

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Rita Schmon-Stasik
Leidos, Inc.
Picatinny Arsenal
356 Ninth Avenue
Suite 106
Dover NJ 07801

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JOB DESCRIPTION

RVAAP FWGW Spring 2023

JOB NUMBER

280-176271-1

Eurofins Denver

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



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Authorized for release by
Patrick J McEntee, Client Service Manager
Patrick.McEntee@et.eurofinsus.com
303 736-0107

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Definitions/Glossary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

CASE NARRATIVE

Client: Leidos, Inc.

Project: RVAAP FWGW Spring 2023

Report Number: 280-176271-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

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

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

RECEIPT

The samples were received on 5/10/2023 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9° C.

AMMONIA

Samples LL12mw-246-230401-GW (280-176271-1) and LL12-MW-RB246_2023 (280-176271-2) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 05/23/2023.

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

ANIONS, ION CHROMATOGRAPHY

Samples LL12mw-246-230401-GW (280-176271-1) and LL12-MW-RB246_2023 (280-176271-2) were analyzed for Anions, Ion Chromatography in accordance with 9056A (48 Hours). The samples were analyzed on 05/10/2023 and 05/11/2023.

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

Detection Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

Client Sample ID: LL12mw-246-230401-GW

Lab Sample ID: 280-176271-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.14		0.10	0.050	0.029	mg/L	1		350.1	Total/NA

Client Sample ID: LL12-MW-RB246_2023

Lab Sample ID: 280-176271-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.029	J	0.10	0.050	0.029	mg/L	1		350.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

General Chemistry

Client Sample ID: LL12mw-246-230401-GW

Date Collected: 05/09/23 10:54

Date Received: 05/10/23 09:50

Lab Sample ID: 280-176271-1

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	0.14		0.10	0.050	0.029	mg/L		05/23/23 12:26	1
Nitrate as N (SW846 9056)	0.20	U M	0.50	0.20	0.090	mg/L		05/10/23 19:47	1

Client Sample ID: LL12-MW-RB246_2023

Date Collected: 05/09/23 13:50

Date Received: 05/10/23 09:50

Lab Sample ID: 280-176271-2

Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	0.029	J	0.10	0.050	0.029	mg/L		05/23/23 12:43	1
Nitrate as N (SW846 9056)	0.20	U M	0.50	0.20	0.090	mg/L		05/11/23 09:04	1

Default Detection Limits

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

General Chemistry

Analyte	LOQ	DL	Units
Ammonia as N	0.10	0.029	mg/L
Nitrate as N	0.50	0.090	mg/L

QC Sample Results

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-613561/90
Matrix: Water
Analysis Batch: 613561

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N	0.050	U	0.10	0.050	0.029	mg/L		05/23/23 12:13	1

Lab Sample ID: LCS 280-613561/89
Matrix: Water
Analysis Batch: 613561

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	2.50	2.58		mg/L		103	90 - 110

Method: 9056 - Anions, Ion Chromatography

Lab Sample ID: MB 280-611944/44
Matrix: Water
Analysis Batch: 611944

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N	0.20	U	0.50	0.20	0.090	mg/L		05/11/23 02:49	1

Lab Sample ID: MB 280-611944/6
Matrix: Water
Analysis Batch: 611944

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N	0.20	U	0.50	0.20	0.090	mg/L		05/10/23 13:58	1

Lab Sample ID: LCS 280-611944/4
Matrix: Water
Analysis Batch: 611944

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	2.50	2.35	M	mg/L		94	88 - 111

Lab Sample ID: LCS 280-611944/40
Matrix: Water
Analysis Batch: 611944

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	2.50	2.46	M	mg/L		98	88 - 111

Lab Sample ID: LCSD 280-611944/43
Matrix: Water
Analysis Batch: 611944

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
Nitrate as N	2.50	2.47	M	mg/L		99	88 - 111	0	10

QC Sample Results

Client: Leidos, Inc.
 Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

Method: 9056 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 280-611944/5
Matrix: Water
Analysis Batch: 611944

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
Nitrate as N	2.50	2.35	M	mg/L		94	88 - 111	0	10

Lab Sample ID: MRL 280-611944/3
Matrix: Water
Analysis Batch: 611944

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.250	0.223	J M	mg/L		89	50 - 150

QC Association Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

General Chemistry

Analysis Batch: 611944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176271-1	LL12mw-246-230401-GW	Total/NA	Water	9056	
280-176271-2	LL12-MW-RB246_2023	Total/NA	Water	9056	
MB 280-611944/44	Method Blank	Total/NA	Water	9056	
MB 280-611944/6	Method Blank	Total/NA	Water	9056	
LCS 280-611944/4	Lab Control Sample	Total/NA	Water	9056	
LCS 280-611944/40	Lab Control Sample	Total/NA	Water	9056	
LCSD 280-611944/43	Lab Control Sample Dup	Total/NA	Water	9056	
LCSD 280-611944/5	Lab Control Sample Dup	Total/NA	Water	9056	
MRL 280-611944/3	Lab Control Sample	Total/NA	Water	9056	

Analysis Batch: 613561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176271-1	LL12mw-246-230401-GW	Total/NA	Water	350.1	
280-176271-2	LL12-MW-RB246_2023	Total/NA	Water	350.1	
MB 280-613561/90	Method Blank	Total/NA	Water	350.1	
LCS 280-613561/89	Lab Control Sample	Total/NA	Water	350.1	

Lab Chronicle

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

Client Sample ID: LL12mw-246-230401-GW

Lab Sample ID: 280-176271-1

Date Collected: 05/09/23 10:54

Matrix: Water

Date Received: 05/10/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	613561	05/23/23 12:26	MMP	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	611944	05/10/23 19:47	MEC	EET DEN

Client Sample ID: LL12-MW-RB246_2023

Lab Sample ID: 280-176271-2

Date Collected: 05/09/23 13:50

Matrix: Water

Date Received: 05/10/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	613561	05/23/23 12:43	MMP	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	611944	05/11/23 09:04	MEC	EET DEN

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23

Method Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

Method	Method Description	Protocol	Laboratory
350.1	Nitrogen, Ammonia	EPA	EET DEN
9056	Anions, Ion Chromatography	SW846	EET DEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176271-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-176271-1	LL12mw-246-230401-GW	Water	05/09/23 10:54	05/10/23 09:50
280-176271-2	LL12-MW-RB246_2023	Water	05/09/23 13:50	05/10/23 09:50

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_IonChrom10 Analysis Batch Number: 608435

Lab Sample ID: STD 280-608435/1 IC Client Sample ID: _____

Date Analyzed: 04/12/23 14:04 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Orthophosphate as P	9.45	Baseline Smoothing	LVW8	04/12/23 15:40

Lab Sample ID: STD 280-608435/2 IC Client Sample ID: _____

Date Analyzed: 04/12/23 14:19 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.12	Baseline Smoothing	LVW8	04/12/23 15:41
Nitrate as N	7.38	Baseline Smoothing	LVW8	04/12/23 15:41
Orthophosphate as P	9.81	Baseline Smoothing	LVW8	04/12/23 15:41

Lab Sample ID: STD 280-608435/3 IC Client Sample ID: _____

Date Analyzed: 04/12/23 14:34 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.12	Baseline Smoothing	LVW8	04/12/23 15:41
Nitrate as N	7.12	Baseline Smoothing	LVW8	04/12/23 15:41
Orthophosphate as P	9.41	Baseline Smoothing	LVW8	04/12/23 15:42

Lab Sample ID: STD 280-608435/4 IC Client Sample ID: _____

Date Analyzed: 04/12/23 14:49 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.11	Baseline Smoothing	LVW8	04/12/23 15:42
Nitrate as N	7.10	Baseline Smoothing	LVW8	04/12/23 15:42
Orthophosphate as P	9.39	Baseline Smoothing	LVW8	04/12/23 15:42

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_IonChrom10 Analysis Batch Number: 608435

Lab Sample ID: STD 280-608435/5 IC Client Sample ID: _____

Date Analyzed: 04/12/23 15:04 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.11	Baseline Smoothing	LVW8	04/12/23 15:43
Nitrate as N	7.08	Baseline Smoothing	LVW8	04/12/23 15:43
Orthophosphate as P	9.37	Baseline Smoothing	LVW8	04/12/23 15:43

Lab Sample ID: STD 280-608435/6 IC Client Sample ID: _____

Date Analyzed: 04/12/23 15:19 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.10	Baseline Smoothing	LVW8	04/12/23 15:43
Nitrate as N	7.06	Baseline Smoothing	LVW8	04/12/23 15:43
Orthophosphate as P	9.35	Baseline Smoothing	LVW8	04/12/23 15:43

Lab Sample ID: ICV 280-608435/7 Client Sample ID: _____

Date Analyzed: 04/12/23 15:34 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.11	Baseline Smoothing	XAY4	04/14/23 13:56

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_IonChrom10 Analysis Batch Number: 611944

Lab Sample ID: CCV 280-611944/1 Client Sample ID: _____

Date Analyzed: 05/10/23 12:43 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.04	Baseline Smoothing	LVW8	05/11/23 12:44
Nitrate as N	6.97	Baseline Smoothing	LVW8	05/11/23 12:44

Lab Sample ID: MRL 280-611944/3 Client Sample ID: _____

Date Analyzed: 05/10/23 13:13 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	7.01	Baseline Smoothing	LVW8	05/11/23 12:45

Lab Sample ID: LCS 280-611944/4 Client Sample ID: _____

Date Analyzed: 05/10/23 13:28 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	6.97	Baseline Smoothing	LVW8	05/11/23 12:45

Lab Sample ID: LCSD 280-611944/5 Client Sample ID: _____

Date Analyzed: 05/10/23 13:43 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	6.98	Baseline Smoothing	LVW8	05/11/23 12:46

Lab Sample ID: 280-176271-1 Client Sample ID: LL12mw-246-230401-GW

Date Analyzed: 05/10/23 19:47 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	7.20	Baseline Smoothing	LVW8	05/11/23 12:50

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_IonChrom10 Analysis Batch Number: 611944

Lab Sample ID: CCV 280-611944/17 Client Sample ID: _____

Date Analyzed: 05/10/23 20:02 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.06	Baseline Smoothing	LVW8	05/11/23 12:50
Nitrate as N	7.00	Baseline Smoothing	LVW8	05/11/23 12:50

Lab Sample ID: CCV 280-611944/29 Client Sample ID: _____

Date Analyzed: 05/10/23 23:03 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.06	Baseline Smoothing	LVW8	05/11/23 12:54
Nitrate as N	7.01	Baseline Smoothing	LVW8	05/11/23 12:54

Lab Sample ID: LCS 280-611944/40 Client Sample ID: _____

Date Analyzed: 05/11/23 01:49 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	7.00	Baseline Smoothing	LVW8	05/11/23 12:58

Lab Sample ID: CCV 280-611944/41 Client Sample ID: _____

Date Analyzed: 05/11/23 02:04 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.06	Baseline Smoothing	LVW8	05/11/23 12:58
Nitrate as N	7.00	Baseline Smoothing	LVW8	05/11/23 12:58

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_IonChrom10 Analysis Batch Number: 611944

Lab Sample ID: LCSD 280-611944/43 Client Sample ID: _____

Date Analyzed: 05/11/23 02:34 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	7.00	Baseline Smoothing	LVW8	05/11/23 12:59

Lab Sample ID: CCV 280-611944/53 Client Sample ID: _____

Date Analyzed: 05/11/23 05:03 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.06	Baseline Smoothing	LVW8	05/11/23 13:02
Nitrate as N	7.00	Baseline Smoothing	LVW8	05/11/23 13:02

Lab Sample ID: CCV 280-611944/65 Client Sample ID: _____

Date Analyzed: 05/11/23 08:04 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.06	Baseline Smoothing	LVW8	05/11/23 13:07
Nitrate as N	7.00	Baseline Smoothing	LVW8	05/11/23 13:07

Lab Sample ID: 280-176271-2 Client Sample ID: LL12-MW-RB246_2023

Date Analyzed: 05/11/23 09:04 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	7.06	Baseline Smoothing	LVW8	05/11/23 13:09

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_IonChrom10 Analysis Batch Number: 611944

Lab Sample ID: CCV 280-611944/77 Client Sample ID: _____

Date Analyzed: 05/11/23 11:04 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrite as N	5.02	Baseline Smoothing	LVW8	05/11/23 13:12
Nitrate as N	6.93	Baseline Smoothing	LVW8	05/11/23 13:12

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-176271-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00583	05/24/23	05/17/23	Di Water, Lot na	100 mL	NH3 CAL STD_00035	10 mL	Ammonia as N	100 mg/L
.NH3 CAL STD 00035	01/31/24		Ricca, Lot 4208D17		(Purchased Reagent)		Ammonia as N	1000 mg/L
350.1 ICV 00564	05/24/23	05/17/23	na, Lot na	100 mL	NH3 ICV STD 00034	10 mL	Ammonia as N	100.2 mg/L
.NH3 ICV STD 00034	01/25/25		Inorganic Ventures, Lot S2-NH700817		(Purchased Reagent)		Ammonia as N	1002 mg/L
IC Cal low_00703	04/19/23	04/12/23	Di Water, Lot NA	100 mL	IC N03 cal_00028	2.5 mL	Nitrate as N	25 mg/L
					IC NO2 Cal_00007	2.5 mL	Nitrite as N	25 mg/L
					IC P04 cal_00030	2.5 mL	Orthophosphate as P	25 mg/L
.IC N03 cal_00028	11/30/23		Ricca, Lot 2205B73		(Purchased Reagent)		Nitrate as N	1000 mg/L
.IC NO2 Cal_00007	06/30/23		Ricca, Lot 2212826		(Purchased Reagent)		Nitrite as N	1000 mg/L
.IC P04 cal_00030	07/31/24		RICCA, Lot 4208152		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC Cal low_00708	05/17/23	05/10/23	Di Water, Lot NA	100 mL	IC N03 cal_00028	2.5 mL	Nitrate as N	25 mg/L
.IC N03 cal_00028	11/30/23		Ricca, Lot 2205B73		(Purchased Reagent)		Nitrate as N	1000 mg/L
IC ICV 5_00403	04/19/23	04/12/23	Di Water, Lot na	100 mL	IC N03 ICV_00019	2.5 mL	Nitrate as N	25 mg/L
.IC N03 ICV_00019	12/01/23		ERA, Lot 011221m		(Purchased Reagent)		Nitrate as N	1000 mg/L
IC LCS 01953	05/17/23	05/10/23	Di Water, Lot 27	200 mL	IC Cal low_00708	20 mL	Nitrate as N	2.5 mg/L
.IC Cal low_00708	05/17/23	05/10/23	Di Water, Lot NA	100 mL	IC N03 cal_00028	2.5 mL	Nitrate as N	25 mg/L
..IC N03 cal_00028	11/30/23		Ricca, Lot 2205B73		(Purchased Reagent)		Nitrate as N	1000 mg/L

Reagent

IC N03 cal_00028

Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO₃)

Lot Number: 2205B73

Product Number: 5459

Manufacture Date: MAY 11, 2022

Expiration Date: NOV 2023

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO ₃ -N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO ₃ -N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO ₃ -N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO ₃ -N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Myrlande Gilles (05/11/2022)

Quality Control

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC NO2 Cal_00007

Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO₂)

Lot Number: 2212826

Product Number: 5461

Manufacture Date: DEC 08, 2022

Expiration Date: JUN 2023

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS
Chloroform	67-66-3	

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	1005 ppm N	8040

Specification	Reference
Nitrite Solution, Stock (1.0 mL = 1.0 mg NO ₂ -N)	ASTM (D 3867 A)
Nitrite Solution, Stock (1.0 mL = 1.0 mg NO ₂ -N)	ASTM (D 3867 B)
Stock Nitrite Solution: 1 mL = 1.0 mg NO ₂ -N	EPA (353.2)
Stock Nitrite Solution: 1.0 mL = 1.00 mg NO ₂ -N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5461-16	500 mL natural poly	6 months
5461-4	120 mL natural poly	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)



Myrlande Gilles (12/08/2022)

Quality Control

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Reagent

IC NO3 ICV_00019



A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product: 1000 mg/L Nitrate as N (NO₃-N)
Catalog Number: 052-125mL, 991-500mL
Lot No. 011221m
Starting Material: Potassium Nitrate (KNO₃)
Matrix: 18 megohm deionized water
Density: 1.0029 ± 0.0005 g/mL 20.2 °C and 749 mm Hg
Verification Method: Ion Chromatography
Certificate Issue Date: December 21, 2021
Expiration Date: December 1, 2023
Revision Number: Original

CERTIFICATION

Parameter	Certified Value ¹	Uncertainty ²	NIST Traceability	
	mg/L		SRM Number ³	Recovery %
Nitrate as N (NO ₃ -N)	1000	1.57	3185	101

Certified Reference Material

• Certificate of Analysis •

1. The **Certified Value** is the actual gravimetric/volumetric "made-to" concentration confirmed by ERA analytical verification. The certified value is monitored and the purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor ($k=2$). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:

$$U_{\text{expanded}} = k * \text{SQRT}((U_{\text{char}})^2 + (U_{\text{homogen}})^2 + (U_{\text{LTS}})^2 + (U_{\text{STS}})^2 + (U_{\text{RSS}})^2)$$

Where:

U_{expanded} = Expanded uncertainty.

k = Coverage factor.

U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.

U_{homogen} = Standard uncertainty of the homogeneity assessment.

U_{LTS} = Standard uncertainty associated with long-term stability.

U_{STS} = Standard uncertainty associated with short-term (transport) stability.

U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = $\{(\% \text{ recovery ERA certified reference material}) / (\% \text{ recovery NIST SRM})\} * 100$

The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

4. **Metrological Traceability.** This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

5. **Storage:** 20-25°C

6. **Intended Use:** This standard is intended to be used to calibrate your analytical process and/or as a quality control check of the entire process for the analytes/matrix included in the standard.

7. **Minimum Sample Size:** ERA suggests that when subsampling this product prior to analysis, you use a minimum sample size of at least 1 mL. Using a smaller sample size may invalidate the assigned value and/or uncertainty shown.

8. **Repeat Sampling:** Repeated Sampling of this product is permitted, provided minimum sample sizes and storage instructions are adhered to.

9. **Safety:** ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. Safety Data Sheets (SDS) for all ERA products are available through our website: www.eraqc.com

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer
Brian Miller



Quality Officer
Matthew Seebeck



Reagent

IC P04 cal_00030

Certificate of Analysis

Phosphorus AA Standard, 1000 ppm P in H₂O

Lot Number: 4208152

Product Number: AP1KW

Manufacture Date: AUG 02, 2022

Expiration Date: JUL 2024

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.

The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Dihydrogen Phosphate	7722-76-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Phosphorus (P)	995-1005 ppm	1000 ppm	3139

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
AP1KW-500	500 mL natural poly	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Paul Brandon (08/02/2022)

Production Manager

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Reagent

NH3 CAL STD_00035

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH₃)

Lot Number: 4208D17

Product Number: 5455

Manufacture Date: AUG 05, 2022

Expiration Date: JAN 2024

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH ₃ -N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Paul Brandon (08/05/2022)

Production Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

NH3 ICV STD_00034

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Ion Chromatography Solution
 Catalog Number: ICNNH41
 Lot Number: S2-NH700817
 Matrix: H2O
 Value / Analyte(s): 1 000 µg/mL ea:
 Ammonium as N
 Starting Material: Ammonium chloride
 Starting Material Lot#: 1736
 Starting Material Purity: 99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 4 µg/mL
Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **995 ± 4 µg/mL**
 Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **1002 ± 4 µg/mL**
 IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_i)^2 (u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

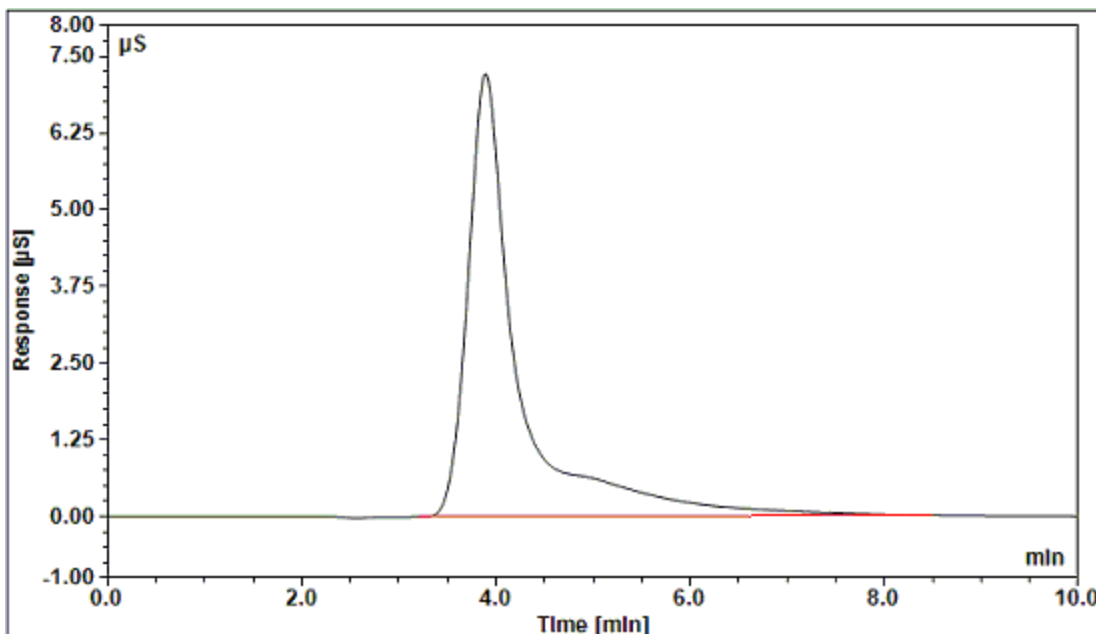
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS18 2 x 250 mm	Eluent:	10 mM MSA
Guard Column:	IonPac CG18 2 x 50 mm	Eluent Flow Rate:	0.25 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	Column Temp:	30°C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	Cell Temp:	35°C
Suppressor Current/ Chemical Suppressant:	8 mA	Scale X-Axis:	minutes
		Scale Y-Axis:	8 µS/cm
		Concentration:	10 µg/g

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 25, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 25, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver _____ Job Number: 280-176271-1 _____

SDG No.: _____

Project: RVAAP FWGW Spring 2023 _____

Client Sample ID	Lab Sample ID
LL12mw-246-230401-GW	280-176271-1
LL12-MW-RB246_2023	280-176271-2

Comments:

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: LL12mw-246-230401-GW

Lab Sample ID: 280-176271-1

Lab Name: Eurofins Denver

Job No.: 280-176271-1

SDG ID.: _____

Matrix: Water

Date Sampled: 05/09/2023 10:54

Reporting Basis: WET

Date Received: 05/10/2023 09:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia as N	0.14	0.10	0.050	0.029	mg/L			1	350.1
Nitrate as N	0.20	0.50	0.20	0.090	mg/L	U	M	1	9056

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: LL12-MW-RB246_2023

Lab Sample ID: 280-176271-2

Lab Name: Eurofins Denver

Job No.: 280-176271-1

SDG ID.: _____

Matrix: Water

Date Sampled: 05/09/2023 13:50

Reporting Basis: WET

Date Received: 05/10/2023 09:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia as N	0.029	0.10	0.050	0.029	mg/L	J		1	350.1
Nitrate as N	0.20	0.50	0.20	0.090	mg/L	U	M	1	9056

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1
 SDG No.: _____
 Analyst: MMP Batch Start Date: 05/23/2023
 Reporting Units: mg/L Analytical Batch No.: 613561

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICV	08:51	Ammonia as N	2.49	2.51	99	90-110		350.1 ICV_00564
15	ICVL	08:53	Ammonia as N	0.491	0.501	98	90-110		350.1 ICV_00564
16	ICB	08:56	Ammonia as N	0.050				U	
83	CCV	11:54	Ammonia as N	2.58	2.50	103	90-110		350.1 cal_00583
84	CCVL	11:57	Ammonia as N	0.520	0.500	104	90-110		350.1 cal_00583
85	CCB	12:00	Ammonia as N	0.050				U	
96	CCV	12:29	Ammonia as N	2.47	2.50	99	90-110		350.1 cal_00583
97	CCVL	12:32	Ammonia as N	0.512	0.500	102	90-110		350.1 cal_00583
98	CCB	12:34	Ammonia as N	0.050				U	
111	CCV	13:09	Ammonia as N	2.55	2.50	102	90-110		350.1 cal_00583
112	CCVL	13:12	Ammonia as N	0.494	0.500	99	90-110		350.1 cal_00583
113	CCB	13:14	Ammonia as N	0.050				U	

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

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1
SDG No.: _____
Analyst: EJS Batch Start Date: 04/12/2023
Reporting Units: mg/L Analytical Batch No.: 608435

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
7	ICV	15:34	Nitrate as N	2.15	2.00	107	90-110		IC ICV 5_00403
8	ICB	15:49	Nitrate as N	0.20				U	

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

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1
 SDG No.: _____
 Analyst: MEC Batch Start Date: 05/10/2023
 Reporting Units: mg/L Analytical Batch No.: 611944

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:43	Nitrate as N	2.34	2.50	94	90-110		IC LCS_01953
2	CCB	12:58	Nitrate as N	0.20				U	
17	CCV	20:02	Nitrate as N	2.50	2.50	100	90-110		IC LCS_01953
18	CCB	20:17	Nitrate as N	0.20				U	
29	CCV	23:03	Nitrate as N	2.50	2.50	100	90-110		IC LCS_01953
30	CCB	23:18	Nitrate as N	0.20				U	
41	CCV	02:04	Nitrate as N	2.50	2.50	100	90-110		IC LCS_01953
42	CCB	02:19	Nitrate as N	0.20				U	
53	CCV	05:03	Nitrate as N	2.50	2.50	100	90-110		IC LCS_01953
54	CCB	05:18	Nitrate as N	0.20				U	
65	CCV	08:04	Nitrate as N	2.50	2.50	100	90-110		IC LCS_01953
66	CCB	08:19	Nitrate as N	0.20				U	
77	CCV	11:04	Nitrate as N	2.49	2.50	100	90-110		IC LCS_01953
78	CCB	11:20	Nitrate as N	0.20				U	

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

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver

Job No.: 280-176271-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 613561 Date: 05/23/2023 12:13							
350.1	MB 280-613561/90	Ammonia as N	0.050	U	mg/L	0.10	1
Batch ID: 611944 Date: 05/10/2023 13:58							
9056	MB 280-611944/6	Nitrate as N	0.20	U	mg/L	0.50	1
Batch ID: 611944 Date: 05/11/2023 02:49							
9056	MB 280-611944/44	Nitrate as N	0.20	U	mg/L	0.50	1

7A-IN
 LAB CONTROL SAMPLE
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 613561 Date: 05/23/2023 12:10											
350.1	LCS 280-613561/89	Ammonia as N	2.58		mg/L	2.50	103	90-110			
LCS Source: 350.1 cal_00583											
Batch ID: 611944 Date: 05/10/2023 13:28											
9056	LCS 280-611944/4	Nitrate as N	2.35		mg/L	2.50	94	88-111	0	10	M
LCS Source: IC LCS_01953											
Batch ID: 611944 Date: 05/11/2023 01:49											
9056	LCS 280-611944/40	Nitrate as N	2.46		mg/L	2.50	98	88-111	0	10	M
LCS Source: IC LCS_01953											

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

7A-IN
 LAB CONTROL SAMPLE DUPLICATE
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1
 SDG No.: _____
 Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 611944 Date: 05/10/2023 13:43											
						LCSD Source: IC LCS_01953					
9056	LCSD 280-611944/5	Nitrate as N	2.35		mg/L	2.50	94	88-111	0	10	M
Batch ID: 611944 Date: 05/11/2023 02:34											
						LCSD Source: IC LCS_01953					
9056	LCSD 280-611944/43	Nitrate as N	2.47		mg/L	2.50	99	88-111	0	10	M

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

7A-IN
 METHOD REPORTING LIMIT CHECK
 GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1
 SDG No.: _____
 Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 611944			Date: 05/10/2023 13:13			LCS Source: IC Cal low_00708					
9056	MRL 280-611944/3	Nitrate as N	0.223	J	mg/L	0.250	89	50-150			M

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

16A-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Eurofins Denver Job No: 280-176271-1
SDG No.: _____ Analysis Batch No.: 608435
Instrument ID: WC_IonChrom10 Calibration ID: 79245
Start Date: 04/12/2023 14:04 End Date: 04/12/2023 15:19
Analytical Method: 9056

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Nitrate as N	0.9995	45900000	-1630000	WLR	Inverse Conc

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-176271-1
SDG No.: _____ Analysis Batch No.: 608435
Instrument ID: WC_IonChrom10 Calibration ID: 79245
Start Date: 04/12/2023 14:04 End Date: 04/12/2023 15:19
Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N				0.20	0.22	10	0.50	0.47	-6

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-176271-1
 SDG No.: _____ Analysis Batch No.: 608435
 Instrument ID: WC_IonChrom10 Calibration ID: 79245
 Start Date: 04/12/2023 14:04 End Date: 04/12/2023 15:19
 Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	1.0	0.95	-5	2.5	2.5	0	5.0	5.1	1

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver

Job Number: 280-176271-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_SKALAR_01

Method: 350.1

DL Date: 04/29/2022 13:46

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia as N		0.1	0.029

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-176271-1
SDG Number: _____
Matrix: Water Instrument ID: WC_SKALAR_01
Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia as N		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver

Job Number: 280-176271-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom10

Method: 9056

DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate as N		0.5	0.0901

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-176271-1
SDG Number: _____
Matrix: Water Instrument ID: WC_IonChrom10
Method: 9056 XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.5	0.0901

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/23/2023 08:15 End Date: 05/23/2023 17:47

Lab Sample Id	D/F	Type	Time	Analytes																											
				NH3																											
ZZZZZZ			08:15																												
ZZZZZZ			08:17																												
ZZZZZZ			08:21																												
ZZZZZZ			08:24																												
ZZZZZZ			08:27																												
ZZZZZZ			08:29																												
ZZZZZZ			08:32																												
ZZZZZZ			08:34																												
ZZZZZZ			08:37																												
ZZZZZZ			08:40																												
ZZZZZZ			08:42																												
ZZZZZZ			08:45																												
ZZZZZZ			08:48																												
ICV 280-613561/14	1		08:51	X																											
ICVL 280-613561/15	1		08:53	X																											
ICB 280-613561/16	1		08:56	X																											
ZZZZZZ			08:58																												
ZZZZZZ			09:01																												
ZZZZZZ			09:04																												
ZZZZZZ			09:06																												
ZZZZZZ			09:09																												
ZZZZZZ			09:12																												
ZZZZZZ			09:14																												
ZZZZZZ			09:17																												
ZZZZZZ			09:20																												
ZZZZZZ			09:22																												
CCV 280-613561/27			09:25																												
CCVL 280-613561/28			09:28																												
CCB 280-613561/29			09:30																												
ZZZZZZ			09:33																												
ZZZZZZ			09:36																												
ZZZZZZ			09:38																												
ZZZZZZ			09:41																												
ZZZZZZ			09:43																												
ZZZZZZ			09:46																												
ZZZZZZ			09:49																												
ZZZZZZ			09:52																												
ZZZZZZ			09:54																												
ZZZZZZ			09:57																												
CCV 280-613561/40			09:59																												
CCVL 280-613561/41			10:02																												

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/23/2023 08:15 End Date: 05/23/2023 17:47

Lab Sample Id	D/F	Type	Time	Analytes															
				NH3															
CCB 280-613561/42			10:05																
ZZZZZZ			10:08																
ZZZZZZ			10:10																
ZZZZZZ			10:14																
ZZZZZZ			10:16																
ZZZZZZ			10:18																
ZZZZZZ			10:21																
ZZZZZZ			10:24																
ZZZZZZ			10:26																
ZZZZZZ			10:29																
ZZZZZZ			10:32																
ZZZZZZ			10:34																
ZZZZZZ			10:37																
CCV 280-613561/55			10:40																
CCVL 280-613561/56			10:42																
CCB 280-613561/57			10:45																
ZZZZZZ			10:48																
ZZZZZZ			10:50																
ZZZZZZ			10:53																
ZZZZZZ			10:56																
ZZZZZZ			10:58																
ZZZZZZ			11:01																
ZZZZZZ			11:04																
ZZZZZZ			11:06																
ZZZZZZ			11:09																
ZZZZZZ			11:12																
CCV 280-613561/68			11:14																
CCVL 280-613561/69			11:17																
CCB 280-613561/70			11:20																
ZZZZZZ			11:22																
ZZZZZZ			11:25																
ZZZZZZ			11:28																
ZZZZZZ			11:30																
ZZZZZZ			11:33																
ZZZZZZ			11:36																
ZZZZZZ			11:38																
ZZZZZZ			11:41																
ZZZZZZ			11:44																
ZZZZZZ			11:46																
ZZZZZZ			11:49																
ZZZZZZ			11:52																

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/23/2023 08:15 End Date: 05/23/2023 17:47

Lab Sample Id	D/F	T y p e	Time	N H 3	Analytes																			
CCV 280-613561/83	1		11:54	X																				
CCVL 280-613561/84	1		11:57	X																				
CCB 280-613561/85	1		12:00	X																				
ZZZZZZ			12:02																					
ZZZZZZ			12:05																					
ZZZZZZ			12:08																					
LCS 280-613561/89	1	T	12:10	X																				
MB 280-613561/90	1	T	12:13	X																				
ZZZZZZ			12:16																					
ZZZZZZ			12:18																					
ZZZZZZ			12:21																					
ZZZZZZ			12:24																					
280-176271-1	1	T	12:26	X																				
CCV 280-613561/96	1		12:29	X																				
CCVL 280-613561/97	1		12:32	X																				
CCB 280-613561/98	1		12:34	X																				
ZZZZZZ			12:37																					
ZZZZZZ			12:40																					
280-176271-2	1	T	12:43	X																				
ZZZZZZ			12:45																					
ZZZZZZ			12:48																					
ZZZZZZ			12:50																					
ZZZZZZ			12:53																					
ZZZZZZ			12:56																					
ZZZZZZ			12:58																					
ZZZZZZ			13:01																					
ZZZZZZ			13:04																					
ZZZZZZ			13:06																					
CCV 280-613561/111	1		13:09	X																				
CCVL 280-613561/112	1		13:12	X																				
CCB 280-613561/113	1		13:14	X																				
ZZZZZZ			13:17																					
ZZZZZZ			13:20																					
ZZZZZZ			13:22																					
ZZZZZZ			13:25																					
ZZZZZZ			13:28																					
ZZZZZZ			13:30																					
ZZZZZZ			13:33																					
ZZZZZZ			13:37																					
ZZZZZZ			13:39																					
ZZZZZZ			13:43																					

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/23/2023 08:15 End Date: 05/23/2023 17:47

Lab Sample Id	D/F	T y p e	Time	Analytes															
				N H 3															
CCV 280-613561/124			13:46																
CCVL 280-613561/125			13:49																
CCB 280-613561/126			13:51																
ZZZZZZ			13:54																
ZZZZZZ			13:57																
ZZZZZZ			13:59																
ZZZZZZ			14:02																
ZZZZZZ			14:05																
ZZZZZZ			14:08																
ZZZZZZ			14:10																
ZZZZZZ			14:13																
ZZZZZZ			14:15																
ZZZZZZ			14:18																
ZZZZZZ			14:21																
ZZZZZZ			14:24																
CCV 280-613561/139			14:26																
CCVL 280-613561/140			14:29																
CCB 280-613561/141			14:32																
ZZZZZZ			14:34																
ZZZZZZ			14:37																
ZZZZZZ			14:40																
ZZZZZZ			14:42																
ZZZZZZ			14:45																
ZZZZZZ			14:48																
ZZZZZZ			14:50																
ZZZZZZ			14:53																
ZZZZZZ			14:56																
ZZZZZZ			14:58																
CCV 280-613561/152			15:01																
CCVL 280-613561/153			15:04																
CCB 280-613561/154			15:06																
ZZZZZZ			15:09																
ZZZZZZ			15:12																
ZZZZZZ			15:15																
ZZZZZZ			15:17																
ZZZZZZ			15:20																
ZZZZZZ			15:22																
ZZZZZZ			15:25																
ZZZZZZ			15:28																
ZZZZZZ			15:30																
ZZZZZZ			15:33																

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/23/2023 08:15 End Date: 05/23/2023 17:47

Lab Sample Id	D/F	Type	Time	Analytes																			
				N	H	3																	
ZZZZZZ			15:35																				
ZZZZZZ			15:38																				
CCV 280-613561/167			15:41																				
CCVL 280-613561/168			15:44																				
CCB 280-613561/169			15:46																				
ZZZZZZ			15:49																				
ZZZZZZ			15:51																				
ZZZZZZ			15:54																				
ZZZZZZ			15:57																				
ZZZZZZ			16:00																				
ZZZZZZ			16:02																				
ZZZZZZ			16:05																				
ZZZZZZ			16:08																				
ZZZZZZ			16:10																				
ZZZZZZ			16:13																				
CCV 280-613561/180			16:16																				
CCVL 280-613561/181			16:18																				
CCB 280-613561/182			16:21																				
ZZZZZZ			16:24																				
ZZZZZZ			16:26																				
ZZZZZZ			16:30																				
ZZZZZZ			16:32																				
ZZZZZZ			16:34																				
ZZZZZZ			16:37																				
ZZZZZZ			16:39																				
ZZZZZZ			16:42																				
ZZZZZZ			16:45																				
ZZZZZZ			16:48																				
ZZZZZZ			16:50																				
ZZZZZZ			16:53																				
CCV 280-613561/195			16:56																				
CCVL 280-613561/196			16:58																				
CCB 280-613561/197			17:01																				
ZZZZZZ			17:04																				
ZZZZZZ			17:06																				
ZZZZZZ			17:09																				
ZZZZZZ			17:12																				
ZZZZZZ			17:14																				
ZZZZZZ			17:17																				
ZZZZZZ			17:19																				
ZZZZZZ			17:22																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/23/2023 08:15 End Date: 05/23/2023 17:47

Lab Sample Id	D/F	T y p e	Time	Analytes																											
				N	H	3																									
ZZZZZZ			17:25																												
ZZZZZZ			17:28																												
ZZZZZZ			17:30																												
CCV 280-613561/209			17:33																												
CCVL 280-613561/210			17:36																												
CCB 280-613561/211			17:38																												
ZZZZZZ			17:41																												
ZZZZZZ			17:43																												
ZZZZZZ			17:47																												

Prep Types: _____
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_IonChrom10 Analysis Method: 9056

Start Date: 04/12/2023 14:04 End Date: 04/13/2023 17:51

Lab Sample Id	D/F	Type	Time	Analytes																											
				N	O	3																									
STD 280-608435/1 IC	1		14:04	X																											
STD 280-608435/2 IC	1		14:19	X																											
STD 280-608435/3 IC	1		14:34	X																											
STD 280-608435/4 IC	1		14:49	X																											
STD 280-608435/5 IC	1		15:04	X																											
STD 280-608435/6 IC	1		15:19	X																											
ICV 280-608435/7	1		15:34	X																											
ICB 280-608435/8	1		15:49	X																											
RTC 280-608435/9			16:04																												
ZZZZZZ			16:19																												
ZZZZZZ			16:34																												
ZZZZZZ			16:49																												
ZZZZZZ			17:04																												
ZZZZZZ			17:20																												
ZZZZZZ			17:36																												
ZZZZZZ			13:39																												
ZZZZZZ			13:54																												
ZZZZZZ			14:09																												
ZZZZZZ			14:24																												
ZZZZZZ			14:39																												
ZZZZZZ			14:54																												
ZZZZZZ			15:09																												
ZZZZZZ			15:24																												
CCV 280-608435/24			15:54																												
CCB 280-608435/25			17:51																												

Prep Types: _____
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_IonChrom10 Analysis Method: 9056

Start Date: 05/10/2023 12:43 End Date: 05/11/2023 13:19

Lab Sample Id	D/F	Type	Time	NO3	Analytes															
CCV 280-611944/1	1		12:43	X																
CCB 280-611944/2	1		12:58	X																
MRL 280-611944/3	1	T	13:13	X																
LCS 280-611944/4	1	T	13:28	X																
LCSD 280-611944/5	1	T	13:43	X																
MB 280-611944/6	1	T	13:58	X																
ZZZZZZ			15:57																	
ZZZZZZ			16:12																	
ZZZZZZ			16:27																	
ZZZZZZ			18:17																	
ZZZZZZ			18:32																	
ZZZZZZ			18:47																	
ZZZZZZ			19:02																	
ZZZZZZ			19:17																	
ZZZZZZ			19:32																	
280-176271-1	1	T	19:47	X																
CCV 280-611944/17	1		20:02	X																
CCB 280-611944/18	1		20:17	X																
ZZZZZZ			20:32																	
ZZZZZZ			20:47																	
ZZZZZZ			21:03																	
ZZZZZZ			21:18																	
ZZZZZZ			21:33																	
ZZZZZZ			21:48																	
ZZZZZZ			22:03																	
ZZZZZZ			22:18																	
ZZZZZZ			22:33																	
ZZZZZZ			22:48																	
CCV 280-611944/29	1		23:03	X																
CCB 280-611944/30	1		23:18	X																
ZZZZZZ			23:33																	
ZZZZZZ			23:48																	
ZZZZZZ			00:03																	
ZZZZZZ			00:18																	
ZZZZZZ			00:33																	
ZZZZZZ			00:48																	
ZZZZZZ			01:03																	
ZZZZZZ			01:19																	
ZZZZZZ			01:34																	
LCS 280-611944/40	1	T	01:49	X																
CCV 280-611944/41	1		02:04	X																

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Instrument ID: WC_IonChrom10 Analysis Method: 9056

Start Date: 05/10/2023 12:43 End Date: 05/11/2023 13:19

Lab Sample Id	D/F	Type	Time	Analytes																			
				N	O	3																	
CCB 280-611944/42	1		02:19	X																			
LCSD 280-611944/43	1	T	02:34	X																			
MB 280-611944/44	1	T	02:49	X																			
ZZZZZZ			03:03																				
ZZZZZZ			03:18																				
ZZZZZZ			03:33																				
ZZZZZZ			03:48																				
ZZZZZZ			04:03																				
ZZZZZZ			04:18																				
ZZZZZZ			04:33																				
ZZZZZZ			04:48																				
CCV 280-611944/53	1		05:03	X																			
CCB 280-611944/54	1		05:18	X																			
ZZZZZZ			05:33																				
ZZZZZZ			05:48																				
ZZZZZZ			06:03																				
ZZZZZZ			06:19																				
ZZZZZZ			06:34																				
ZZZZZZ			06:49																				
ZZZZZZ			07:04																				
ZZZZZZ			07:19																				
ZZZZZZ			07:34																				
ZZZZZZ			07:49																				
CCV 280-611944/65	1		08:04	X																			
CCB 280-611944/66	1		08:19	X																			
ZZZZZZ			08:34																				
ZZZZZZ			08:49																				
280-176271-2	1	T	09:04	X																			
ZZZZZZ			09:19																				
ZZZZZZ			09:34																				
ZZZZZZ			09:49																				
ZZZZZZ			10:04																				
ZZZZZZ			10:19																				
ZZZZZZ			10:34																				
ZZZZZZ			10:49																				
CCV 280-611944/77	1		11:04	X																			
CCB 280-611944/78	1		11:20	X																			
ZZZZZZ			11:35																				
ZZZZZZ			11:50																				
ZZZZZZ			12:05																				
ZZZZZZ			12:20																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-176271-1
 SDG No.: _____
 Instrument ID: WC_IonChrom10 Analysis Method: 9056
 Start Date: 05/10/2023 12:43 End Date: 05/11/2023 13:19

Lab Sample Id	D/F	T y p e	Time	Analytes																			
				N	O	3																	
ZZZZZZ			12:35																				
ZZZZZZ			12:49																				
CCV 280-611944/85			13:04																				
CCB 280-611944/86			13:19																				

Prep Types: _____
 T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Batch Number: 613561 Batch Start Date: 05/23/23 08:15 Batch Analyst: Peterson, McKenzie M

Batch Method: 350.1 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	350.1 cal 00583	350.1 ICV 00564	
ICV 280-613561/14		350.1		no	100 mL	100 mL		2.5 mL	
ICVL 280-613561/15		350.1		no	100 mL	100 mL		0.5 mL	
ICB 280-613561/16		350.1		no	30 mL	30 mL			
CCV 280-613561/83		350.1		no	100 mL	100 mL	2.5 mL		
CCVL 280-613561/84		350.1		no	100 mL	100 mL	0.5 mL		
CCB 280-613561/85		350.1		no	10 mL	10 mL			
LCS 280-613561/89		350.1		no	100 mL	100 mL	2.5 mL		
MB 280-613561/90		350.1		no	30 mL	30 mL			
280-176271-B-1	LL12mw-246-23040 1-GW	350.1	T	no	10 mL	10 mL			
CCV 280-613561/96		350.1		no	100 mL	100 mL	2.5 mL		
CCVL 280-613561/97		350.1		no	100 mL	100 mL	0.5 mL		
CCB 280-613561/98		350.1		no	10 mL	10 mL			
280-176271-B-2	LL12-MW-RB246_20 23	350.1	T	no	10 mL	10 mL			
CCV 280-613561/111		350.1		no	100 mL	100 mL	2.5 mL		
CCVL 280-613561/112		350.1		no	100 mL	100 mL	0.5 mL		
CCB 280-613561/113		350.1		no	10 mL	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.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Batch Number: 613561 Batch Start Date: 05/23/23 08:15 Batch Analyst: Peterson, McKenzie M

Batch Method: 350.1 Batch End Date: _____

Batch Notes	
Dechlorination Agent ID	Na2S2O3_00002
pH Indicator ID	HC293086
Acid used for pH adjustment	SulfuricAcid_00288
Sodium Nitroprusside ID	Na Nitro_00050
Hypochlorite ID	Na Hypo_00050
EDTA Buffer ID	Buffer A_00039
Potassium Sodium Tartrate ID	Buffer B_00058
Carrier Identification	Ammonia Rinse_00056
Sodium Salicylate ID	Sodium Sal_00028
Pipette/Syringe/Dispenser ID	SAH500, 1000 INTERCESSOR, BWH 200

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.

350.1

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Batch Number: 608435 Batch Start Date: 04/12/23 14:04 Batch Analyst: Sherman, Erik J

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Cl ICV Std 00006	IC CAL cl/so4 00475	IC Cal low 00703	IC ICV 5 00403
STD 280-608435/1 IC		9056		10 mL	10 mL		0.04 mL		
STD 280-608435/2 IC		9056		10 mL	10 mL		0.1 mL	0.08 mL	
STD 280-608435/3 IC		9056		10 mL	10 mL		0.2 mL	0.2 mL	
STD 280-608435/4 IC		9056		10 mL	10 mL		2.4 mL	0.4 mL	
STD 280-608435/5 IC		9056		10 mL	10 mL		4.8 mL	1 mL	
STD 280-608435/6 IC		9056		10 mL	10 mL		8 mL	2 mL	
ICV 280-608435/7		9056		10 mL	10 mL	0.8 mL			0.8 mL
ICB 280-608435/8		9056		10 mL	10 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00024					
STD 280-608435/1 IC		9056							
STD 280-608435/2 IC		9056							
STD 280-608435/3 IC		9056							
STD 280-608435/4 IC		9056							
STD 280-608435/5 IC		9056							
STD 280-608435/6 IC		9056							
ICV 280-608435/7		9056		0.8 mL					
ICB 280-608435/8		9056							

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: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Batch Number: 608435 Batch Start Date: 04/12/23 14:04 Batch Analyst: Sherman, Erik J

Batch Method: 9056 Batch End Date: _____

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	ARM5000, 1000HEX, 200CJ, IC100, BMF100, AB8A100
Sufficient Volume for Batch QC	Y
Eluent 1 ID	IC10 ELUENT_00006
Batch Comment	EJS

Basis	Basis Description

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: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Batch Number: 611944 Batch Start Date: 05/10/23 12:43 Batch Analyst: Collins, Michael E

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00479	IC Cal low 00708	IC LCS 01953	
CCV 280-611944/1		9056		10 mL	10 mL			10 mL	
CCB 280-611944/2		9056		10 mL	10 mL				
MRL 280-611944/3		9056		10 mL	10 mL	0.2 mL	0.1 mL		
LCS 280-611944/4		9056		10 mL	10 mL			10 mL	
LCSD 280-611944/5		9056		10 mL	10 mL			10 mL	
MB 280-611944/6		9056		10 mL	10 mL				
280-176271-A-1	LL12mw-246-23040 1-GW	9056	T	10 mL	10 mL				
CCV 280-611944/17		9056		10 mL	10 mL			10 mL	
CCB 280-611944/18		9056		10 mL	10 mL				
CCV 280-611944/29		9056		10 mL	10 mL			10 mL	
CCB 280-611944/30		9056		10 mL	10 mL				
LCS 280-611944/40		9056		10 mL	10 mL			10 mL	
CCV 280-611944/41		9056		10 mL	10 mL			10 mL	
CCB 280-611944/42		9056		10 mL	10 mL				
LCSD 280-611944/43		9056		10 mL	10 mL			10 mL	
MB 280-611944/44		9056		10 mL	10 mL				
CCV 280-611944/53		9056		10 mL	10 mL			10 mL	
CCB 280-611944/54		9056		10 mL	10 mL				
CCV 280-611944/65		9056		10 mL	10 mL			10 mL	
CCB 280-611944/66		9056		10 mL	10 mL				
280-176271-A-2	LL12-MW-RB246_20 23	9056	T	10 mL	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.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-176271-1

SDG No.: _____

Batch Number: 611944 Batch Start Date: 05/10/23 12:43 Batch Analyst: Collins, Michael E

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00479	IC Cal low 00708	IC LCS 01953	
CCV 280-611944/77		9056		10 mL	10 mL			10 mL	
CCB 280-611944/78		9056		10 mL	10 mL				

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	ARM5000, 1000HEX, 200CJ, 100IC
Sufficient Volume for Batch QC	yes
Eluent 1 ID	IC10 Eluent_00006
Batch Comment	MEC

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.

Select/deselect Standards

	SerialNumber	Cup position	Sample Type	Identity	Concentration	Corrected Height	Result	Use this	Y Residuals	Relative Error(%)
1	4	ST1	S1	0 mg/L	0.000	-0.001	-0.009	<input checked="" type="checkbox"/>		
2	5	ST2	S2	0.05	0.050	0.021	0.055	<input checked="" type="checkbox"/>	8.6%	10.5%
3	6	ST3	S3	0.1	0.100	0.038	0.104	<input checked="" type="checkbox"/>	3.91%	4.32%
4	7	ST4	S4	0.5	0.500	0.172	0.496	<input checked="" type="checkbox"/>	-0.75%	-0.76%
5	8	ST5	S5	1	1.000	0.342	1.005	<input checked="" type="checkbox"/>	0.45%	0.47%
6	9	ST6	S6	2.5	2.500	0.816	2.498	<input checked="" type="checkbox"/>	-0.09%	-0.09%
7	10	ST7	S7	5	5.000	1.524	5.000	<input checked="" type="checkbox"/>	0.01%	0.01%

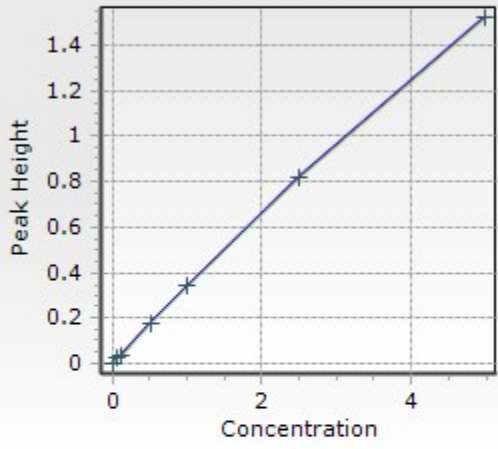
Method Name	Ammonia	a	0.00199894	R Squared
Module Name	NH3 and TKN	b	0.34728059	Constant Sx0
Calibration Order	II Order ISO 8466	c	-0.00856484	Constant Vx0
Residual Std. Dev. (Sy)	0.00217970902050	d		
		Correlation Coefficient	0.99933221	

Calibration Order

II Order ISO 8466



NH3 and TKN



0.99999013

0.00670907

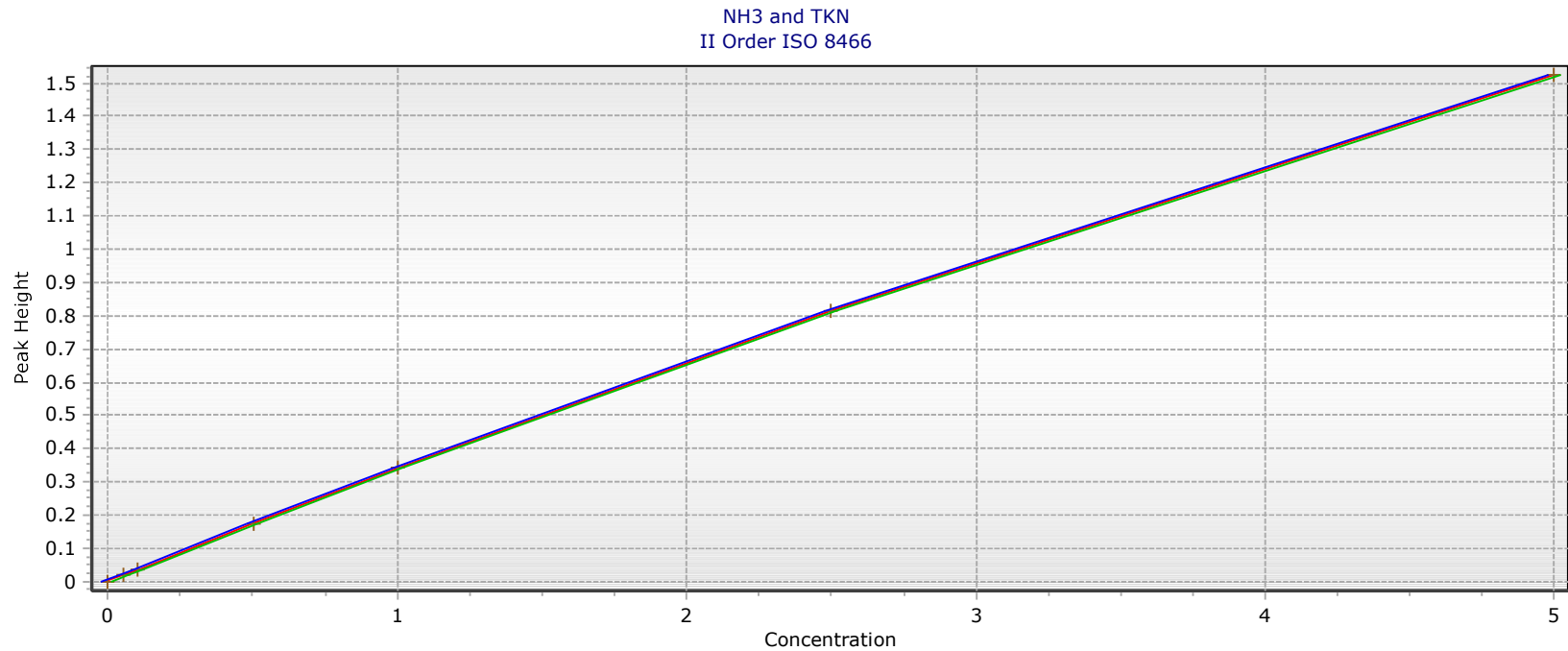
0.51326254

Save

Close

FlowAccessV3

Date: May 23 2023 5:29PM

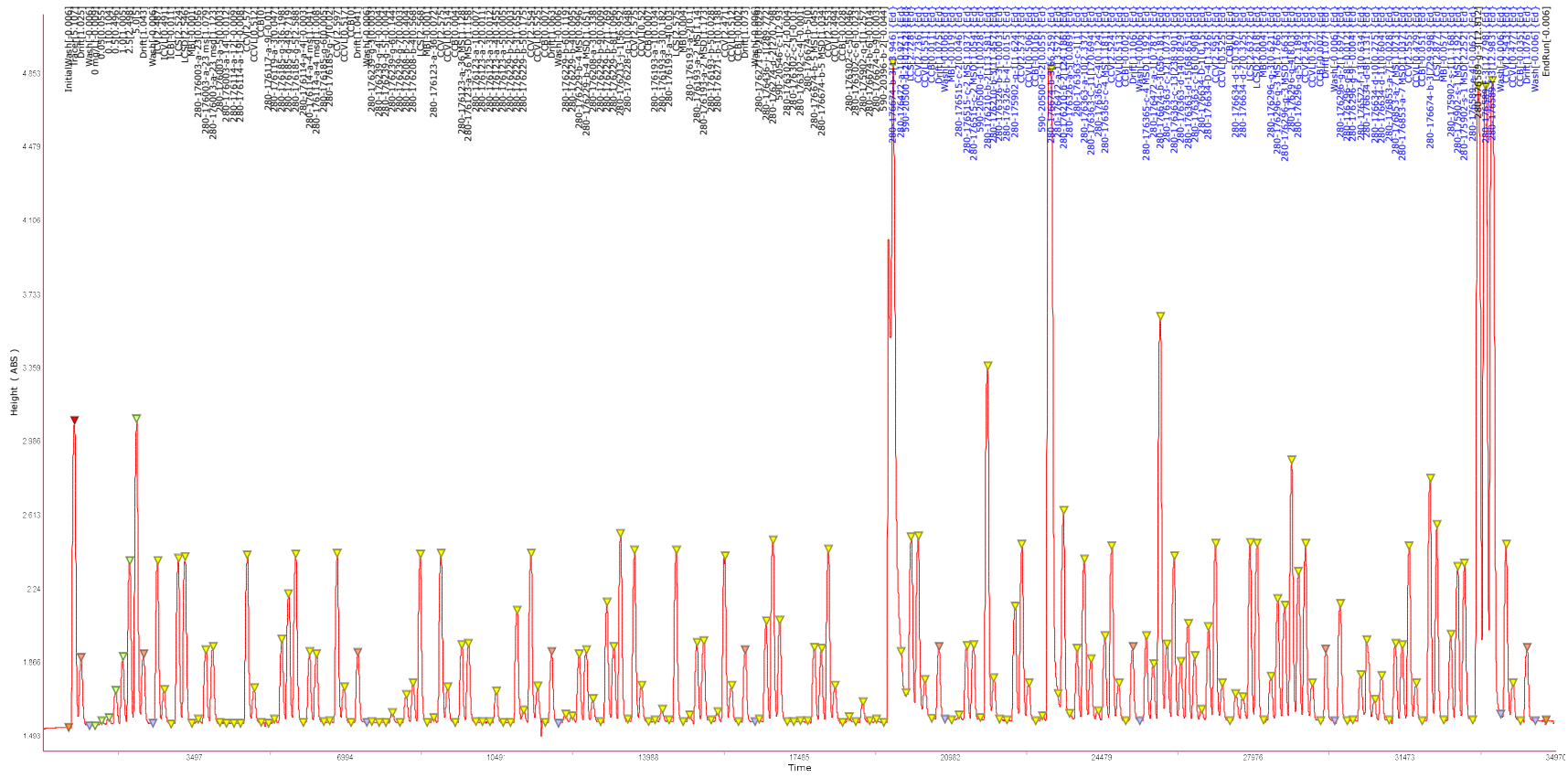


$a = 0.0019989397283142$ $b = 0.3472805936030370$ $c = -0.0085648353783778$ RSD = 0.00217970902050

$r = 0.99933221456885$ $R^2 = 0.99999013246634$

Run Name : Skalar20230523A0

User Name : Administrator Operator Name : Administrator



NH3 and TKN
 FlowAccess V3 : Date :05/23/2023 5:51 PM
 Run Name Skalar20230523AO
 User Name : Administrator Operator Name : Administrator

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution
1	IW	IW	InitialWash		1.0000
2	ST7	T	Tracer		1.0000
3	ST5	D	Drift		1.0000
4	WT	W	Wash		1.0000
5	ST1	S1	0 mg/L		1.0000
6	ST2	S2	0.05		1.0000
7	ST3	S3	0.1		1.0000
8	ST4	S4	0.5		1.0000
9	ST5	S5	1.0		1.0000
10	ST6	S6	2.5		1.0000
11	ST7	S7	5.0		1.0000
12	ST5	D	Drift		1.0000
13	WT	W	Wash		1.0000
14	ST8	U	ICV		1.0000
15	ST9	U	ICVL		1.0000
16	ST1	U	ICB		1.0000
17	D29	U	LCS		1.0000
18	D30	U	LCSD		1.0000
19	ST1	U	MB		1.0000
20	A1	U	280-176003-a-23		1.0000
21	A2	U	280-176003-a-23 ms		1.0000
22	A3	U	280-176003-a-23 msd		1.0000
23	A4	U	280-176003-a-5		1.0000
24	A5	U	280-176003-a-14		1.0000
25	A6	U	280-176114-a-12		1.0000
26	A7	U	280-176114-a-19		1.0000
27	ST6	U	CCV		1.0000
28	ST4	U	CCVL		1.0000
29	WT	U	CCB		1.0000
30	A8	U	280-176117-a-9		1.0000
31	A9	U	280-176119-a-3		1.0000
32	A10	U	280-176185-g-3		5.0000
33	A11	U	280-176185-g-4		5.0000
34	A12	U	280-176185-g-5		1.0000
35	A13	U	280-176114-a-4		1.0000
36	A14	U	280-176114-a-4 ms		1.0000
37	A15	U	280-176114-a-4 msd		1.0000
38	A16	U	280-176185-g-6		1.0000
39	A17	U	280-176185-g-7		1.0000
40	ST6	U	CCV		1.0000

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

Date Time : May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution
41	ST4	U	CCVL		1.0000
42	WT	U	CCB		1.0000
43	ST5	D	Drift		1.0000
44	WT	W	Wash		1.0000
45	A18	U	280-176239-g-3		1.0000
46	A19	U	280-176239-g-4		1.0000
47	A20	U	280-176239-g-5		1.0000
48	A21	U	280-176239-g-6		1.0000
49	A22	U	280-176239-g-7		1.0000
50	A23	U	280-176208-b-2		1.0000
51	A24	U	280-176208-b-4		1.0000
52	D29	U	LCS		1.0000
53	ST1	U	MB		1.0000
54	A25	U	280-176123-a-36		1.0000
55	ST6	U	CCV		1.0000
56	ST4	U	CCVL		1.0000
57	WT	U	CCB		1.0000
58	A26	U	280-176123-a-36 MS		1.0000
59	A27	U	280-176123-a-36 MSC		1.0000
60	A28	U	280-176123-a-1		1.0000
61	A29	U	280-176123-a-2		1.0000
62	A30	U	280-176123-a-3		1.0000
63	A31	U	280-176123-a-4		1.0000
64	A32	U	280-176123-a-5		1.0000
65	A33	U	280-176229-b-2		1.0000
66	A34	U	280-176229-b-3		1.0000
67	A35	U	280-176229-b-5		1.0000
68	ST6	U	CCV		1.0000
69	ST4	U	CCVL		1.0000
70	WT	U	CCB		1.0000
71	ST5	D	Drift		1.0000
72	WT	W	Wash		1.0000
73	B1	U	280-176229-b-6		1.0000
74	B2	U	280-176229-b-4		1.0000
75	B3	U	280-176229-b-4 MS		1.0000
76	B4	U	280-176229-b-4 MSD		1.0000
77	B5	U	280-176208-a-3		1.0000
78	B6	U	280-176229-b-9		1.0000
79	B7	U	280-176229-b-7		1.0000
80	B8	U	280-176229-b-8		1.0000

Page:2 /18

Date Time : May 23 2023 5:52PM

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution
81	B9	U	280-176213-j-1		20.0000
82	B10	U	280-176228-q-1		1.0000
83	ST6	U	CCV		1.0000
84	ST4	U	CCVL		1.0000
85	WT	U	CCB		1.0000
86	B11	U	280-176193-a-1		1.0000
87	B12	U	280-176193-a-3		1.0000
88	B13	U	280-176193-a-4		1.0000
89	D29	U	LCS		1.0000
90	ST1	U	MB		1.0000
91	B14	U	280-176193-a-2		1.0000
92	B15	U	280-176193-a-2 MS		1.0000
93	B16	U	280-176193-a-2 MSD		1.0000
94	B17	U	280-176193-b-5		1.0000
95	B18	U	280-176271-b-1		1.0000
96	ST6	U	CCV		1.0000
97	ST4	U	CCVL		1.0000
98	WT	U	CCB		1.0000
99	ST5	D	Drift		1.0000
100	WT	W	Wash		1.0000
101	B19	U	280-176271-b-2		1.0000
102	B20	U	280-176436-i-1		200.0000
103	B21	U	280-176274-d-2		100.0000
104	B22	U	590-20546-c-1		2.0000
105	B23	U	280-176302-c-2		1.0000
106	B24	U	280-176302-c-3		1.0000
107	B25	U	280-176302-c-4		1.0000
108	B26	U	280-176674-b-5		1.0000
109	B27	U	280-176674-b-5 MS		1.0000
110	B28	U	280-176674-b-5 MSD		1.0000
111	ST6	U	CCV		1.0000
112	ST4	U	CCVL		1.0000
113	WT	U	CCB		1.0000
114	B29	U	280-176302-c-5		1.0000
115	B30	U	280-176302-c-6		1.0000
116	B31	U	280-175902-q-1		5.0000
117	B32	U	280-176674-b-6		1.0000
118	B33	U	280-176674-b-9		1.0000
119	B34	U	590-20396-b-2		1.0000
120	B35	U	280-176674-b-3		1.0000

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution
121	C1	U	280-176472-a-1		1.0000
122	C2	U	590-20500-d-2		2.0000
123	D29	U	LCS		1.0000
124	ST6	U	CCV		1.0000
125	ST4	U	CCVL		1.0000
126	WT	U	CCB		1.0000
127	ST5	D	Drift		1.0000
128	WT	W	Wash		1.0000
129	ST1	U	MB		1.0000
130	C3	U	280-176515-c-2		1.0000
131	C4	U	280-176515-c-2 MS		1.0000
132	C5	U	280-176515-c-2 MSD		1.0000
133	C6	U	590-20500-d-1		2.0000
134	C7	U	280-176210-b-2		20.0000
135	C8	U	280-176210-b-3		20.0000
136	C9	U	280-176326-b-3		1.0000
137	C10	U	280-176326-b-4		1.0000
138	B31	U	280-175902-q-1	rerun @ no dilution	1.0000
139	ST6	U	CCV		1.0000
140	ST4	U	CCVL		1.0000
141	WT	U	CCB		1.0000
142	C2	U	590-20500-d-2	rerun @ no dilution	1.0000
143	B35	U	280-176674-b-3	rerun @ a dilution	5.0000
144	C1	U	280-176472-a-1	rerun @ a dilution	10.0000
145	C7	U	280-176210-b-2	rerun @ a higher dilution	40.0000
146	C11	U	280-176326-a-5		1.0000
147	C12	U	280-176363-c-1		1.0000
148	C13	U	280-176363-a-10		1.0000
149	C14	U	280-176363-C-11		200.0000
150	C15	U	280-176365-c-4		1.0000
151	C16	U	280-176365-c-4 MS		1.0000
152	ST6	U	CCV		1.0000
153	ST4	U	CCVL		1.0000
154	WT	U	CCB		1.0000
155	ST5	D	Drift		1.0000
156	WT	W	Wash		1.0000
157	C17	U	280-176365-c-4 MSD		1.0000
158	C1	U	280-176472-a-1	rerun @ 1x for elevated result	1.0000
159	B35	U	280-176674-b-3	rerun @ a higher dilution	100.0000
160	C18	U	280-176363-c-12		1.0000

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime : May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution
161	C19	U	280-176363-c-13		100.0000
162	C20	U	280-176363-d-14		1.0000
163	C21	U	280-176363-d-15		50.0000
164	C22	U	280-176363-c-16		1.0000
165	C23	U	280-176634-D-1		1.0000
166	C24	U	280-176634-D-4		1.0000
167	ST6	U	CCV		1.0000
168	ST4	U	CCVL		1.0000
169	WT	U	CCB		1.0000
170	C25	U	280-176634-d-5		1.0000
171	C26	U	280-176634-d-7		1.0000
172	D29	U	LCS		1.0000
173	D30	U	LCSD		1.0000
174	ST1	U	MB		1.0000
175	C27	U	280-176296-g-3		1.0000
176	C28	U	280-176296-g-3 MS		1.0000
177	C29	U	280-176296-g-3 MSD		1.0000
178	C30	U	280-176296-g-4		2.0000
179	C31	U	280-176296-g-5		1.0000
180	ST6	U	CCV		1.0000
181	ST4	U	CCVL		1.0000
182	WT	U	CCB		1.0000
183	ST5	D	Drift		1.0000
184	WT	W	Wash		1.0000
185	C32	U	280-176296-g-7		1.0000
186	C33	U	280-176296-g-8		1.0000
187	C34	U	280-176296-g-9		1.0000
188	C35	U	280-176572-f-13		1.0000
189	D1	U	280-176634-d-8		1.0000
190	D2	U	280-176634-d-10		1.0000
191	D3	U	280-176634-d-11		1.0000
192	D4	U	280-176853-a-7		1.0000
193	D5	U	280-176853-a-7 MS		1.0000
194	D6	U	280-176853-a-7 MSD		1.0000
195	ST6	U	CCV		1.0000
196	ST4	U	CCVL		1.0000
197	WT	U	CCB		1.0000
198	B35	U	280-176674-b-3	rerun @ a higher dilution	200.0000
199	D29	U	LCS	FILTRATION	1.0000
200	ST1	U	MB	FILTRATION	1.0000

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DateTime : May 23 2023 5:52PM

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution
201	D8	U	280-175902-s-1	FILTRATION	1.0000
202	D9	U	280-175902-s-1 MS	FILTRATION	1.0000
203	D10	U	280-175902-s-1 MSD	FILTRATION	1.0000
204	D11	U	280-176589-e-4		1.0000
205	D12	U	280-176589-g-3	upreserved	1.0000
206	D13	U	280-176589-F-3	TREATED chlorine/iodine/peroxide+	1.0000
207	D14	U	280-176589-f-3	UNTREATED chlorine/iodine/peroxide	1.0000
208	WT	W	Wash		1.0000
209	ST6	U	CCV		1.0000
210	ST4	U	CCVL		1.0000
211	WT	U	CCB		1.0000
212	ST5	D	Drift		1.0000
213	WT	W	Wash		1.0000
214	E	E	EndRun		1.0000

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN- Results	NH3 and TKN-	NH3 and TKN-
1	-0.006	0.0000	May 23 2023 8:15AM
2	5.107	1.5522	May 23 2023 8:17AM
3	1.025	0.3491	May 23 2023 8:21AM
4	-0.006	0.0000	May 23 2023 8:24AM
5	-0.009	-0.0010	May 23 2023 8:27AM
6	0.055	0.0212	May 23 2023 8:29AM
7	0.104	0.0381	May 23 2023 8:32AM
8	0.496	0.1722	May 23 2023 8:34AM
9	1.005	0.3423	May 23 2023 8:37AM
10	2.498	0.8160	May 23 2023 8:40AM
11	5.000	1.5244	May 23 2023 8:42AM
12	1.043	0.3547	May 23 2023 8:45AM
13	-0.006	0.0000	May 23 2023 8:48AM
14	2.487	0.8128	May 23 2023 8:51AM
15	0.491	0.1706	May 23 2023 8:53AM
16	-0.011	-0.0018	May 23 2023 8:56AM
17	2.524	0.8238	May 23 2023 8:58AM
18	2.546	0.8306	May 23 2023 9:01AM
19	-0.001	0.0015	May 23 2023 9:04AM
20	0.056	0.0213	May 23 2023 9:06AM
21	1.079	0.3667	May 23 2023 9:09AM
22	1.123	0.3811	May 23 2023 9:12AM
23	0.003	0.0031	May 23 2023 9:14AM
24	-0.012	-0.0021	May 23 2023 9:17AM
25	-0.009	-0.0012	May 23 2023 9:20AM
26	-0.008	-0.0007	May 23 2023 9:22AM
27	2.570	0.8378	May 23 2023 9:25AM
28	0.512	0.1774	May 23 2023 9:28AM
29	0.000	0.0019	May 23 2023 9:30AM
30	-0.010	-0.0014	May 23 2023 9:33AM
31	0.047	0.0184	May 23 2023 9:36AM
32	6.198	0.4193	May 23 2023 9:38AM
33	9.719	0.6447	May 23 2023 9:41AM
34	2.588	0.8435	May 23 2023 9:43AM
35	-0.003	0.0009	May 23 2023 9:46AM
36	1.041	0.3542	May 23 2023 9:49AM
37	1.008	0.3434	May 23 2023 9:52AM
38	0.005	0.0038	May 23 2023 9:54AM
39	0.020	0.0089	May 23 2023 9:57AM
40	2.597	0.8461	May 23 2023 9:59AM

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN- Results	NH3 and TKN-	NH3 and TKN-
41	0.517	0.1794	May 23 2023 10:02AM
42	0.000	0.0020	May 23 2023 10:05AM
43	1.041	0.3544	May 23 2023 10:08AM
44	-0.006	0.0000	May 23 2023 10:10AM
45	0.003	0.0029	May 23 2023 10:14AM
46	-0.004	0.0006	May 23 2023 10:16AM
47	-0.004	0.0007	May 23 2023 10:18AM
48	0.144	0.0519	May 23 2023 10:21AM
49	0.003	0.0029	May 23 2023 10:24AM
50	0.404	0.1408	May 23 2023 10:26AM
51	0.568	0.1964	May 23 2023 10:29AM
52	2.568	0.8373	May 23 2023 10:32AM
53	-0.001	0.0017	May 23 2023 10:34AM
54	0.072	0.0270	May 23 2023 10:37AM
55	2.575	0.8396	May 23 2023 10:40AM
56	0.514	0.1784	May 23 2023 10:42AM
57	0.004	0.0033	May 23 2023 10:45AM
58	1.128	0.3830	May 23 2023 10:48AM
59	1.158	0.3928	May 23 2023 10:50AM
60	0.007	0.0045	May 23 2023 10:53AM
61	0.011	0.0057	May 23 2023 10:56AM
62	0.012	0.0061	May 23 2023 10:58AM
63	0.455	0.1582	May 23 2023 11:01AM
64	0.005	0.0038	May 23 2023 11:04AM
65	0.003	0.0031	May 23 2023 11:06AM
66	1.655	0.5533	May 23 2023 11:09AM
67	0.175	0.0625	May 23 2023 11:12AM
68	2.554	0.8332	May 23 2023 11:14AM
69	0.525	0.1820	May 23 2023 11:17AM
70	0.007	0.0046	May 23 2023 11:20AM
71	1.063	0.3615	May 23 2023 11:22AM
72	-0.006	0.0000	May 23 2023 11:25AM
73	0.119	0.0432	May 23 2023 11:28AM
74	0.095	0.0348	May 23 2023 11:30AM
75	0.996	0.3395	May 23 2023 11:33AM
76	1.051	0.3575	May 23 2023 11:36AM
77	0.338	0.1184	May 23 2023 11:38AM
78	0.009	0.0051	May 23 2023 11:41AM
79	1.769	0.5897	May 23 2023 11:44AM
80	1.096	0.3724	May 23 2023 11:46AM

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN- Results	NH3 and TKN-	NH3 and TKN-
81	56.952	0.9215	May 23 2023 11:49AM
82	0.048	0.0187	May 23 2023 11:52AM
83	2.575	0.8395	May 23 2023 11:54AM
84	0.520	0.1802	May 23 2023 11:57AM
85	0.007	0.0043	May 23 2023 12:00PM
86	0.034	0.0137	May 23 2023 12:02PM
87	0.182	0.0650	May 23 2023 12:05PM
88	0.030	0.0125	May 23 2023 12:08PM
89	2.575	0.8394	May 23 2023 12:10PM
90	0.004	0.0034	May 23 2023 12:13PM
91	0.100	0.0366	May 23 2023 12:16PM
92	1.140	0.3869	May 23 2023 12:18PM
93	1.173	0.3975	May 23 2023 12:21PM
94	0.028	0.0118	May 23 2023 12:24PM
95	0.138	0.0499	May 23 2023 12:26PM
96	2.471	0.8078	May 23 2023 12:29PM
97	0.512	0.1777	May 23 2023 12:32PM
98	-0.002	0.0013	May 23 2023 12:34PM
99	1.073	0.3648	May 23 2023 12:37PM
100	-0.006	0.0000	May 23 2023 12:40PM
101	0.029	0.0122	May 23 2023 12:43PM
102	289.772	0.4872	May 23 2023 12:45PM
103	270.798	0.8796	May 23 2023 12:48PM
104	2.930	0.4923	May 23 2023 12:50PM
105	-0.004	0.0005	May 23 2023 12:53PM
106	-0.010	-0.0013	May 23 2023 12:56PM
107	-0.001	0.0016	May 23 2023 12:58PM
108	0.000	0.0020	May 23 2023 1:01PM
109	1.045	0.3555	May 23 2023 1:04PM
110	1.034	0.3520	May 23 2023 1:06PM
111	2.553	0.8329	May 23 2023 1:09PM
112	0.494	0.1716	May 23 2023 1:12PM
113	-0.028	-0.0076	May 23 2023 1:14PM
114	0.046	0.0180	May 23 2023 1:17PM
115	-0.023	-0.0060	May 23 2023 1:20PM
116	1.257	0.0888	May 23 2023 1:22PM
117	-0.014	-0.0029	May 23 2023 1:25PM
118	0.003	0.0031	May 23 2023 1:28PM
119	-0.044	-0.0134	May 23 2023 1:30PM
120	13.946	3.1794	May 23 2023 1:33PM

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN- Results	NH3 and TKN-	NH3 and TKN-
121	0.971	0.3312	May 23 2023 1:37PM
122	0.752	0.1313	May 23 2023 1:39PM
123	2.728	0.8856	May 23 2023 1:43PM
124	2.736	0.8881	May 23 2023 1:46PM
125	0.551	0.1906	May 23 2023 1:49PM
126	0.011	0.0059	May 23 2023 1:51PM
127	1.075	0.3655	May 23 2023 1:54PM
128	-0.006	0.0000	May 23 2023 1:57PM
129	-0.019	-0.0046	May 23 2023 1:59PM
130	0.046	0.0178	May 23 2023 2:02PM
131	1.037	0.3528	May 23 2023 2:05PM
132	1.054	0.3586	May 23 2023 2:08PM
133	0.028	0.0069	May 23 2023 2:10PM
134	113.581	1.6980	May 23 2023 2:13PM
135	11.457	0.1981	May 23 2023 2:15PM
136	-0.003	0.0010	May 23 2023 2:18PM
137	-0.015	-0.0032	May 23 2023 2:21PM
138	1.624	0.5433	May 23 2023 2:24PM
139	2.573	0.8387	May 23 2023 2:26PM
140	0.506	0.1754	May 23 2023 2:29PM
141	-0.016	-0.0036	May 23 2023 2:32PM
142	0.055	0.0209	May 23 2023 2:34PM
143	66.259	3.1000	May 23 2023 2:37PM
144	3.572	0.1250	May 23 2023 2:40PM
145	124.186	0.9976	May 23 2023 2:42PM
146	0.089	0.0329	May 23 2023 2:45PM
147	1.000	0.3408	May 23 2023 2:48PM
148	2.337	0.7667	May 23 2023 2:50PM
149	170.694	0.2922	May 23 2023 2:53PM
150	0.124	0.0448	May 23 2023 2:56PM
151	1.181	0.4002	May 23 2023 2:58PM
152	2.524	0.8241	May 23 2023 3:01PM
153	0.513	0.1779	May 23 2023 3:04PM
154	-0.002	0.0013	May 23 2023 3:06PM
155	1.106	0.3755	May 23 2023 3:09PM
156	-0.006	0.0000	May 23 2023 3:12PM
157	1.192	0.4037	May 23 2023 3:15PM
158	0.787	0.2701	May 23 2023 3:17PM
159	656.181	1.9120	May 23 2023 3:20PM
160	1.073	0.3647	May 23 2023 3:22PM

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN- Results	NH3 and TKN-	NH3 and TKN-
161	238.901	0.7828	May 23 2023 3:25PM
162	0.829	0.2840	May 23 2023 3:28PM
163	68.651	0.4627	May 23 2023 3:30PM
164	0.908	0.3102	May 23 2023 3:33PM
165	0.150	0.0539	May 23 2023 3:35PM
166	1.326	0.4475	May 23 2023 3:38PM
167	2.595	0.8455	May 23 2023 3:41PM
168	0.525	0.1818	May 23 2023 3:44PM
169	0.000	0.0018	May 23 2023 3:46PM
170	0.367	0.1283	May 23 2023 3:49PM
171	0.325	0.1141	May 23 2023 3:51PM
172	2.632	0.8569	May 23 2023 3:54PM
173	2.618	0.8525	May 23 2023 3:57PM
174	0.004	0.0034	May 23 2023 4:00PM
175	0.621	0.2144	May 23 2023 4:02PM
176	1.766	0.5886	May 23 2023 4:05PM
177	1.663	0.5558	May 23 2023 4:08PM
178	8.030	1.2583	May 23 2023 4:10PM
179	2.189	0.7212	May 23 2023 4:13PM
180	2.643	0.8599	May 23 2023 4:16PM
181	0.527	0.1826	May 23 2023 4:18PM
182	-0.007	-0.0005	May 23 2023 4:21PM
183	1.070	0.3639	May 23 2023 4:24PM
184	-0.006	0.0000	May 23 2023 4:26PM
185	1.697	0.5666	May 23 2023 4:30PM
186	-0.012	-0.0021	May 23 2023 4:32PM
187	-0.004	0.0007	May 23 2023 4:34PM
188	0.634	0.2188	May 23 2023 4:37PM
189	1.131	0.3839	May 23 2023 4:39PM
190	0.275	0.0968	May 23 2023 4:42PM
191	0.604	0.2087	May 23 2023 4:45PM
192	-0.028	-0.0077	May 23 2023 4:48PM
193	1.073	0.3648	May 23 2023 4:50PM
194	1.037	0.3529	May 23 2023 4:53PM
195	2.555	0.8335	May 23 2023 4:56PM
196	0.479	0.1665	May 23 2023 4:58PM
197	-0.051	-0.0156	May 23 2023 5:01PM
198	729.998	1.1555	May 23 2023 5:04PM
199	2.877	0.9302	May 23 2023 5:06PM
200	-0.057	-0.0178	May 23 2023 5:09PM

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN- Results	NH3 and TKN-	NH3 and TKN-
201	1.168	0.3959	May 23 2023 5:12PM
202	2.192	0.7221	May 23 2023 5:14PM
203	2.252	0.7407	May 23 2023 5:17PM
204	-0.062	-0.0196	May 23 2023 5:19PM
205	12.812	3.0455	May 23 2023 5:22PM
206	12.798	3.0437	May 23 2023 5:25PM
207	12.983	3.0671	May 23 2023 5:28PM
208	-0.006	0.0000	May 23 2023 5:30PM
209	2.543	0.8297	May 23 2023 5:33PM
210	0.477	0.1657	May 23 2023 5:36PM
211	-0.035	-0.0101	May 23 2023 5:38PM
212	1.076	0.3659	May 23 2023 5:41PM
213	-0.006	0.0000	May 23 2023 5:43PM
214	-0.006	0.0000	May 23 2023 5:47PM

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-
1	-0.006
2	5.107
3	1.025
4	-0.006
5	-0.009
6	0.055
7	0.104
8	0.496
9	1.005
10	2.498
11	5.000
12	1.043
13	-0.006
14	2.487
15	0.491
16	-0.011
17	2.524
18	2.546
19	-0.001
20	0.056
21	1.079
22	1.123
23	0.003
24	-0.012
25	-0.009
26	-0.008
27	2.570
28	0.512
29	0.000
30	-0.010
31	0.047
32	1.240
33	1.944
34	2.588
35	-0.003
36	1.041
37	1.008
38	0.005
39	0.020
40	2.597

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-
41	0.517
42	0.000
43	1.041
44	-0.006
45	0.003
46	-0.004
47	-0.004
48	0.144
49	0.003
50	0.404
51	0.568
52	2.568
53	-0.001
54	0.072
55	2.575
56	0.514
57	0.004
58	1.128
59	1.158
60	0.007
61	0.011
62	0.012
63	0.455
64	0.005
65	0.003
66	1.655
67	0.175
68	2.554
69	0.525
70	0.007
71	1.063
72	-0.006
73	0.119
74	0.095
75	0.996
76	1.051
77	0.338
78	0.009
79	1.769
80	1.096

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-
81	2.848
82	0.048
83	2.575
84	0.520
85	0.007
86	0.034
87	0.182
88	0.030
89	2.575
90	0.004
91	0.100
92	1.140
93	1.173
94	0.028
95	0.138
96	2.471
97	0.512
98	-0.002
99	1.073
100	-0.006
101	0.029
102	1.449
103	2.708
104	1.465
105	-0.004
106	-0.010
107	-0.001
108	0.000
109	1.045
110	1.034
111	2.553
112	0.494
113	-0.028
114	0.046
115	-0.023
116	0.251
117	-0.014
118	0.003
119	-0.044
120	13.946

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-
121	0.971
122	0.376
123	2.728
124	2.736
125	0.551
126	0.011
127	1.075
128	-0.006
129	-0.019
130	0.046
131	1.037
132	1.054
133	0.014
134	5.679
135	0.573
136	-0.003
137	-0.015
138	1.624
139	2.573
140	0.506
141	-0.016
142	0.055
143	13.252
144	0.357
145	3.105
146	0.089
147	1.000
148	2.337
149	0.853
150	0.124
151	1.181
152	2.524
153	0.513
154	-0.002
155	1.106
156	-0.006
157	1.192
158	0.787
159	6.562
160	1.073

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-
161	2.389
162	0.829
163	1.373
164	0.908
165	0.150
166	1.326
167	2.595
168	0.525
169	0.000
170	0.367
171	0.325
172	2.632
173	2.618
174	0.004
175	0.621
176	1.766
177	1.663
178	4.015
179	2.189
180	2.643
181	0.527
182	-0.007
183	1.070
184	-0.006
185	1.697
186	-0.012
187	-0.004
188	0.634
189	1.131
190	0.275
191	0.604
192	-0.028
193	1.073
194	1.037
195	2.555
196	0.479
197	-0.051
198	3.650
199	2.877
200	-0.057

FlowAccessV3 Results Report

Run Name : Skalar20230523A0

DateTime :May 23 2023 8:05AM

User Name : Administrator Operator Name : Administrator

	NH3 and TKN-
201	1.168
202	2.192
203	2.252
204	-0.062
205	12.812
206	12.798
207	12.983
208	-0.006
209	2.543
210	0.477
211	-0.035
212	1.076
213	-0.006
214	-0.006

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14
 Lims ID: STD L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 12-Apr-2023 14:04:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-001
 Misc. Info.: 280-0120345-001
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 14-Apr-2023 14:03:48 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620

First Level Reviewer: LVW8 Date: 12-Apr-2023 15:40:32

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.175				ND	
2 Chloride	4.383	4.383	0.000	7464190	NC	NC	M
3 Nitrite as N		5.103				ND	
4 Bromide		6.292				ND	U
5 Nitrate as N		7.057				ND	
6 Orthophosphate as P	9.447	9.447	0.000	3338493		-0.3613	M
7 Sulfate	10.645	10.645	0.000	7022789	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

IC CAL cl/so4_00475 Amount Added: 0.04 Units: mL
 IC Cal low_00703 Amount Added: 0.00 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-141922.d

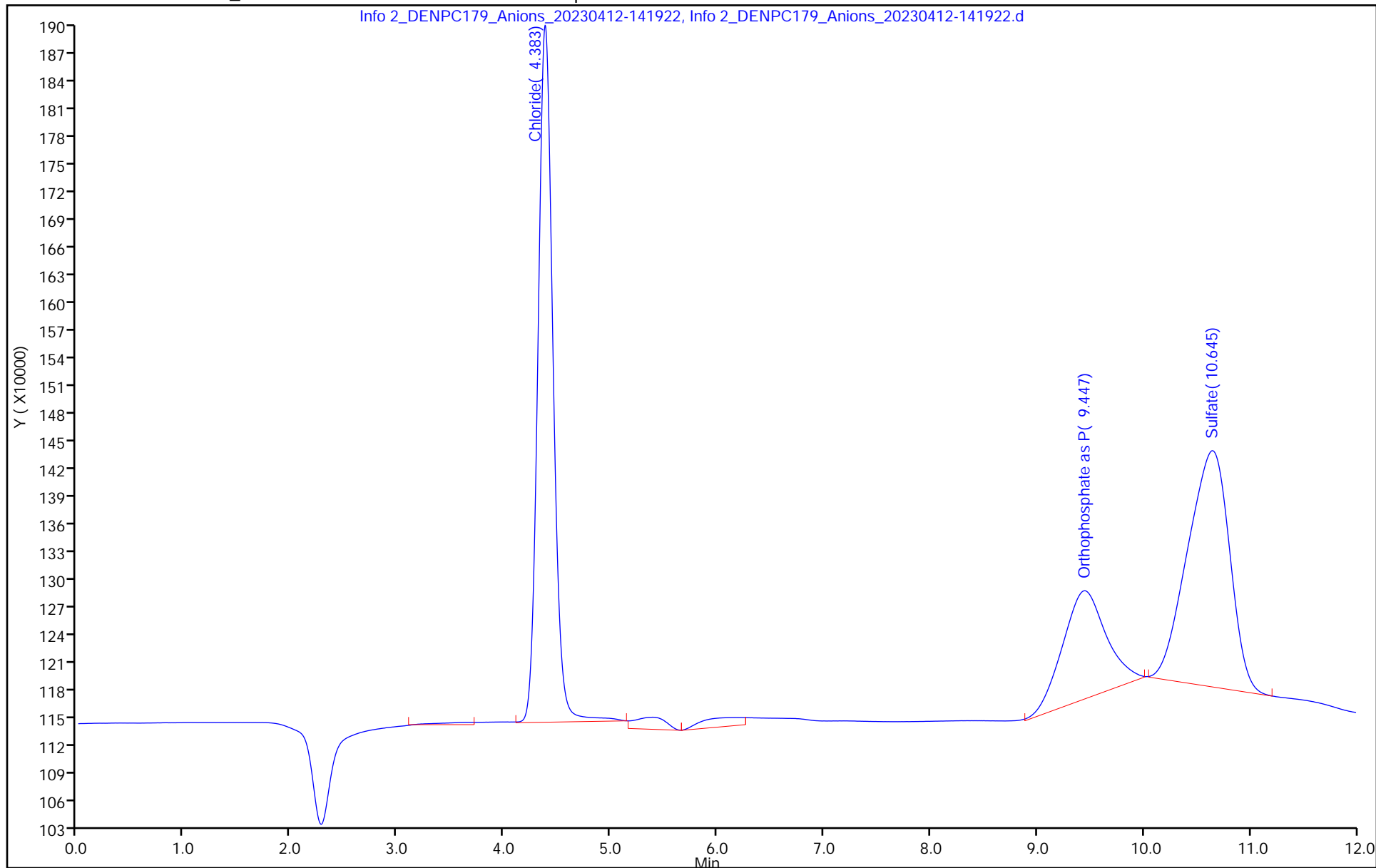
Injection Date: 12-Apr-2023 14:04:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: STD L1 Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver

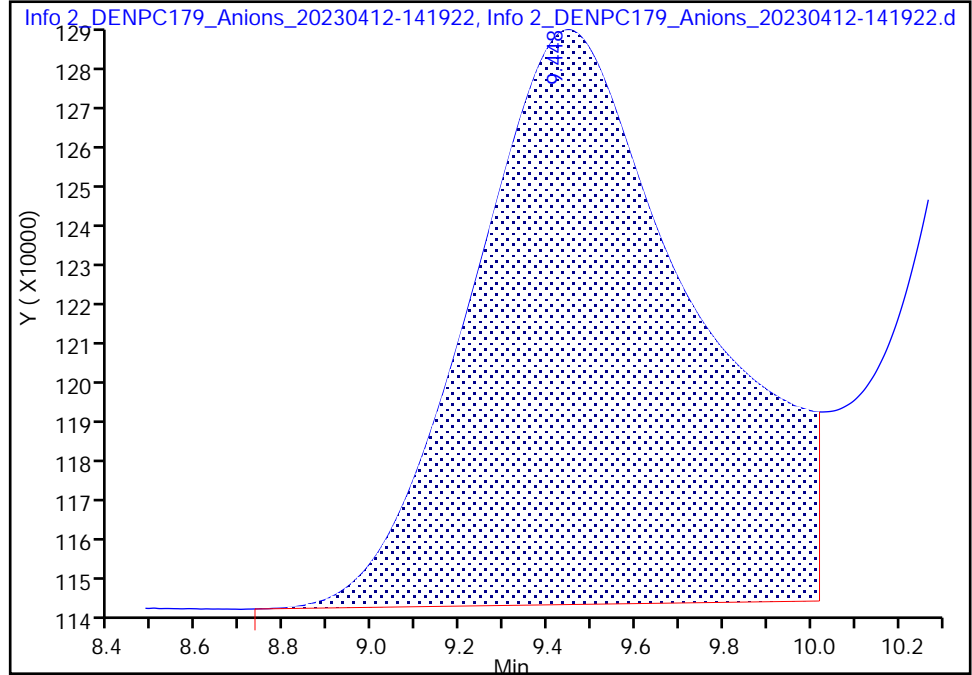
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-141922.d		
Injection Date:	12-Apr-2023 14:04:00	Instrument ID:	WC_IonChrom10
Lims ID:	STD L1		
Client ID:			
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

6 Orthophosphate as P, CAS: STL00599

Signal: 1

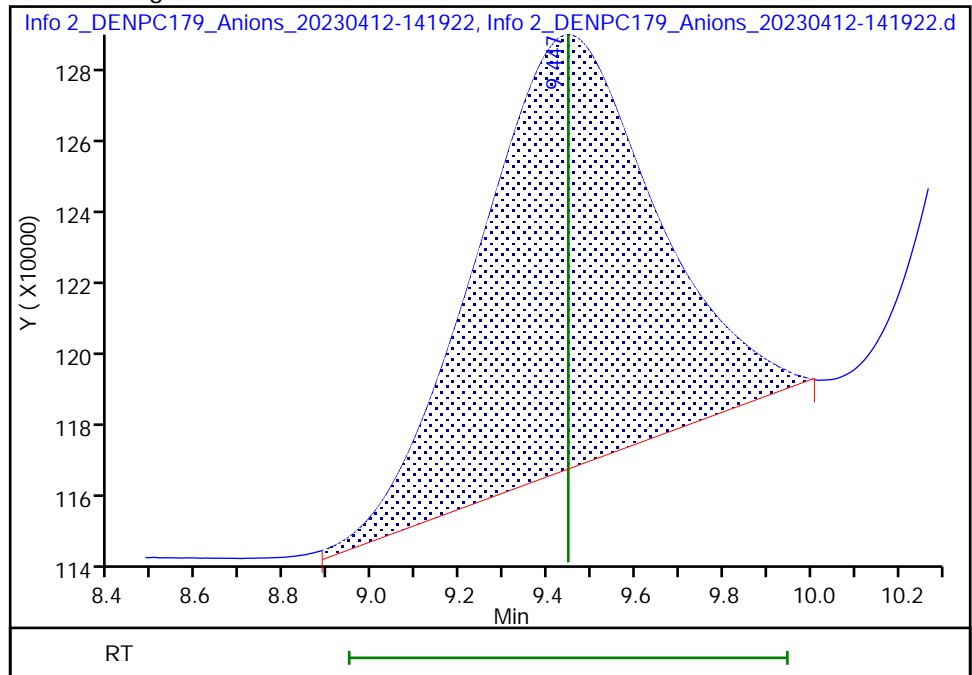
RT: 9.45
 Area: 4931641
 Amount: -0.506480
 Amount Units: ug/ml

Processing Integration Results



RT: 9.45
 Area: 3338493
 Amount: -0.361342
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:40:49
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14
 Lims ID: STD L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 12-Apr-2023 14:19:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-002
 Misc. Info.: 280-0120345-002
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 14-Apr-2023 14:03:50 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15

Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620

First Level Reviewer: LVW8 Date: 12-Apr-2023 15:41:35

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.163	3.163	0.000	6262507	NC	NC	Ma
2 Chloride	4.380	4.380	0.000	20679388	NC	NC	M
3 Nitrite as N	5.115	5.115	0.000	8087413	0.2000	0.2019	M
4 Bromide	6.352	6.352	0.000	2964734	NC	NC	
5 Nitrate as N	7.383	7.383	0.000	8434441	0.2000	0.2195	a
6 Orthophosphate as P	9.813	9.813	0.000	13953811	0.2000	0.1404	M
7 Sulfate	11.045	11.045	0.000	14421328	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC CAL cl/so4_00475 Amount Added: 0.10 Units: mL
 IC Cal low_00703 Amount Added: 0.08 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-143419.d

Injection Date: 12-Apr-2023 14:19:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: STD L2

Worklist Smp#: 2

Client ID:

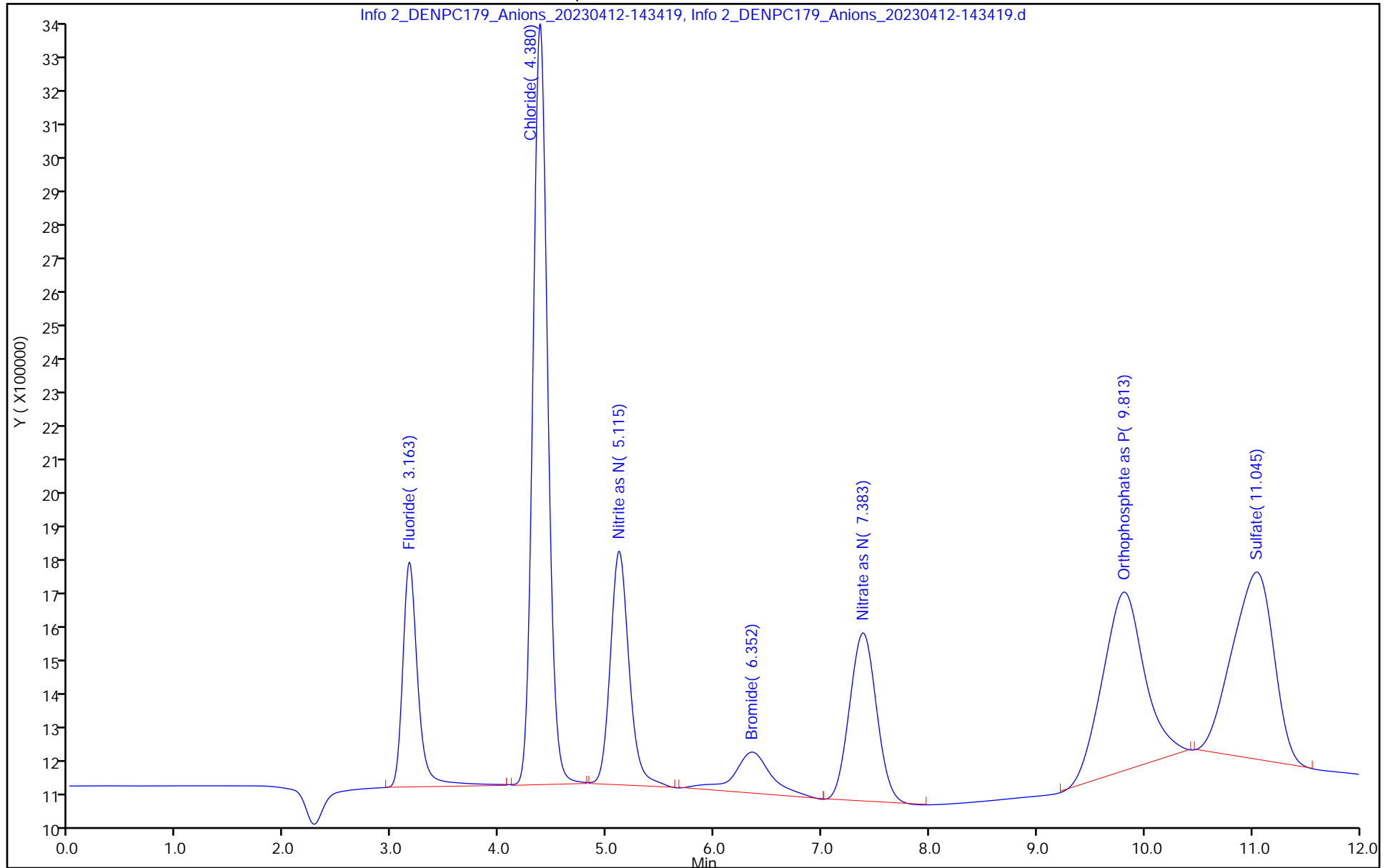
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

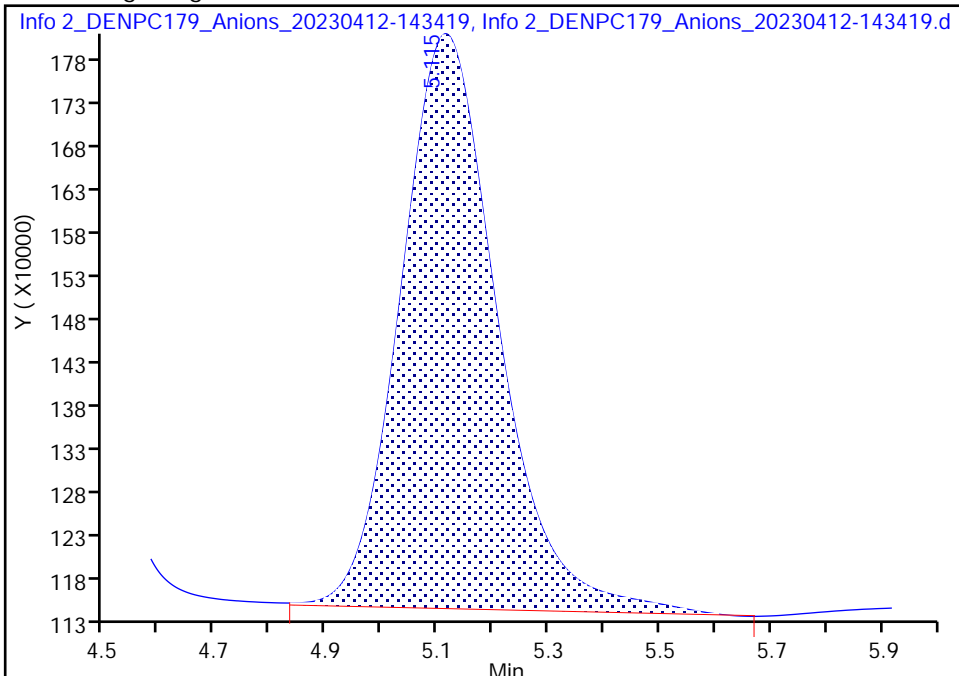
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-143419.d
Injection Date: 12-Apr-2023 14:19:00 Instrument ID: WC_IonChrom10
Lims ID: STD L2
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

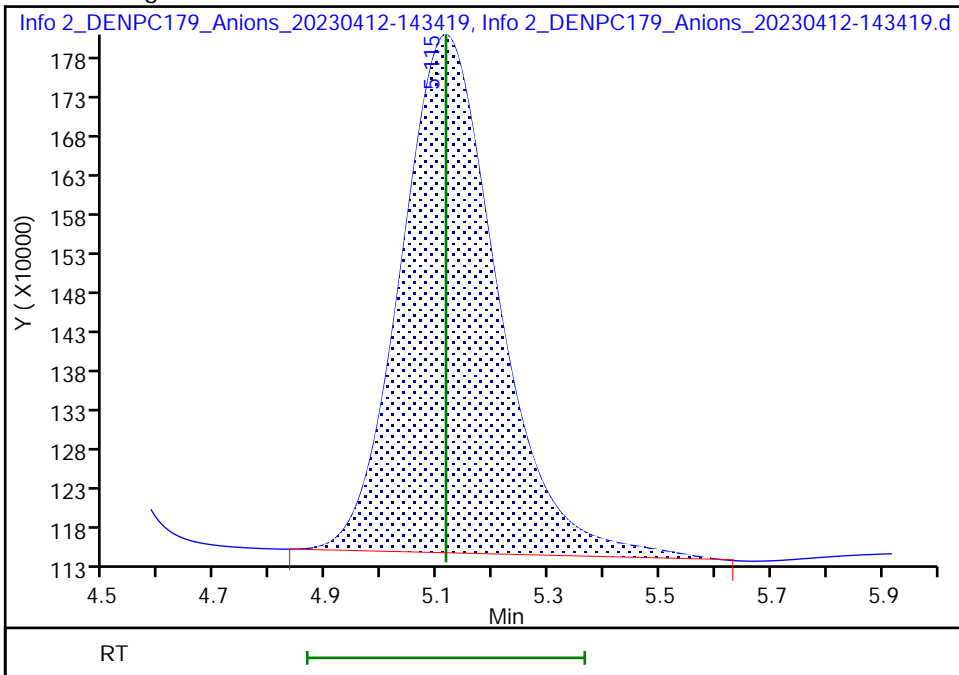
RT: 5.12
Area: 8151496
Amount: 0.199877
Amount Units: ug/ml

Processing Integration Results



RT: 5.12
Area: 8087413
Amount: 0.201920
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:41:06
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

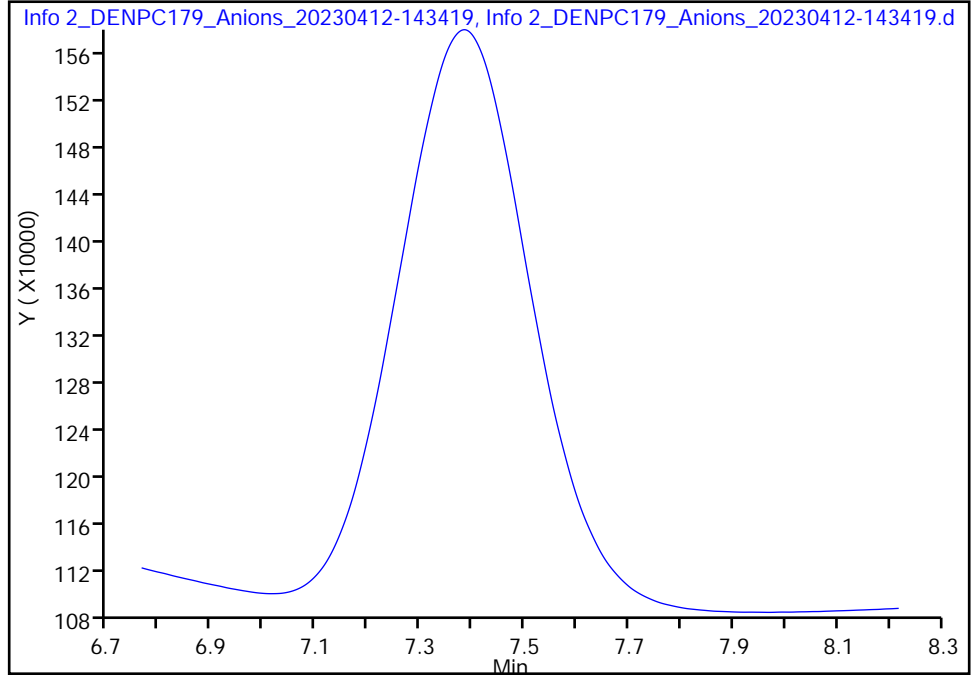
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-143419.d
Injection Date: 12-Apr-2023 14:19:00 Instrument ID: WC_IonChrom10
Lims ID: STD L2
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

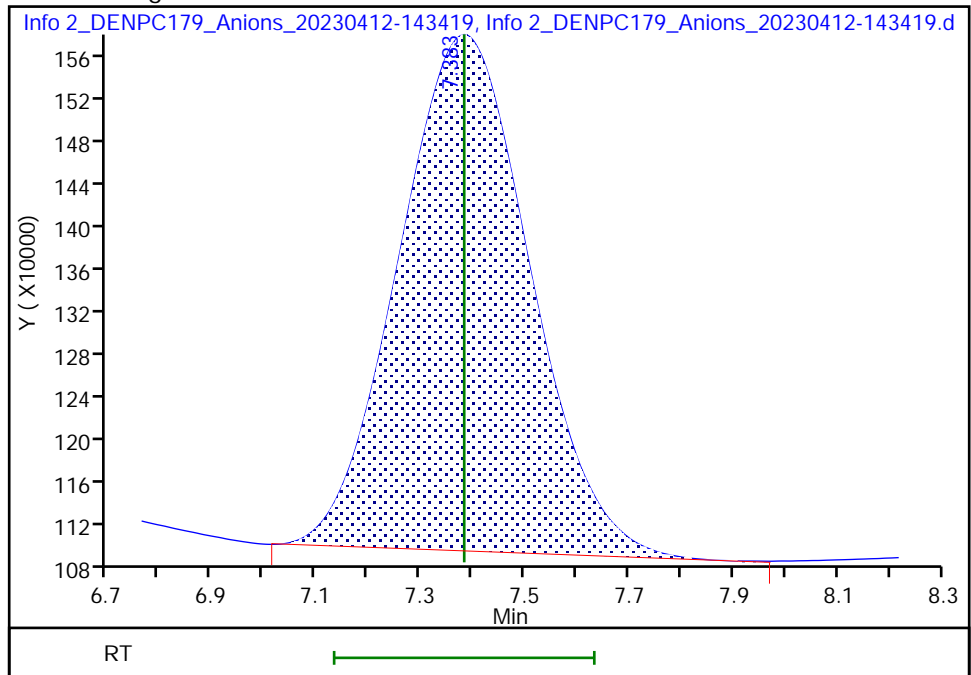
Not Detected
Expected RT: 7.38

Processing Integration Results



Manual Integration Results

RT: 7.38
Area: 8434441
Amount: 0.219511
Amount Units: ug/ml



Reviewer: LVW8, 12-Apr-2023 15:41:22
Audit Action: Assigned Compound ID

Audit Reason: Baseline Smoothing

Eurofins Denver

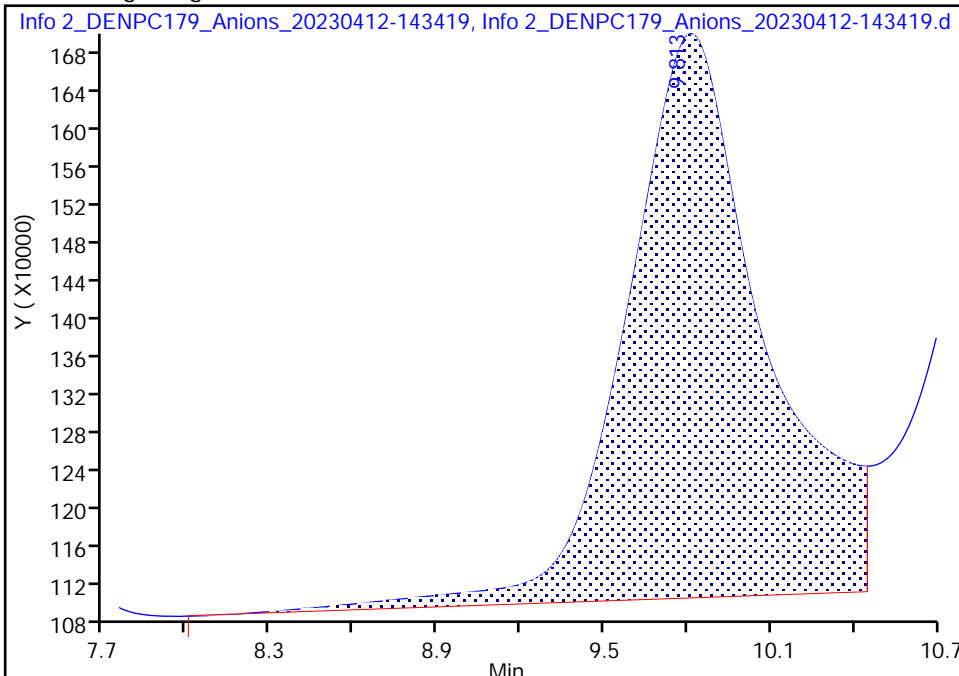
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-143419.d
Injection Date: 12-Apr-2023 14:19:00 Instrument ID: WC_IonChrom10
Lims ID: STD L2
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

6 Orthophosphate as P, CAS: STL00599

Signal: 1

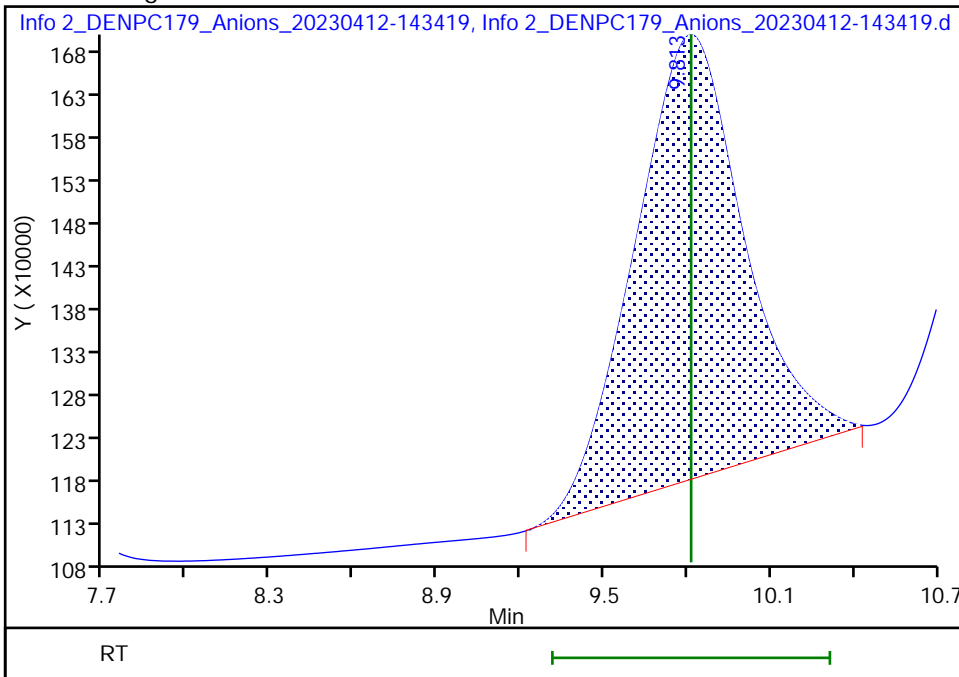
RT: 9.81
Area: 20197362
Amount: 0.155449
Amount Units: ug/ml

Processing Integration Results



RT: 9.81
Area: 13953811
Amount: 0.140386
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:41:19
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14
 Lims ID: STD L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 12-Apr-2023 14:34:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-003
 Misc. Info.: 280-0120345-003
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 14-Apr-2023 14:03:53 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15

Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620

First Level Reviewer: LVW8 Date: 12-Apr-2023 15:42:15

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.168	3.168	0.000	16995372	NC	NC	Ma
2 Chloride	4.383	4.383	0.000	43975181	NC	NC	M
3 Nitrite as N	5.118	5.118	0.000	21615246	0.5000	0.4936	M
4 Bromide	6.317	6.317	0.000	3222251	NC	NC	M
5 Nitrate as N	7.123	7.123	0.000	19909305	0.5000	0.4697	M
6 Orthophosphate as P	9.405	9.405	0.000	23629516	0.5000	0.5977	M
7 Sulfate	10.647	10.647	0.000	29311364	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC CAL cl/so4_00475 Amount Added: 0.20 Units: mL
 IC Cal low_00703 Amount Added: 0.20 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-144917.d

Injection Date: 12-Apr-2023 14:34:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: STD L3

Worklist Smp#: 3

Client ID:

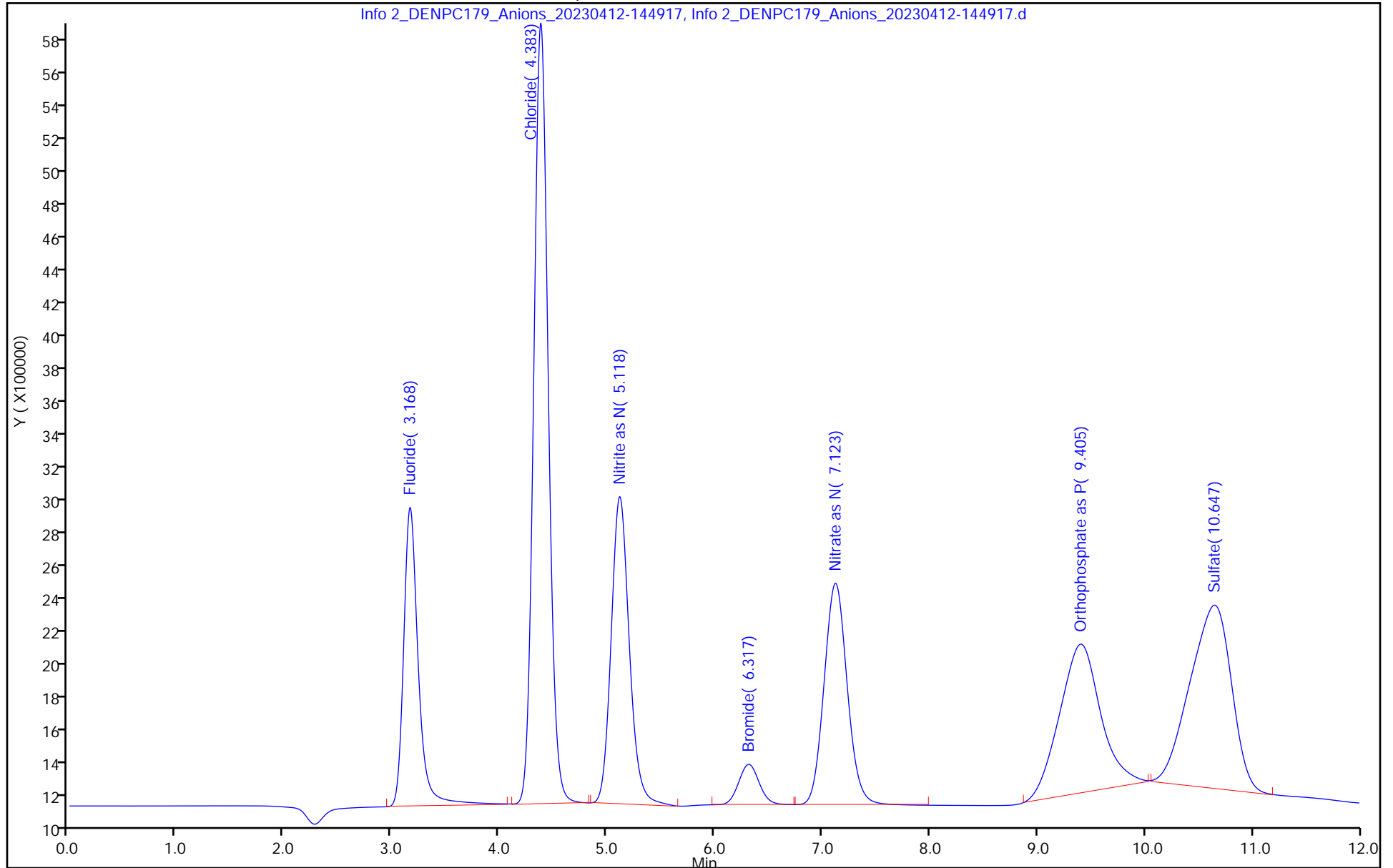
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

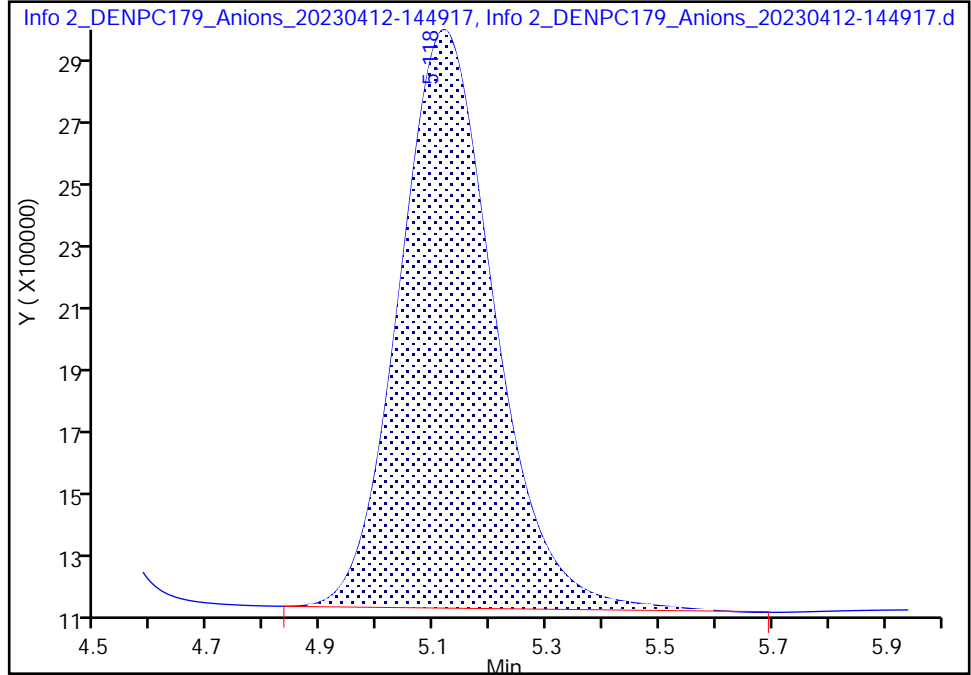
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-144917.d		
Injection Date:	12-Apr-2023 14:34:00	Instrument ID:	WC_IonChrom10
Lims ID:	STD L3		
Client ID:			
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 3
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

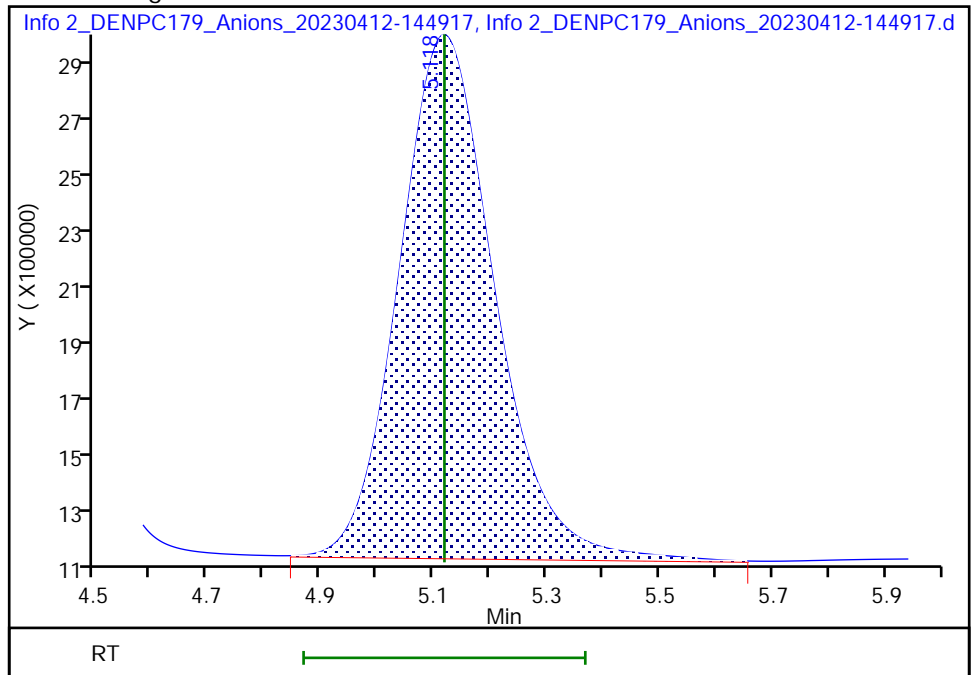
RT: 5.12
 Area: 21704269
 Amount: 0
 Amount Units: ug/ml

Processing Integration Results



RT: 5.12
 Area: 21615246
 Amount: 0.493602
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:41:46
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

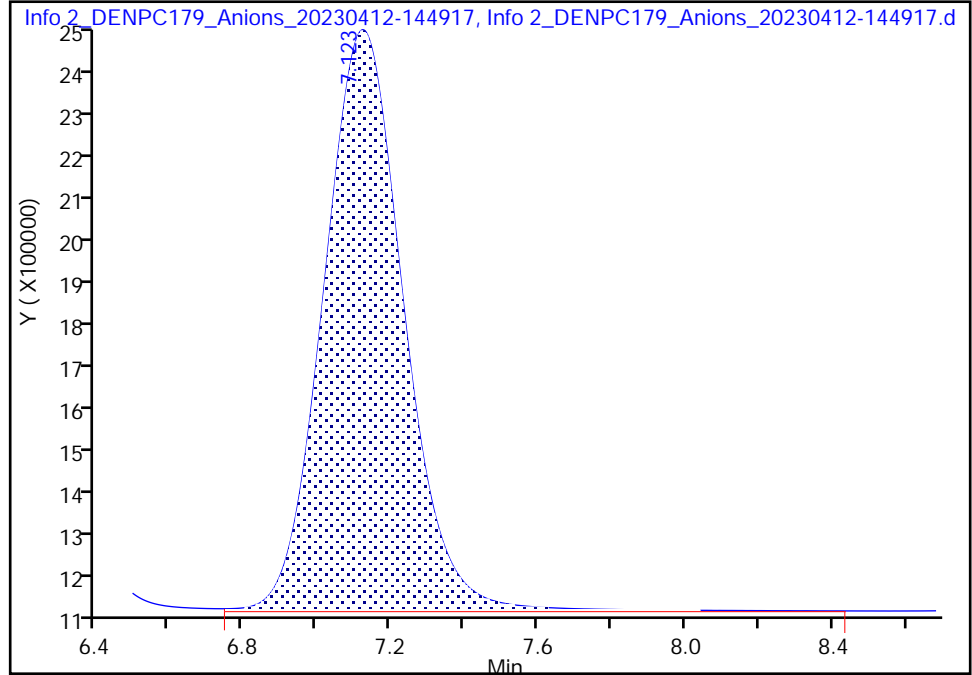
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-144917.d
Injection Date: 12-Apr-2023 14:34:00 Instrument ID: WC_IonChrom10
Lims ID: STD L3
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

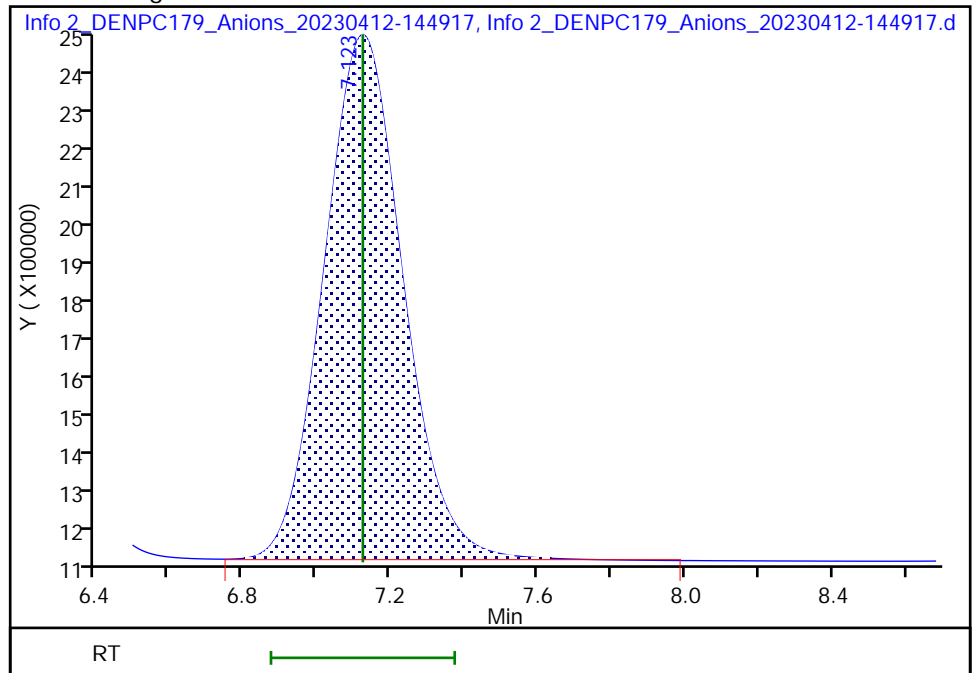
RT: 7.12
Area: 20406914
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 7.12
Area: 19909305
Amount: 0.469685
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:41:55
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

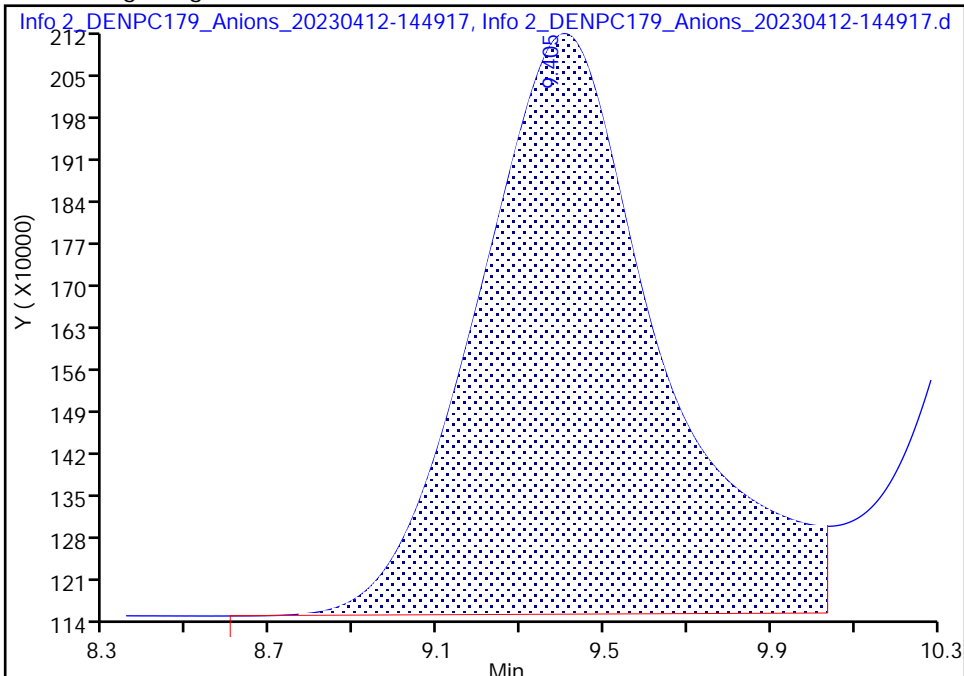
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-144917.d		
Injection Date:	12-Apr-2023 14:34:00	Instrument ID:	WC_IonChrom10
Lims ID:	STD L3		
Client ID:			
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 3
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

6 Orthophosphate as P, CAS: STL00599

Signal: 1

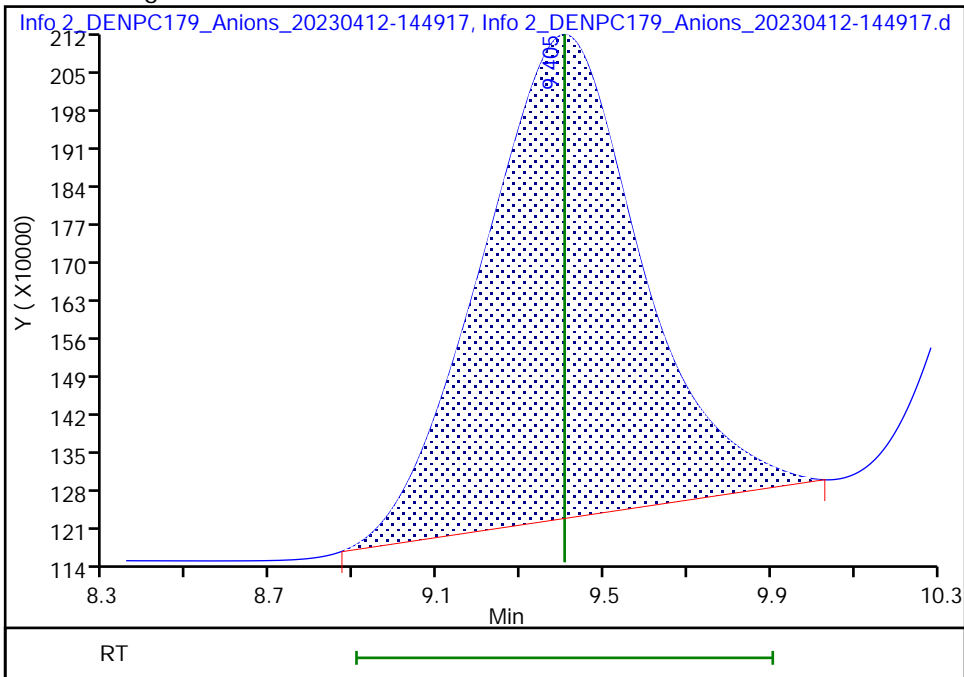
RT: 9.41
 Area: 29322324
 Amount: 0
 Amount Units: ug/ml

Processing Integration Results



RT: 9.41
 Area: 23629516
 Amount: 0.597704
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:42:10
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Lims ID: STD L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 12-Apr-2023 14:49:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-004
 Misc. Info.: 280-0120345-004
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 14-Apr-2023 14:03:55 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620

First Level Reviewer: LVW8 Date: 12-Apr-2023 15:42:52

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.168	3.168	0.000	37412858	NC	NC	Ma
2 Chloride	4.390	4.390	0.000	575824993	NC	NC	M
3 Nitrite as N	5.113	5.113	0.000	44844044	1.00	0.99	M
4 Bromide	6.308	6.308	0.000	6583592	NC	NC	M
5 Nitrate as N	7.103	7.103	0.000	42066844	1.00	0.9528	M
6 Orthophosphate as P	9.388	9.388	0.000	34760084	1.00	1.12	M
7 Sulfate	10.628	10.628	0.000	410479688	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC CAL cl/so4_00475 Amount Added: 2.40 Units: mL
 IC Cal low_00703 Amount Added: 0.40 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-150415.d

Injection Date: 12-Apr-2023 14:49:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: STD L4

Worklist Smp#: 4

Client ID:

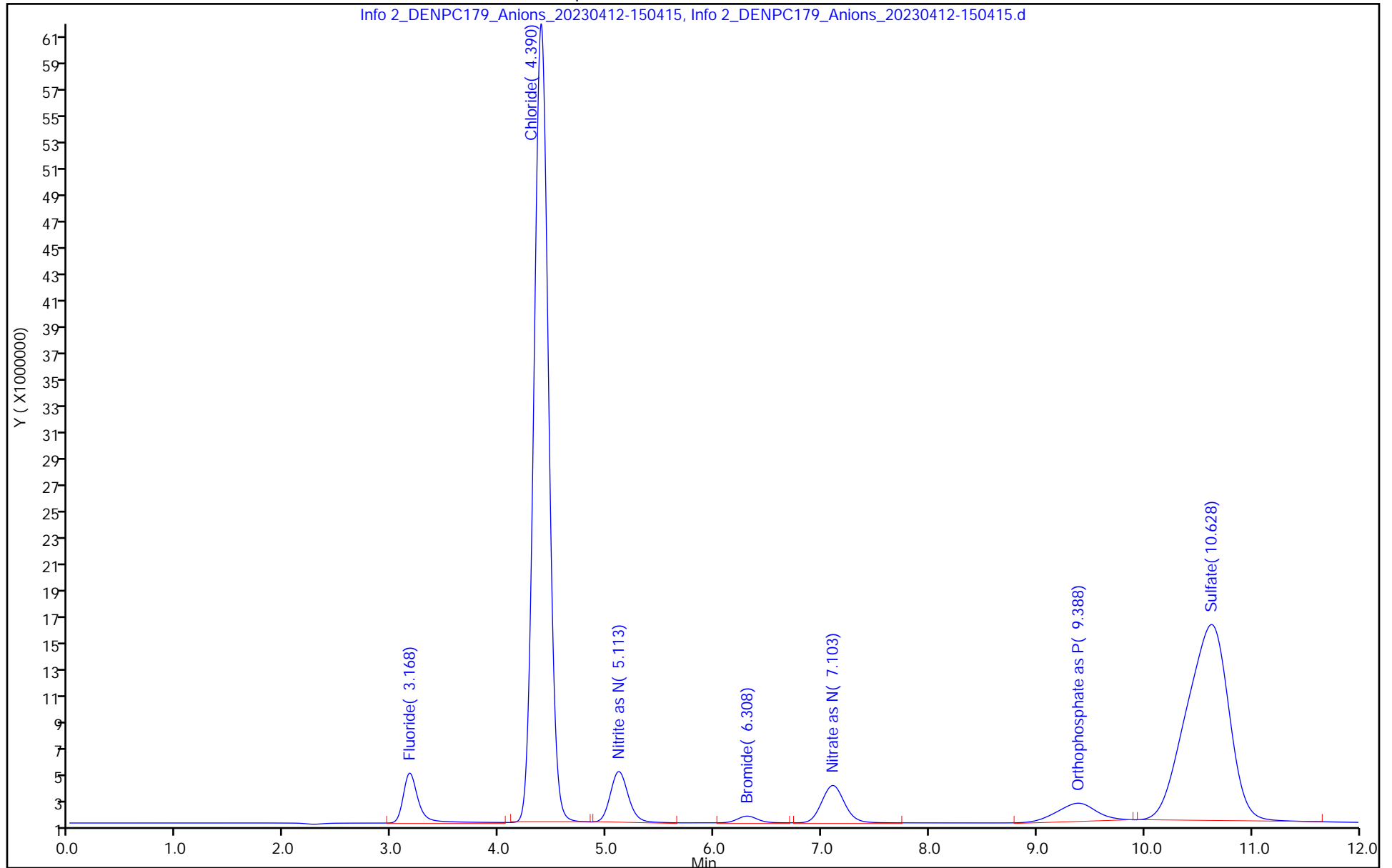
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

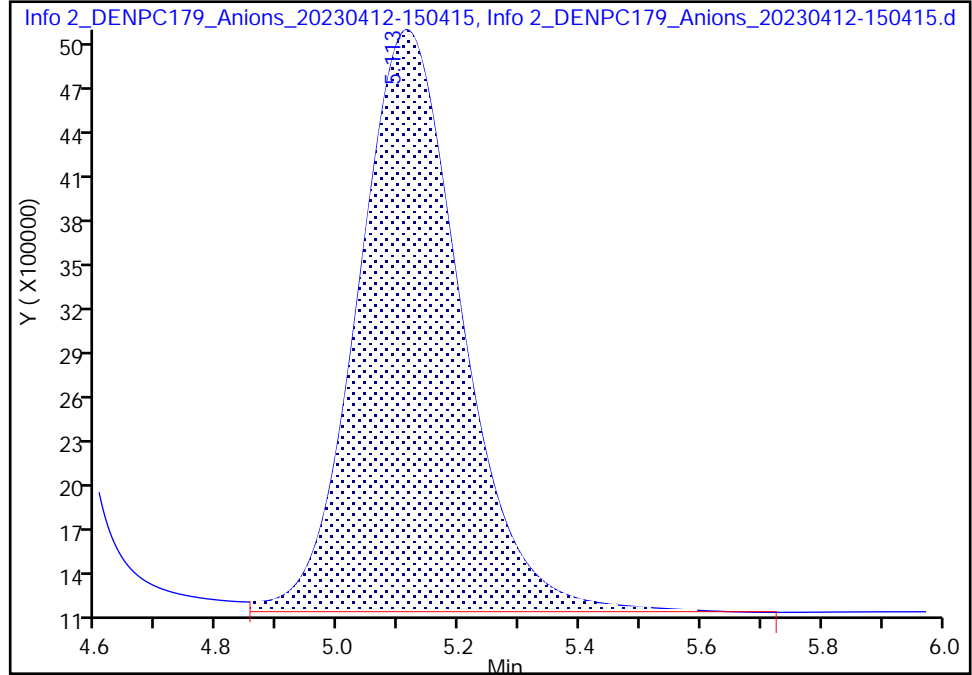
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-150415.d		
Injection Date:	12-Apr-2023 14:49:00	Instrument ID:	WC_IonChrom10
Lims ID:	STD L4		
Client ID:			
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 4
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

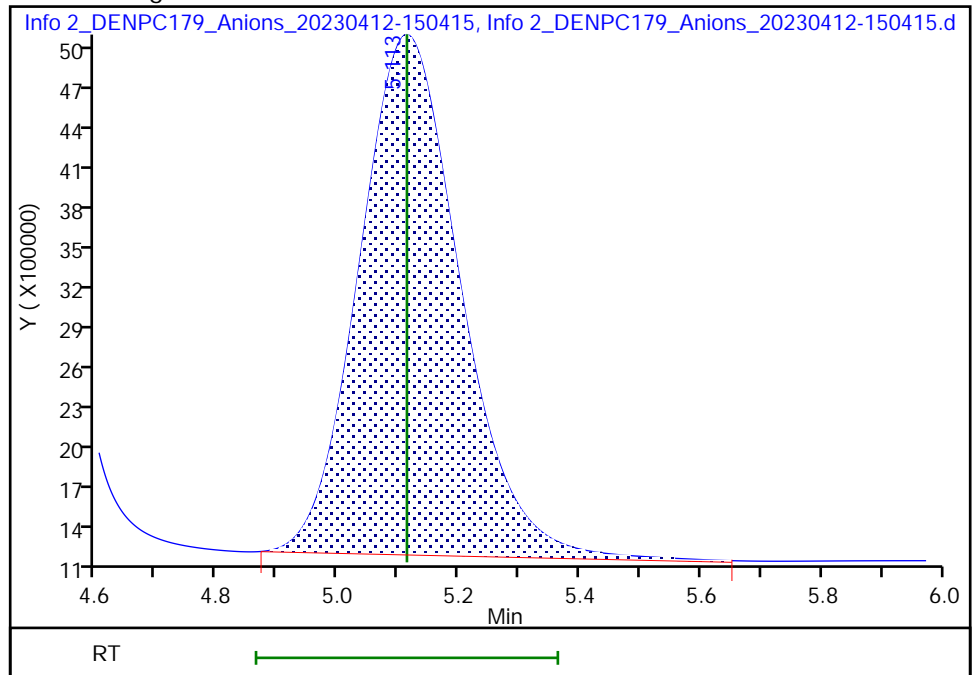
RT: 5.11
 Area: 46326440
 Amount: 0
 Amount Units: ug/ml

Processing Integration Results



RT: 5.11
 Area: 44844044
 Amount: 0.994454
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:42:27
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

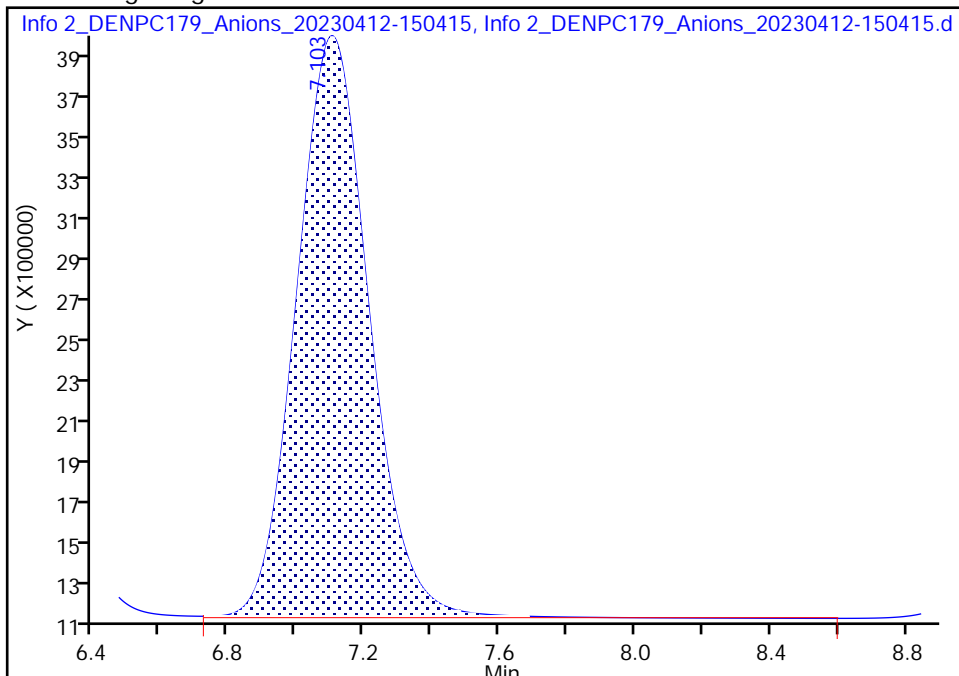
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-150415.d
Injection Date: 12-Apr-2023 14:49:00 Instrument ID: WC_IonChrom10
Lims ID: STD L4
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

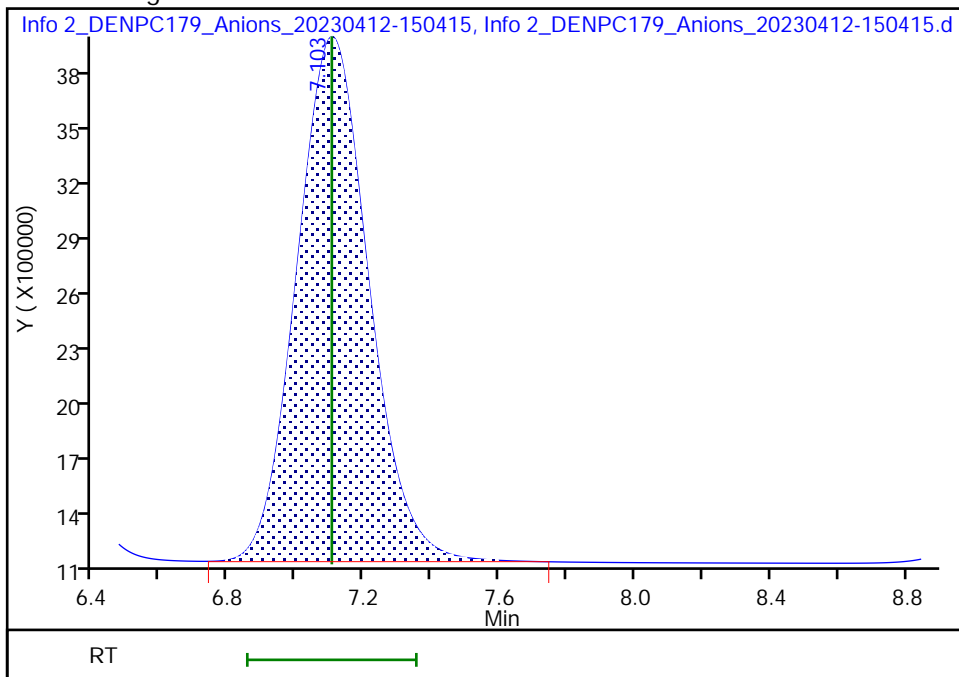
RT: 7.10
Area: 42281044
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 7.10
Area: 42066844
Amount: 0.952760
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:42:36
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

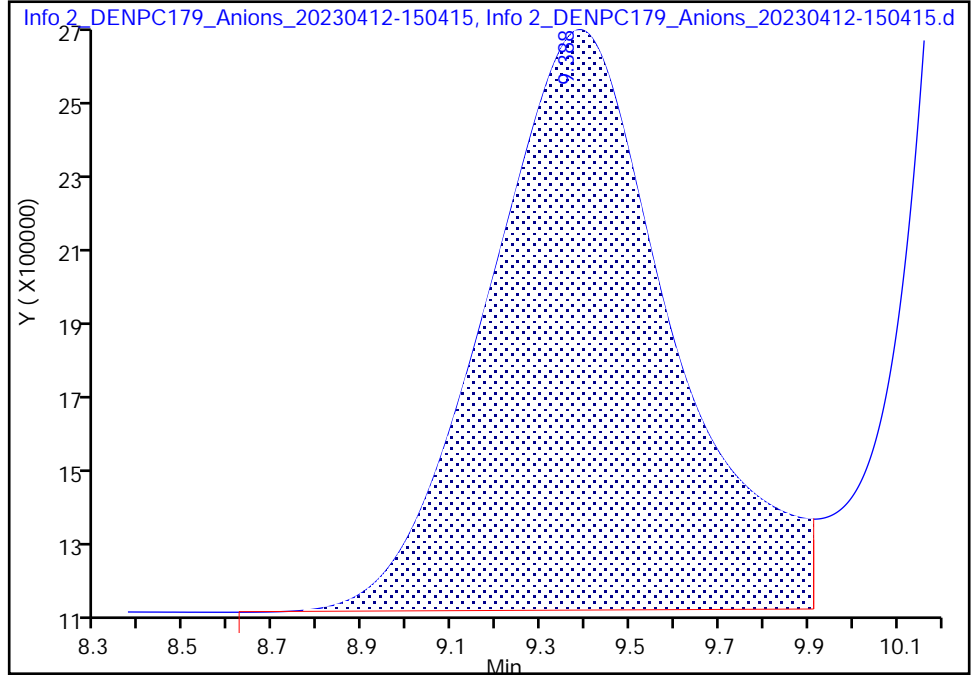
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-150415.d		
Injection Date:	12-Apr-2023 14:49:00	Instrument ID:	WC_IonChrom10
Lims ID:	STD L4		
Client ID:			
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 4
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

6 Orthophosphate as P, CAS: STL00599

Signal: 1

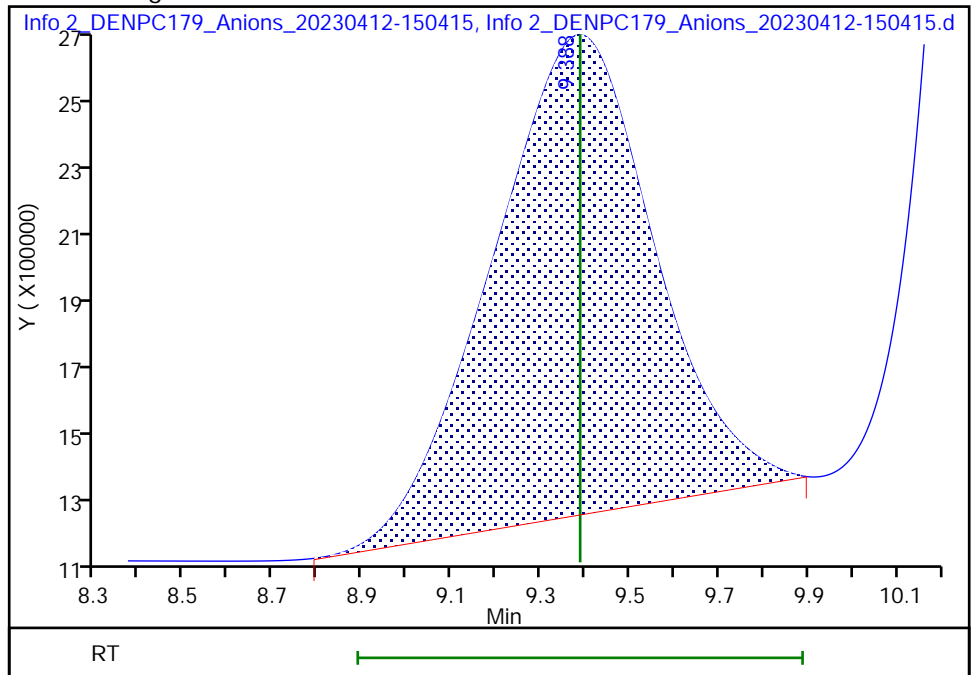
RT: 9.39
 Area: 42806166
 Amount: 0
 Amount Units: ug/ml

Processing Integration Results



RT: 9.39
 Area: 34760084
 Amount: 1.123785
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:42:46
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Lims ID: STD L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 12-Apr-2023 15:04:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-005
 Misc. Info.: 280-0120345-005
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 14-Apr-2023 14:03:57 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15

Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620

First Level Reviewer: LVW8 Date: 12-Apr-2023 15:43:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.170	3.170	0.000	96629288	NC	NC	Ma
2 Chloride	4.405	4.405	0.000	1149686166	NC	NC	M
3 Nitrite as N	5.107	5.107	0.000	116231748	2.50	2.53	M
4 Bromide	6.298	6.298	0.000	17672625	NC	NC	
5 Nitrate as N	7.078	7.078	0.000	112738215	2.50	2.49	M
6 Orthophosphate as P	9.368	9.368	0.000	65067694	2.50	2.56	M
7 Sulfate	10.610	10.610	0.000	828007497	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC CAL cl/so4_00475 Amount Added: 4.80 Units: mL
 IC Cal low_00703 Amount Added: 1.00 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-151914.d

Injection Date: 12-Apr-2023 15:04:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: STD L5

Worklist Smp#: 5

Client ID:

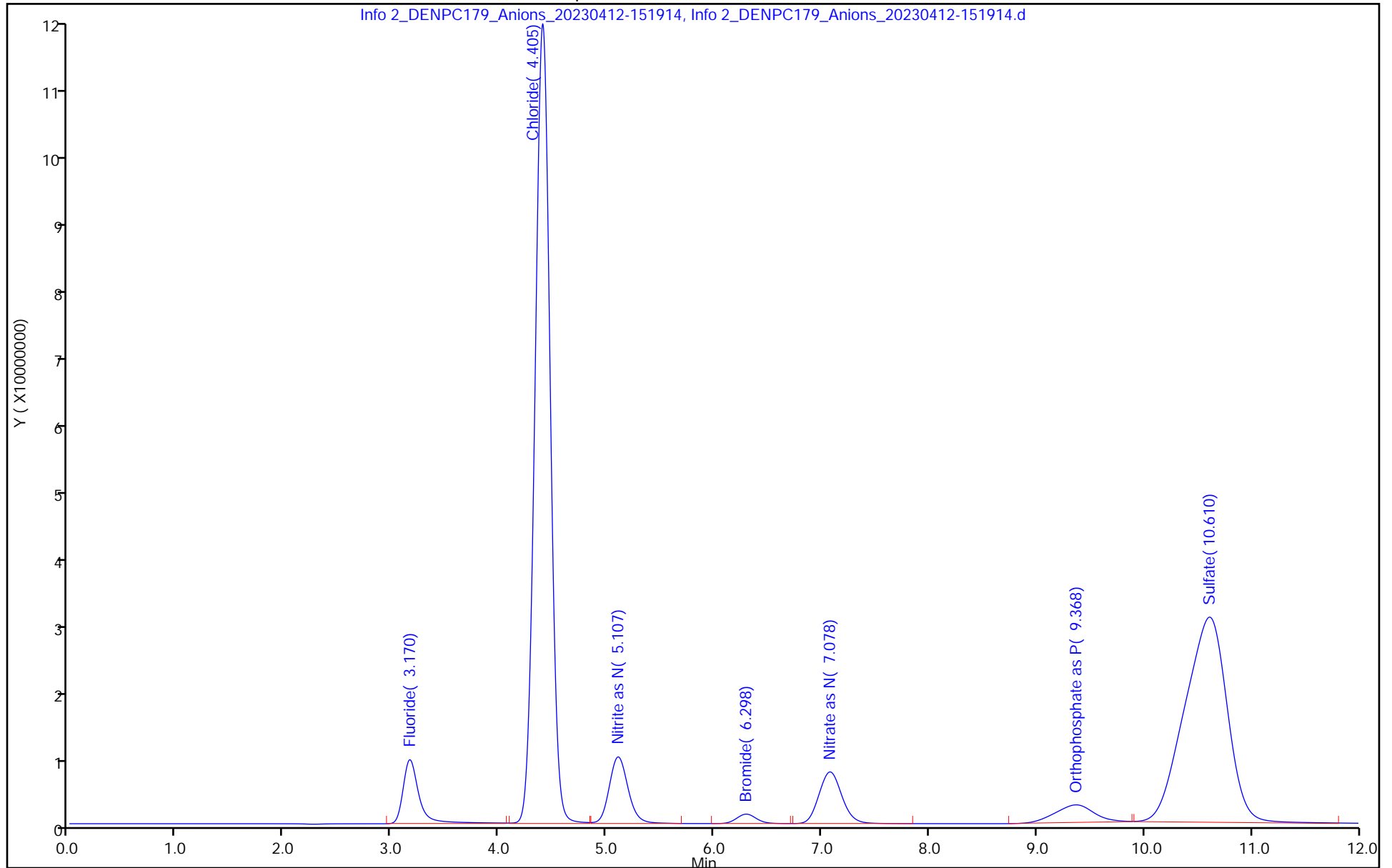
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

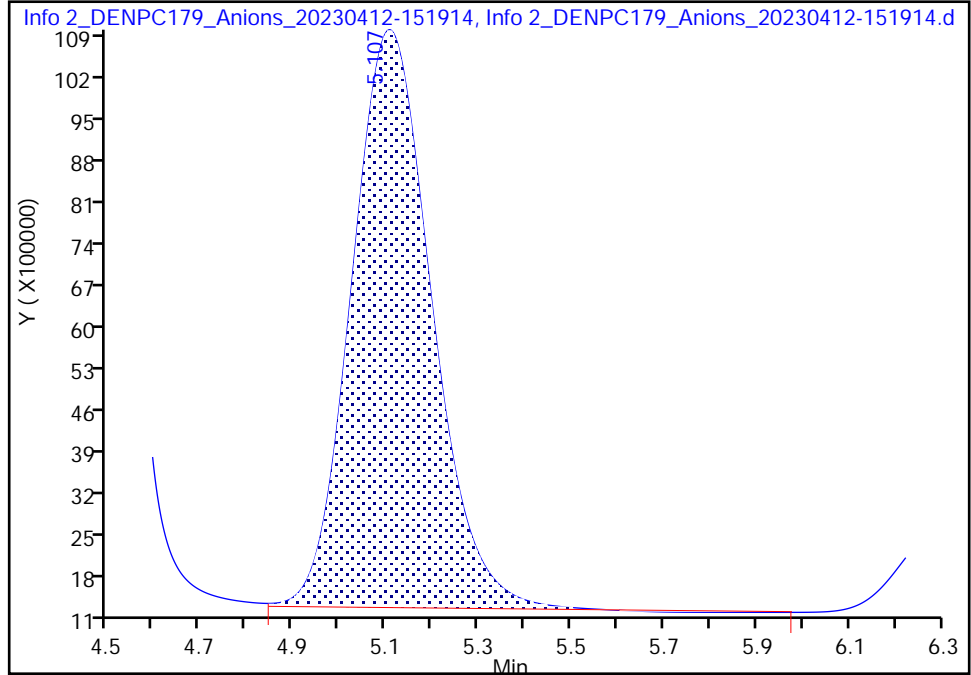
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-151914.d		
Injection Date:	12-Apr-2023 15:04:00	Instrument ID:	WC_IonChrom10
Lims ID:	STD L5		
Client ID:			
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

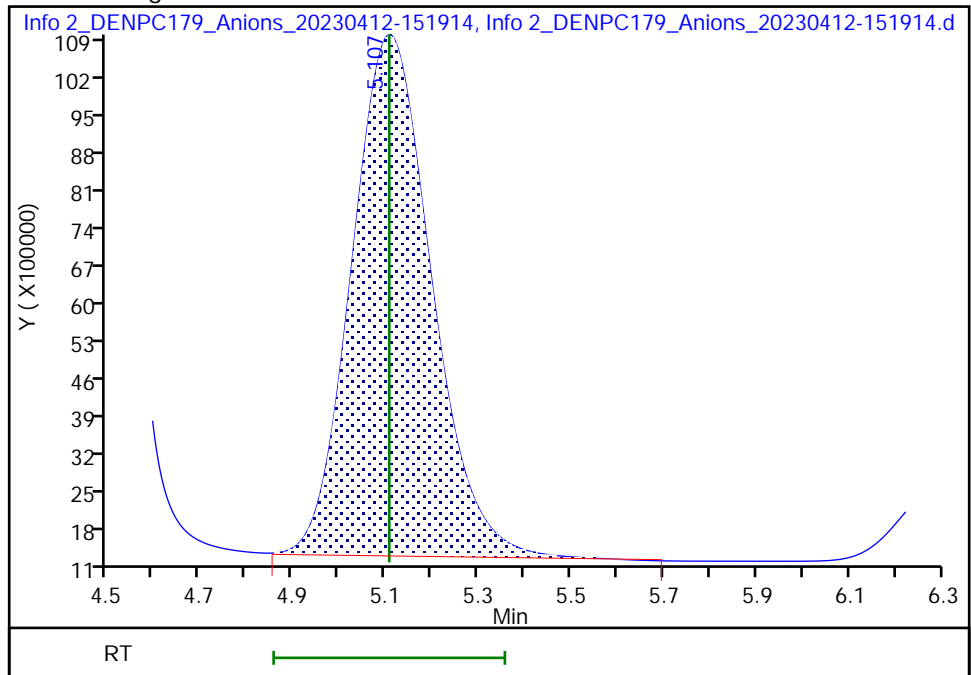
RT: 5.11
 Area: 117216841
 Amount: 0
 Amount Units: ug/ml

Processing Integration Results



RT: 5.11
 Area: 116231748
 Amount: 2.533691
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:43:01
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

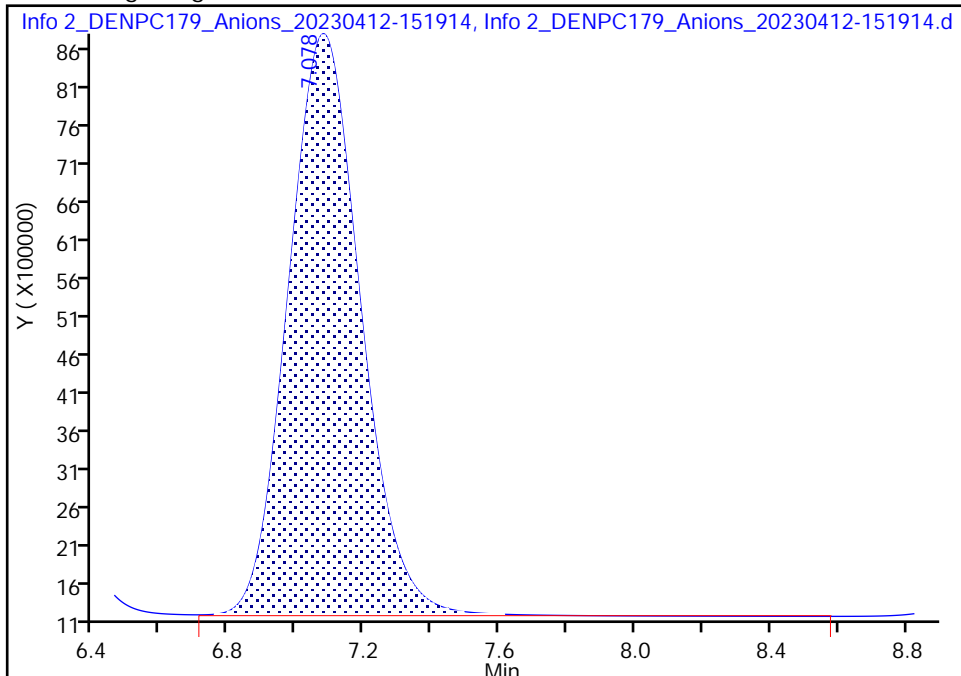
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-151914.d
Injection Date: 12-Apr-2023 15:04:00 Instrument ID: WC_IonChrom10
Lims ID: STD L5
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

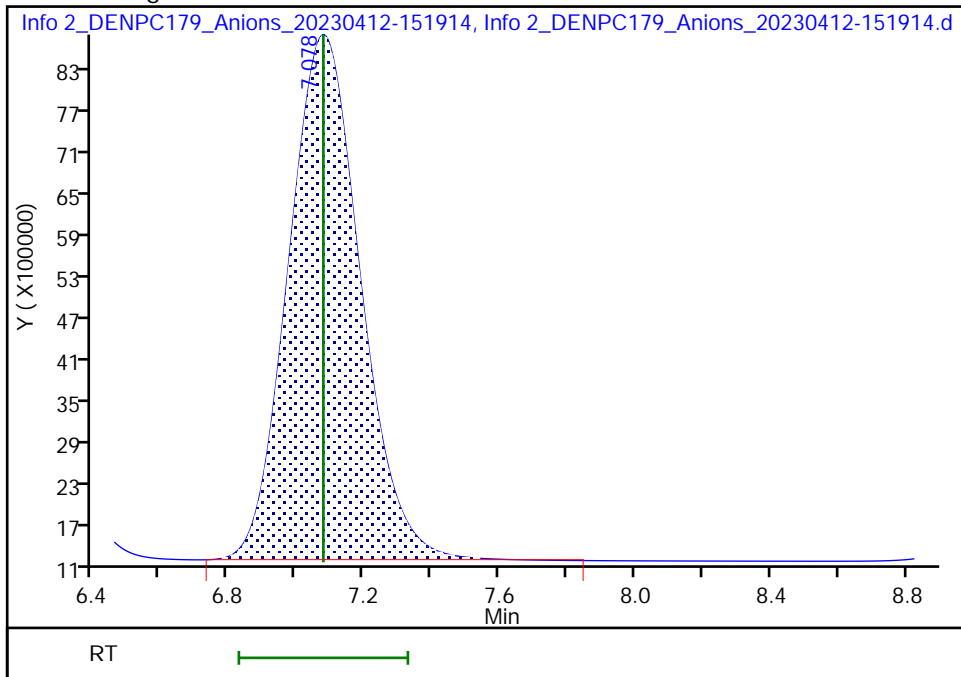
RT: 7.08
Area: 112804805
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 7.08
Area: 112738215
Amount: 2.493526
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:43:10
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

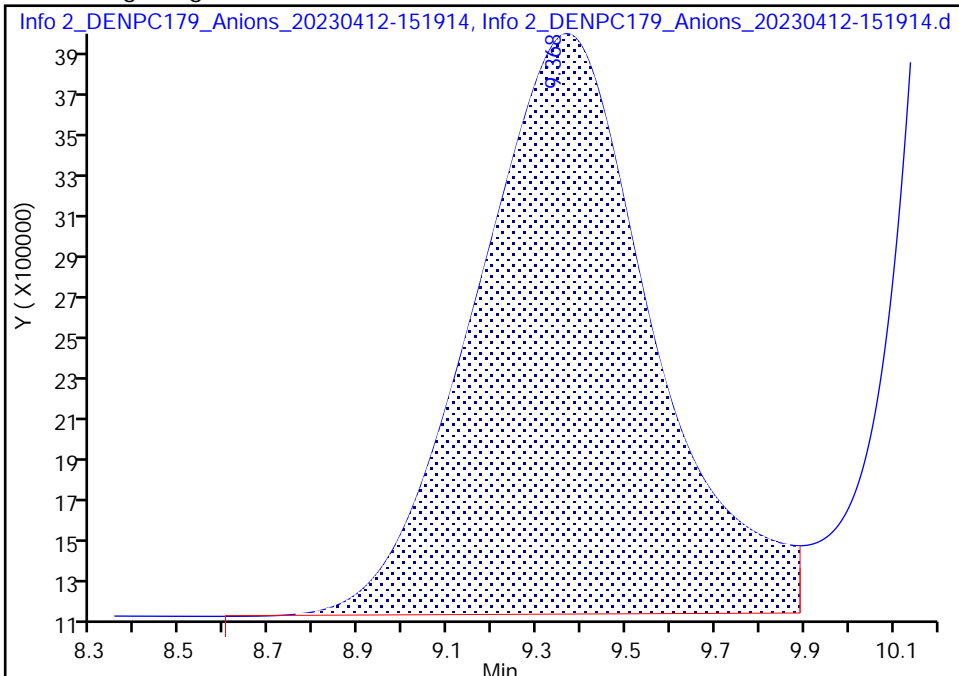
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-151914.d		
Injection Date:	12-Apr-2023 15:04:00	Instrument ID:	WC_IonChrom10
Lims ID:	STD L5		
Client ID:			
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

6 Orthophosphate as P, CAS: STL00599

Signal: 1

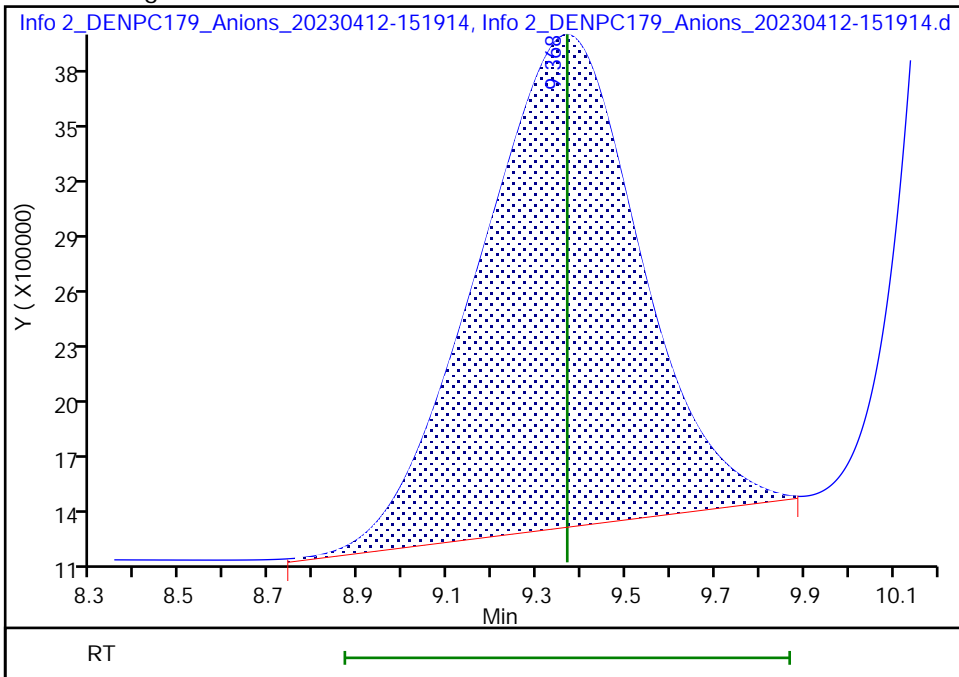
RT: 9.37
 Area: 75792721
 Amount: 0
 Amount Units: ug/ml

Processing Integration Results



RT: 9.37
 Area: 65067694
 Amount: 2.556261
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:43:19
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
 Page 120 of 205

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Lims ID: STD L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 12-Apr-2023 15:19:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-006
 Misc. Info.: 280-0120345-006
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 14-Apr-2023 14:04:00 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15

Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620

First Level Reviewer: LVW8 Date: 12-Apr-2023 17:08:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.175	3.175	0.000	190381963	NC	NC	Ma
2 Chloride	4.428	4.428	0.000	1914243902	NC	NC	M
3 Nitrite as N	5.103	5.103	0.000	229518060	5.00	4.98	M
4 Bromide	6.292	6.292	0.000	37078318	NC	NC	
5 Nitrate as N	7.057	7.057	0.000	230663663	5.00	5.06	M
6 Orthophosphate as P	9.353	9.353	0.000	112155923	5.00	4.78	M
7 Sulfate	10.592	10.592	0.000	1384314036	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC CAL cl/so4_00475 Amount Added: 8.00 Units: mL
 IC Cal low_00703 Amount Added: 2.00 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-153413.d

Injection Date: 12-Apr-2023 15:19:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: STD L6

Worklist Smp#: 6

Client ID:

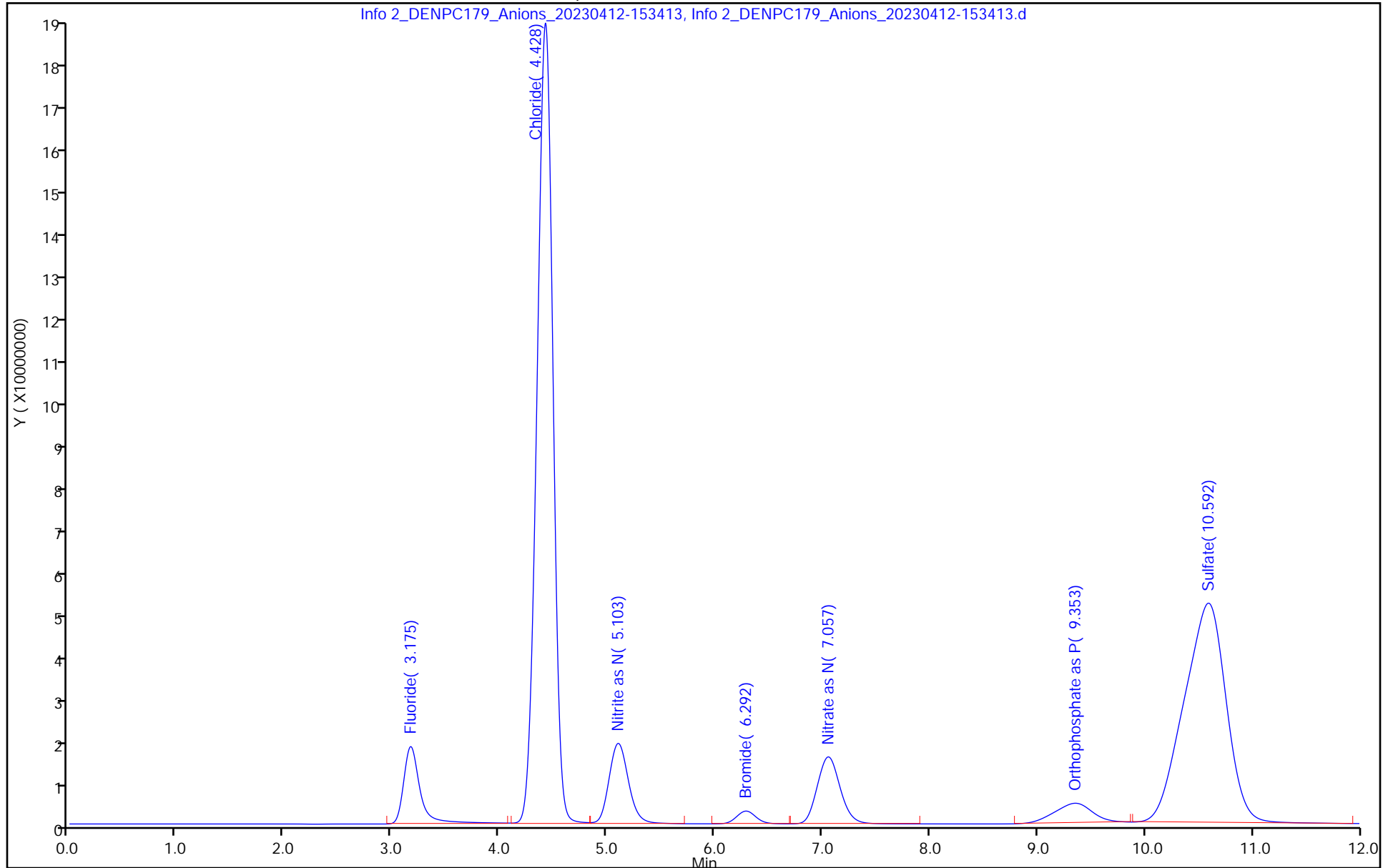
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

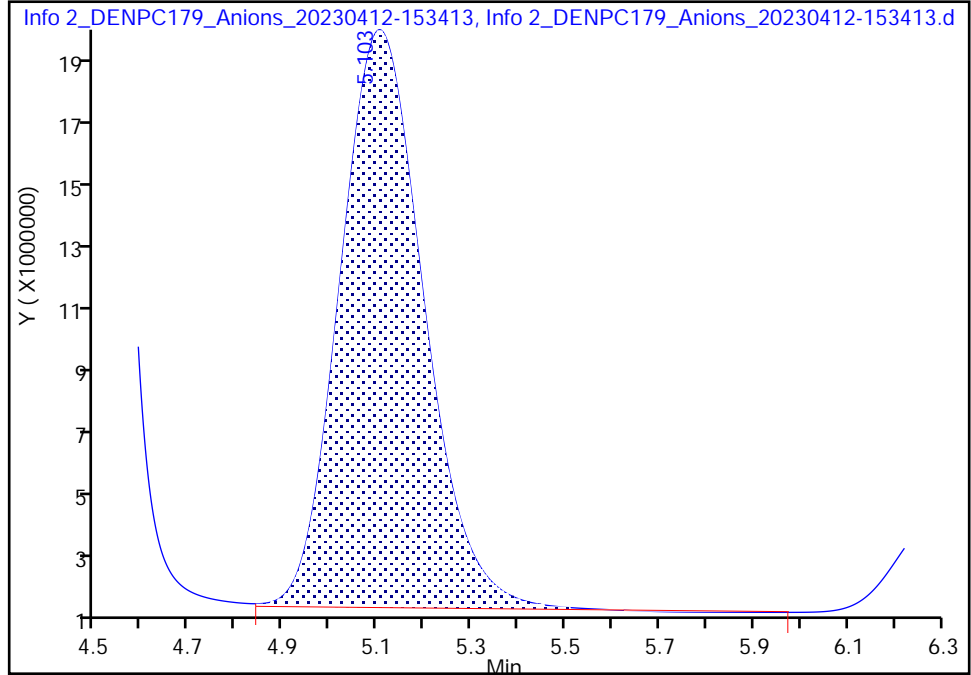
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-153413.d
Injection Date: 12-Apr-2023 15:19:00 Instrument ID: WC_IonChrom10
Lims ID: STD L6
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

3 Nitrite as N, CAS: 14797-65-0

Signal: 1

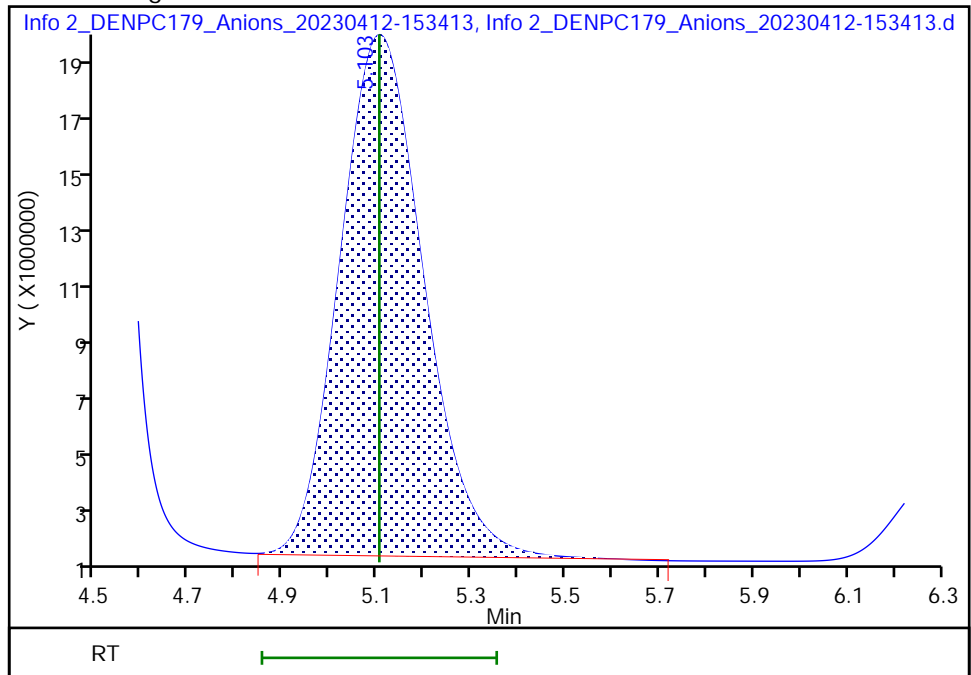
RT: 5.10
Area: 230908651
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 5.10
Area: 229518060
Amount: 4.976333
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:43:38
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

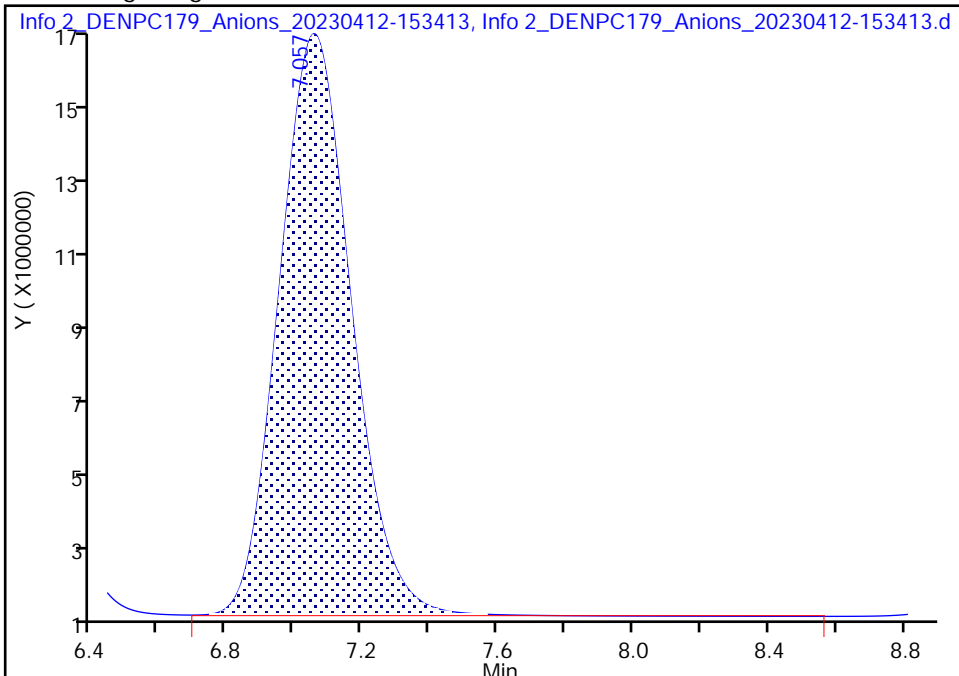
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-153413.d
Injection Date: 12-Apr-2023 15:19:00 Instrument ID: WC_IonChrom10
Lims ID: STD L6
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

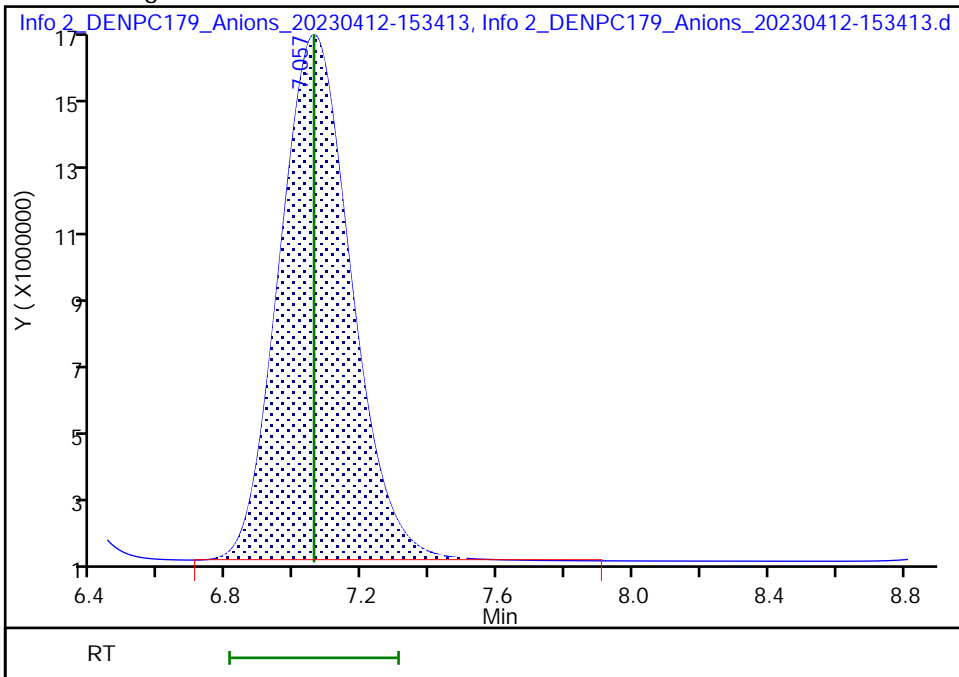
RT: 7.06
Area: 230797057
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 7.06
Area: 230663663
Amount: 5.064518
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:43:47
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

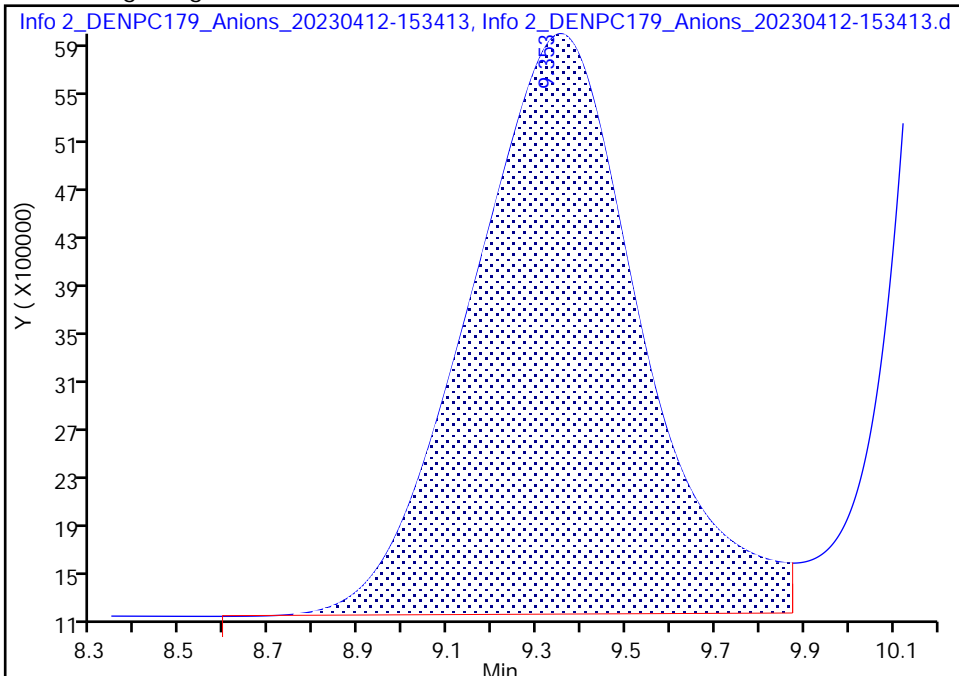
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-153413.d		
Injection Date:	12-Apr-2023 15:19:00	Instrument ID:	WC_IonChrom10
Lims ID:	STD L6		
Client ID:			
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

6 Orthophosphate as P, CAS: STL00599

Signal: 1

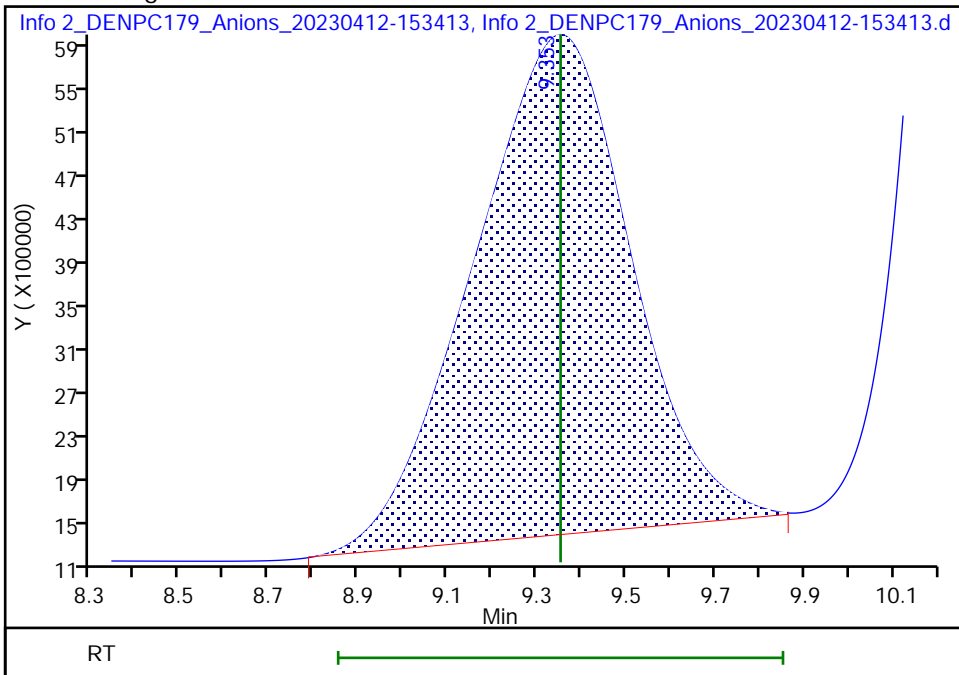
RT: 9.35
 Area: 127117672
 Amount: 0
 Amount Units: ug/ml

Processing Integration Results



RT: 9.35
 Area: 112155923
 Amount: 4.781864
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 12-Apr-2023 15:43:56
 Audit Action: Manually Integrated

IC Instrument Information

WL: 120345 Inst ID: 2110 Analysis Date: 04/12/23 Analyst: EJ3

Rush	Job No.	Samples	Anions	QC Req	HT Exp
<input type="checkbox"/>	<u>174903</u>	<u>7</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____

Dilutions

Job No.	Samples	Anions	Dilution	Reason
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Instrument: WC_IonChrom10 Lims Location: 280
 Lock State: Unlocked Cpnd Order: Retention Time
 Integrator: Falcon Last Modified: 13-Apr-2023 18:10:21
 No.Compounds:7
 Sublist: chrom-Anions_IC10*sub5
 Limit Group: Wet - Anions

Detectors

Detector: 1, Info 2_091554_1
 Data Type: ic Spec Type: none
 Supports Extracted Chromatograms: False
 Run Time: 0.000-14.900 No. Points: 7196

Calibration File Names

Level: 1	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14192
	Inj Date: 12-Apr-2023 14:04:00 Worklist: 120345 Sample#: 1
Level: 2	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14341
	Inj Date: 12-Apr-2023 14:19:00 Worklist: 120345 Sample#: 2
Level: 3	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14491
	Inj Date: 12-Apr-2023 14:34:00 Worklist: 120345 Sample#: 3
Level: 4	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15041
	Inj Date: 12-Apr-2023 14:49:00 Worklist: 120345 Sample#: 4
Level: 5	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15191
	Inj Date: 12-Apr-2023 15:04:00 Worklist: 120345 Sample#: 5
Level: 6	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15341
	Inj Date: 12-Apr-2023 15:19:00 Worklist: 120345 Sample#: 6

Start Cal Date: 12-Apr-2023 14:04:00 End Cal Date: 12-Apr-2023 15:19:00

Individual Compound Calibration Parameters

Quant Method: ESTD	RF Calibration: Replace	
Rule Name: Linear1	Curve: Linear	Weighting: Conc
Origin: None	Error: raw_COD	Error Limit: 1.00
RF %Dif: 0.0	SPCC Limit: 0.0	CCC Limit: 0.0
Dependent Variable: Resp		

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
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3 Nitrite as N

Signal: 1

40437065	43230492	44844044	46492699	45903612		-1277342			1.000
0.200000(2)	0.500000(3)	1.0000 (4)	2.5000 (5)	5.0000 (6)			46378611		
M8087413	M21615246	M44844044	M116231748	M229518060					
120345(2)	120345(3)	120345(4)	120345(5)	120345(6)					

5 Nitrate as N

Signal: 1

42172205	39818610	42066844	45095286	46132733		-1634037			0.999
0.200000(2)	0.500000(3)	1.0000 (4)	2.5000 (5)	5.0000 (6)			45867680		
M8434441	M19909305	M42066844	M112738215	M230663663					
120345(2)	120345(3)	120345(4)	120345(5)	120345(6)					

6 Orthophosphate as P

Signal: 1

69769055	47259032	34760084	26027078	22431185		10983593	R1		*0.990
0.200000(2)	0.500000(3)	1.0000 (4)	2.5000 (5)	5.0000 (6)			21157507		
M13953811	M23629516	M34760084	M65067694	M112155923					
120345(2)	120345(3)	120345(4)	120345(5)	120345(6)					

ICalib Error Legend

R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m

Instrument: WC_IonChrom10 Lims Location: 280
 Lock State: Unlocked Cpnd Order: Retention Time
 Integrator: Falcon Last Modified: 13-Apr-2023 18:10:21
 No.Compounds:7
 Sublist: chrom-Anions_IC10*sub5
 Limit Group: Wet - Anions 28D

Detectors

Detector: 1, Info 2_091554_1
 Data Type: ic Spec Type: none
 Supports Extracted Chromatograms: False
 Run Time: 0.000-14.900 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14192
 Inj Date: 12-Apr-2023 14:04:00 Worklist: 120345 Sample#: 1
 Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14341
 Inj Date: 12-Apr-2023 14:19:00 Worklist: 120345 Sample#: 2
 Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14491
 Inj Date: 12-Apr-2023 14:34:00 Worklist: 120345 Sample#: 3
 Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15041
 Inj Date: 12-Apr-2023 14:49:00 Worklist: 120345 Sample#: 4
 Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15191
 Inj Date: 12-Apr-2023 15:04:00 Worklist: 120345 Sample#: 5
 Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15341
 Inj Date: 12-Apr-2023 15:19:00 Worklist: 120345 Sample#: 6

Start Cal Date: 12-Apr-2023 14:04:00 End Cal Date: 12-Apr-2023 15:19:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
 Rule Name: Linear1 Curve: Linear Weighting: Conc
 Origin: None Error: raw_COD Error Limit: 1.00
 RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
 Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
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Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 12-Apr-2023 15:34:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-007
 Misc. Info.: 280-0120345-007
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC7*sub4
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions 28D
 Last Update: 14-Apr-2023 13:55:16 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620
 Start Cal Date: 12-Apr-2023 14:04:00
 End Cal Date: 12-Apr-2023 15:19:00

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
1 Fluoride	2.00	2.34	* 17.1	10.0	117.1	
2 Chloride	80.0	85.7	7.1	10.0	107.1	
4 Bromide	2.00	2.01	0.6	10.0	100.6	
7 Sulfate	80.0	86.9	8.7	10.0	108.7	

Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 12-Apr-2023 15:34:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-007
 Misc. Info.: 280-0120345-007
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC7*sub4
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 14-Apr-2023 13:56:07 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620
 Start Cal Date: 12-Apr-2023 14:04:00
 End Cal Date: 12-Apr-2023 15:19:00

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
3 Nitrite as N	2.00	2.12	6.0	10.0	106.0	
5 Nitrate as N	2.00	2.15	7.4	10.0	107.4	
6 Orthophosphate as	2.00	2.84	* 41.9	10.0	141.9	

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 12-Apr-2023 15:34:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-007
 Misc. Info.: 280-0120345-007
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC7*sub4
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 14-Apr-2023 14:06:59 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620

First Level Reviewer: XAY4 Date: 13-Apr-2023 12:05:56

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.172	3.172	0.000	88983337	NC	NC	Ma
2 Chloride	4.423	4.423	0.000	1641996046	NC	NC	
3 Nitrite as N	5.112	5.112	0.000	97019728	2.00	2.12	M
4 Bromide	6.305	6.305	0.000	14681577	NC	NC	
5 Nitrate as N	7.087	7.087	0.000	96882220	2.00	2.15	
6 Orthophosphate as P	9.373	9.373	0.000	71034633	2.00	2.84	
7 Sulfate	10.593	10.593	0.000	1198792597	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

IC SO4 ICV_00024 Amount Added: 0.80 Units: mL
 CI ICV Std_00006 Amount Added: 0.80 Units: mL
 IC ICV 5_00403 Amount Added: 0.80 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-154912.d

Injection Date: 12-Apr-2023 15:34:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ICV

Worklist Smp#: 7

Client ID:

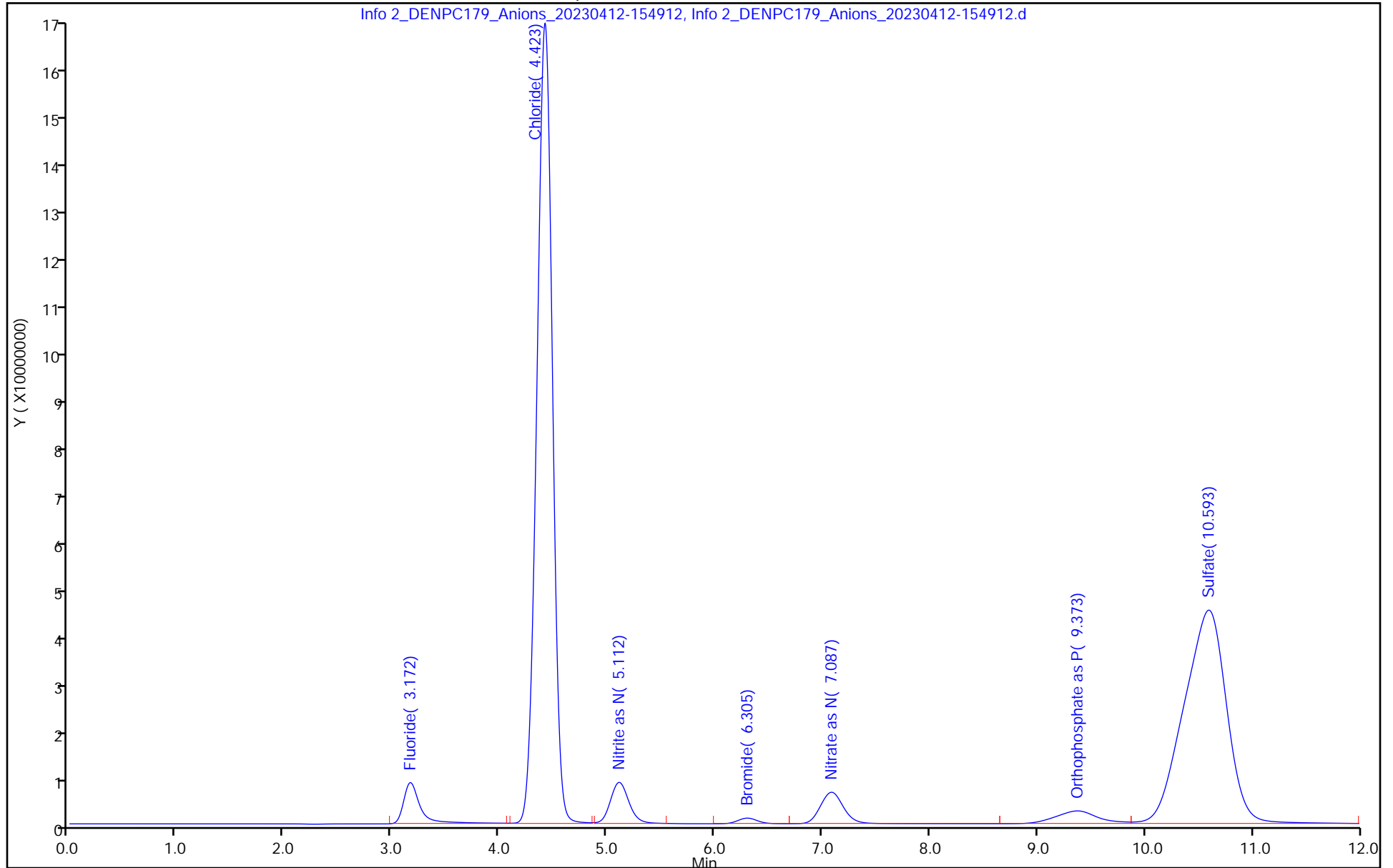
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-16
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 12-Apr-2023 15:49:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-008
 Misc. Info.: 280-0120345-008
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 14-Apr-2023 14:07:08 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620

First Level Reviewer: XAY4 Date: 14-Apr-2023 14:07:17

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.172				ND	U
2 Chloride		4.397				ND	U
3 Nitrite as N		5.103				ND	
4 Bromide		6.293				ND	U
5 Nitrate as N		7.072				ND	
6 Orthophosphate as P	9.417	9.418	-0.001	14030813		0.1440	
7 Sulfate	10.600	10.602	-0.002	368472		NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-160412.d

Injection Date: 12-Apr-2023 15:49:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ICB

Worklist Smp#: 8

Client ID:

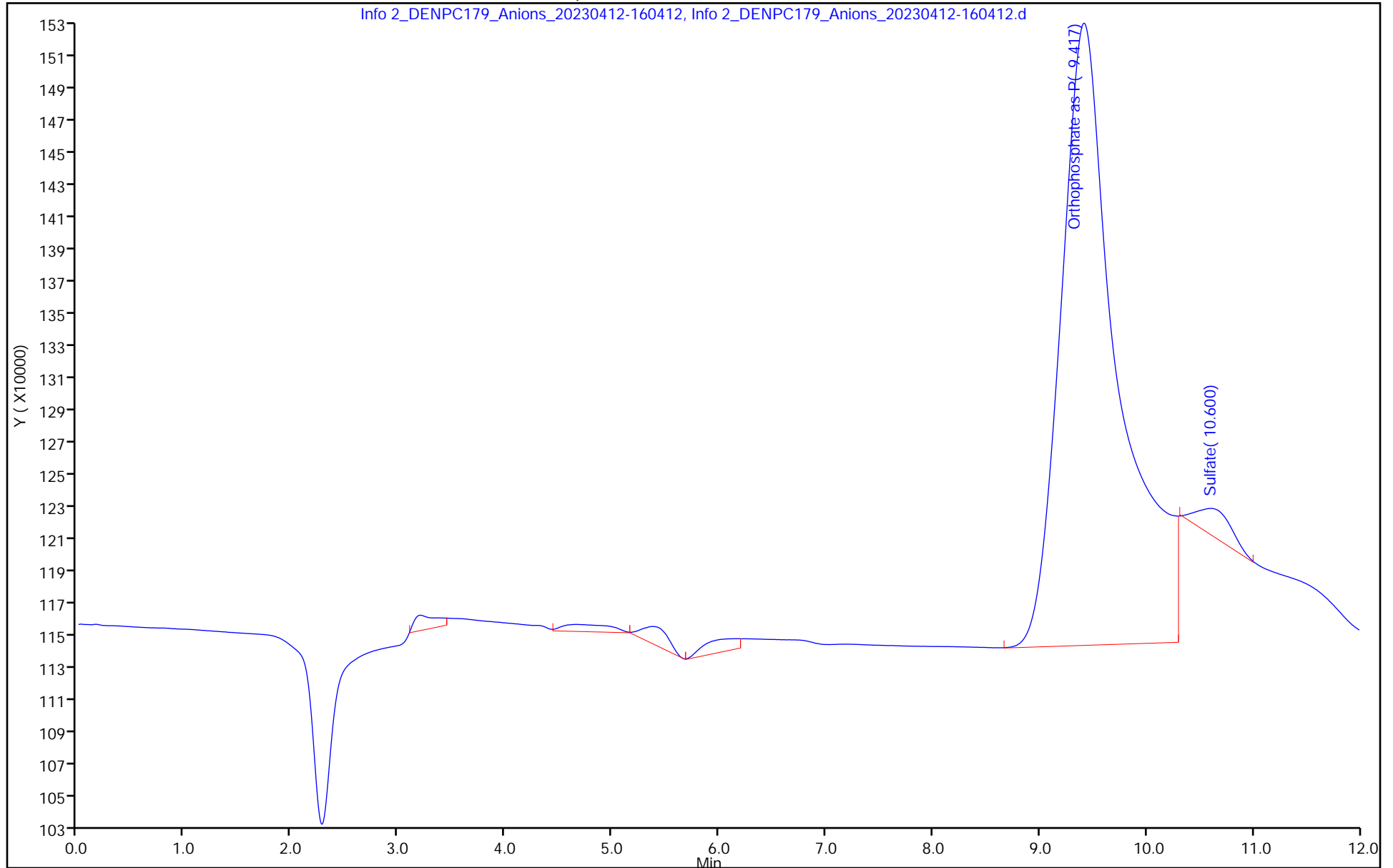
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



IC Instrument Information

WL: 171301 **Inst ID:** 1C1G **Analysis Date:** 5/10/23 **Analyst:** MEC

Rush	Job No.	Samples	Anions	QC Req	HT Exp
<input type="checkbox"/>	<u>176203</u>	<u>1</u>	F <u>Cl</u> <u>NO2</u> Br <u>NO3</u> PO4 <u>SO4</u>	MS/D	_____
<input type="checkbox"/>	<u>176262</u>	<u>7</u>	F Cl NO2 Br <u>NO3</u> PO4 SO4	MS/D	_____
<input type="checkbox"/>	<u>176258</u>	<u>7</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	MS/D	_____
<input type="checkbox"/>	<u>176231</u>	<u>2</u>	F Cl NO2 Br <u>NO3</u> PO4 SO4	MS/D	_____
<input type="checkbox"/>	<u>176254</u>	<u>7</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	MS/D	_____
<input type="checkbox"/>	<u>176255</u>	<u>5</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	MS/D	_____
<input type="checkbox"/>	<u>176263</u>	<u>2</u>	F Cl NO2 Br <u>NO3</u> PO4 SO4	MS/D	_____
<input type="checkbox"/>	<u>176261</u>	<u>12</u>	F Cl NO2 Br <u>NO3</u> PO4 SO4	<u>MS/D</u>	_____
<input type="checkbox"/>	<u>176252</u>	<u>3</u>	<u>F</u> <u>Cl</u> <u>NO2</u> <u>Br</u> <u>NO3</u> PO4 <u>SO4</u>	MS/D	_____
<input type="checkbox"/>	<u>176257</u>	<u>2</u>	F <u>Cl</u> <u>NO2</u> Br <u>NO3</u> PO4 <u>SO4</u>	<u>MS/D</u>	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
<input type="checkbox"/>	_____	_____	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____

Dilutions

Job No.	Samples	Anions	Dilution	Reason
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____
_____	_____	F Cl NO2 Br NO3 PO4 SO4	_____	_____

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Instrument: WC_IonChrom10 Lims Location: 280
 Lock State: Unlocked Cpnd Order: Retention Time
 Integrator: Falcon Last Modified: 13-Apr-2023 18:10:21
 No.Compounds:7
 Sublist: chrom-Anions_IC10*sub5
 Limit Group: Wet - Anions

Detectors

Detector: 1, Info 2_091554_1
 Data Type: ic Spec Type: none
 Supports Extracted Chromatograms: False
 Run Time: 0.000-14.900 No. Points: 7196

Calibration File Names

Level: 1	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14192
	Inj Date: 12-Apr-2023 14:04:00 Worklist: 120345 Sample#: 1
Level: 2	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14341
	Inj Date: 12-Apr-2023 14:19:00 Worklist: 120345 Sample#: 2
Level: 3	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14491
	Inj Date: 12-Apr-2023 14:34:00 Worklist: 120345 Sample#: 3
Level: 4	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15041
	Inj Date: 12-Apr-2023 14:49:00 Worklist: 120345 Sample#: 4
Level: 5	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15191
	Inj Date: 12-Apr-2023 15:04:00 Worklist: 120345 Sample#: 5
Level: 6	\\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15341
	Inj Date: 12-Apr-2023 15:19:00 Worklist: 120345 Sample#: 6

Start Cal Date: 12-Apr-2023 14:04:00 End Cal Date: 12-Apr-2023 15:19:00

Individual Compound Calibration Parameters

Quant Method: ESTD	RF Calibration: Replace	
Rule Name: Linear1	Curve: Linear	Weighting: Conc
Origin: None	Error: raw_COD	Error Limit: 1.00
RF %Dif: 0.0	SPCC Limit: 0.0	CCC Limit: 0.0
Dependent Variable: Resp		

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
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3 Nitrite as N

Signal: 1

40437065	43230492	44844044	46492699	45903612		-1277342			1.000
0.200000(2)	0.500000(3)	1.0000 (4)	2.5000 (5)	5.0000 (6)			46378611		
M8087413	M21615246	M44844044	M116231748	M229518060					
120345(2)	120345(3)	120345(4)	120345(5)	120345(6)					

5 Nitrate as N

Signal: 1

42172205	39818610	42066844	45095286	46132733		-1634037			0.999
0.200000(2)	0.500000(3)	1.0000 (4)	2.5000 (5)	5.0000 (6)			45867680		
M8434441	M19909305	M42066844	M112738215	M230663663					
120345(2)	120345(3)	120345(4)	120345(5)	120345(6)					

6 Orthophosphate as P

Signal: 1

69769055	47259032	34760084	26027078	22431185		10983593	R1		*0.990
0.200000(2)	0.500000(3)	1.0000 (4)	2.5000 (5)	5.0000 (6)			21157507		
M13953811	M23629516	M34760084	M65067694	M112155923					
120345(2)	120345(3)	120345(4)	120345(5)	120345(6)					

ICalib Error Legend

R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m

Instrument: WC_IonChrom10 Lims Location: 280
 Lock State: Unlocked Cpnd Order: Retention Time
 Integrator: Falcon Last Modified: 13-Apr-2023 18:10:21
 No.Compounds:7
 Sublist: chrom-Anions_IC10*sub5
 Limit Group: Wet - Anions 28D

Detectors

Detector: 1, Info 2_091554_1
 Data Type: ic Spec Type: none
 Supports Extracted Chromatograms: False
 Run Time: 0.000-14.900 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14192
 Inj Date: 12-Apr-2023 14:04:00 Worklist: 120345 Sample#: 1
 Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14341
 Inj Date: 12-Apr-2023 14:19:00 Worklist: 120345 Sample#: 2
 Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-14491
 Inj Date: 12-Apr-2023 14:34:00 Worklist: 120345 Sample#: 3
 Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15041
 Inj Date: 12-Apr-2023 14:49:00 Worklist: 120345 Sample#: 4
 Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15191
 Inj Date: 12-Apr-2023 15:04:00 Worklist: 120345 Sample#: 5
 Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15341
 Inj Date: 12-Apr-2023 15:19:00 Worklist: 120345 Sample#: 6

Start Cal Date: 12-Apr-2023 14:04:00 End Cal Date: 12-Apr-2023 15:19:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
 Rule Name: Linear1 Curve: Linear Weighting: Conc
 Origin: None Error: raw_COD Error Limit: 1.00
 RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
 Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
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Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 12-Apr-2023 15:34:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-007
 Misc. Info.: 280-0120345-007
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC7*sub4
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions 28D
 Last Update: 14-Apr-2023 13:55:16 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620
 Start Cal Date: 12-Apr-2023 14:04:00
 End Cal Date: 12-Apr-2023 15:19:00

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
1 Fluoride	2.00	2.34	* 17.1	10.0	117.1	
2 Chloride	80.0	85.7	7.1	10.0	107.1	
4 Bromide	2.00	2.01	0.6	10.0	100.6	
7 Sulfate	80.0	86.9	8.7	10.0	108.7	

Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 12-Apr-2023 15:34:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0120345-007
 Misc. Info.: 280-0120345-007
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC7*sub4
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 14-Apr-2023 13:56:07 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1620
 Start Cal Date: 12-Apr-2023 14:04:00
 End Cal Date: 12-Apr-2023 15:19:00

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
3 Nitrite as N	2.00	2.12	6.0	10.0	106.0	
5 Nitrate as N	2.00	2.15	7.4	10.0	107.4	
6 Orthophosphate as	2.00	2.84	* 41.9	10.0	141.9	

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-121301.b
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 10-May-2023 12:43:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-001
 Misc. Info.: 280-0121301-001
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:09 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15120345.b
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: XAY4 Date: 10-May-2023 15:07:59

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			NC	ND	
2 Chloride	4.338	4.338	0.000	935926286	NC	NC	M
3 Nitrite as N	5.035	5.035	0.000	109754980	2.50	2.39	M
4 Bromide	6.192	6.192	0.000	17537465	NC	NC	
5 Nitrate as N	6.967	6.967	0.000	105886301	2.50	2.34	M
6 Orthophosphate as P	9.212	9.212	0.000	72635173	2.50	2.91	
7 Sulfate	10.428	10.428	0.000	654130763	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

IC LCS_01953 Amount Added: 10.00 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-125816.d

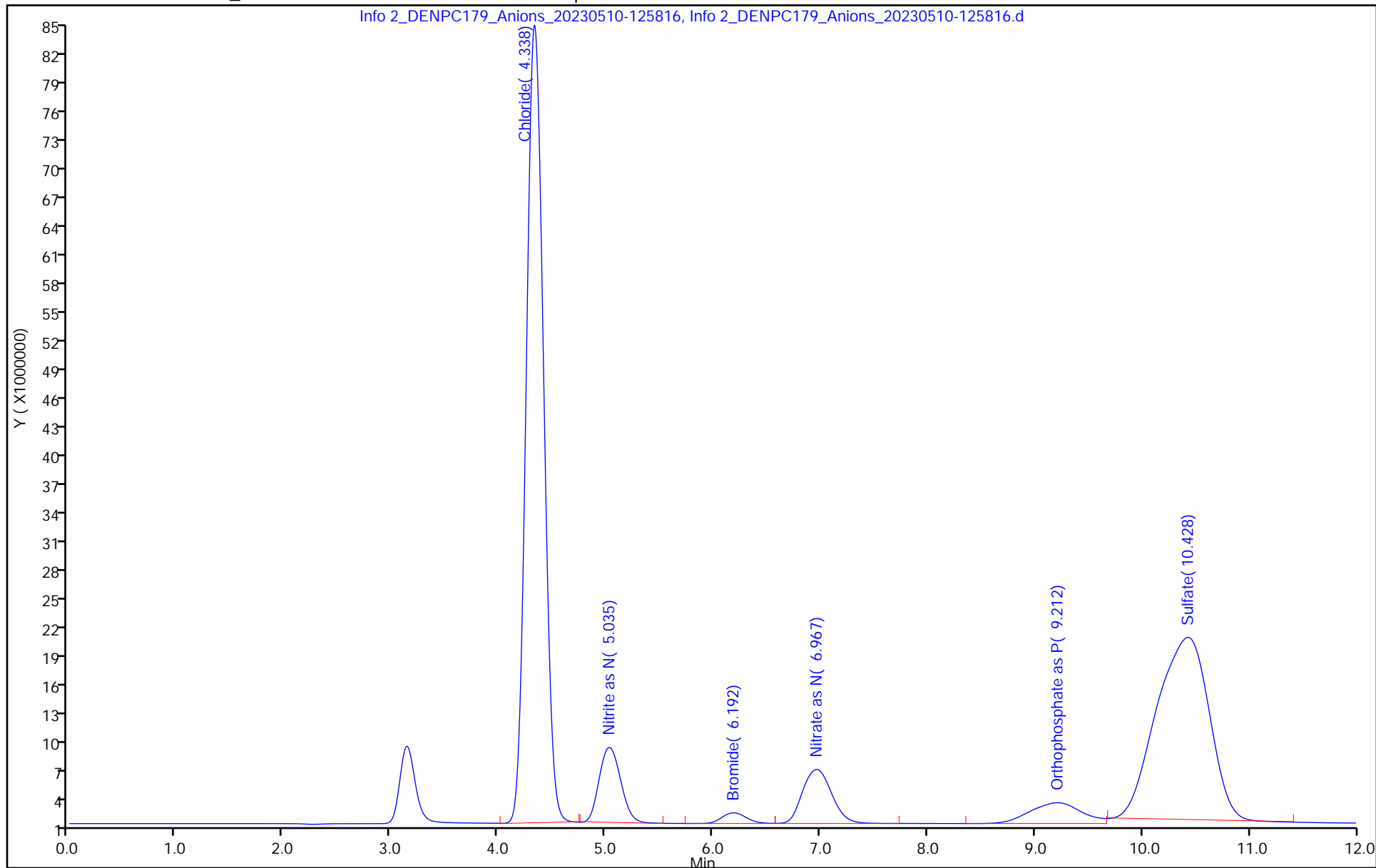
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Lims ID: ccv Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver

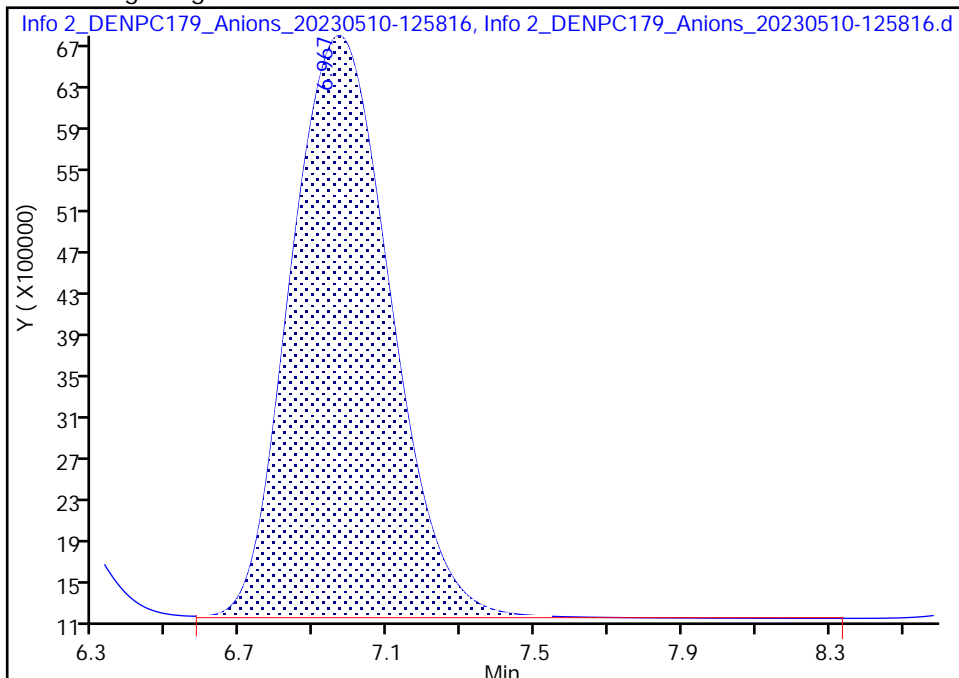
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-121301.d
Injection Date: 10-May-2023 12:43:00 Instrument ID: WC_IonChrom10
Lims ID: ccv
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

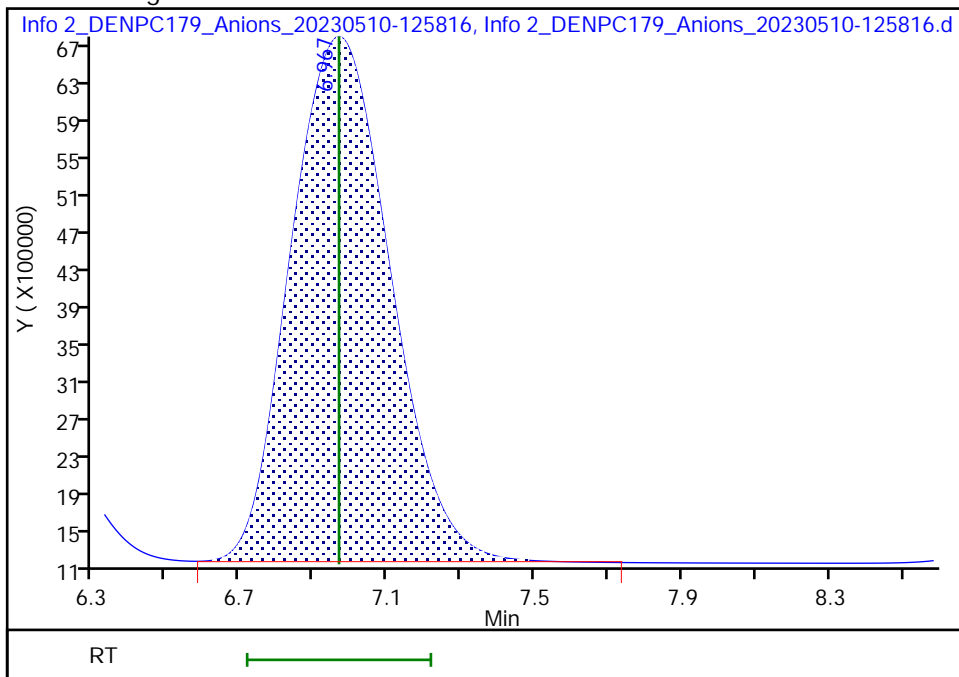
RT: 6.97
Area: 106698722
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 6.97
Area: 105886301
Amount: 2.344142
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 12:44:42
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-13
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 10-May-2023 12:58:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-002
 Misc. Info.: 280-0121301-002
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:10 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:45:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152				ND	
2 Chloride		4.338				ND	
3 Nitrite as N		5.035				ND	
4 Bromide	6.200	6.200	0.000	198684		NC	
5 Nitrate as N		6.967				ND	
6 Orthophosphate as P		9.212				ND	Ma
7 Sulfate	10.087	10.087	0.000	295862		NC	Ma

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-131313.d

Injection Date: 10-May-2023 12:58:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccb

Worklist Smp#: 2

Client ID:

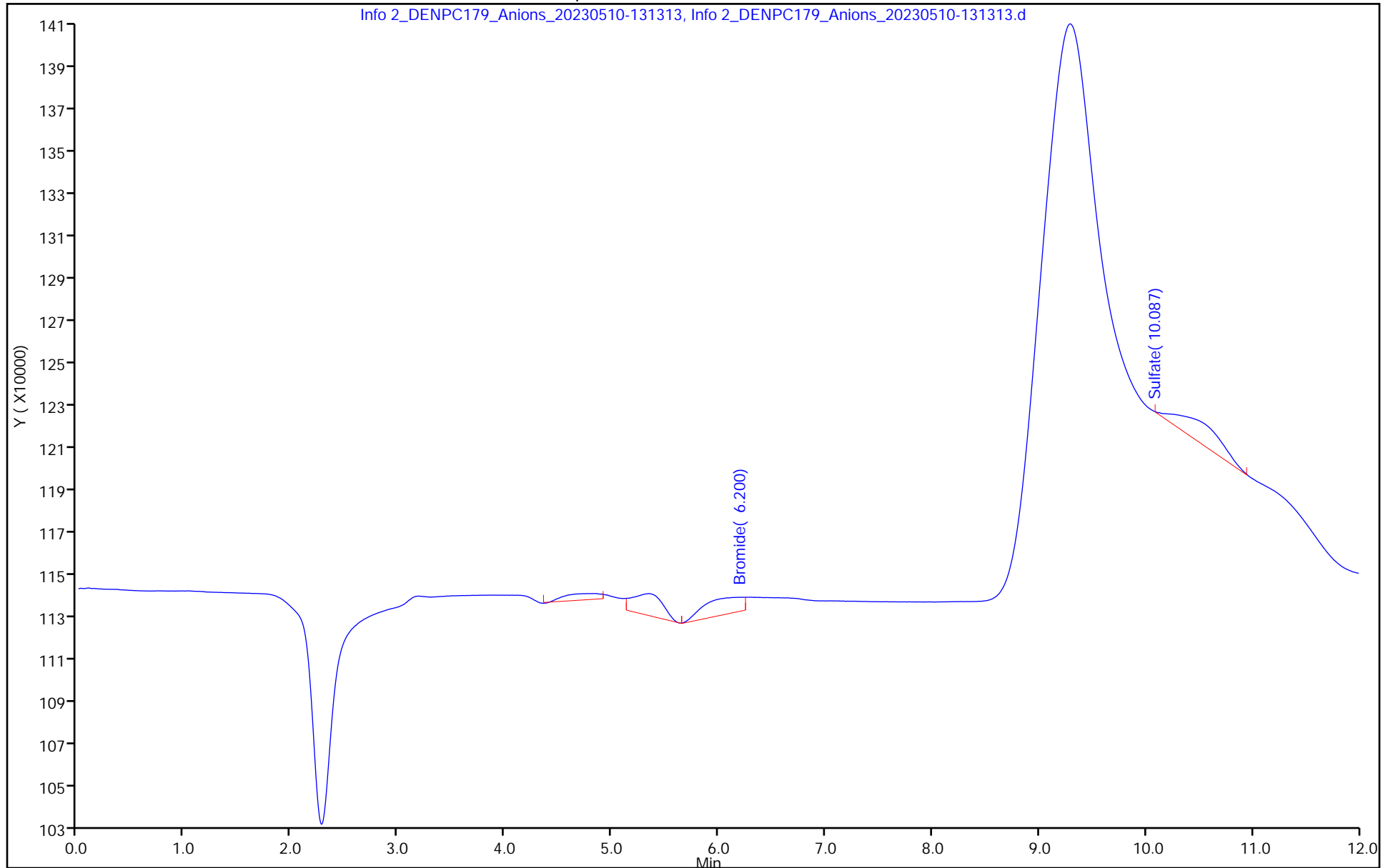
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-1301.m
 Lims ID: mrl
 Client ID:
 Sample Type: MRL
 Inject. Date: 10-May-2023 13:13:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-003
 Misc. Info.: 280-0121301-003
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:11 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-1501.m
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:45:42

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	ND	
2 Chloride	4.327	4.327	0.000	42521157	NC	NC	M
3 Nitrite as N	5.038	5.038	0.000	9186335	0.2500	0.2256	M
4 Bromide	6.215	6.215	0.000	2079542	NC	NC	
5 Nitrate as N	7.013	7.013	0.000	8580498	0.2500	0.2227	M
6 Orthophosphate as P	9.262	9.262	0.000	17573849	0.2500	0.3115	
7 Sulfate	10.440	10.440	0.000	27678874	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

IC CAL cl/so4_00479 Amount Added: 0.20 Units: mL

IC Cal low_00708 Amount Added: 0.10 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-132810.d

Injection Date: 10-May-2023 13:13:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: mrl

Worklist Smp#: 3

Client ID:

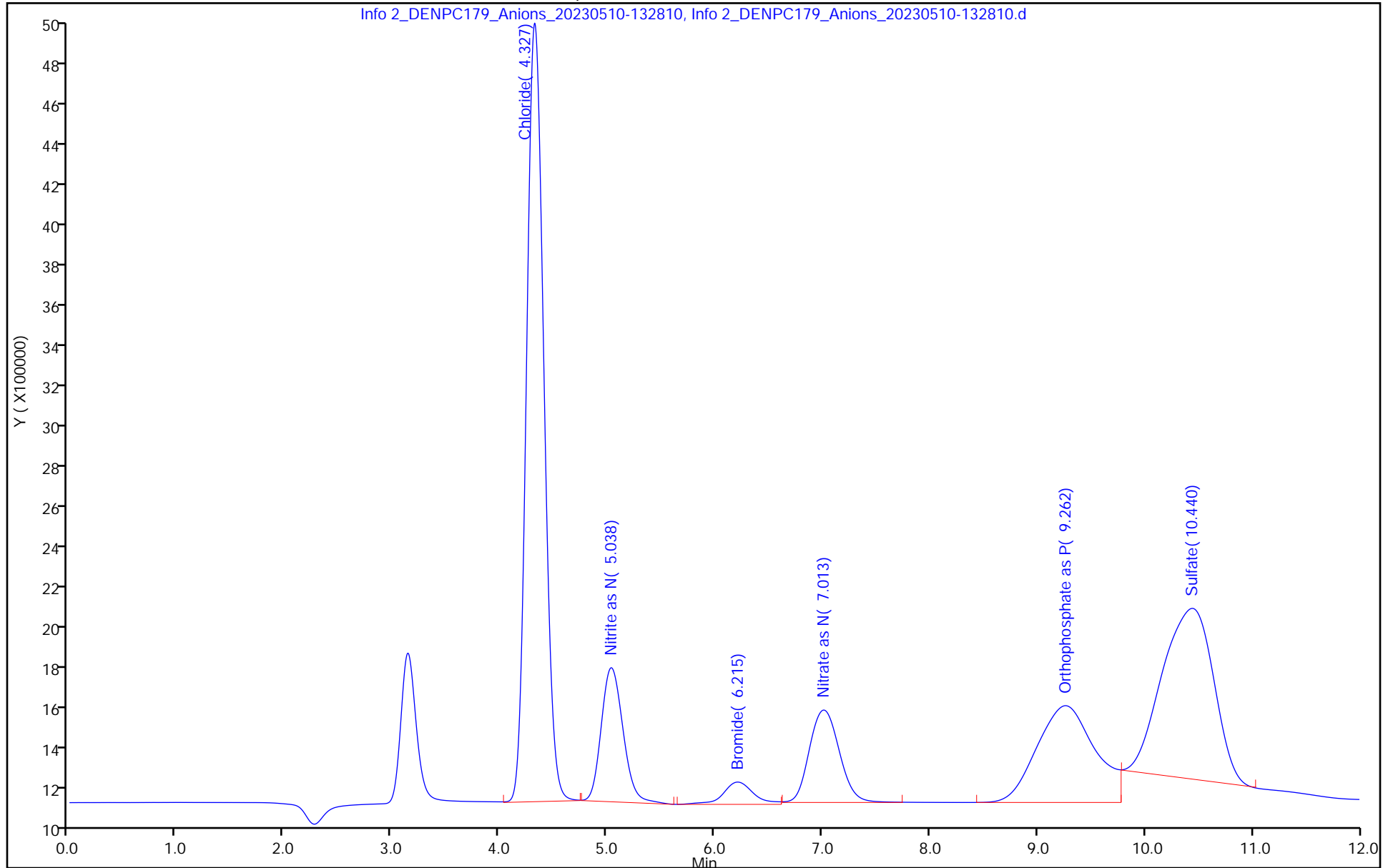
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

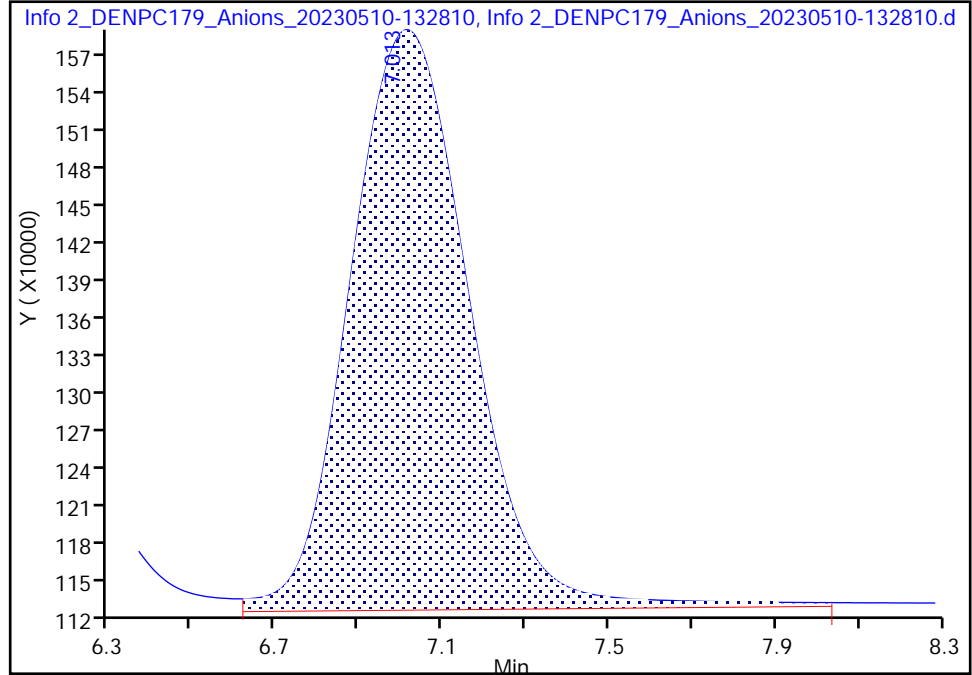
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-132810.d
Injection Date: 10-May-2023 13:13:00 Instrument ID: WC_IonChrom10
Lims ID: mrl
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

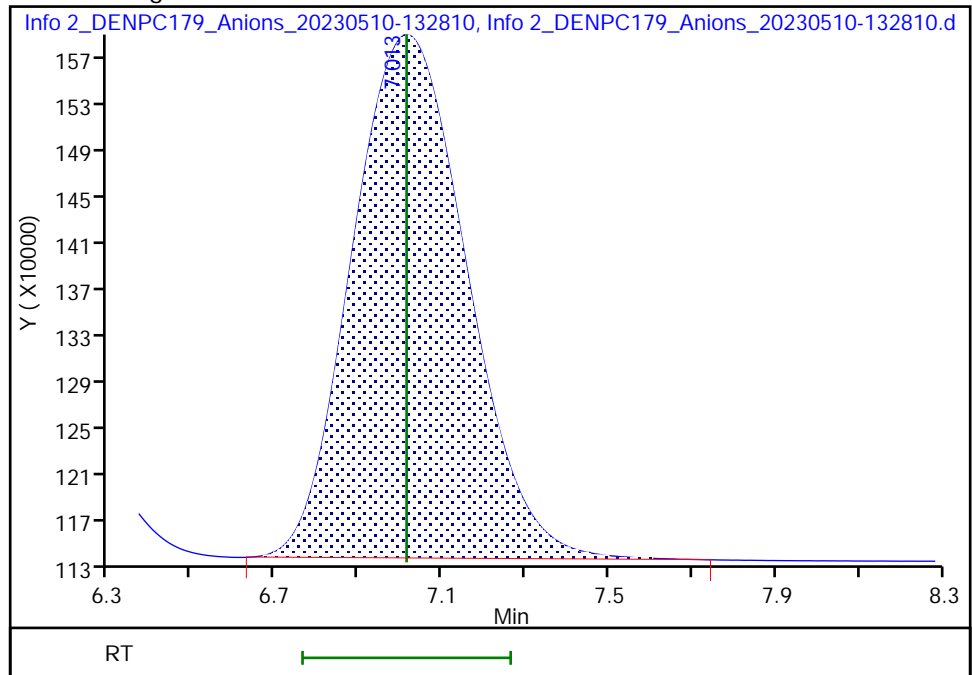
RT: 7.01
Area: 9158500
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 7.01
Area: 8580498
Amount: 0.222696
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 12:45:24
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-13
 Lims ID: lcs
 Client ID:
 Sample Type: LCS
 Inject. Date: 10-May-2023 13:28:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-004
 Misc. Info.: 280-0121301-004
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:13 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:46:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	ND	
2 Chloride	4.338	4.338	0.000	937807544	NC	NC	M
3 Nitrite as N	5.035	5.035	0.000	109437335	2.50	2.39	M
4 Bromide	6.202	6.202	0.000	17619849	NC	NC	
5 Nitrate as N	6.972	6.972	0.000	106130805	2.50	2.35	M
6 Orthophosphate as P	9.222	9.222	0.000	78878573	2.50	3.21	
7 Sulfate	10.437	10.437	0.000	658071260	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

IC LCS_01953 Amount Added: 10.00 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-134309.d

Injection Date: 10-May-2023 13:28:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: lcs

Worklist Smp#: 4

Client ID:

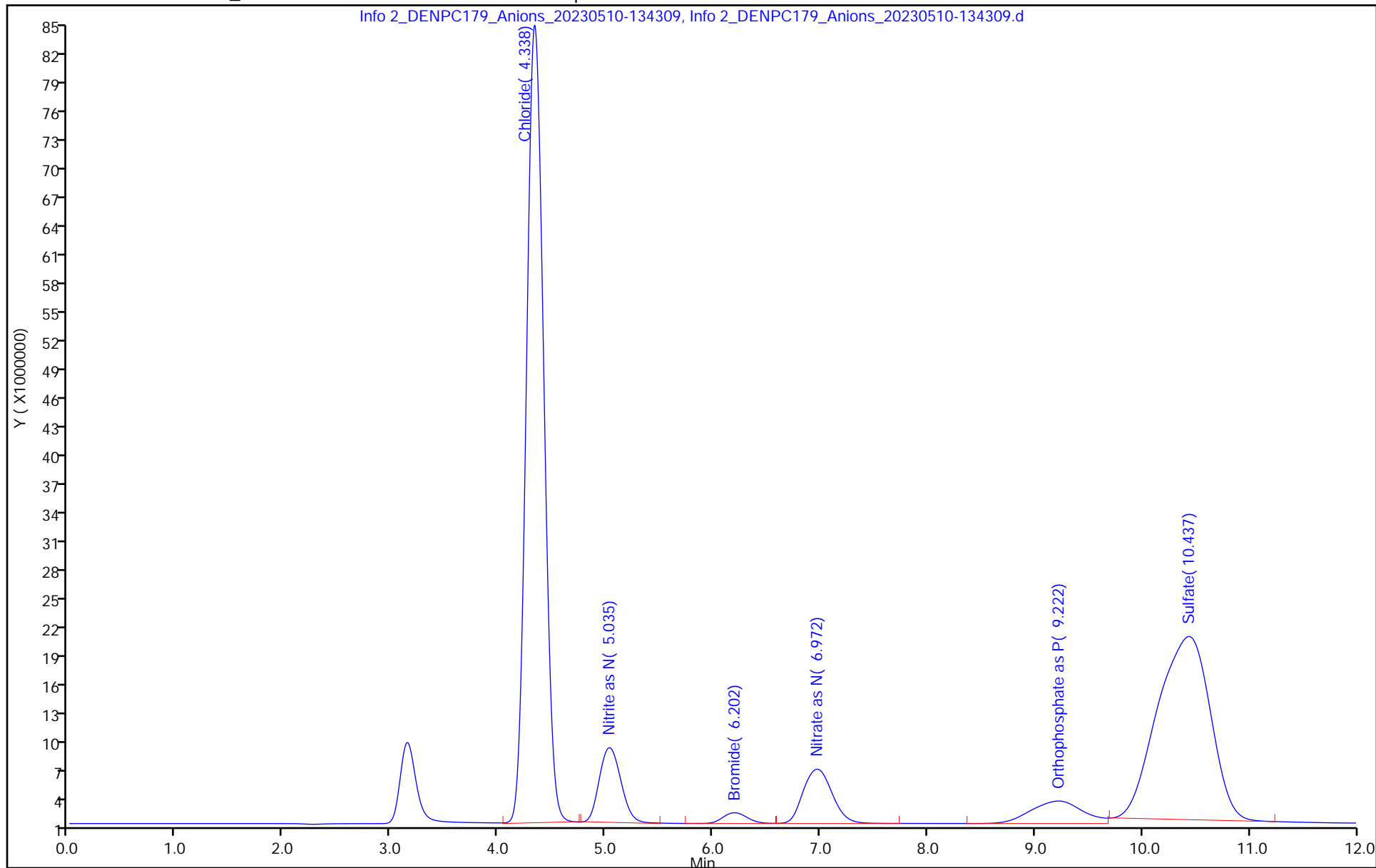
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

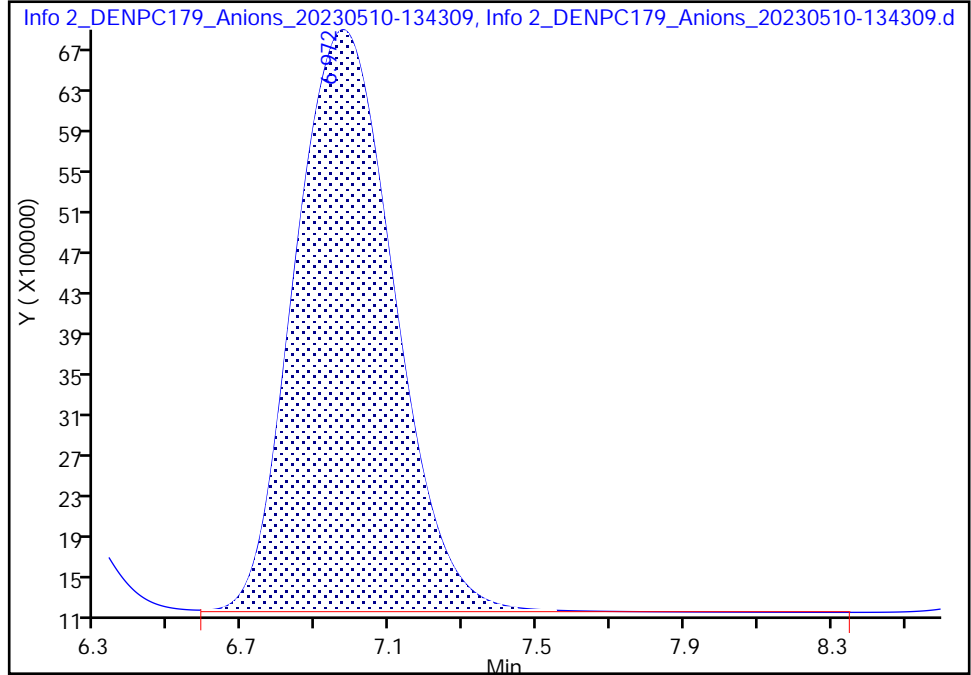
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-134309.d
Injection Date: 10-May-2023 13:28:00 Instrument ID: WC_IonChrom10
Lims ID: lcs
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

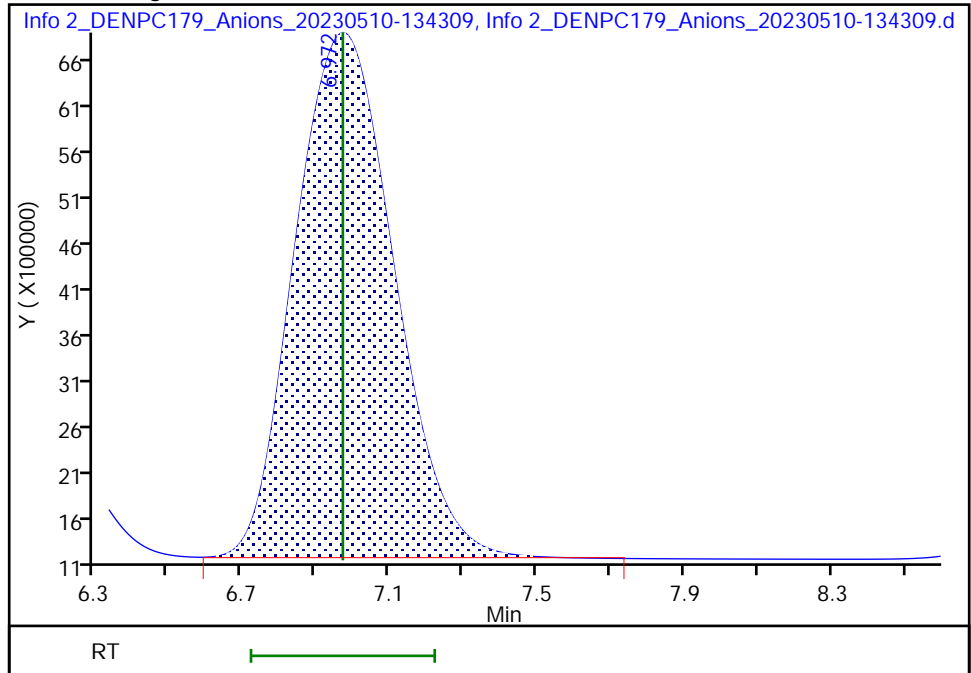
RT: 6.97
Area: 107030193
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 6.97
Area: 106130805
Amount: 2.349472
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 12:45:54
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-13
 Lims ID: lcsd
 Client ID:
 Sample Type: LCSD
 Inject. Date: 10-May-2023 13:43:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-005
 Misc. Info.: 280-0121301-005
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:15 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:46:35

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	ND	
2 Chloride	4.342	4.342	0.000	937205433	NC	NC	M
3 Nitrite as N	5.038	5.038	0.000	109281316	2.50	2.38	M
4 Bromide	6.205	6.205	0.000	17621385	NC	NC	
5 Nitrate as N	6.975	6.975	0.000	106145320	2.50	2.35	M
6 Orthophosphate as P	9.223	9.223	0.000	80588799	2.50	3.29	
7 Sulfate	10.440	10.440	0.000	657176206	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

IC LCS_01953 Amount Added: 10.00 Units: mL

Eurofins Denver

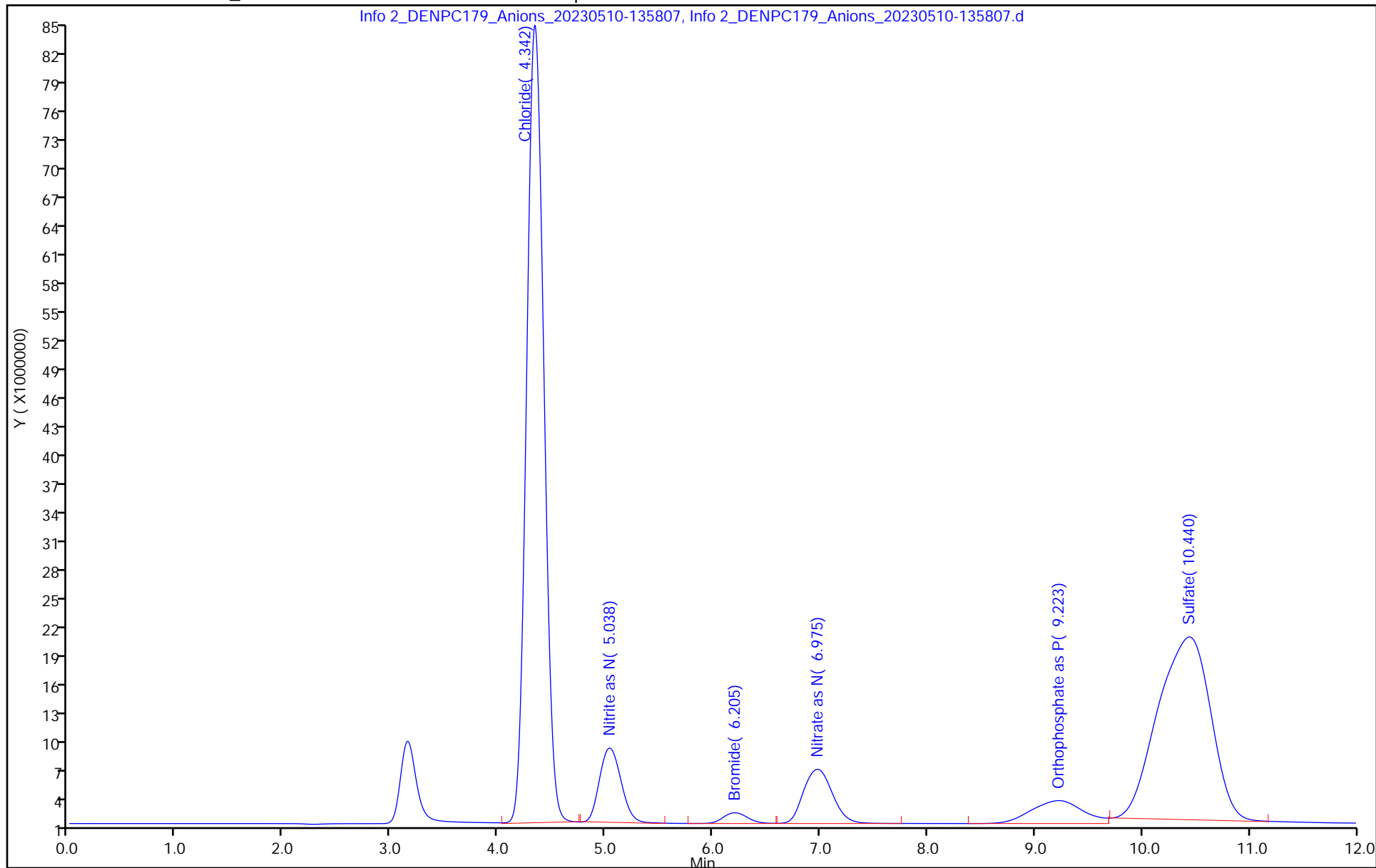
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-135807.d

Injection Date: 10-May-2023 13:43:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: lcsd Worklist Smp#: 5

Client ID: Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver

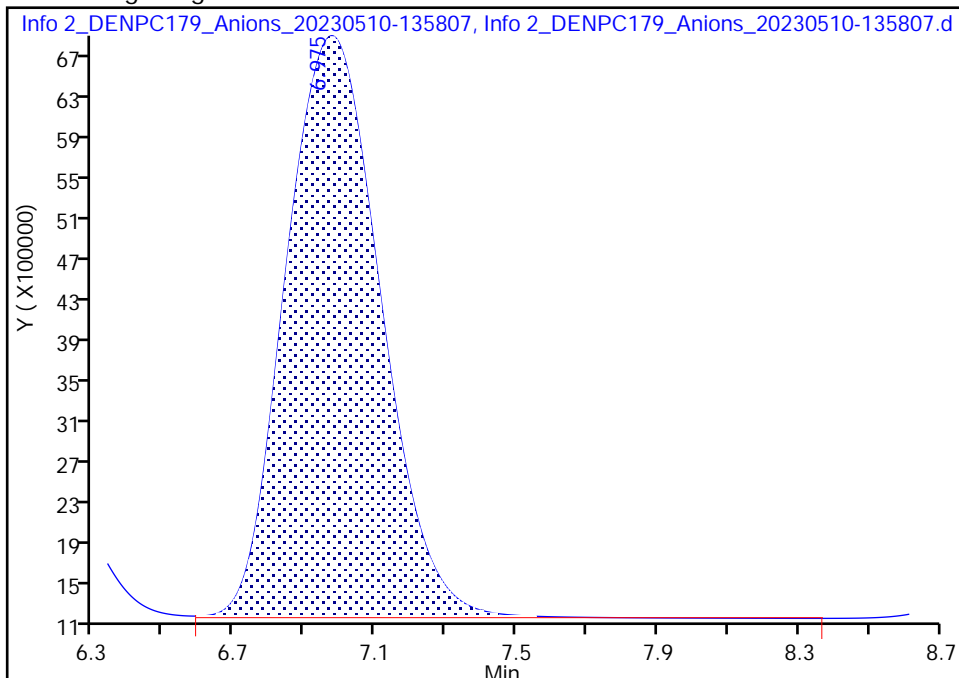
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-135807.d	Instrument ID:	WC_IonChrom10
Injection Date:	10-May-2023 13:43:00	ALS Bottle#:	0
Lims ID:	lcsd	Worklist Smp#:	5
Client ID:		Dil. Factor:	1.0000
Operator ID:	wetchemd	Limit Group:	Wet - Anions
Injection Vol:	5.0 ul	Detector:	Info 2_091554_1
Method:	Anions_IC10		
Column:			

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

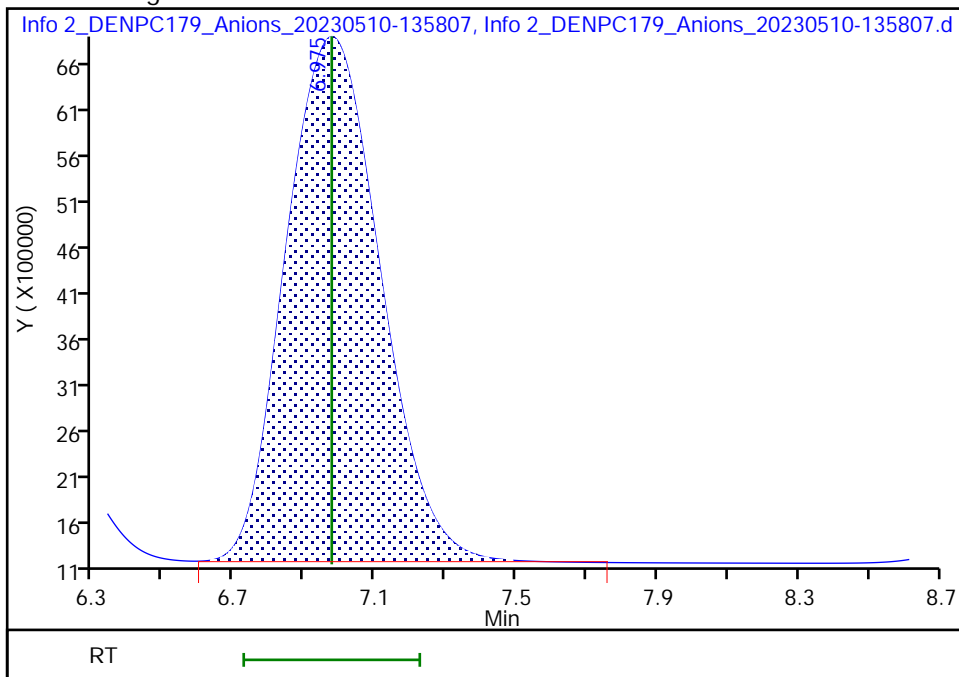
RT: 6.98
 Area: 106951014
 Amount: 0
 Amount Units: ug/ml

Processing Integration Results



RT: 6.98
 Area: 106145320
 Amount: 2.349789
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 12:46:23
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-14
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 10-May-2023 13:58:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-006
 Misc. Info.: 280-0121301-006
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:16 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:46:52

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152				ND	
2 Chloride		4.342				ND	
3 Nitrite as N		5.038				ND	
4 Bromide	6.195	6.195	0.000	264488		NC	
5 Nitrate as N		6.975				ND	
6 Orthophosphate as P		9.223				ND	Ma
7 Sulfate	10.073	10.073	0.000	299726		NC	Ma

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-141305.d

Injection Date: 10-May-2023 13:58:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: mb

Worklist Smp#: 6

Client ID:

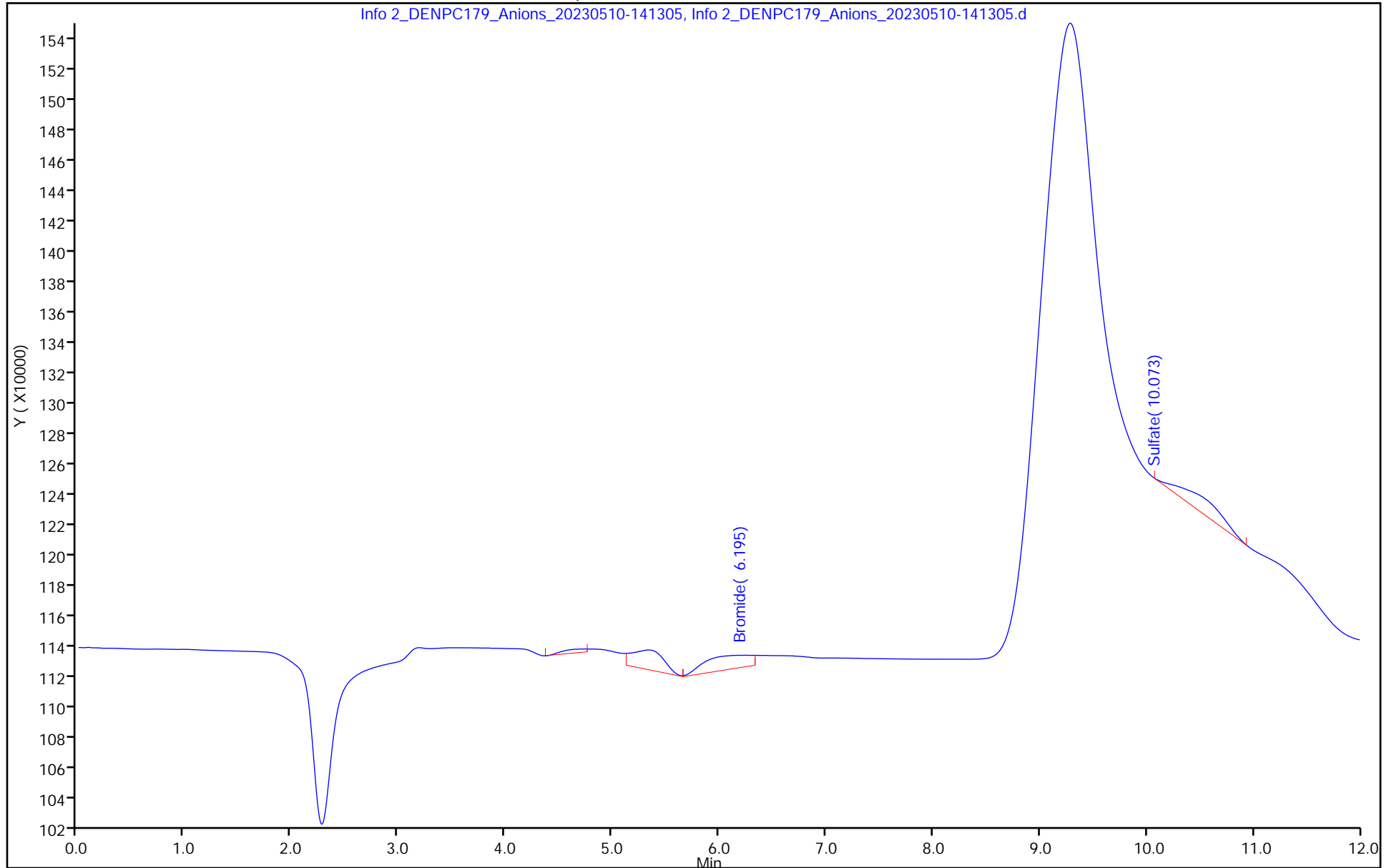
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-20
Lims ID: 280-176271-A-1
Client ID: LL12mw-246-230401-GW
Sample Type: Client
Inject. Date: 10-May-2023 19:47:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0121301-016
Misc. Info.: 280-0121301-016
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 11-May-2023 13:15:16 Calib Date: 12-Apr-2023 15:19:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
Column 1 : Det: Info 2_091554_1
Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:50:10

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	
2 Chloride	4.365	4.342	0.023	467109867	NC	M
3 Nitrite as N		5.038			ND	
4 Bromide	6.355	6.195	0.160	16422706	NC	
5 Nitrate as N	7.200	6.975	0.225	90993	0.0376	M
6 Orthophosphate as P		9.223			ND	
7 Sulfate	10.463	10.073	0.390	1416970155	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-200248.d

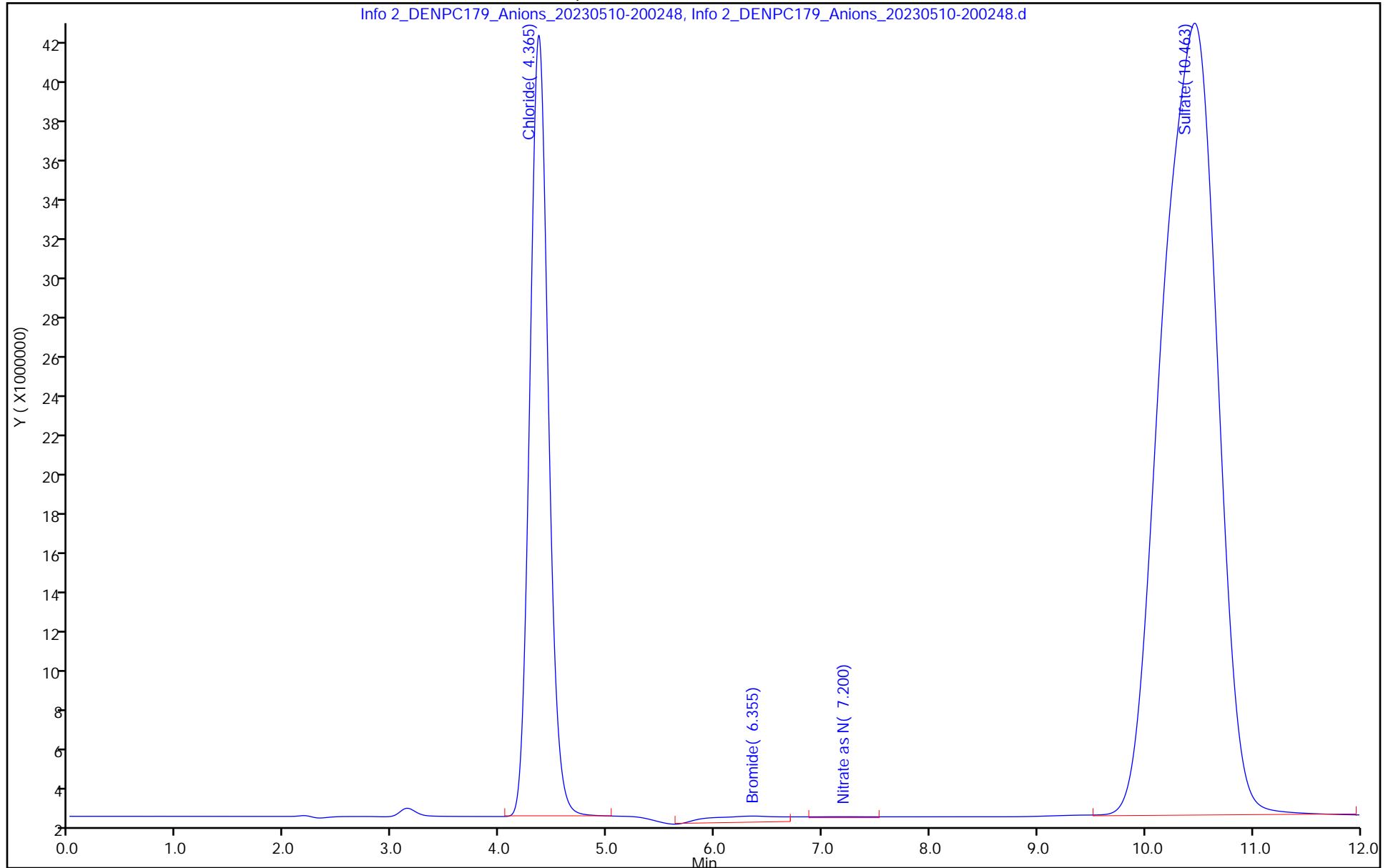
Injection Date: 10-May-2023 19:47:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: 280-176271-A-1 Lab Sample ID: 280-176271-1 Worklist Smp#: 16

Client ID: LL12mw-246-230401-GW

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver

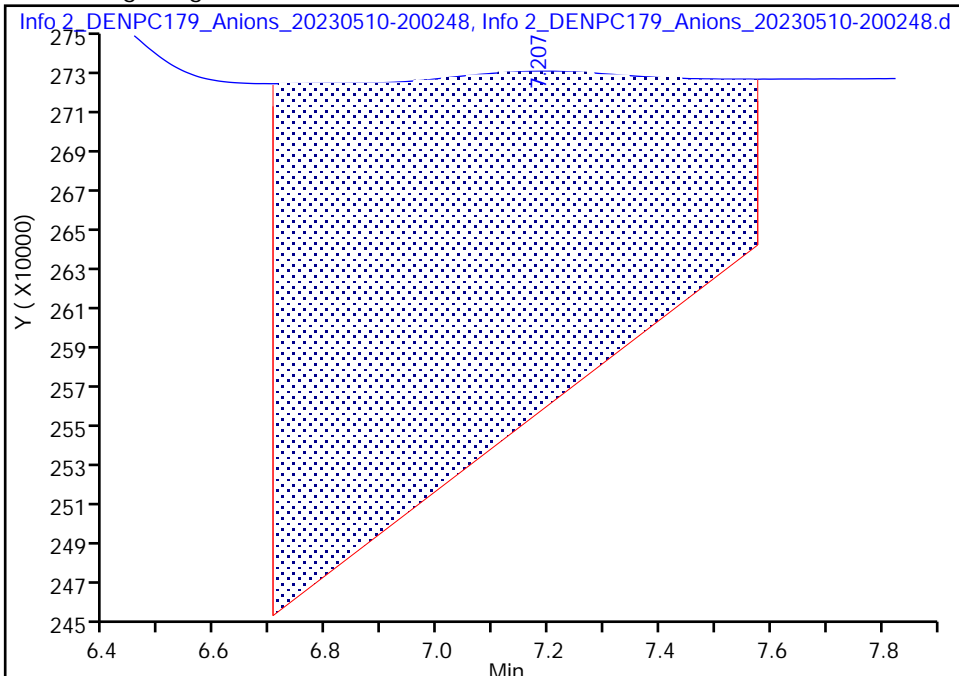
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-200248.d		
Injection Date:	10-May-2023 19:47:00	Instrument ID:	WC_IonChrom10
Lims ID:	280-176271-A-1	Lab Sample ID:	280-176271-1
Client ID:	LL12mw-246-230401-GW		
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 16
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

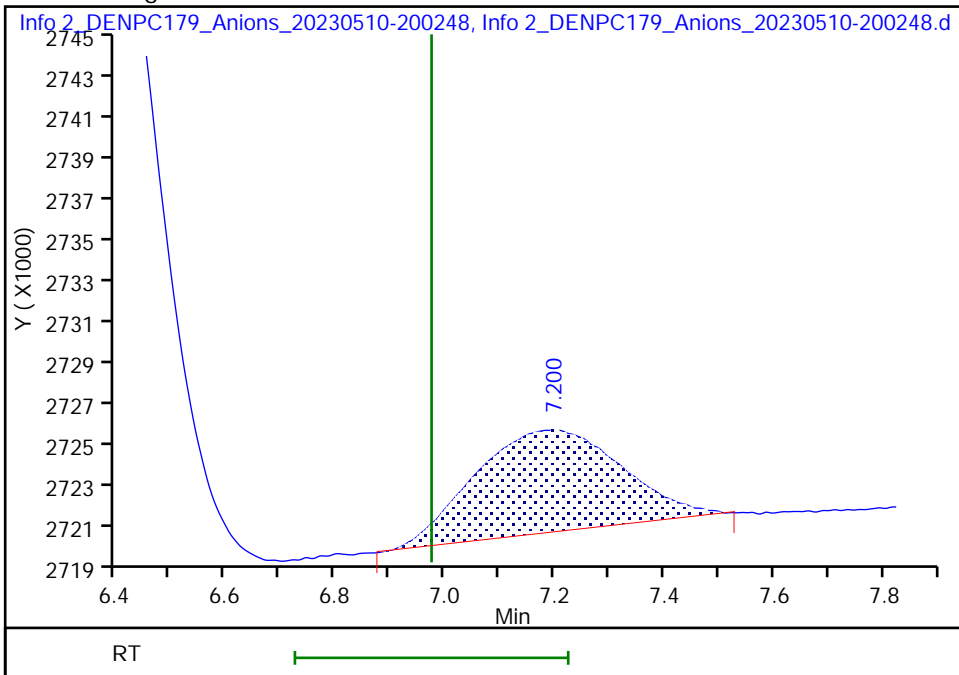
RT: 7.21
 Area: 9122244
 Amount: 0.234507
 Amount Units: ug/ml

Processing Integration Results



RT: 7.20
 Area: 90993
 Amount: 0.037609
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 12:50:08
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-201751.d

Injection Date: 10-May-2023 20:02:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccv

Worklist Smp#: 17

Client ID:

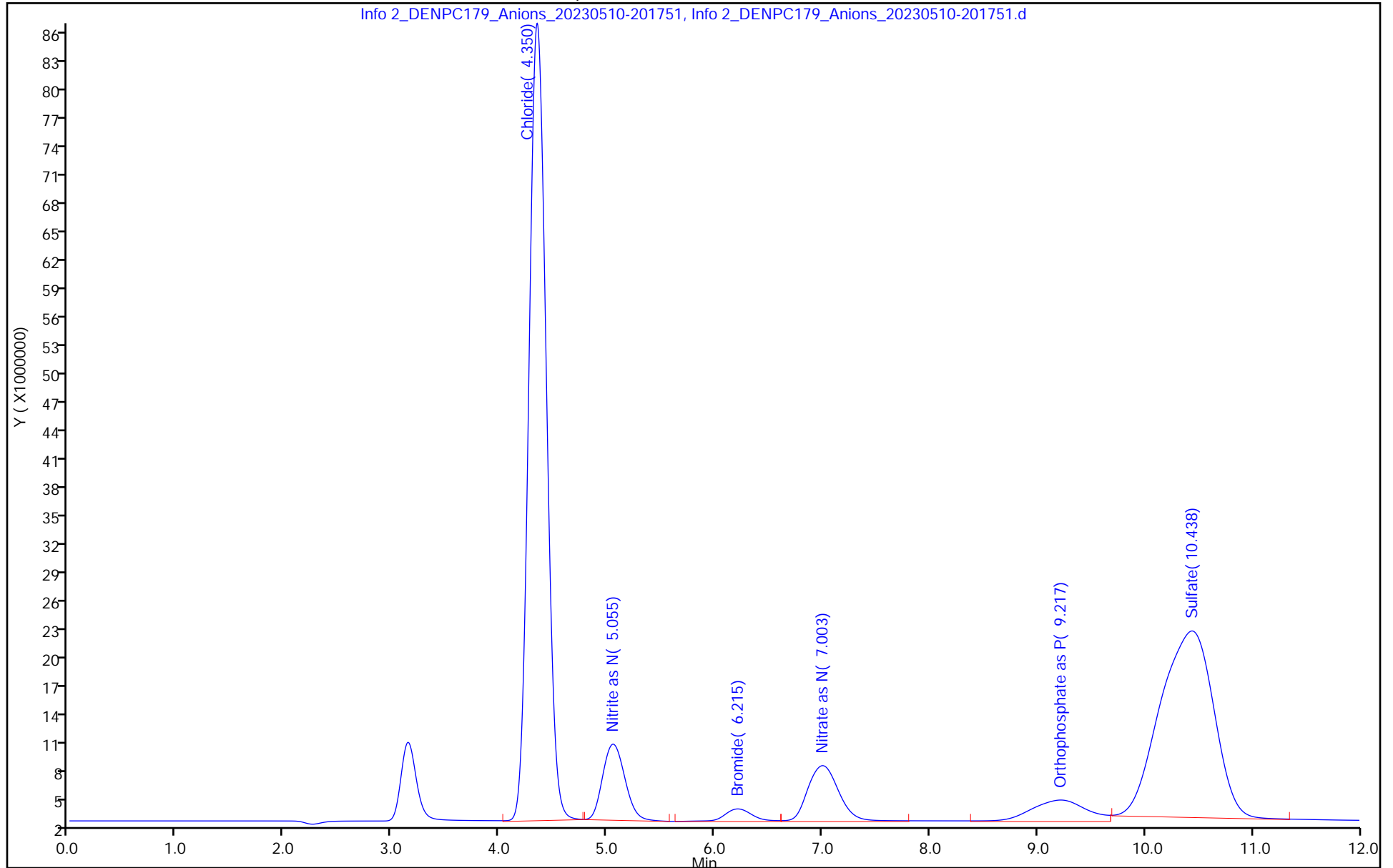
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

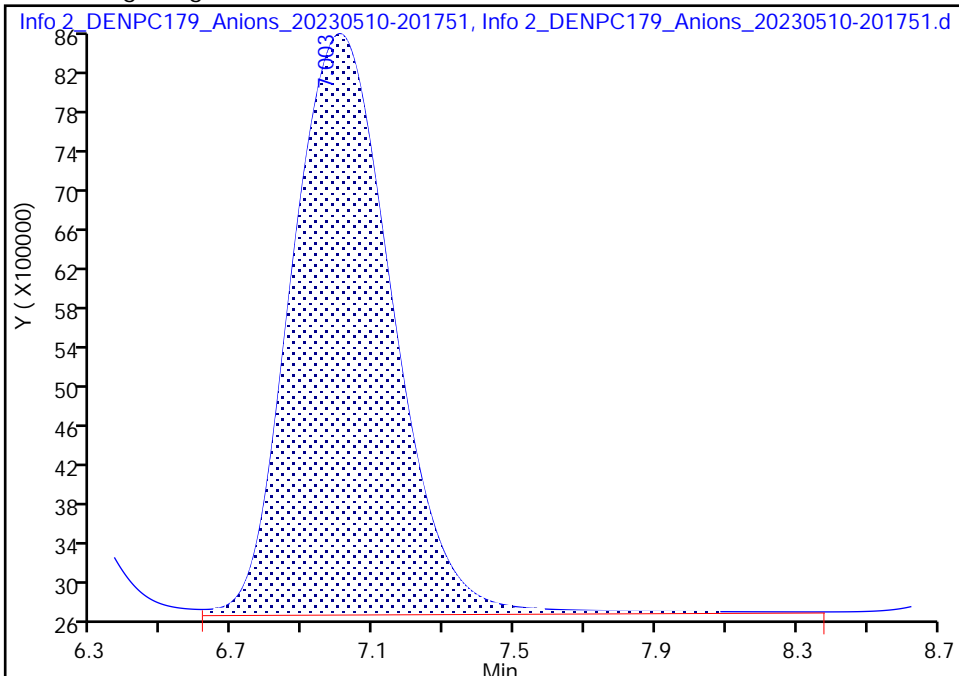
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-20	Instrument ID:	WC_IonChrom10
Injection Date:	10-May-2023 20:02:00		
Lims ID:	ccv		
Client ID:			
Operator ID:	wetchemd	ALS Bottle#:	0
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1
		Worklist Smp#:	17

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

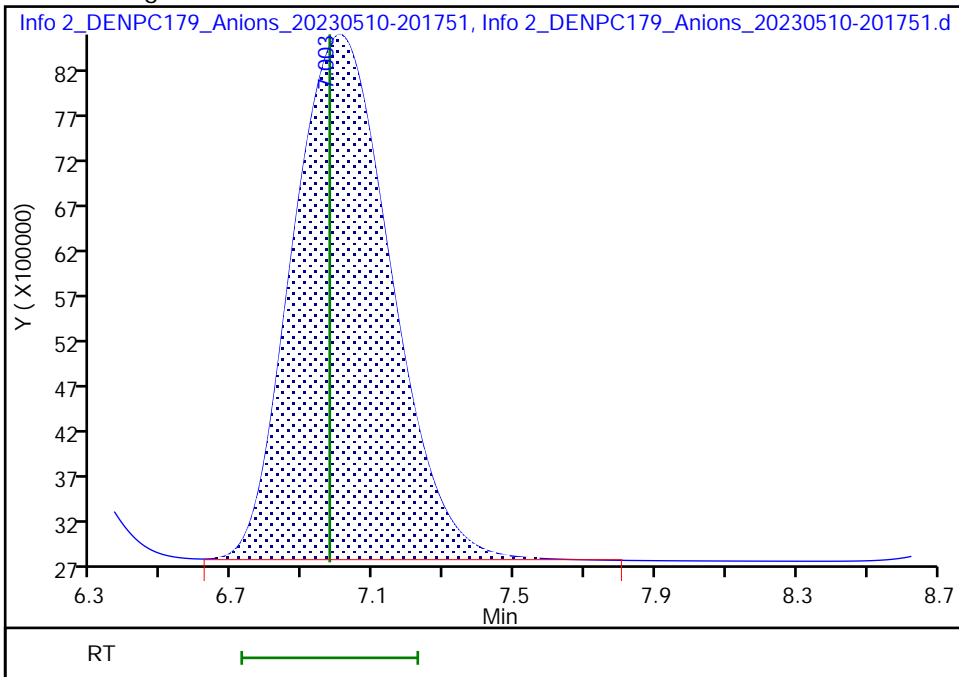
RT: 7.00
Area: 117891720
Amount: 2.605882
Amount Units: ug/ml

Processing Integration Results



RT: 7.00
Area: 113187205
Amount: 2.503315
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 12:50:22
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-203253.d

Injection Date: 10-May-2023 20:17:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccb

Worklist Smp#: 18

Client ID:

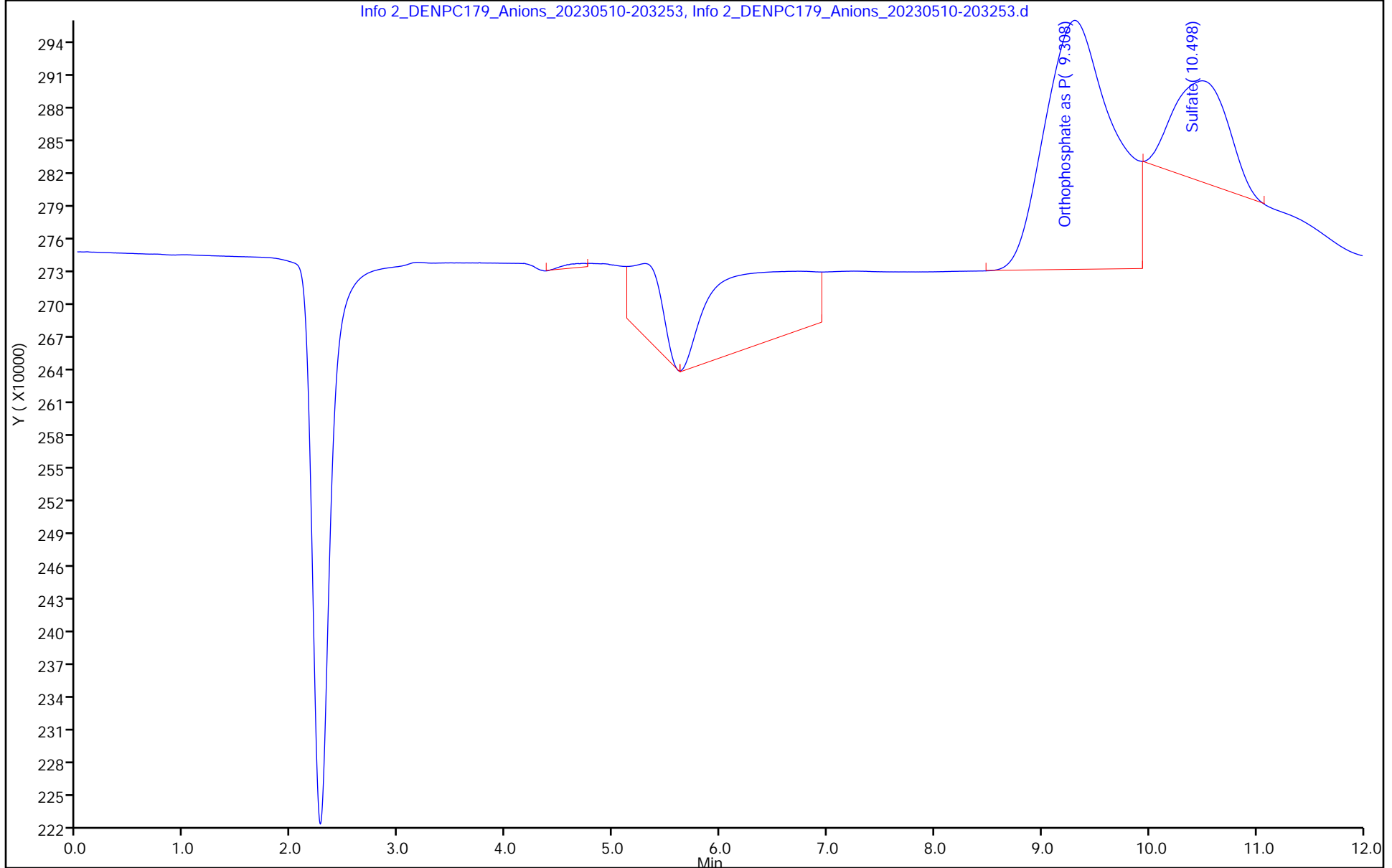
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-23
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 10-May-2023 23:03:00 ALS Bottle#: 0 Worklist Smp#: 29
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-029
 Misc. Info.: 280-0121301-029
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:44 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:54:19

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	ND	
2 Chloride	4.352	4.342	0.010	947450192	NC	NC	M
3 Nitrite as N	5.060	5.038	0.022	115466078	2.50	2.52	M
4 Bromide	6.220	6.195	0.025	23133317	NC	NC	
5 Nitrate as N	7.010	6.975	0.035	112928427	2.50	2.50	M
6 Orthophosphate as P	9.217	9.223	-0.006	76705547	2.50	3.11	
7 Sulfate	10.447	10.073	0.374	672144950	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

IC LCS_01953

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-231836.d

Injection Date: 10-May-2023 23:03:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccv

Worklist Smp#: 29

Client ID:

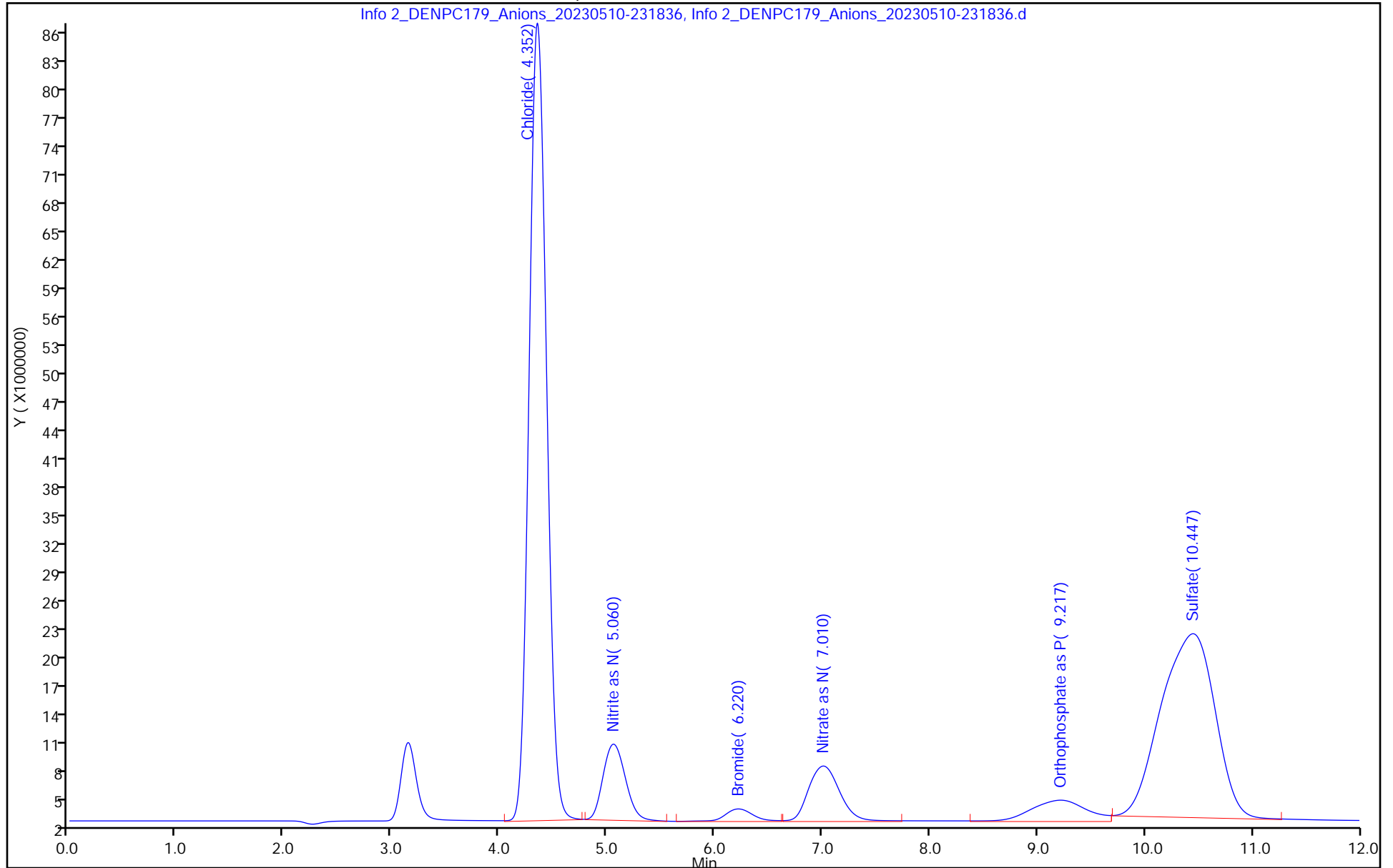
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

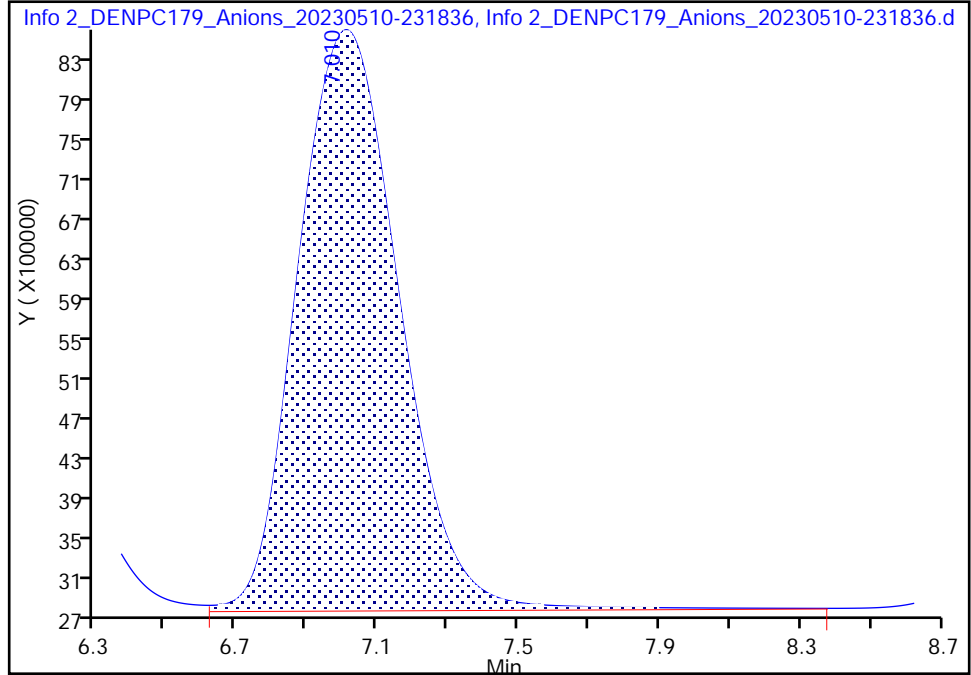
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-231836.d
Injection Date: 10-May-2023 23:03:00 Instrument ID: WC_IonChrom10
Lims ID: ccv
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

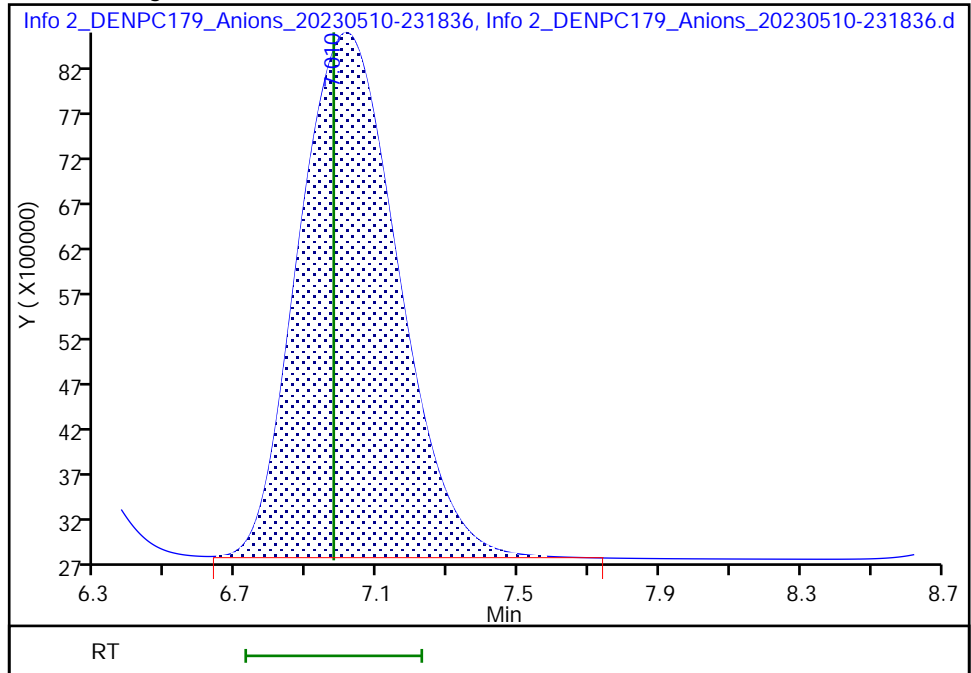
RT: 7.01
Area: 117589191
Amount: 2.599286
Amount Units: ug/ml

Processing Integration Results



RT: 7.01
Area: 112928427
Amount: 2.497673
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 12:54:12
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230510-233339.d

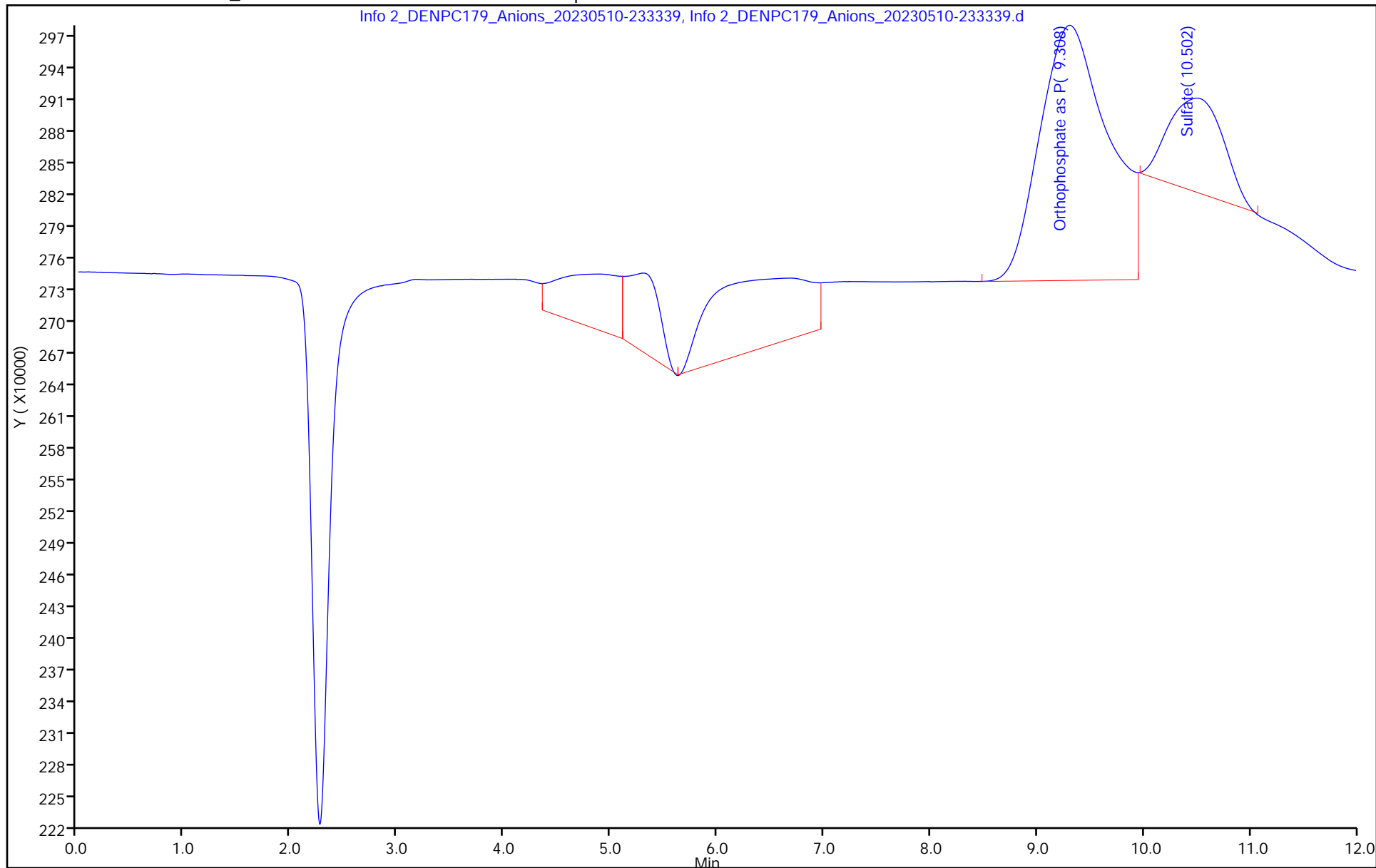
Injection Date: 10-May-2023 23:18:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: ccb Worklist Smp#: 30

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-02
 Lims ID: lcs
 Client ID:
 Sample Type: LCS
 Inject. Date: 11-May-2023 01:49:00 ALS Bottle#: 0 Worklist Smp#: 40
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-040
 Misc. Info.: 280-0121301-040
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:44 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:58:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	ND	
2 Chloride	4.350	4.342	0.008	929437589	NC	NC	M
3 Nitrite as N	5.055	5.038	0.017	113701320	2.50	2.48	M
4 Bromide	6.212	6.195	0.017	23000614	NC	NC	
5 Nitrate as N	6.998	6.975	0.023	111034395	2.50	2.46	M
6 Orthophosphate as P	9.227	9.223	0.004	84366408	2.50	3.47	
7 Sulfate	10.463	10.073	0.390	664188456	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

IC LCS_01953 Amount Added: 10.00 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-020400.d

Injection Date: 11-May-2023 01:49:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: lcs

Worklist Smp#: 40

Client ID:

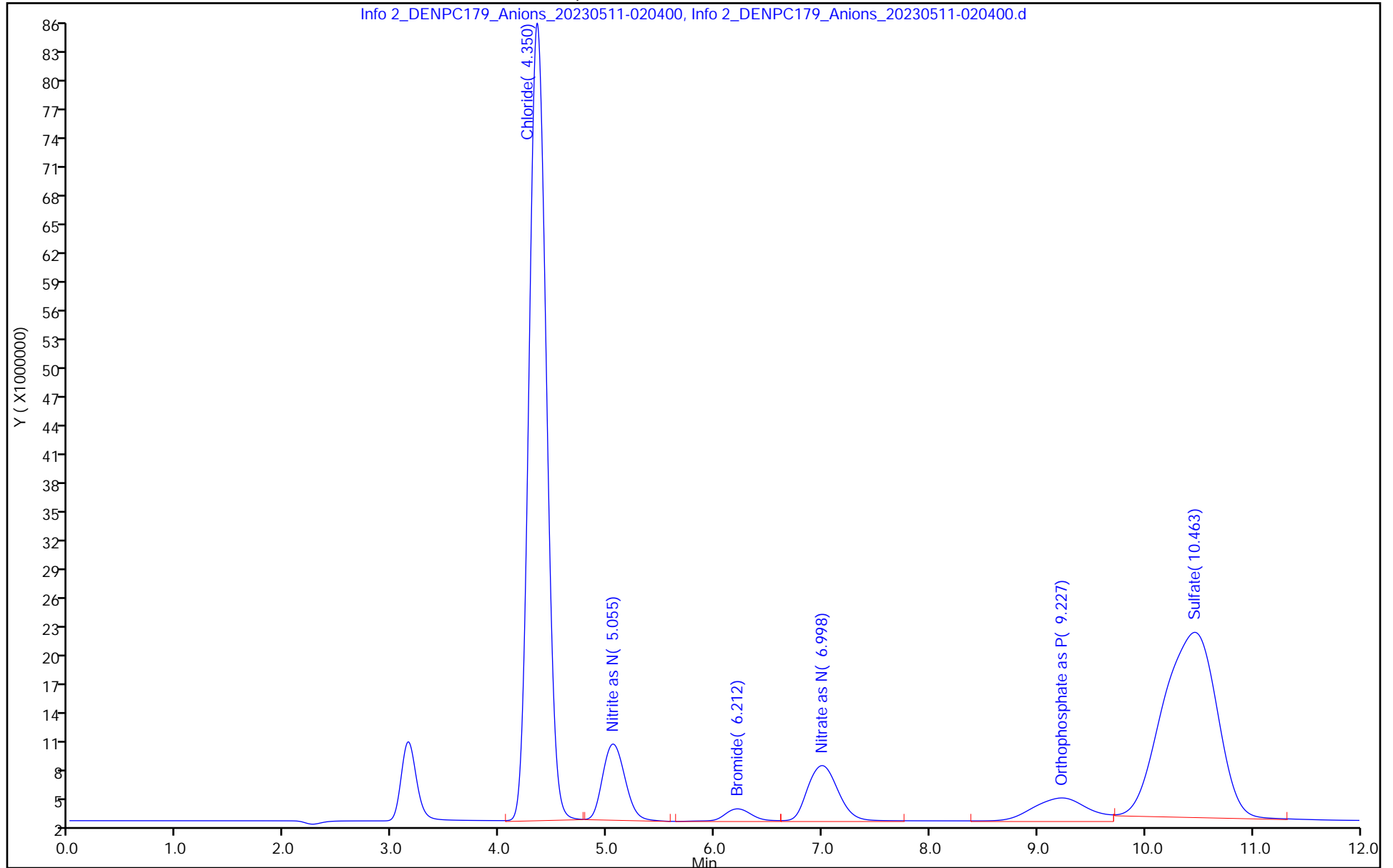
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

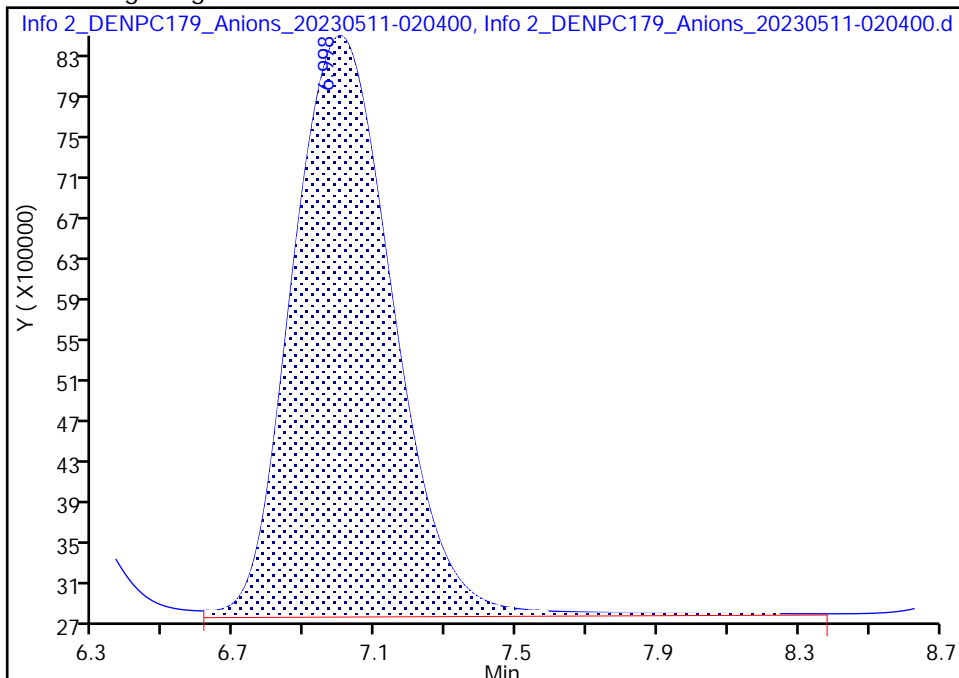
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-020400.d	Instrument ID:	WC_IonChrom10
Injection Date:	11-May-2023 01:49:00		
Lims ID:	lcs		
Client ID:			
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 40
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

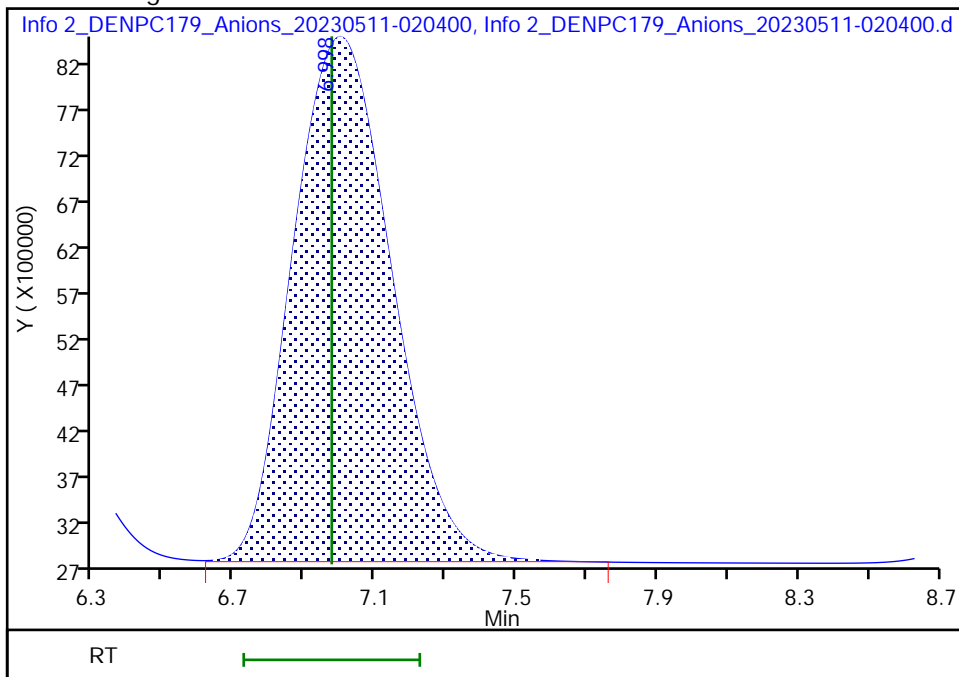
RT: 7.00
 Area: 116276882
 Amount: 2.570675
 Amount Units: ug/ml

Processing Integration Results



RT: 7.00
 Area: 111034395
 Amount: 2.456380
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 12:58:30
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-02
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 11-May-2023 02:04:00 ALS Bottle#: 0 Worklist Smp#: 41
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-041
 Misc. Info.: 280-0121301-041
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:54 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:59:12

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	ND	
2 Chloride	4.352	4.342	0.010	948429943	NC	NC	M
3 Nitrite as N	5.055	5.038	0.017	115529258	2.50	2.52	M
4 Bromide	6.217	6.195	0.022	23835043	NC	NC	
5 Nitrate as N	7.002	6.975	0.027	113054631	2.50	2.50	M
6 Orthophosphate as P	9.232	9.223	0.009	85244455	2.50	3.51	
7 Sulfate	10.467	10.073	0.394	675013311	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

IC LCS_01953

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-021859.d

Injection Date: 11-May-2023 02:04:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccv

Worklist Smp#: 41

Client ID:

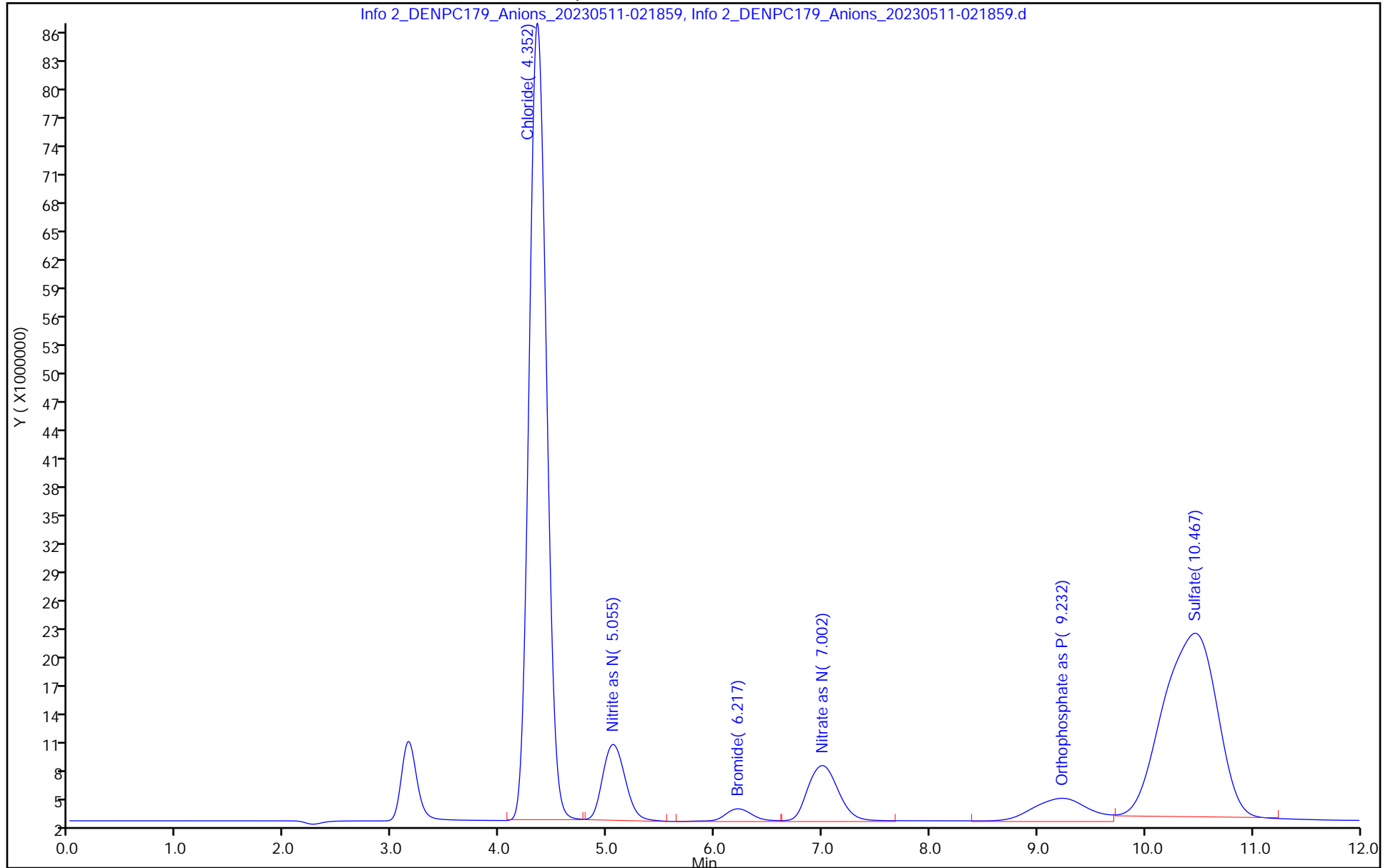
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

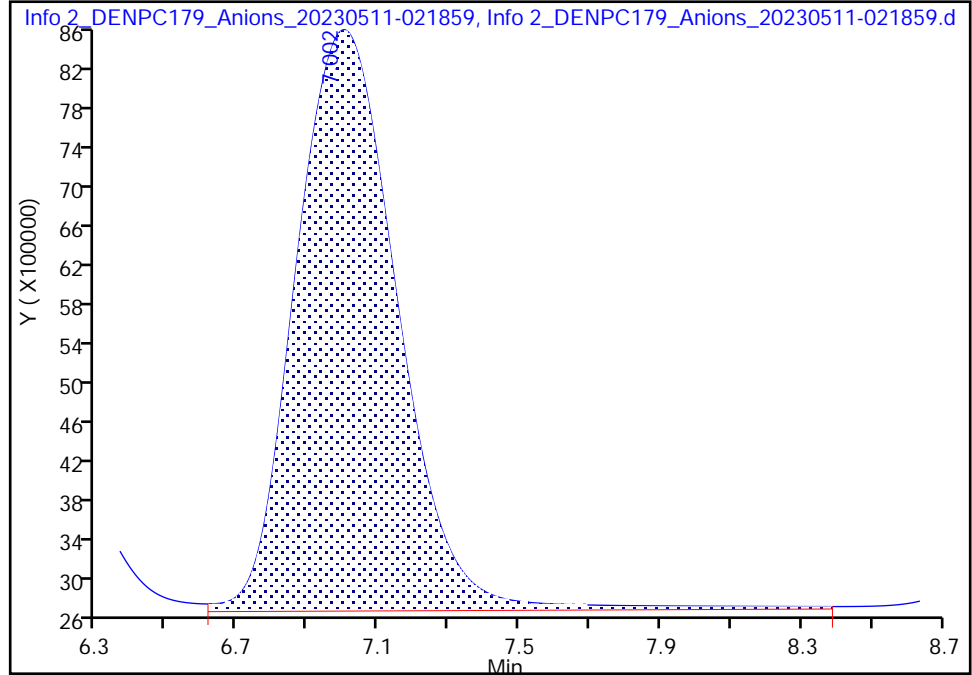
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-021859.d
Injection Date: 11-May-2023 02:04:00 Instrument ID: WC_IonChrom10
Lims ID: ccv
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

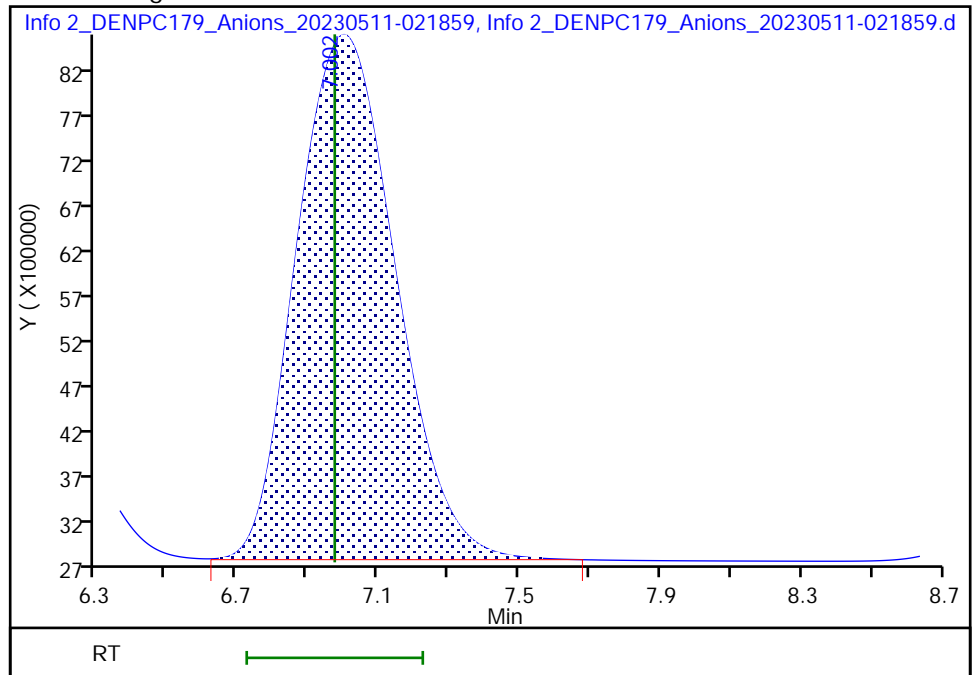
RT: 7.00
Area: 119531465
Amount: 2.641631
Amount Units: ug/ml

Processing Integration Results



RT: 7.00
Area: 113054631
Amount: 2.500424
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 12:58:57
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-02
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 11-May-2023 02:19:00 ALS Bottle#: 0 Worklist Smp#: 42
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-042
 Misc. Info.: 280-0121301-042
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:54 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:59:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152				ND	
2 Chloride		4.342				ND	
3 Nitrite as N		5.038				ND	
4 Bromide		6.195				ND	
5 Nitrate as N		6.975				ND	
6 Orthophosphate as P	9.313	9.223	0.090	15424483		0.2099	
7 Sulfate	10.518	10.073	0.445	3406446		NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-023358.d

Injection Date: 11-May-2023 02:19:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccb

Worklist Smp#: 42

Client ID:

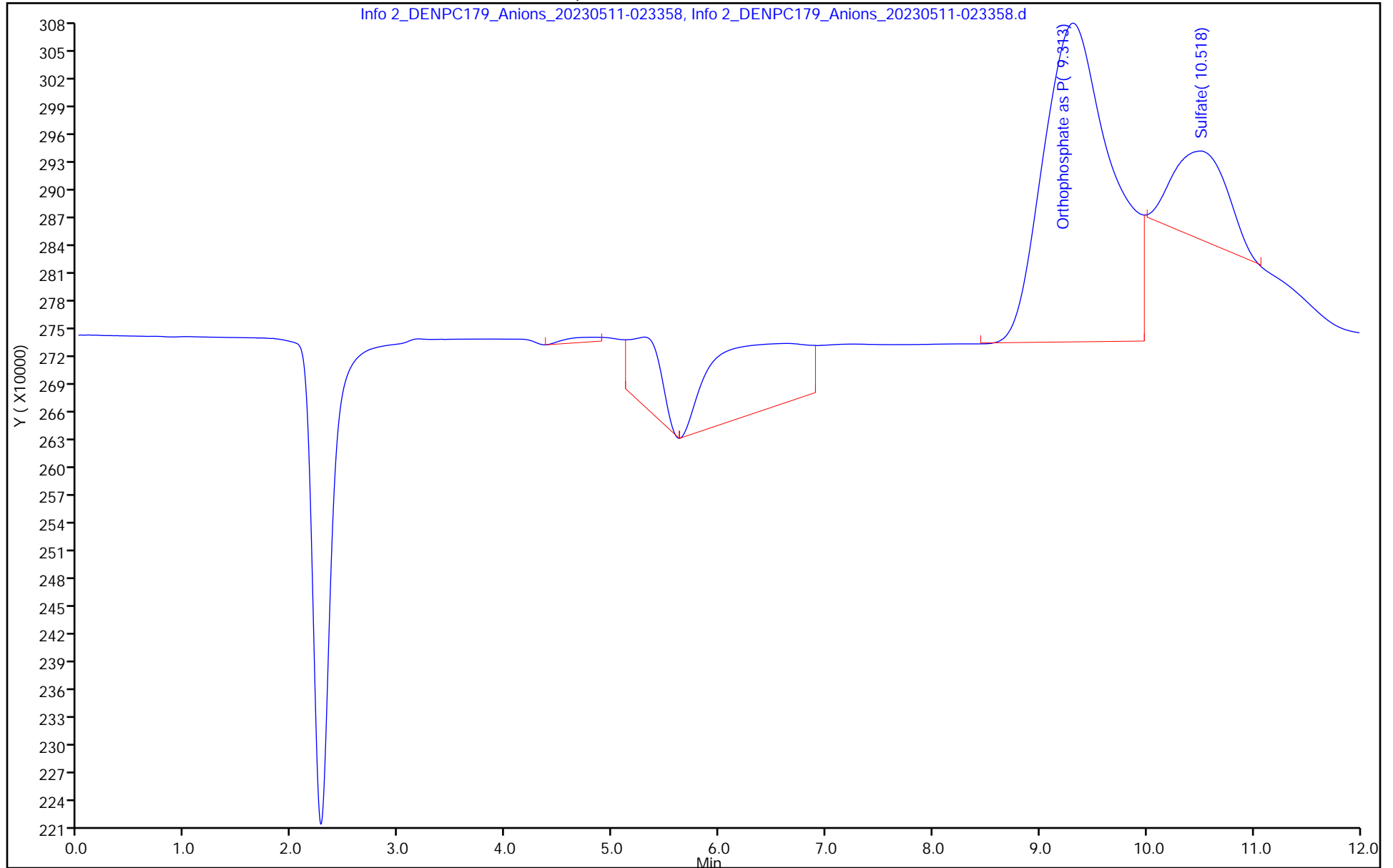
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-02
 Lims ID: lcsd
 Client ID:
 Sample Type: LCSD
 Inject. Date: 11-May-2023 02:34:00 ALS Bottle#: 0 Worklist Smp#: 43
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-043
 Misc. Info.: 280-0121301-043
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:54 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:59:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	ND	
2 Chloride	4.350	4.342	0.008	932604655	NC	NC	M
3 Nitrite as N	5.055	5.038	0.017	114137765	2.50	2.49	M
4 Bromide	6.222	6.195	0.027	24153591	NC	NC	
5 Nitrate as N	7.003	6.975	0.028	111550493	2.50	2.47	M
6 Orthophosphate as P	9.235	9.223	0.012	87278861	2.50	3.61	
7 Sulfate	10.470	10.073	0.397	670538987	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

IC LCS_01953 Amount Added: 10.00 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-024856.d

Injection Date: 11-May-2023 02:34:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: lcsd

Worklist Smp#: 43

Client ID:

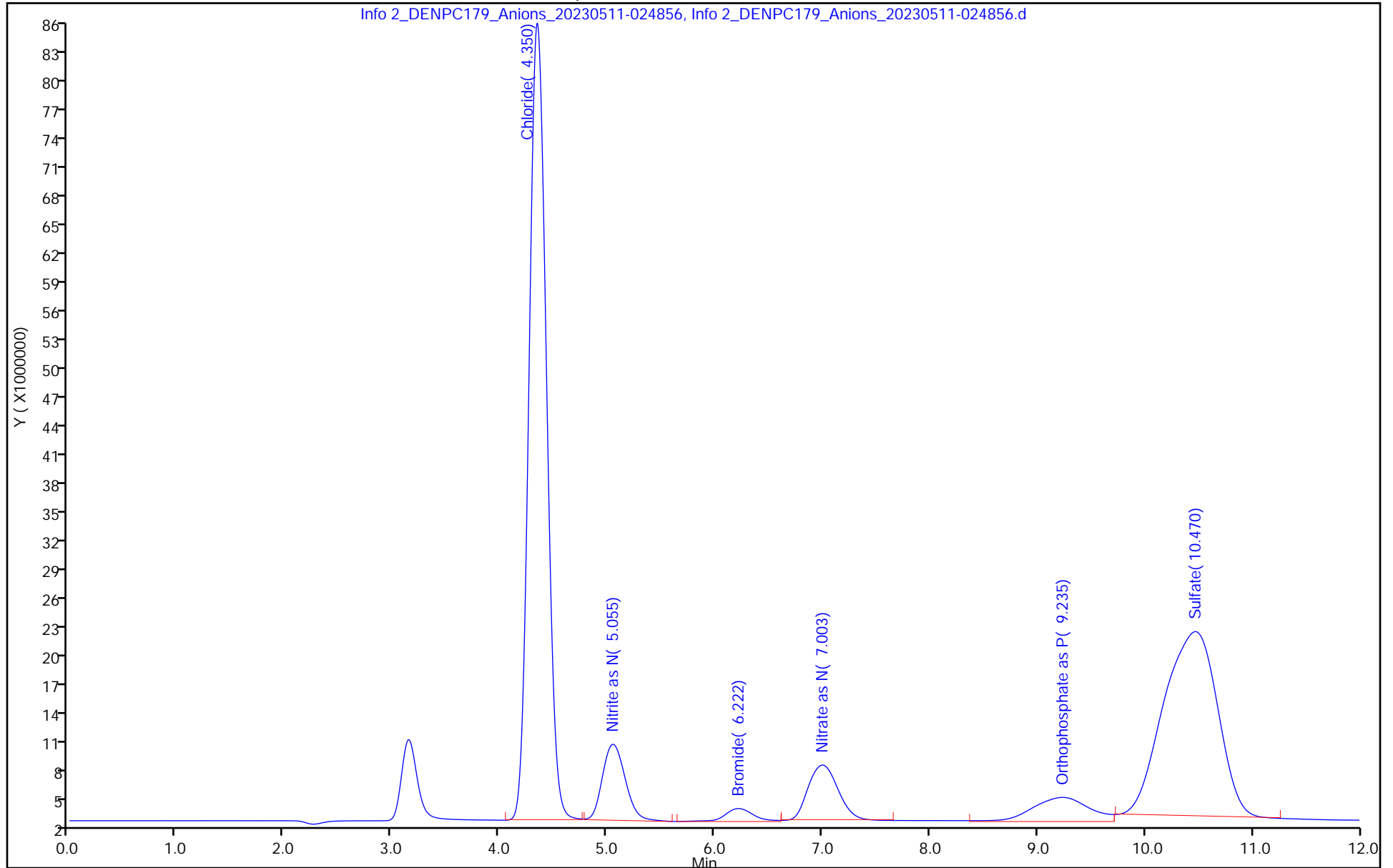
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

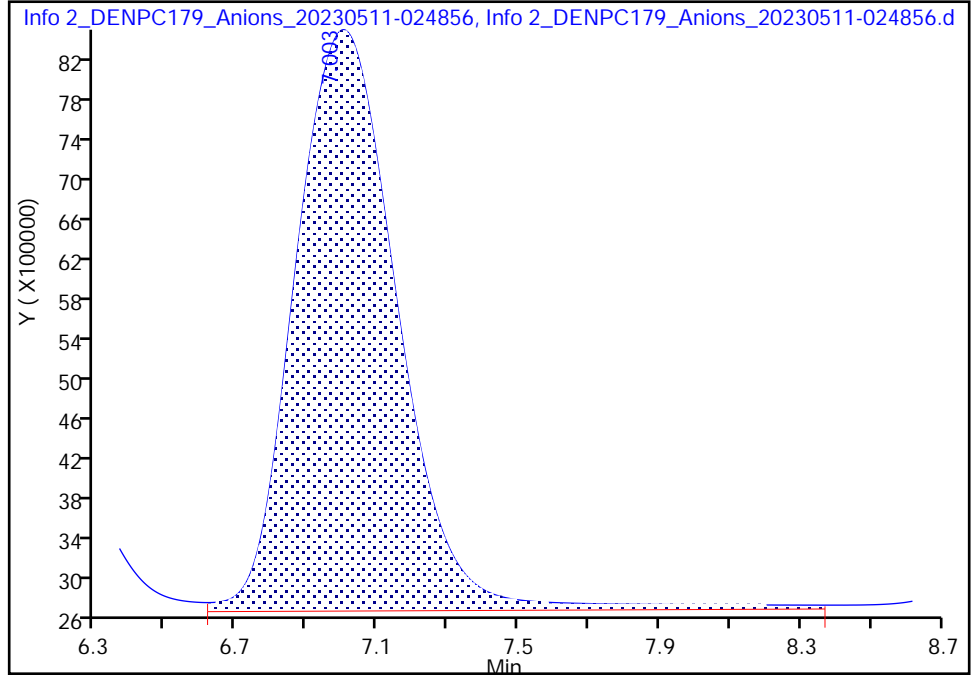
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-024856.d
Injection Date: 11-May-2023 02:34:00 Instrument ID: WC_IonChrom10
Lims ID: lcsd
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 43
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

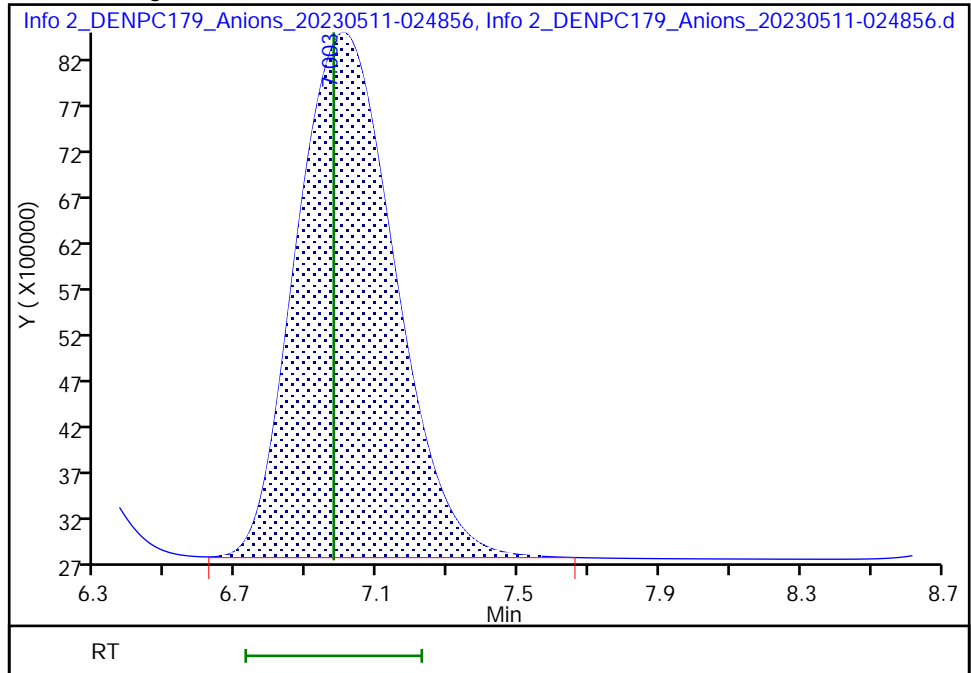
RT: 7.00
Area: 119295767
Amount: 2.636493
Amount Units: ug/ml

Processing Integration Results



RT: 7.00
Area: 111550493
Amount: 2.467631
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 12:59:36
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-0301
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 11-May-2023 02:49:00 ALS Bottle#: 0 Worklist Smp#: 44
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-044
 Misc. Info.: 280-0121301-044
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:15:54 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-1501
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 12:59:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152				ND	
2 Chloride		4.342				ND	
3 Nitrite as N		5.038				ND	
4 Bromide		6.195				ND	
5 Nitrate as N		6.975				ND	
6 Orthophosphate as P	9.313	9.223	0.090	17923523		0.3280	
7 Sulfate	10.505	10.073	0.432	3646851		NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-030353.d

Injection Date: 11-May-2023 02:49:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: mb

Worklist Smp#: 44

Client ID:

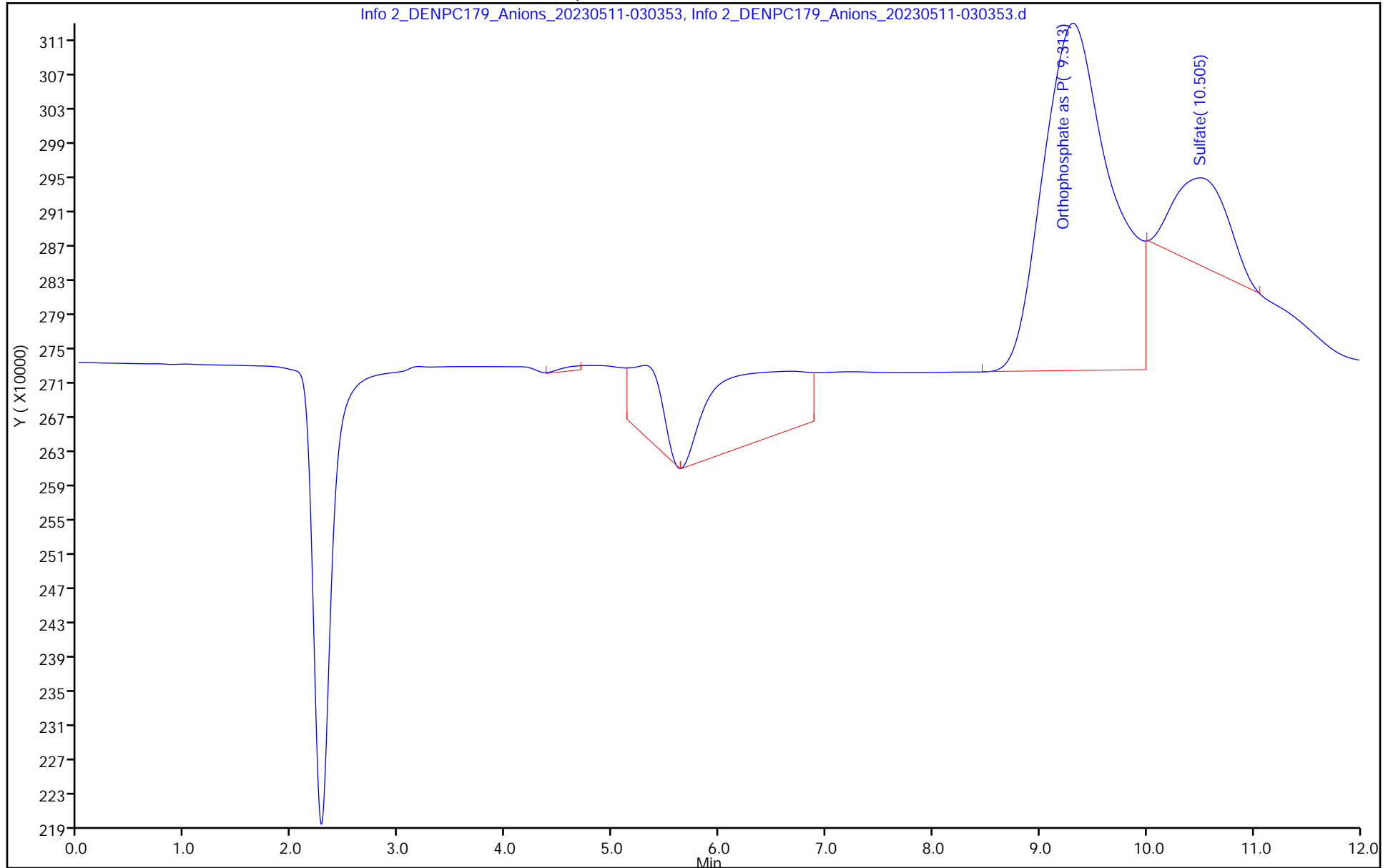
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-05
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 11-May-2023 05:03:00 ALS Bottle#: 0 Worklist Smp#: 53
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-053
 Misc. Info.: 280-0121301-053
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:16:05 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 13:03:05

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	ND	
2 Chloride	4.350	4.342	0.008	944996896	NC	NC	M
3 Nitrite as N	5.055	5.038	0.017	115505968	2.50	2.52	M
4 Bromide	6.208	6.195	0.013	22908918	NC	NC	
5 Nitrate as N	6.997	6.975	0.022	112893531	2.50	2.50	M
6 Orthophosphate as P	9.223	9.223	0.000	76719520	2.50	3.11	
7 Sulfate	10.472	10.073	0.399	672599027	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

IC LCS_01953

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-051854.d

Injection Date: 11-May-2023 05:03:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccv

Worklist Smp#: 53

Client ID:

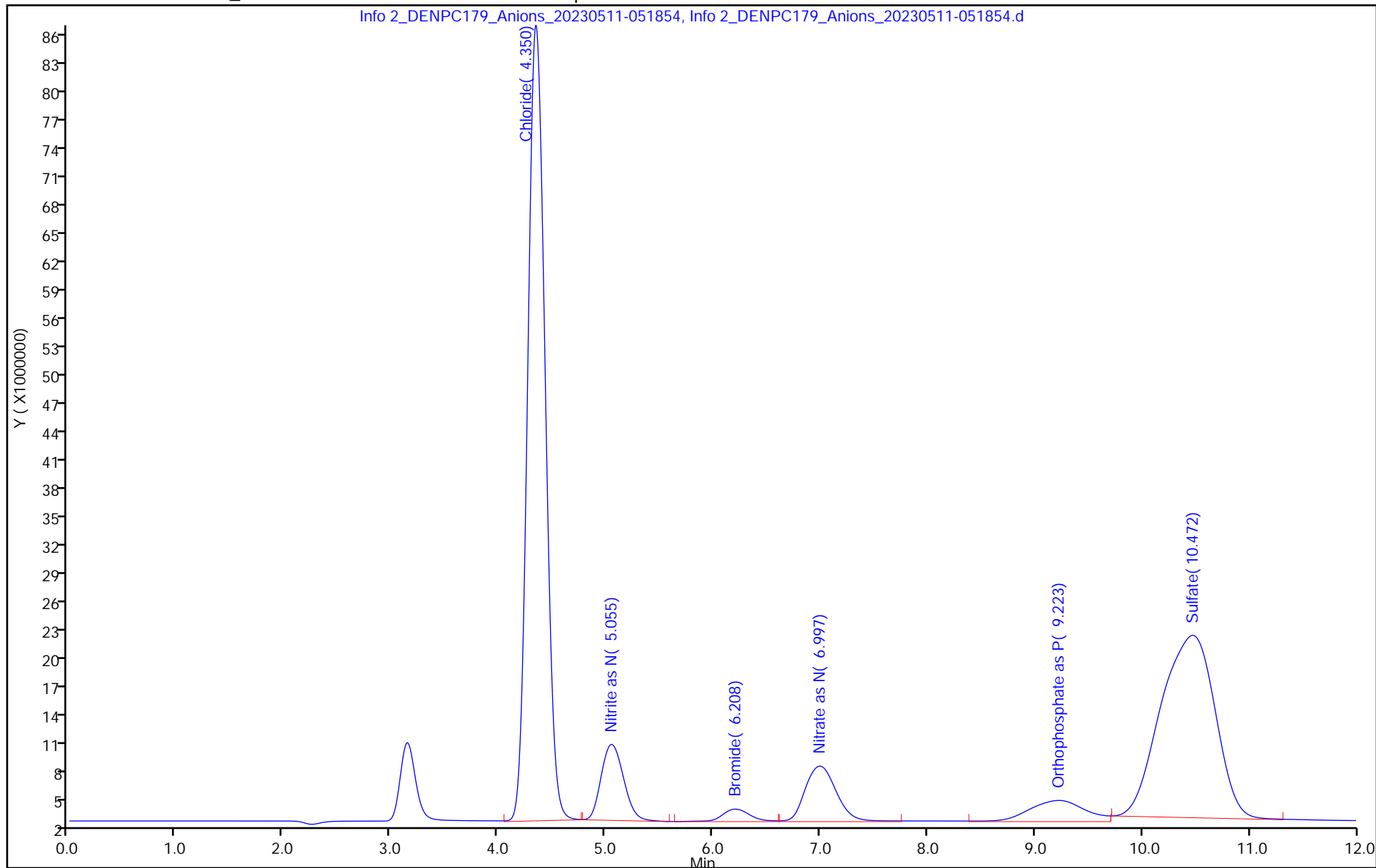
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

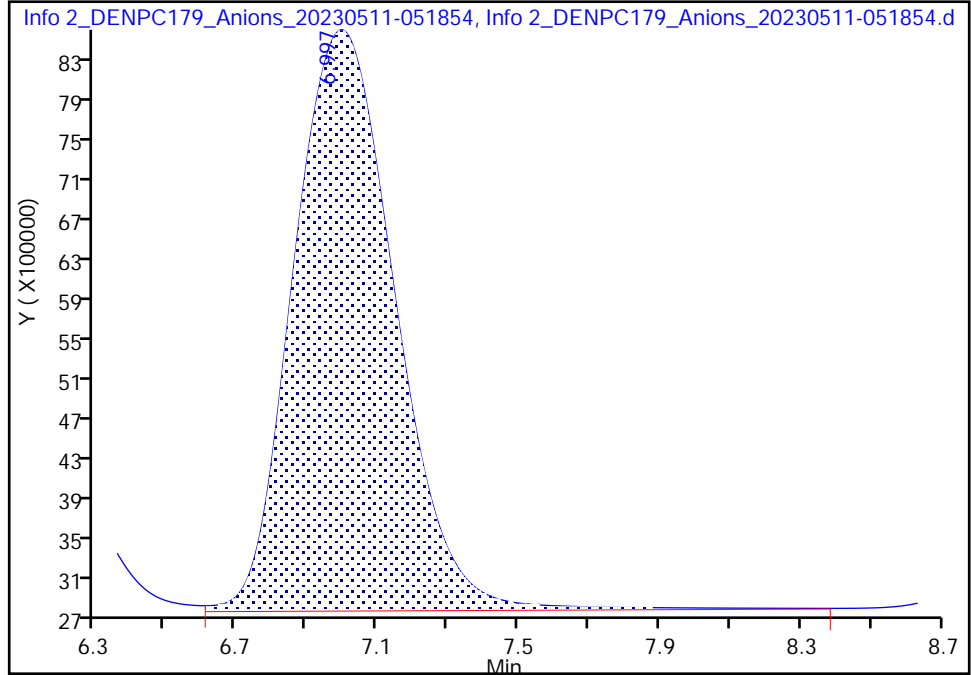
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-051854.d
Injection Date: 11-May-2023 05:03:00 Instrument ID: WC_IonChrom10
Lims ID: ccv
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

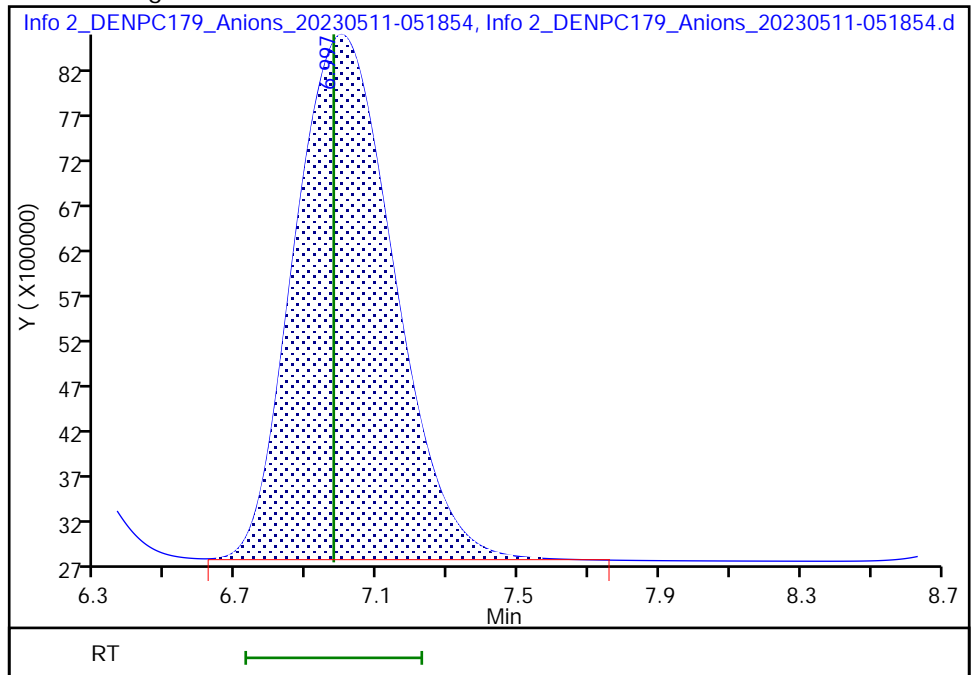
RT: 7.00
Area: 117450591
Amount: 2.596264
Amount Units: ug/ml

Processing Integration Results



RT: 7.00
Area: 112893531
Amount: 2.496912
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 13:02:56
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-0510
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 11-May-2023 05:18:00 ALS Bottle#: 0 Worklist Smp#: 54
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-054
 Misc. Info.: 280-0121301-054
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:16:05 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-1510
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 13:03:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152				ND	
2 Chloride		4.342				ND	
3 Nitrite as N		5.038				ND	
4 Bromide		6.195				ND	
5 Nitrate as N		6.975				ND	
6 Orthophosphate as P	9.312	9.223	0.089	11216922		0.0110	
7 Sulfate	10.520	10.073	0.447	3168263		NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-053354.d

Injection Date: 11-May-2023 05:18:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccb

Worklist Smp#: 54

Client ID:

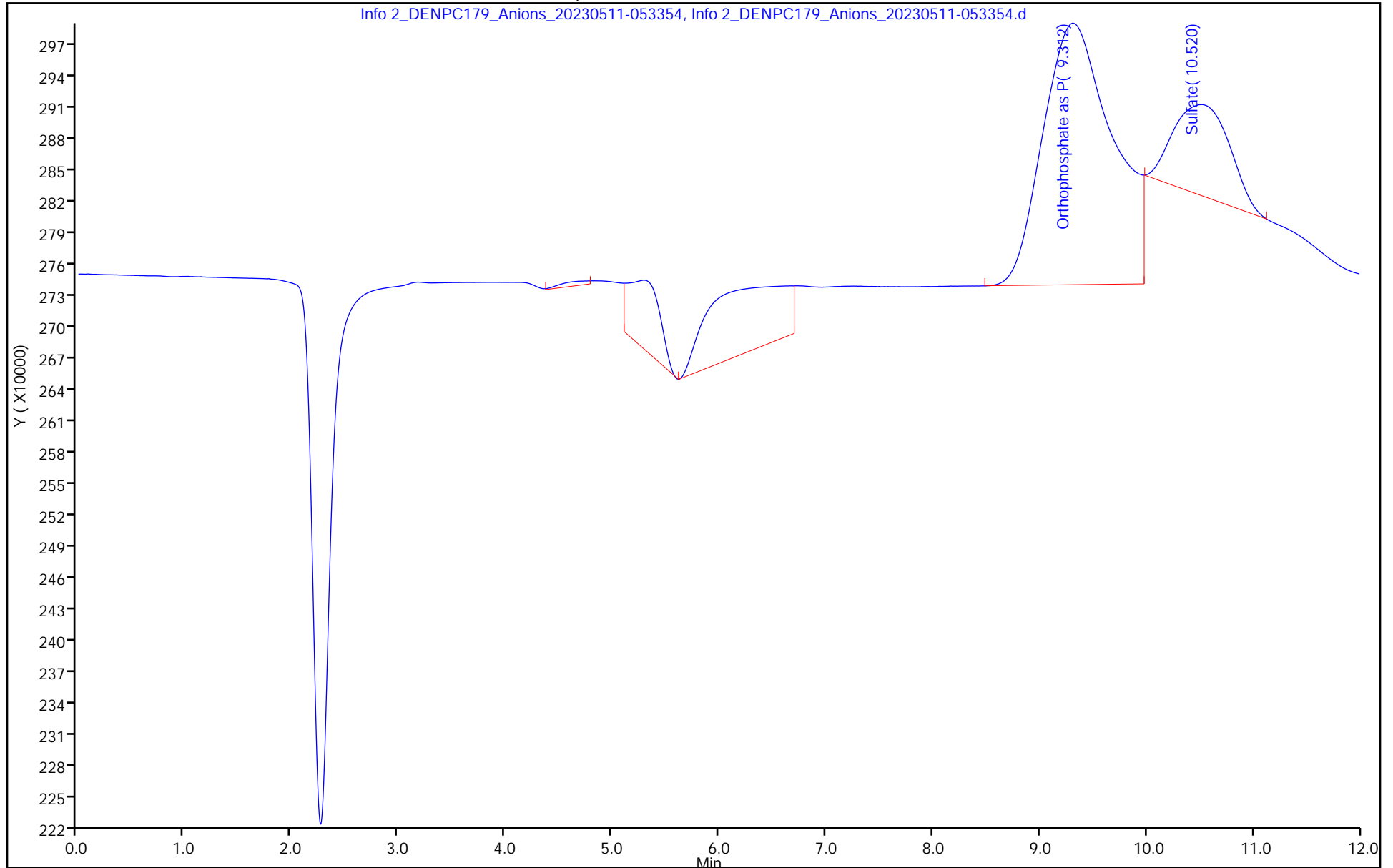
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-08
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 11-May-2023 08:04:00 ALS Bottle#: 0 Worklist Smp#: 65
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-065
 Misc. Info.: 280-0121301-065
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:16:15 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: XAY4 Date: 11-May-2023 10:36:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	ND	
2 Chloride	4.353	4.342	0.011	947668098	NC	NC	M
3 Nitrite as N	5.058	5.038	0.020	115531650	2.50	2.52	M
4 Bromide	6.210	6.195	0.015	22646868	NC	NC	
5 Nitrate as N	7.000	6.975	0.025	112972634	2.50	2.50	M
6 Orthophosphate as P	9.227	9.223	0.004	79698481	2.50	3.25	
7 Sulfate	10.483	10.073	0.410	674319719	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

IC LCS_01953 Amount Added: 10.00 Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-081922.d

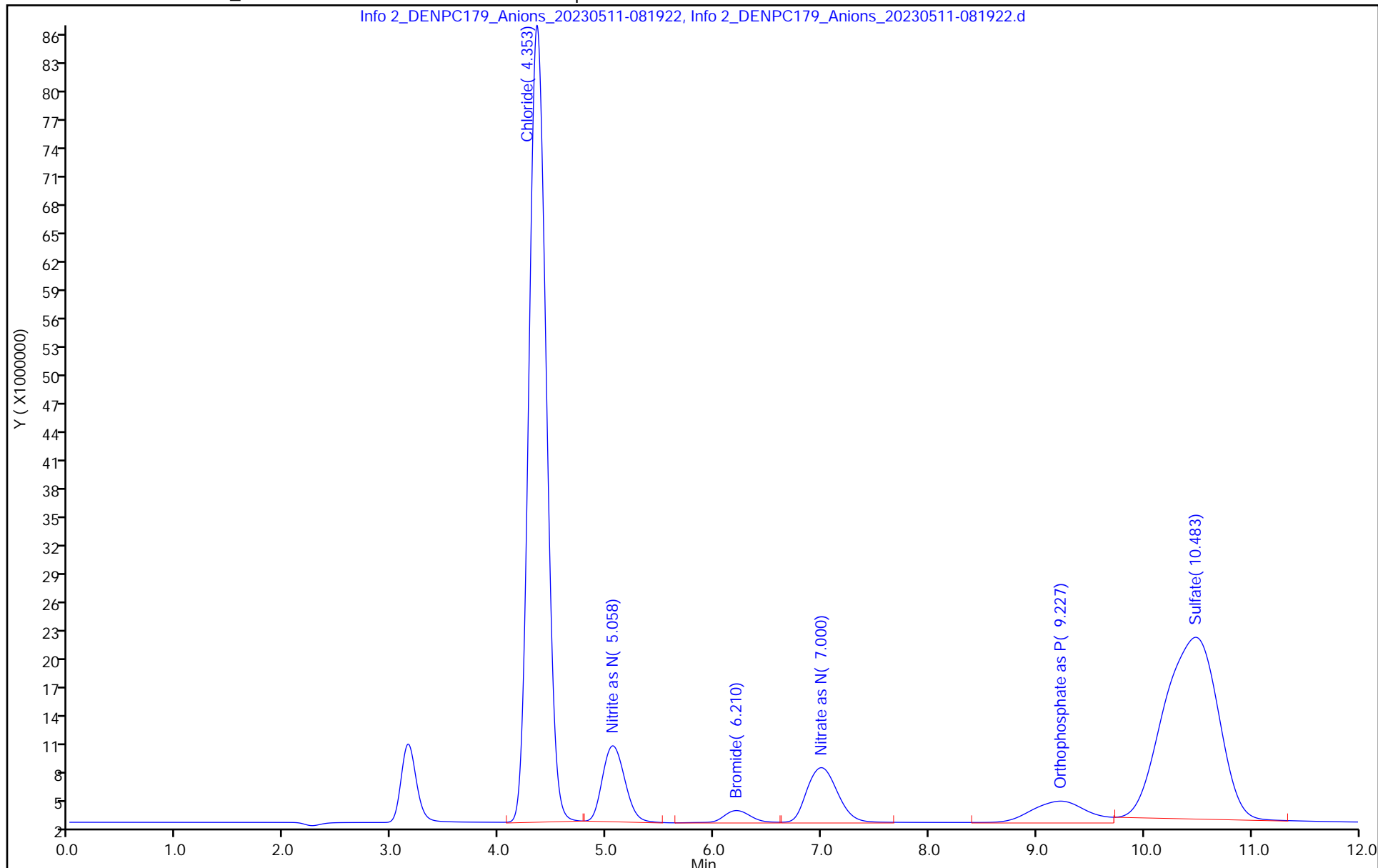
Injection Date: 11-May-2023 08:04:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: ccv Worklist Smp#: 65

Client ID:

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Eurofins Denver

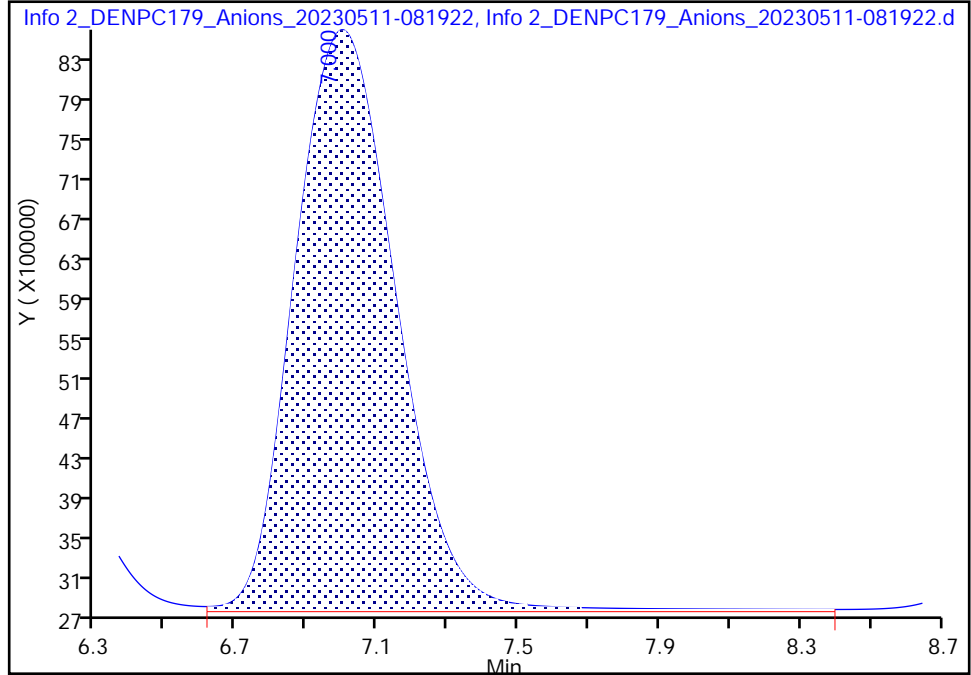
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-081922.d
Injection Date: 11-May-2023 08:04:00 Instrument ID: WC_IonChrom10
Lims ID: ccv
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 65
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

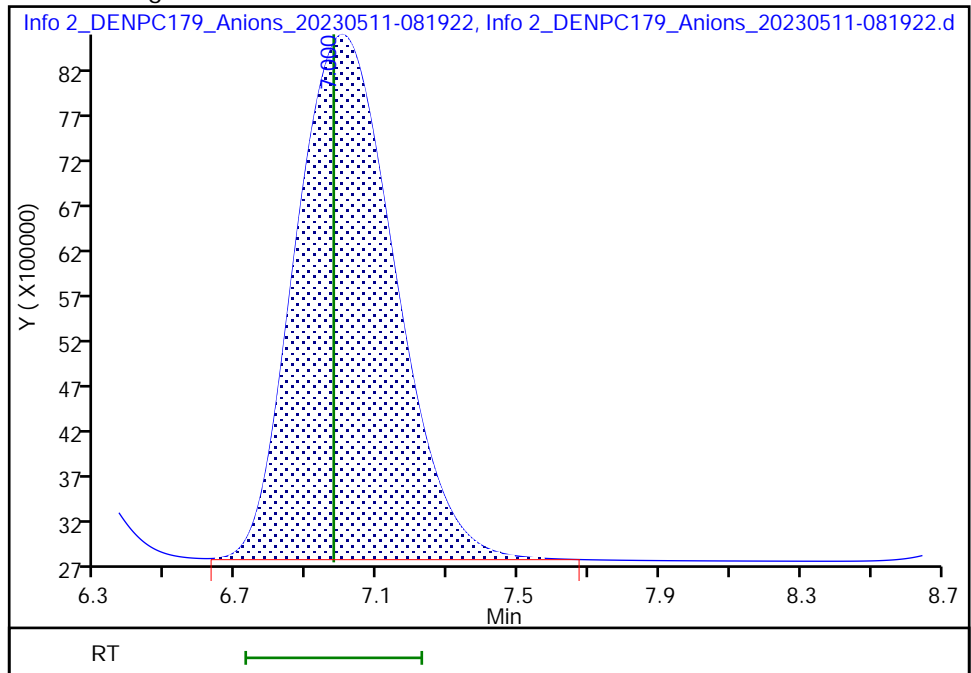
RT: 7.00
Area: 116858566
Amount: 2.583357
Amount Units: ug/ml

Processing Integration Results



RT: 7.00
Area: 112972634
Amount: 2.498637
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 13:07:59
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-08
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 11-May-2023 08:19:00 ALS Bottle#: 0 Worklist Smp#: 66
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-066
 Misc. Info.: 280-0121301-066
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:16:15 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 13:08:17

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152				ND	
2 Chloride		4.342				ND	
3 Nitrite as N	4.835	5.038	-0.203	83727		0.0293	
4 Bromide		6.195				ND	
5 Nitrate as N		6.975				ND	
6 Orthophosphate as P	9.310	9.223	0.087	11280222		0.0140	
7 Sulfate	10.512	10.073	0.439	2928679		NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-083426.d

Injection Date: 11-May-2023 08:19:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccb

Worklist Smp#: 66

Client ID:

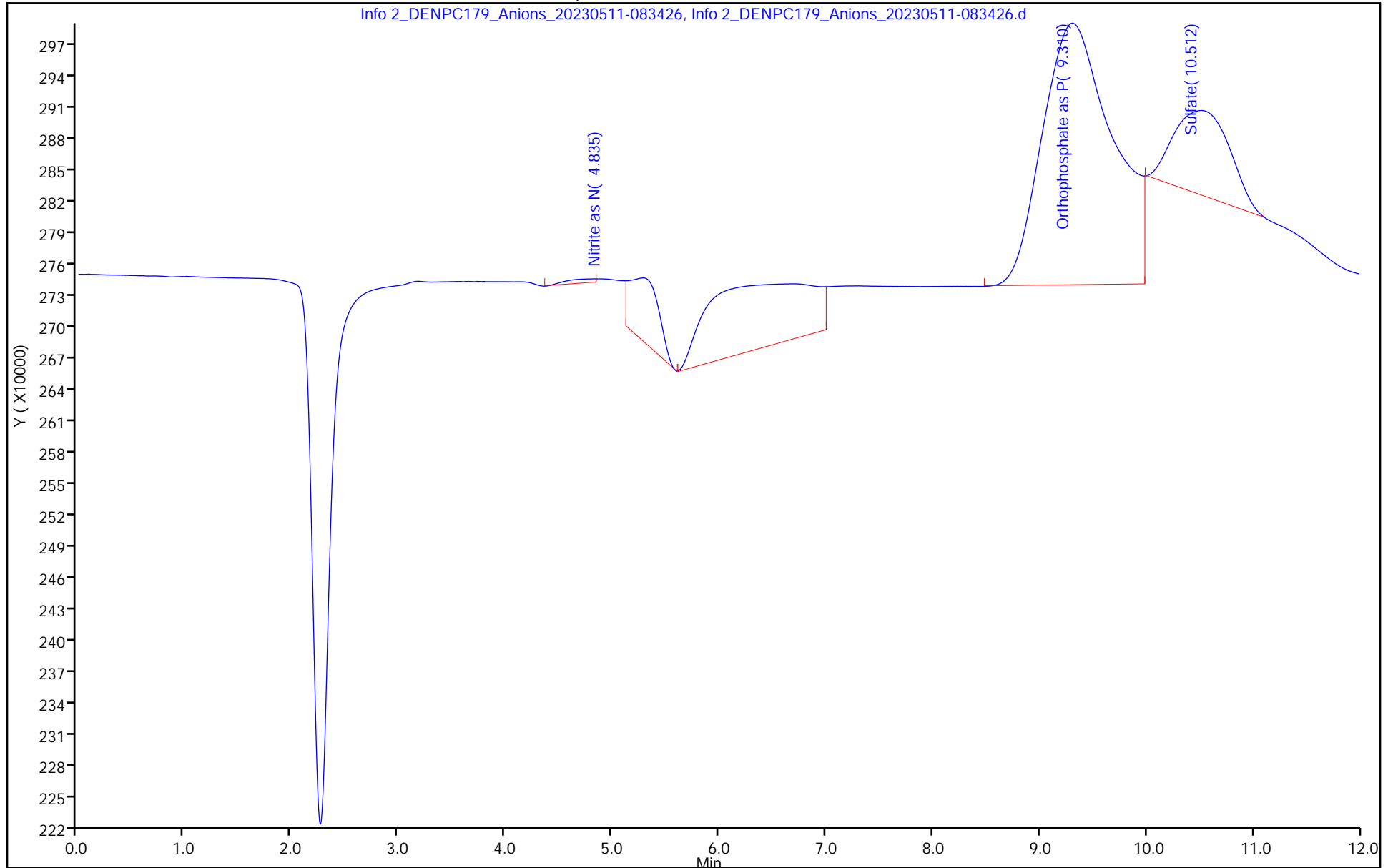
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-09
 Lims ID: 280-176271-A-2
 Client ID: LL12-MW-RB246_2023
 Sample Type: Client
 Inject. Date: 11-May-2023 09:04:00 ALS Bottle#: 0 Worklist Smp#: 69
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-069
 Misc. Info.: 280-0121301-069
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:16:15 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 13:09:12

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	
2 Chloride		4.342			ND	
3 Nitrite as N		5.038			ND	U
4 Bromide		6.195			ND	
5 Nitrate as N	7.057	6.975	0.082	1515897	0.0687	M
6 Orthophosphate as P	9.315	9.223	0.092	10318412	-0.0314	
7 Sulfate	10.533	10.073	0.460	2686178	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-091938.d

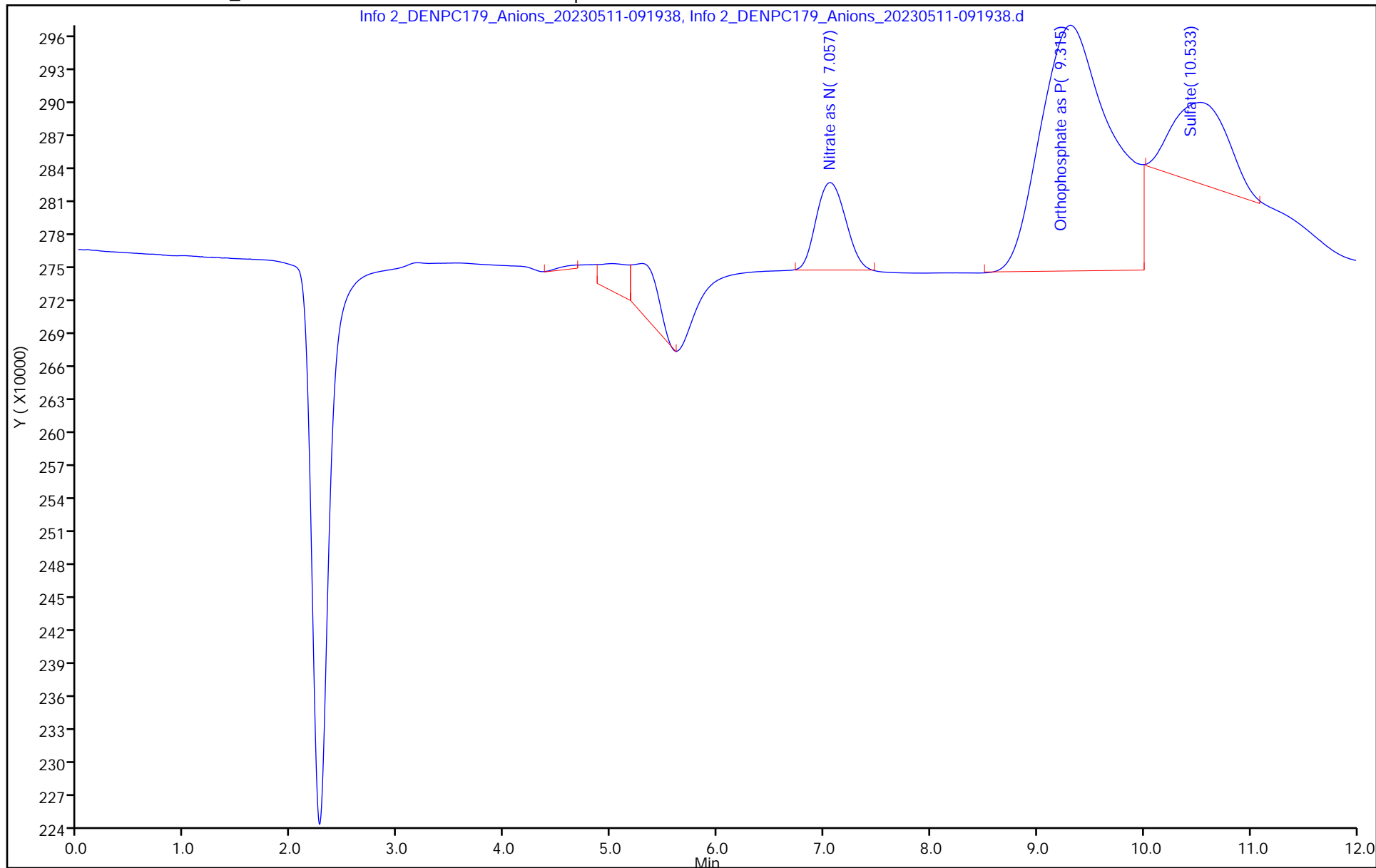
Injection Date: 11-May-2023 09:04:00 Instrument ID: WC_IonChrom10 Operator ID: wetchemd

Lims ID: 280-176271-A-2 Lab Sample ID: 280-176271-2 Worklist Smp#: 69

Client ID: LL12-MW-RB246_2023

Injection Vol: 5.0 ul Dil. Factor: 1.0000 ALS Bottle#: 0

Method: Anions_IC10 Limit Group: Wet - Anions



Euofins Denver

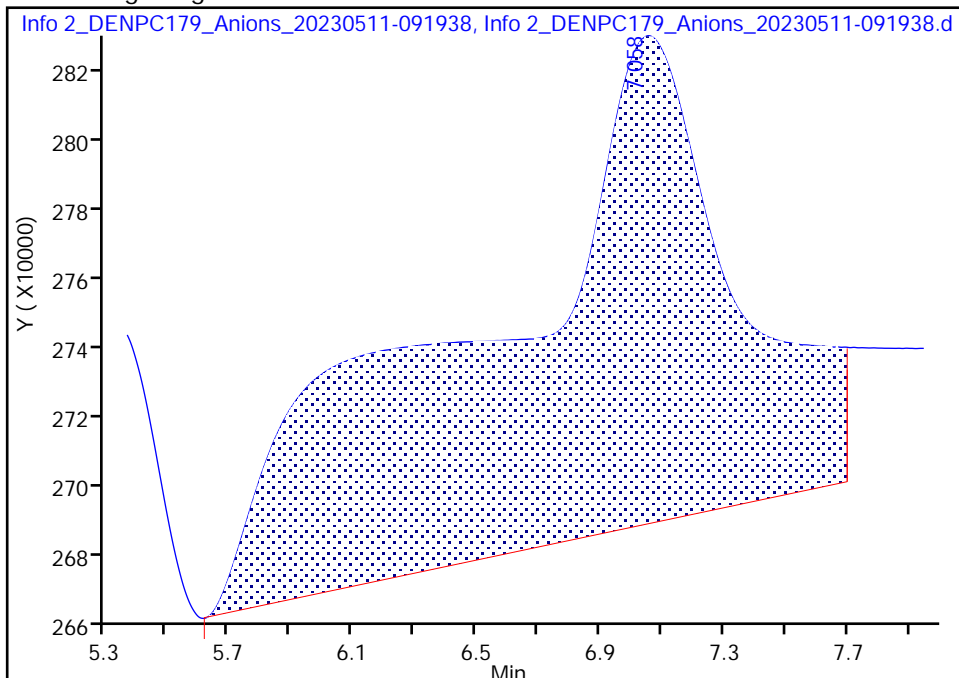
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-091938.d		
Injection Date:	11-May-2023 09:04:00	Instrument ID:	WC_IonChrom10
Lims ID:	280-176271-A-2	Lab Sample ID:	280-176271-2
Client ID:	LL12-MW-RB246_2023		
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 69
Injection Vol:	5.0 ul	Dil. Factor:	1.0000
Method:	Anions_IC10	Limit Group:	Wet - Anions
Column:		Detector:	Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

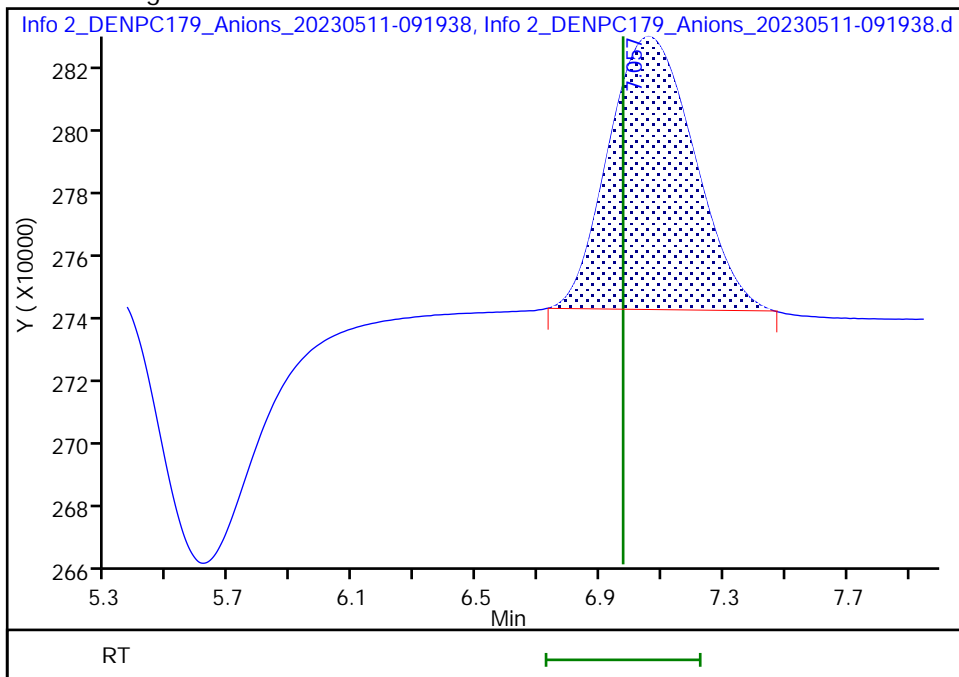
RT: 7.06
 Area: 7452509
 Amount: 0.198103
 Amount Units: ug/ml

Processing Integration Results



RT: 7.06
 Area: 1515897
 Amount: 0.068674
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 13:09:02
 Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing
 Page 196 of 205

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-11-11-2301.b
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 11-May-2023 11:04:00 ALS Bottle#: 0 Worklist Smp#: 77
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-077
 Misc. Info.: 280-0121301-077
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Sublist: chrom-Anions_IC10*sub5
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:16:26 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-15-11-2301.b
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8

Date: 11-May-2023 13:12:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152			ND	ND	
2 Chloride	4.327	4.342	-0.015	948212688	NC	NC	M
3 Nitrite as N	5.020	5.038	-0.018	115413047	2.50	2.52	M
4 Bromide	6.162	6.195	-0.033	23372860	NC	NC	
5 Nitrate as N	6.933	6.975	-0.042	112795366	2.50	2.49	M
6 Orthophosphate as P	9.135	9.223	-0.088	73725126	2.50	2.97	
7 Sulfate	10.317	10.073	0.244	674005554	NC	NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

IC LCS_01953

Amount Added: 10.00

Units: mL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-111957.d

Injection Date: 11-May-2023 11:04:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccv

Worklist Smp#: 77

Client ID:

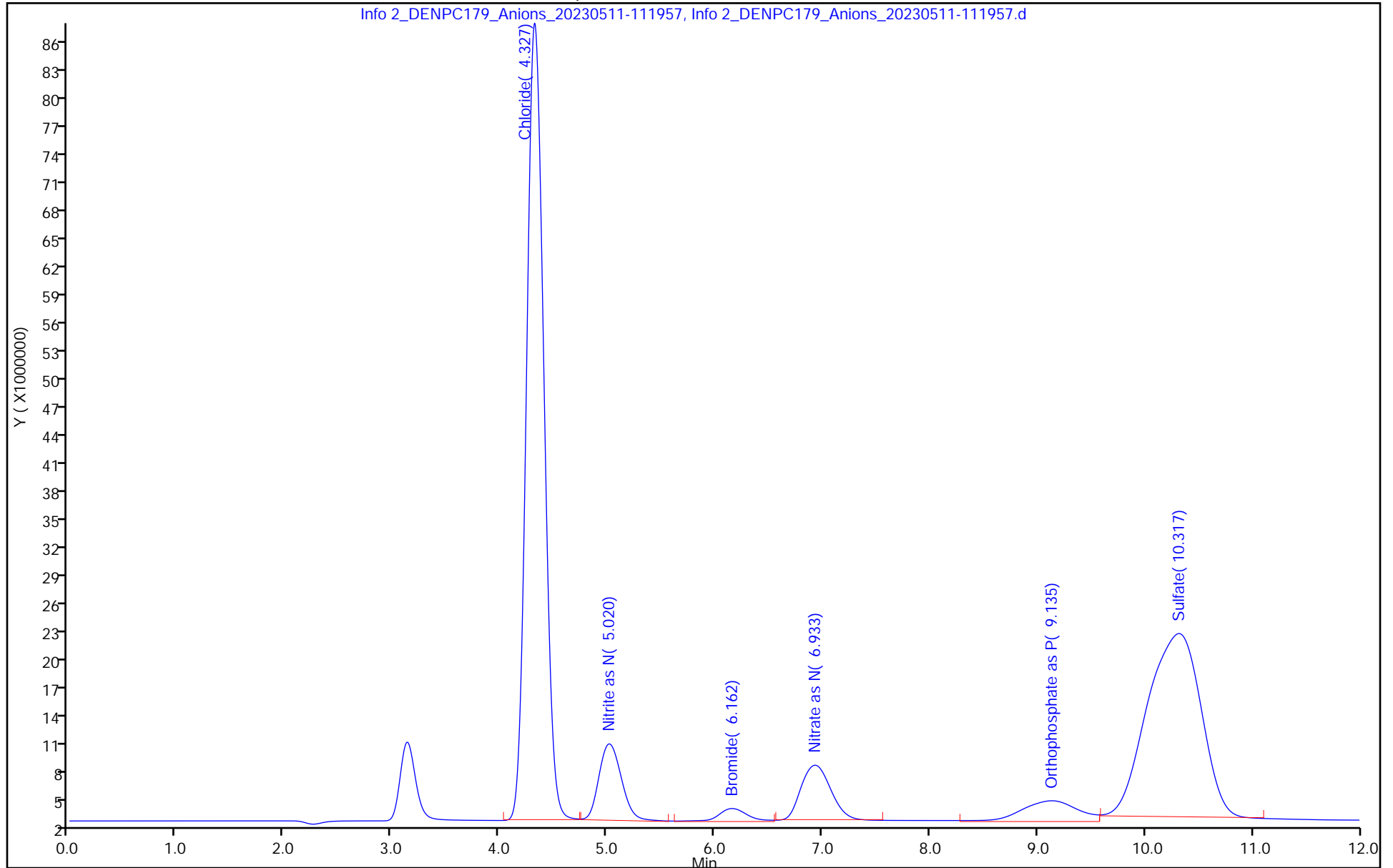
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Eurofins Denver

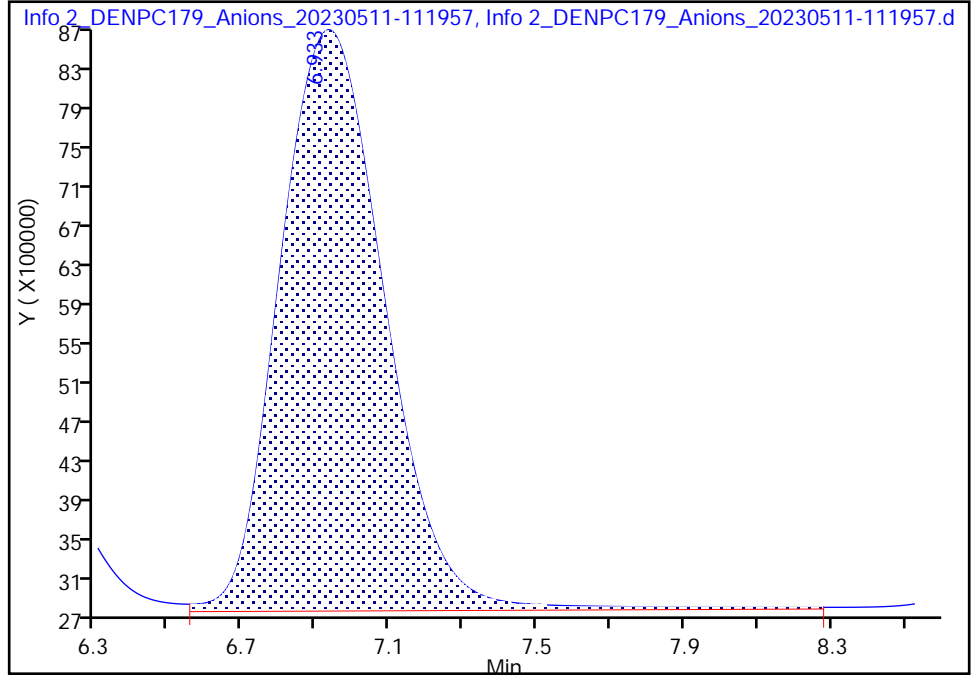
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-111957.d
Injection Date: 11-May-2023 11:04:00 Instrument ID: WC_IonChrom10
Lims ID: ccv
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 77
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions
Column: Detector Info 2_091554_1

5 Nitrate as N, CAS: 14797-55-8

Signal: 1

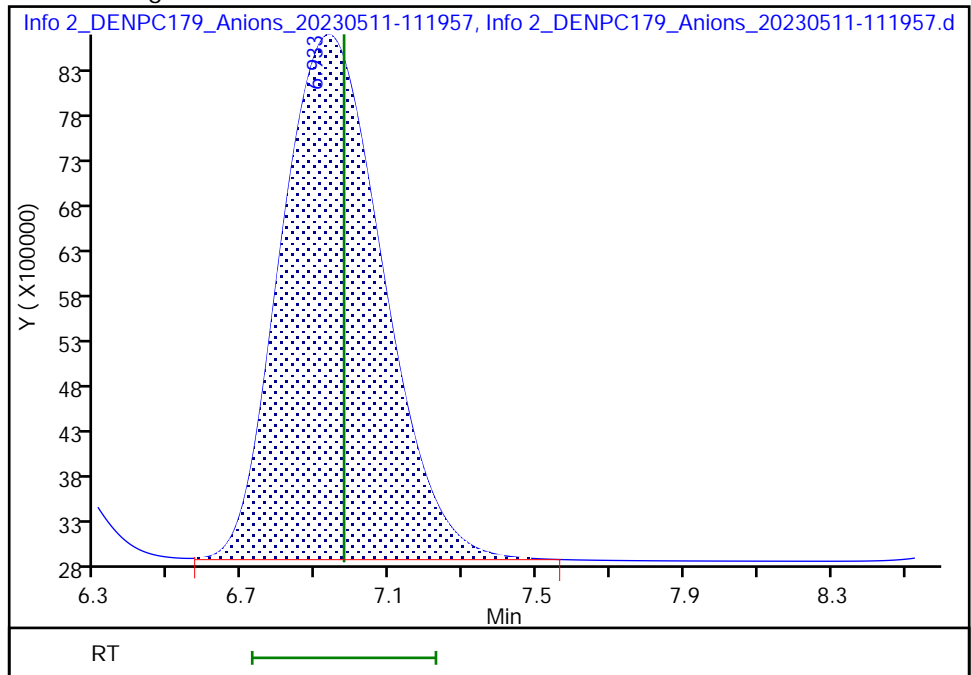
RT: 6.93
Area: 118619629
Amount: 0
Amount Units: ug/ml

Processing Integration Results



RT: 6.93
Area: 112795366
Amount: 2.494772
Amount Units: ug/ml

Manual Integration Results



Reviewer: LVW8, 11-May-2023 13:12:17
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-111301.b
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 11-May-2023 11:20:00 ALS Bottle#: 0 Worklist Smp#: 78
 Injection Vol: 5.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0121301-078
 Misc. Info.: 280-0121301-078
 Operator ID: wetchemd Instrument ID: WC_IonChrom10
 Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Anions_IC10.m
 Limit Group: Wet - Anions
 Last Update: 11-May-2023 13:16:26 Calib Date: 12-Apr-2023 15:19:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230412-120345.b\Info 2_DENPC179_Anions_20230412-151301.b
 Column 1 : Det: Info 2_091554_1
 Process Host: CTX1646

First Level Reviewer: LVW8 Date: 11-May-2023 13:12:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.152				ND	
2 Chloride		4.342				ND	
3 Nitrite as N		5.038				ND	U
4 Bromide		6.195				ND	U
5 Nitrate as N		6.975				ND	
6 Orthophosphate as P	9.235	9.223	0.012	9206231		-0.0840	
7 Sulfate	10.350	10.073	0.277	3176254		NC	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230510-121301.b\Info 2_DENPC179_Anions_20230511-113457.d

Injection Date: 11-May-2023 11:20:00

Instrument ID: WC_IonChrom10

Operator ID: wetchemd

Lims ID: ccb

Worklist Smp#: 78

Client ID:

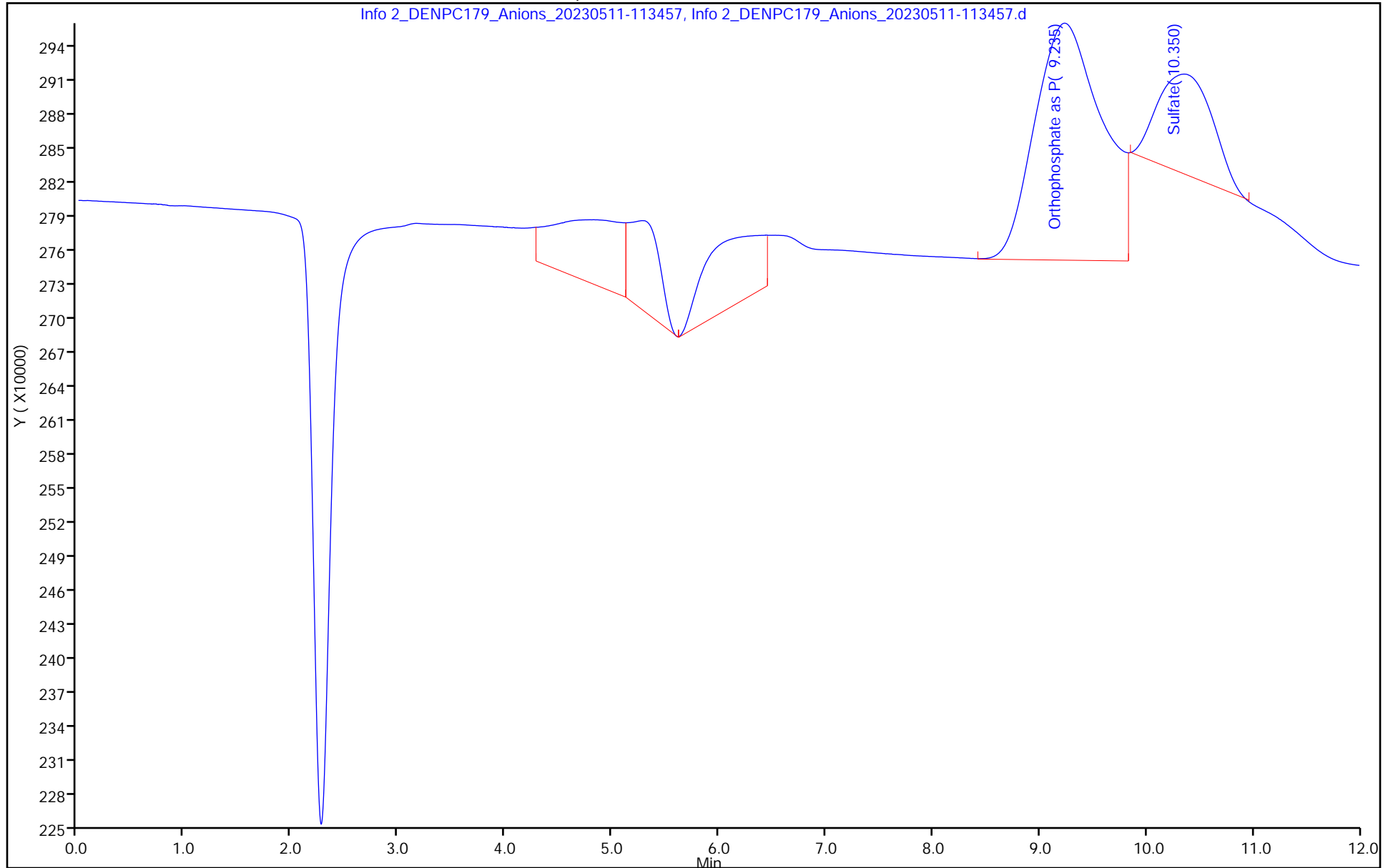
Injection Vol: 5.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC10

Limit Group: Wet - Anions



Shipping and Receiving Documents

ORIGIN ID:SKYA (990) 998-4246
RYAN LAURICH
LEIDOS
8866 COMMONS BLVD
TWINSBURG, OH 44087
UNITED STATES US

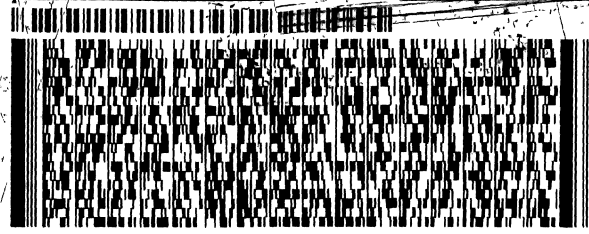
SHIP DATE: 09MAY23
ACTWGT: 51.85 LB
CAD: 6995873/SSP02420
DIMS: 24x14x14 IN
BILL RECIPIENT

Part # 1562974537 HMBB15 EXP 05/23

TO EUROFINS EVIROMENT TE
TESTAMERICA DENVER LAB
4955 YARROW
ARVADA CO 8

euofins Environment Testing
TestAmerica
2171243

(303) 736-0100
INU:
PO:

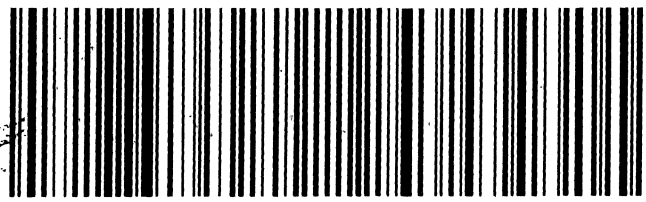


TRK# 8178 1968 1567
0215

WED - 10 MAY 10:30A
PRIORITY OVERNIGHT

NX LAAA

80002
CO-US DEN



280-176271 Waybill

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-176271-1

Login Number: 176271

List Source: Eurofins Denver

List Number: 1

Creator: Held, Wesley

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	