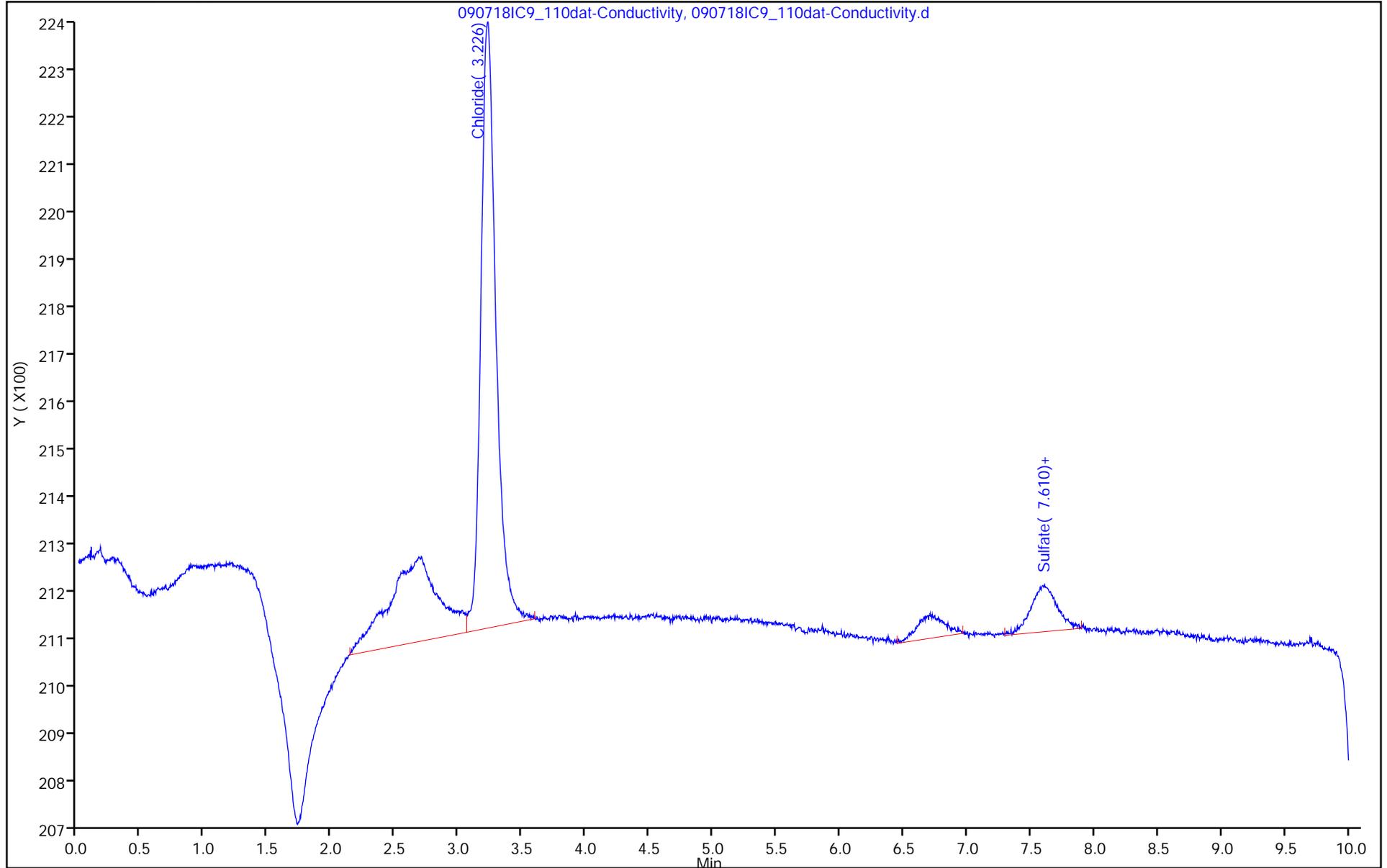
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 490-539643/4
 Matrix: Water Lab File ID: 082918IC9_034dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 08/29/2018 16:28
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 539643 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	10.02		1.00	0.200
16984-48-8	Fluoride	0.9281		0.100	0.0100
14808-79-8	Sulfate	9.545		1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_034dat-Conductivity.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 29-Aug-2018 16:28:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082918IC9_034
 Misc. Info.: 082918IC9_034
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 31-Aug-2018 09:52:12 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 09:55:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.360	2.357	0.003	406643	1.00	0.9281	M
2 Chloride	3.196	3.196	0.000	2735444	10.0	10.0	M
8 Nitrite as NO2	3.696	3.693	0.003	538918	NC	NC	M
7 Nitrite as N	3.696	3.693	0.003	538918	NC	NC	M
1 Bromide	4.443	4.446	-0.003	1117037	10.0	9.60	M
3 Nitrate as N	5.033	5.030	0.003	583562	NC	NC	M
9 Nitrate as NO3	5.033	5.030	0.003	583562	NC	NC	M
4 Sulfate	7.703	7.696	0.007	1887100	10.0	9.54	
6 Sulfate as Sulfur	7.703	7.696	0.007	1887100	3.33	3.18	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

LCS 100_00028

Amount Added: 10.00

Units: mL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_034dat-Conductivity.d

Injection Date: 29-Aug-2018 16:28:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Injection Vol: 1.0 ul

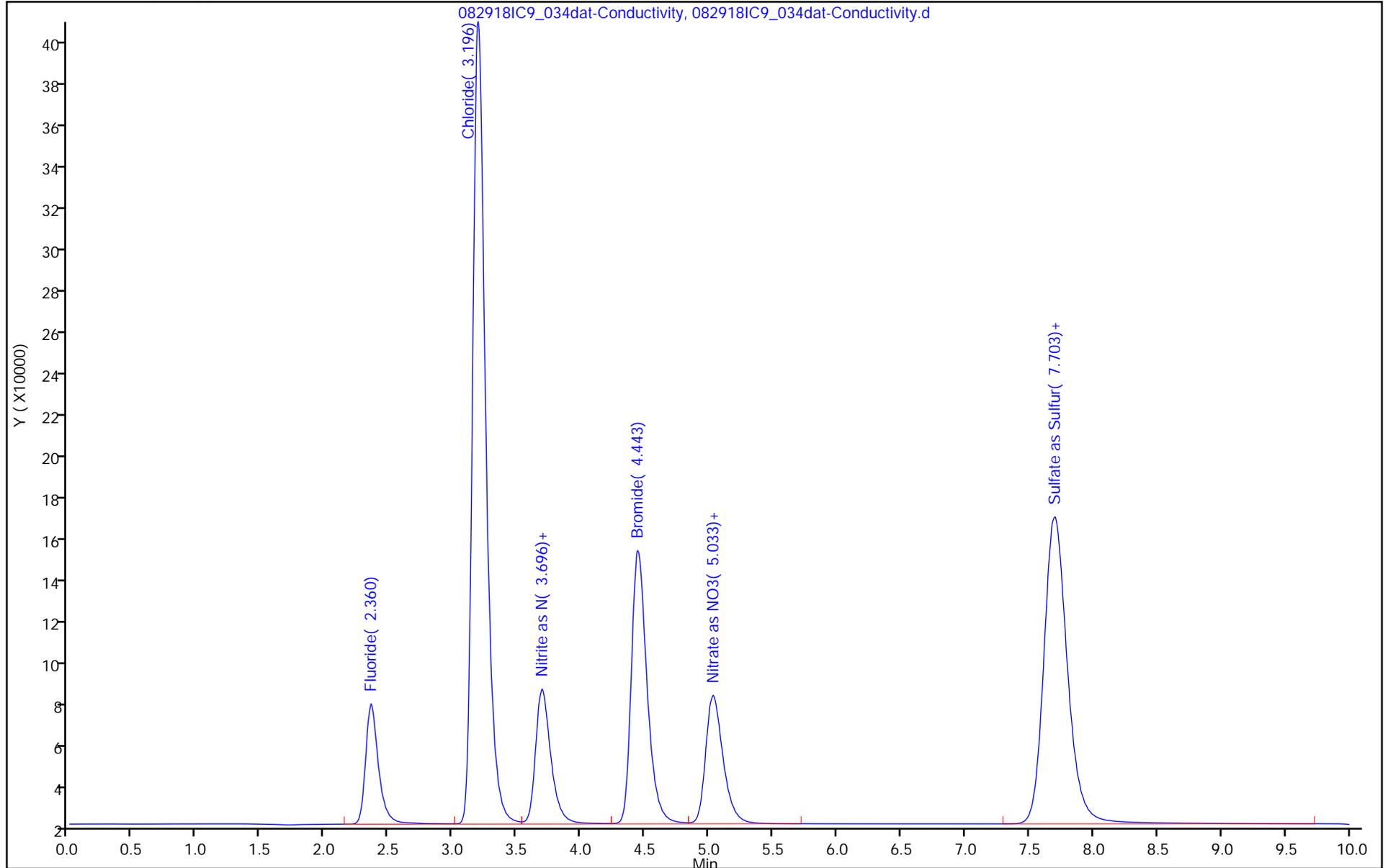
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

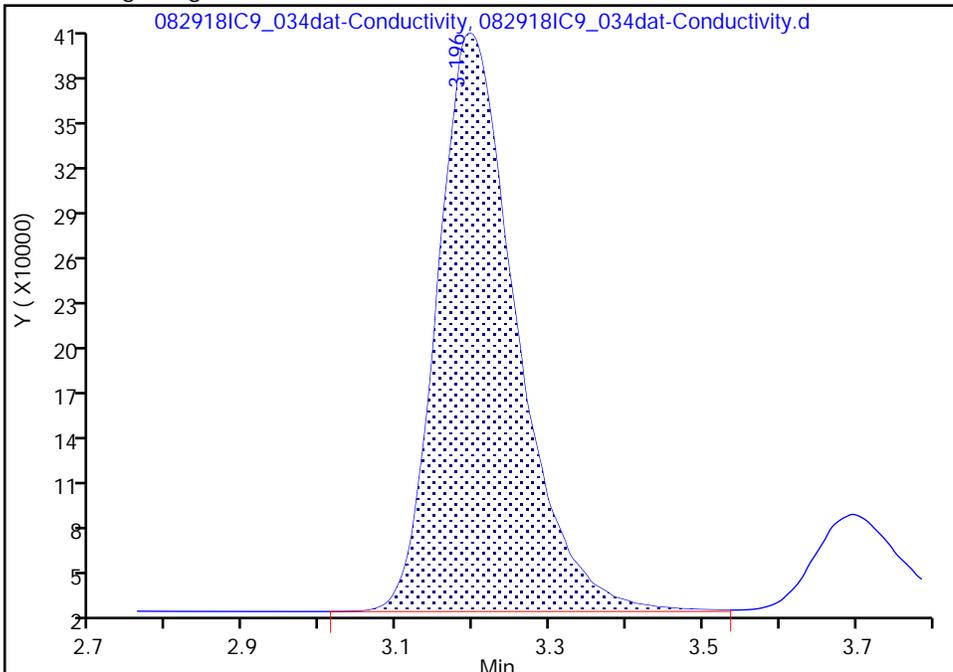
Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_034dat-Conductivity.d
Injection Date: 29-Aug-2018 16:28:00 Instrument ID: IC9
Lims ID: LCS
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

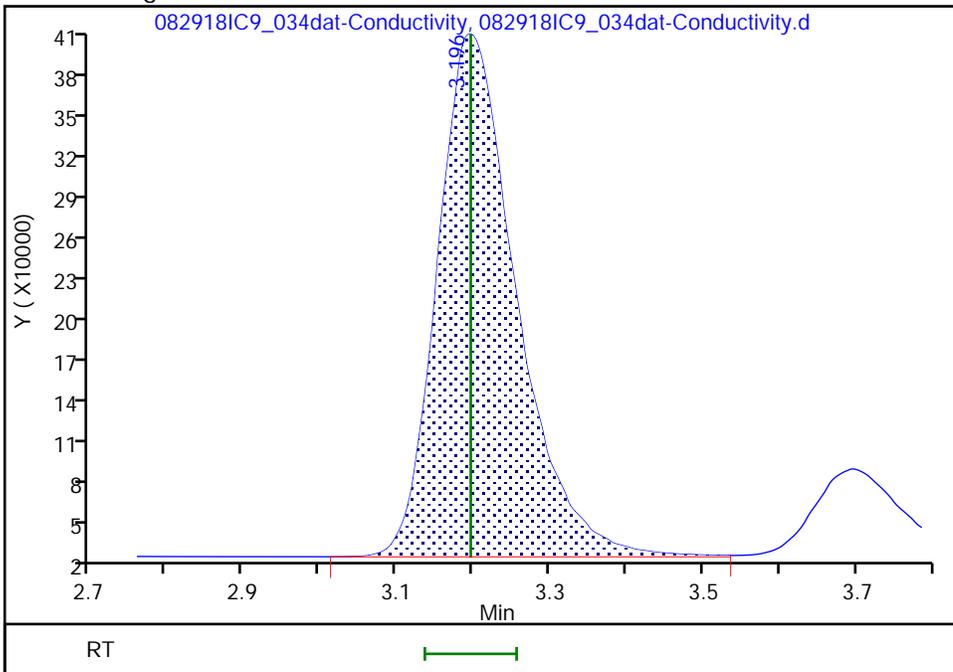
RT: 3.20
Area: 2732147
Amount: 10.008585
Amount Units: ug/ml

Processing Integration Results



RT: 3.20
Area: 2735444
Amount: 10.020443
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 30-Aug-2018 08:29:52
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing
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TestAmerica Nashville

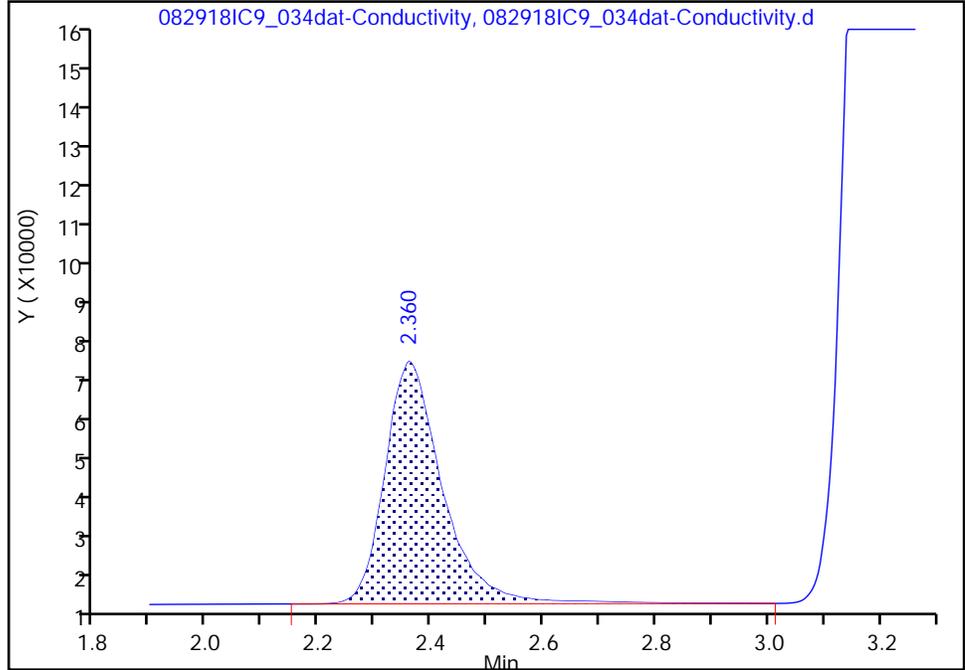
Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_034dat-Conductivity.d
Injection Date: 29-Aug-2018 16:28:00 Instrument ID: IC9
Lims ID: LCS
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

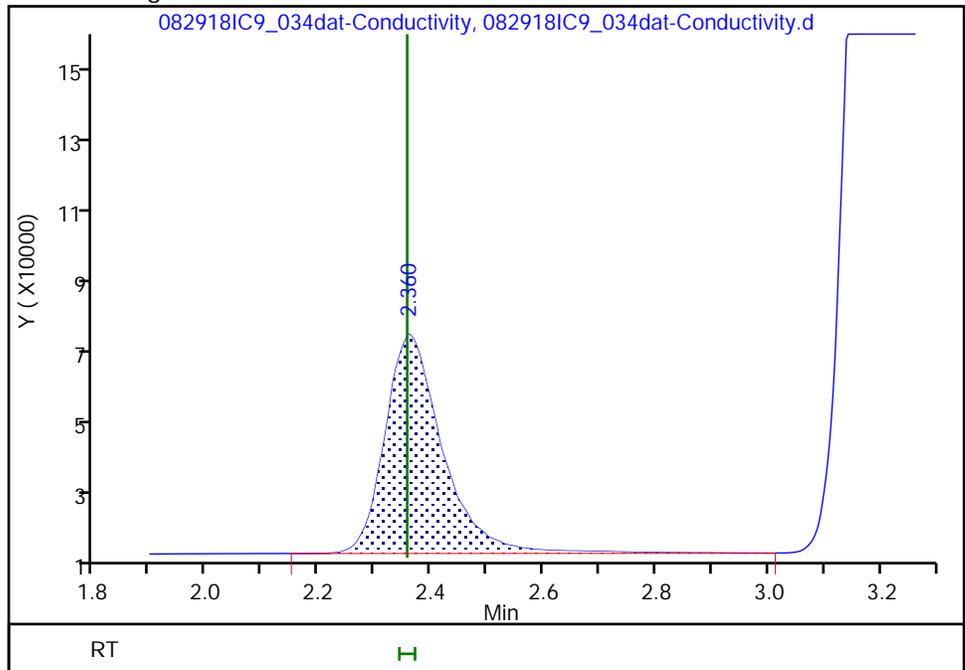
RT: 2.36
Area: 404442
Amount: 0.923283
Amount Units: ug/ml

Processing Integration Results



RT: 2.36
Area: 406643
Amount: 0.928138
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 30-Aug-2018 08:29:52
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 490-541193/2-A
 Matrix: Solid (Soluble) Lab File ID: 090718IC9_080dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 09/07/2018 23:43
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 541365 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	99.98		9.98	6.98
16984-48-8	Fluoride	9.794		0.998	0.798
14808-79-8	Sulfate	95.37		9.98	5.99

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_080dat-Conductivity.d
 Lims ID: LCS 490-541193/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 07-Sep-2018 23:43:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_080
 Misc. Info.: 090718IC9_080
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:35 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.363	-0.006	430849	1.00	0.9815	
2 Chloride	3.203	3.196	0.007	2735324	10.0	10.0	
8 Nitrite as NO2	3.703	3.703	0.000	545461	NC	NC	
7 Nitrite as N	3.703	3.703	0.000	545461	NC	NC	
1 Bromide	4.470	4.470	0.000	1089068	10.0	9.37	
9 Nitrate as NO3	5.060	5.056	0.004	566331	NC	NC	
3 Nitrate as N	5.060	5.056	0.004	566331	NC	NC	
4 Sulfate	7.583	7.590	-0.007	1889824	10.0	9.56	
6 Sulfate as Sulfur	7.583	7.590	-0.007	1889824	3.33	3.19	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_080dat-Conductivity.d

Injection Date: 07-Sep-2018 23:43:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: LCS 490-541193/2-A

Worklist Smp#: 5

Client ID:

Injection Vol: 1.0 ul

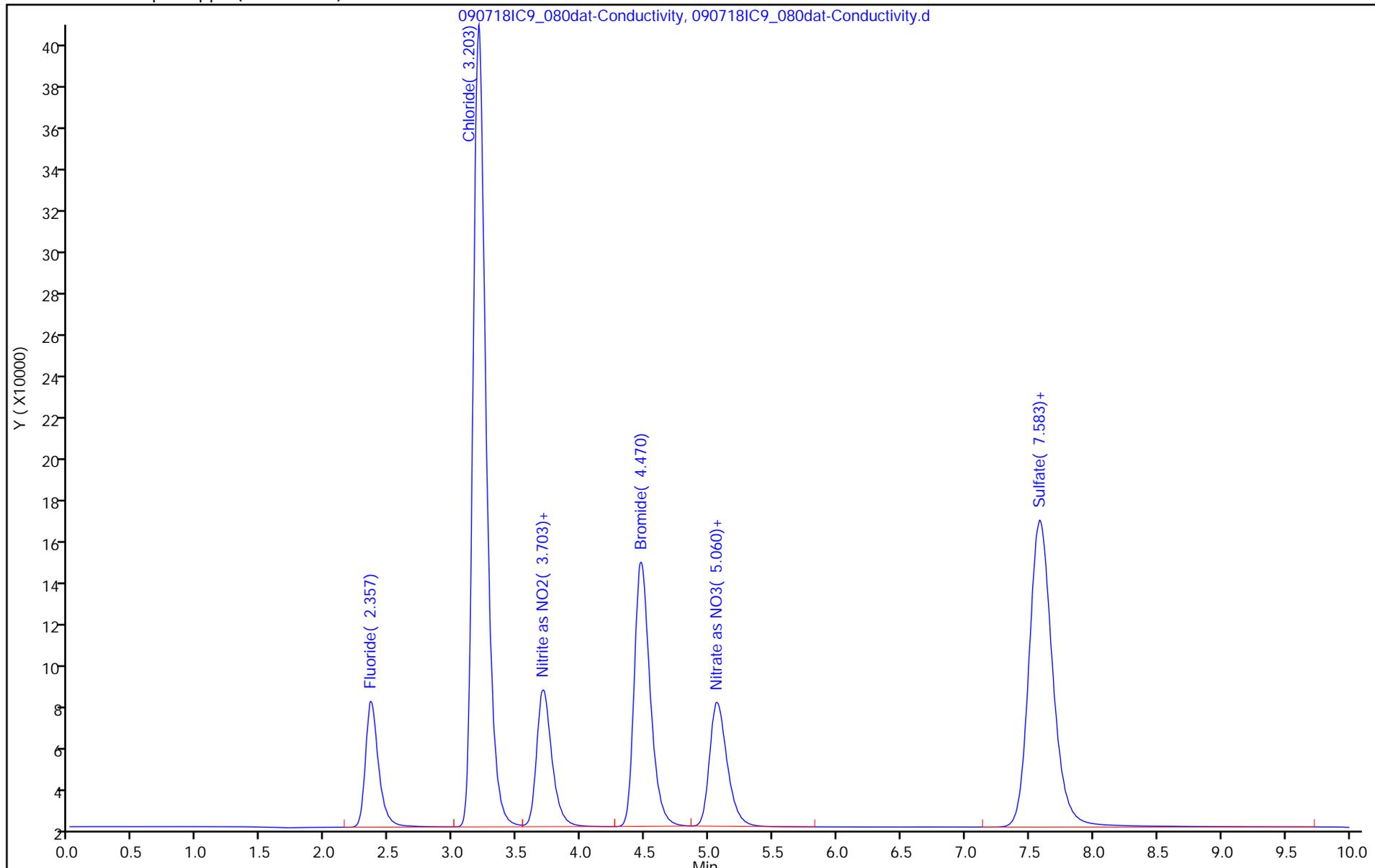
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 490-539643/5
 Matrix: Water Lab File ID: 082918IC9_035dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 08/29/2018 16:40
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 539643 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	9.940		1.00	0.200
16984-48-8	Fluoride	0.9472		0.100	0.0100
14808-79-8	Sulfate	9.748		1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_035dat-Conductivity.d
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 29-Aug-2018 16:40:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 082918IC9_035
 Misc. Info.: 082918IC9_035
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 31-Aug-2018 09:52:12 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 09:56:33

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.357	0.000	415305	1.00	0.9472	M
2 Chloride	3.193	3.196	-0.003	2713050	10.0	9.94	M
8 Nitrite as NO2	3.690	3.693	-0.003	542272	NC	NC	M
7 Nitrite as N	3.690	3.693	-0.003	542272	NC	NC	M
1 Bromide	4.440	4.446	-0.006	1120050	10.0	9.62	M
3 Nitrate as N	5.023	5.030	-0.007	588455	NC	NC	M
9 Nitrate as NO3	5.023	5.030	-0.007	588455	NC	NC	M
4 Sulfate	7.696	7.696	0.000	1929125	10.0	9.75	
6 Sulfate as Sulfur	7.696	7.696	0.000	1929125	3.33	3.25	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

LCS 100_00028

Amount Added: 10.00

Units: mL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_035dat-Conductivity.d

Injection Date: 29-Aug-2018 16:40:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: LCSD

Worklist Smp#: 5

Client ID:

Injection Vol: 1.0 ul

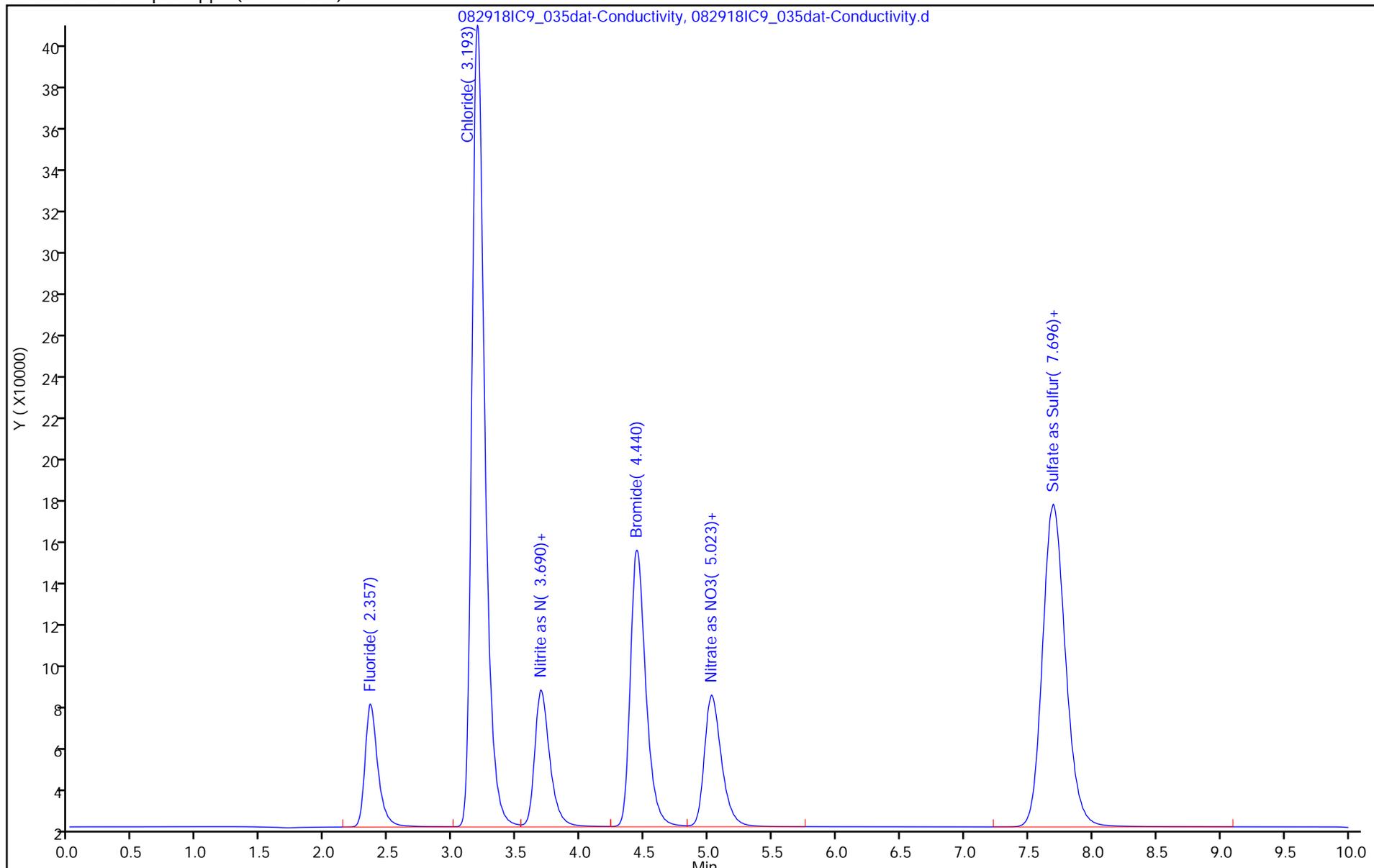
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville

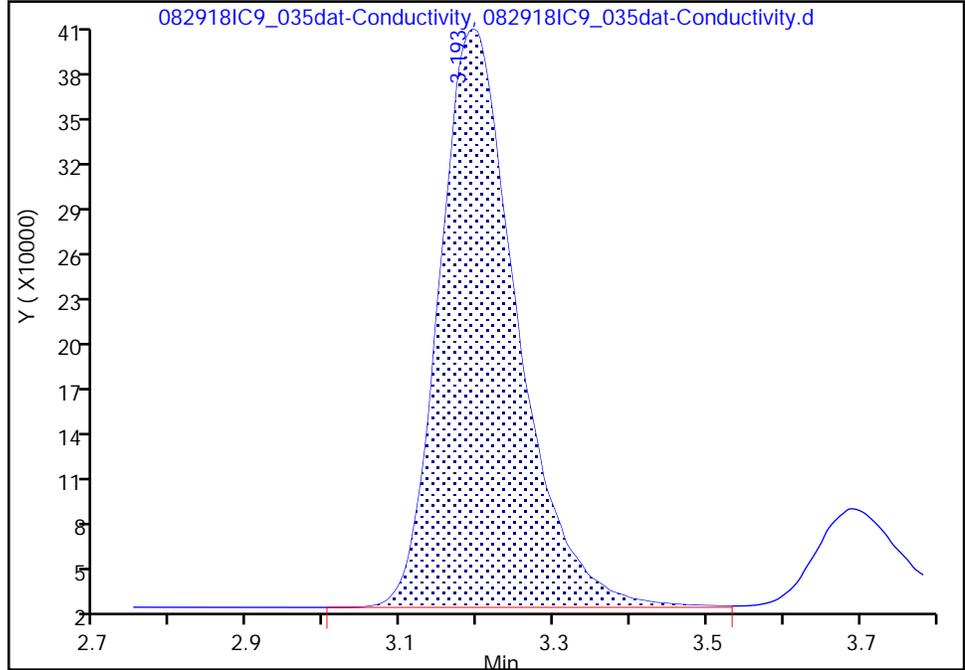
Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_035dat-Conductivity.d
Injection Date: 29-Aug-2018 16:40:00 Instrument ID: IC9
Lims ID: LCSD
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

2 Chloride, CAS: 16887-00-6

Signal: 1

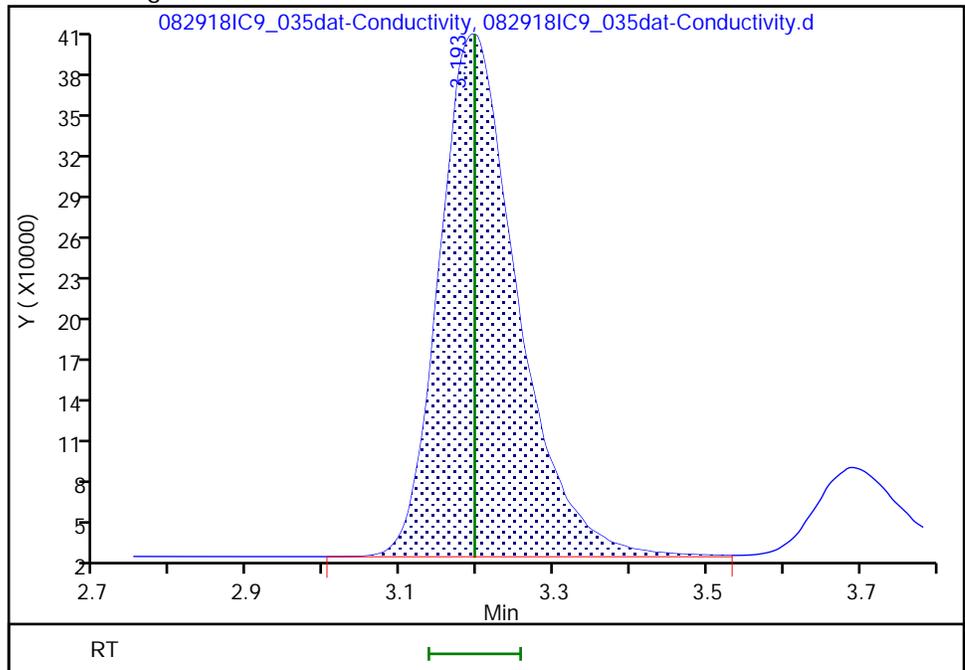
RT: 3.19
Area: 2709615
Amount: 9.927552
Amount Units: ug/ml

Processing Integration Results



RT: 3.19
Area: 2713050
Amount: 9.939905
Amount Units: ug/ml

Manual Integration Results



Reviewer: statenj, 30-Aug-2018 08:30:32
Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing
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TestAmerica Nashville

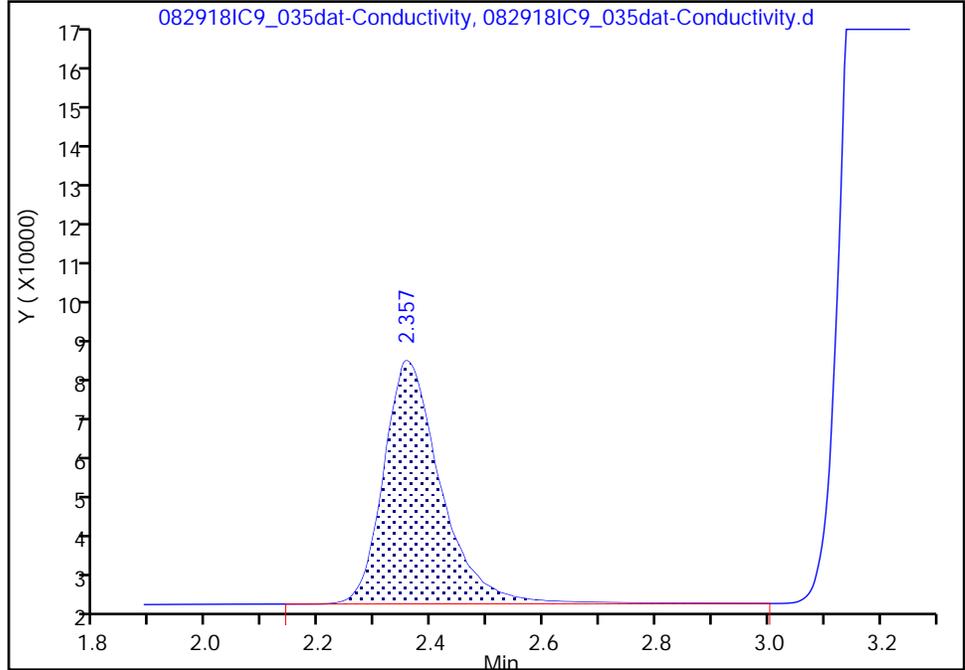
Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_035dat-Conductivity.d
Injection Date: 29-Aug-2018 16:40:00 Instrument ID: IC9
Lims ID: LCSD
Client ID:
Operator ID: Staten, Joe (TA\St ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300_0624_9056IC9 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Column: MetrosepASupp4 (250.00 mm) Detector IC 021012IC9.025dat-Conductivity

5 Fluoride, CAS: 16984-48-8

Signal: 1

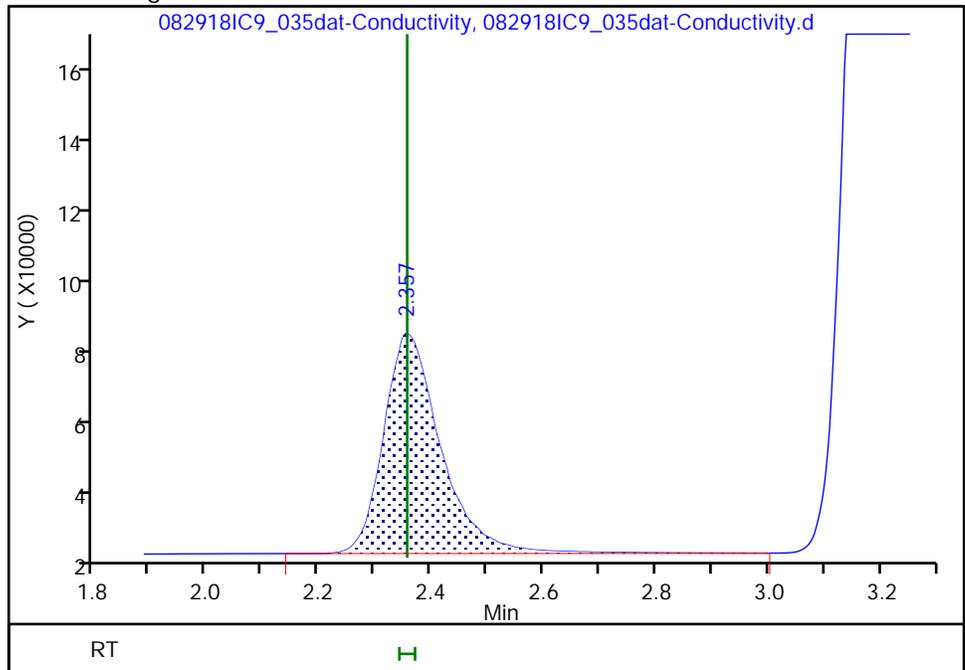
RT: 2.36
Area: 413156
Amount: 0.942507
Amount Units: ug/ml

Processing Integration Results



RT: 2.36
Area: 415305
Amount: 0.947248
Amount Units: ug/ml

Manual Integration Results



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 490-541193/3-A
 Matrix: Solid (Soluble) Lab File ID: 090718IC9_106dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 09/08/2018 04:44
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 541365 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	100.6		9.99	6.99
16984-48-8	Fluoride	9.411		0.999	0.799
14808-79-8	Sulfate	97.87		9.99	5.99

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_106dat-Conductivity.d
 Lims ID: LCSD 490-541193/3-A
 Client ID:
 Sample Type: LCSD
 Inject. Date: 08-Sep-2018 04:44:00 ALS Bottle#: 0 Worklist Smp#: 31
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: xx
 Misc. Info.: xx
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:47:06 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

First Level Reviewer: statenj Date: 10-Sep-2018 07:41:11

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.353	2.363	-0.010	412975	1.00	0.9421	
2 Chloride	3.200	3.196	0.004	2749711	10.0	10.1	
8 Nitrite as NO2	3.710	3.703	0.007	556427	NC	NC	
7 Nitrite as N	3.710	3.703	0.007	556427	NC	NC	
1 Bromide	4.490	4.470	0.020	1119188	10.0	9.62	
9 Nitrate as NO3	5.096	5.056	0.040	573441	NC	NC	
3 Nitrate as N	5.096	5.056	0.040	573441	NC	NC	
4 Sulfate	7.563	7.590	-0.027	1939394	10.0	9.80	
6 Sulfate as Sulfur	7.563	7.590	-0.027	1939394	3.33	3.27	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_106dat-Conductivity.d

Injection Date: 08-Sep-2018 04:44:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: LCSD 490-541193/3-A

Worklist Smp#: 31

Client ID:

Injection Vol: 1.0 ul

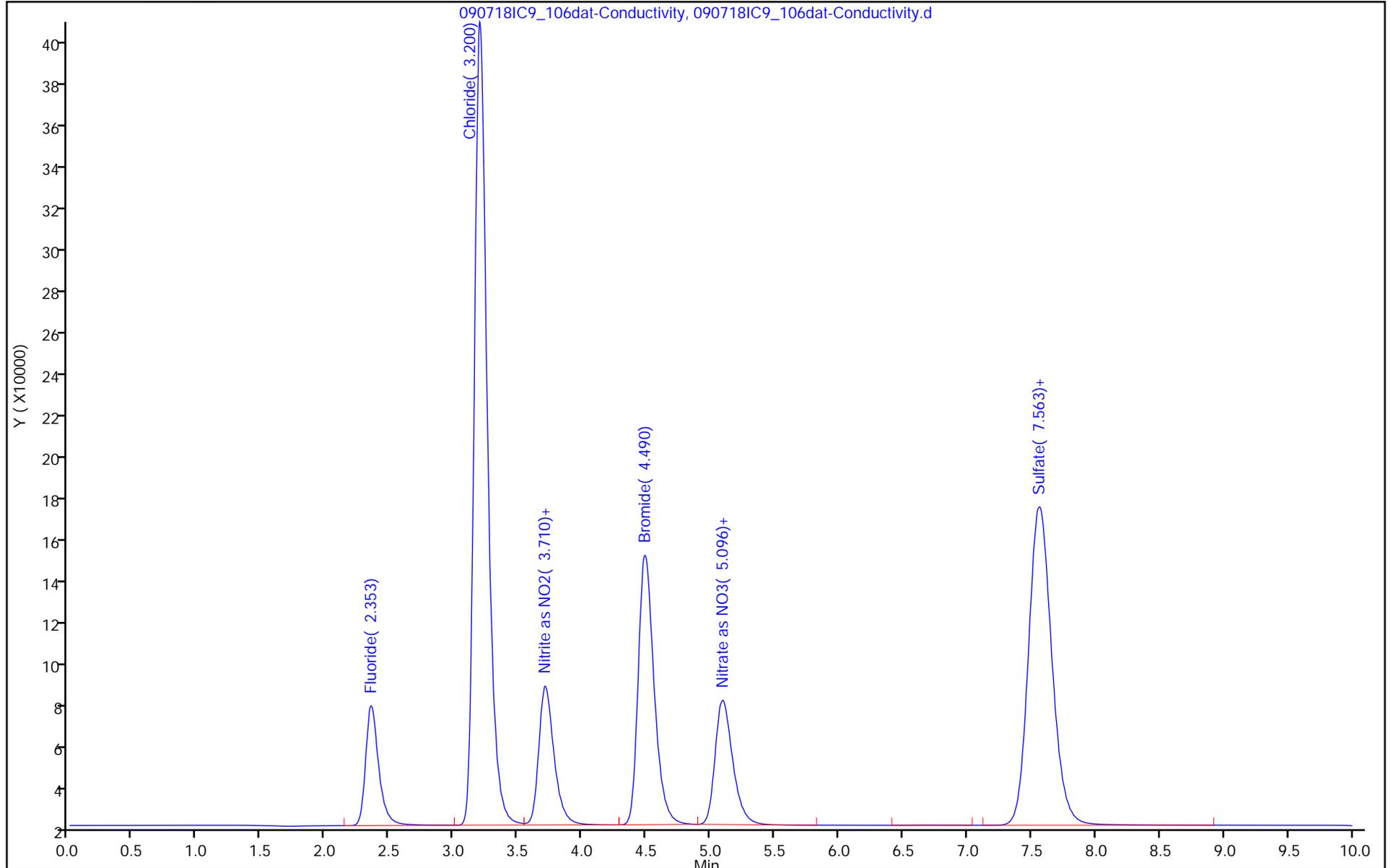
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MRL 490-541365/1
 Matrix: Solid Lab File ID: 090718IC9_006dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 09/07/2018 09:25
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 541365 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.9979	J	1.00	0.200
16984-48-8	Fluoride	0.1141		0.100	0.0100
14808-79-8	Sulfate	1.153		1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_006dat-Conductivity.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 07-Sep-2018 09:25:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_006
 Misc. Info.: 090718IC9_006
 Operator ID: Staten, Joe (TA\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:45:03 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.363	-0.006	37666	0.1001	0.1141	
2 Chloride	3.216	3.196	0.020	226649	1.00	1.00	
8 Nitrite as NO2	3.750	3.703	0.047	37841	NC	NC	
7 Nitrite as N	3.750	3.703	0.047	37841	NC	NC	
1 Bromide	4.576	4.470	0.106	81523	1.00	1.09	
9 Nitrate as NO3	5.216	5.056	0.160	43686	NC	NC	
3 Nitrate as N	5.216	5.056	0.160	43686	NC	NC	
4 Sulfate	7.483	7.590	-0.107	149639	1.00	1.15	
6 Sulfate as Sulfur	7.483	7.590	-0.107	149639	0.3333	0.3842	
S 10 Nitrate Nitrite as N		0.000			0.2001	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC Secondary_00013

Amount Added: 50.00

Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_006dat-Conductivity.d

Injection Date: 07-Sep-2018 09:25:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: MRL

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 ul

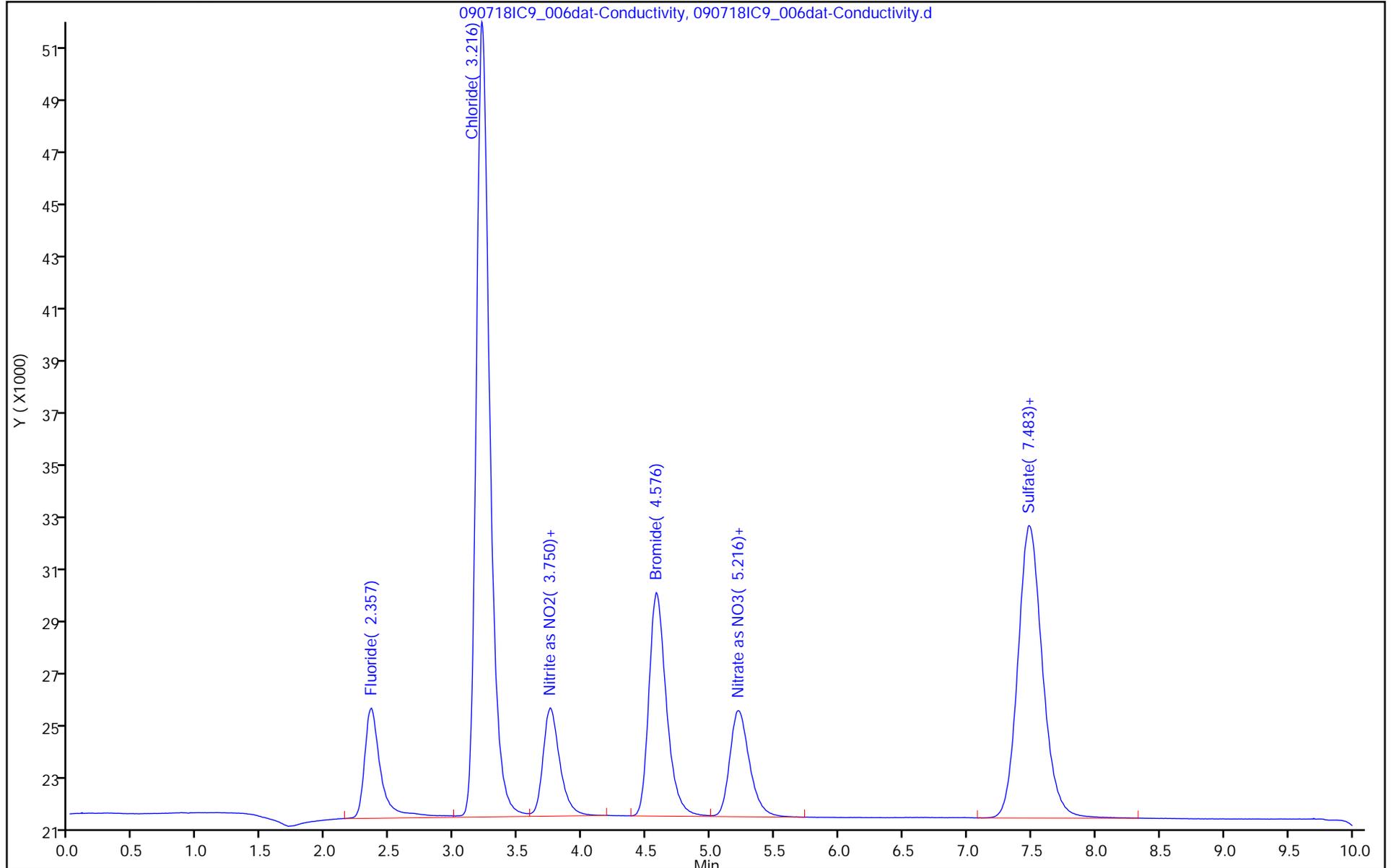
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MRL 490-541365/33
 Matrix: Solid Lab File ID: 090718IC9_108dat-Conductivity.
 Analysis Method: 9056A Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 10 (mL) Date Analyzed: 09/08/2018 05:07
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Metrohm ASupp4 ID: 4 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 541365 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	1.018		1.00	0.200
16984-48-8	Fluoride	0.1137		0.100	0.0100
14808-79-8	Sulfate	1.143		1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_108dat-Conductivity.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 08-Sep-2018 05:07:00 ALS Bottle#: 0 Worklist Smp#: 33
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 090718IC9_108
 Misc. Info.: 090718IC9_108
 Operator ID: Staten, Joe (TA)\St Instrument ID: IC9
 Method: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\300_0624_9056IC9.m
 Limit Group: IC 9056_300_SM4110B_28 Day ICAL
 Last Update: 10-Sep-2018 07:47:06 Calib Date: 20-Aug-2018 11:16:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
 Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
 Process Host: XAWRK014

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.363	2.363	0.000	37467	0.1001	0.1137	
2 Chloride	3.210	3.196	0.014	232385	1.00	1.02	
8 Nitrite as NO2	3.730	3.703	0.027	41544	NC	NC	
7 Nitrite as N	3.730	3.703	0.027	41544	NC	NC	
1 Bromide	4.526	4.470	0.056	84861	1.00	1.12	
9 Nitrate as NO3	5.133	5.056	0.077	45298	NC	NC	
3 Nitrate as N	5.133	5.056	0.077	45298	NC	NC	
4 Sulfate	7.576	7.590	-0.014	147722	1.00	1.14	
6 Sulfate as Sulfur	7.576	7.590	-0.014	147722	0.3333	0.3811	
S 10 Nitrate Nitrite as N		0.000			0.2001	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

IC Secondary_00013

Amount Added: 50.00

Units: uL

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180907-111688.b\090718IC9_108dat-Conductivity.d

Injection Date: 08-Sep-2018 05:07:00

Instrument ID: IC9

Operator ID: Staten, Joe (TA\St

Lims ID: MRL

Worklist Smp#: 33

Client ID:

Injection Vol: 1.0 ul

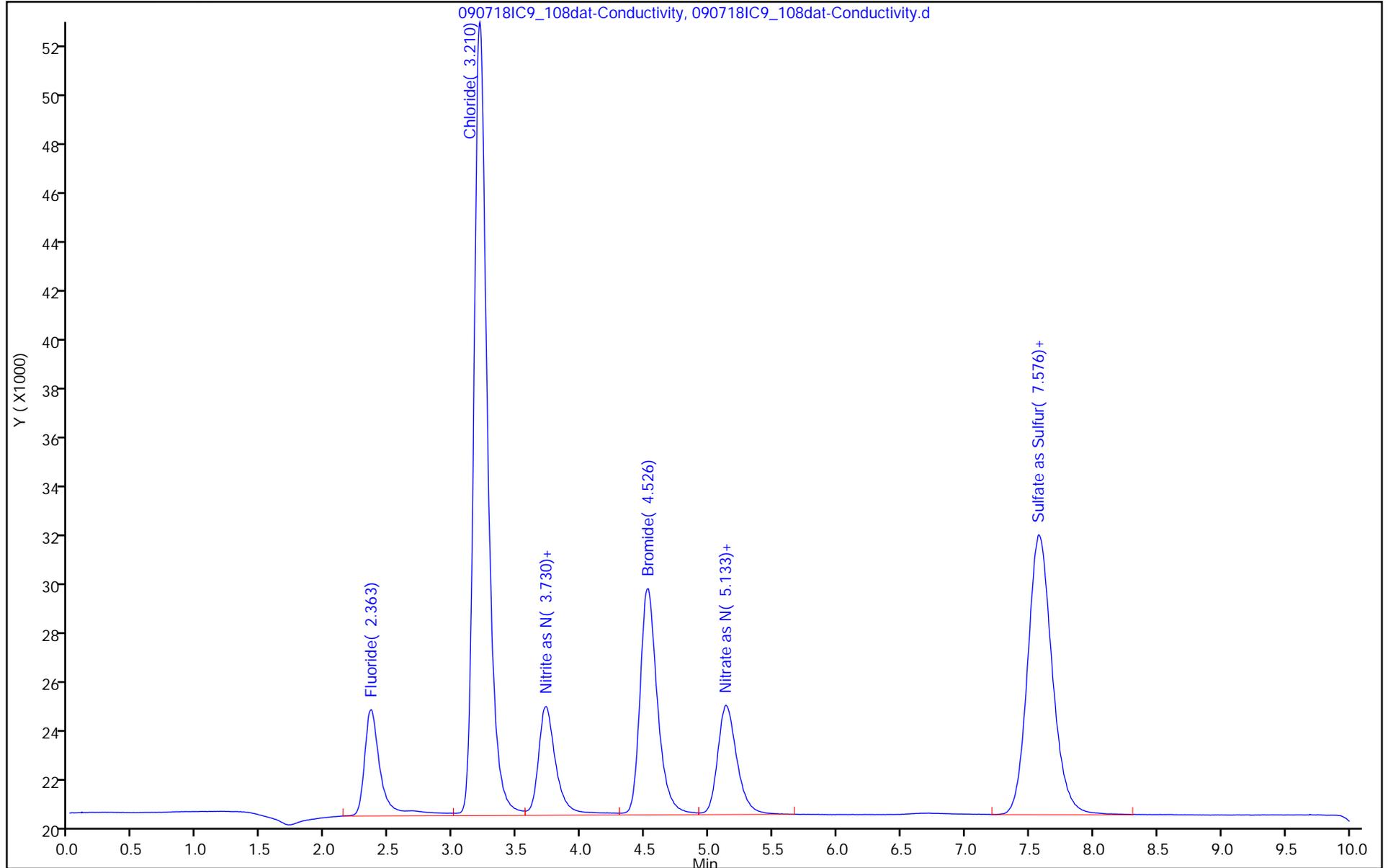
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300_0624_9056IC9

Limit Group: IC 9056_300_SM4110B_28 Day ICAL

Column: MetrosepASupp4 (250.00 mm)



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: IC9 Start Date: 08/20/2018 09:44

Analysis Batch Number: 537313 End Date: 08/20/2018 11:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 490-537313/1 IC		08/20/2018 09:44	1	082018IC9_010dat-Conductivity.d	Metrohm ASupp4 4 (mm)
STD2 490-537313/2 IC		08/20/2018 09:55	1	082018IC9_011dat-Conductivity.d	Metrohm ASupp4 4 (mm)
STD3 490-537313/3 IC		08/20/2018 10:07	1	082018IC9_012dat-Conductivity.d	Metrohm ASupp4 4 (mm)
STD4 490-537313/4 IC		08/20/2018 10:18	1	082018IC9_013dat-Conductivity.d	Metrohm ASupp4 4 (mm)
STD5 490-537313/5 IC		08/20/2018 10:30	1	082018IC9_014dat-Conductivity.d	Metrohm ASupp4 4 (mm)
ICRT 490-537313/6		08/20/2018 10:42	1	082018IC9_015dat-Conductivity.d	Metrohm ASupp4 4 (mm)
STD7 490-537313/7 IC		08/20/2018 10:53	1	082018IC9_016dat-Conductivity.d	Metrohm ASupp4 4 (mm)
STD8 490-537313/8 IC		08/20/2018 11:05	1	082018IC9_017dat-Conductivity.d	Metrohm ASupp4 4 (mm)
STD9 490-537313/9 IC		08/20/2018 11:16	1	082018IC9_018dat-Conductivity.d	Metrohm ASupp4 4 (mm)
ICV 490-537313/10		08/20/2018 11:28	1	082018IC9_019dat-Conductivity.d	Metrohm ASupp4 4 (mm)
ICB 490-537313/11		08/20/2018 11:40	1		Metrohm ASupp4 4 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: IC9 Start Date: 08/29/2018 15:53

Analysis Batch Number: 539643 End Date: 08/29/2018 18:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 490-539643/1		08/29/2018 15:53	1	082918IC9_031dat-Conductivity.d	Metrohm ASupp4 4 (mm)
CCB 490-539643/2		08/29/2018 16:05	1	082918IC9_032dat-Conductivity.d	Metrohm ASupp4 4 (mm)
MB 490-539643/3		08/29/2018 16:17	1	082918IC9_033dat-Conductivity.d	Metrohm ASupp4 4 (mm)
LCS 490-539643/4		08/29/2018 16:28	1	082918IC9_034dat-Conductivity.d	Metrohm ASupp4 4 (mm)
LCSD 490-539643/5		08/29/2018 16:40	1	082918IC9_035dat-Conductivity.d	Metrohm ASupp4 4 (mm)
ZZZZZ		08/29/2018 16:51	1		Metrohm ASupp4 4 (mm)
ZZZZZ		08/29/2018 17:03	1		Metrohm ASupp4 4 (mm)
ZZZZZ		08/29/2018 17:14	1		Metrohm ASupp4 4 (mm)
ZZZZZ		08/29/2018 17:26	1		Metrohm ASupp4 4 (mm)
490-158232-1		08/29/2018 17:38	1	082918IC9_040dat-Conductivity.d	Metrohm ASupp4 4 (mm)
CCV 490-539643/11		08/29/2018 17:49	1	082918IC9_041dat-Conductivity.d	Metrohm ASupp4 4 (mm)
CCB 490-539643/12		08/29/2018 18:01	1	082918IC9_042dat-Conductivity.d	Metrohm ASupp4 4 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: IC9 Start Date: 09/07/2018 09:25

Analysis Batch Number: 541365 End Date: 09/08/2018 05:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
MRL 490-541365/1		09/07/2018 09:25	1	090718IC9_006dat-Conductivity.d	Metrohm ASupp4 4 (mm)
CCVRT 490-541365/2		09/07/2018 23:08	1	090718IC9_077dat-Conductivity.d	Metrohm ASupp4 4 (mm)
CCB 490-541365/3		09/07/2018 23:19	1	090718IC9_078dat-Conductivity.d	Metrohm ASupp4 4 (mm)
MB 490-541193/1-A		09/07/2018 23:31	1	090718IC9_079dat-Conductivity.d	Metrohm ASupp4 4 (mm)
LCS 490-541193/2-A		09/07/2018 23:43	1	090718IC9_080dat-Conductivity.d	Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 00:06	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 00:17	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 00:29	1		Metrohm ASupp4 4 (mm)
490-158232-2		09/08/2018 00:52	1	090718IC9_086dat-Conductivity.d	Metrohm ASupp4 4 (mm)
490-158232-3		09/08/2018 01:04	1	090718IC9_087dat-Conductivity.d	Metrohm ASupp4 4 (mm)
490-158232-4		09/08/2018 01:15	1	090718IC9_088dat-Conductivity.d	Metrohm ASupp4 4 (mm)
490-158232-5		09/08/2018 01:27	1	090718IC9_089dat-Conductivity.d	Metrohm ASupp4 4 (mm)
490-158232-6		09/08/2018 01:39	1	090718IC9_090dat-Conductivity.d	Metrohm ASupp4 4 (mm)
490-158232-7		09/08/2018 01:50	1	090718IC9_091dat-Conductivity.d	Metrohm ASupp4 4 (mm)
490-158232-8		09/08/2018 02:02	1	090718IC9_092dat-Conductivity.d	Metrohm ASupp4 4 (mm)
490-158232-9		09/08/2018 02:13	1	090718IC9_093dat-Conductivity.d	Metrohm ASupp4 4 (mm)
CCV 490-541365/19		09/08/2018 02:25	1	090718IC9_094dat-Conductivity.d	Metrohm ASupp4 4 (mm)
CCB 490-541365/20		09/08/2018 02:37	1	090718IC9_095dat-Conductivity.d	Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 02:48	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 03:00	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 03:11	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 03:23	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 03:35	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 03:46	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 03:58	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 04:09	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 04:21	1		Metrohm ASupp4 4 (mm)
ZZZZZ		09/08/2018 04:33	1		Metrohm ASupp4 4 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: IC9 Start Date: 09/07/2018 09:25

Analysis Batch Number: 541365 End Date: 09/08/2018 05:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
LCSD 490-541193/3-A		09/08/2018 04:44	1	090718IC9_106dat-Conductivity.d	Metrohm ASupp4 4 (mm)
CCB 490-541365/32		09/08/2018 04:56	1	090718IC9_107dat-Conductivity.d	Metrohm ASupp4 4 (mm)
MRL 490-541365/33		09/08/2018 05:07	1	090718IC9_108dat-Conductivity.d	Metrohm ASupp4 4 (mm)
CCV 490-541365/34		09/08/2018 05:19	1	090718IC9_109dat-Conductivity.d	Metrohm ASupp4 4 (mm)
CCB 490-541365/35		09/08/2018 05:31	1	090718IC9_110dat-Conductivity.d	Metrohm ASupp4 4 (mm)

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 539643 Batch Start Date: 08/29/18 15:53 Batch Analyst: Wang-un, Sunan

Batch Method: 9056A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CCV 100 00022	LCS 100 00028			
CCVRT 490-539643/1		9056A		10 mL	10 mL				
CCB 490-539643/2		9056A		10 mL					
MB 490-539643/3		9056A		10 mL					
LCS 490-539643/4		9056A		10 mL		10 mL			
LCS 490-539643/5		9056A		10 mL		10 mL			
490-158232-B-1	CUF-BS-FB06-2018 0828	9056A	T	10 mL					
CCV 490-539643/11		9056A		10 mL	10 mL				
CCB 490-539643/12		9056A		10 mL					

Batch Notes	
Eluent 1 ID	Eluent Instr_00025
Filter ID	IC Filters_00088
Regeneration Solution ID	IC Regenerant_00012

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 541193 Batch Start Date: 09/07/18 10:13 Batch Analyst: Staten, Joe

Batch Method: DI Leach Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC Secondary 00013			
MB 490-541193/1		DI Leach, 9056A		3.0128 g	30 mL				
LCS 490-541193/2		DI Leach, 9056A		3.0066 g	30 mL	0.3 mL			
LCS 490-541193/3		DI Leach, 9056A		3.0032 g	30 mL	0.3 mL			
490-158232-A-2	CUF-BS-BG13-0.0/ 0.5-20180828	DI Leach, 9056A	S	3.0048 g	30 mL				
490-158232-A-3	CUF-BS-BG13-0.75 /2.75-20180828	DI Leach, 9056A	S	2.9634 g	30 mL				
490-158232-A-4	CUF-BS-BG13-6.5/ 8.5-20180828	DI Leach, 9056A	S	3.0243 g	30 mL				
490-158232-A-5	CUF-BS-FD02-2018 0828	DI Leach, 9056A	S	2.9907 g	30 mL				
490-158232-A-6	CUF-BS-BG14-0.0/ 0.5-20180828	DI Leach, 9056A	S	2.9705 g	30 mL				
490-158232-A-7	CUF-BS-BG14-1.0/ 3.0-20180828	DI Leach, 9056A	S	2.9639 g	30 mL				
490-158232-A-8	CUF-BS-BG14-6.5/ 8.5-20180828	DI Leach, 9056A	S	2.9743 g	30 mL				
490-158232-A-9	CUF-BS-BG14-10.3 /12.3-20180828	DI Leach, 9056A	S	2.9568 g	30 mL				

Batch Notes	
Balance ID	MS204S-B207693115
Blank Matrix ID	3918417
Filter ID	IC Filters_00088
Tumble End Time	09/07/2018 12:15
Tumble Start Time	09/07/2018 12:05

Basis	Basis Description
S	Soluble

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 541365 Batch Start Date: 09/07/18 09:25 Batch Analyst: Staten, Joe

Batch Method: 9056A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CCV 100 00022	IC Secondary 00013			
MRL 490-541365/1		9056A		10 mL		50 uL			
CCVRT 490-541365/2		9056A		10 mL	10 mL				
CCB 490-541365/3		9056A		10 mL					
MB 490-541193/1-A		9056A		10 mL					
LCS 490-541193/2-A		9056A		10 mL					
490-158232-A-2-B	CUF-BS-BG13-0.0/ 0.5-20180828	9056A	S	10 mL					
490-158232-A-3-B	CUF-BS-BG13-0.75 /2.75-20180828	9056A	S	10 mL					
490-158232-A-4-B	CUF-BS-BG13-6.5/ 8.5-20180828	9056A	S	10 mL					
490-158232-A-5-B	CUF-BS-FD02-2018 0828	9056A	S	10 mL					
490-158232-A-6-B	CUF-BS-BG14-0.0/ 0.5-20180828	9056A	S	10 mL					
490-158232-A-7-B	CUF-BS-BG14-1.0/ 3.0-20180828	9056A	S	10 mL					
490-158232-A-8-B	CUF-BS-BG14-6.5/ 8.5-20180828	9056A	S	10 mL					
490-158232-A-9-B	CUF-BS-BG14-10.3 /12.3-20180828	9056A	S	10 mL					
CCV 490-541365/19		9056A		10 mL	10 mL				
CCB 490-541365/20		9056A		10 mL					
LCS 490-541193/3-A		9056A		10 mL					
CCB 490-541365/32		9056A		10 mL					
MRL 490-541365/33		9056A		10 mL		50 uL			
CCV 490-541365/34		9056A		10 mL	10 mL				
CCB 490-541365/35		9056A		10 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 541365 Batch Start Date: 09/07/18 09:25 Batch Analyst: Staten, Joe

Batch Method: 9056A Batch End Date: _____

Batch Notes	
Eluent 1 ID	Eluent Instr_00025
Filter ID	IC Filters_00088
Regeneration Solution ID	IC Regenerant_00012

Basis	Basis Description
S	Soluble

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Nashville

Job Number: 490-158232-1

SDG No.: _____

Project: CUF_BS_20180828_1A

Client Sample ID	Lab Sample ID
<u>CUF-BS-FB06-20180828</u>	<u>490-158232-1</u>
<u>CUF-BS-BG13-0.0/0.5-20180828</u>	<u>490-158232-2</u>
<u>CUF-BS-BG13-0.75/2.75-20180828</u>	<u>490-158232-3</u>
<u>CUF-BS-BG13-6.5/8.5-20180828</u>	<u>490-158232-4</u>
<u>CUF-BS-FD02-20180828</u>	<u>490-158232-5</u>
<u>CUF-BS-BG14-0.0/0.5-20180828</u>	<u>490-158232-6</u>
<u>CUF-BS-BG14-1.0/3.0-20180828</u>	<u>490-158232-7</u>
<u>CUF-BS-BG14-6.5/8.5-20180828</u>	<u>490-158232-8</u>
<u>CUF-BS-BG14-10.3/12.3-20180828</u>	<u>490-158232-9</u>

Comments:

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: CUF-BS-FB06-20180828

Lab Sample ID: 490-158232-1

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Water

Date Sampled: 08/28/2018 09:15

Reporting Basis: WET

Date Received: 08/28/2018 20:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	ND	0.000200	0.000100	mg/L			1	7470A

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: CUF-BS-BG13-0.0/0.5-20180828

Lab Sample ID: 490-158232-2

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 12:21

Reporting Basis: DRY

Date Received: 08/28/2018 20:12

% Solids: 81.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0526	0.122	0.0366	mg/Kg	J		1	7471B

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: CUF-BS-BG13-0.75/2.75-20180828

Lab Sample ID: 490-158232-3

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 12:45

Reporting Basis: DRY

Date Received: 08/28/2018 20:12

% Solids: 74.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0502	0.133	0.0400	mg/Kg	J		1	7471B

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: CUF-BS-BG13-6.5/8.5-20180828

Lab Sample ID: 490-158232-4

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 13:05

Reporting Basis: DRY

Date Received: 08/28/2018 20:12

% Solids: 77.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	ND	0.130	0.0391	mg/Kg			1	7471B

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: CUF-BS-FD02-20180828

Lab Sample ID: 490-158232-5

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 00:01

Reporting Basis: DRY

Date Received: 08/28/2018 20:12

% Solids: 80.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0481	0.123	0.0369	mg/Kg	J		1	7471B

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: CUF-BS-BG14-0.0/0.5-20180828

Lab Sample ID: 490-158232-6

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 15:10

Reporting Basis: DRY

Date Received: 08/28/2018 20:12

% Solids: 82.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0425	0.119	0.0356	mg/Kg	J		1	7471B

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: CUF-BS-BG14-1.0/3.0-20180828

Lab Sample ID: 490-158232-7

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 15:37

Reporting Basis: DRY

Date Received: 08/28/2018 20:12

% Solids: 78.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0716	0.123	0.0369	mg/Kg	J		1	7471B

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: CUF-BS-BG14-6.5/8.5-20180828

Lab Sample ID: 490-158232-8

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 15:51

Reporting Basis: DRY

Date Received: 08/28/2018 20:12

% Solids: 83.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0521	0.117	0.0352	mg/Kg	J		1	7471B

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: CUF-BS-BG14-10.3/12.3-20180828

Lab Sample ID: 490-158232-9

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 16:05

Reporting Basis: DRY

Date Received: 08/28/2018 20:12

% Solids: 82.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0597	0.121	0.0364	mg/Kg	J		1	7471B

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICV Source: MET_CALSTD_00332 Concentration Units: ug/L

CCV Source: MET_CALSTD_00335

Analyte	ICV 490-540746/9 09/04/2018 16:03				CCV 490-540746/12 09/04/2018 16:18				CCV 490-540746/24 09/04/2018 16:49			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.315		2.50	93	2.027		2.00	101	1.996		2.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICV Source: MET_CALSTD_00332 Concentration Units: ug/L

CCV Source: MET_CALSTD_00335

Analyte	CCV 490-540746/36 09/04/2018 17:20											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.078		2.00	104								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICV Source: MET_CALSTD_00336 Concentration Units: ug/L

CCV Source: MET_CALSTD_00339

Analyte	ICV 490-541520/8 09/08/2018 14:48				CCV 490-541520/11 09/08/2018 14:57				CCV 490-541520/23 09/08/2018 15:29			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.574		2.50	103	1.986		2.00	99	1.985		2.00	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICV Source: MET_CALSTD_00336 Concentration Units: ug/L

CCV Source: MET_CALSTD_00339

Analyte	CCV 490-541520/35 09/08/2018 16:02											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	1.993		2.00	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Method: 7470A Instrument ID: LE4
 Lab Sample ID: CRA 490-540746/11 Concentration Units: ug/L
 CRQL Check Standard Source: MET_CALSTD_00334

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.2156		108	70-130

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

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Method: 7471B Instrument ID: LE5
 Lab Sample ID: CRA 490-541520/10 Concentration Units: ug/L
 CRQL Check Standard Source: MET_CALSTD_00337

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.400	0.3957		99	70-130

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

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 490-540746/10 09/04/2018 16:13		CCB 490-540746/13 09/04/2018 16:21		CCB 490-540746/25 09/04/2018 16:52		CCB 490-540746/37 09/04/2018 17:23	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.200	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 490-541520/9 09/08/2018 14:51		CCB 490-541520/12 09/08/2018 14:59		CCB 490-541520/24 09/08/2018 15:32		CCB 490-541520/36 09/08/2018 16:05	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.200	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
SDG No.: _____
Concentration Units: mg/L Lab Sample ID: MB 490-540423/1-A
Instrument Code: LE4 Batch No.: 540746

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
SDG No.: _____
Concentration Units: mg/Kg Lab Sample ID: MB 490-541313/1-A
Instrument Code: LE5 Batch No.: 541520

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471B

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Lab Sample ID: ICSA 490-541341/18 Instrument ID: ICPMS3
 Lab File ID: 018ICSA.d ICS Source: MET_ICSA_00093
 Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		0.0001	
Barium		0.0001	
Beryllium		0.0000	
Boron		0.0035	
Cadmium		0.0002	
Lead		0.0001	
Molybdenum	2.00	2.01	101
Silver		0.0006	
Thallium		0.0000	
Zinc		0.0017	
<i>Aluminum</i>	<i>100</i>	<i>97.6</i>	<i>98</i>
<i>Arsenic</i>		<i>0.0001</i>	
<i>Chromium</i>		<i>0.0003</i>	
<i>Cobalt</i>		<i>0.0000</i>	
<i>Copper</i>		<i>0.0000</i>	
<i>Iron</i>	<i>100</i>	<i>91.6</i>	<i>92</i>
<i>Li</i>		<i>0.0009</i>	
<i>Magnesium</i>	<i>100</i>	<i>96.8</i>	<i>97</i>
<i>Manganese</i>		<i>0.0004</i>	
<i>Nickel</i>		<i>0.0003</i>	
<i>Potassium</i>	<i>100</i>	<i>96.4</i>	<i>96</i>
<i>Selenium</i>		<i>0.0001</i>	
<i>Sodium</i>	<i>100</i>	<i>95.8</i>	<i>96</i>
<i>Strontium</i>		<i>0.0009</i>	
<i>Tin</i>		<i>0.0001</i>	
<i>Titanium</i>	<i>2.00</i>	<i>1.97</i>	<i>98</i>
<i>Vanadium</i>		<i>0.0001</i>	

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

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Lab Sample ID: ICSAB 490-541341/19

Instrument ID: ICPMS3

Lab File ID: 019ICSB.d

ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
Antimony	0.0200	0.0214	107
Barium	0.0200	0.0206	103
Beryllium	0.0200	0.0195	98
Boron		0.0003	
Cadmium	0.0200	0.0206	103
Lead	0.0200	0.0199	100
Molybdenum	2.00	2.05	102
Silver	0.0200	0.0191	95
Thallium	0.0200	0.0197	98
Zinc	0.0200	0.0237	118
<i>Aluminum</i>	<i>100</i>	<i>99.3</i>	<i>99</i>
<i>Arsenic</i>	<i>0.0200</i>	<i>0.0209</i>	<i>105</i>
<i>Chromium</i>	<i>0.0200</i>	<i>0.0202</i>	<i>101</i>
<i>Cobalt</i>	<i>0.0200</i>	<i>0.0200</i>	<i>100</i>
<i>Copper</i>	<i>0.0200</i>	<i>0.0190</i>	<i>95</i>
<i>Iron</i>	<i>100</i>	<i>92.3</i>	<i>92</i>
<i>Li</i>		<i>0.0011</i>	
<i>Magnesium</i>	<i>100</i>	<i>98.0</i>	<i>98</i>
<i>Manganese</i>	<i>0.0200</i>	<i>0.0210</i>	<i>105</i>
<i>Nickel</i>	<i>0.0200</i>	<i>0.0202</i>	<i>101</i>
<i>Potassium</i>	<i>100</i>	<i>97.2</i>	<i>97</i>
<i>Selenium</i>	<i>0.0200</i>	<i>0.0200</i>	<i>100</i>
<i>Sodium</i>	<i>100</i>	<i>95.9</i>	<i>96</i>
<i>Strontium</i>		<i>0.0010</i>	
<i>Tin</i>	<i>0.0200</i>	<i>0.0208</i>	<i>104</i>
<i>Titanium</i>	<i>2.00</i>	<i>2.03</i>	<i>102</i>
<i>Vanadium</i>	<i>0.0200</i>	<i>0.0205</i>	<i>102</i>

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

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Lab Sample ID: ICSA 490-542160/18

Instrument ID: ICPMS3

Lab File ID: 037ICSA.d

ICS Source: MET_ICSA_00093

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		0.0002	
Arsenic		0.0001	
Barium		0.0001	
Beryllium		0.0001	
Cadmium		0.0002	
Calcium	100	100.0	100
Cobalt		0.0000	
Lead		0.0001	
Lithium		0.0003	
Molybdenum	2.00	1.90	95
Selenium		0.0001	
Silver		0.0001	
Thallium		0.0000	
Vanadium		0.0001	
Zinc		0.0011	
<i>Aluminum</i>	<i>100</i>	<i>99.1</i>	<i>99</i>
<i>B</i>		<i>0.0072</i>	
<i>Chromium</i>		<i>0.0003</i>	
<i>Copper</i>		<i>-0.0014</i>	
<i>Iron</i>	<i>100</i>	<i>91.3</i>	<i>91</i>
<i>Magnesium</i>	<i>100</i>	<i>100</i>	<i>100</i>
<i>Manganese</i>		<i>0.0012</i>	
<i>Nickel</i>		<i>0.0004</i>	
<i>Potassium</i>	<i>100</i>	<i>95.9</i>	<i>96</i>
<i>Sodium</i>	<i>100</i>	<i>95.3</i>	<i>95</i>
<i>Strontium</i>		<i>0.0012</i>	
<i>Tin</i>		<i>0.0001</i>	
<i>Titanium</i>	<i>2.00</i>	<i>1.92</i>	<i>96</i>

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

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Lab Sample ID: ICSAB 490-542160/19

Instrument ID: ICPMS3

Lab File ID: 038ICSB.d

ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
Antimony	0.0200	0.0211	105
Arsenic	0.0200	0.0199	100
Barium	0.0200	0.0194	97
Beryllium	0.0200	0.0205	103
Cadmium	0.0200	0.0199	99
Calcium	100	98.9	99
Cobalt	0.0200	0.0199	99
Lead	0.0200	0.0194	97
Lithium		0.0005	
Molybdenum	2.00	1.90	95
Selenium	0.0200	0.0195	98
Silver	0.0200	0.0199	99
Thallium	0.0200	0.0194	97
Vanadium	0.0200	0.0198	99
Zinc	0.0200	0.0206	103
<i>Aluminum</i>	<i>100</i>	<i>99.9</i>	<i>100</i>
<i>B</i>		<i>0.0057</i>	
<i>Chromium</i>	<i>0.0200</i>	<i>0.0201</i>	<i>100</i>
<i>Copper</i>	<i>0.0200</i>	<i>0.0178</i>	<i>89</i>
<i>Iron</i>	<i>100</i>	<i>91.5</i>	<i>92</i>
<i>Magnesium</i>	<i>100</i>	<i>100</i>	<i>100</i>
<i>Manganese</i>	<i>0.0200</i>	<i>0.0211</i>	<i>105</i>
<i>Nickel</i>	<i>0.0200</i>	<i>0.0197</i>	<i>98</i>
<i>Potassium</i>	<i>100</i>	<i>96.5</i>	<i>97</i>
<i>Sodium</i>	<i>100</i>	<i>92.6</i>	<i>93</i>
<i>Strontium</i>		<i>0.0014</i>	
<i>Tin</i>	<i>0.0200</i>	<i>0.0202</i>	<i>101</i>
<i>Titanium</i>	<i>2.00</i>	<i>1.87</i>	<i>94</i>

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

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Lab Sample ID: ICSA 490-542679/64

Instrument ID: ICPMS3

Lab File ID: 064ICSA.d

ICS Source: MET_ICSA_00093

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		0.0001	
Cadmium		0.0002	
Molybdenum	2.00	2.09	104
Silver		0.0000	
Thallium		0.0001	
<i>Aluminum</i>	<i>100</i>	<i>104</i>	<i>104</i>
<i>Arsenic</i>		<i>0.0001</i>	
<i>B</i>		<i>0.0114</i>	
<i>Barium</i>		<i>0.0001</i>	
<i>Beryllium</i>		<i>0.0001</i>	
<i>Calcium</i>	<i>100</i>	<i>97.7</i>	<i>98</i>
<i>Chromium</i>		<i>0.0003</i>	
<i>Cobalt</i>		<i>0.0000</i>	
<i>Copper</i>		<i>-0.0005</i>	
<i>Iron</i>	<i>100</i>	<i>90.7</i>	<i>91</i>
<i>Lead</i>		<i>0.0001</i>	
<i>Li</i>		<i>0.0014</i>	
<i>Magnesium</i>	<i>100</i>	<i>102</i>	<i>102</i>
<i>Manganese</i>		<i>0.0006</i>	
<i>Nickel</i>		<i>0.0008</i>	
<i>Potassium</i>	<i>100</i>	<i>97.1</i>	<i>97</i>
<i>Selenium</i>		<i>0.0001</i>	
<i>Sodium</i>	<i>100</i>	<i>96.2</i>	<i>96</i>
<i>Strontium</i>		<i>0.0010</i>	
<i>Tin</i>		<i>0.0001</i>	
<i>Titanium</i>	<i>2.00</i>	<i>2.06</i>	<i>103</i>
<i>Vanadium</i>		<i>0.0000</i>	
<i>Zinc</i>		<i>0.0015</i>	

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

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Lab Sample ID: ICSAB 490-542679/65

Instrument ID: ICPMS3

Lab File ID: 065ICSB.d

ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
Antimony	0.0200	0.0222	111
Cadmium	0.0200	0.0208	104
Molybdenum	2.00	2.08	104
Silver	0.0200	0.0207	103
Thallium	0.0200	0.0199	100
<i>Aluminum</i>	<i>100</i>	<i>104</i>	<i>104</i>
<i>Arsenic</i>	<i>0.0200</i>	<i>0.0215</i>	<i>107</i>
<i>B</i>		<i>0.0101</i>	
<i>Barium</i>	<i>0.0200</i>	<i>0.0211</i>	<i>105</i>
<i>Beryllium</i>	<i>0.0200</i>	<i>0.0192</i>	<i>96</i>
<i>Calcium</i>	<i>100</i>	<i>99.5</i>	<i>100</i>
<i>Chromium</i>	<i>0.0200</i>	<i>0.0207</i>	<i>103</i>
<i>Cobalt</i>	<i>0.0200</i>	<i>0.0206</i>	<i>103</i>
<i>Copper</i>	<i>0.0200</i>	<i>0.0200</i>	<i>100</i>
<i>Iron</i>	<i>100</i>	<i>92.2</i>	<i>92</i>
<i>Lead</i>	<i>0.0200</i>	<i>0.0204</i>	<i>102</i>
<i>Li</i>		<i>0.0043</i>	
<i>Magnesium</i>	<i>100</i>	<i>102</i>	<i>102</i>
<i>Manganese</i>	<i>0.0200</i>	<i>0.0235</i>	<i>117</i>
<i>Nickel</i>	<i>0.0200</i>	<i>0.0209</i>	<i>105</i>
<i>Potassium</i>	<i>100</i>	<i>97.8</i>	<i>98</i>
<i>Selenium</i>	<i>0.0200</i>	<i>0.0196</i>	<i>98</i>
<i>Sodium</i>	<i>100</i>	<i>96.6</i>	<i>97</i>
<i>Strontium</i>		<i>0.0009</i>	
<i>Tin</i>	<i>0.0200</i>	<i>0.0214</i>	<i>107</i>
<i>Titanium</i>	<i>2.00</i>	<i>2.08</i>	<i>104</i>
<i>Vanadium</i>	<i>0.0200</i>	<i>0.0211</i>	<i>106</i>

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

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Lab Sample ID: ICSA 490-542742/23

Instrument ID: ICPMS3

Lab File ID: 024ICSA.d

ICS Source: MET_ICSA_00093

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Boron		0.0077	
Chromium		0.0002	
Copper		0.0000	
Nickel		0.0008	
<i>Aluminum</i>	<i>100</i>	<i>92.8</i>	<i>93</i>
<i>Antimony</i>		<i>0.0001</i>	
<i>Arsenic</i>		<i>0.0001</i>	
<i>Barium</i>		<i>0.0000</i>	
<i>Beryllium</i>		<i>0.0000</i>	
<i>Cadmium</i>		<i>0.0002</i>	
<i>Calcium</i>	<i>100</i>	<i>105</i>	<i>105</i>
<i>Cobalt</i>		<i>0.0000</i>	
<i>Iron</i>	<i>100</i>	<i>90.5</i>	<i>91</i>
<i>Lead</i>		<i>0.0001</i>	
<i>Li</i>		<i>0.0002</i>	
<i>Magnesium</i>	<i>100</i>	<i>94.4</i>	<i>94</i>
<i>Manganese</i>		<i>0.0004</i>	
<i>Molybdenum</i>	<i>2.00</i>	<i>2.02</i>	<i>101</i>
<i>Potassium</i>	<i>100</i>	<i>90.8</i>	<i>91</i>
<i>Selenium</i>		<i>0.0001</i>	
<i>Silver</i>		<i>0.0000</i>	
<i>Sodium</i>	<i>100</i>	<i>92.8</i>	<i>93</i>
<i>Strontium</i>		<i>0.0011</i>	
<i>Thallium</i>		<i>0.0001</i>	
<i>Tin</i>		<i>0.0001</i>	
<i>Titanium</i>	<i>2.00</i>	<i>1.86</i>	<i>93</i>
<i>Vanadium</i>		<i>0.0000</i>	
<i>Zinc</i>		<i>0.0011</i>	

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

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Lab Sample ID: ICSAB 490-542742/24

Instrument ID: ICPMS3

Lab File ID: 025ICSB.d

ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
Boron		0.0080	
Chromium	0.0200	0.0191	95
Copper	0.0200	0.0193	97
Nickel	0.0200	0.0193	96
<i>Aluminum</i>	<i>100</i>	<i>94.3</i>	<i>94</i>
<i>Antimony</i>	<i>0.0200</i>	<i>0.0212</i>	<i>106</i>
<i>Arsenic</i>	<i>0.0200</i>	<i>0.0205</i>	<i>103</i>
<i>Barium</i>	<i>0.0200</i>	<i>0.0198</i>	<i>99</i>
<i>Beryllium</i>	<i>0.0200</i>	<i>0.0212</i>	<i>106</i>
<i>Cadmium</i>	<i>0.0200</i>	<i>0.0200</i>	<i>100</i>
<i>Calcium</i>	<i>100</i>	<i>107</i>	<i>107</i>
<i>Cobalt</i>	<i>0.0200</i>	<i>0.0190</i>	<i>95</i>
<i>Iron</i>	<i>100</i>	<i>91.9</i>	<i>92</i>
<i>Lead</i>	<i>0.0200</i>	<i>0.0195</i>	<i>97</i>
<i>Li</i>		<i>0.0008</i>	
<i>Magnesium</i>	<i>100</i>	<i>93.8</i>	<i>94</i>
<i>Manganese</i>	<i>0.0200</i>	<i>0.0219</i>	<i>110</i>
<i>Molybdenum</i>	<i>2.00</i>	<i>2.02</i>	<i>101</i>
<i>Potassium</i>	<i>100</i>	<i>91.5</i>	<i>92</i>
<i>Selenium</i>	<i>0.0200</i>	<i>0.0194</i>	<i>97</i>
<i>Silver</i>	<i>0.0200</i>	<i>0.0201</i>	<i>101</i>
<i>Sodium</i>	<i>100</i>	<i>92.7</i>	<i>93</i>
<i>Strontium</i>		<i>0.0011</i>	
<i>Thallium</i>	<i>0.0200</i>	<i>0.0186</i>	<i>93</i>
<i>Tin</i>	<i>0.0200</i>	<i>0.0205</i>	<i>103</i>
<i>Titanium</i>	<i>2.00</i>	<i>1.90</i>	<i>95</i>
<i>Vanadium</i>	<i>0.0200</i>	<i>0.0191</i>	<i>95</i>

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

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Lab Sample ID: ICSAB 490-539952/17

Instrument ID: ICPMS4

Lab File ID: 017ICSB.d

ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
Arsenic	0.0200	0.0202	101
Calcium	100	99.6	100
Chromium	0.0200	0.0197	99
Cobalt	0.0200	0.0195	97
Copper	0.0200	0.0195	97
Lithium		0.0006	
Nickel	0.0200	0.0198	99
Vanadium	0.0200	0.0193	96
<i>Aluminum</i>	<i>100</i>	<i>94.6</i>	<i>95</i>
<i>Antimony</i>	<i>0.0200</i>	<i>0.0199</i>	<i>100</i>
<i>B</i>		<i>0.0076</i>	
<i>Barium</i>	<i>0.0200</i>	<i>0.0197</i>	<i>99</i>
<i>Beryllium</i>	<i>0.0200</i>	<i>0.0201</i>	<i>100</i>
<i>Cadmium</i>	<i>0.0200</i>	<i>0.0189</i>	<i>94</i>
<i>Iron</i>	<i>100</i>	<i>99.0</i>	<i>99</i>
<i>Lead</i>	<i>0.0200</i>	<i>0.0189</i>	<i>94</i>
<i>Magnesium</i>	<i>100</i>	<i>102</i>	<i>102</i>
<i>Manganese</i>	<i>0.0200</i>	<i>0.0202</i>	<i>101</i>
<i>Molybdenum</i>	<i>2.00</i>	<i>1.81</i>	<i>90</i>
<i>Potassium</i>	<i>100</i>	<i>99.0</i>	<i>99</i>
<i>Selenium</i>	<i>0.0200</i>	<i>0.0190</i>	<i>95</i>
<i>Silver</i>	<i>0.0200</i>	<i>0.0187</i>	<i>94</i>
<i>Sodium</i>	<i>100</i>	<i>99.5</i>	<i>100</i>
<i>Strontium</i>		<i>0.0009</i>	
<i>Thallium</i>	<i>0.0200</i>	<i>0.0187</i>	<i>94</i>
<i>Tin</i>	<i>0.0200</i>	<i>0.0198</i>	<i>99</i>
<i>Titanium</i>	<i>2.00</i>	<i>1.84</i>	<i>92</i>
<i>Zinc</i>	<i>0.0200</i>	<i>0.0177</i>	<i>89</i>

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

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Lab Sample ID: ICSAB 490-540949/18

Instrument ID: ICPMS4

Lab File ID: 017ICSB.d

ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
Arsenic	0.0200	0.0204	102
Chromium	0.0200	0.0194	97
Cobalt	0.0200	0.0194	97
Copper	0.0200	0.0198	99
Nickel	0.0200	0.0209	105
Selenium	0.0200	0.0204	102
Vanadium	0.0200	0.0202	101
<i>Aluminum</i>	<i>100</i>	<i>91.8</i>	<i>92</i>
<i>Antimony</i>	<i>0.0200</i>	<i>0.0216</i>	<i>108</i>
<i>B</i>		<i>0.0085</i>	
<i>Barium</i>	<i>0.0200</i>	<i>0.0198</i>	<i>99</i>
<i>Beryllium</i>	<i>0.0200</i>	<i>0.0193</i>	<i>96</i>
<i>Cadmium</i>	<i>0.0200</i>	<i>0.0207</i>	<i>104</i>
<i>Iron</i>	<i>100</i>	<i>96.8</i>	<i>97</i>
<i>Lead</i>	<i>0.0200</i>	<i>0.0198</i>	<i>99</i>
<i>Li</i>		<i>0.0009</i>	
<i>Magnesium</i>	<i>100</i>	<i>96.3</i>	<i>96</i>
<i>Manganese</i>	<i>0.0200</i>	<i>0.0217</i>	<i>109</i>
<i>Molybdenum</i>	<i>2.00</i>	<i>1.99</i>	<i>99</i>
<i>Potassium</i>	<i>100</i>	<i>93.3</i>	<i>93</i>
<i>Silver</i>	<i>0.0200</i>	<i>0.0203</i>	<i>102</i>
<i>Sodium</i>	<i>100</i>	<i>95.4</i>	<i>95</i>
<i>Strontium</i>		<i>0.0011</i>	
<i>Thallium</i>	<i>0.0200</i>	<i>0.0195</i>	<i>97</i>
<i>Tin</i>	<i>0.0200</i>	<i>0.0229</i>	<i>114</i>
<i>Titanium</i>	<i>2.00</i>	<i>1.92</i>	<i>96</i>

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

5A-IN
 MATRIX SPIKE SAMPLE RECOVERY
 METALS

Client ID: CUF-BS-BG13-0.0/0.5-20180828 MS

Lab ID: 490-158232-2 MS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Matrix: Solid

Concentration Units: mg/Kg

% Solids: 81.1

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	0.5763	ND	6.17	9	75-125	F1	6020A
Antimony	2.695	ND	6.17	44	75-125	F1	6020A
Arsenic	13.16	7.95	6.17	84	75-125		6020A
Barium	125.2	128	6.17	-47	75-125	4	6020A
Beryllium	5.733	1.38	6.17	71	75-125	F1	6020A
Boron	27.80	ND	61.7	45	75-125	F1	6020A
Cadmium	5.832	0.420 J	6.17	88	75-125		6020A
Calcium	3594	3140	617	74	75-125	4	6020A
Chromium	18.98	15.9	6.17	49	75-125	F1	6020A
Cobalt	22.58	17.8	6.17	77	75-125		6020A
Copper	16.22	11.5	6.17	77	75-125		6020A
Lead	34.43	30.6	6.17	62	75-125	4	6020A
Lithium	11.87	9.95	6.17	31	75-125	F1	6020A
Molybdenum	5.754	1.05	6.17	76	75-125		6020A
Nickel	35.79	33.2	6.17	42	75-125	4	6020A
Selenium	4.709	ND	6.17	76	75-125		6020A
Silver	1.210	ND	6.17	20	75-125	F1	6020A
Silver	5.614	ND	6.17	91	75-125		6020A
Thallium	1.169	0.0627 J	6.17	18	75-125	F1	6020A
Thallium	5.733	ND	6.17	93	75-125		6020A
Vanadium	30.73	25.2	6.17	90	75-125	4	6020A
Zinc	47.12	48.1	6.17	-17	75-125	4	6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Note - Results and Reporting Limits have been adjusted for dry weight.

5A-IN
 MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
 METALS

Client ID: CUF-BS-BG13-0.0/0.5-20180828 MSD

Lab ID: 490-158232-2 MSD

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Matrix: Solid

Concentration Units: mg/Kg

% Solids: 81.1

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	0.5677	6.04	9	75-125	2	20	F1	6020A
Antimony	2.872	6.04	48	75-125	6	20	F1	6020A
Arsenic	12.82	6.04	81	75-125	3	20		6020A
Barium	126.9	6.04	-20	75-125	1	20	4	6020A
Beryllium	5.835	6.04	74	75-125	2	20	F1	6020A
Boron	29.22	60.4	48	75-125	5	20	F1	6020A
Cadmium	5.884	6.04	90	75-125	1	20		6020A
Calcium	3590	604	75	75-125	0	20	4	6020A
Chromium	20.84	6.04	81	75-125	9	20		6020A
Cobalt	20.55	6.04	45	75-125	9	20	F1	6020A
Copper	16.72	6.04	87	75-125	3	20		6020A
Lead	34.79	6.04	70	75-125	1	20	4	6020A
Lithium	12.88	6.04	48	75-125	8	20	F1	6020A
Molybdenum	5.562	6.04	75	75-125	3	20		6020A
Nickel	34.90	6.04	29	75-125	3	20	4	6020A
Selenium	4.752	6.04	79	75-125	1	20		6020A
Silver	1.147	6.04	19	75-125	5	20	F1	6020A
Silver	5.518	6.04	91	75-125	2	20		6020A
Thallium	5.701	6.04	94	75-125	1	20		6020A
Thallium	1.151	6.04	18	75-125	2	20	F1	6020A
Vanadium	32.66	6.04	124	75-125	6	20	4	6020A
Zinc	50.70	6.04	42	75-125	7	20	4	6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Note - Results and Reporting Limits have been adjusted for dry weight.

5B-IN
 POST DIGESTION SPIKE SAMPLE RECOVERY
 METALS

Client ID: CUF-BS-BG13-0.0/0.5-20180828 PDS

Lab ID: 490-158232-2 PDS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Matrix: Solid

Concentration Units: mg/Kg

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	24.66	ND	29.6	83	80-120		6020A
Arsenic	32.61	7.95	29.6	83	80-120		6020A
Barium	283.7	128	29.6	525	80-120	W	6020A
Beryllium	19.90	1.38	29.6	62	80-120	W	6020A
Boron	ND	ND					6020A
Cadmium	26.77	0.420	J 29.6	89	80-120		6020A
Calcium	3334	3140	593	33	80-120	W	6020A
Chromium	41.05	15.9	29.6	85	80-120		6020A
Cobalt	42.87	17.8	29.6	85	80-120		6020A
Copper	37.34	11.5	29.6	87	80-120		6020A
Lead	89.23	30.6	29.6	198	80-120	W	6020A
Lithium	9.835	2.12	J				6020A
Molybdenum	25.88	1.05	29.6	84	80-120		6020A
Nickel	59.10	33.2	29.6	87	80-120		6020A
Selenium	25.79	ND	29.6	87	80-120		6020A
Silver	24.12	ND	29.6	81	80-120		6020A
Thallium	25.70	ND	29.6	87	80-120		6020A
Vanadium	50.49	25.2	29.6	85	80-120		6020A
Zinc	98.16	48.1	29.6	169	80-120	W	6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Note - Results and Reporting Limits have been adjusted for dry weight.

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 490-540423/2-A

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

Sample Matrix: Water

LCS Source: MET_SPKSTD_00277

Analyte	Water (mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00100	0.0009734		97	80	120		7470A

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 490-541313/2-A

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

Sample Matrix: Solid

LCS Source: MET_SPKSTD_00281

Analyte	Solid(mg/Kg)						
	True	Found	C	%R	Limits	Q	Method
Mercury	0.166	0.1566		94	80	120	7471B

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 490-158232-2

SDG No: _____

Lab Name: TestAmerica Nashville

Job No: 490-158232-1

Matrix: Solid

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	ND		ND		NC		6020A
Arsenic	7.95		8.136	J	NC		6020A
Barium	128		226.4		77	V	6020A
Beryllium	1.38		ND		NC		6020A
Boron	ND		ND		NC		6020A
Cadmium	0.420	J	ND		NC		6020A
Calcium	3140		5504		75	V	6020A
Chromium	15.9		17.71	J	NC		6020A
Cobalt	17.8		18.96		NC		6020A
Copper	11.5		8.218	J	NC		6020A
Lead	30.6		50.82		NC		6020A
Lithium	9.95		10.87	J	NC		6020A
Molybdenum	1.05		ND		NC		6020A
Nickel	33.2		30.48		NC		6020A
Selenium	ND		ND		NC		6020A
Silver	ND		ND		NC		6020A
Thallium	ND		ND		NC		6020A
Vanadium	25.2		25.90		NC		6020A
Zinc	48.1		95.03	J	NC		6020A

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

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Nashville

Job Number: 490-158232-1

SDG Number: _____

Matrix: Water

Instrument ID: LE4

Method: 7470A

MDL Date: 10/14/2015 15:29

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury		0.0002	0.0001

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Nashville Job Number: 490-158232-1
SDG Number: _____
Matrix: Water Instrument ID: LE4
Method: 7470A XMDL Date: 10/14/2015 15:32

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.1

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Nashville Job Number: 490-158232-1
SDG Number: _____
Matrix: Solid Instrument ID: LE5
Method: 7471B MDL Date: 01/15/2012 13:32
Prep Method: 7471B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury		0.1	0.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Nashville Job Number: 490-158232-1
SDG Number: _____
Matrix: Solid Instrument ID: LE5
Method: 7471B XMDL Date: 10/14/2015 15:32

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.1

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Nashville

Job No: 490-158232-1

SDG No.: _____

Instrument ID: LE4

Date: 07/24/2014 12:28

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Mercury		5.0	7470A

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Nashville

Job No: 490-158232-1

SDG No.: _____

Instrument ID: LE5

Date: 07/24/2014 12:29

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Mercury		5.0	7471B

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 490-540423/1-A	09/04/2018 09:40	540423		30	30
LCS 490-540423/2-A	09/04/2018 09:40	540423		30	30
490-158232-1	09/04/2018 09:40	540423		30	30

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG No.: _____

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 490-541313/1-A	09/07/2018 15:33	541313	0.605		100
LCS 490-541313/2-A	09/07/2018 15:33	541313	0.601		100
490-158232-2	09/07/2018 15:33	541313	0.607		100
490-158232-3	09/07/2018 15:33	541313	0.601		100
490-158232-4	09/07/2018 15:33	541313	0.598		100
490-158232-5	09/07/2018 15:33	541313	0.607		100
490-158232-6	09/07/2018 15:33	541313	0.616		100
490-158232-7	09/07/2018 15:33	541313	0.621		100
490-158232-8	09/07/2018 15:33	541313	0.615		100
490-158232-9	09/07/2018 15:33	541313	0.601		100

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: LE4 Analysis Method: 7470A

Start Date: 09/04/2018 13:55 End Date: 09/05/2018 11:15

Lab Sample Id	D/F	Type	Time	Hg	Analytes																			
ZZZZZZ			13:55																					
ZZZZZZ			13:57																					
ZZZZZZ			14:00																					
ZZZZZZ			14:02																					
ZZZZZZ			14:05																					
ZZZZZZ			14:08																					
ZZZZZZ			14:10																					
ICV 490-540746/8			14:13																					
ICV 490-540746/9	1		16:03	X																				
ICB 490-540746/10	1		16:13	X																				
CRA 490-540746/11	1		16:15	X																				
CCV 490-540746/12	1		16:18	X																				
CCB 490-540746/13	1		16:21	X																				
MB 490-540423/1-A	1	T	16:23	X																				
LCS 490-540423/2-A	1	T	16:26	X																				
ZZZZZZ			16:28																					
ZZZZZZ			16:31																					
ZZZZZZ			16:34																					
ZZZZZZ			16:36																					
ZZZZZZ			16:39																					
ZZZZZZ			16:41																					
ZZZZZZ			16:44																					
ZZZZZZ			16:46																					
CCV 490-540746/24	1		16:49	X																				
CCB 490-540746/25	1		16:52	X																				
ZZZZZZ			16:54																					
ZZZZZZ			16:57																					
490-158232-1	1	T	16:59	X																				
ZZZZZZ			17:02																					
ZZZZZZ			17:05																					
ZZZZZZ			17:07																					
ZZZZZZ			17:10																					
ZZZZZZ			17:12																					
ZZZZZZ			17:15																					
ZZZZZZ			17:17																					
CCV 490-540746/36	1		17:20	X																				
CCB 490-540746/37	1		17:23	X																				
ZZZZZZ			17:25																					
ZZZZZZ			17:28																					
ZZZZZZ			17:30																					
ZZZZZZ			17:33																					
CCV 490-540746/42			17:36																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: LE4 Analysis Method: 7470A

Start Date: 09/04/2018 13:55 End Date: 09/05/2018 11:15

Lab Sample Id	D/F	Type	Time	Analytes																											
				H	g																										
CCB 490-540746/43			17:38																												
CCV 490-540746/44			10:37																												
CCB 490-540746/45			10:39																												
ZZZZZZ			10:42																												
ZZZZZZ			10:44																												
ZZZZZZ			10:47																												
ZZZZZZ			10:49																												
ZZZZZZ			10:52																												
ZZZZZZ			10:55																												
ZZZZZZ			10:57																												
ZZZZZZ			11:00																												
ZZZZZZ			11:02																												
ZZZZZZ			11:05																												
CCV 490-540746/56			11:07																												
CCB 490-540746/57			11:10																												
CCV 490-540746/58			11:13																												
CCB 490-540746/59			11:15																												

Prep Types: _____
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: LE5 Analysis Method: 7471B

Start Date: 09/08/2018 14:29 End Date: 09/08/2018 17:31

Lab Sample Id	D/F	Type	Time	Hg	Analytes																			
ZZZZZZ			14:29																					
ZZZZZZ			14:32																					
ZZZZZZ			14:34																					
ZZZZZZ			14:37																					
ZZZZZZ			14:40																					
ZZZZZZ			14:43																					
ZZZZZZ			14:46																					
ICV 490-541520/8	1		14:48	X																				
ICB 490-541520/9	1		14:51	X																				
CRA 490-541520/10	1		14:54	X																				
CCV 490-541520/11	1		14:57	X																				
CCB 490-541520/12	1		14:59	X																				
MB 490-541313/1-A	1	T	15:02	X																				
LCS 490-541313/2-A	1	T	15:05	X																				
ZZZZZZ			15:08																					
ZZZZZZ			15:10																					
ZZZZZZ			15:13																					
ZZZZZZ			15:16																					
ZZZZZZ			15:18																					
ZZZZZZ			15:21																					
ZZZZZZ			15:24																					
ZZZZZZ			15:27																					
CCV 490-541520/23	1		15:29	X																				
CCB 490-541520/24	1		15:32	X																				
ZZZZZZ			15:35																					
ZZZZZZ			15:38																					
490-158232-2	1	T	15:41	X																				
490-158232-3	1	T	15:43	X																				
490-158232-4	1	T	15:46	X																				
490-158232-5	1	T	15:49	X																				
490-158232-6	1	T	15:51	X																				
490-158232-7	1	T	15:54	X																				
490-158232-8	1	T	15:57	X																				
490-158232-9	1	T	16:00	X																				
CCV 490-541520/35	1		16:02	X																				
CCB 490-541520/36	1		16:05	X																				
ZZZZZZ			16:08																					
ZZZZZZ			16:11																					
ZZZZZZ			16:13																					
ZZZZZZ			16:16																					
ZZZZZZ			16:19																					
ZZZZZZ			16:22																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: LE5 Analysis Method: 7471B

Start Date: 09/08/2018 14:29 End Date: 09/08/2018 17:31

Lab Sample Id	D/F	Type	Time	Analytes																											
				H	g																										
ZZZZZZ			16:25																												
ZZZZZZ			16:27																												
ZZZZZZ			16:30																												
ZZZZZZ			16:33																												
CCV 490-541520/47			16:35																												
CCB 490-541520/48			16:38																												
ZZZZZZ			16:41																												
ZZZZZZ			16:44																												
ZZZZZZ			16:46																												
ZZZZZZ			16:49																												
ZZZZZZ			16:52																												
ZZZZZZ			16:55																												
ZZZZZZ			16:58																												
ZZZZZZ			17:00																												
ZZZZZZ			17:03																												
ZZZZZZ			17:06																												
CCV 490-541520/59			17:09																												
CCB 490-541520/60			17:11																												
ZZZZZZ			17:14																												
ZZZZZZ			17:17																												
ZZZZZZ			17:20																												
ZZZZZZ			17:22																												
ZZZZZZ			17:25																												
CCV 490-541520/66			17:28																												
CCB 490-541520/67			17:31																												

Prep Types: _____
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/07/2018 End Date: 09/07/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
ICV 490-541341/16	13:13	85		93		93		93			
ICB 490-541341/17	13:17	98		98		99		102		99	
ICSA 490-541341/18	13:20	92		90		99		100		116	
ICSAB 490-541341/19	13:23	92		95		100		99		135	
CCV 490-541341/23	13:35	93		94		97		97			
CCB 490-541341/24	13:38	98		96		96		98		100	
CCV 490-541341/38	14:53	93		102		96		94			
CCB 490-541341/39	14:56	97		98		95		94		103	
MB 490-539555/1-A	14:59	87		91		88		88		114	
LCS 490-539555/2-A	15:02	82		91		87		87			
490-158232-2	15:05	91		109		113		112		123	
490-158232-2 SD	15:08	94		96		95		98		101	
490-158232-2 PDS	15:11	85		130		139		142			
490-158232-2 MS	15:14	92		117		119		119			
490-158232-2 MSD	15:17	92		115		122		125			
490-158232-3	15:20	94		124		132		134		125	
490-158232-4	15:24	91		123		133		132		130	
490-158232-5	15:27	95		122		129		129			
CCB 490-541341/50	15:30	102		102		109		109		106	
490-158232-6	15:33	98		118		131		130		128	
CCV 490-541341/52	15:36	101		104		113		112			
490-158232-7	15:39	98		131		140		136			
490-158232-8	15:42	98		125		135		134		121	
490-158232-9	15:45	97		126		135		132		121	
CCV 490-541341/60	16:01	102		105		109		109			
CCB 490-541341/63	16:10	105		103		107		107		114	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/07/2018 End Date: 09/07/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q
ICV 490-541341/16	13:13	90		93		93		89			
ICB 490-541341/17	13:17	98		98		99		100			
ICSA 490-541341/18	13:20	94		98		98		92			
ICSAB 490-541341/19	13:23	95		99		99		92			
CCV 490-541341/23	13:35	96		99		99		94			
CCB 490-541341/24	13:38	96		97		98		98			
CCV 490-541341/38	14:53	94		97		97		93			
CCB 490-541341/39	14:56	94		96		96		97			
MB 490-539555/1-A	14:59	87		90		89		90			
LCS 490-539555/2-A	15:02	83		88		89		84			
490-158232-2	15:05	91		100		101		94			
490-158232-2 SD	15:08	94		97		98		97			
490-158232-2 PDS	15:11	92		105		108		93			
490-158232-2 MS	15:14	97		103		104		97			
490-158232-2 MSD	15:17	98		105		107		99			
490-158232-3	15:20	99		105		106		98			
490-158232-4	15:24	98		103		105		97			
490-158232-5	15:27	101		108		109		100			
CCB 490-541341/50	15:30	107		106		106		106			
490-158232-6	15:33	105		107		108		101			
CCV 490-541341/52	15:36	108		108		108		103			
490-158232-7	15:39	99		106		107		97			
490-158232-8	15:42	101		105		105		101			
490-158232-9	15:45	100		104		104		99			
CCV 490-541341/60	16:01	107		108		108		103			
CCB 490-541341/63	16:10	106		106		106		107			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/07/2018 End Date: 09/07/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element	Q	Element	Q	Element	Q	Element	Q	Element	Q
				Ge/3		Y-89/2		Y-89/3		Rh-103	
ICV 490-541341/16	13:13			82		94		91		91	
ICB 490-541341/17	13:17	97		79		100		99		99	
ICSA 490-541341/18	13:20	108		82		98		98		91	
ICSAB 490-541341/19	13:23	130		90		99		99		92	
CCV 490-541341/23	13:35			85		98		98		97	
CCB 490-541341/24	13:38	101		72		98		97		98	
CCV 490-541341/38	14:53			98		96		96		95	
CCB 490-541341/39	14:56	98		81		96		95		94	
MB 490-539555/1-A	14:59	94		71		88		87		88	
LCS 490-539555/2-A	15:02			89		87		87		86	
490-158232-2	15:05	105								91	
490-158232-2 SD	15:08	96		89		108		106		95	
490-158232-2 PDS	15:11									91	
490-158232-2 MS	15:14	116								96	
490-158232-2 MSD	15:17	128								97	
490-158232-3	15:20	109								97	
490-158232-4	15:24	108								96	
490-158232-5	15:27	115								100	
CCB 490-541341/50	15:30	107		81		109		110		107	
490-158232-6	15:33	124								102	
CCV 490-541341/52	15:36			98		114		111		108	
490-158232-7	15:39	124								97	
490-158232-8	15:42	125								99	
490-158232-9	15:45	113								98	
CCV 490-541341/60	16:01			111		111		108		107	
CCB 490-541341/63	16:10	119		91		109		106		106	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/11/2018 End Date: 09/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
ICV 490-542160/16	15:05	94		96		89		85			
ICB 490-542160/17	15:08	109		112		98		97		115	
ICSA 490-542160/18	15:11	102		104		97		97		133	
ICSAB 490-542160/19	15:14	101		103		98		98		146	
CCV 490-542160/23	15:26	103		108		97		94			
CCB 490-542160/24	15:30	106		104		98		97		110	
CCV 490-542160/39	16:22	108		113		104		104			
CCB 490-542160/40	16:25	113		118		104		99		120	
MB 490-541010/1-A	16:29	92		93		87		87			
LCS 490-541010/2-A	16:32	89		94		87		90			
490-158232-1	16:58	93		94		85		84			
CCV 490-542160/51	17:01	109		117		102		104			
CCB 490-542160/52	17:04	112		113		102		100		113	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/11/2018 End Date: 09/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q
ICV 490-542160/16	15:05	86		89		88		86			
ICB 490-542160/17	15:08	98		99		98		99			
ICSA 490-542160/18	15:11	94		97		97		91			
ICSAB 490-542160/19	15:14	95		98		99		92			
CCV 490-542160/23	15:26	95		97		97		93			
CCB 490-542160/24	15:30	97		99		99		99			
CCV 490-542160/39	16:22	105		104		104		100			
CCB 490-542160/40	16:25	101		101		100		101			
MB 490-541010/1-A	16:29	88		90		90		90			
LCS 490-541010/2-A	16:32	89		92		92		89			
490-158232-1	16:58	86		90		90		90			
CCV 490-542160/51	17:01	101		104		103		99			
CCB 490-542160/52	17:04	101		100		100		102			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/11/2018 End Date: 09/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element	Q	Element	Q	Element	Q	Element	Q	Element	Q
				Ge/3		Y-89/2		Y-89/3		Rh-103	
ICV 490-542160/16	15:05			94		90		86		86	
ICB 490-542160/17	15:08	98		95		98		99		98	
ICSA 490-542160/18	15:11	101		80		97		97		91	
ICSAB 490-542160/19	15:14	110		86		97		100		92	
CCV 490-542160/23	15:26			92		98		96		94	
CCB 490-542160/24	15:30	101		95		99		99		99	
CCV 490-542160/39	16:22			122		104		105		103	
CCB 490-542160/40	16:25	96		87		104		101		101	
MB 490-541010/1-A	16:29	103		112		88		87		89	
LCS 490-541010/2-A	16:32			114		90		90		89	
490-158232-1	16:58	105		112		86		86		88	
CCV 490-542160/51	17:01			106		102		103		101	
CCB 490-542160/52	17:04	93		88		102		100		102	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/13/2018 End Date: 09/13/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element Ge/1	Q
ICV 490-542679/62	17:53	92		95		94		95		181	*
ICB 490-542679/63	17:56	105		101		102		102		106	
ICSA 490-542679/64	17:59	98		100		100		97		125	
ICSAB 490-542679/65	18:02	101		100		102		98		139	
CCV 490-542679/71	18:28	89		82		89		94		109	
CCB 490-542679/72	18:31	104		98		99		99		99	
CCV 490-542679/119	21:34	114		117		114		114		197	*
CCB 490-542679/120	21:38	117		113		111		113		131	*
490-158232-2	21:59	110		126		128		131		143	*
490-158232-2	22:02	114		107		108		109		111	
490-158232-2	22:05	104		147		158		160		232	*
490-158232-2 MS	22:09	111		127		133		134		153	*
CCV 490-542679/131	22:12	113		109		112		113		168	*
CCB 490-542679/132	22:15	116		109		113		111		109	
490-158232-2 MSD	22:18	111		127		135		134		147	*
490-158232-3	22:21	113		137		147		151		140	*
490-158232-4	22:24	112		136		143		145		141	*
490-158232-5	22:27	112		131		140		141		146	*
490-158232-6	22:30	116		129		135		138		138	*
490-158232-7	22:33	101		125		147		147		137	*
490-158232-8	22:37	115		131		143		137		128	
490-158232-9	22:40	111		132		138		141		126	
CCV 490-542679/143	22:49	112		107		111		112		168	*
CCB 490-542679/144	22:52	114		106		110		107		109	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/13/2018 End Date: 09/13/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/2	Q	Element Ge/3	Q	Element Y-89/2	Q	Element Y-89/3	Q	Element Rh-103	Q
ICV 490-542679/62	17:53	200	*	107		93		94		93	
ICB 490-542679/63	17:56	102		97		100		100		101	
ICSA 490-542679/64	17:59	102		87		97		100		92	
ICSAB 490-542679/65	18:02	136		99		101		99		93	
CCV 490-542679/71	18:28	137	*	107		90		94		93	
CCB 490-542679/72	18:31	99		94		99		100		100	
CCV 490-542679/119	21:34	210	*	124		114		112		109	
CCB 490-542679/120	21:38	107		108		113		110		108	
490-158232-2	21:59	111		316	*	292	*	298	*	101	
490-158232-2	22:02	112		105		124		120		105	
490-158232-2	22:05	235	*	553	*	507	*	525	*	102	
490-158232-2 MS	22:09	129		331	*	298	*	300	*	106	
CCV 490-542679/131	22:12	217	*	109		117		112		110	
CCB 490-542679/132	22:15	108		131	*	116		112		110	
490-158232-2 MSD	22:18	137	*	325	*	300	*	299	*	105	
490-158232-3	22:21	123		307	*	319	*	316	*	106	
490-158232-4	22:24	121		264	*	242	*	238	*	105	
490-158232-5	22:27	119		350	*	320	*	321	*	107	
490-158232-6	22:30	135	*	249	*	212	*	210	*	107	
490-158232-7	22:33	130		360	*	341	*	342	*	106	
490-158232-8	22:37	122		248	*	176	*	170	*	104	
490-158232-9	22:40	115		223	*	181	*	181	*	105	
CCV 490-542679/143	22:49	224	*	116		115		112		109	
CCB 490-542679/144	22:52	106		114		113		107		105	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/13/2018 End Date: 09/13/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q
ICV 490-542679/62	17:53	92		96		96		92			
ICB 490-542679/63	17:56	102		102		101		101			
ICSA 490-542679/64	17:59	95		99		99		93			
ICSAB 490-542679/65	18:02	97		100		100		94			
CCV 490-542679/71	18:28	95		96		95		93			
CCB 490-542679/72	18:31	101		100		99		101			
CCV 490-542679/119	21:34	111		111		110		107			
CCB 490-542679/120	21:38	111		109		108		108			
490-158232-2	21:59	104		110		110		104			
490-158232-2	22:02	106		107		107		105			
490-158232-2	22:05	105		117		118		102			
490-158232-2 MS	22:09	109		114		114		106			
CCV 490-542679/131	22:12	111		112		111		106			
CCB 490-542679/132	22:15	113		109		109		109			
490-158232-2 MSD	22:18	109		113		113		104			
490-158232-3	22:21	111		115		115		106			
490-158232-4	22:24	108		112		111		103			
490-158232-5	22:27	109		114		115		105			
490-158232-6	22:30	111		113		113		106			
490-158232-7	22:33	110		116		116		105			
490-158232-8	22:37	108		110		109		103			
490-158232-9	22:40	109		110		109		104			
CCV 490-542679/143	22:49	111		111		110		106			
CCB 490-542679/144	22:52	107		106		106		105			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/14/2018 End Date: 09/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
ICV 490-542742/20	04:56	89		93		92		88			
ICB 490-542742/21	04:59	98		99		98		94		99	
ICSA 490-542742/23	05:05	91		93		96		95		119	
ICSAB 490-542742/24	05:08	86		88		95		95		127	
CCV 490-542742/28	05:20	97		98		99		99			
CCB 490-542742/29	05:23	99		97		97		98		101	
CCV 490-542742/52	06:35	101		101		103		103			
CCB 490-542742/53	06:38	95		92		101		99		94	
MB 490-541010/1-A	07:00	103		104		104		104		108	
LCS 490-541010/2-A	07:03	89		91		91		90			
CCV 490-542742/64	07:12	104		108		106		104			
CCB 490-542742/65	07:15	103		101		101		101		100	
490-158232-1	07:34	87		90		91		89		126	
CCV 490-542742/76	07:49	104		106		104		100			
CCB 490-542742/77	07:52	104		101		101		100		103	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/14/2018 End Date: 09/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q
ICV 490-542742/20	04:56	88		92		93		89			
ICB 490-542742/21	04:59	96		98		98		99			
ICSA 490-542742/23	05:05	91		96		97		92			
ICSAB 490-542742/24	05:08	92		97		98		92			
CCV 490-542742/28	05:20	100		102		103		99			
CCB 490-542742/29	05:23	99		100		101		100			
CCV 490-542742/52	06:35	102		105		106		101			
CCB 490-542742/53	06:38	101		102		103		102			
MB 490-541010/1-A	07:00	103		104		105		104			
LCS 490-541010/2-A	07:03	89		93		93		89			
CCV 490-542742/64	07:12	102		105		105		101			
CCB 490-542742/65	07:15	102		103		103		102			
490-158232-1	07:34	90		96		96		95			
CCV 490-542742/76	07:49	100		103		104		100			
CCB 490-542742/77	07:52	102		104		103		104			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS3 Start Date: 09/14/2018 End Date: 09/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element	Q	Element	Q	Element	Q	Element	Q	Element	Q
				Ge/3		Y-89/2		Y-89/3		Rh-103	
ICV 490-542742/20	04:56			124		92		89		90	
ICB 490-542742/21	04:59	93		96		99		97		98	
ICSA 490-542742/23	05:05	96		98		97		95		90	
ICSAB 490-542742/24	05:08	107		113		96		96		90	
CCV 490-542742/28	05:20			114		100		102		100	
CCB 490-542742/29	05:23	101		107		99		97		100	
CCV 490-542742/52	06:35			130		104		104		103	
CCB 490-542742/53	06:38	95		106		101		101		101	
MB 490-541010/1-A	07:00	103		111		105		103		104	
LCS 490-541010/2-A	07:03			112		93		91		91	
CCV 490-542742/64	07:12			117		106		103		102	
CCB 490-542742/65	07:15	98		107		102		102		102	
490-158232-1	07:34	109		125		93		92		94	
CCV 490-542742/76	07:49			105		105		102		101	
CCB 490-542742/77	07:52	96		117		102		103		102	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS4 Start Date: 08/30/2018 End Date: 08/30/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
ICV 490-539952/14	17:59	84		87		89		89			
ICB 490-539952/15	18:02	101		102		105		100			
ICSAB 490-539952/17	18:09	82		88		92		92			
CCV 490-539952/22	18:24	79		85		92		91		118	
CCB 490-539952/23	18:27	93		98		104		107			
CCV 490-539952/64	20:47	76		83		87		88		115	
CCB 490-539952/65	20:50	94		101		102		107			
MB 490-539555/1-A	21:11	81		93		96		93			
LCS 490-539555/2-A	21:14	79		88		88		88		121	
490-158232-2	21:18	78		197		188		195			
490-158232-2 SD	21:21	68		100		105		107			
CCV 490-539952/76	21:24	74		89		89		95		123	
CCB 490-539952/77	21:27	88		98		104		105			
490-158232-2 PDS	21:30	73		187		186		192			
490-158232-2 MS	21:33	70		159		167		170			
490-158232-2 MSD	21:36	73		167		168		174			
490-158232-3	21:39	80		229		225		251			
490-158232-4	21:42	79		226		217		233			
490-158232-5	21:45	81		209		203		210			
490-158232-6	21:48	79		183		176		188			
490-158232-7	21:52	80		221		215		225			
490-158232-8	21:55	81		204		196		216			
490-158232-9	21:58	79		176		176		187			
CCV 490-539952/88	22:01	78		90		92		89		119	
CCB 490-539952/89	22:04	92		101		103		105			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS4 Start Date: 08/30/2018 End Date: 08/30/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Rh-103	Q	Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q
ICV 490-539952/14	17:59	95		92		97		97		96	
ICB 490-539952/15	18:02	102		101		101		101		101	
ICSAB 490-539952/17	18:09	92		93		98		98		94	
CCV 490-539952/22	18:24	95		93		97		97		95	
CCB 490-539952/23	18:27	106		107		106		105		106	
CCV 490-539952/64	20:47	92		90		93		93		93	
CCB 490-539952/65	20:50	106		104		104		104		105	
MB 490-539555/1-A	21:11	99		95		101		100		99	
LCS 490-539555/2-A	21:14	95		92		96		96		94	
490-158232-2	21:18	97		95		123		127		101	
490-158232-2 SD	21:21	95		92		103		104		97	
CCV 490-539952/76	21:24	100		98		101		101		101	
CCB 490-539952/77	21:27	107		105		105		106		105	
490-158232-2 PDS	21:30	97		95		121		126		101	
490-158232-2 MS	21:33	90		90		114		117		95	
490-158232-2 MSD	21:36	89		88		112		117		94	
490-158232-3	21:39	96		100		121		125		100	
490-158232-4	21:42	94		96		116		118		96	
490-158232-5	21:45	95		97		123		126		98	
490-158232-6	21:48	94		95		109		110		95	
490-158232-7	21:52	91		93		122		125		93	
490-158232-8	21:55	94		96		106		106		98	
490-158232-9	21:58	94		96		105		106		96	
CCV 490-539952/88	22:01	97		95		98		97		95	
CCB 490-539952/89	22:04	107		106		106		105		106	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS4 Start Date: 08/30/2018 End Date: 08/30/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element	Q	Element	Q	Element Ge/3	Q	Element Y-89/2	Q	Element Y-89/3	Q
ICV 490-539952/14	17:59					98		95		92	
ICB 490-539952/15	18:02	97		111		94		107		102	
ICSAB 490-539952/17	18:09	102		107		103		99		93	
CCV 490-539952/22	18:24					100		100		93	
CCB 490-539952/23	18:27	90		110		92		108		105	
CCV 490-539952/64	20:47					106		97		90	
CCB 490-539952/65	20:50	97		114		91		111		104	
MB 490-539555/1-A	21:11	94		101		86		105		96	
LCS 490-539555/2-A	21:14					106		98		92	
490-158232-2	21:18										
490-158232-2 SD	21:21	109		112							
CCV 490-539952/76	21:24					97		102		98	
CCB 490-539952/77	21:27	99		116		94		114		106	
490-158232-2 PDS	21:30										
490-158232-2 MS	21:33										
490-158232-2 MSD	21:36										
490-158232-3	21:39										
490-158232-4	21:42										
490-158232-5	21:45										
490-158232-6	21:48										
490-158232-7	21:52										
490-158232-8	21:55										
490-158232-9	21:58										
CCV 490-539952/88	22:01					95		103		97	
CCB 490-539952/89	22:04	97		115		80		116		106	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS4 Start Date: 09/05/2018 End Date: 09/05/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
ICV 490-540949/15	13:06	85		88		90		91			
ICB 490-540949/16	13:09	101		102		102		103		114	
ICSAB 490-540949/18	13:15	92		96		98		102		128	
CCV 490-540949/23	13:30	89		92		95		97			
CCB 490-540949/24	13:34	91		92		94		97		97	
CRI 490-540949/25	13:37	91		93		95		100		102	
CCV 490-540949/119	18:28	101		98		96		101			
CCB 490-540949/120	18:31	100		97		98		99		111	
MB 490-539555/1-A	19:02	85		86		87		86		98	
CCV 490-540949/131	19:05	98		97		99		102			
CCB 490-540949/132	19:08	101		99		99		103		109	
LCS 490-539555/2-A	19:11	81		84		84		86			
490-158232-2	19:14	95		117		116		123			
490-158232-2 SD	19:17	98		99		98		104		109	
490-158232-2 PDS	19:20	91		114		115		121			
490-158232-2 MS	19:24	90		111		111		118			
490-158232-2 MSD	19:27	89		113		115		122		130	
490-158232-3	19:30	92		122		115		130		130	
490-158232-4	19:33	91		119		119		125		121	
490-158232-5	19:36	88		117		117		125			
490-158232-6	19:39	90		112		112		120		127	
CCV 490-540949/143	19:42	91		94		98		103			
CCB 490-540949/144	19:45	92		95		97		105		103	
490-158232-7	19:48	90		122		126		131			
490-158232-8	19:51	88		116		118		124		121	
490-158232-9	19:55	88		114		113		121		110	
CCV 490-540949/155	20:19	102		101		101		106			
CCB 490-540949/156	20:22	100		98		100		105		109	
CRI 490-540949/161	20:38	103		101		103		108		112	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS4 Start Date: 09/05/2018 End Date: 09/05/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q
ICV 490-540949/15	13:06	91		95		96		94			
ICB 490-540949/16	13:09	104		104		103		103			
ICSAB 490-540949/18	13:15	97		102		103		98			
CCV 490-540949/23	13:30	95		96		96		94			
CCB 490-540949/24	13:34	96		97		97		98			
CRI 490-540949/25	13:37	97		99		98		98			
CCV 490-540949/119	18:28	97		100		100		96			
CCB 490-540949/120	18:31	98		99		99		100			
MB 490-539555/1-A	19:02	88		90		90		91			
CCV 490-540949/131	19:05	100		101		101		98			
CCB 490-540949/132	19:08	101		101		100		101			
LCS 490-539555/2-A	19:11	86		88		88		85			
490-158232-2	19:14	98		104		105		99			
490-158232-2 SD	19:17	101		103		102		102			
490-158232-2 PDS	19:20	96		104		104		98			
490-158232-2 MS	19:24	97		104		104		99			
490-158232-2 MSD	19:27	97		103		104		99			
490-158232-3	19:30	98		103		103		97			
490-158232-4	19:33	96		101		102		96			
490-158232-5	19:36	97		105		106		99			
490-158232-6	19:39	98		102		103		98			
CCV 490-540949/143	19:42	102		103		103		100			
CCB 490-540949/144	19:45	102		103		101		102			
490-158232-7	19:48	97		105		107		97			
490-158232-8	19:51	98		100		101		98			
490-158232-9	19:55	95		100		100		98			
CCV 490-540949/155	20:19	101		100		100		98			
CCB 490-540949/156	20:22	101		100		98		99			
CRI 490-540949/161	20:38	103		100		100		98			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS4 Start Date: 09/05/2018 End Date: 09/05/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Q	Element Ge/3 Q	Element Y-89/2 Q	Element Y-89/3 Q	Element Rh-103 Q					
ICV 490-540949/15	13:06		109		94		91		93		
ICB 490-540949/16	13:09	101	116		103		104		103		
ICSAB 490-540949/18	13:15	106	105		99		101		98		
CCV 490-540949/23	13:30		103		96		95		95		
CCB 490-540949/24	13:34	93	107		95		96		97		
CRI 490-540949/25	13:37	94	108		96		96		97		
CCV 490-540949/119	18:28		98		95		99		99		
CCB 490-540949/120	18:31	97	116		98		98		99		
MB 490-539555/1-A	19:02	86	76		89		87		90		
CCV 490-540949/131	19:05		121		100		99		99		
CCB 490-540949/132	19:08	102	111		101		100		100		
LCS 490-539555/2-A	19:11	126	110		85		85		86		
490-158232-2	19:14	118							97		
490-158232-2 SD	19:17	99	105		108		107		101		
490-158232-2 PDS	19:20								96		
490-158232-2 MS	19:24								96		
490-158232-2 MSD	19:27	123							96		
490-158232-3	19:30	103							96		
490-158232-4	19:33	117							95		
490-158232-5	19:36	125							97		
490-158232-6	19:39	114							96		
CCV 490-540949/143	19:42		108		104		103		102		
CCB 490-540949/144	19:45	101	85		102		102		102		
490-158232-7	19:48	123							96		
490-158232-8	19:51	107							95		
490-158232-9	19:55	101							95		
CCV 490-540949/155	20:19		116		101		102		100		
CCB 490-540949/156	20:22	104	108		99		101		100		
CRI 490-540949/161	20:38	103	120		101		103		100		

METALS BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 540423 Batch Start Date: 09/04/18 09:40 Batch Analyst: Lee, Cameron S

Batch Method: 7470A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	MET_H2SO4 00043	MET_Hg_Hydrox 00091	MET_Hg_KMnO4 00058
MB 490-540423/1		7470A, 7470A		7 SU	30 mL	30 mL	1.5 mL	1.8 mL	4.5 mL
LCS 490-540423/2		7470A, 7470A		7 SU	30 mL	30 mL	1.5 mL	1.8 mL	4.5 mL
490-158232-A-1	CUF-BS-FB06-2018 0828	7470A, 7470A	T	<2 SU	30 mL	30 mL	1.5 mL	1.8 mL	4.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MET_Hg_Kpsulf 00044	MET_HNO3 00246	MET_SPKSTD 00277			
MB 490-540423/1		7470A, 7470A		2.4 mL	0.75 mL				
LCS 490-540423/2		7470A, 7470A		2.4 mL	0.75 mL	0.03 mL			
490-158232-A-1	CUF-BS-FB06-2018 0828	7470A, 7470A	T	2.4 mL	0.75 mL				

Batch Notes	
Digestion End Time	09/04/18 1221
Digestion Start Time	09/04/18 1023
Digestion Unit ID	B4/181085297
Sulfuric Acid ID	4433238
Nitric Acid ID	4567814
Hydroxylamine ID	4577149
Potassium Persulfate ID	4546918
Potassium Permanganate ID	4570745
pH Indicator ID	hc849161
Pipette/Syringe/Dispenser ID	4558603/4558579
Thermometer ID	B4/181085297
Digestion Tube/Cup ID	1802043
Temperature - Uncorrected - End	93.9 Degrees C
Temperature - Uncorrected - Start	92.0 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 541313 Batch Start Date: 09/07/18 15:12 Batch Analyst: Lee, Cameron S

Batch Method: 7471B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MET_AquaRegia 00533	MET_Hg_Hydrox 00091	MET_Hg_KMnO4 00058	MET_SPKSTD 00281
MB 490-541313/1		7471B, 7471B		0.605 g	100 mL	10 mL	6 mL	15 mL	
LCS 490-541313/2		7471B, 7471B		0.601 g	100 mL	10 mL	6 mL	15 mL	0.1 mL
490-158232-B-2	CUF-BS-BG13-0.0/ 0.5-20180828	7471B, 7471B	T	0.607 g	100 mL	10 mL	6 mL	15 mL	
490-158232-B-3	CUF-BS-BG13-0.75 /2.75-20180828	7471B, 7471B	T	0.601 g	100 mL	10 mL	6 mL	15 mL	
490-158232-B-4	CUF-BS-BG13-6.5/ 8.5-20180828	7471B, 7471B	T	0.598 g	100 mL	10 mL	6 mL	15 mL	
490-158232-A-5	CUF-BS-FD02-2018 0828	7471B, 7471B	T	0.607 g	100 mL	10 mL	6 mL	15 mL	
490-158232-A-6	CUF-BS-BG14-0.0/ 0.5-20180828	7471B, 7471B	T	0.616 g	100 mL	10 mL	6 mL	15 mL	
490-158232-B-7	CUF-BS-BG14-1.0/ 3.0-20180828	7471B, 7471B	T	0.621 g	100 mL	10 mL	6 mL	15 mL	
490-158232-B-8	CUF-BS-BG14-6.5/ 8.5-20180828	7471B, 7471B	T	0.615 g	100 mL	10 mL	6 mL	15 mL	
490-158232-B-9	CUF-BS-BG14-10.3 /12.3-20180828	7471B, 7471B	T	0.601 g	100 mL	10 mL	6 mL	15 mL	

Batch Notes	
Blank Matrix ID	22842018
Digestion End Time	09/07/2018 17:51
Digestion Start Time	09/07/2018 17:21
Digestion Unit ID	B4/181085297
Hydrochloric Acid ID	4506614
Nitric Acid ID	4567814
Hydroxylamine ID	4577149
Potassium Permanganate ID	4570745
Pipette/Syringe/Dispenser ID	4558607/4580893
Thermometer ID	B4/181085297
Digestion Tube/Cup ID	802082
Temperature - Uncorrected - End	98.0 Degrees C
Temperature - Uncorrected - Start	98.0 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 541313 Batch Start Date: 09/07/18 15:12 Batch Analyst: Lee, Cameron S

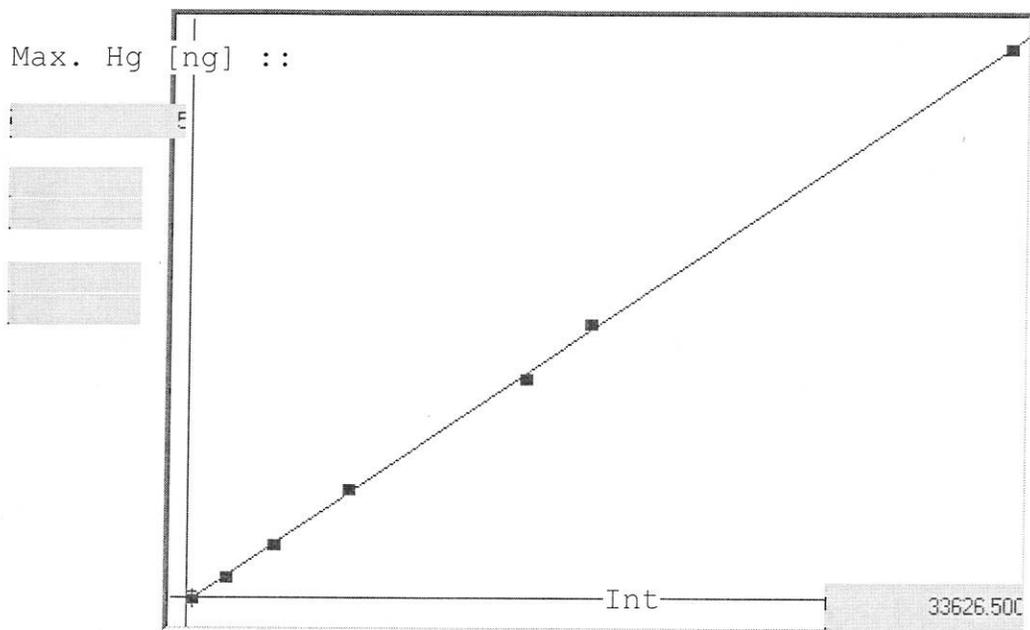
Batch Method: 7471B Batch End Date: _____

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

7470/245.1

Linear



A= 0.0000e+000

B= 1.5006e-004

C= -3.4900e-002

Rho= 0.9998246

Accept= Accepted

Accepted Date=

09/04/18 14:13

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0.0	0.000	0.004	0.004	261	2.500	259	264			
0.20	0.200	0.217	0.017	1681	1.3 %	1659	1703			
0.50	0.500	0.509	0.009	3622	0.8 %	3594	3650			
1.0	1.000	0.962	-0.038	6645	0.8 %	6590	6700			
2.0	2.000	2.046	0.046	13867	0.7 %	13775	13959			
2.5	2.500	2.450	-0.050	16561	0.7 %	16440	16682			
5.0	5.000	5.011	0.011	33626	1.0 %	33304	33949			

090418 Waters

Method: 7470/245.1

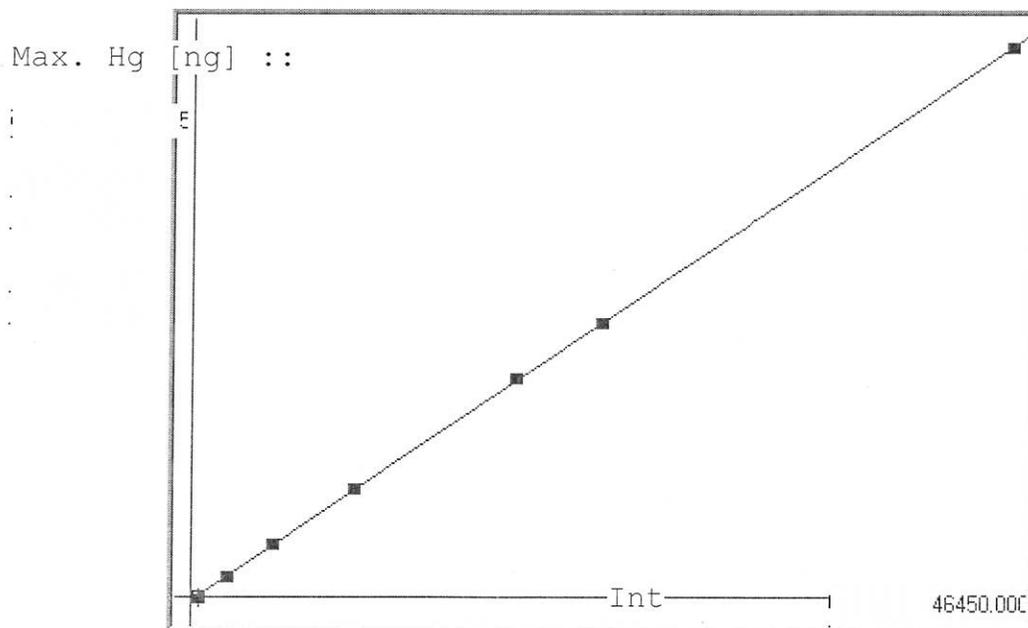
Operator: Admin

Date of Analysis: 04 Sep 2018 13:54:51

Sample ID	Extended ID	Wt.	Vol.	µ Abs.	Conc.	Date
0.0 - 1		1.0000	1.0000	259	-	04 Sep 2018 13:55:02
0.0 - 2		1.0000	1.0000	264	-	04 Sep 2018 13:55:02
0.20 - 1		1.0000	1.0000	1659	-	04 Sep 2018 13:57:40
0.20 - 2		1.0000	1.0000	1703	-	04 Sep 2018 13:57:40
0.50 - 1		1.0000	1.0000	3594	-	04 Sep 2018 14:00:20
0.50 - 2		1.0000	1.0000	3650	-	04 Sep 2018 14:00:20
1.0 - 1		1.0000	1.0000	6590	-	04 Sep 2018 14:02:59
1.0 - 2		1.0000	1.0000	6700	-	04 Sep 2018 14:02:59
2.0 - 1		1.0000	1.0000	13775	-	04 Sep 2018 14:05:37
2.0 - 2		1.0000	1.0000	13959	-	04 Sep 2018 14:05:37
2.5 - 1		1.0000	1.0000	16440	-	04 Sep 2018 14:08:14
2.5 - 2		1.0000	1.0000	16682	-	04 Sep 2018 14:08:14
5.0 - 1		1.0000	1.0000	33304	-	04 Sep 2018 14:10:52
5.0 - 2		1.0000	1.0000	33949	-	04 Sep 2018 14:10:52
ICV - 1		1.0000	1.0000	15915	(L)94.1% 2.3533	04 Sep 2018 14:13:30
ICV - 1		1.0000	1.0000	15658	(L)92.6% 2.3148	04 Sep 2018 16:03:06
ICB - 1		1.0000	1.0000	174	-0.0088	04 Sep 2018 16:13:22
CRA - 1		1.0000	1.0000	1669	107.8% 0.2156	04 Sep 2018 16:15:57
CCV - 1		1.0000	1.0000	13743	101.4% 2.0274	04 Sep 2018 16:18:33
CCB - 1		1.0000	1.0000	-155	-0.0582	04 Sep 2018 16:21:07
MB 490-540423/1-A - 1		1.0000	1.0000	2	-0.0346	04 Sep 2018 16:23:43
LCS 490-540423/2-A - 1		1.0000	1.0000	6719	0.9734	04 Sep 2018 16:26:17
490-158497-D-1-A - 1		1.0000	1.0000	-165	-0.0597	04 Sep 2018 16:28:51
sd 490-158497-D-1-A@5 - 1		1.0000	1.0000	-14	-0.0370	04 Sep 2018 16:31:26
pds 490-158497-D-1-A - 1		1.0000	1.0000	9073	1.3266	04 Sep 2018 16:34:00
490-158497-D-1-B MS - 1		1.0000	1.0000	6121	0.8836	04 Sep 2018 16:36:35
490-158497-D-1-C MSD - 1		1.0000	1.0000	6123	0.8839	04 Sep 2018 16:39:10
490-158497-D-2-A - 1		1.0000	1.0000	12391	1.8245	04 Sep 2018 16:41:44
490-158256-A-5-B - 1		1.0000	1.0000	5588	0.8036	04 Sep 2018 16:44:20
490-158256-D-6-B - 1		1.0000	1.0000	14550	2.1485	04 Sep 2018 16:46:55
CCV - 1		1.0000	1.0000	13533	99.8% 1.9959	04 Sep 2018 16:49:31
CCB - 1		1.0000	1.0000	-117	-0.0525	04 Sep 2018 16:52:05
490-158256-C-9-B - 1		1.0000	1.0000	7	-0.0338	04 Sep 2018 16:54:41
490-158256-C-10-B - 1		1.0000	1.0000	9	-0.0335	04 Sep 2018 16:57:17
490-158232-A-1-A - 1		1.0000	1.0000	5	-0.0341	04 Sep 2018 16:59:54
490-158430-D-1-A - 1		1.0000	1.0000	600	0.0551	04 Sep 2018 17:02:28
490-158347-A-1-A - 1		1.0000	1.0000	13	-0.0329	04 Sep 2018 17:05:03
490-158347-A-2-A - 1		1.0000	1.0000	1507	0.1912	04 Sep 2018 17:07:37
MB 490-540467/1-A - 1		1.0000	1.0000	-38	-0.0406	04 Sep 2018 17:10:12
LCS 490-540467/2-A - 1		1.0000	1.0000	13537	1.9965	04 Sep 2018 17:12:46
LB 490-540177/1-B - 1		1.0000	1.0000	-365	-0.0897	04 Sep 2018 17:15:21
490-158353-B-5-B - 1		1.0000	1.0000	15	-0.0326	04 Sep 2018 17:17:56
CCV - 1		1.0000	1.0000	14077	103.9% 2.0775	04 Sep 2018 17:20:31
CCB - 1		1.0000	1.0000	-142	-0.0562	04 Sep 2018 17:23:06
sd 490-158353-B-5-B@5 - 1		1.0000	1.0000	-7	-0.0360	04 Sep 2018 17:25:41
pds 490-158353-B-5-B - 1		1.0000	1.0000	8673	1.2666	04 Sep 2018 17:28:18
490-158353-B-5-C MS - 1		1.0000	1.0000	13001	1.9161	04 Sep 2018 17:30:54
490-158353-B-5-D MSD - 1		1.0000	1.0000	12870	1.8964	04 Sep 2018 17:33:30
CCV - 1		1.0000	1.0000	13576	100.1% 2.0023	04 Sep 2018 17:36:07
CCB - 1		1.0000	1.0000	-128	-0.0541	04 Sep 2018 17:38:41
CCV - 1		1.0000	1.0000	13425	99.0% 1.9797	05 Sep 2018 10:37:02
CCB - 1		1.0000	1.0000	-195	-0.0642	05 Sep 2018 10:39:36
MB 490-540517/1-A - 1		1.0000	1.0000	170	-0.0094	05 Sep 2018 10:42:11
LCS 490-540517/2-A - 1		1.0000	1.0000	12593	1.8548	05 Sep 2018 10:44:45
LCSD 490-540517/3-A - 1		1.0000	1.0000	12043	1.7723	05 Sep 2018 10:47:20
LB 490-540182/1-B - 1		1.0000	1.0000	-439	-0.1008	05 Sep 2018 10:49:54
490-157530-I-5-D - 1		1.0000	1.0000	82	-0.0226	05 Sep 2018 10:52:29
sd 490-157530-I-5-D@5 - 1		1.0000	1.0000	10	-0.0334	05 Sep 2018 10:55:03
pds 490-157530-I-5-D - 1		1.0000	1.0000	9306	1.3616	05 Sep 2018 10:57:38
490-157530-I-5-E MS - 1		1.0000	1.0000	12441	1.8320	05 Sep 2018 11:00:12
490-157530-I-5-F MSD - 1		1.0000	1.0000	12570	1.8514	05 Sep 2018 11:02:48
490-157530-A-1-D - 1		1.0000	1.0000	-303	-0.0804	05 Sep 2018 11:05:23
CCV - 1		1.0000	1.0000	13985	103.2% 2.0637	05 Sep 2018 11:07:59
CCB - 1		1.0000	1.0000	-174	-0.0610	05 Sep 2018 11:10:32
CCV - 1		1.0000	1.0000	13965	103.0% 2.0607	05 Sep 2018 11:13:08
CCB - 1		1.0000	1.0000	-186	-0.0628	05 Sep 2018 11:15:42

7471/245.5

Linear



A= 0.0000e+000

B= 1.0838e-004

C= -2.3625e-002

Rho= 0.9999474

Accept=Accepted

Accepted Date=

09/08/18 14:48

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
BLANK	0.000	0.028	0.028	477	2.500	480	475			
0.2	0.200	0.208	0.008	2139	0.0 %	2138	2140			
0.5	0.500	0.489	-0.011	4730	0.1 %	4736	4725			
1.0	1.000	0.982	-0.018	9276	0.5 %	9234	9318			
2.0	2.000	1.977	-0.023	18463	0.0 %	18458	18468			
2.5	2.500	2.505	0.005	23329	0.1 %	23346	23313			
5.0	5.000	5.011	0.011	46450	0.4 %	46262	46638			

090818 All Day

Method: 7471/245.5

Operator: Admin

Date of Analysis: 08 Sep 2018 14:22:10

Sample ID	Extended ID	Wt.	Vol.	µ Abs.	Conc.	Date
BLANK - 1		1.0000	1.0000	480	-	08 Sep 2018 14:29:16
BLANK - 2		1.0000	1.0000	475	-	08 Sep 2018 14:29:16
0.2 - 1		1.0000	1.0000	2138	-	08 Sep 2018 14:32:04
0.2 - 2		1.0000	1.0000	2140	-	08 Sep 2018 14:32:04
0.5 - 1		1.0000	1.0000	4736	-	08 Sep 2018 14:34:53
0.5 - 2		1.0000	1.0000	4725	-	08 Sep 2018 14:34:53
1.0 - 1		1.0000	1.0000	9234	-	08 Sep 2018 14:37:42
1.0 - 2		1.0000	1.0000	9318	-	08 Sep 2018 14:37:42
2.0 - 1		1.0000	1.0000	18458	-	08 Sep 2018 14:40:30
2.0 - 2		1.0000	1.0000	18468	-	08 Sep 2018 14:40:30
2.5 - 1		1.0000	1.0000	23346	-	08 Sep 2018 14:43:17
2.5 - 2		1.0000	1.0000	23313	-	08 Sep 2018 14:43:17
5.0 - 1		1.0000	1.0000	46262	-	08 Sep 2018 14:46:04
5.0 - 2		1.0000	1.0000	46638	-	08 Sep 2018 14:46:04
ICV - 1		1.0000	1.0000	23971	103.0% 2.5744	08 Sep 2018 14:48:51
ICB - 1		1.0000	1.0000	405	0.0203	08 Sep 2018 14:51:34
CRA - 1		1.0000	1.0000	3869	98.9% 0.3957	08 Sep 2018 14:54:19
CCV - 1		1.0000	1.0000	18545	99.3% 1.9863	08 Sep 2018 14:57:03
CCB - 1		1.0000	1.0000	452	0.0254	08 Sep 2018 14:59:47
MB 490-541313/1-A - 1		1.0000	1.0000	187	-0.0034	08 Sep 2018 15:02:32
LCS 490-541313/2-A - 1		1.0000	1.0000	8902	0.9412	08 Sep 2018 15:05:16
490-158137-B-2-D - 1		1.0000	1.0000	3119	0.3144	08 Sep 2018 15:08:01
sd 490-158137-B-2-D@5 - 1		1.0000	1.0000	555	0.0365	08 Sep 2018 15:10:45
pds 490-158137-B-2-D - 1		1.0000	1.0000	13748	1.4664	08 Sep 2018 15:13:29
490-158137-B-2-E MS - 1		1.0000	1.0000	12185	1.2970	08 Sep 2018 15:16:14
490-158137-B-2-F MSD - 1		1.0000	1.0000	12209	1.2996	08 Sep 2018 15:18:58
490-158137-B-3-B - 1		1.0000	1.0000	4745	0.4906	08 Sep 2018 15:21:43
490-158137-B-4-B - 1		1.0000	1.0000	10216	1.0836	08 Sep 2018 15:24:28
490-158137-B-5-B - 1		1.0000	1.0000	3550	0.3611	08 Sep 2018 15:27:14
CCV - 1		1.0000	1.0000	18530	99.2% 1.9847	08 Sep 2018 15:29:59
CCB - 1		1.0000	1.0000	387	0.0183	08 Sep 2018 15:32:43
490-158137-B-6-B - 1		1.0000	1.0000	4609	0.4759	08 Sep 2018 15:35:29
490-158137-B-7-B - 1		1.0000	1.0000	7196	0.7563	08 Sep 2018 15:38:15
490-158232-B-2-D - 1		1.0000	1.0000	2607	0.2589	08 Sep 2018 15:41:01
490-158232-B-3-B - 1		1.0000	1.0000	2304	0.2261	08 Sep 2018 15:43:46
490-158232-B-4-B - 1		1.0000	1.0000	1617	0.1516	08 Sep 2018 15:46:30
490-158232-A-5-C - 1		1.0000	1.0000	2387	0.2351	08 Sep 2018 15:49:14
490-158232-A-6-C - 1		1.0000	1.0000	2202	0.2150	08 Sep 2018 15:51:59
490-158232-B-7-B - 1		1.0000	1.0000	3444	0.3496	08 Sep 2018 15:54:43
490-158232-B-8-B - 1		1.0000	1.0000	2677	0.2665	08 Sep 2018 15:57:27
490-158232-B-9-B - 1		1.0000	1.0000	2940	0.2950	08 Sep 2018 16:00:13
CCV - 1		1.0000	1.0000	18604	99.6% 1.9927	08 Sep 2018 16:02:58
CCB - 1		1.0000	1.0000	421	0.0220	08 Sep 2018 16:05:42
490-158029-A-2-F - 1		1.0000	1.0000	1779	0.1692	08 Sep 2018 16:08:27
490-158174-A-1-J - 1		1.0000	1.0000	84	-0.0145	08 Sep 2018 16:11:12
490-158132-A-1-K - 1		1.0000	1.0000	384	0.0180	08 Sep 2018 16:13:58
490-158132-A-2-K - 1		1.0000	1.0000	565	0.0376	08 Sep 2018 16:16:44
490-158132-A-3-K - 1		1.0000	1.0000	2075	0.2013	08 Sep 2018 16:19:31
490-158132-A-4-O - 1		1.0000	1.0000	260	0.0046	08 Sep 2018 16:22:15
MB 490-541455/1-A - 1		1.0000	1.0000	467	0.0270	08 Sep 2018 16:25:00
LCS 490-541455/2-A - 1		1.0000	1.0000	9584	1.0151	08 Sep 2018 16:27:45
490-158747-B-3-D - 1		1.0000	1.0000	913	0.0753	08 Sep 2018 16:30:29
sd 490-158747-B-3-D@5 - 1		1.0000	1.0000	157	-0.0066	08 Sep 2018 16:33:14
CCV - 1		1.0000	1.0000	18499	99.1% 1.9813	08 Sep 2018 16:35:59
CCB - 1		1.0000	1.0000	469	0.0272	08 Sep 2018 16:38:42
pds 490-158747-B-3-D - 1		1.0000	1.0000	10841	1.1513	08 Sep 2018 16:41:28
490-158747-B-3-E MS - 1		1.0000	1.0000	10603	1.1255	08 Sep 2018 16:44:13
490-158747-B-3-F MSD - 1		1.0000	1.0000	10674	1.1332	08 Sep 2018 16:46:58
490-158673-A-1-F - 1		1.0000	1.0000	487	0.0292	08 Sep 2018 16:49:44
490-158675-A-1-F - 1		1.0000	1.0000	1892	0.1814	08 Sep 2018 16:52:30
490-157421-A-1-B - 1		1.0000	1.0000	70030	7.5663	08 Sep 2018 16:55:16
490-157421-A-2-B - 1		1.0000	1.0000	22339	2.3975	08 Sep 2018 16:58:02
490-157421-A-3-B - 1		1.0000	1.0000	54383	5.8704	08 Sep 2018 17:00:47
490-157439-A-1-B - 1		1.0000	1.0000	154312	16.7008	08 Sep 2018 17:03:32
490-157439-A-2-B - 1		1.0000	1.0000	62259	6.7240	08 Sep 2018 17:06:16
CCV - 1		1.0000	1.0000	17724	(L)94.9% 1.8973	08 Sep 2018 17:09:01
CCB - 1		1.0000	1.0000	222	0.0004	08 Sep 2018 17:11:45
490-157439-A-3-B - 1		1.0000	1.0000	39764	4.2860	08 Sep 2018 17:14:31
490-157421-A-1-B@5 - 1		1.0000	1.0000	18135	1.9419	08 Sep 2018 17:17:16
490-157421-A-3-B@5 - 1		1.0000	1.0000	13604	1.4508	08 Sep 2018 17:20:00
490-157439-A-1-B@10 - 1		1.0000	1.0000	18877	2.0223	08 Sep 2018 17:22:45
490-157439-A-2-B@5 - 1		1.0000	1.0000	14856	1.5865	08 Sep 2018 17:25:30
CCV - 1		1.0000	1.0000	18618	99.7% 1.9942	08 Sep 2018 17:28:16
CCB - 1		1.0000	1.0000	353	0.0146	08 Sep 2018 17:31:00

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville

Job Number: 490-158232-1

SDG No.: _____

Project: CUF_BS_20180828_1A

Client Sample ID	Lab Sample ID
<u>CUF-BS-BG13-0.0/0.5-20180828</u>	<u>490-158232-2</u>
<u>CUF-BS-BG13-0.75/2.75-20180828</u>	<u>490-158232-3</u>
<u>CUF-BS-BG13-6.5/8.5-20180828</u>	<u>490-158232-4</u>
<u>CUF-BS-FD02-20180828</u>	<u>490-158232-5</u>
<u>CUF-BS-BG14-0.0/0.5-20180828</u>	<u>490-158232-6</u>
<u>CUF-BS-BG14-1.0/3.0-20180828</u>	<u>490-158232-7</u>
<u>CUF-BS-BG14-6.5/8.5-20180828</u>	<u>490-158232-8</u>
<u>CUF-BS-BG14-10.3/12.3-20180828</u>	<u>490-158232-9</u>

Comments:

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG13-0.0/0.5-20180828

Lab Sample ID: 490-158232-2

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 12:21

Reporting Basis: WET

Date Received: 08/28/2018 20:12

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	7.0	0.1		SU			1	9045D

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG13-0.75/2.75-20180828

Lab Sample ID: 490-158232-3

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 12:45

Reporting Basis: WET

Date Received: 08/28/2018 20:12

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	7.7	0.1		SU			1	9045D

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG13-6.5/8.5-20180828

Lab Sample ID: 490-158232-4

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 13:05

Reporting Basis: WET

Date Received: 08/28/2018 20:12

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	7.9	0.1		SU			1	9045D

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-FD02-20180828

Lab Sample ID: 490-158232-5

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 00:01

Reporting Basis: WET

Date Received: 08/28/2018 20:12

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	7.3	0.1		SU			1	9045D

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG14-0.0/0.5-20180828

Lab Sample ID: 490-158232-6

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 15:10

Reporting Basis: WET

Date Received: 08/28/2018 20:12

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	7.2	0.1		SU			1	9045D

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG14-1.0/3.0-20180828

Lab Sample ID: 490-158232-7

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 15:37

Reporting Basis: WET

Date Received: 08/28/2018 20:12

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	7.3	0.1		SU			1	9045D

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG14-6.5/8.5-20180828

Lab Sample ID: 490-158232-8

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 15:51

Reporting Basis: WET

Date Received: 08/28/2018 20:12

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	7.1	0.1		SU			1	9045D

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG14-10.3/12.3-20180828

Lab Sample ID: 490-158232-9

Lab Name: TestAmerica Nashville

Job No.: 490-158232-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 08/28/2018 16:05

Reporting Basis: WET

Date Received: 08/28/2018 20:12

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	7.9	0.1		SU			1	9045D

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
 SDG No.: _____
 Analyst: JDG Batch Start Date: 08/29/2018
 Reporting Units: SU Analytical Batch No.: 539604

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
11	CCV	18:48	pH	7.0	7.00	100	98-103		LP_CCV pH 7.0 00068

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

6-IN
 DUPLICATE
 GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 539604 Date: 08/29/2018 18:48								
9045D	CUF-BS-BG13-0.0/0.5-20180828	490-158232-2	pH	7.0	SU			
9045D	CUF-BS-BG13-0.0/0.5-20180828	490-158232-2 DU	pH	7.0	SU	0	20	

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

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1
SDG No.: _____
Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 539604 Date: 08/29/2018 18:48											
LCS Source: LP_LCS 7.0_00063											
9045D	LCS 490-539604/1	pH	7.0		SU	7.00	101	98-103			

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

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - SOLUBLE

Lab Name: TestAmerica Nashville

Job Number: 490-158232-1

SDG Number: _____

Matrix: Solid

Instrument ID: NOEQUIP

Method: 9045D

RL Date: 01/16/2012 19:00

Leach Method: DI Leach

Analyte	Wavelength/ Mass	RL (SU)	
pH		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - SOLUBLE

Lab Name: TestAmerica Nashville Job Number: 490-158232-1
SDG Number: _____
Matrix: Solid Instrument ID: NOEQUIP
Method: 9045D XRL Date: 01/16/2012 19:01

Analyte	Wavelength/ Mass	XRL (SU)	
pH		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville

Job Number: 490-158232-1

SDG Number: _____

Matrix: Solid

Instrument ID: NOEQUIP

Method: Moisture

RL Date: 03/01/2011 13:57

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job Number: 490-158232-1
SDG Number: _____
Matrix: Solid Instrument ID: NOEQUIP
Method: Moisture XRL Date: 03/01/2011 14:03

Analyte	Wavelength/ Mass	XRL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: NOEQUIP Analysis Method: 9045D

Start Date: 08/29/2018 18:48 End Date: 08/29/2018 18:48

Lab Sample Id	D/F	T y p e	Time	p H	Analytes																											
LCS 490-539604/1	1	T	18:48	X																												
490-158232-2	1	S	18:48	X																												
490-158232-2 DU	1	S	18:48	X																												
490-158232-3	1	S	18:48	X																												
490-158232-4	1	S	18:48	X																												
490-158232-5	1	S	18:48	X																												
490-158232-6	1	S	18:48	X																												
490-158232-7	1	S	18:48	X																												
490-158232-8	1	S	18:48	X																												
490-158232-9	1	S	18:48	X																												
CCV 490-539604/11	1		18:48	X																												

Prep Types: _____
S = Soluble
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Instrument ID: NOEQUIP Analysis Method: Moisture

Start Date: 08/30/2018 12:50 End Date: 08/30/2018 12:50

Lab Sample Id	D/F	T y p e	Time	Analytes																											
				% S o l	M o i s t																										
490-158232-2		1 T	12:50	X	X																										
490-158232-2 DU		1 T	12:50	X	X																										
490-158232-3		1 T	12:50	X	X																										
490-158232-4		1 T	12:50	X	X																										
490-158232-5		1 T	12:50	X	X																										
490-158232-6		1 T	12:50	X	X																										
490-158232-7		1 T	12:50	X	X																										
490-158232-8		1 T	12:50	X	X																										
490-158232-9		1 T	12:50	X	X																										
ZZZZZZ			12:50																												
ZZZZZZ			12:50																												
ZZZZZZ			12:50																												
ZZZZZZ			12:50																												
ZZZZZZ			12:50																												
ZZZZZZ			12:50																												
ZZZZZZ			12:50																												

Prep Types: _____
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 539603 Batch Start Date: 08/29/18 18:46 Batch Analyst: Gawel, Jason D

Batch Method: DI Leach Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
490-158232-A-2	CUF-BS-BG13-0.0/ 0.5-20180828	DI Leach, 9045D	S	20 g	20 mL				
490-158232-A-3	CUF-BS-BG13-0.75 /2.75-20180828	DI Leach, 9045D	S	20 g	20 mL				
490-158232-A-4	CUF-BS-BG13-6.5/ 8.5-20180828	DI Leach, 9045D	S	20 g	20 mL				
490-158232-A-5	CUF-BS-FD02-2018 0828	DI Leach, 9045D	S	20 g	20 mL				
490-158232-A-6	CUF-BS-BG14-0.0/ 0.5-20180828	DI Leach, 9045D	S	20 g	20 mL				
490-158232-A-7	CUF-BS-BG14-1.0/ 3.0-20180828	DI Leach, 9045D	S	20 g	20 mL				
490-158232-A-8	CUF-BS-BG14-6.5/ 8.5-20180828	DI Leach, 9045D	S	20 g	20 mL				
490-158232-A-9	CUF-BS-BG14-10.3 /12.3-20180828	DI Leach, 9045D	S	20 g	20 mL				

Batch Notes	
Balance ID	1120430697
Batch Comment	9045D

Basis	Basis Description
S	Soluble

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 539604 Batch Start Date: 08/29/18 18:47 Batch Analyst: Gawel, Jason D

Batch Method: 9045D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LP_CCV pH 7.0 00068	LP_LCS 7.0 00063		
LCS 490-539604/1		9045D		0 g	20 mL		20 mL		
490-158232-A-2-A	CUF-BS-BG13-0.0/ 0.5-20180828	9045D	S	20 g	20 mL				
490-158232-A-2-A DU	CUF-BS-BG13-0.0/ 0.5-20180828	9045D	S	20 g	20 mL				
490-158232-A-3-A	CUF-BS-BG13-0.75 /2.75-20180828	9045D	S	20 g	20 mL				
490-158232-A-4-A	CUF-BS-BG13-6.5/ 8.5-20180828	9045D	S	20 g	20 mL				
490-158232-A-5-A	CUF-BS-FD02-2018 0828	9045D	S	20 g	20 mL				
490-158232-A-6-A	CUF-BS-BG14-0.0/ 0.5-20180828	9045D	S	20 g	20 mL				
490-158232-A-7-A	CUF-BS-BG14-1.0/ 3.0-20180828	9045D	S	20 g	20 mL				
490-158232-A-8-A	CUF-BS-BG14-6.5/ 8.5-20180828	9045D	S	20 g	20 mL				
490-158232-A-9-A	CUF-BS-BG14-10.3 /12.3-20180828	9045D	S	20 g	20 mL				
CCV 490-539604/11		9045D		0 g	20 mL	20 mL			

Batch Notes	
pH Buffer 1 ID	LP_pH4.0_00050
pH Buffer 2 ID	LP_CCVpH7.0_00068
pH Buffer 3 ID	LP_pH10.0_00043
pH Buffer 4 ID	LP_pH13.0_00018
pH Buffer 5 ID	LP_LCSpH7.0_00063
Calibration Date and Time	08/29/2018 1315
pH Meter Calibration Slope	100.1
pH Meter ID	S/N AB92333068
Probe ID	VVR1 11440
Sufficient volume for sample dup	Yes
Thermometer ID	150606784

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 539604 Batch Start Date: 08/29/18 18:47 Batch Analyst: Gawel, Jason D

Batch Method: 9045D Batch End Date: _____

Basis	Basis Description
S	Soluble

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158232-1

SDG No.: _____

Batch Number: 539781 Batch Start Date: 08/30/18 12:49 Batch Analyst: Ali, Blnd A

Batch Method: Moisture Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry	AnalysisComment		
490-158232-B-2	CUF-BS-BG13-0.0/0.5-20180828	Moisture	T	1.00 g	12.43 g	10.27 g	10.27@1530		
490-158232-B-2 DU	CUF-BS-BG13-0.0/0.5-20180828	Moisture	T	1.00 g	10.32 g	8.57 g	8.57@1530		
490-158232-B-3	CUF-BS-BG13-0.75/2.75-20180828	Moisture	T	1.00 g	10.30 g	7.97 g	7.97@1530		
490-158232-B-4	CUF-BS-BG13-6.5/8.5-20180828	Moisture	T	1.00 g	10.65 g	8.43 g	8.43@1530		
490-158232-B-5	CUF-BS-FD02-20180828	Moisture	T	1.00 g	11.90 g	9.77 g	9.77@1530		
490-158232-B-6	CUF-BS-BG14-0.0/0.5-20180828	Moisture	T	1.00 g	12.36 g	10.33 g	10.33@1530		
490-158232-B-7	CUF-BS-BG14-1.0/3.0-20180828	Moisture	T	1.00 g	10.17 g	8.21 g	8.21@1530		
490-158232-B-8	CUF-BS-BG14-6.5/8.5-20180828	Moisture	T	1.00 g	11.06 g	9.37 g	9.37@1530		
490-158232-B-9	CUF-BS-BG14-10.3/12.3-20180828	Moisture	T	1.00 g	12.71 g	10.63 g	10.63@1530		

Batch Notes	
Balance ID	PB602-S/1126143319 No Unit
Date samples were placed in the oven	08/30/2018
Oven Temp In	110 Degrees C
Time samples were place in the oven	13:01
Date samples were removed from oven	08/30/2018
Oven Temp Out	110 Degrees C
Time Samples were removed from oven	15:01
Oven ID	OA-B142345
Thermometer ID	OA-B142345

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Moisture

DI Leach: 539603

9045D: 539604



Daily pH Meter Run Log - Soil or Waste
SW-846 Method 9045C/D

Calibration

Analyst: JG
Date: 8/29/18
Time: 1315

pH Meter A (AB92340881)

Analyzed

Analyst: JG
Date: 8/29/18
Time: 1807

pH Meter B (AB92333068) 100.1

See attached page for calibration details.

New ID

4573961

62
63
64
65
66
67
68

Row	Sample ID	pH 1	pH 2	Temp. deg. C	<20% Water?*		Stirring Time	
					Yes	No	Start	Stop
LCS	00063	7.04	7.04	22.8				
	158232-A2	6.98	6.99	24.2				
du	158232-A2	6.99	6.99	24.2				
	158232-A3	7.72	7.73	24.3				
	158232-A4	7.92	7.92	23.4				
	158232-A5	7.33	7.33	23.6				
	158232-A6	7.15	7.15	23.5				
	158232-A7	7.34	7.34	23.5				
	158232-A8	7.14	7.13	23.5				
	158232-A9	7.86	7.86	23.2				
CCW	00068	7.00	7.00	22.5				

*By visual examination
pH run log-321

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Nashville, TN

Daily Calibration Report

Analyst: J 6

Date: 8/29/18

Time: 1315

Thermometer: Meter A: VVY1 2197
Meter B: VVR1 11440

pH Meter A (AB92340881)			
Buffer	Buffer ID	pH	Slope
1	LP_pH1.0_000 31	1.00	101.0
4	LP_pH4.0_000 51	4.00	—
7	LP_CCVpH7.0_000 69	7.01	98.6
10	LP_pH10.0_000 44	10.04	99.0
13	LP_pH13.0_000 —		
ICV	LP_LCSpH7.0_000 64	7.01	97.8

final 99.8

pH Meter B (AB92333068)			
Buffer	Buffer ID	pH	Slope
1	LP_pH1.0_000		
4	LP_pH4.0_000 30	4.00	—
7	LP_CCVpH7.0_000 68	7.01	99.0
10	LP_pH10.0_000 43	10.02	100.8
13	LP_pH13.0_000 18	12.90	98.9
ICV	LP_LCSpH7.0_000 63	7.01	99.6

final 100.1

pH Meter (AB92346712)			
Buffer	Buffer ID	pH	Slope
1	LP_pH1.0_000		
4	LP_pH4.0_000		
7	LP_CCVpH7.0_000		
10	LP_pH10.0_000		
13	LP_pH13.0_000		
ICV	LP_LCSpH7.0_000		

Shipping and Receiving Documents

COOLER RECEIPT FORM



490-158232 Chain of Custody

Cooler Received/Opened On 08-28-2018 @ 2012

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # N/A (last 4 digits, FedEx) Courier: Lab
IR Gun ID 31470366 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 4.2 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO... NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 2 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) EA

7. Were custody seals on containers: YES NO 8-29-18 EA and Intact YES...NO...NA 8-29-18 EA

Were these signed and dated correctly? YES...NO...NA 8-29-18 EA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES... NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO... NA



Larger than this.

14. Was there a Trip Blank in this cooler? YES... NO...NA If multiple coolers, sequence # 14

I certify that I unloaded the cooler and answered questions 7-14 (initial) EA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO... NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO... NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) EA

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) EA

I certify that I attached a label with the unique LIMS number to each container (initial) EA

21. Were there Non-Conformance issues at login? YES... NO Was a NCM generated? YES... NO...# _____

COOLER RECEIPT FORM

Cooler Received/Opened On 08-28-2018 @ 2012

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # 114 (last 4 digits, FedEx) Courier: L96
IR Gun ID 31470366 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 5.7 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO... NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 2 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) EA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES... NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO... NA



Larger than this.

14. Was there a Trip Blank in this cooler? YES... NO...NA If multiple coolers, sequence # 1st

I certify that I unloaded the cooler and answered questions 7-14 (initial) EA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO... NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO... NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) EA

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) EA

I certify that I attached a label with the unique LIMS number to each container (initial) EA

21. Were there Non-Conformance issues at login? YES... NO Was a NCM generated? YES... NO...# _____

COOLER RECEIPT FORM

Cooler Received/Opened On 08-28-2018 @ 2017

Time Samples Removed From Cooler _____ Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # N/A (last 4 digits, FedEx) Courier: Lgb
IR Gun ID 31470366 pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 4.4 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 2 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) EG

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA



Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (initial) EG

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) EG

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) EG

I certify that I attached a label with the unique LIMS number to each container (initial) EG

21. Were there Non-Conformance issues at login? YES...NO...# Was a NCM generated? YES...NO...#

