

ATTACHMENT 2
SGS LABORATORY DATA PACKAGE

The results set forth herein are provided by SGS North America Inc.

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Automated Report

Technical Report for

Tetra Tech

R8 START: Highway 24 Mill Site, Colorado Springs, CO

103X903520F0083230108

SGS Job Number: JD67523

Sampling Date: 06/13/23

Report to:

Tetra Tech
1560 Broadway Street Suite 1400
Denver, CO 80202
R8START.LabReports@tetrattechinc.onmicrosoft.com; Matt.lafemina@tetrattech.com
ATTN: Matt LaFemina

Total number of pages in report: 148



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

David Chastain
General Manager

Client Service contact: Jadon Schiller 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA(68-00408), RI, SC, TX, UT, VA, WV

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Test results relate only to samples analyzed.



September 18, 2023

**Mr. Matt LaFemina
Tetra Tech
1560 Broadway Street Suite 1400
Denver, CO 80202**

RE: SGS – Dayton, Job # JD67523 – Reissues

Dear Mr. LaFemina,

The final report for SGS job number JD67523 has been edited to reflect corrections to the results. These edits have been incorporated into the revised report which is attached.

Specifically, the MDL reporting has been revised to meet client's requirement. The attached revised report incorporates these revisions.

SGS apologizes for this occurrence and for any inconvenience this situation may have caused. Please contact me if I can be of further assistance in this matter.

Sincerely,

Report Department

SGS North America Inc.

SGS North America Inc. | Mid-Atlantic 2235 US Highway 130 Dayton, NJ 08810, USA t +1 (0)732 329 0200 www.sgs.com

Member of the SGS Group (SGS SA)

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Sample Summary

Tetra Tech

Job No: JD67523

R8 START: Highway 24 Mill Site, Colorado Springs, CO
Project No: 103X903520F0083230108

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JD67523-1	06/13/23	16:15 ML	06/14/23	AQ	Surface Water	HWY-SW-06
JD67523-2	06/13/23	15:14 ML	06/14/23	AQ	Surface Water	HWY-SW-08
JD67523-3	06/13/23	15:14 ML	06/14/23	AQ	Surface Water	HWY-SW-08-DUP
JD67523-3D	06/13/23	15:14 ML	06/14/23	AQ	Water Dup/MSD	HWY-SW-08-DUP
JD67523-3S	06/13/23	15:14 ML	06/14/23	AQ	Water Matrix Spike	HWY-SW-08-DUP
JD67523-4	06/13/23	14:14 ML	06/14/23	AQ	Surface Water	HWY-SW-09
JD67523-5	06/13/23	16:35 ML	06/14/23	AQ	Field Blank Soil	HWY-SW-06-FB-1

CASE NARRATIVE / CONFORMANCE SUMMARY

2

Client: Tetra Tech

Job No: JD67523

Site: R8 START: Highway 24 Mill Site, Colorado Springs, CO

Report Date 6/21/2023 9:38:15 AM

On 06/14/2023, 4 sample(s), 0 Trip Blank(s), and 1 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 1.9 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of JD67523 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ

Batch ID: GP47470

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD67523-3MS, JD67523-3DUP were used as the QC samples for the Fluoride, Sulfate, Bromide, Chloride analysis.
- The duplicate RPD(s) for Bromide are outside control limits for sample GP47470-D1. RPD acceptable due to low duplicate and sample concentrations.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ

Batch ID: GP47495

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD67523-3DUP, JD67523-3MS were used as the QC samples for the Nitrogen, Nitrate + Nitrite analysis.
- The matrix spike (MS) recovery(s) of Nitrogen, Nitrate + Nitrite are outside control limits. Spike recovery indicates possible matrix interference.
- The duplicate RPD(s) for Nitrogen, Nitrate + Nitrite are outside control limits for sample GP47495-D1. High RPD due to low results.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** R204354

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD67523-3 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R204355

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD67523-1 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R204356

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD67523-2 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R204357

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD67523-4 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ **Batch ID:** R204358

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD67523-5 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM2320 B-11

Matrix: AQ **Batch ID:** GN42641

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD67463-2DUP were used as the QC samples for the Alkalinity, Total as CaCO₃ analysis.
- JD67523-1 for Alkalinity, Total as CaCO₃: Sample was titrated to a final pH of 4.5. Sample received with head space.
- JD67523-2 for Alkalinity, Total as CaCO₃: Sample was titrated to a final pH of 4.5. Sample received with head space.

Matrix: AQ **Batch ID:** GN42671

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD67523-3DUP were used as the QC samples for the Alkalinity, Total as CaCO₃ analysis.
- JD67523-5 for Alkalinity, Total as CaCO₃: Sample was titrated to a final pH of 4.2. Sample received with head space.
- JD67523-3 for Alkalinity, Total as CaCO₃: Sample was titrated to a final pH of 4.5. Sample received with head space.
- JD67523-4 for Alkalinity, Total as CaCO₃: Sample was titrated to a final pH of 4.5. Sample received with head space.

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** GN42599

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD67523-3MS, JD67523-3MSD were used as the QC samples for the Nitrogen, Nitrite analysis.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

Summary of Hits

Page 1 of 1

Job Number: JD67523
Account: Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO
Collected: 06/13/23

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JD67523-1 HWY-SW-06

Alkalinity, Total as CaCO ₃ ^a	59.6	5.0	3.6	mg/l	SM2320 B-11
Chloride	26.4	2.0	0.83	mg/l	EPA 300/SW846 9056A
Fluoride	2.5	0.20	0.055	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate ^b	0.52	0.11	0.093	mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.52	0.10	0.090	mg/l	EPA 353.2/LACHAT
Nitrogen, Nitrite	0.0030 B	0.010	0.0030	mg/l	SM4500NO2 B-11
Sulfate	17.1	2.0	0.89	mg/l	EPA 300/SW846 9056A

JD67523-2 HWY-SW-08

Alkalinity, Total as CaCO ₃ ^a	66.9	5.0	3.6	mg/l	SM2320 B-11
Chloride	23.4	2.0	0.83	mg/l	EPA 300/SW846 9056A
Fluoride	2.7	0.20	0.055	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate ^b	0.54	0.11	0.093	mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.54	0.10	0.090	mg/l	EPA 353.2/LACHAT
Sulfate	40.9	2.0	0.89	mg/l	EPA 300/SW846 9056A

JD67523-3 HWY-SW-08-DUP

Alkalinity, Total as CaCO ₃ ^a	67.2	5.0	3.6	mg/l	SM2320 B-11
Chloride	23.1	2.0	0.83	mg/l	EPA 300/SW846 9056A
Fluoride	2.7	0.20	0.055	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate ^b	0.59	0.11	0.093	mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.59	0.10	0.090	mg/l	EPA 353.2/LACHAT
Nitrogen, Nitrite	0.0042 B	0.010	0.0030	mg/l	SM4500NO2 B-11
Sulfate	40.1	2.0	0.89	mg/l	EPA 300/SW846 9056A

JD67523-4 HWY-SW-09

Alkalinity, Total as CaCO ₃ ^a	68.6	5.0	3.6	mg/l	SM2320 B-11
Bromide	0.11 B	0.50	0.11	mg/l	EPA 300/SW846 9056A
Chloride	23.5	2.0	0.83	mg/l	EPA 300/SW846 9056A
Fluoride	2.7	0.20	0.055	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate ^b	0.55	0.11	0.093	mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.55	0.10	0.090	mg/l	EPA 353.2/LACHAT
Sulfate	50.6	2.0	0.89	mg/l	EPA 300/SW846 9056A

JD67523-5 HWY-SW-06-FB-1

No hits reported in this sample.

(a) Sample was titrated to a final pH of 4.5. Sample received with head space.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	HWY-SW-06	Date Sampled:	06/13/23
Lab Sample ID:	JD67523-1	Date Received:	06/14/23
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Project:	R8 START: Highway 24 Mill Site, Colorado Springs, CO		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3 ^a	59.6	5.0	3.6	mg/l	1	06/16/23 13:07 JOO	SM2320	B-11
Bromide	0.11 U	0.50	0.11	mg/l	1	06/16/23 00:11 JD	EPA 300/SW846	9056A
Chloride	26.4	2.0	0.83	mg/l	1	06/16/23 00:11 JD	EPA 300/SW846	9056A
Fluoride	2.5	0.20	0.055	mg/l	1	06/16/23 00:11 JD	EPA 300/SW846	9056A
Nitrogen, Nitrate ^b	0.52	0.11	0.093	mg/l	1	06/16/23 16:09 MM	EPA353.2/SM4500NO2B	
Nitrogen, Nitrate + Nitrite	0.52	0.10	0.090	mg/l	1	06/16/23 16:09 MM	EPA 353.2/LACHAT	
Nitrogen, Nitrite	0.0030 B	0.010	0.0030	mg/l	1	06/15/23 12:20 MP	SM4500NO2	B-11
Sulfate	17.1	2.0	0.89	mg/l	1	06/16/23 00:11 JD	EPA 300/SW846	9056A

(a) Sample was titrated to a final pH of 4.5. Sample received with head space.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	HWY-SW-08	Date Sampled:	06/13/23
Lab Sample ID:	JD67523-2	Date Received:	06/14/23
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Project:	R8 START: Highway 24 Mill Site, Colorado Springs, CO		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3 ^a	66.9	5.0	3.6	mg/l	1	06/16/23 13:07 JOO	SM2320	B-11
Bromide	0.11 U	0.50	0.11	mg/l	1	06/16/23 00:24 JD	EPA 300/SW846	9056A
Chloride	23.4	2.0	0.83	mg/l	1	06/16/23 00:24 JD	EPA 300/SW846	9056A
Fluoride	2.7	0.20	0.055	mg/l	1	06/16/23 00:24 JD	EPA 300/SW846	9056A
Nitrogen, Nitrate ^b	0.54	0.11	0.093	mg/l	1	06/16/23 16:10 MM	EPA353.2/SM4500NO2B	
Nitrogen, Nitrate + Nitrite	0.54	0.10	0.090	mg/l	1	06/16/23 16:10 MM	EPA 353.2/LACHAT	
Nitrogen, Nitrite	0.0030 U	0.010	0.0030	mg/l	1	06/15/23 12:20 MP	SM4500NO2	B-11
Sulfate	40.9	2.0	0.89	mg/l	1	06/16/23 00:24 JD	EPA 300/SW846	9056A

(a) Sample was titrated to a final pH of 4.5. Sample received with head space.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

4.2
4

Report of Analysis

Client Sample ID:	HWY-SW-08-DUP	Date Sampled:	06/13/23
Lab Sample ID:	JD67523-3	Date Received:	06/14/23
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Project:	R8 START: Highway 24 Mill Site, Colorado Springs, CO		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3 ^a	67.2	5.0	3.6	mg/l	1	06/16/23 19:25 MK	SM2320	B-11
Bromide	0.11 U	0.50	0.11	mg/l	1	06/15/23 21:48 JD	EPA 300/SW846	9056A
Chloride	23.1	2.0	0.83	mg/l	1	06/15/23 21:48 JD	EPA 300/SW846	9056A
Fluoride	2.7	0.20	0.055	mg/l	1	06/15/23 21:48 JD	EPA 300/SW846	9056A
Nitrogen, Nitrate ^b	0.59	0.11	0.093	mg/l	1	06/16/23 16:06 MM	EPA353.2/SM4500NO2B	
Nitrogen, Nitrate + Nitrite	0.59	0.10	0.090	mg/l	1	06/16/23 16:06 MM	EPA 353.2/LACHAT	
Nitrogen, Nitrite	0.0042 B	0.010	0.0030	mg/l	1	06/15/23 12:20 MP	SM4500NO2	B-11
Sulfate	40.1	2.0	0.89	mg/l	1	06/15/23 21:48 JD	EPA 300/SW846	9056A

(a) Sample was titrated to a final pH of 4.5. Sample received with head space.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

4.3
4

Report of Analysis

Client Sample ID:	HWY-SW-09	Date Sampled:	06/13/23
Lab Sample ID:	JD67523-4	Date Received:	06/14/23
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Project:	R8 START: Highway 24 Mill Site, Colorado Springs, CO		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3 ^a	68.6	5.0	3.6	mg/l	1	06/16/23 19:25 MK	SM2320	B-11
Bromide	0.11 B	0.50	0.11	mg/l	1	06/16/23 00:37 JD	EPA 300/SW846	9056A
Chloride	23.5	2.0	0.83	mg/l	1	06/16/23 00:37 JD	EPA 300/SW846	9056A
Fluoride	2.7	0.20	0.055	mg/l	1	06/16/23 00:37 JD	EPA 300/SW846	9056A
Nitrogen, Nitrate ^b	0.55	0.11	0.093	mg/l	1	06/16/23 16:11 MM	EPA353.2/SM4500NO2B	
Nitrogen, Nitrate + Nitrite	0.55	0.10	0.090	mg/l	1	06/16/23 16:11 MM	EPA 353.2/LACHAT	
Nitrogen, Nitrite	0.0030 U	0.010	0.0030	mg/l	1	06/15/23 12:20 MP	SM4500NO2	B-11
Sulfate	50.6	2.0	0.89	mg/l	1	06/16/23 00:37 JD	EPA 300/SW846	9056A

(a) Sample was titrated to a final pH of 4.5. Sample received with head space.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

4.4
4

Report of Analysis

Client Sample ID:	HWY-SW-06-FB-1	Date Sampled:	06/13/23
Lab Sample ID:	JD67523-5	Date Received:	06/14/23
Matrix:	AQ - Field Blank Soil	Percent Solids:	n/a
Project:	R8 START: Highway 24 Mill Site, Colorado Springs, CO		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3 ^a	3.6 U	5.0	3.6	mg/l	1	06/16/23 19:25 MK	SM2320	B-11
Bromide	0.11 U	0.50	0.11	mg/l	1	06/16/23 01:16 JD	EPA 300/SW846	9056A
Chloride	0.83 U	2.0	0.83	mg/l	1	06/16/23 01:16 JD	EPA 300/SW846	9056A
Fluoride	0.055 U	0.20	0.055	mg/l	1	06/16/23 01:16 JD	EPA 300/SW846	9056A
Nitrogen, Nitrate ^b	0.093 U	0.11	0.093	mg/l	1	06/16/23 16:12 MM	EPA353.2/SM4500NO2B	
Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090	mg/l	1	06/16/23 16:12 MM	EPA 353.2/LACHAT	
Nitrogen, Nitrite	0.0030 U	0.010	0.0030	mg/l	1	06/15/23 12:20 MP	SM4500NO2	B-11
Sulfate	0.89 U	2.0	0.89	mg/l	1	06/16/23 01:16 JD	EPA 300/SW846	9056A

(a) Sample was titrated to a final pH of 4.2. Sample received with head space.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

5

Custody Documents and Other Forms


Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL 732-329-0200
www.sgs.com/shuwan

Page 1 of 1



SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL 732-299-0200
www.sgs.com/usausa

Client / Reporting Information

Company Name: **Terra Tech**

Street Address: **1560 Broadway, Suite 1400**

City: **Denver** State: **CO** Zip: **80205**

Project Name: **Highway 24 Mill SI**

Project Address: **1560 Broadway, Suite 1400**

City: **Denver** State: **CO** Zip: **80205**

Project Contact: **Math LaFemina** Email: **math.lafemina@terra-tech.com**

Phone #: **845-235-1844**

Samples / Names: **Math LaFemina 845-235-1844**

Project Information

Project Name: **Highway 24 Mill SI**

Street Address: **1560 Broadway, Suite 1400**

City: **Denver** State: **CO** Zip: **80205**

Project Contact: **Math LaFemina** Email: **math.lafemina@terra-tech.com**

Phone #: **845-235-1844**

Samples / Names: **Math LaFemina 845-235-1844**

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Wastewater
SW - Surface Water
SO - Soil
SL - Sediment
SOL - Other Solid
WP - Wipe
FB - Field Blank
BB - Background Blank
RB - River Blank
TB - Trip Blank

FED-EX Tracking #

SGS Quote #

Bottle Order Control #

JD 67523

SGS Bottle #	Field ID / Port of Collection	VECHOT/Vol	Date	Time	Sampled by	Lab. (Owner)	Matrix	# of bottles	SW	GW	WW	SO	SL	SOL	WP	FB	BB	RB	TB
1	HWY - SW - 06		6/13/23	1515	ML	G	N	SW	5										
2	HWY - SW - 08		6/13/23	1514	ML	G	N	SW	5										
3	HWY - SW - 08 - DUP		6/13/23	1514	ML	G	N	SW	5										
4	HWY - SW - 09		6/13/23	1414	ML	G	N	SW	5										
5	HWY - SW - FB - 1		6/13/23	1635	ML	G	N	SW	5										

Turn Around Time (Business Days)

Approved By (SGS PM) / Date:

☒ 10 Business Days

☐ 5 Business Days

☐ 3 Business Days

☐ 2 Business Days

☐ 1 Business Day

☐ Other

Deliverable

☐ Commercial "A" (Level 1)

☐ Commercial "B" (Level 2)

☐ Not Reduced (Level 3)

☒ Full Tier 1 (Level 4)

☐ Commercial "C"

☐ NJ DEP

☐ MYASP Category A

☐ MYASP Category B

☐ MA MCP Criteria

☐ CT RCP Criteria

☐ State Forms

☒ EOD Format

Comments / Special Instructions

USE EXTRA VOLUME FROM SW-08/DUP FOR MS/MSD, please

Initial Assessment 1B

Global Verification

SGS Terms and Conditions

http://www.sgs.com/en/terms-and-conditions

Retrieved By	Date / Time	Received By	Date / Time	Retrieved By	Date / Time	Received By	Date / Time
1	6/13/23 1800	2	6/14/23 1050	3	6/14/23 1050	4	6/14/23 1050
5	6/14/23 1050	6	6/14/23 1050	7	6/14/23 1050	8	6/14/23 1050

EHS-QAC-0023-05 Rev. Date 8/5/22

JD67523: Chain of Custody

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JD67523

SGS Sample Receipt Summary

Job Number: JD67523

Client: TETRA TECH

Project: R8 START: HIGHWAY 24 MILL SITE, COL

Date / Time Received: 6/14/2023 10:50:00 AM

Delivery Method: FEDEX

Airbill #s:
Cooler Temps (Raw Measured) °C: Cooler 1: (2.1);

Cooler Temps (Corrected) °C: Cooler 1: (1.9);

Cooler Security
Y or N
Y or N

- | | |
|--|--|
| 1. Custody Seals Present: <input checked="" type="checkbox"/> <input type="checkbox"/> | 3. COC Present: <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 2. Custody Seals Intact: <input checked="" type="checkbox"/> <input type="checkbox"/> | 4. Smpl Dates/Time OK <input checked="" type="checkbox"/> <input type="checkbox"/> |

Cooler Temperature
Y or N

- | | |
|---|--|
| 1. Temp criteria achieved: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Cooler temp verification: IR Gun 40 | |
| 3. Cooler media: Ice (Bag) | |
| 4. No. Coolers: 1 | |

Quality Control Preservation
Y or N
N/A

- | | |
|---|--|
| 1. Trip Blank present / cooler: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 2. Trip Blank listed on COC: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 3. Samples preserved properly: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 4. VOCs headspace free: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |

Sample Integrity - Documentation
Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Container labeling complete: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Sample container label / COC agree: <input checked="" type="checkbox"/> <input type="checkbox"/> | |

Sample Integrity - Condition
Y or N

- | | |
|---|--|
| 1. Sample recvd within HT: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. All containers accounted for: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Condition of sample: Intact | |

Sample Integrity - Instructions
Y or N
N/A

- | | |
|--|--|
| 1. Analysis requested is clear: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests: <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 4. Compositing instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 5. Filtering instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |

Test Strip Lot #s:	pH 1-12: 231619	pH 12+: 203117A	Other: (Specify)
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Comments

 SM089-03
Rev. Date 12/7/17

JD67523: Chain of Custody

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Internal Sample Tracking Chronicle

Tetra Tech

Job No: JD67523

R8 START: Highway 24 Mill Site, Colorado Springs, CO
 Project No: 103X903520F0083230108

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD67523-1 Collected: 13-JUN-23 16:15 By: ML Received: 14-JUN-23 By: JP HWY-SW-06						
JD67523-1	SM4500NO2 B-11	15-JUN-23 12:20	MP			NO2
JD67523-1	EPA 300/SW846 9056A16	JUN-23 00:11	JD	15-JUN-23	JD	BRO,CHL,F,SO4
JD67523-1	SM2320 B-11	16-JUN-23 13:07	JOO			ALK
JD67523-1	EPA353.2/SM4500NO2B6	JUN-23 16:09	MM			NO3O
JD67523-1	EPA 353.2/LACHAT	16-JUN-23 16:09	MM	16-JUN-23	MM	NO32
JD67523-2 Collected: 13-JUN-23 15:14 By: ML Received: 14-JUN-23 By: JP HWY-SW-08						
JD67523-2	SM4500NO2 B-11	15-JUN-23 12:20	MP			NO2
JD67523-2	EPA 300/SW846 9056A16	JUN-23 00:24	JD	15-JUN-23	JD	BRO,CHL,F,SO4
JD67523-2	SM2320 B-11	16-JUN-23 13:07	JOO			ALK
JD67523-2	EPA353.2/SM4500NO2B6	JUN-23 16:10	MM			NO3O
JD67523-2	EPA 353.2/LACHAT	16-JUN-23 16:10	MM	16-JUN-23	MM	NO32
JD67523-3 Collected: 13-JUN-23 15:14 By: ML Received: 14-JUN-23 By: JP HWY-SW-08-DUP						
JD67523-3	SM4500NO2 B-11	15-JUN-23 12:20	MP			NO2
JD67523-3	EPA 300/SW846 9056A15	JUN-23 21:48	JD	15-JUN-23	JD	BRO,CHL,F,SO4
JD67523-3	EPA353.2/SM4500NO2B6	JUN-23 16:06	MM			NO3O
JD67523-3	EPA 353.2/LACHAT	16-JUN-23 16:06	MM	16-JUN-23	MM	NO32
JD67523-3	SM2320 B-11	16-JUN-23 19:25	MK			ALK
JD67523-4 Collected: 13-JUN-23 14:14 By: ML Received: 14-JUN-23 By: JP HWY-SW-09						
JD67523-4	SM4500NO2 B-11	15-JUN-23 12:20	MP			NO2
JD67523-4	EPA 300/SW846 9056A16	JUN-23 00:37	JD	15-JUN-23	JD	BRO,CHL,F,SO4
JD67523-4	EPA353.2/SM4500NO2B6	JUN-23 16:11	MM			NO3O
JD67523-4	EPA 353.2/LACHAT	16-JUN-23 16:11	MM	16-JUN-23	MM	NO32
JD67523-4	SM2320 B-11	16-JUN-23 19:25	MK			ALK
JD67523-5 Collected: 13-JUN-23 16:35 By: ML Received: 14-JUN-23 By: JP HWY-SW-06-FB-1						
JD67523-5	SM4500NO2 B-11	15-JUN-23 12:20	MP			NO2

Internal Sample Tracking Chronicle

Tetra Tech

Job No: JD67523

R8 START: Highway 24 Mill Site, Colorado Springs, CO
Project No: 103X903520F0083230108

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD67523-5	EPA 300/SW846 9056A16	JUN-23 01:16	JD	15-JUN-23	JD	BRO,CHL,F,SO4
JD67523-5	EPA353.2/SM4500NO2B	JUN-23 16:12	MM			NO3O
JD67523-5	EPA 353.2/LACHAT	16-JUN-23 16:12	MM	16-JUN-23	MM	NO32
JD67523-5	SM2320 B-11	16-JUN-23 19:25	MK			ALK

SGS Internal Chain of Custody

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Job Number: JD67523
Account: TTCOD Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO
Received: 06/14/23

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD67523-1.1	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-1.1	Secured Storage	Dave Hunkele	06/15/23 12:49	Retrieve from Storage
JD67523-1.1	Dave Hunkele	Secured Staging Area	06/15/23 12:50	Return to Storage
JD67523-1.1	Secured Staging Area	Joseph Dye	06/15/23 20:13	Retrieve from Storage
JD67523-1.1	Joseph Dye	Secured Storage	06/16/23 16:02	Return to Storage
JD67523-1.2	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-1.2	Secured Storage	Dave Hunkele	06/16/23 08:13	Retrieve from Storage
JD67523-1.2	Dave Hunkele	Secured Staging Area	06/16/23 08:13	Return to Storage
JD67523-1.2	Secured Staging Area	Mira Michael	06/16/23 08:22	Retrieve from Storage
JD67523-1.2	Mira Michael	Secured Storage	06/16/23 16:27	Return to Storage
JD67523-1.3	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-1.4	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-1.4	Secured Storage	Dave Hunkele	06/15/23 13:13	Retrieve from Storage
JD67523-1.4	Dave Hunkele	Secured Staging Area	06/15/23 13:13	Return to Storage
JD67523-1.4	Secured Staging Area	Marcin Kotowski	06/15/23 13:24	Retrieve from Storage
JD67523-1.4	Marcin Kotowski	Secured Storage	06/17/23 16:17	Return to Storage
JD67523-1.5	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-1.5	Secured Storage	Dave Hunkele	06/15/23 06:59	Retrieve from Storage
JD67523-1.5	Dave Hunkele	Secured Staging Area	06/15/23 06:59	Return to Storage
JD67523-1.5	Secured Staging Area	Mahendra Patel	06/15/23 12:17	Retrieve from Storage
JD67523-1.5	Mahendra Patel	Secured Storage	06/15/23 17:16	Return to Storage
JD67523-2.1	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-2.1	Secured Storage	Dave Hunkele	06/15/23 12:49	Retrieve from Storage
JD67523-2.1	Dave Hunkele	Secured Staging Area	06/15/23 12:50	Return to Storage
JD67523-2.1	Secured Staging Area	Joseph Dye	06/15/23 20:13	Retrieve from Storage
JD67523-2.1	Joseph Dye	Secured Storage	06/16/23 16:02	Return to Storage
JD67523-2.2	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-2.2	Secured Storage	Dave Hunkele	06/16/23 08:13	Retrieve from Storage
JD67523-2.2	Dave Hunkele	Secured Staging Area	06/16/23 08:13	Return to Storage
JD67523-2.2	Secured Staging Area	Mira Michael	06/16/23 08:22	Retrieve from Storage
JD67523-2.2	Mira Michael	Secured Storage	06/16/23 16:27	Return to Storage
JD67523-2.3	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-2.4	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-2.4	Secured Storage	Dave Hunkele	06/15/23 13:13	Retrieve from Storage
JD67523-2.4	Dave Hunkele	Secured Staging Area	06/15/23 13:13	Return to Storage
JD67523-2.4	Secured Staging Area	Marcin Kotowski	06/15/23 13:24	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JD67523
Account: TTCOD Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO
Received: 06/14/23

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD67523-2.4	Marcin Kotowski	Secured Storage	06/17/23 16:17	Return to Storage
JD67523-2.5	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-2.5	Secured Storage	Dave Hunkele	06/15/23 06:59	Retrieve from Storage
JD67523-2.5	Dave Hunkele	Secured Staging Area	06/15/23 06:59	Return to Storage
JD67523-2.5	Secured Staging Area	Mahendra Patel	06/15/23 12:17	Retrieve from Storage
JD67523-2.5	Mahendra Patel	Secured Storage	06/15/23 17:16	Return to Storage
JD67523-3.1	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-3.1	Secured Storage	Dave Hunkele	06/15/23 12:49	Retrieve from Storage
JD67523-3.1	Dave Hunkele	Secured Staging Area	06/15/23 12:50	Return to Storage
JD67523-3.1	Secured Staging Area	Joseph Dye	06/15/23 20:13	Retrieve from Storage
JD67523-3.1	Joseph Dye	Secured Storage	06/16/23 16:02	Return to Storage
JD67523-3.2	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-3.2	Secured Storage	Dave Hunkele	06/16/23 08:13	Retrieve from Storage
JD67523-3.2	Dave Hunkele	Secured Staging Area	06/16/23 08:13	Return to Storage
JD67523-3.2	Secured Staging Area	Mira Michael	06/16/23 08:22	Retrieve from Storage
JD67523-3.2	Mira Michael	Secured Storage	06/16/23 16:27	Return to Storage
JD67523-3.3	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-3.3	Secured Storage	Dave Hunkele	06/15/23 13:13	Retrieve from Storage
JD67523-3.3	Dave Hunkele	Secured Staging Area	06/15/23 13:13	Return to Storage
JD67523-3.3	Secured Staging Area	Marcin Kotowski	06/15/23 13:24	Retrieve from Storage
JD67523-3.3	Marcin Kotowski	Secured Storage	06/17/23 16:17	Return to Storage
JD67523-3.4	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-3.5	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-3.5	Secured Storage	Dave Hunkele	06/15/23 06:59	Retrieve from Storage
JD67523-3.5	Dave Hunkele	Secured Staging Area	06/15/23 06:59	Return to Storage
JD67523-3.5	Secured Staging Area	Mahendra Patel	06/15/23 12:17	Retrieve from Storage
JD67523-3.5	Mahendra Patel	Secured Storage	06/15/23 17:16	Return to Storage
JD67523-4.1	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-4.1	Secured Storage	Dave Hunkele	06/15/23 12:49	Retrieve from Storage
JD67523-4.1	Dave Hunkele	Secured Staging Area	06/15/23 12:50	Return to Storage
JD67523-4.1	Secured Staging Area	Joseph Dye	06/15/23 20:13	Retrieve from Storage
JD67523-4.1	Joseph Dye	Secured Storage	06/16/23 16:02	Return to Storage
JD67523-4.2	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-4.2	Secured Storage	Dave Hunkele	06/16/23 08:13	Retrieve from Storage
JD67523-4.2	Dave Hunkele	Secured Staging Area	06/16/23 08:13	Return to Storage
JD67523-4.2	Secured Staging Area	Mira Michael	06/16/23 08:22	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JD67523
Account: TTCOD Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO
Received: 06/14/23

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD67523-4.2	Mira Michael	Secured Storage	06/16/23 16:27	Return to Storage
JD67523-4.3	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-4.4	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-4.4	Secured Storage	Dave Hunkele	06/15/23 13:13	Retrieve from Storage
JD67523-4.4	Dave Hunkele	Secured Staging Area	06/15/23 13:13	Return to Storage
JD67523-4.4	Secured Staging Area	Marcin Kotowski	06/15/23 13:24	Retrieve from Storage
JD67523-4.4	Marcin Kotowski	Secured Storage	06/17/23 16:17	Return to Storage
JD67523-4.5	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-4.5	Secured Storage	Dave Hunkele	06/15/23 06:59	Retrieve from Storage
JD67523-4.5	Dave Hunkele	Secured Staging Area	06/15/23 06:59	Return to Storage
JD67523-4.5	Secured Staging Area	Mahendra Patel	06/15/23 12:17	Retrieve from Storage
JD67523-4.5	Mahendra Patel	Secured Storage	06/15/23 17:16	Return to Storage
JD67523-5.1	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-5.1	Secured Storage	Dave Hunkele	06/15/23 12:49	Retrieve from Storage
JD67523-5.1	Dave Hunkele	Secured Staging Area	06/15/23 12:50	Return to Storage
JD67523-5.1	Secured Staging Area	Joseph Dye	06/15/23 20:13	Retrieve from Storage
JD67523-5.1	Joseph Dye	Secured Storage	06/16/23 16:02	Return to Storage
JD67523-5.2	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-5.3	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-5.3	Secured Storage	Dave Hunkele	06/15/23 06:59	Retrieve from Storage
JD67523-5.3	Dave Hunkele	Secured Staging Area	06/15/23 06:59	Return to Storage
JD67523-5.3	Secured Staging Area	Mahendra Patel	06/15/23 12:17	Retrieve from Storage
JD67523-5.3	Mahendra Patel	Secured Storage	06/15/23 17:16	Return to Storage
JD67523-5.4	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-5.4	Secured Storage	Dave Hunkele	06/15/23 13:13	Retrieve from Storage
JD67523-5.4	Dave Hunkele	Secured Staging Area	06/15/23 13:13	Return to Storage
JD67523-5.4	Secured Staging Area	Marcin Kotowski	06/15/23 13:24	Retrieve from Storage
JD67523-5.4	Marcin Kotowski	Secured Storage	06/17/23 16:17	Return to Storage
JD67523-5.5	Joe Waddington	Secured Storage	06/14/23 20:03	Return to Storage
JD67523-5.5	Secured Storage	Dave Hunkele	06/16/23 08:13	Retrieve from Storage
JD67523-5.5	Dave Hunkele	Secured Staging Area	06/16/23 08:13	Return to Storage
JD67523-5.5	Secured Staging Area	Mira Michael	06/16/23 08:22	Retrieve from Storage
JD67523-5.5	Mira Michael	Secured Storage	06/16/23 16:27	Return to Storage

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN42641			mg/l	50	50.8	101.6	90-110%
Alkalinity, Total as CaCO3	GN42641	5.0	0.0	mg/l	250	246	98.4	90-110%
Alkalinity, Total as CaCO3	GN42671	5.0	0.0	mg/l	250	237	94.6	90-110%
Alkalinity, Total as CaCO3	GN42671			mg/l	50	48.4	96.8	90-110%
Bromide	GP47470/GN42579	0.50	0.0	mg/l	2	1.82	91.0	90-110%
Chloride	GP47470/GN42579	2.0	0.0	mg/l	80	81.7	102.1	90-110%
Fluoride	GP47470/GN42579	0.20	0.0	mg/l	2	2.02	101.0	90-110%
Nitrogen, Nitrate + Nitrite	GP47495/GN42674	0.10	0.0	mg/l	2	2.00	100.0	90-110%
Nitrogen, Nitrite	GN42599	0.010	0.0	mg/l	0.04	0.039	97.5	90-110%
Sulfate	GP47470/GN42579	2.0	0.0	mg/l	80	84.0	105.0	90-110%

Associated Samples:
Batch GN42599: JD67523-1, JD67523-2, JD67523-3, JD67523-4, JD67523-5
Batch GN42641: JD67523-1, JD67523-2
Batch GN42671: JD67523-3, JD67523-4, JD67523-5
Batch GP47470: JD67523-1, JD67523-2, JD67523-3, JD67523-4, JD67523-5
Batch GP47495: JD67523-1, JD67523-2, JD67523-3, JD67523-4, JD67523-5
(*) Outside of QC limits

6.1
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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO ₃	GN42641	JD67463-2	mg/l	58.9	58.9	0.0	0-10%
Alkalinity, Total as CaCO ₃	GN42671	JD67523-3	mg/l	67.2	66.8	0.6	0-10%
Bromide	GP47470/GN42579	JD67523-3	mg/l	0.11 U	0.39	200.0 (a)	0-20%
Chloride	GP47470/GN42579	JD67523-3	mg/l	23.1	22.9	0.9	0-20%
Fluoride	GP47470/GN42579	JD67523-3	mg/l	2.7	2.7	0.0	0-20%
Nitrogen, Nitrate + Nitrite	GP47495/GN42674	JD67523-3	mg/l	0.59	0.47	22.6 (b)	0-20%
Sulfate	GP47470/GN42579	JD67523-3	mg/l	40.1	40.1	0.0	0-20%

Associated Samples:

Batch GN42641: JD67523-1, JD67523-2

Batch GN42671: JD67523-3, JD67523-4, JD67523-5

Batch GP47470: JD67523-1, JD67523-2, JD67523-3, JD67523-4, JD67523-5

Batch GP47495: JD67523-1, JD67523-2, JD67523-3, JD67523-4, JD67523-5

(*) Outside of QC limits

(a) RPD acceptable due to low duplicate and sample concentrations.

(b) High RPD due to low results.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP47470/GN42579	JD67523-3	mg/l	0.11 U	2	1.9	95.0	80-120%
Chloride	GP47470/GN42579	JD67523-3	mg/l	23.1	80	103	99.9	80-120%
Fluoride	GP47470/GN42579	JD67523-3	mg/l	2.7	2	4.6	95.0	80-120%
Nitrogen, Nitrate + Nitrite	GP47495/GN42674	JD67523-3	mg/l	0.59	1	0.84	25.0N(a)	90-110%
Nitrogen, Nitrite	GN42599	JD67523-3	mg/l	0.0042 B	0.04	0.037	82.0	22-140%
Sulfate	GP47470/GN42579	JD67523-3	mg/l	40.1	80	122	102.4	80-120%

Associated Samples:

Batch GN42599: JD67523-1, JD67523-2, JD67523-3, JD67523-4, JD67523-5

Batch GP47470: JD67523-1, JD67523-2, JD67523-3, JD67523-4, JD67523-5

Batch GP47495: JD67523-1, JD67523-2, JD67523-3, JD67523-4, JD67523-5

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Nitrite	GN42599	JD67523-3	mg/l	0.0042 B	0.04	0.037	0.0	20%

Associated Samples:
Batch GN42599: JD67523-1, JD67523-2, JD67523-3, JD67523-4, JD67523-5
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

File ID: D23061501.TXT Date Analyzed: 06/09/23 Methods: EPA 300/SW846 9056A
Analyst: JD Run ID: GN42579
Parameters: Bromide,Chloride,Fluoride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:45	GN42579-STD1	1		STDA
14:58	GN42579-STD2	1		STDC
15:11	GN42579-STD3	1		STDD
15:24	GN42579-STD4	1		STDE
16:18	GN42579-STD5	1		STDF
16:31	GN42579-STD6	1		STDG
16:44	GN42579-ICV1	1		
13:26	ZZZZZZ	1		
13:39	ZZZZZZ	1		
13:52	ZZZZZZ	1		
14:05	GN42579-CCV1	1		
14:18	GN42579-CCB1	1		
14:31	GP47445-MB1	1		
14:44	GP47445-B1	1		
14:57	GP47445-S1	1		
15:10	GP47445-D1	1		
15:23	JD67424-1	1		(sample used for QC only; not part of login JD67523)
15:36	ZZZZZZ	1		
15:49	ZZZZZZ	1		
16:02	ZZZZZZ	1		
16:15	ZZZZZZ	1		
16:28	ZZZZZZ	1		
16:45	GN42579-CCV2	1		
16:58	GN42579-CCB2	1		
17:11	ZZZZZZ	1		
17:24	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:50	ZZZZZZ	1		
18:03	ZZZZZZ	1		
18:16	ZZZZZZ	1		
18:29	ZZZZZZ	1		
18:42	ZZZZZZ	1		
18:55	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

File ID: D23061501.TXT Date Analyzed: 06/09/23 Methods: EPA 300/SW846 9056A
Analyst: JD Run ID: GN42579
Parameters: Bromide,Chloride,Fluoride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:08	ZZZZZZ	1		
19:21	GN42579-CCV3	1		
19:34	GN42579-CCB3	1		
19:47	ZZZZZZ	1		
20:00	ZZZZZZ	1		
20:30	ZZZZZZ	1		
20:43	ZZZZZZ	1		
20:56	GP47470-MB1	1		
21:09	GP47470-B1	1		
21:22	GP47470-S1	1		
21:35	GP47470-D1	1		
21:48	JD67523-3	1		
22:01	ZZZZZZ	1		
22:14	GN42579-CCV4	1		
22:27	GN42579-CCB4	1		
22:40	ZZZZZZ	1		
22:53	ZZZZZZ	1		
23:06	ZZZZZZ	1		
23:19	ZZZZZZ	1		
23:32	ZZZZZZ	1		
23:45	ZZZZZZ	1		
23:58	ZZZZZZ	1		
00:11	JD67523-1	1		
00:24	JD67523-2	1		
00:37	JD67523-4	1		
00:50	GN42579-CCV5	1		
01:03	GN42579-CCB5	1		
01:16	JD67523-5	1		
01:29	ZZZZZZ	1		
01:42	ZZZZZZ	1		
01:55	ZZZZZZ	1		
02:08	ZZZZZZ	1		
02:21	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

File ID: D23061501.TXT Date Analyzed: 06/09/23 Methods: EPA 300/SW846 9056A
Analyst: JD Run ID: GN42579
Parameters: Bromide,Chloride,Fluoride,Sulfate

Time	Sample Description	Dilution PS		Comments
		Factor	Recov	

02:34 ZZZZZZ 1

02:47 GN42579-CCV6 1

03:00 GN42579-CCB6 1

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

File ID: D23061501.TXT

Date Analyzed: 06/09/23
Run ID: GN42579

Methods: EPA 300/SW846 9056A
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN42579-ICV1	Fluoride	3.14	0.20	0.055	3	104.7	90-110
GN42579-ICV1	Chloride	101	2.0	0.83	100	101.0	90-110
GN42579-ICV1	Bromide	3.00	0.50	0.11	3	100.0	90-110
GN42579-ICV1	Sulfate	102	2.0	0.89	100	102.0	90-110
GN42579-CCV1	Fluoride	2.32	0.20	0.055			
GN42579-CCV1	Chloride	163	2.0	0.83	200	81.5(a)	90-110
GN42579-CCV1	Bromide	2.80	0.50	0.11	3	93.3	90-110
GN42579-CCV1	Sulfate	165	2.0	0.89	200	82.5(a)	90-110
GN42579-CCB1	Fluoride	0.055 U	0.20	0.055			
GN42579-CCB1	Chloride	0.83 U	2.0	0.83			
GN42579-CCB1	Bromide	0.11 U	0.50	0.11			
GN42579-CCB1	Sulfate	0.89 U	2.0	0.89			
GN42579-CCV2	Fluoride	2.72	0.20	0.055	3	90.7	90-110
GN42579-CCV2	Chloride	200	2.0	0.83	200	100.0	90-110
GN42579-CCV2	Bromide	2.79	0.50	0.11	3	93.0	90-110
GN42579-CCV2	Sulfate	203	2.0	0.89	200	101.5	90-110
GN42579-CCB2	Fluoride	0.055 U	0.20	0.055			
GN42579-CCB2	Chloride	0.83 U	2.0	0.83			
GN42579-CCB2	Bromide	0.113	0.50	0.11			
GN42579-CCB2	Sulfate	0.89 U	2.0	0.89			
GN42579-CCV3	Fluoride	2.95	0.20	0.055	3	98.3	90-110
GN42579-CCV3	Chloride	203	2.0	0.83	200	101.5	90-110
GN42579-CCV3	Bromide	2.76	0.50	0.11	3	92.0	90-110
GN42579-CCV3	Sulfate	206	2.0	0.89	200	103.0	90-110
GN42579-CCB3	Fluoride	0.055 U	0.20	0.055			
GN42579-CCB3	Chloride	0.83 U	2.0	0.83			
GN42579-CCB3	Bromide	0.11 U	0.50	0.11			
GN42579-CCB3	Sulfate	0.89 U	2.0	0.89			
GN42579-CCV4	Fluoride	2.98	0.20	0.055	3	99.3	90-110
GN42579-CCV4	Chloride	204	2.0	0.83	200	102.0	90-110
GN42579-CCV4	Bromide	2.83	0.50	0.11	3	94.3	90-110
GN42579-CCV4	Sulfate	206	2.0	0.89	200	103.0	90-110
GN42579-CCB4	Fluoride	0.055 U	0.20	0.055			
GN42579-CCB4	Chloride	0.83 U	2.0	0.83			
GN42579-CCB4	Bromide	0.11 U	0.50	0.11			
GN42579-CCB4	Sulfate	0.89 U	2.0	0.89			
GN42579-CCV5	Fluoride	3.04	0.20	0.055	3	101.3	90-110
GN42579-CCV5	Chloride	206	2.0	0.83	200	103.0	90-110
GN42579-CCV5	Bromide	2.85	0.50	0.11	3	95.0	90-110
GN42579-CCV5	Sulfate	208	2.0	0.89	200	104.0	90-110
GN42579-CCB5	Fluoride	0.055 U	0.20	0.055			
GN42579-CCB5	Chloride	0.83 U	2.0	0.83			
GN42579-CCB5	Bromide	0.117	0.50	0.11			
GN42579-CCB5	Sulfate	0.89 U	2.0	0.89			
GN42579-CCV6	Fluoride	3.05	0.20	0.055	3	101.7	90-110
GN42579-CCV6	Chloride	211	2.0	0.83	200	105.5	90-110
GN42579-CCV6	Bromide	2.90	0.50	0.11	3	96.7	90-110
GN42579-CCV6	Sulfate	212	2.0	0.89	200	106.0	90-110
GN42579-CCB6	Fluoride	0.055 U	0.20	0.055			
GN42579-CCB6	Chloride	0.83 U	2.0	0.83			
GN42579-CCB6	Bromide	0.11 U	0.50	0.11			
GN42579-CCB6	Sulfate	0.89 U	2.0	0.89			

(!) Outside of QC limits

(a) CCV outside control limit data are qualified and reported.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

File ID: E061623W1.NO32 Date Analyzed: 06/16/23 Methods: EPA 353.2/LACHAT
Analyst: MM Run ID: GN42674
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:37	GN42674-STD1	1		STDA
14:38	GN42674-STD2	1		STDB
14:39	GN42674-STD3	1		STDC
14:40	GN42674-STD4	1		STDD
14:41	GN42674-STD5	1		STDE
14:42	GN42674-STD6	1		STDF
14:44	GN42674-STD7	1		STDG
14:45	GN42674-STD8	1		STDH
14:47	GN42674-ICV1	1		
14:48	GN42674-ICB1	1		
14:49	GN42674-CCV5	1		
14:50	GN42674-CCB5	1		
14:51	GP47494-MB1	1		
14:52	GP47494-B1	1		
14:53	GP47494-S1	1		
14:54	GP47494-S2	1		
14:55	GP47494-D1	1		
14:56	ZZZZZZ	1		
14:57	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:00	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:02	GN42674-CCV6	1		
15:03	GN42674-CCB6	1		
15:04	ZZZZZZ	1		
15:05	ZZZZZZ	1		
15:06	ZZZZZZ	1		
15:07	ZZZZZZ	1		
15:08	JD67492-7	1		(sample used for QC only; not part of login JD67523)
15:09	ZZZZZZ	1		
15:10	JD67492-9	1		(sample used for QC only; not part of login JD67523)
15:11	ZZZZZZ	1		
15:13	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

File ID: E061623W1.NO32 Date Analyzed: 06/16/23 Methods: EPA 353.2/LACHAT
Analyst: MM Run ID: GN42674
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:14	ZZZZZZ	1		
15:15	GN42674-CCV7	1		
15:16	GN42674-CCB7	1		
15:54	GN42674-CCV1	1		
15:55	GN42674-CCB1	1		
15:56	ZZZZZZ	1		
15:57	ZZZZZZ	1		
15:58	ZZZZZZ	1		
15:59	ZZZZZZ	1		
16:01	GP47495-MB1	1		
16:02	GP47495-B1	1		
16:03	GP47495-S1	1		
16:04	GP47495-S2	1		
16:05	GP47495-D1	1		
16:06	JD67523-3	1		
16:07	GN42674-CCV2	1		
16:08	GN42674-CCB2	1		
16:09	JD67523-1	1		
16:10	JD67523-2	1		
16:11	JD67523-4	1		
16:12	JD67523-5	1		
16:13	ZZZZZZ	1		
16:15	JD67497-2	1		(sample used for QC only; not part of login JD67523)
16:16	ZZZZZZ	1		
16:17	ZZZZZZ	1		
16:18	ZZZZZZ	1		
16:19	ZZZZZZ	1		
16:20	GN42674-CCV3	1		
16:21	GN42674-CCB3	1		
16:22	ZZZZZZ	1		
16:23	ZZZZZZ	1		
16:24	ZZZZZZ	1		
16:25	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

File ID: E061623W1.NO32 Date Analyzed: 06/16/23 Methods: EPA 353.2/LACHAT
Analyst: MM Run ID: GN42674
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:26	ZZZZZZ	1		
16:27	ZZZZZZ	1		
16:29	ZZZZZZ	1		
16:30	ZZZZZZ	1		
16:31	ZZZZZZ	4		
16:32	ZZZZZZ	3		
16:33	GN42674-CCV4	1		
16:34	GN42674-CCB4	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JD67523
Account: TTCOD - Tetra Tech
Project: R8 START: Highway 24 Mill Site, Colorado Springs, CO

File ID: E061623W1.NO32

Date Analyzed: 06/16/23
Run ID: GN42674

Methods: EPA 353.2/LACHAT
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN42674-ICV1	Nitrogen, Nitrate + Nitrite	1.99	0.10	0.090	2	99.5	90-110
GN42674-ICB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN42674-CCV5	Nitrogen, Nitrate + Nitrite	2.51	0.10	0.090	2.5	100.4	90-110
GN42674-CCB5	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN42674-CCV6	Nitrogen, Nitrate + Nitrite	2.45	0.10	0.090	2.5	98.0	90-110
GN42674-CCB6	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN42674-CCV7	Nitrogen, Nitrate + Nitrite	2.39	0.10	0.090	2.5	95.6	90-110
GN42674-CCB7	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN42674-CCV1	Nitrogen, Nitrate + Nitrite	2.57	0.10	0.090	2.5	102.8	90-110
GN42674-CCB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN42674-CCV2	Nitrogen, Nitrate + Nitrite	2.48	0.10	0.090	2.5	99.2	90-110
GN42674-CCB2	Nitrogen, Nitrate + Nitrite	0.0987	0.10	0.090			
GN42674-CCV3	Nitrogen, Nitrate + Nitrite	2.41	0.10	0.090	2.5	96.4	90-110
GN42674-CCB3	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN42674-CCV4	Nitrogen, Nitrate + Nitrite	2.54	0.10	0.090	2.5	101.6	90-110
GN42674-CCB4	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			

(!) Outside of QC limits

General Chemistry

Raw Data

7

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)File ID: D23061501.TXT
Analyst: JDDate Analyzed: 06/09/23
Run ID: GN42579

Methods: EPA 300/SW846 9056A

The following analyst(s) have reviewed this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: JD Date 6/16/23

Analyst: _____ Date _____

Analyst: _____ Date _____


Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee):  Date 6/16/23

Sequence: D23061501
Last Update Operator: Chemistry

CD	Name	Type	Position	Dilution	Comment	Level	Volume	Status	Inject Time	Instrument Method
	STDA 3	Calibration Standard	6	1.0000		1	5000	Finished	6/9/2023 2:45:46 PM -04:00	Anions_012919
	STDC	Calibration Standard	7	1.0000		3	5000	Finished	6/9/2023 2:58:47 PM -04:00	Anions_012919
	STDD	Calibration Standard	8	1.0000		4	5000	Finished	6/9/2023 3:11:49 PM -04:00	Anions_012919
	STDE	Calibration Standard	9	1.0000		5	5000	Finished	6/9/2023 3:24:51 PM -04:00	Anions_012919
	STDF	Calibration Standard	10	1.0000		6	5000	Finished	6/9/2023 4:18:27 PM -04:00	Anions_012919
	STDG	Calibration Standard	11	1.0000		7	5000	Finished	6/9/2023 4:31:08 PM -04:00	Anions_012919
	ICV	Unknown	12	1.0000			5000	Finished	6/9/2023 4:44:09 PM -04:00	Anions_012919
	WASHCONF	Unknown	1	1.0000			5000	Finished	6/15/2023 1:26:59 PM -04:00	Anions_012919
	WASHCONF	Unknown	2	1.0000			5000	Finished	6/15/2023 1:39:25 PM -04:00	Anions_012919
	WASHCONF	Unknown	3	1.0000			5000	Finished	6/15/2023 1:52:27 PM -04:00	Anions_012919
	CCV	Unknown	4	1.0000			5000	Finished	6/15/2023 2:05:29 PM -04:00	Anions_012919
	CCB	Unknown	5	1.0000			5000	Finished	6/15/2023 2:18:30 PM -04:00	Anions_012919
	GP47445-MB1	Unknown	6	1.0000			5000	Finished	6/15/2023 2:31:30 PM -04:00	Anions_012919
	GP47445-B1	Unknown	7	1.0000			5000	Finished	6/15/2023 2:44:31 PM -04:00	Anions_012919
	GP47445-S1	Unknown	8	1.0000	JD67424-1		5000	Finished	6/15/2023 2:57:32 PM -04:00	Anions_012919
	GP47445-D1	Unknown	9	1.0000			5000	Finished	6/15/2023 3:10:33 PM -04:00	Anions_012919
	JD67424-1	Unknown	10	1.0000			5000	Finished	6/15/2023 3:23:34 PM -04:00	Anions_012919
	JD67424-2	Unknown	11	1.0000			5000	Finished	6/15/2023 3:36:35 PM -04:00	Anions_012919
	JD67424-3	Unknown	12	1.0000			5000	Finished	6/15/2023 3:49:36 PM -04:00	Anions_012919
	JD67424-4	Unknown	13	1.0000			5000	Finished	6/15/2023 4:02:37 PM -04:00	Anions_012919
	JD67424-5	Unknown	14	1.0000			5000	Finished	6/15/2023 4:15:38 PM -04:00	Anions_012919
	JD67424-6	Unknown	15	1.0000			5000	Finished	6/15/2023 4:28:40 PM -04:00	Anions_012919
	CCV	Unknown	16	1.0000			5000	Finished	6/15/2023 4:45:50 PM -04:00	Anions_012919
	CCB	Unknown	17	1.0000			5000	Finished	6/15/2023 4:58:31 PM -04:00	Anions_012919
	JD67424-11	Unknown	18	1.0000			5000	Finished	6/15/2023 5:11:32 PM -04:00	Anions_012919
	JD67427-1	Unknown	19	1.0000			5000	Finished	6/15/2023 5:24:34 PM -04:00	Anions_012919
	JD67427-2	Unknown	20	1.0000			5000	Finished	6/15/2023 5:37:34 PM -04:00	Anions_012919

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Sequence: D23061501
Last Update Operator: Chemistry

CD	Name	Type	Position	Dilution	Comment	Level	Volume	Status	Inject Time	Instrument Method
	JD67427-3	Unknown	21	1.0000			5000	Finished	6/15/2023 5:50:35 PM -04:00	Anions_012919
	JD67427-4	Unknown	22	1.0000			5000	Finished	6/15/2023 6:03:37 PM -04:00	Anions_012919
	JD67427-5	Unknown	23	1.0000			5000	Finished	6/15/2023 6:16:38 PM -04:00	Anions_012919
	JD67427-6	Unknown	24	1.0000			5000	Finished	6/15/2023 6:29:39 PM -04:00	Anions_012919
	JD67427-7	Unknown	25	1.0000			5000	Finished	6/15/2023 6:42:40 PM -04:00	Anions_012919
	JD67427-8	Unknown	26	1.0000			5000	Finished	6/15/2023 6:55:41 PM -04:00	Anions_012919
	JD67429-1	Unknown	27	1.0000			5000	Finished	6/15/2023 7:08:43 PM -04:00	Anions_012919
	CCV	Unknown	28	1.0000			5000	Finished	6/15/2023 7:21:44 PM -04:00	Anions_012919
	CCB	Unknown	29	1.0000			5000	Finished	6/15/2023 7:34:45 PM -04:00	Anions_012919
	JD67429-2	Unknown	30	1.0000			5000	Finished	6/15/2023 7:47:46 PM -04:00	Anions_012919
	JD67429-4	Unknown	31	1.0000			5000	Finished	6/15/2023 8:00:47 PM -04:00	Anions_012919
	JD67455-4	Unknown	32	1.0000			5000	Finished	6/15/2023 8:30:29 PM -04:00	Anions_012919
	JD67455-5	Unknown	33	1.0000			5000	Finished	6/15/2023 8:43:22 PM -04:00	Anions_012919
	MB1	Unknown	34	1.0000			5000	Finished	6/15/2023 8:56:23 PM -04:00	Anions_012919
	B1	Unknown	35	1.0000			5000	Finished	6/15/2023 9:09:24 PM -04:00	Anions_012919
	S1	Unknown	36	1.0000	JD67523-3		5000	Finished	6/15/2023 9:22:26 PM -04:00	Anions_012919
	D1	Unknown	37	1.0000			5000	Finished	6/15/2023 9:35:27 PM -04:00	Anions_012919
	JD67523-3	Unknown	38	1.0000			5000	Finished	6/15/2023 9:48:29 PM -04:00	Anions_012919
	JD67497-6	Unknown	39	1.0000			5000	Finished	6/15/2023 10:01:30 PM -04:00	Anions_012919
	CCV	Unknown	40	1.0000			5000	Finished	6/15/2023 10:14:31 PM -04:00	Anions_012919
	CCB	Unknown	41	1.0000			5000	Finished	6/15/2023 10:27:32 PM -04:00	Anions_012919
	JD67497-7	Unknown	42	1.0000			5000	Finished	6/15/2023 10:40:33 PM -04:00	Anions_012919
	JD67497-8	Unknown	43	1.0000			5000	Finished	6/15/2023 10:53:34 PM -04:00	Anions_012919
	JD67497-9	Unknown	44	1.0000			5000	Finished	6/15/2023 11:06:35 PM -04:00	Anions_012919
	JD67497-10	Unknown	45	1.0000			5000	Finished	6/15/2023 11:19:37 PM -04:00	Anions_012919
	JD67507-1	Unknown	46	1.0000			5000	Finished	6/15/2023 11:32:37 PM -04:00	Anions_012919
	JD67507-2	Unknown	47	1.0000			5000	Finished	6/15/2023 11:45:39 PM -04:00	Anions_012919
	JD67507-3	Unknown	48	1.0000			5000	Finished	6/15/2023 11:58:41 PM -04:00	Anions_012919

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Printed by Chemistry
16/06/23 10:52

Sequence: D23061501
Last Update Operator: Chemistry

CD	Name	Type	Position	Dilution	Comment	Level	Volume	Status	Inject Time	Instrument Method
	JD67523-1	Unknown	49	1.0000			5000	Finished	6/16/2023 12:11:42 AM -04:00	Anions_012919
	JD67523-2	Unknown	50	1.0000			5000	Finished	6/16/2023 12:24:43 AM -04:00	Anions_012919
	JD67523-4	Unknown	1	1.0000			5000	Finished	6/16/2023 12:37:44 AM -04:00	Anions_012919
	CCV	Unknown	2	1.0000			5000	Finished	6/16/2023 12:50:45 AM -04:00	Anions_012919
	CCB	Unknown	3	1.0000			5000	Finished	6/16/2023 1:03:46 AM -04:00	Anions_012919
	JD67523-5	Unknown	4	1.0000			5000	Finished	6/16/2023 1:16:47 AM -04:00	Anions_012919
	JD67559-5	Unknown	5	1.0000			5000	Finished	6/16/2023 1:29:49 AM -04:00	Anions_012919
	JD67559-6	Unknown	6	1.0000			5000	Finished	6/16/2023 1:42:50 AM -04:00	Anions_012919
	JD67559-7	Unknown	7	1.0000			5000	Finished	6/16/2023 1:55:50 AM -04:00	Anions_012919
	JD67559-10	Unknown	8	1.0000			5000	Finished	6/16/2023 2:08:52 AM -04:00	Anions_012919
	JD67559-11	Unknown	9	1.0000			5000	Finished	6/16/2023 2:21:53 AM -04:00	Anions_012919
	JD67559-12	Unknown	10	1.0000			5000	Finished	6/16/2023 2:34:55 AM -04:00	Anions_012919
	CCV	Unknown	11	1.0000			5000	Finished	6/16/2023 2:47:56 AM -04:00	Anions_012919
	CCB	Unknown	12	1.0000			5000	Finished	6/16/2023 3:00:57 AM -04:00	Anions_012919

Chromeleon 7,
Version 7.2.8.10783, Thermo Fisher Scientific

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Printed by Chemistry
16/06/23 10:52



Reagent Information Log - IONC IC D - Water /Soil

GN Batch ID#: GN42579

Reagent	Reagent # or Man./Lot	Exp. Date
Standard Stocks (for Calibration Curve) (4000 PPM CHL/SO4)	SCP S220726024	9/30/2023
Standard Stocks (for Calibration Curve) (100 PPM BRO)	SCP S220726023	9/30/2023
Standard Stocks (for Calibration Curve) (100 PPM F)	SCP S220726025	9/30/2023
ICV MIX I (200 PPM CHL/SO4)	SCP S220726030	9/30/2023
ICV MIX II (100 PPM F/BRO)	SCP S221213009	12/31/2023
ICV	GNE5-71191-IC	6/16/2023
Eluent	220950717311	9/30/2024
CCV	GNE5-71192-IC	6/16/2023
Spiking Solution	SCP S220726027	9/30/2023
Filter lot numbers	LAB S&S 140320014	NA

Form : GN087A-76
Rev. Date: 4/7/09



Anions Standard Preparation Log

Class A pipet used :
Autopipet used : 59

Date 6/15/23
GN Number GN-42579

Intermediate Standard Description	Stock Standard used for preparation	Stock concentration	Anion	Stock volume or weight used with units	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
GNES-71182-IC	SPEC S220726024	4000ppm	CHL/SO4	2.5 ml	DI	100 mL	100ppm	6/16/2023	SS	5/16/2023
GNES-71183-IC	SPEC S220726025	100ppm	F	20ml	DI	100 mL	20ppm	6/16/2023	SS	5/16/2023
GNES-71185-IC	SPEC S220726023	100ppm	BRO	20ml	DI	100 mL	20ppm	6/16/2023	SS	5/16/2023
ICV	SPEC S220726030	200 ppm	CHL/SO4	50 ml	DI	100 mL	100 ppm	6/16/2023	SS	5/16/2023
GNES-71191-IC	SPEC S221213009	100 ppm	F/BRO	3 ml	DI	100 mL	3 ppm	6/16/2023	SS	5/16/2023
Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Anion	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
STD C	GNES-71182-IC	100ppm	CHL/SO4	2.0ml	DI	100 mL	2ppm	6/16/2023	SS	5/16/2023
GNES-71186-IC	SPEC S220726023	100ppm	BRO	0.5ml	DI	100 mL	0.5ppm	6/16/2023	SS	5/16/2023
	GNES-71183-IC	20ppm	F	1.0ml	DI	100 mL	0.2ppm	6/16/2023	SS	5/16/2023
STD D	GNES-71182-IC	100ppm	CHL/SO4	10ml	DI	100 mL	10ppm	6/16/2023	SS	5/16/2023
GNES-71187-IC	SPEC S220726023	100ppm	BRO	1ml	DI	100 mL	1ppm	6/16/2023	SS	5/16/2023
	GNES-71183-IC	20ppm	F	2ml	DI	100 mL	0.4ppm	6/16/2023	SS	5/16/2023
STD E	GNES-71182-IC	100ppm	CHL/SO4	50ml	DI	100 mL	50ppm	6/16/2023	SS	5/16/2023
GNES-71188-IC	SPEC S220726023	100ppm	BRO	2ml	DI	100 mL	2ppm	6/16/2023	SS	5/16/2023
	GNES-71183-IC	20ppm	F	5ml	DI	100 mL	1ppm	6/16/2023	SS	5/16/2023
STD F	SPEC S220726024	4000ppm	CHL/SO4	10ml	DI	200 mL	200ppm	6/16/2023	SS	5/16/2023
GNES-71189-IC	SPEC S220726023	100ppm	BRO	6ml	DI	200 mL	3ppm	6/16/2023	SS	5/16/2023
	GNES-71183-IC	20ppm	F	30ml	DI	200 mL	3ppm	6/16/2023	SS	5/16/2023
STD G	SPEC S220726024	4000ppm	CHL/SO4	10ml	DI	100 mL	400ppm	6/16/2023	SS	5/16/2023
GNES-71190-IC	SPEC S220726023	100ppm	BRO	5ml	DI	100 mL	5ppm	6/16/2023	SS	5/16/2023
	GNES-71183-IC	20ppm	F	30ml	DI	100 mL	6ppm	6/16/2023	SS	5/16/2023
CCV	SPEC S220726024	4000ppm	CHL/SO4	10ml	DI	200 mL	200ppm	7/13/2023	SS	6/13/2023
GNES-71438-IC	SPEC S220726023	100ppm	BRO	6ml	DI	200 mL	3ppm	7/13/2023	SS	6/13/2023
	SPEC S220726025	100ppm	F	6ml	DI	200 mL	3ppm	7/13/2023	SS	6/13/2023

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate SGS ID number.
NO2/NO3/P4 included in curve but not reported

Form: GN318-01

Rev Date: 6/23/2020



Analyst: SS

Product: ANIONS

Pipette ID: 59

Prep Date: 6/15/23

Balance ID: _____

Batch ID: GN42579

Sample Prep Log

[illegible]

Reviewer: 

Date: 5/6

Form: GN166-04
Revised: 10/27/16

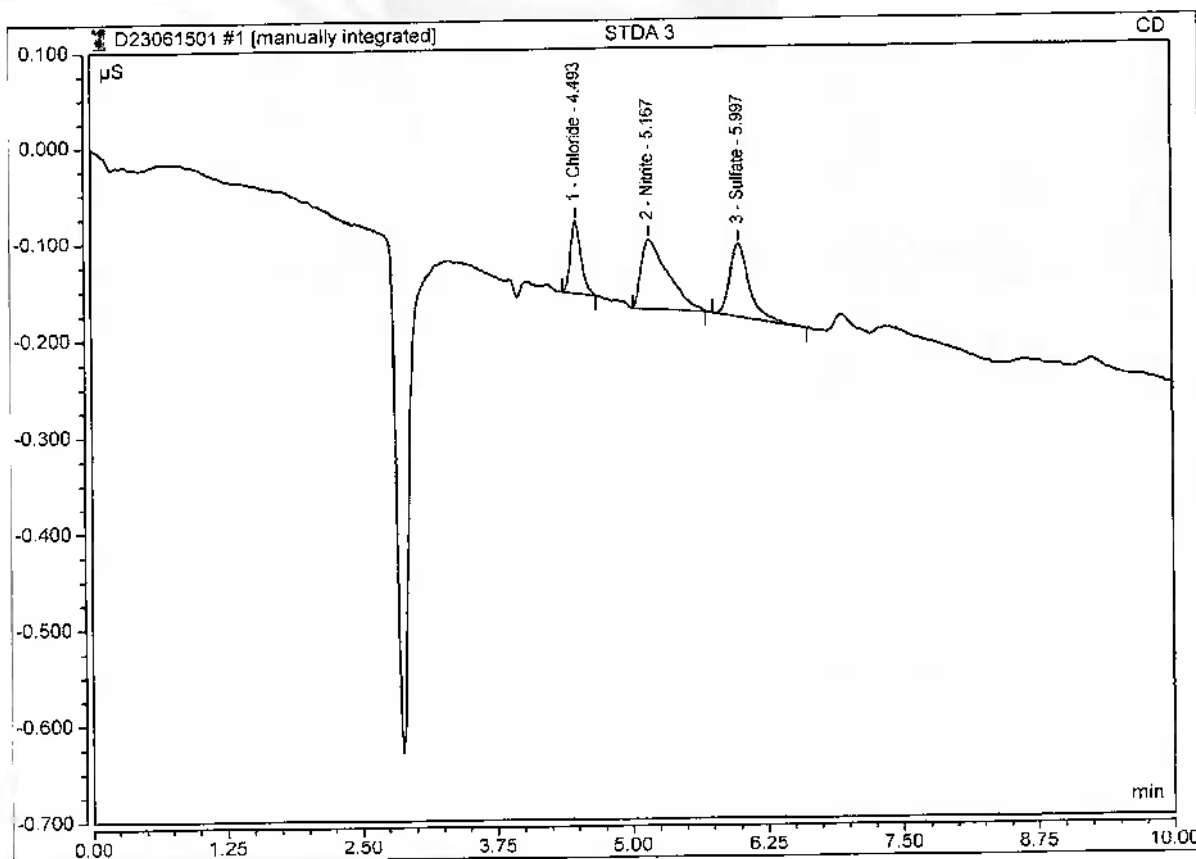
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Instrument: Integrion_1
Sequence: D23061501

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6/16/2023 11:12 AM

Peak Integration Report

Sample Name:	STDA 3	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	09-Jun-2023 / 14:45	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.49	Chloride	BMB	0.009	0.075	0.1566
2	5.17	Nitrite	BMB	0.021	0.072	0.0968
3	6.00	Sulfate	BMB*	0.016	0.076	0.1251
TOTAL:				0.04	0.22	0.38



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

Logged on User: Chemistry
Instrument: Integration_1
Sequence: D23061501

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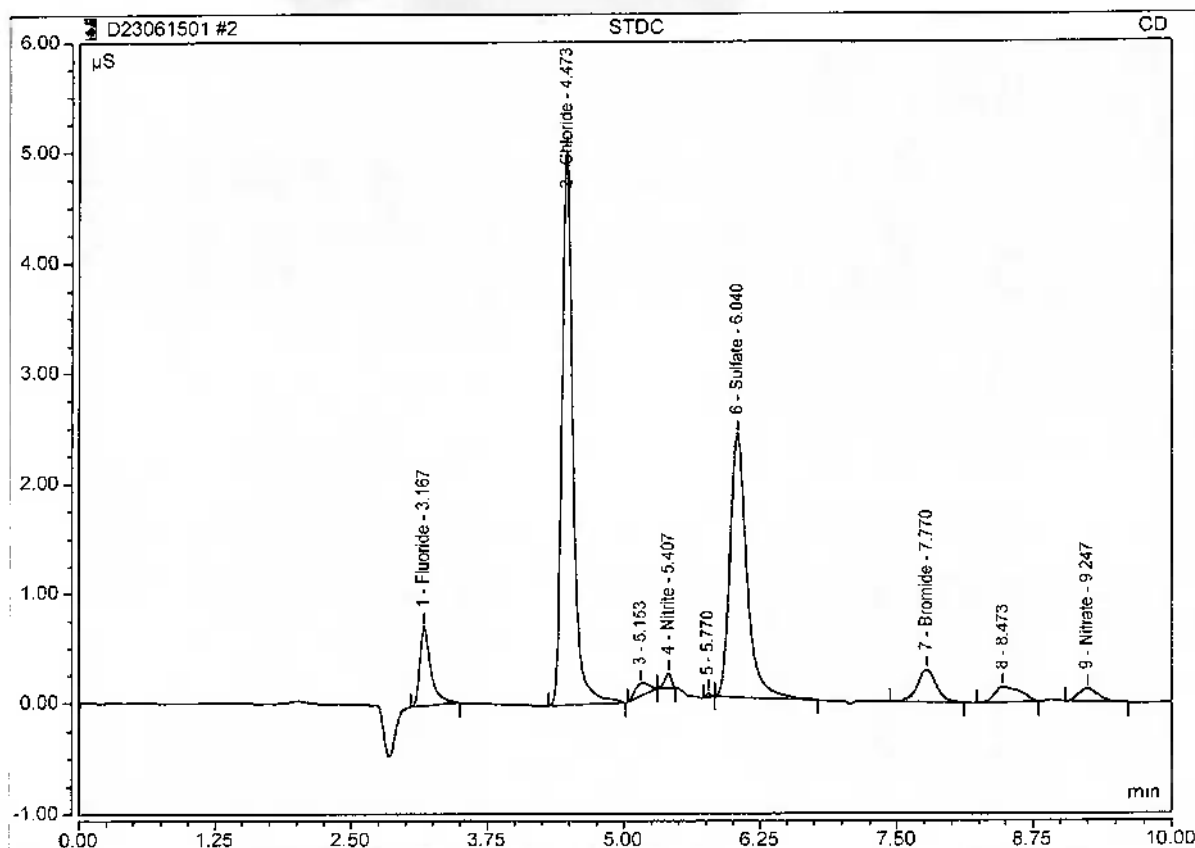
Peak Integration Report

Sample Name:	STDC	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	09-Jun-2023 / 14:58	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.17	Fluoride	BMB	0.084	0.722	0.2057
2	4.47	Chloride	BMB	0.594	5.036	1.9585
4	5.41	Nitrite	bMB	0.009	0.137	0.0335
6	6.04	Sulfate	BMB	0.428	2.399	1.8736
7	7.77	Bromide	BMB	0.060	0.296	0.5390
9	9.25	Nitrate	BMB	0.024	0.115	0.1416
TOTAL:				1.20	8.70	4.75

RE 7.
2.9
-2.08
-6.32
8.8

7.1
7



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

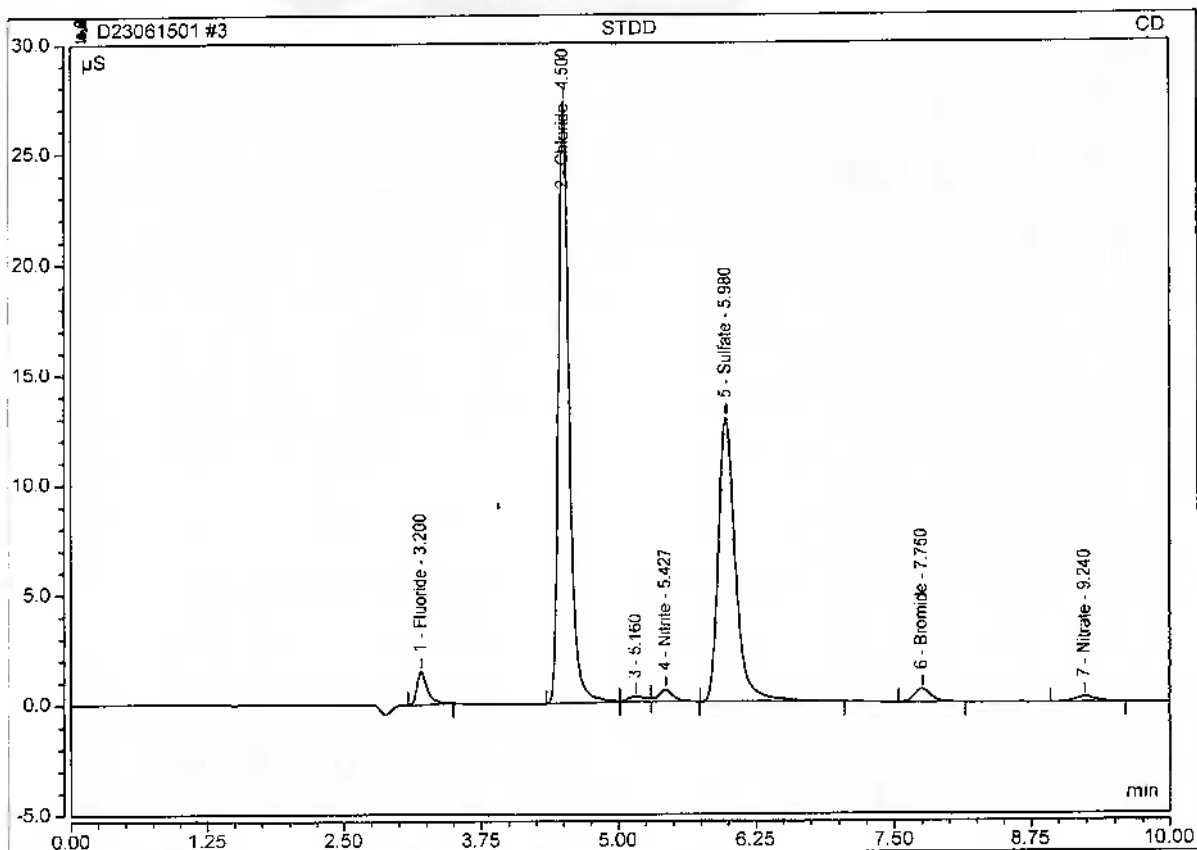
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	STDD	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anlons_012919	Operator:	Chemistry
Inj. Date / Time:	09-Jun-2023 / 15:11	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.20	Fluoride	BMB	0.168	1.503	0.3856
2	4.50	Chloride	BMB	3.080	27.321	9.6064
4	5.43	Nitrite	MB	0.085	0.540	0.4513
5	5.98	Sulfate	BMB	2.298	12.915	9.7997
6	7.75	Bromide	BMB	0.111	0.602	0.9430
7	9.24	Nitrate	BMB	0.053	0.233	0.3392
TOTAL:				5.80	43.11	21.53



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

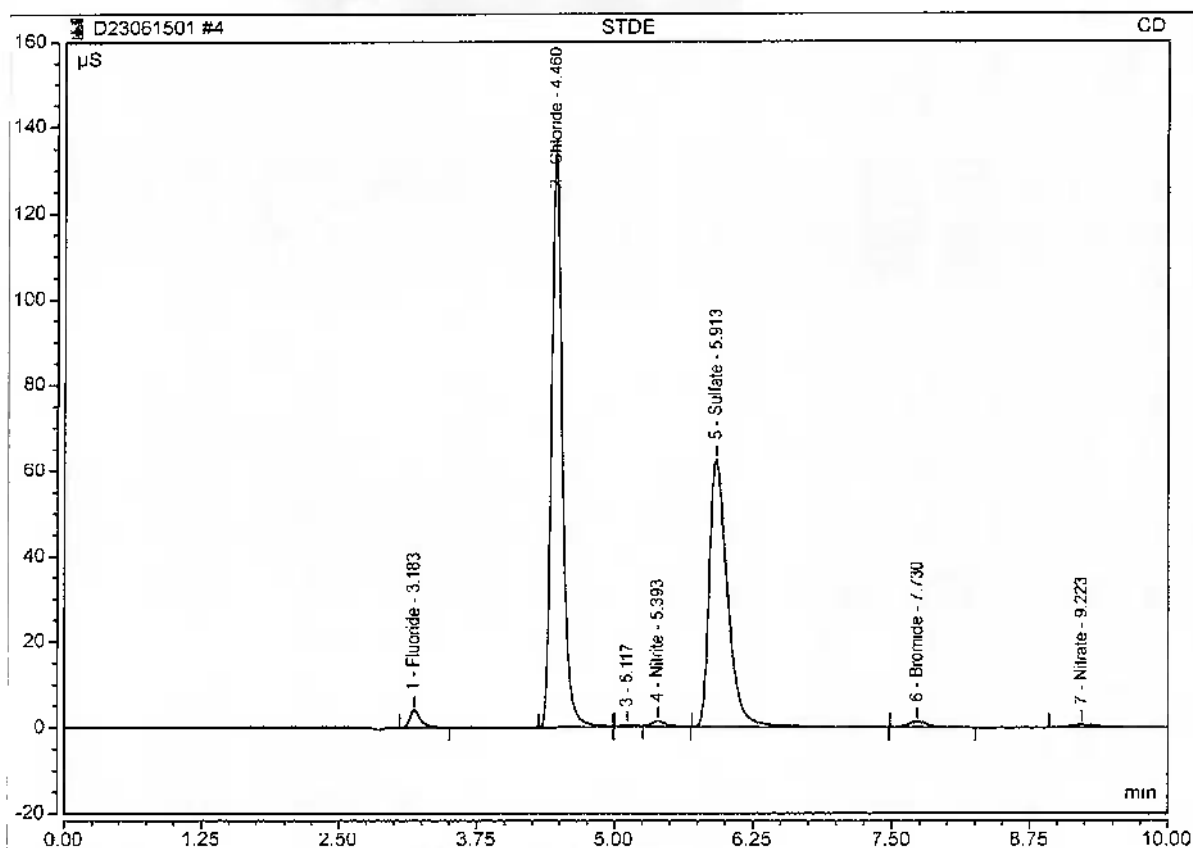
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	STDE	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	09-Jun-2023 / 15:24	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.18	Fluoride	BMB	0.448	4.030	0.9817
2	4.46	Chloride	BMB	15.683	133.924	48.3791
4	5.39	Nitrite	BMB	0.223	1.370	1.2170
5	5.91	Sulfate	BMB	11.882	62.555	50.4195
6	7.73	Bromide	BMB	0.235	1.270	1.9151
7	9.22	Nitrate	BMB	0.154	0.633	1.0356
TOTAL:				28.62	203.78	103.95



Anion/Integration

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Version 7.2.8.10783

Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D23061501

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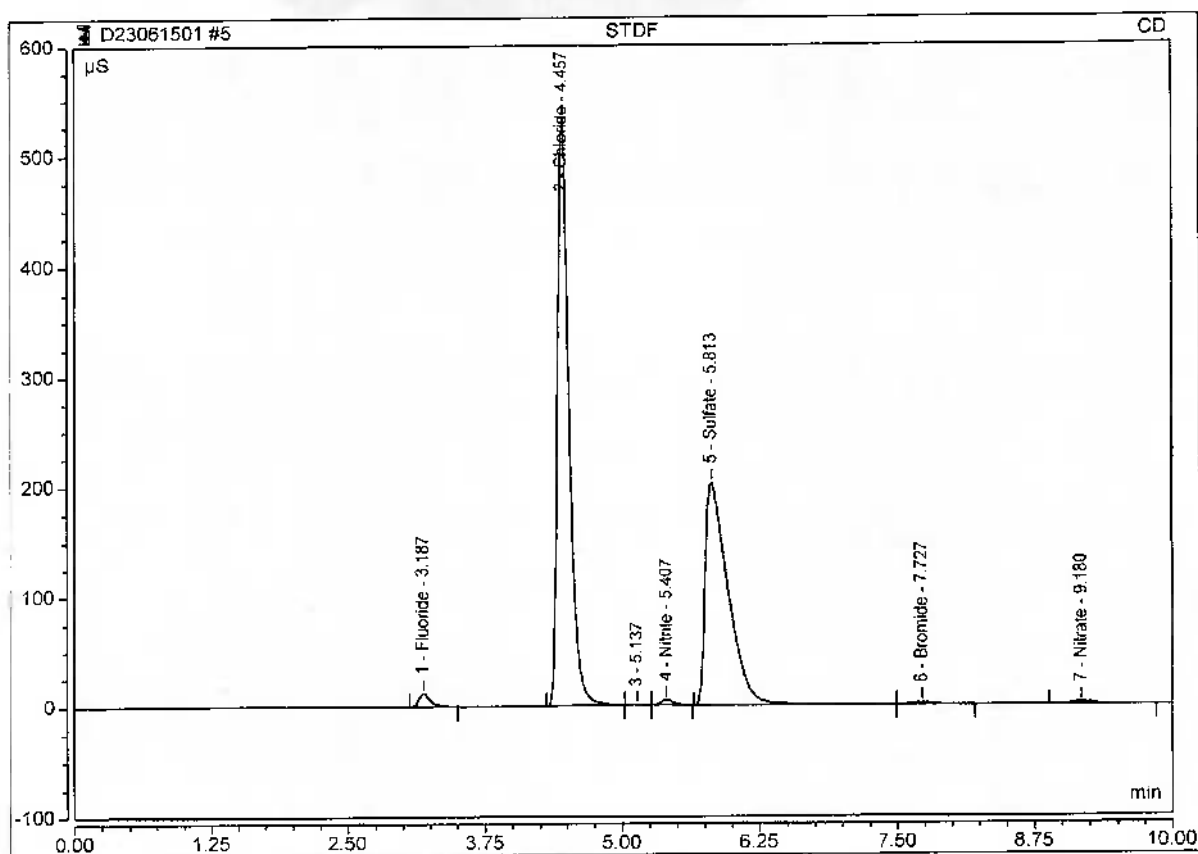
Peak Integration Report

Sample Name:	STDF	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	09-Jun-2023 / 16:18	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.19	Fluoride	BMB	1.453	12.113	3.1269
2	4.46	Chloride	BMB	66.142	533.426	203.6193
4	5.41	Nitrite	BMB	0.567	4.397	3.1212
5	5.81	Sulfate	BMB	48.351	202.013	204.9957
6	7.73	Bromide	BMB	0.374	2.054	3.0060
7	9.18	Nitrate	BMB	0.486	2.113	3.3236
TOTAL:				117.37	756.12	421.19

25.1
4.2
1.81
2.5
0.2

7.1
7



Anion/Integration

Chromleon (c) Dionex 1996-2009
Version 7.2.8.10783

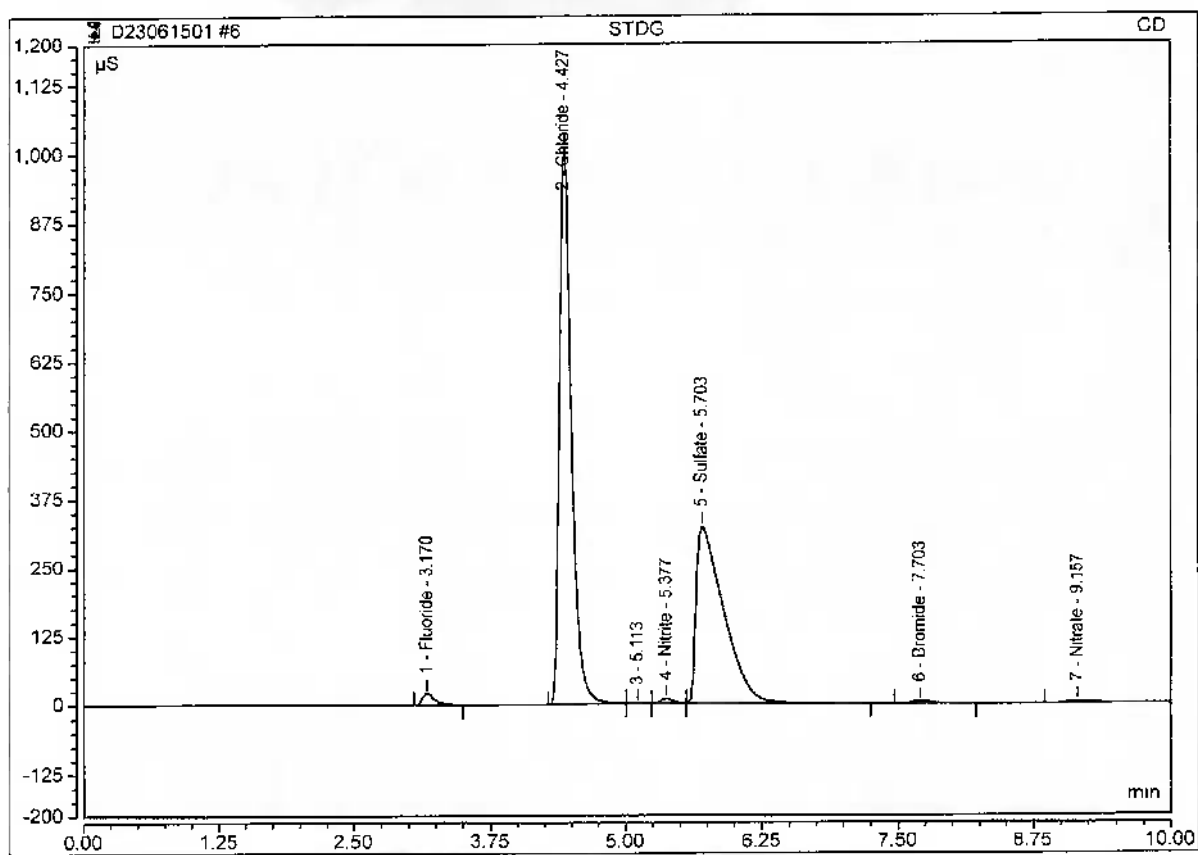
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	STDG	Inj. Vol.:	5000.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	09-Jun-2023 / 16:31	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height μS	Amount
1	3.17	Fluoride	BMB	2.754	21.150	5.9001
2	4.43	Chloride	BMB	129.465	1012.285	398.4366
4	5.38	Nitrite	BMB	1.048	8.377	5.7769
5	5.70	Sulfate	BMB	93.158	322.363	394.9115
6	7.70	Bromide	BMB	0.640	3.431	5.0969
7	9.16	Nitrate	BMB	0.970	4.112	6.6800
TOTAL:				228.03	1371.70	816.78



Anion/Integration

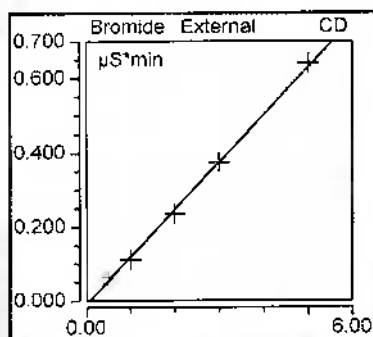
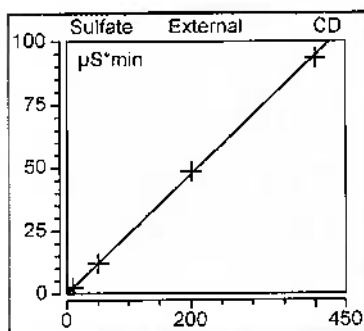
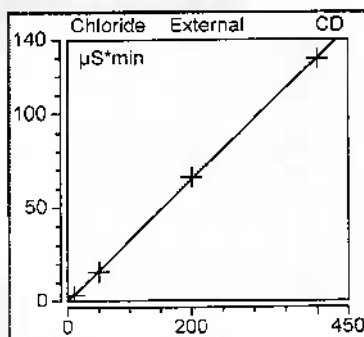
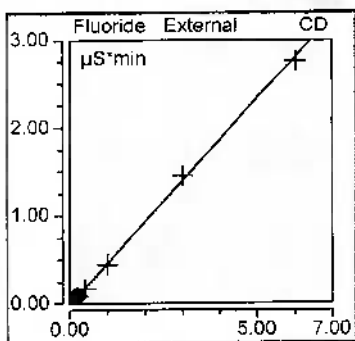
Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

Calibration Batch Report

Sequence: D23061501	Injection Volu 5,000.00
Instrument Model: Anions_012 919	Operator: Chemistry
Inj. Date / Tin 09/06/2023 / 14:58	Run Time: 10

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	WithOffset	5,000	-0.012	0.469	0.000	99.8972
Chloride	Area	WithOffset	6,000	-0.042	0.325	0.000	99.9761
Nitrite	Area	WithOffset	6,000	0.003	0.181	0.000	97.2173
Sulfate	Area	WithOffset	6,000	-0.014	0.236	0.000	99.9667
Bromide	Area	WithOffset	5,000	-0.009	0.127	0.000	99.7780
Nitrate	Area	WithOffset	5,000	0.004	0.145	0.000	94.1530
AVERAGE:				-0.0118	0.2472	0.0000	98.4981

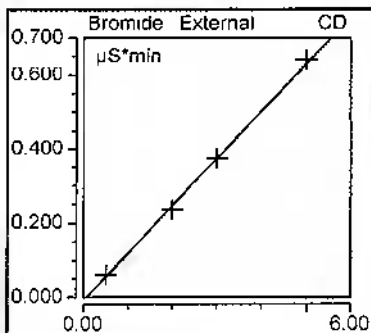
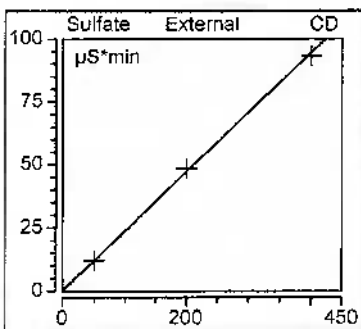
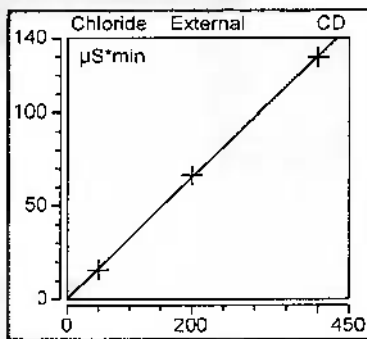
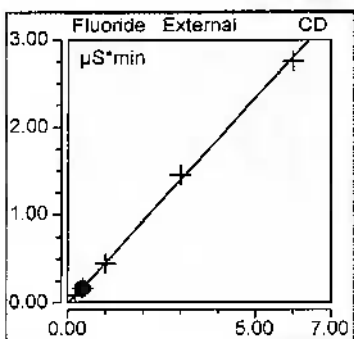


Calibration Batch Report

Sequence: D23061501	Injection Volu 5,000.00
Instrument M: Anions_012 919	Operator: Chemistry
Inj. Date / Tin 09/06/2023 / 15:11	Run Time: 10

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	WithOffset	5.000	-0.012	0.469	0.000	99.8972
Chloride	Area	WithOffset	6.000	-0.042	0.325	0.000	99.9761
Nitrite	Area	WithOffset	6.000	0.003	0.181	0.000	97.2173
Sulfate	Area	WithOffset	6.000	-0.014	0.236	0.000	99.9667
Bromide	Area	WithOffset	5.000	-0.009	0.127	0.000	99.7780
Nitrate	Area	WithOffset	5.000	0.004	0.145	0.000	94.1530
AVERAGE:				-0.0118	0.2472	0.0000	98.4881

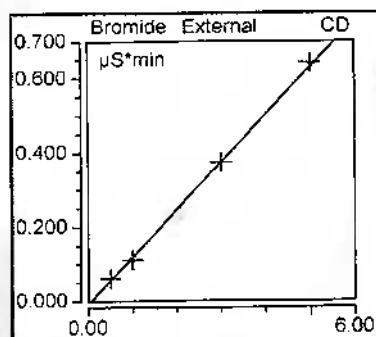
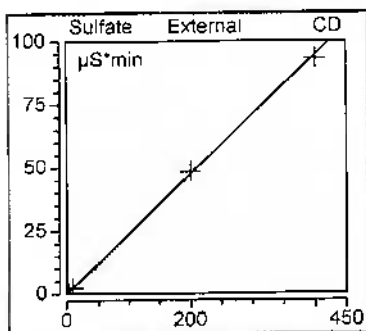
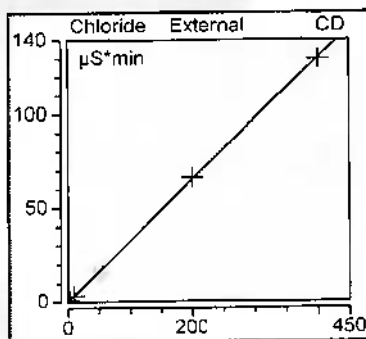
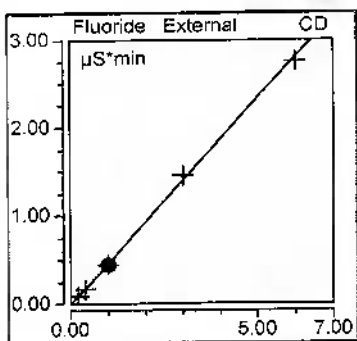


Calibration Batch Report

Sequence: D23061501	Injection Volu 5,000.00
Instrument M: Anlons_012 919	Operator: Chemistry
Inj. Date / Tin 09/06/2023 / 15:24	Run Time: 10

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	With Offset	5.000	-0.012	0.469	0.000	99.8972
Chloride	Area	With Offset	6.000	-0.042	0.325	0.000	99.9761
Nitrite	Area	With Offset	6.000	0.003	0.181	0.000	97.2173
Sulfate	Area	With Offset	6.000	-0.014	0.236	0.000	99.9667
Bromide	Area	With Offset	5.000	-0.009	0.127	0.000	99.7780
Nitrate	Area	With Offset	5.000	0.004	0.145	0.000	94.1530
AVERAGE:				-0.0118	0.2472	0.0000	98.4981

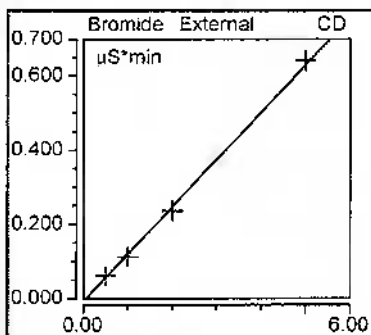
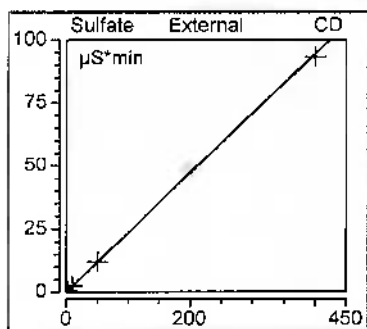
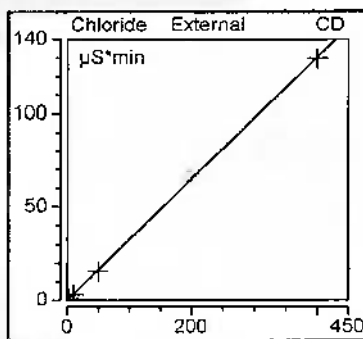
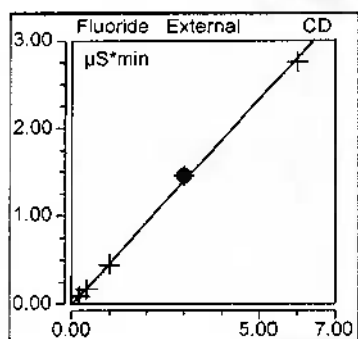


Calibration Batch Report

Sequence: D23081501	Injection Volu 5,000.00
Instrument Mt. Anions_012 919	Operator: Chemistry
Inj. Date / Tin 09/06/2023 / 16:18	Run Time: 10

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	WithOffset.	5.000	-0.012	0.469	0.000	99.8972
Chloride	Area	WithOffset.	6.000	-0.042	0.325	0.000	99.9761
Nitrite	Area	WithOffset.	6.000	0.003	0.181	0.000	97.2173
Sulfate	Area	WithOffset.	6.000	-0.014	0.236	0.000	99.9667
Bromide	Area	WithOffset.	5.000	-0.009	0.127	0.000	99.7780
Nitrate	Area	WithOffset.	5.000	0.004	0.145	0.000	94.1530
AVERAGE:				-0.0118	0.2472	0.0000	98.4981

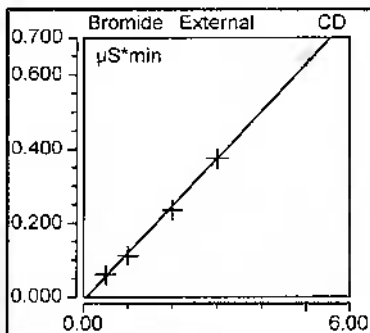
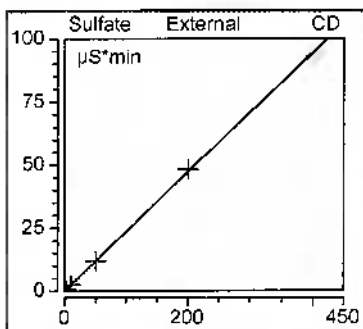
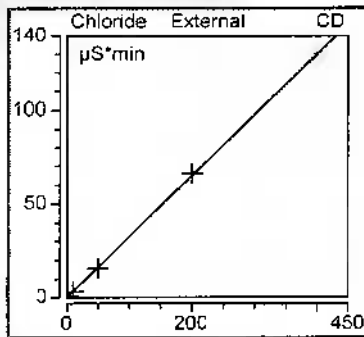
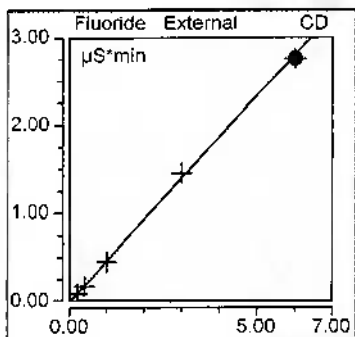


Calibration Batch Report

Sequence: D23061501	Injection Volu 5.000.00
Instrument Model: Anions_012 919	Operator: Chemistry
Inj. Date / Tin 09/06/2023 / 16:31	Run Time: 10

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	WithOffset,	5.000	-0.012	0.469	0.000	99.8972
Chloride	Area	WithOffset,	6.000	-0.042	0.325	0.000	99.9761
Nitrite	Area	WithOffset,	6.000	0.003	0.181	0.000	97.2173
Sulfate	Area	WithOffset,	6.000	-0.014	0.236	0.000	99.9667
Bromide	Area	WithOffset,	5.000	-0.009	0.127	0.000	99.7780
Nitrate	Area	WithOffset,	5.000	0.004	0.145	0.000	94.1530
AVERAGE:				-0.0118	0.2472	0.0000	98.4981



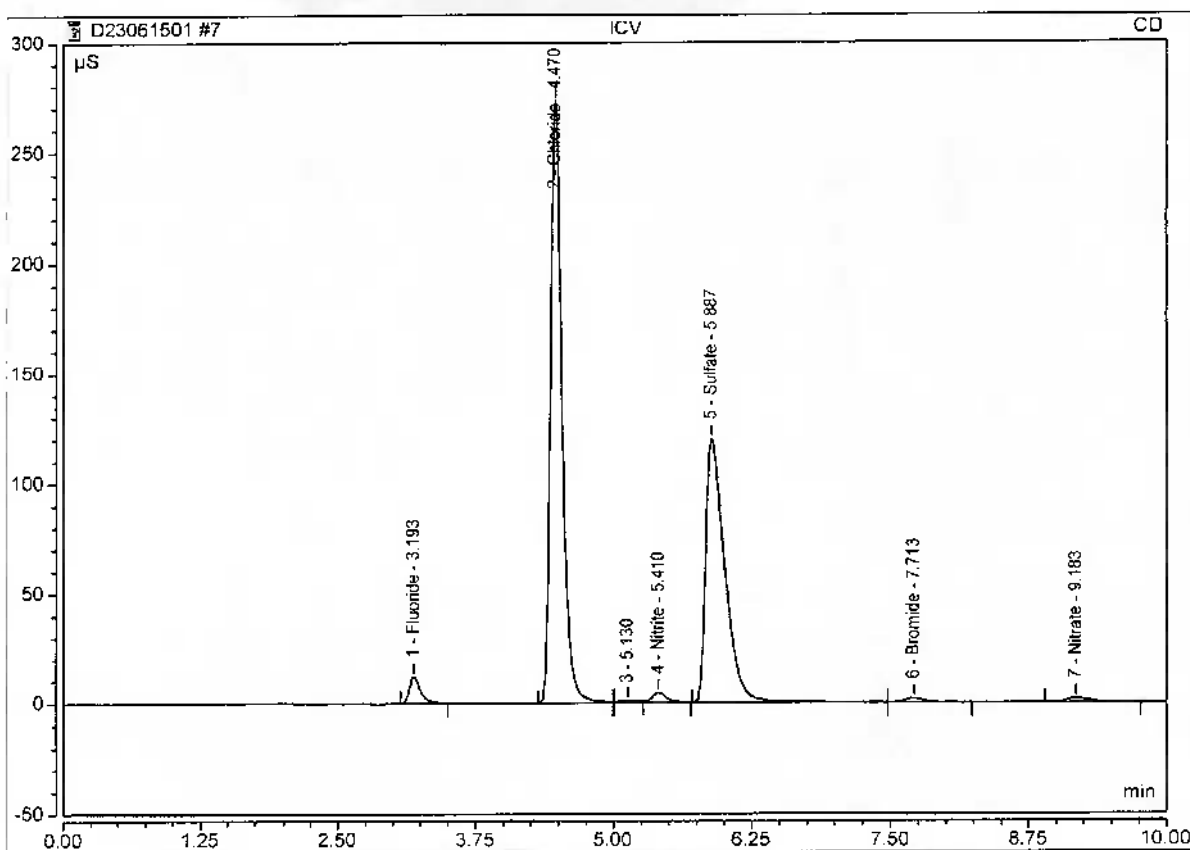
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	ICV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	09-Jun-2023 / 16:44	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.19	Fluoride	BMB	1.461	12.439	3.1429
2	4.47	Chloride	BMB	32.710	273.542	100.7645
4	5.41	Nitrite	bMB	0.711	4.523	3.9127
5	5.89	Sulfate	BMB	24.152	119.963	102.4280
6	7.71	Bromide	bMB	0.373	2.035	3.0016
7	9.18	Nitrate	BMB	0.468	2.081	3.2018
TOTAL:				59.88	414.56	216.45



Anion/Integration

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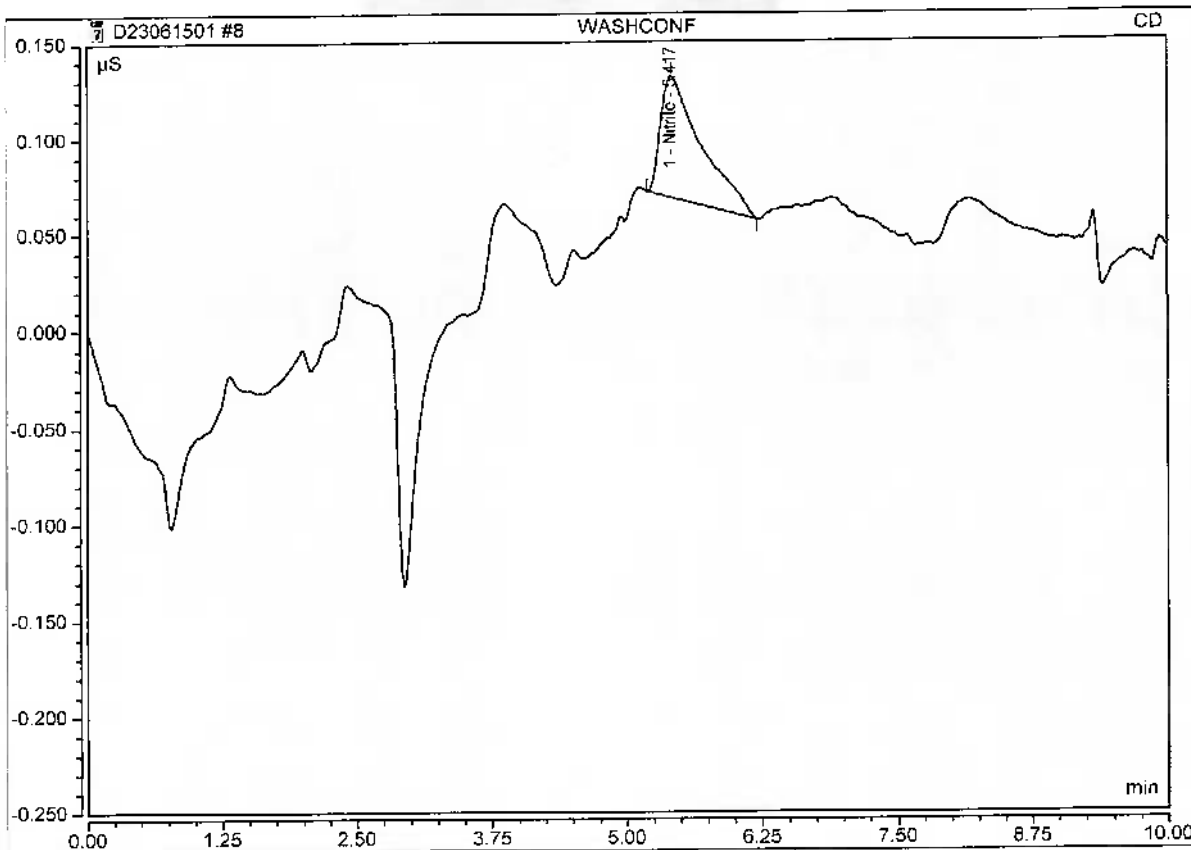
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Instrument: Integration_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	WASHCONF	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 13:26	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	5.42	Nitrite	BMB	0.028	0.064	0.1366
TOTAL:				0.03	0.06	0.14



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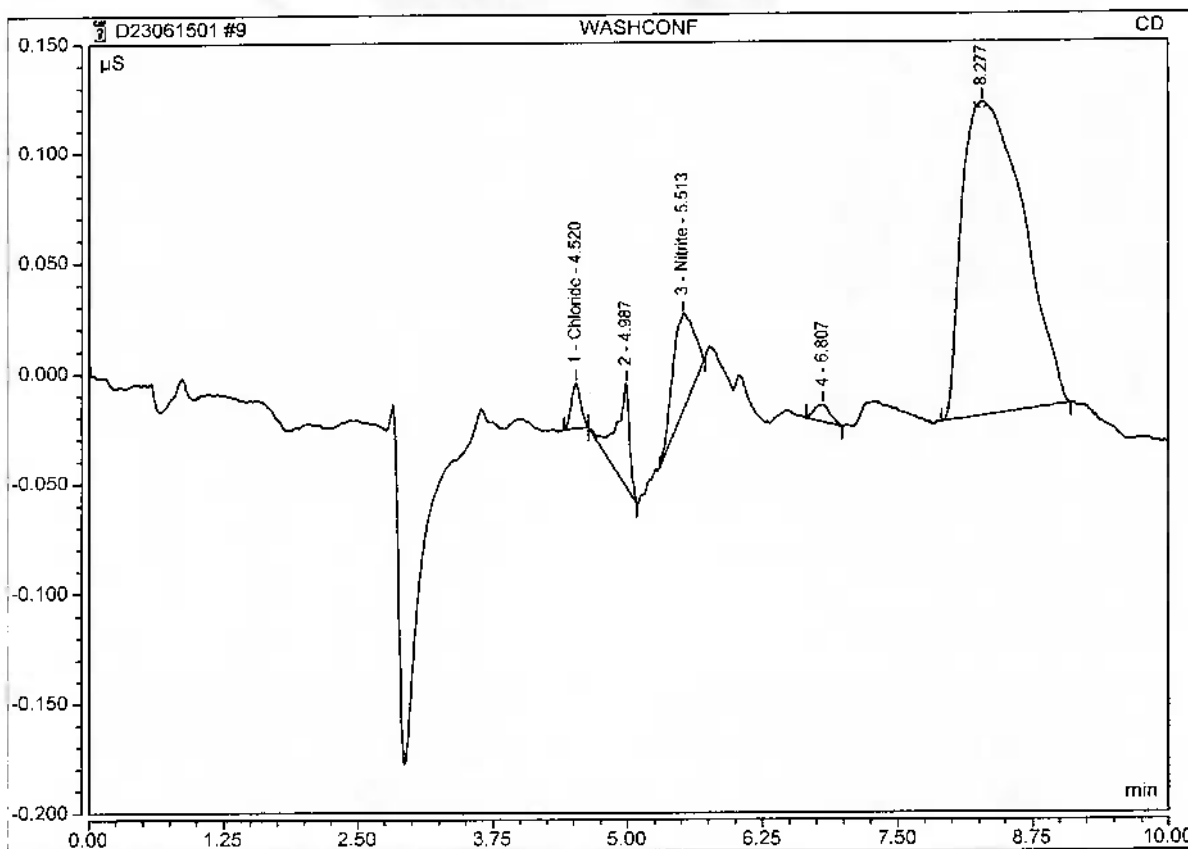
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	WASHCONF	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 13:39	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.52	Chloride	BMB	0.002	0.021	0.1369
3	5.51	Nitrite	BMB	0.010	0.044	0.0377
TOTAL:				0.01	0.06	0.17



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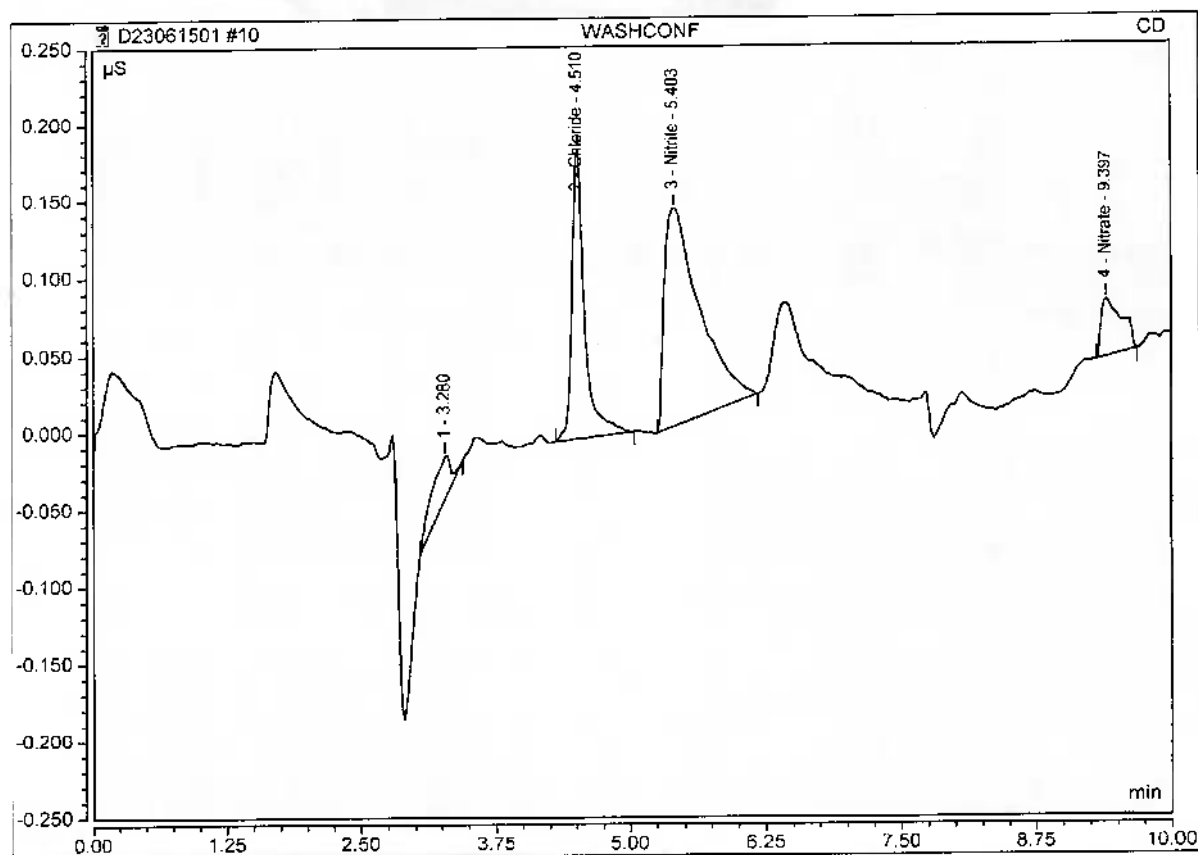
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Peak Integration Report

Sample Name:	WASHCONF	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anlons_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 13:52	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
2	4.51	Chloride	BMB	0.025	0.187	0.2077
3	5.40	Nitrite	BMB	0.052	0.140	0.2730
4	9.40	Nitrate	BMB	0.008	0.037	0.0302
TOTAL:				0.09	0.36	0.51



Anion/Integration

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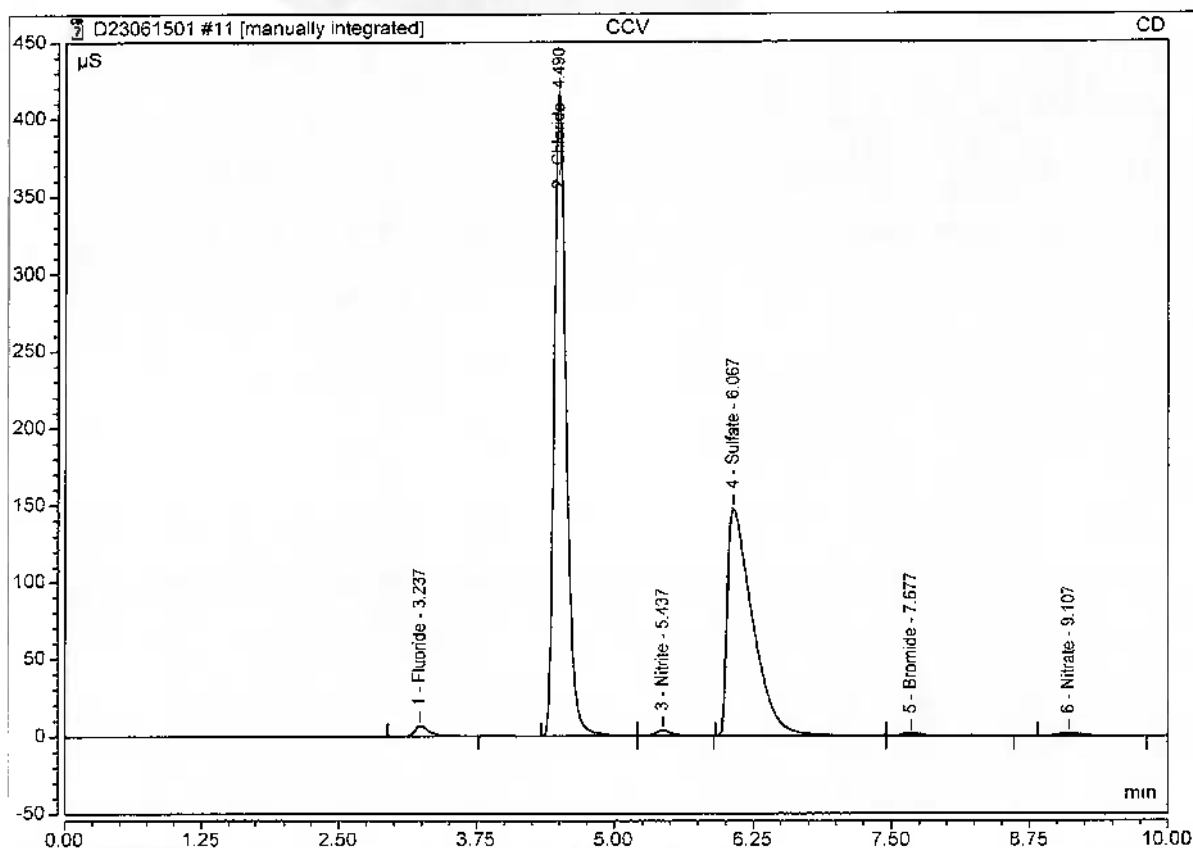
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Sequence: D23061501

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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 14:05	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.24	Fluoride	BMB*	1.074	6.855	2.3182
2	4.49	Chloride	BMB	52.919	417.169	162.9389
3	5.44	Nitrite	bMB	0.523	3.420	2.8771
4	6.07	Sulfate	BM *	38.921	147.918	165.0263
5	7.68	Bromide	MB*	0.347	1.543	2.7969
6	9.11	Nitrate	BMB	0.366	1.558	2.4946
TOTAL:				94.15	578.46	338.45



Anion/Integration

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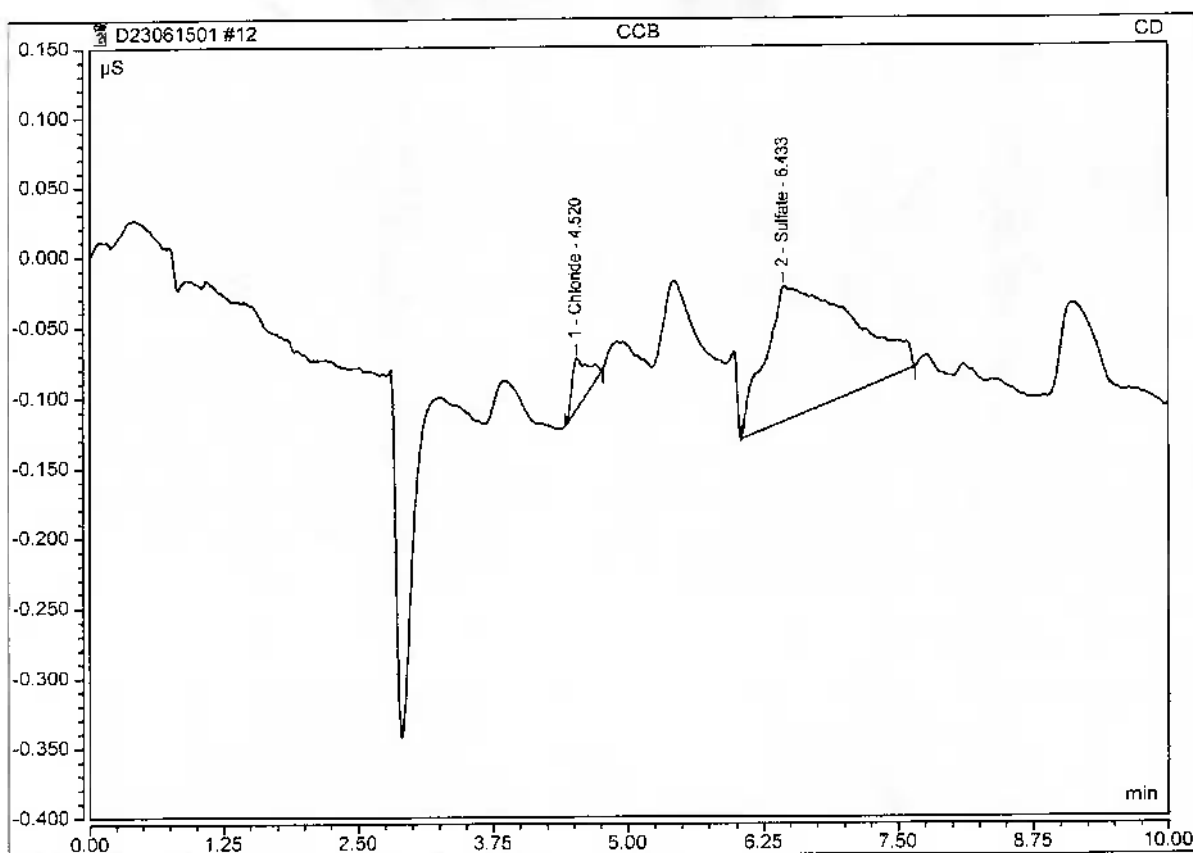
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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 14:18	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.52	Chloride	BMB	0.006	0.036	0.1485
2	6.43	Sulfate	BMB	0.085	0.096	0.4196
TOTAL:				0.09	0.13	0.57



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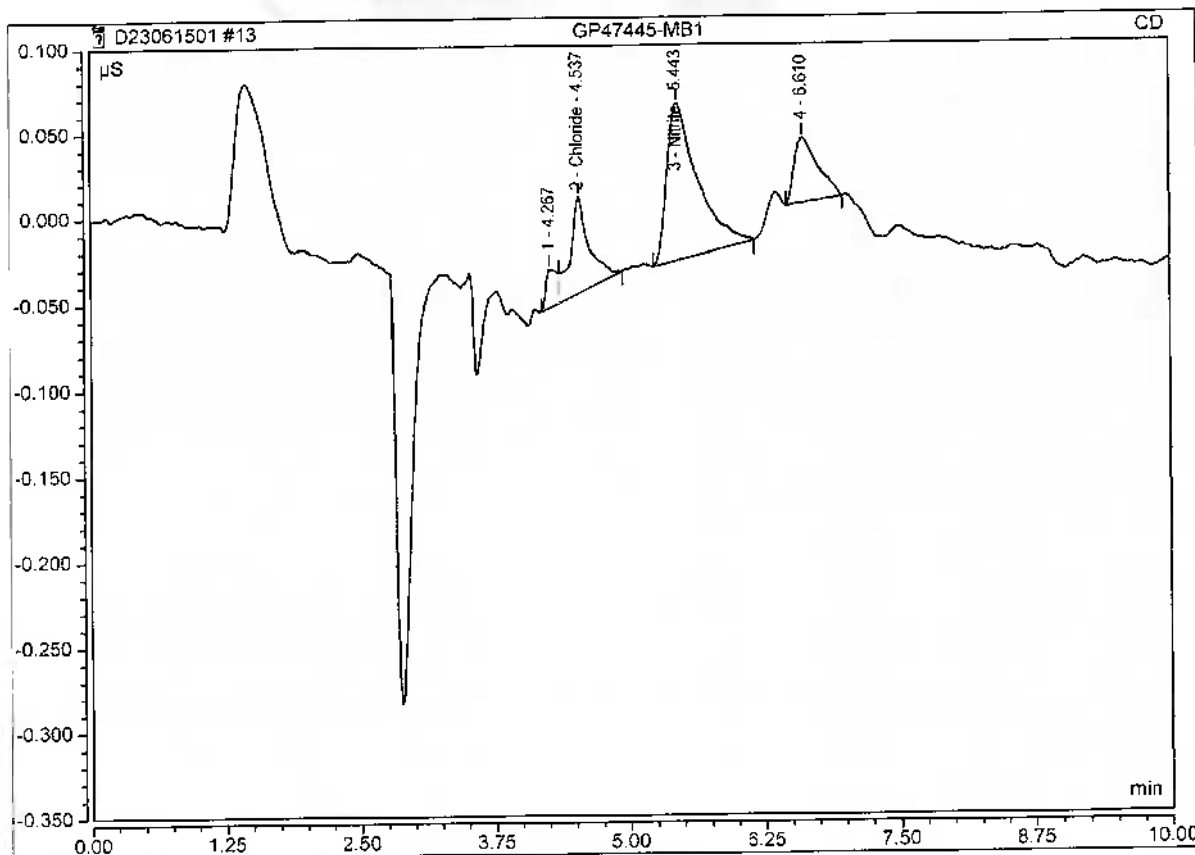
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	GP47445-MB1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 14:31	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
2	4.54	Chloride	MB	0.012	0.056	0.1659
3	5.44	Nitrite	BMB	0.030	0.093	0.1514
TOTAL:				0.04	0.15	0.32



Anion/Integration

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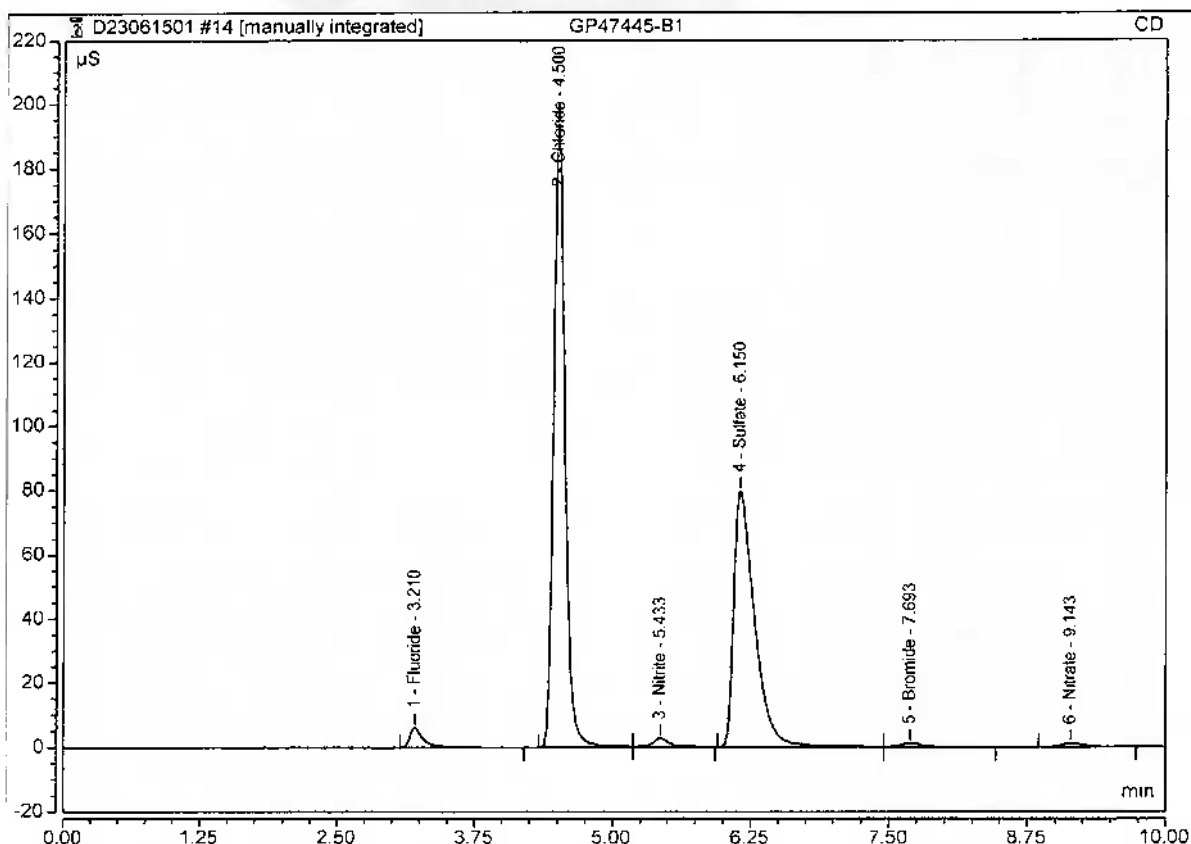
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Peak Integration Report

Sample Name:	GP47445-B1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 14:44	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB*	0.834	8.057	1.8045
2	4.50	Chloride	BM *	23.374	193.766	72.0407
3	5.43	Nitrite	MB*	0.472	2.630	2.5938
4	6.15	Sulfate	BM *	17.393	79.559	73.7793
5	7.69	Bromide	MB*	0.227	1.117	1.8532
6	9.14	Nitrate	BMB	0.257	1.133	1.7443
TOTAL:				42.56	284.26	153.82



Anion/Integration

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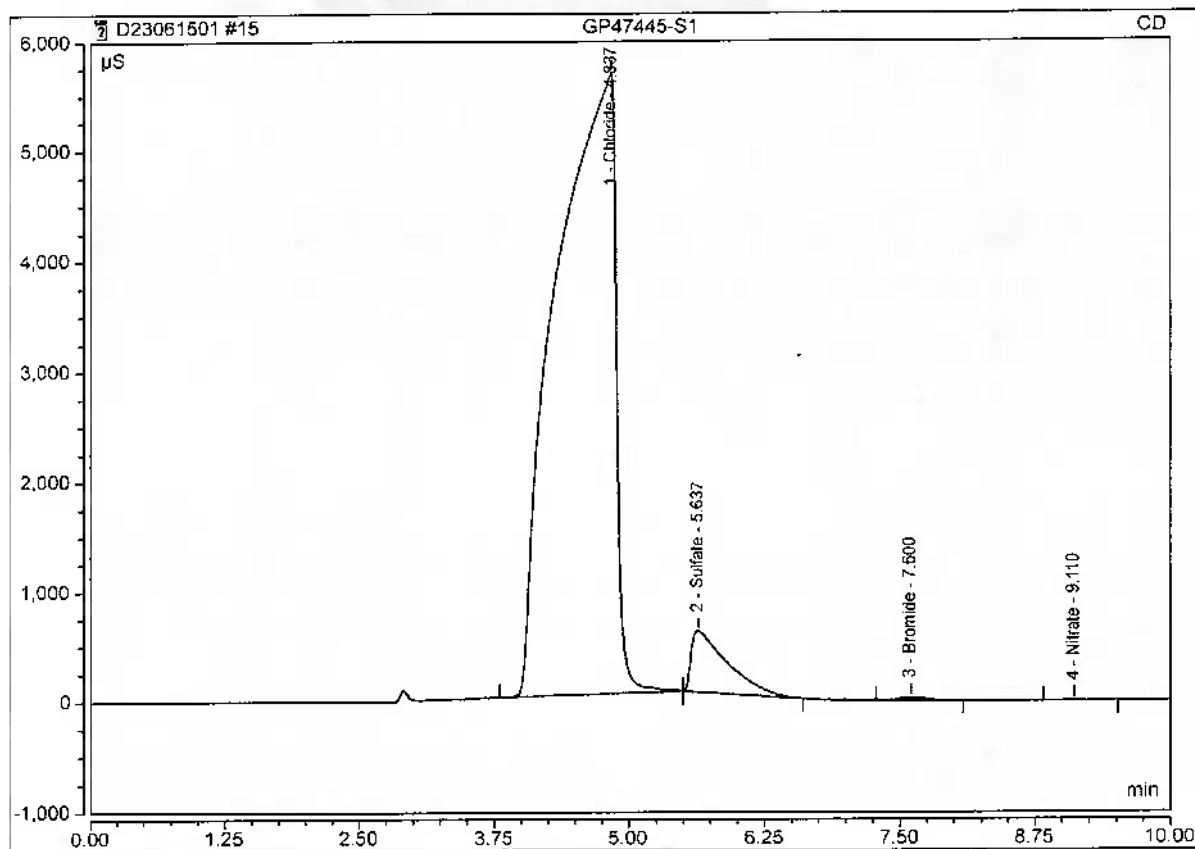
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Peak Integration Report

Sample Name:	GP47445-S1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 14:57	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.84	Chloride	BMB	3570.904	5632.988	10986.2232
2	5.64	Sulfate	bMB	215.031	552.496	911.4780
3	7.60	Bromide	BMB	5.630	23.749	44.2430
4	9.11	Nitrate	BMB	0.543	1.948	3.7187
TOTAL:				3792.11	6211.18	11945.66



Anion/Integration

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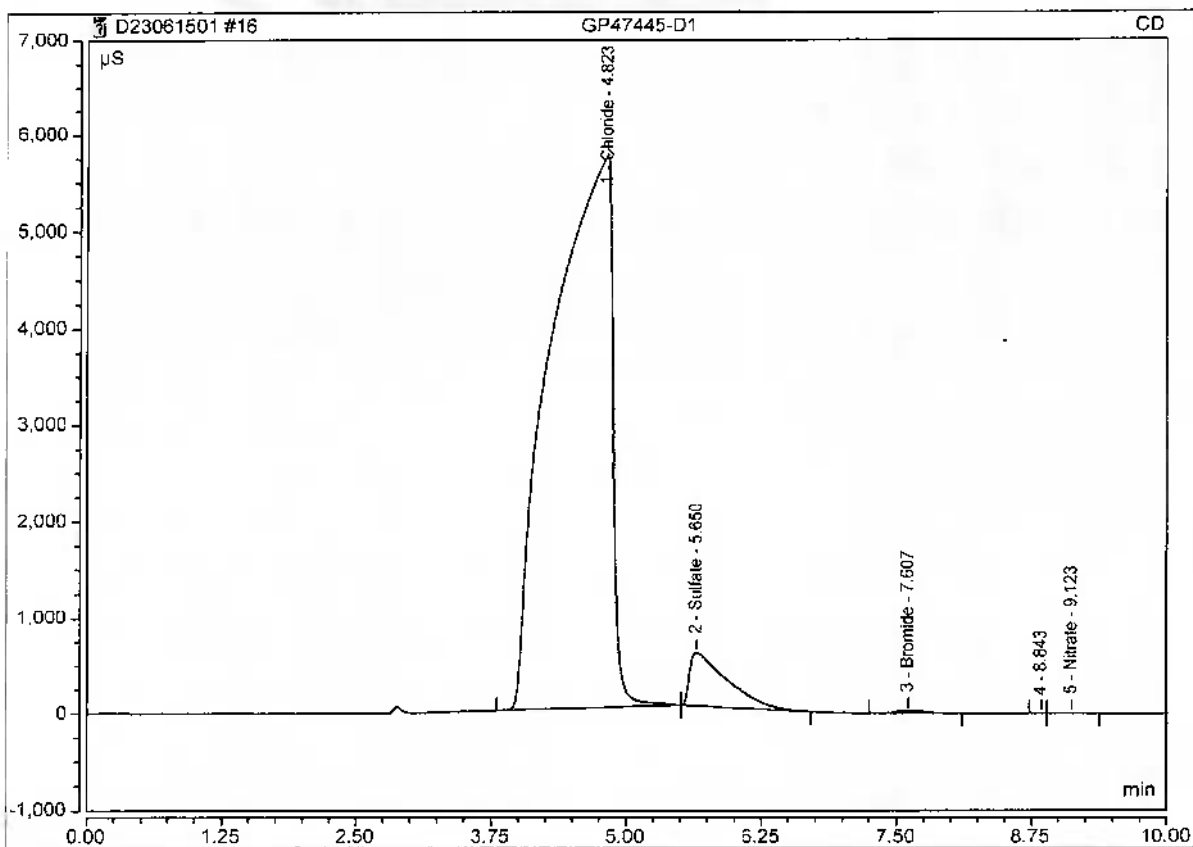
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Peak Integration Report

Sample Name:	GP47445-D1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 15:10	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.82	Chloride	BMb	3724.873	5724.145	11459.9178
2	5.65	Sulfate	bMB	222.727	550.882	944.0990
3	7.61	Bromide	BMB	5.718	22.873	44.9341
5	9.12	Nitrate	bMB	0.155	0.698	1.0394
TOTAL:				3953.47	6298.60	12449.99



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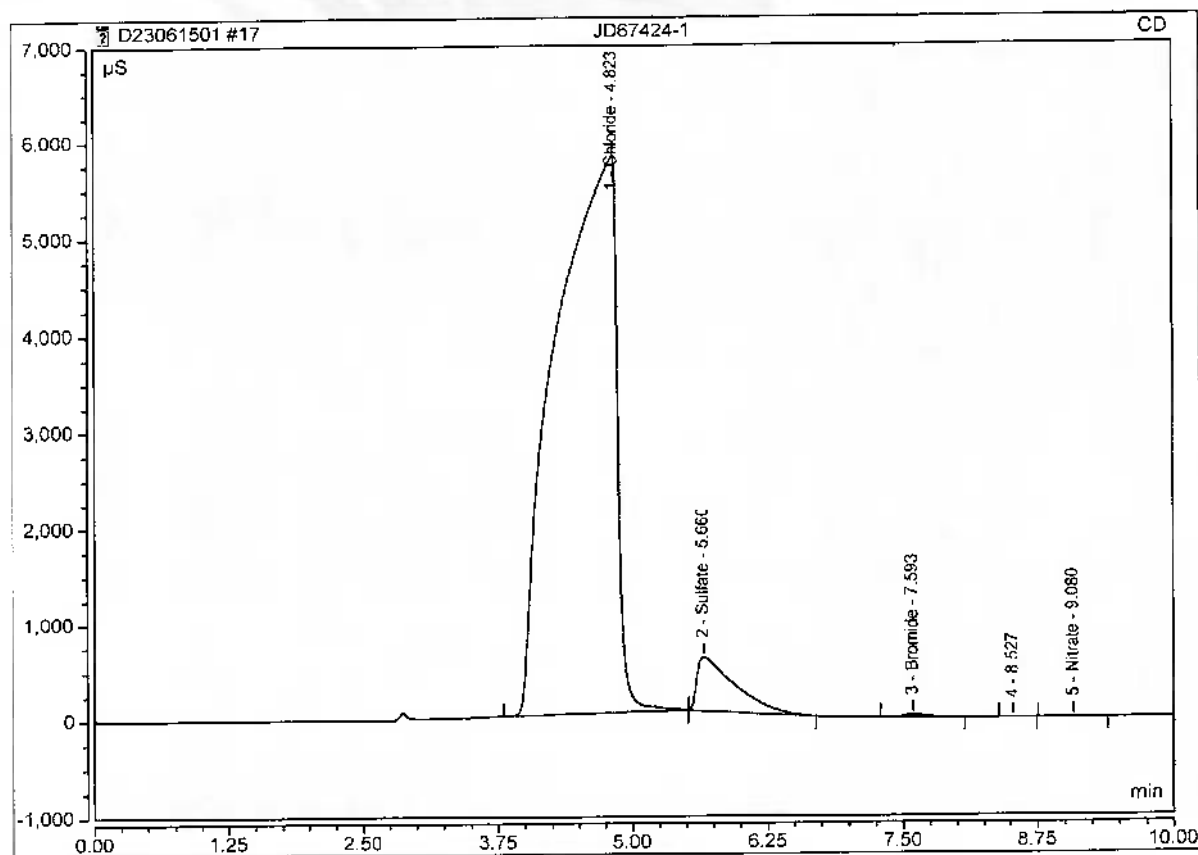
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Peak Integration Report

Sample Name:	JD67424-1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 15:23	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.82	Chloride	BMB	3788.050	5775.896	11654.2854
2	5.66	Sulfate	BMB	225.079	554.468	954.0669
3	7.59	Bromide	BMB	5.598	23.398	43.9926
5	9.08	Nitrate	BMB	0.196	0.750	1.3275
TOTAL:				4018.92	6354.51	12653.67



Anion/Integration

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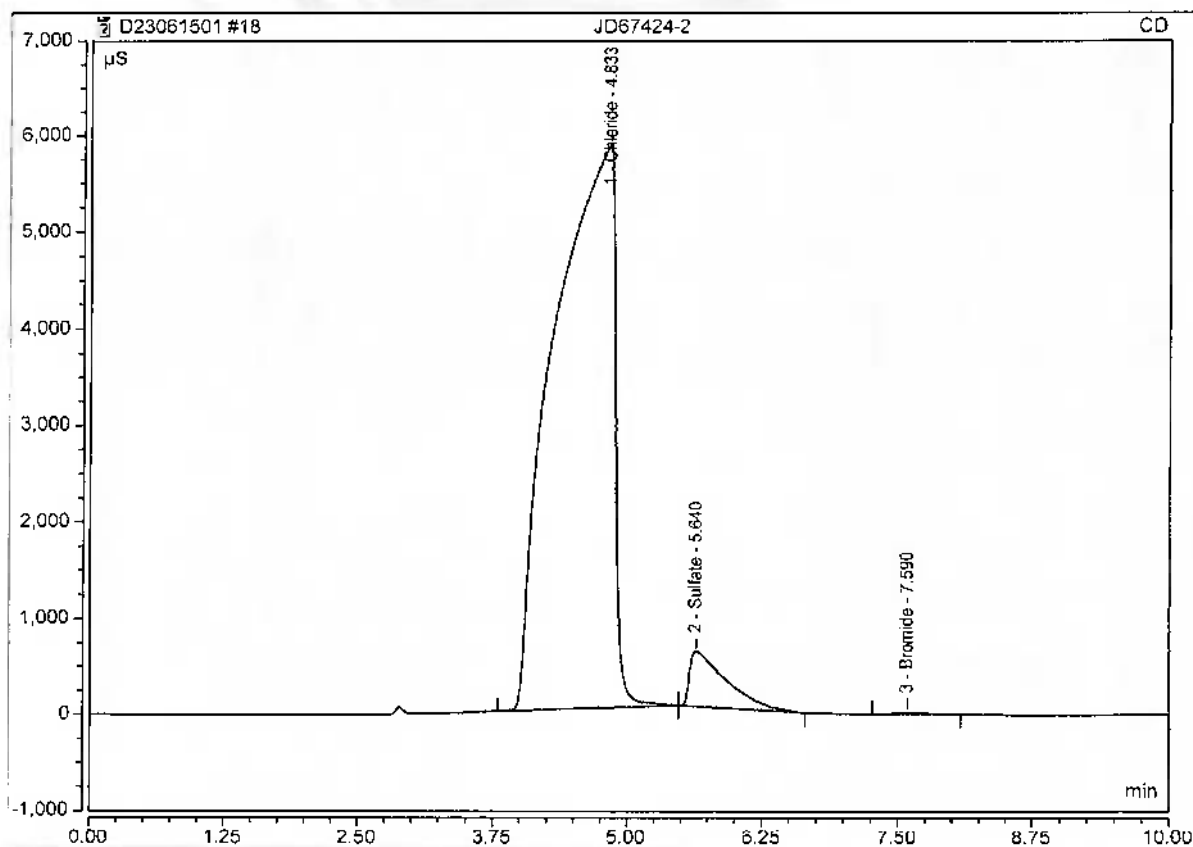
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67424-2	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 15:36	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	4.83	Chloride	BMb	3778.094	5842.188	11623.6552
2	5.64	Sulfate	bMB	224.457	575.444	951.4321
3	7.59	Bromide	BMB	5.715	23.370	44.9123
TOTAL:				4008.27	6441.00	12620.00



Anion/Integration

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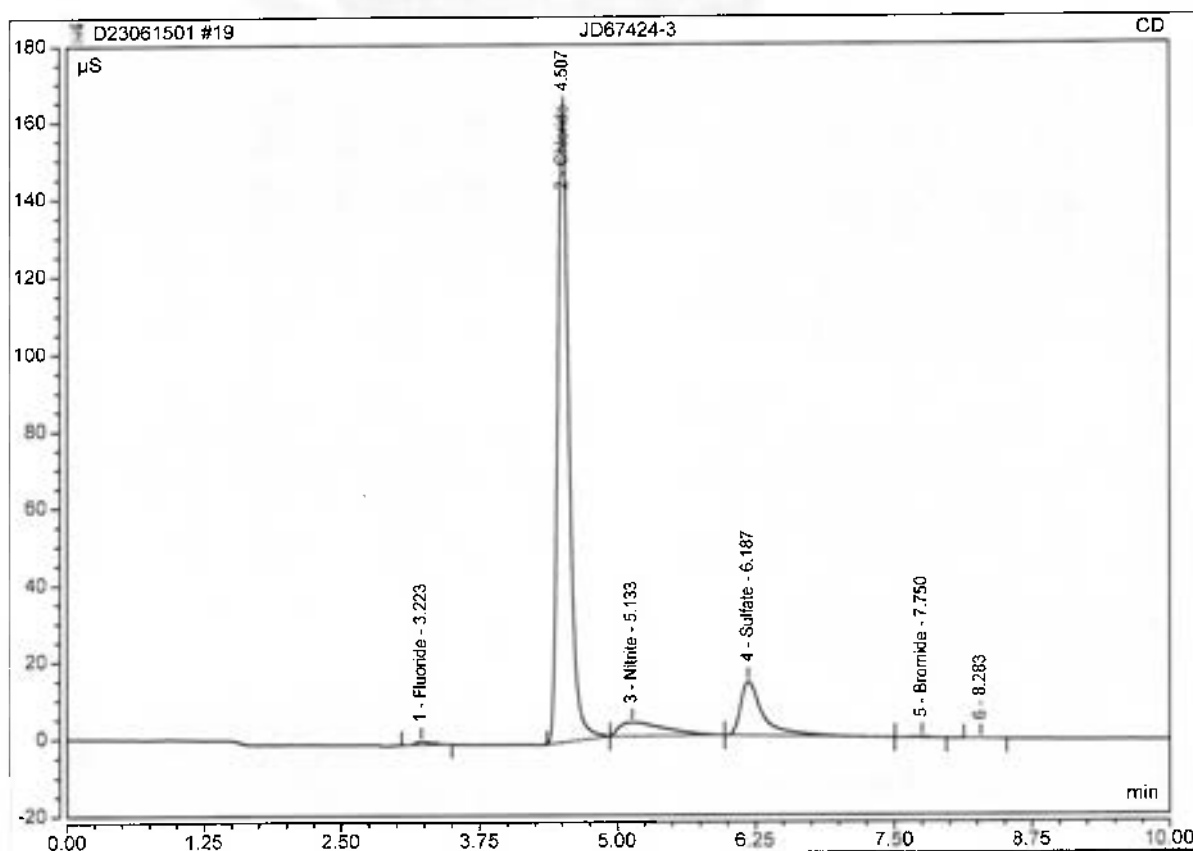
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Peak Integration Report

Sample Name:	JD67424-3	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 15:49	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height μS	Amount
1	3.22	Fluoride	BMB	0.132	0.804	0.3076
2	4.51	Chloride	BMB	19.471	163.148	60.0337
3	5.13	Nitrite	BMB	1.723	3.567	9.5103
4	6.19	Sulfate	bMB	3.282	14.126	13.9689
5	7.75	Bromide	BMB	0.043	0.244	0.4127
TOTAL:				24.65	181.89	84.23



Anion/Integration

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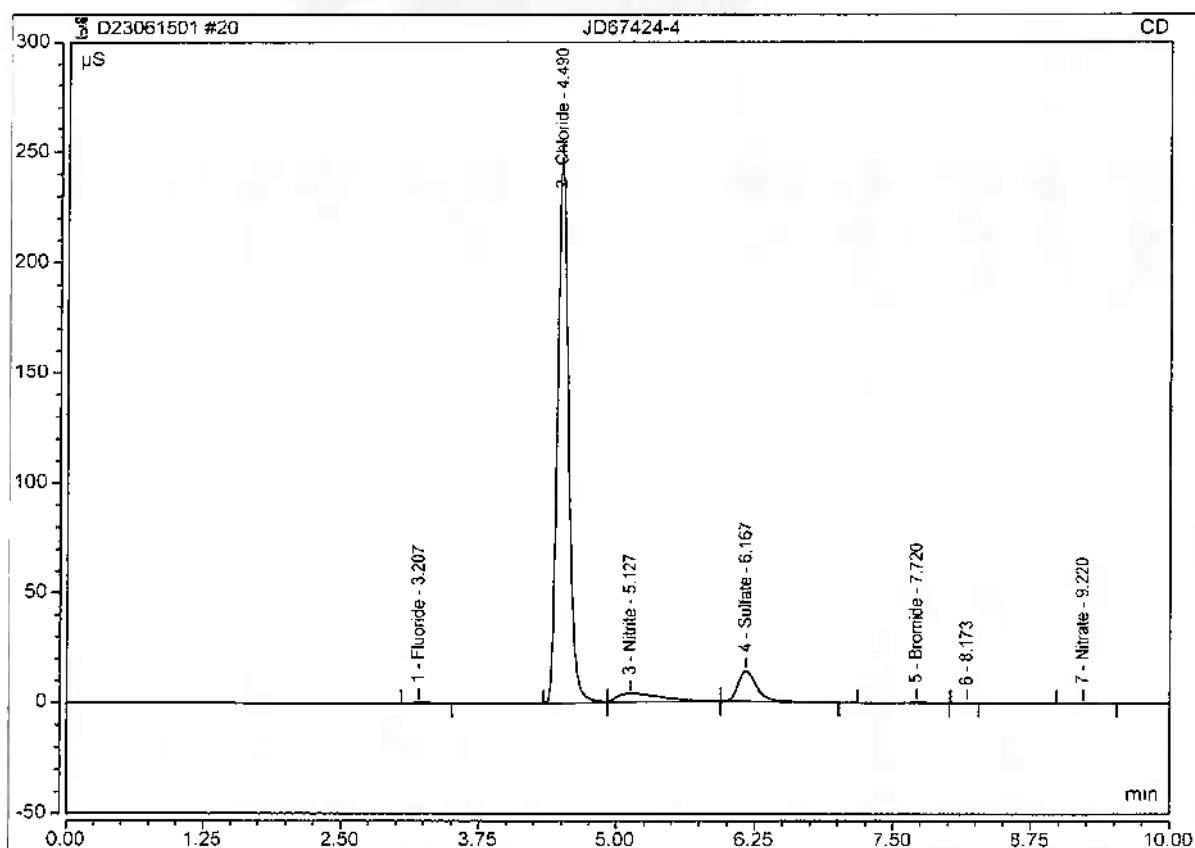
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Instrument: Integriion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67424-4	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 16:02	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB	0.100	0.649	0.2403
2	4.49	Chloride	BMB	29.498	247.992	90.8832
3	5.13	Nitrite	BMB	1.802	3.788	9.9503
4	6.17	Sulfate	bMB	2.689	13.878	11.4584
5	7.72	Bromide	BMB	0.094	0.388	0.8060
7	9.22	Nitrate	BMB	0.017	0.077	0.0914
TOTAL:				34.20	266.77	113.43



Anion/Integration

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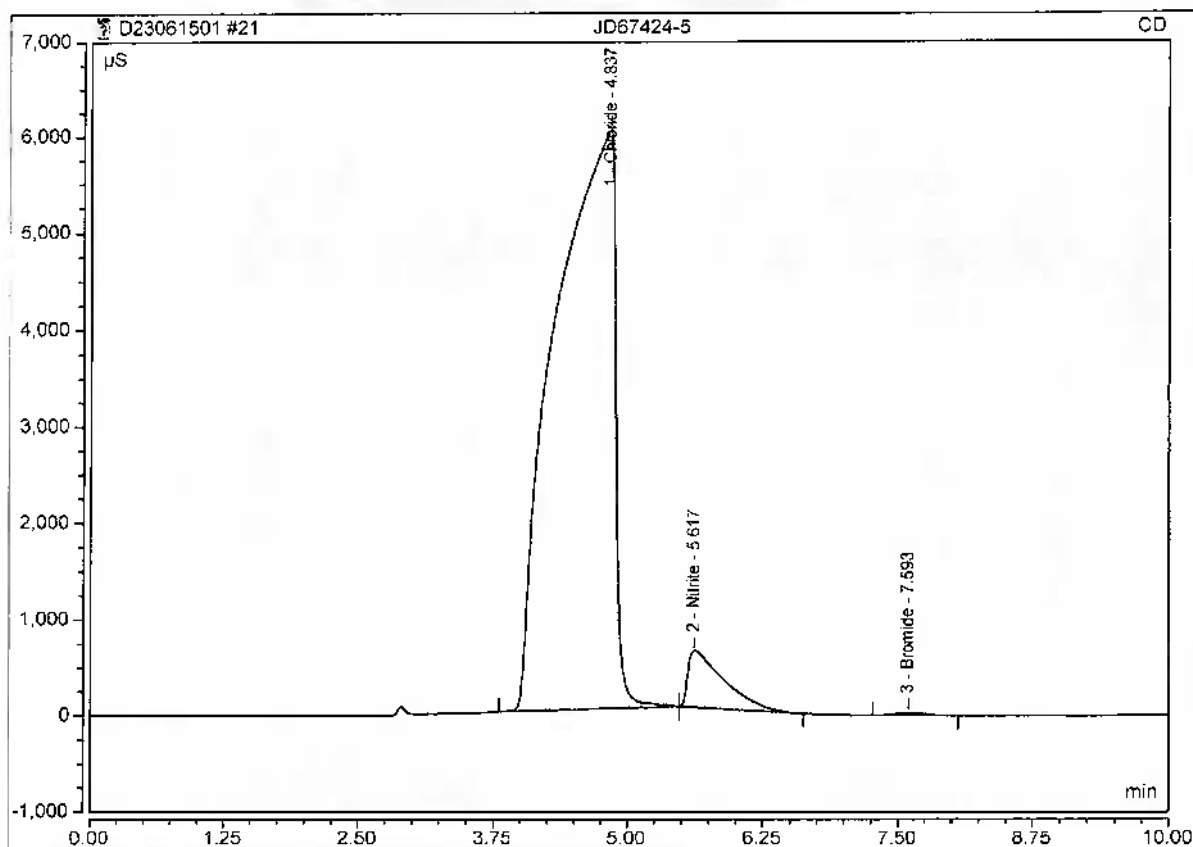
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Instrument: Integriion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67424-5	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 16:15	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.84	Chloride	BMb	3865.316	6009.041	11891.9983
2	5.62	Nitrite	bMB	225.632	587.974	1247.7766
3	7.59	Bromide	BMB	5.870	24.187	46.1241
TOTAL:				4096.82	6621.20	13185.90



Anion/Integration

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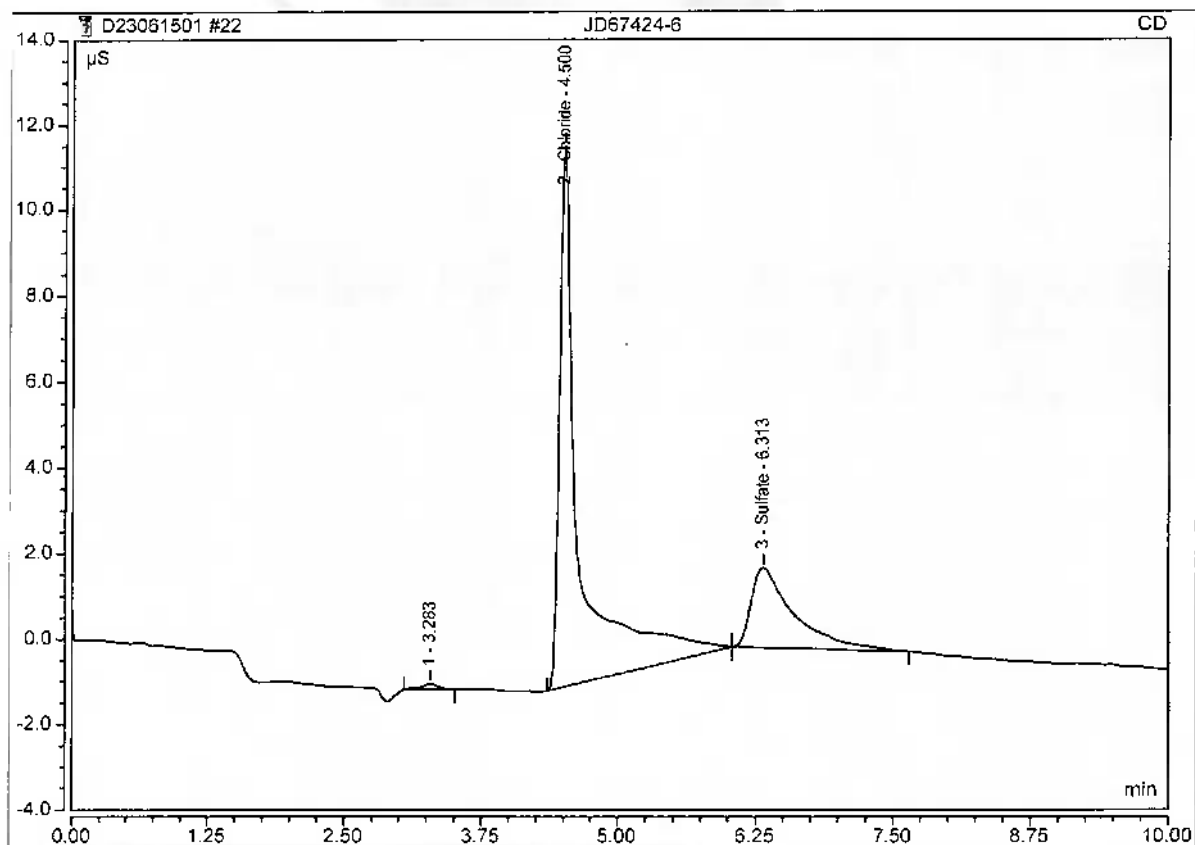
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Peak Integration Report

Sample Name:	JD67424-6	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 16:28	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
2	4.50	Chloride	BMb	2.749	12.630	8.5870
3	6.31	Sulfate	bMB	0.828	1.859	3.5665
TOTAL:				3.58	14.49	12.15



Anion/Integration

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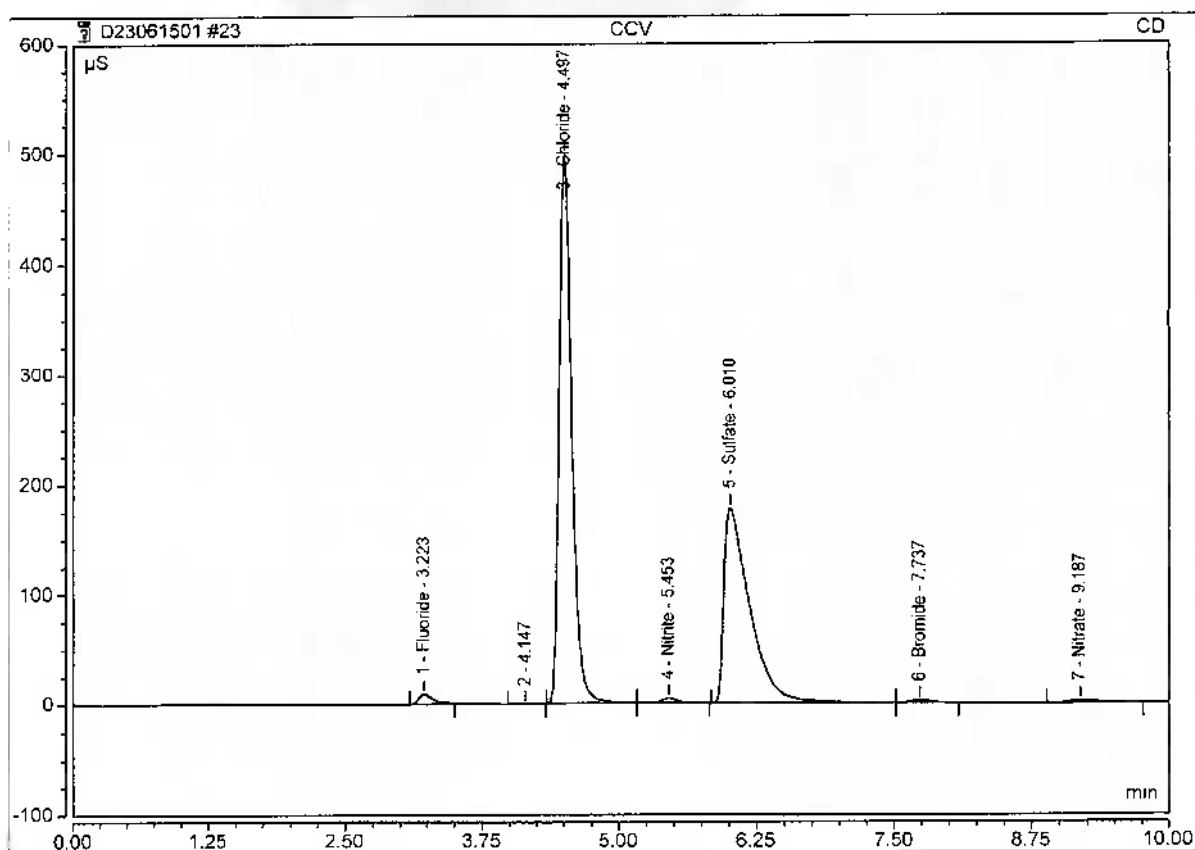
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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 16:45	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.22	Fluoride	BMB	1.261	8.940	2.7173
3	4.50	Chloride	BMB	64.978	498.777	200.0400
4	5.45	Nitrite	bMB	0.658	4.207	3.6213
5	6.01	Sulfate	BMB	47.895	177.680	203.0654
6	7.74	Bromide	bMB	0.347	1.894	2.7942
7	9.19	Nitrate	BMB	0.455	1.958	3.1125
TOTAL:				115.60	693.46	415.35



Anion/Integration

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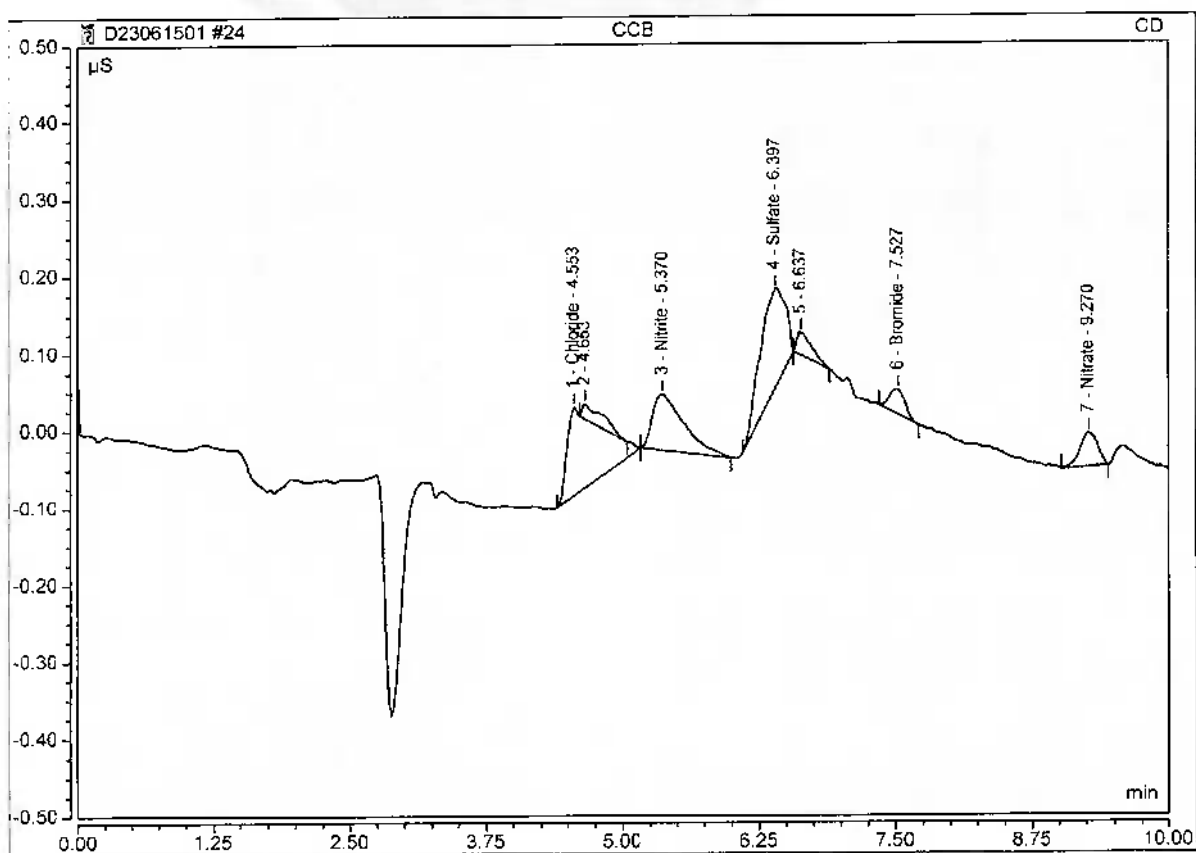
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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 16:58	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.55	Chloride	BMB	0.041	0.115	0.2561
3	5.37	Nitrite	bMB	0.024	0.073	0.1173
4	6.40	Sulfate	BMB	0.035	0.129	0.2072
6	7.53	Bromide	BMB	0.005	0.033	0.1133
7	9.27	Nitrate	BMB	0.008	0.044	0.0301
TOTAL:				0.11	0.39	0.72



Anion/Integration

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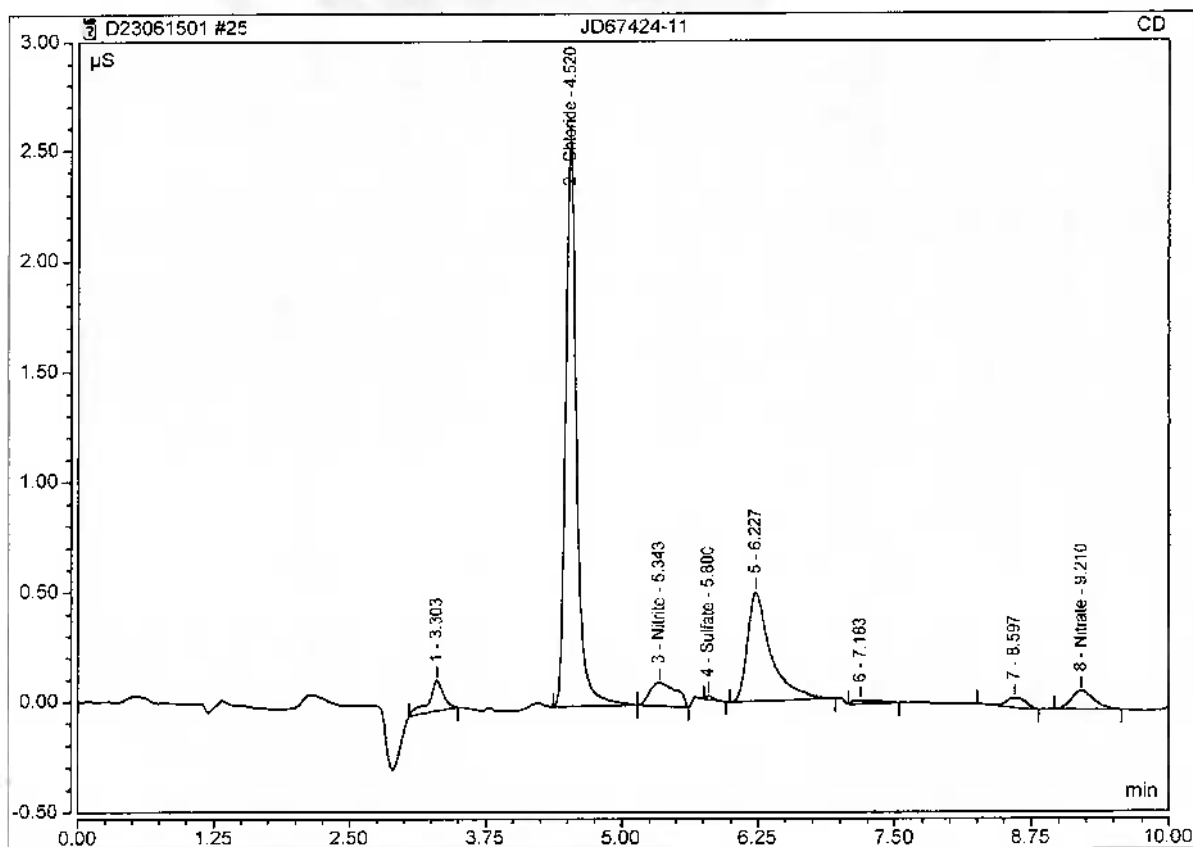
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Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67424-11	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 17:11	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
2	4.52	Chloride	BMB	0.308	2.573	1.0787
3	5.34	Nitrite	BMB	0.031	0.107	0.1520
4	5.80	Sulfate	BMB	0.001	0.017	0.0638
8	9.21	Nitrate	BMB	0.020	0.085	0.1151
TOTAL:				0.36	2.78	1.41



Anion/Integration

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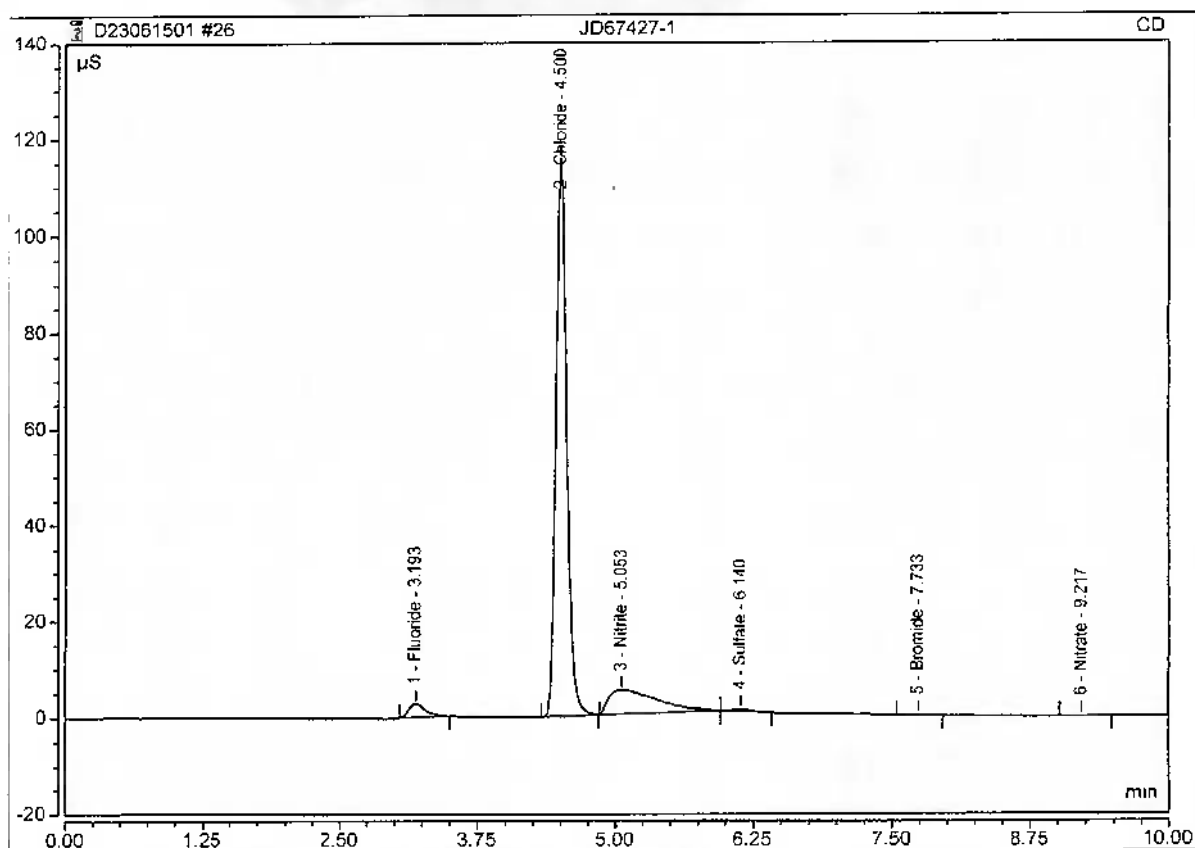
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Peak Integration Report

Sample Name:	JD67427-1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 17:24	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.19	Fluoride	BMB	0.479	2.711	1.0481
2	4.50	Chloride	BMB	13.315	115.618	41.0947
3	5.05	Nitrite	BMB	2.528	4.925	13.9622
4	6.14	Sulfate	bMB	0.085	0.487	0.4193
5	7.73	Bromide	BMB	0.014	0.083	0.1834
6	9.22	Nitrate	BMB	0.009	0.046	0.0366
TOTAL:				16.43	123.87	56.75



Anion/Integration

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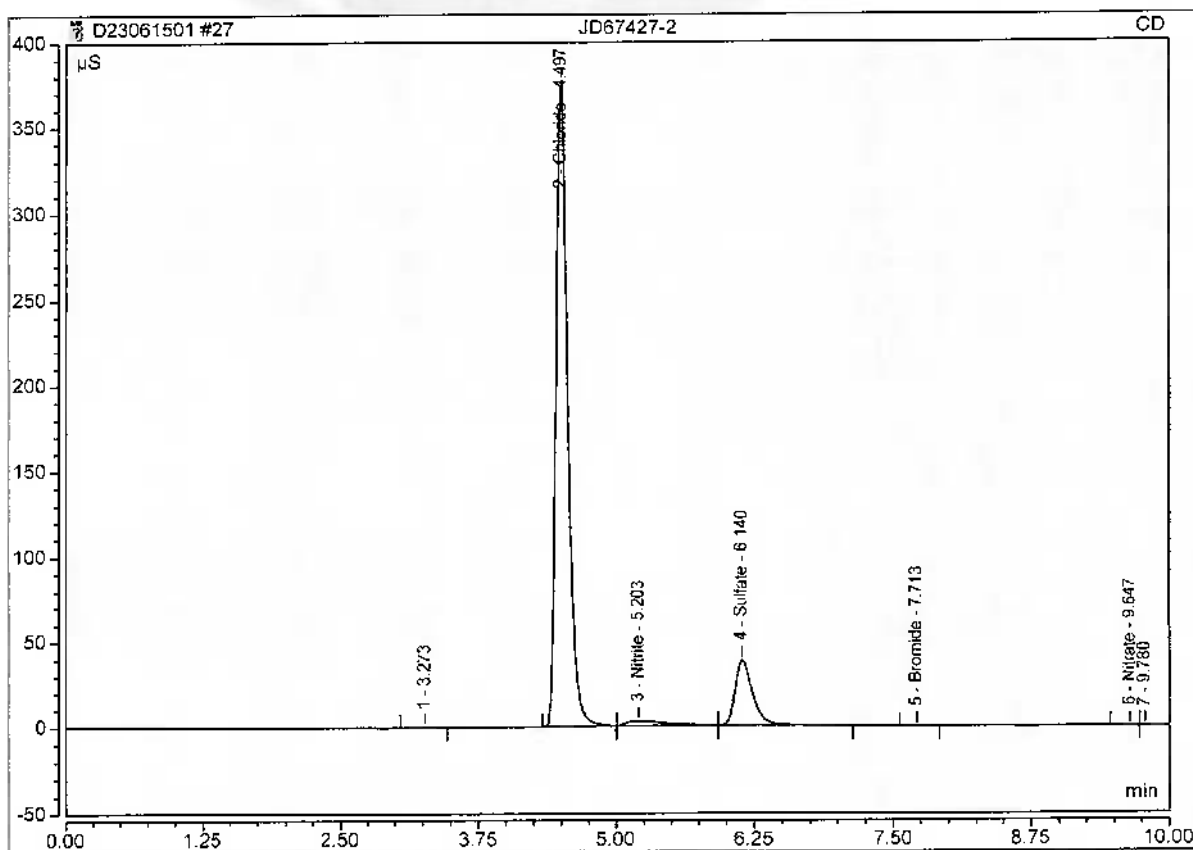
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67427-2	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 1 17:37	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
2	4.50	Chloride	BMB	46.409	377.002	142.9091
3	5.20	Nitrite	BMB	1.112	2.666	6.1311
4	6.14	Sulfate	bMB	6.920	38.470	29.3896
5	7.71	Bromide	BMB	0.015	0.091	0.1857
6	9.65	Nitrate	BM	0.012	0.057	0.0547
TOTAL:				54.47	418.29	178.67



Anion/Integration

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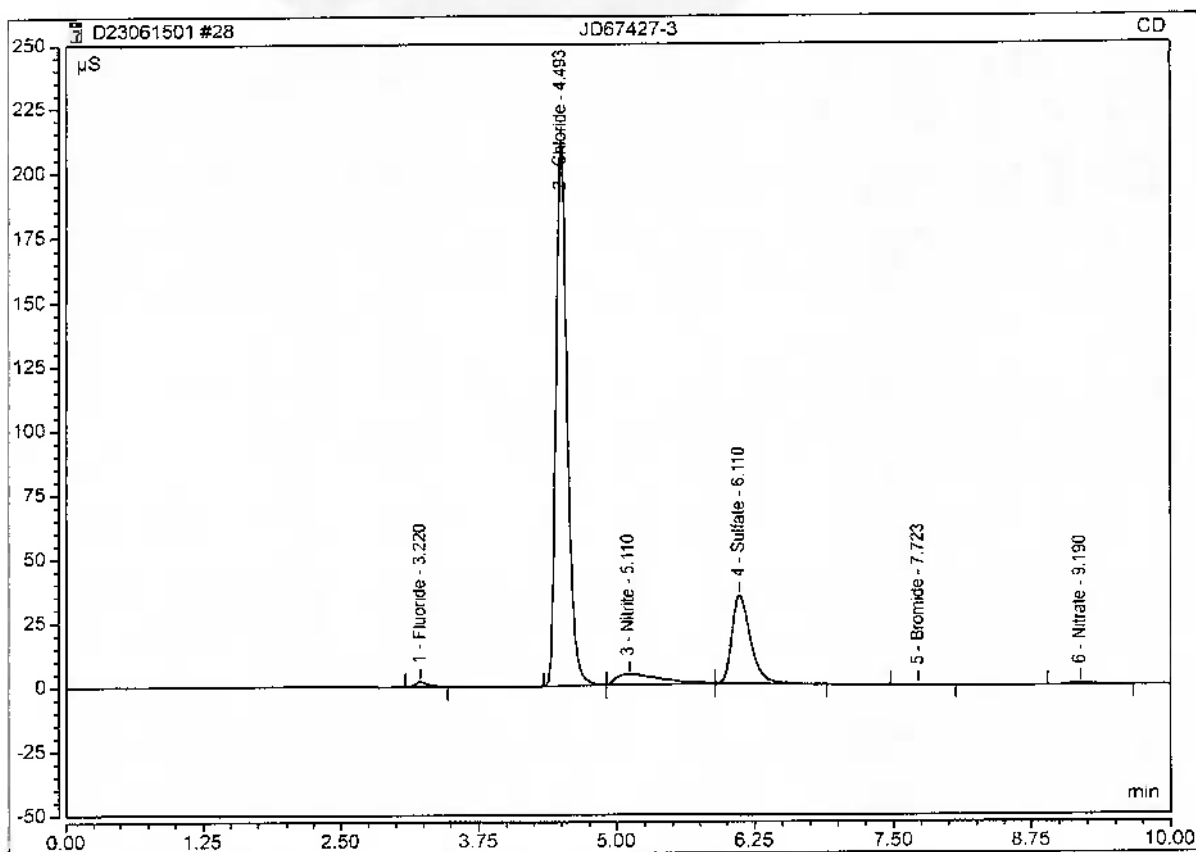
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67427-3	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anlons_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 17:50	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height μS	Amount
1	3.22	Fluoride	BMB	0.237	1.858	0.5311
2	4.49	Chloride	BMB	24.923	212.054	76.8070
3	5.11	Nitrite	BMB	1.824	3.920	10.0701
4	6.11	Sulfate	bMB	6.599	34.245	28.0280
5	7.72	Bromide	BMB	0.032	0.147	0.3201
6	9.19	Nitrate	BMB	0.134	0.610	0.8944
TOTAL:				33.75	252.83	116.65



Anion/Integration

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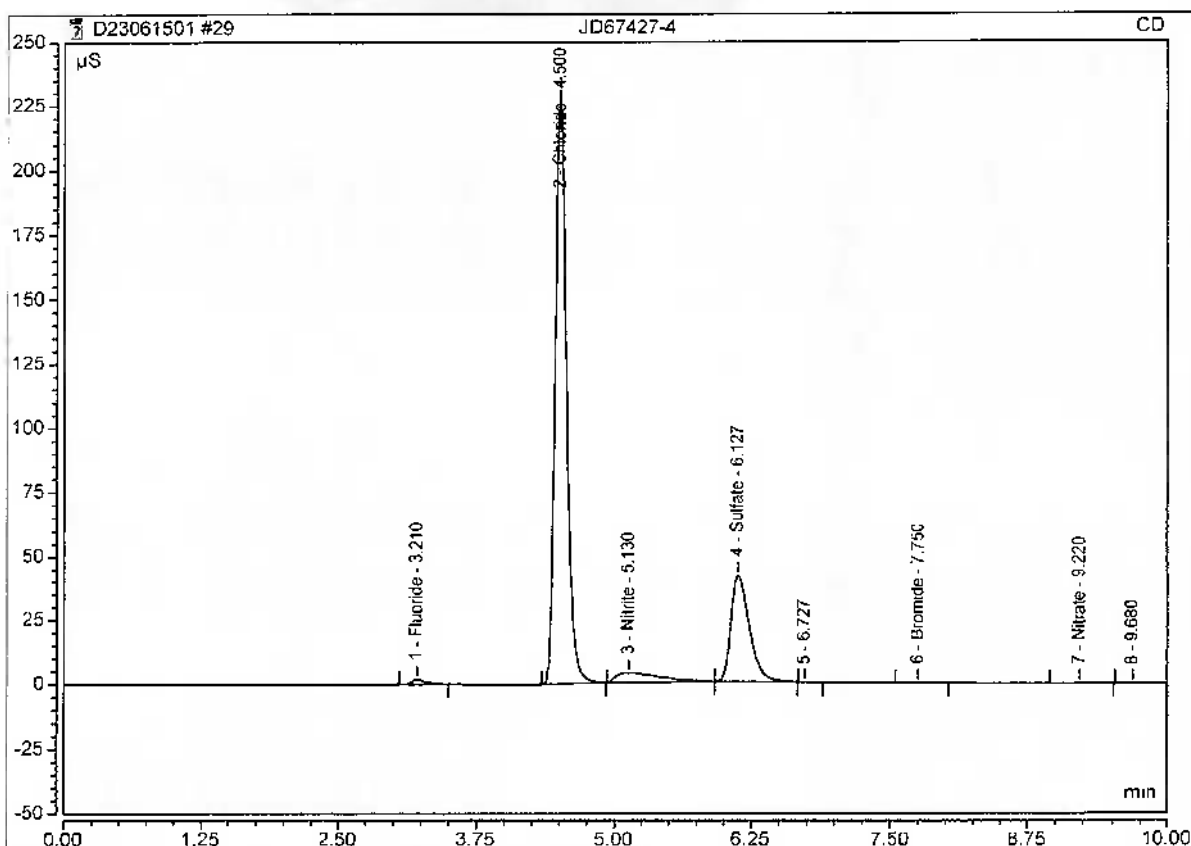
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Peak Integration Report

Sample Name:	JD67427-4	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 18:03	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB	0.247	1.854	0.5534
2	4.50	Chloride	BMB	27.329	230.472	84.2087
3	5.13	Nitrite	BMB	1.778	3.809	9.8167
4	6.13	Sulfate	BMB	8.076	41.658	34.2888
6	7.75	Bromide	BMB	0.021	0.122	0.2370
7	9.22	Nitrate	BMB	0.018	0.082	0.0950
TOTAL:				37.47	278.00	129.20



Anion/Integration

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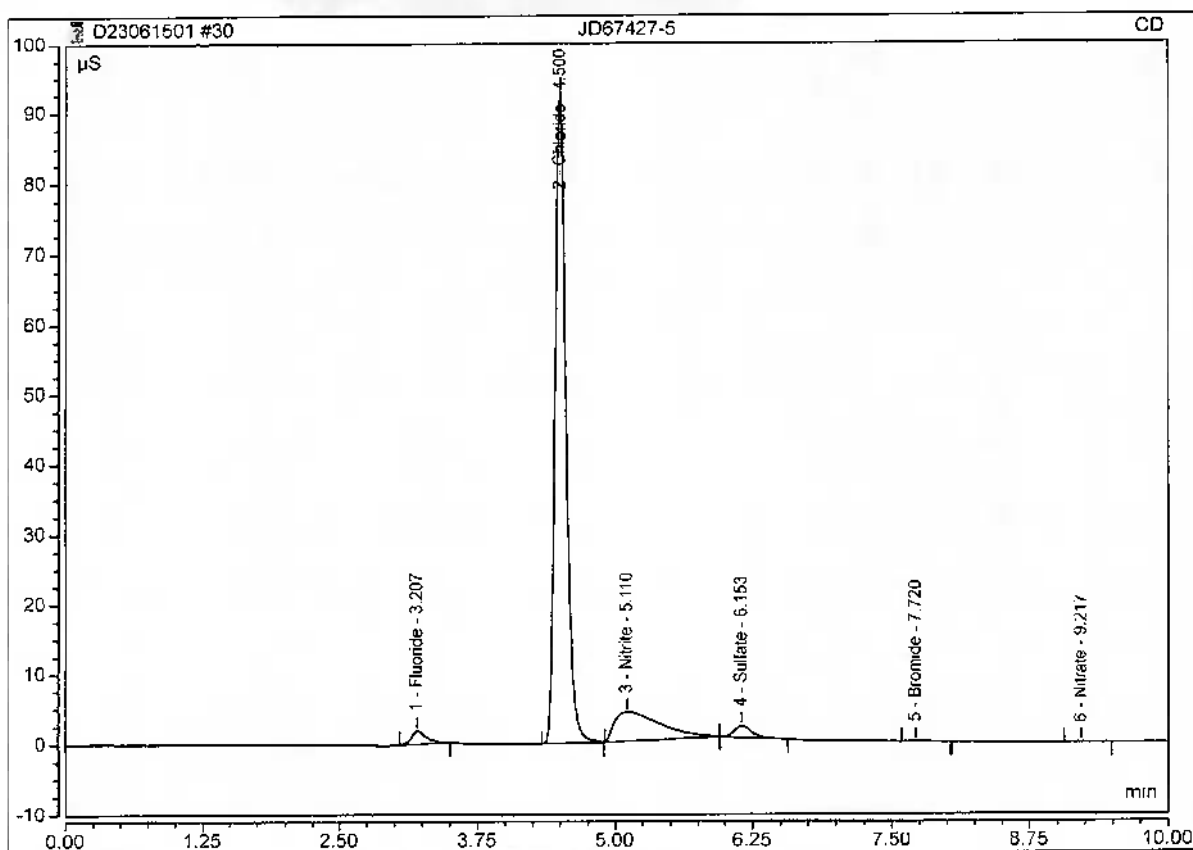
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67427-5	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 18:16	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB	0.299	1.928	0.6634
2	4.50	Chloride	BMB	10.735	93.123	33.1571
3	5.11	Nitrite	BMB	2.001	4.110	11.0500
4	6.15	Sulfate	BMB	0.300	1.629	1.3314
5	7.72	Bromide	BMB	0.018	0.089	0.2164
6	9.22	Nitrate	BMB	0.007	0.037	0.0226
TOTAL:				13.36	100.91	46.44



Anion/Integration

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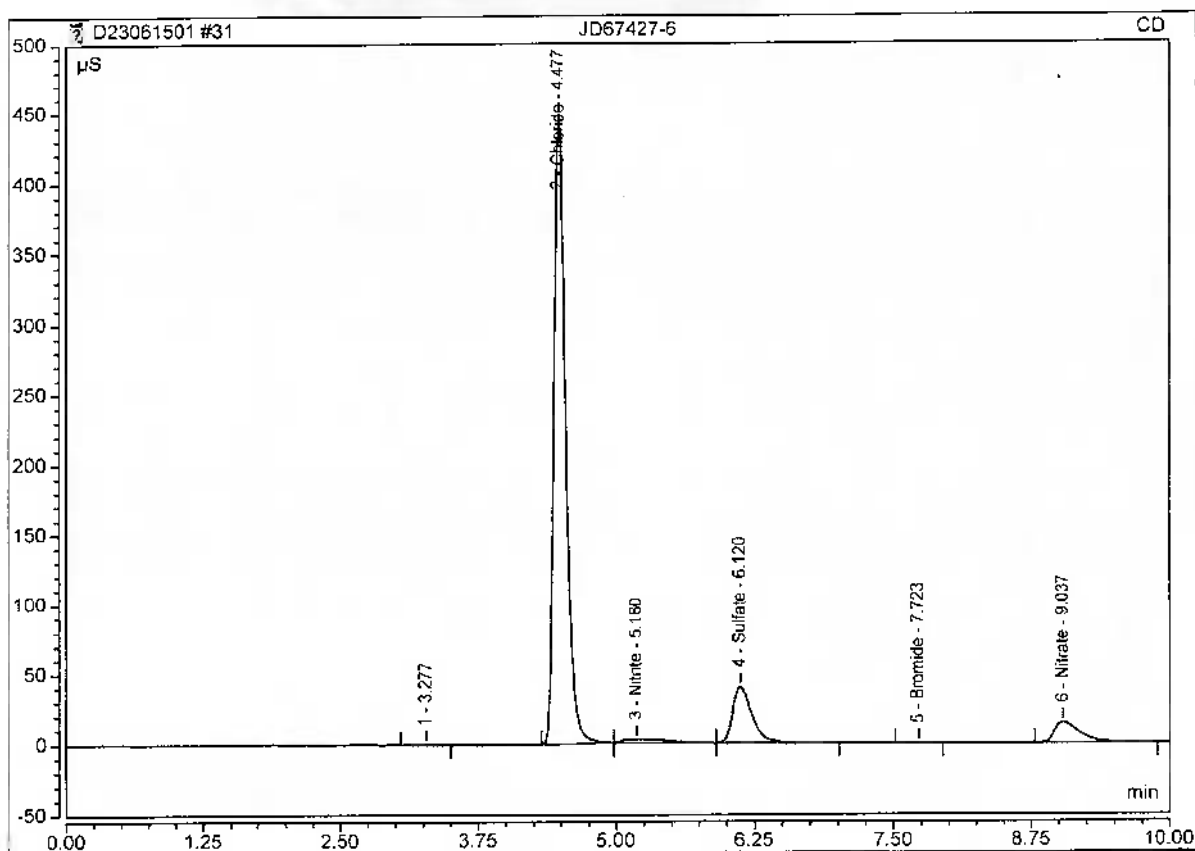
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67427-6	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 18:29	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
2	4.48	Chloride	BME	55.493	448.200	170.8583
3	5.18	Nitrite	BMb	1.126	2.663	6.2087
4	6.12	Sulfate	bMB	7.795	39.929	33.0963
5	7.72	Bromide	BMB	0.012	0.069	0.1650
6	9.04	Nitrate	BMB	3.639	14.436	25.0589
TOTAL:				68.06	505.30	235.39



Anion/Integration

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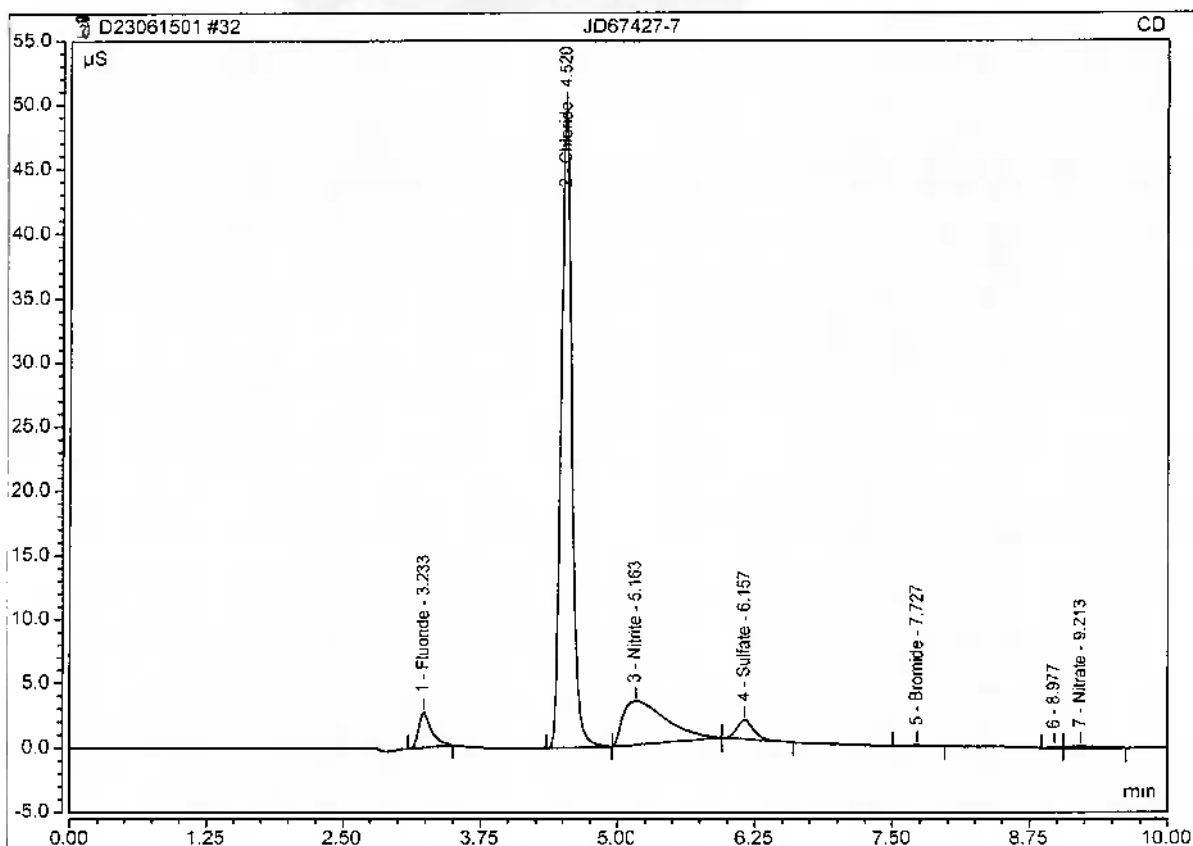
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Instrument: Integriion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67427-7	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 18:42	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.23	Fluoride	BMB	0.353	2.692	0.7790
2	4.52	Chloride	BMB	5.649	49.477	17.5097
3	5.16	Nitrite	BMB	1.530	3.354	8.4465
4	6.16	Sulfate	bMB	0.268	1.484	1.1928
5	7.73	Bromide	BMB	0.010	0.054	0.1469
7	9.21	Nitrate	MB	0.043	0.110	0.2739
TOTAL:				7.85	57.17	28.35



Anion/Integration

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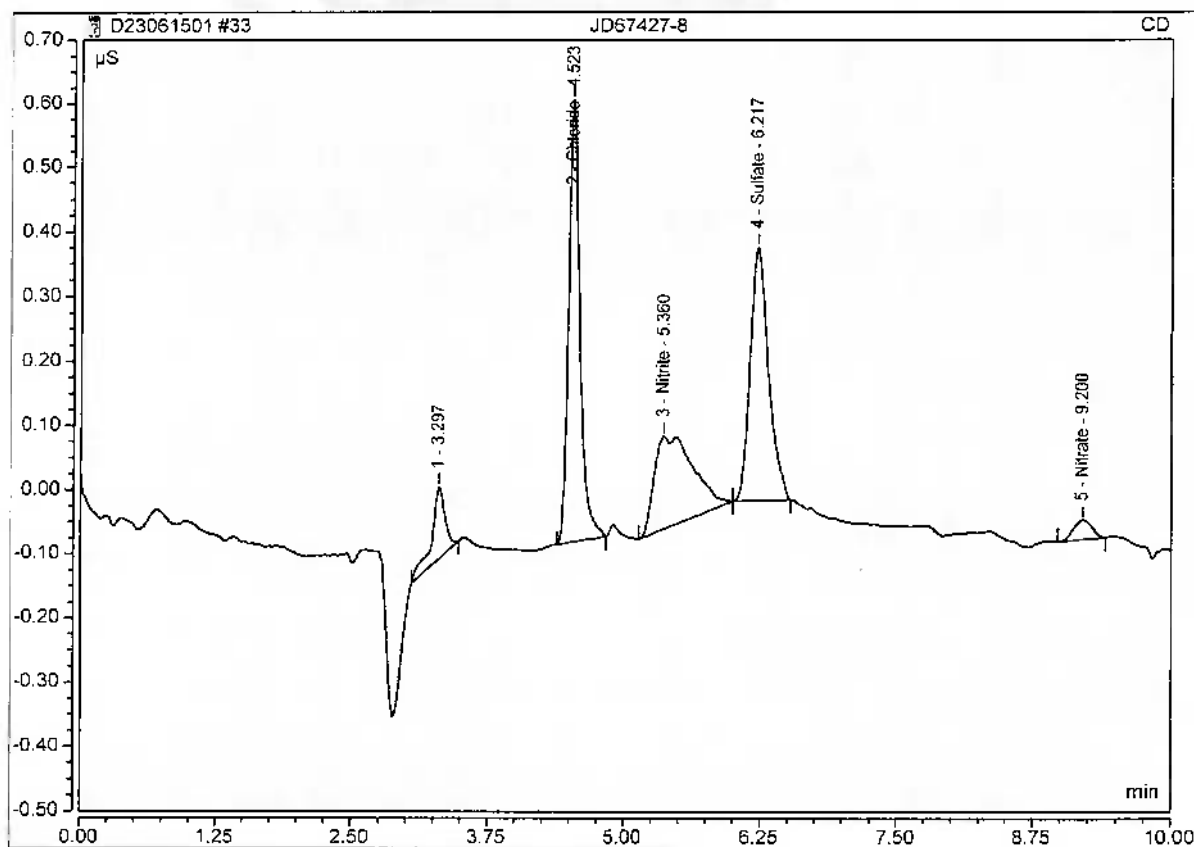
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Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67427-8	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 18:55	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height μS	Amount
2	4.52	Chloride	BMB	0.083	0.687	0.3851
3	5.36	Nitrite	BMB	0.058	0.145	0.3026
4	6.22	Sulfate	bMB	0.076	0.392	0.3806
5	9.20	Nitrate	BMB	0.006	0.031	0.0142
TOTAL:				0.22	1.25	1.08



Anion/Integration

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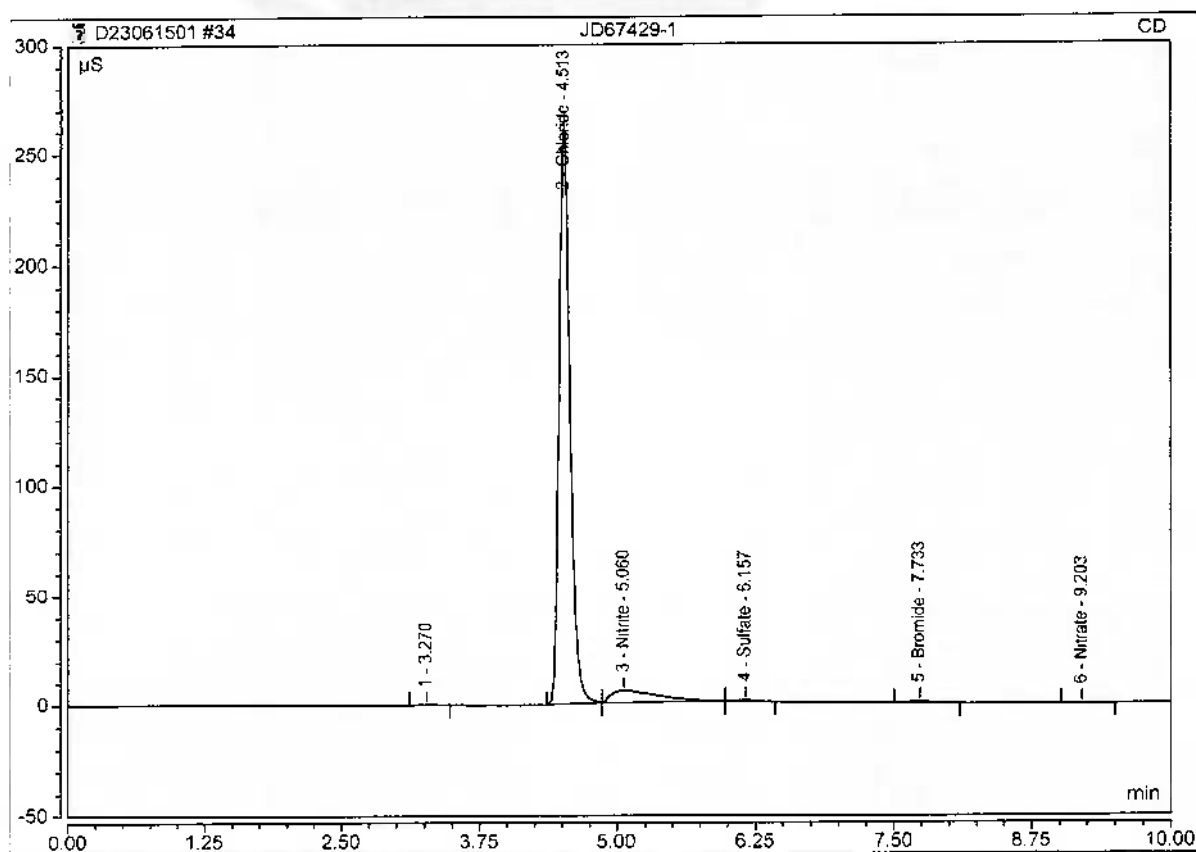
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67429-1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 19:08	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
2	4.51	Chloride	BMB	31.168	261.531	98.0200
3	5.06	Nitrite	BMB	2.651	5.227	14.6446
4	6.16	Sulfate	bMB	0.114	0.678	0.5400
5	7.73	Bromide	BMB	0.116	0.656	0.9827
6	9.20	Nitrate	BMB	0.012	0.062	0.0594
TOTAL:				34.08	268.15	112.25



Anion/Integration

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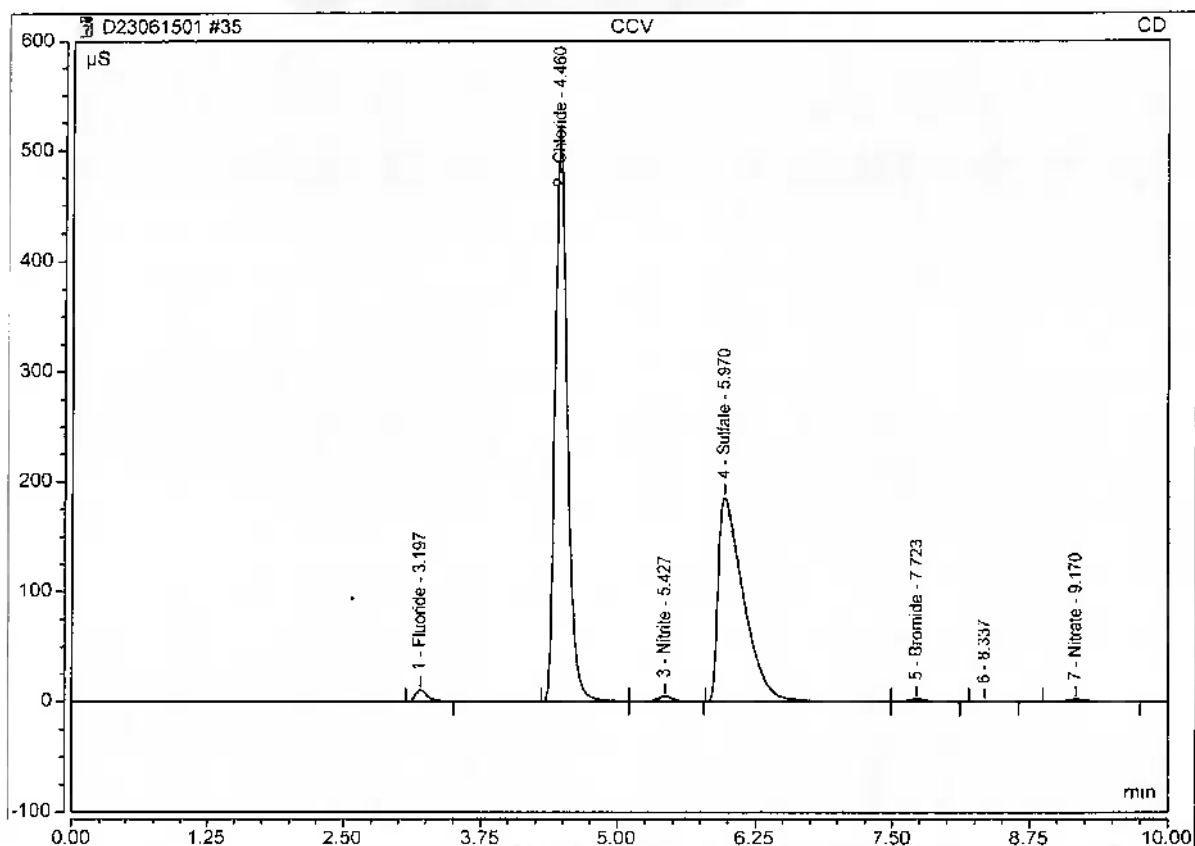
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 19:21	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.20	Fluoride	BMB	1.369	10.660	2.9470
2	4.46	Chloride	BMB	66.023	510.178	203.2536
3	5.43	Nitrite	bMB	0.667	4.321	3.6712
4	5.97	Sulfate	BMB	48.640	185.273	206.2210
5	7.72	Bromide	bMB	0.343	1.860	2.7645
7	9.17	Nitrate	BMB	0.450	1.960	3.0768
TOTAL:				117.49	714.25	421.93



Anion/Integration

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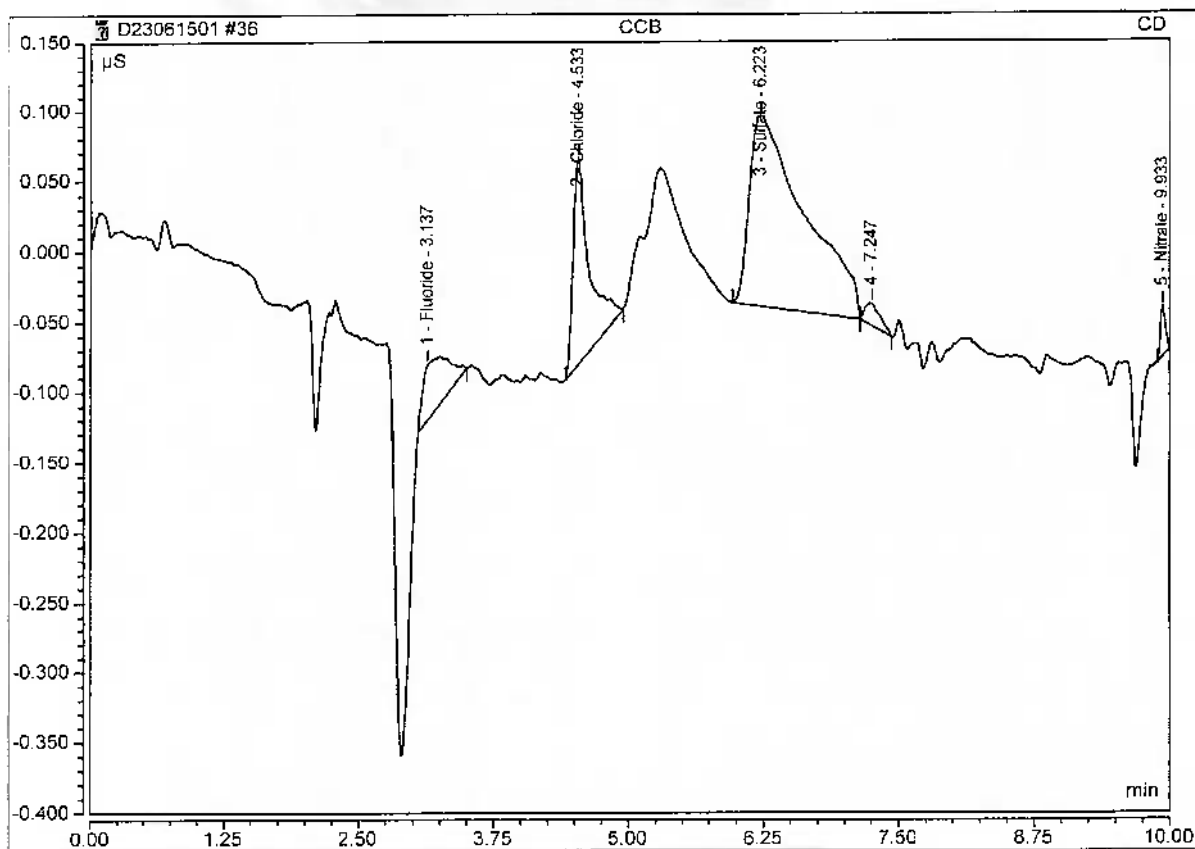
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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 19:34	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.14	Fluoride	BMB	0.011	0.040	0.0492
2	4.53	Chloride	BMB	0.025	0.147	0.2080
3	6.22	Sulfate	BMB	0.080	0.135	0.3995
5	9.93	Nitrate	BMB	0.002	0.036	n.a.
TOTAL:				0.12	0.36	0.66



Anion/Integration

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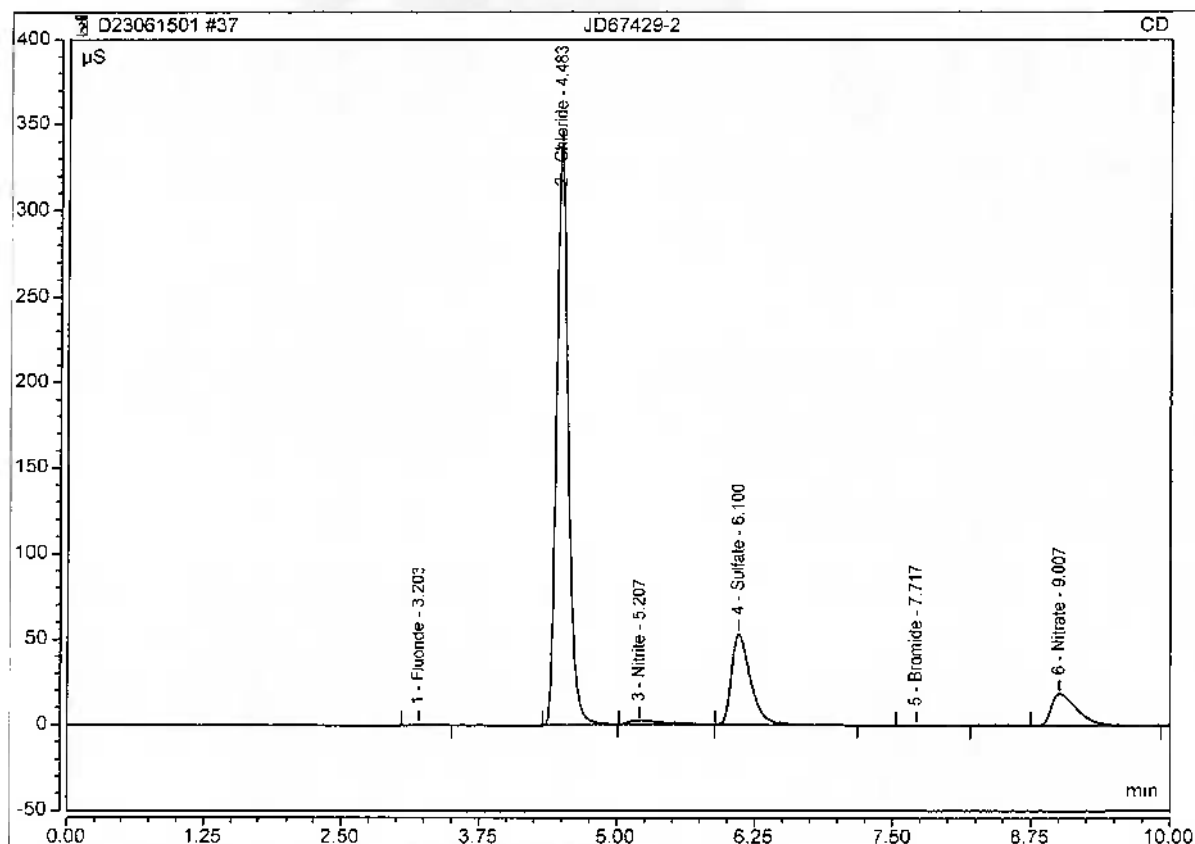
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Instrument: Integriion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67429-2	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 19:47	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.20	Fluoride	BMB	0.046	0.257	0.1240
2	4.48	Chloride	BMB	42.086	338.380	129.6109
3	5.21	Nitrite	BMB	0.822	2.147	4.5288
4	6.10	Sulfate	BMB	10.393	52.781	44.1081
5	7.72	Bromide	BMB	0.022	0.100	0.2424
6	9.01	Nitrate	BMB	4.823	18.414	33.2173
TOTAL:				58.19	412.08	211.83



Anion/Integration

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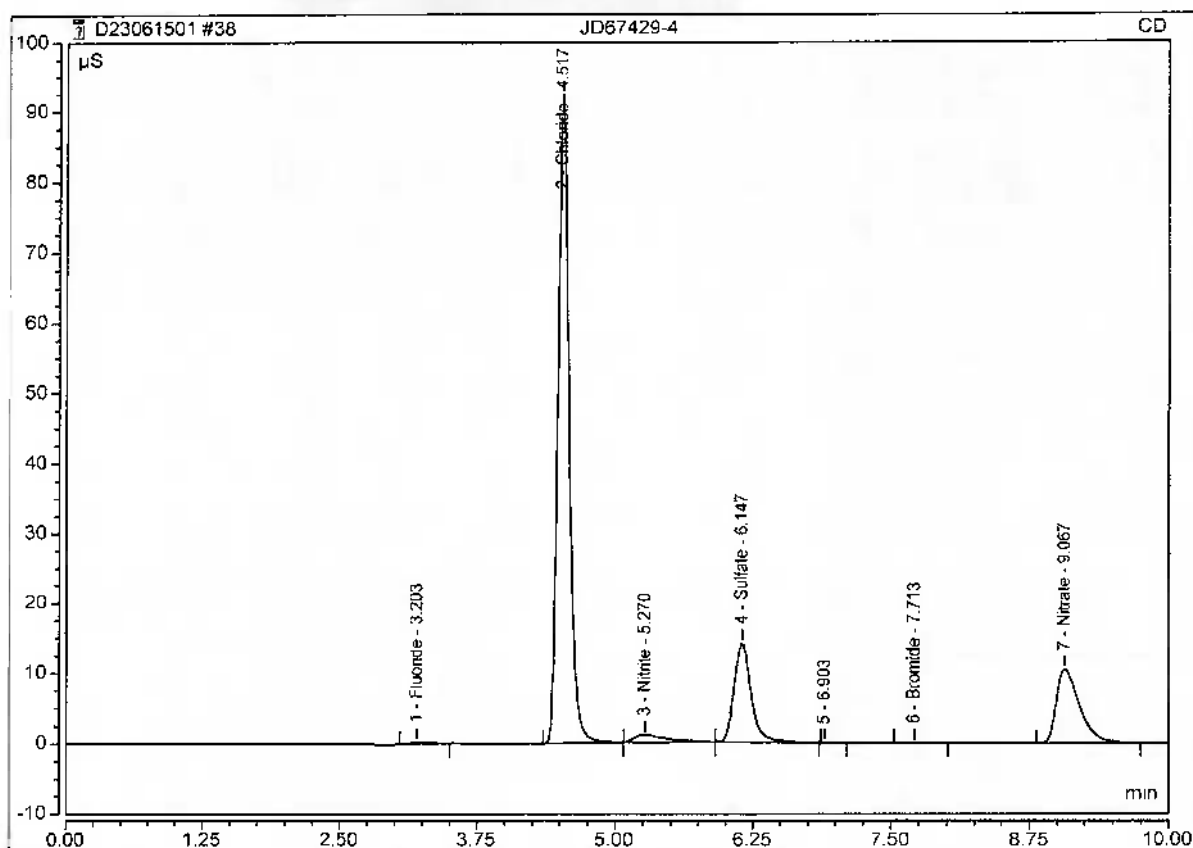
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Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67429-4	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 20:00	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.20	Fluoride	BMB	0.041	0.239	0.1150
2	4.52	Chloride	BMB	11.039	92.490	34.0915
3	5.27	Nitrite	BMB	0.351	1.050	1.9218
4	6.15	Sulfate	bMB	2.546	14.059	10.8517
5	7.71	Bromide	BMB	0.007	0.038	0.1302
7	9.07	Nitrate	BMB	2.558	10.499	17.6058
TOTAL:				16.54	118.38	64.72



Anion/Integration

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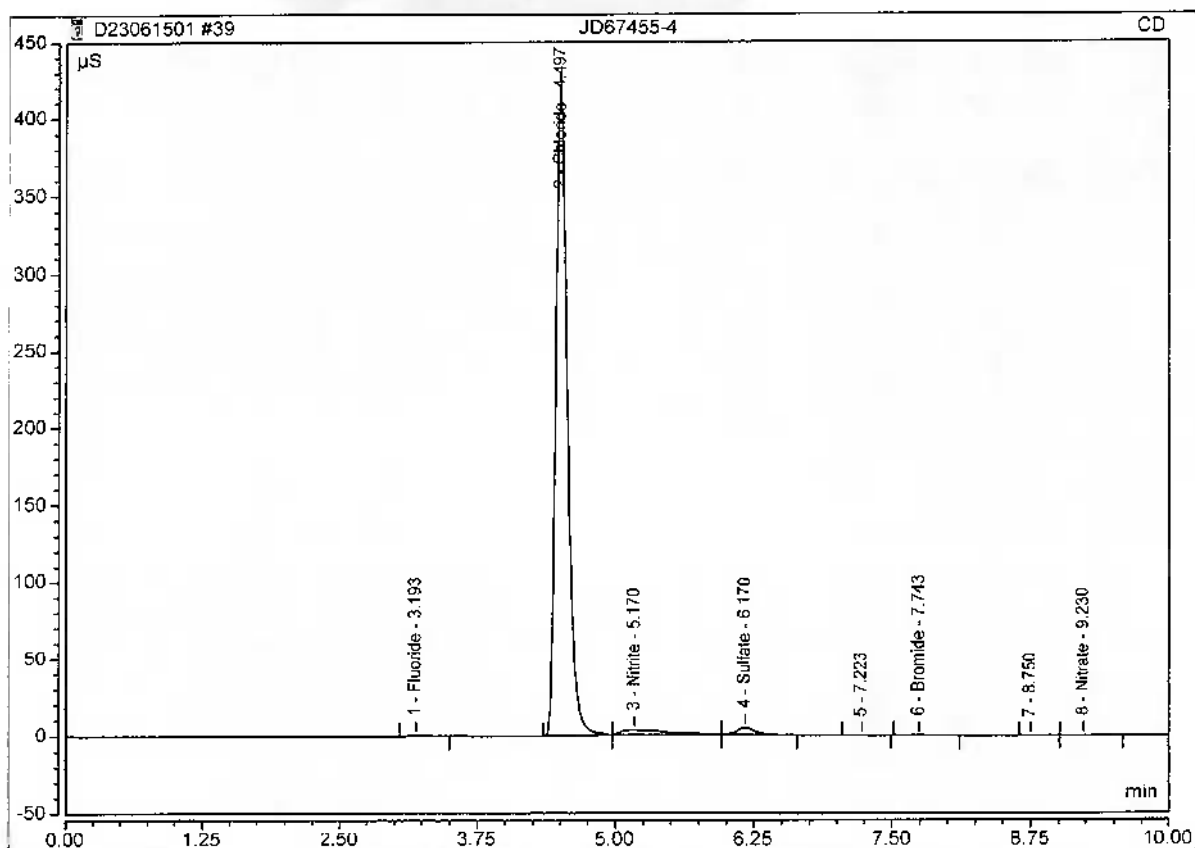
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Peak Integration Report

Sample Name:	JD67455-4	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 20:30	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.19	Fluoride	BMB	0.106	0.767	0.2532
2	4.50	Chloride	BMB	52.715	421.371	162.3114
3	5.17	Nitrite	BMB	1.454	3.327	8.0240
4	6.17	Sulfate	bMB	0.805	4.514	3.4712
6	7.74	Bromide	BMB	0.028	0.152	0.2947
8	9.23	Nitrate	bMB	0.010	0.041	0.0452
TOTAL:				55.12	430.17	174.40



Anion/Integration

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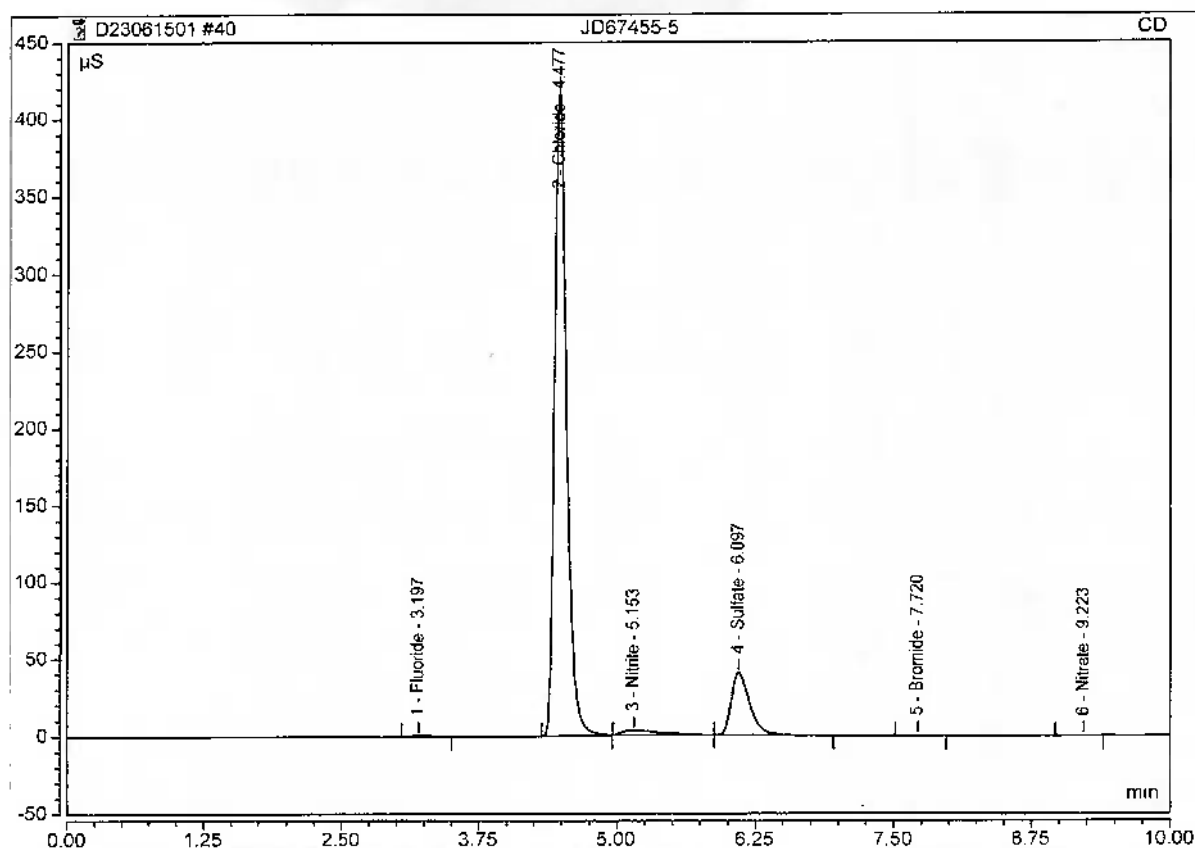
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Peak Integration Report

Sample Name:	JD67455-5	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 20:43	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.20	Fluoride	BMB	0.099	0.556	0.2375
2	4.48	Chloride	BMB	52.256	418.686	160.8997
3	5.15	Nitrite	BMB	1.182	2.873	6.5197
4	6.10	Sulfate	bMB	7.660	40.076	32.5258
5	7.72	Bromide	BMB	0.032	0.183	0.3254
6	9.22	Nitrate	BMB	0.010	0.043	0.0408
TOTAL:				61.24	462.42	200.55



Anion/Integration

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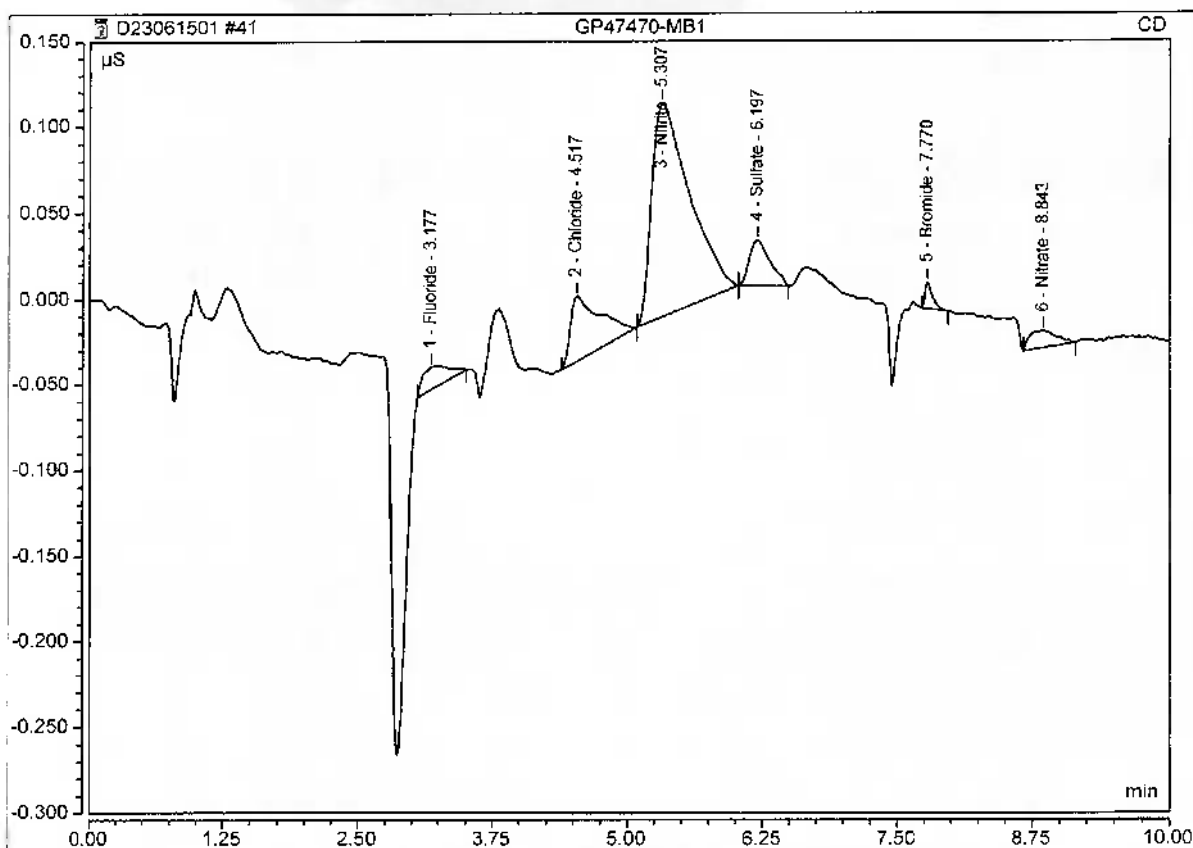
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Peak Integration Report

Sample Name:	GP47470-MB1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 20:56	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.18	Fluoride	BMB	0.004	0.013	0.0343
2	4.52	Chloride	BMB	0.012	0.038	0.1665
3	5.31	Nitrite	BMB	0.050	0.124	0.2607
4	6.20	Sulfate	BMB	0.006	0.026	0.0835
5	7.77	Bromide	BMB	0.001	0.016	0.0816
6	8.84	Nitrate	BMB	0.003	0.010	n.a.
TOTAL:				0.08	0.23	0.63



Anion/Integration

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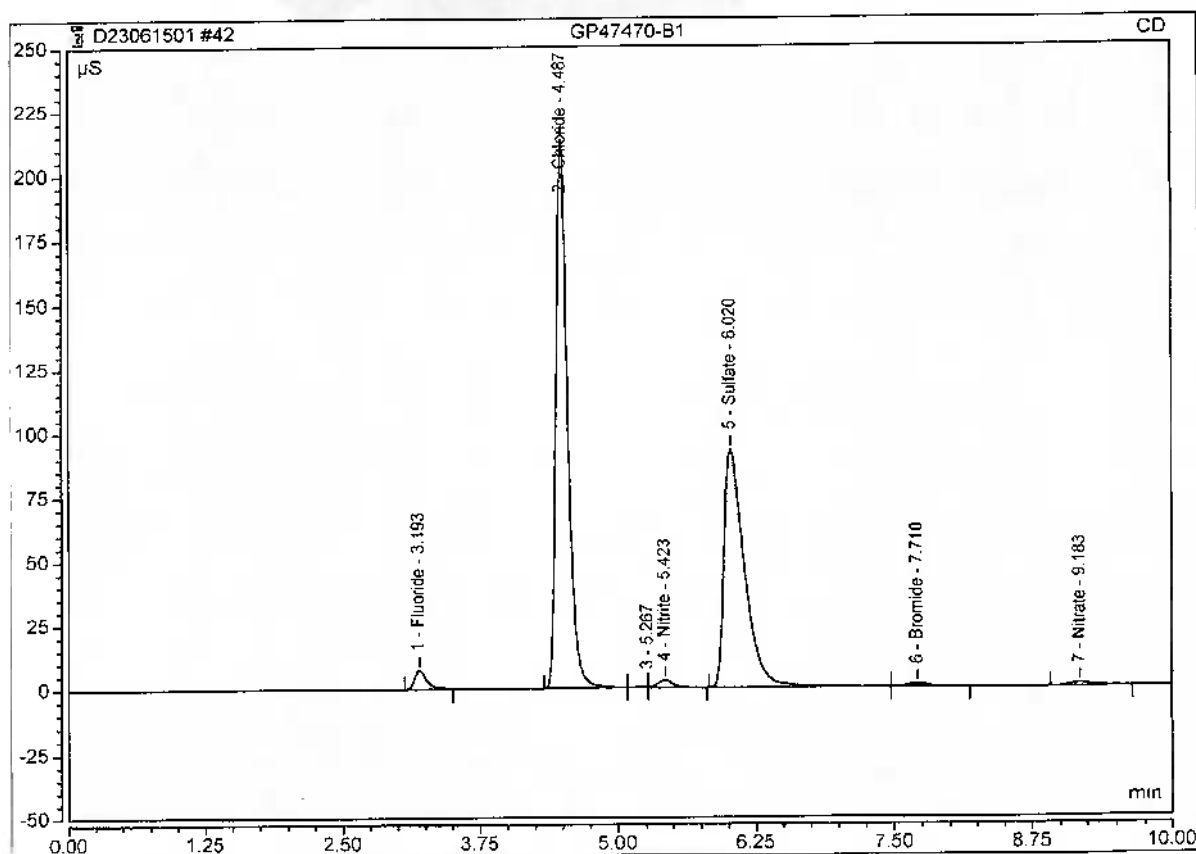
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Peak Integration Report

Sample Name:	GP47470-B1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 21:09	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.19	Fluoride	BMB	0.935	7.452	2.0220
2	4.49	Chloride	BMB	26.520	213.489	81.7218
4	5.42	Nitrite	MB	0.422	2.826	2.3176
5	6.02	Sulfate	BMB	19.797	92.980	83.9696
6	7.71	Bromide	bMB	0.223	1.200	1.8218
7	9.18	Nitrate	BMB	0.277	1.198	1.8818
TOTAL:				48.17	319.15	173.73



Anion/Integration

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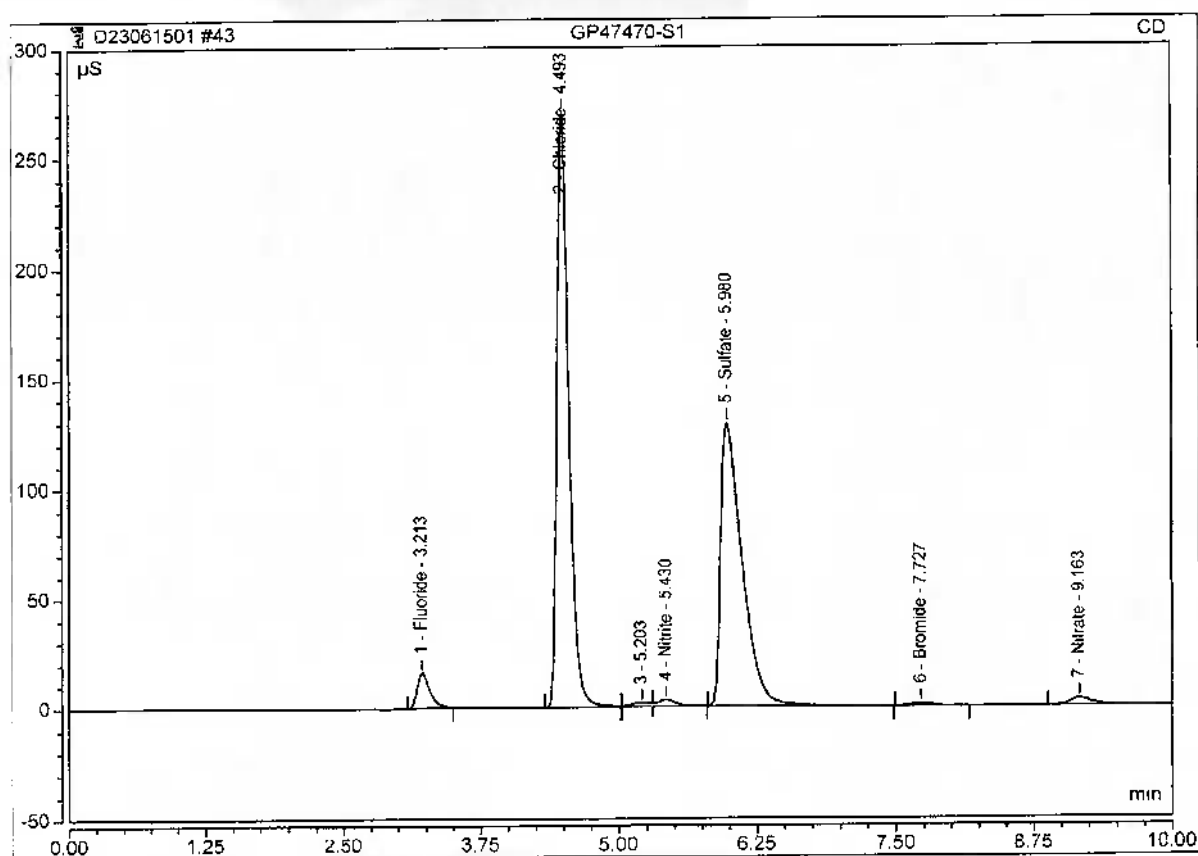
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Sequence: D23061501

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Peak Integration Report

Sample Name:	GP47470-S1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 21:22	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB	2.139	16.114	4.5891
2	4.49	Chloride	BMB	33.533	270.352	103.2965
4	5.43	Nitrite	MB	0.558	3.104	3.0689
5	5.98	Sulfate	BMB	28.763	128.731	121.9702
6	7.73	Bromide	BMB	0.228	1.240	1.8568
7	9.16	Nitrate	BMB	0.744	3.250	5.1042
TOTAL:				65.96	422.79	239.89



Anion/Integration

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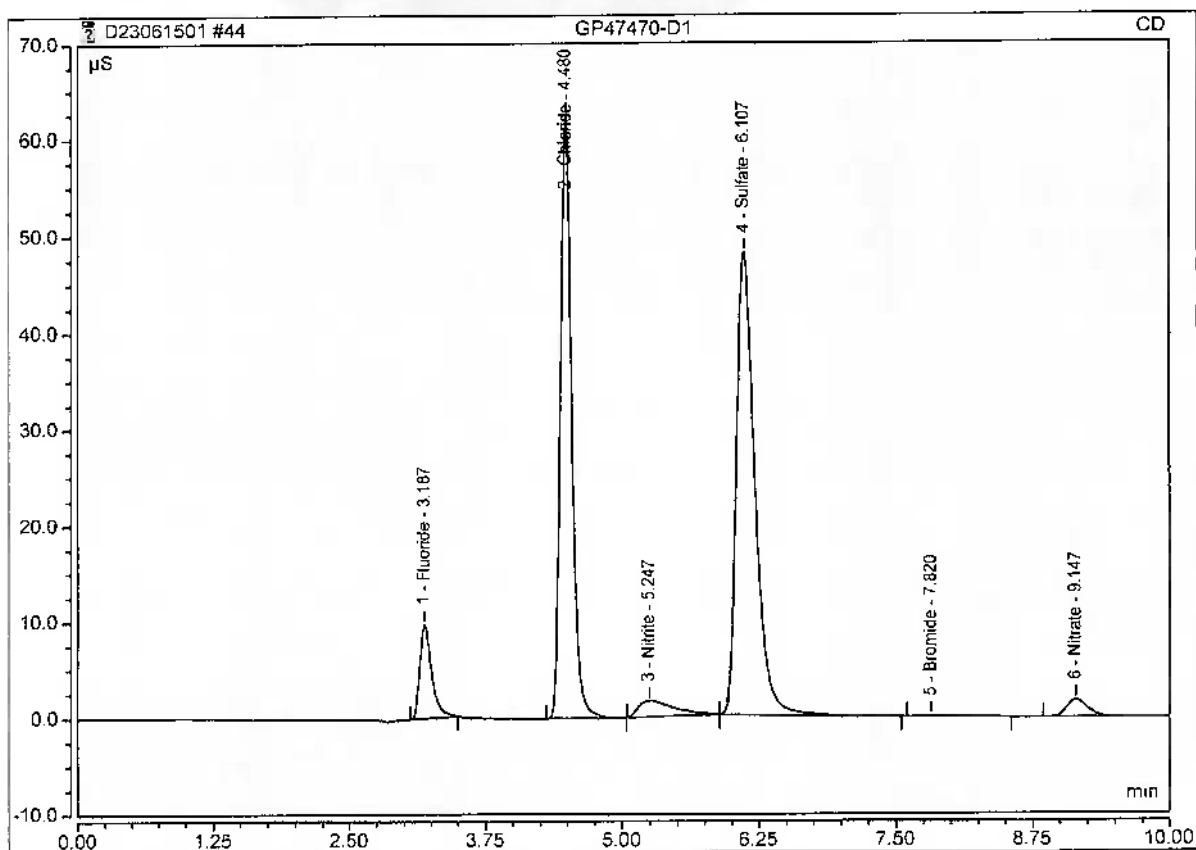
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Peak Integration Report

Sample Name:	GP47470-D1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 21:35	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.19	Fluoride	BMB	1.246	9.778	2.6840
2	4.48	Chloride	BMB	7.416	62.389	22.9450
3	5.25	Nitrite	BMB	0.608	1.633	3.3436
4	6.11	Sulfate	bMB	9.448	47.976	40.1056
5	7.82	Bromide	BMB	0.041	0.097	0.3912
6	9.15	Nitrate	BMB	0.407	1.812	2.7799
TOTAL:				19.17	123.68	72.25



Anion/Integration

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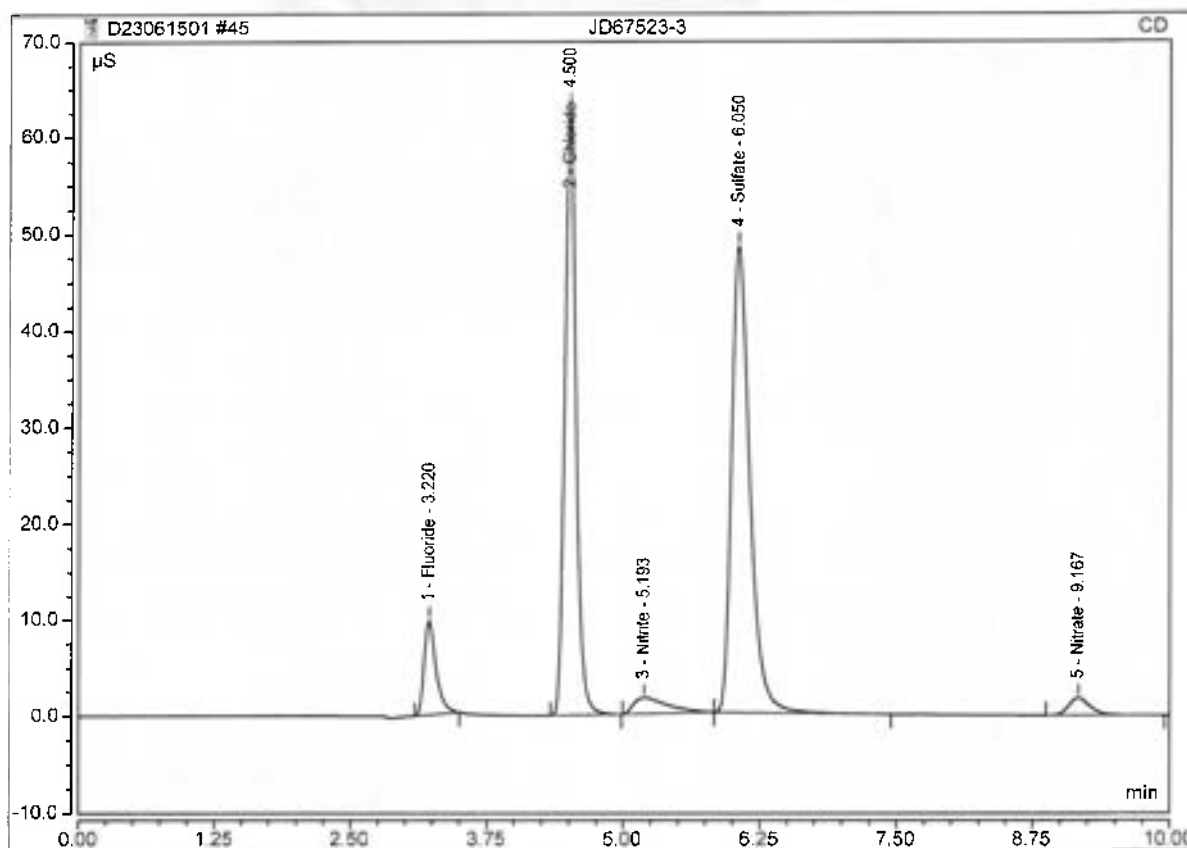
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67523-3	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 21:48	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.22	Fluoride	BMB	1.244	9.856	2.6800
2	4.50	Chloride	BMB	7.451	62.581	23.0539
3	5.19	Nitrite	BMB	0.600	1.674	3.3035
4	6.05	Sulfate	bMB	9.437	48.421	40.0577
5	9.17	Nitrate	BMB	0.417	1.822	2.8465
TOTAL:				19.15	124.35	71.94



Anion/Integration

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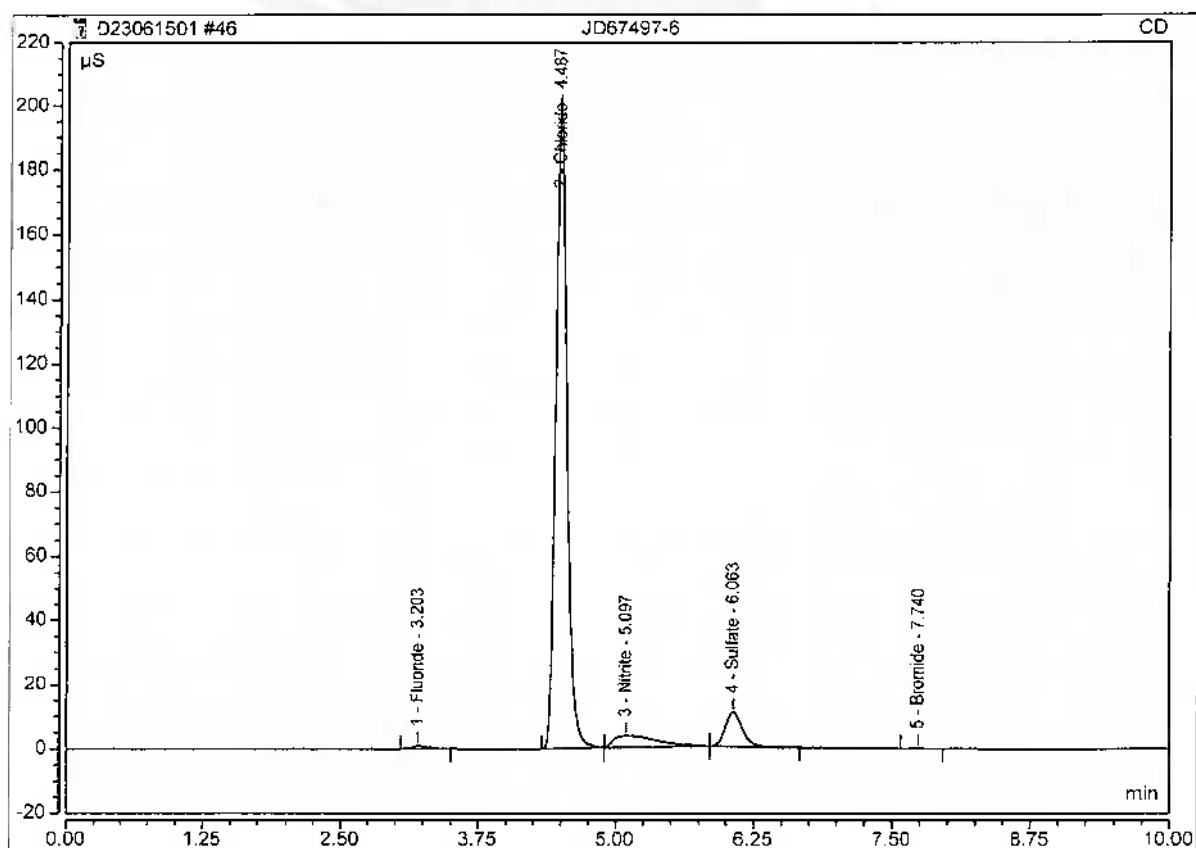
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67497-6	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 22:01	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.20	Fluoride	BMB	0.142	0.988	0.3290
2	4.49	Chloride	BMB	23.720	198.035	73.1058
3	5.10	Nitrite	BMB	1.591	3.587	8.7816
4	6.06	Sulfate	bMB	1.902	10.700	8.1193
5	7.74	Bromide	BMB	0.005	0.033	0.1138
TOTAL:				27.36	213.34	90.45



Anion/Integration

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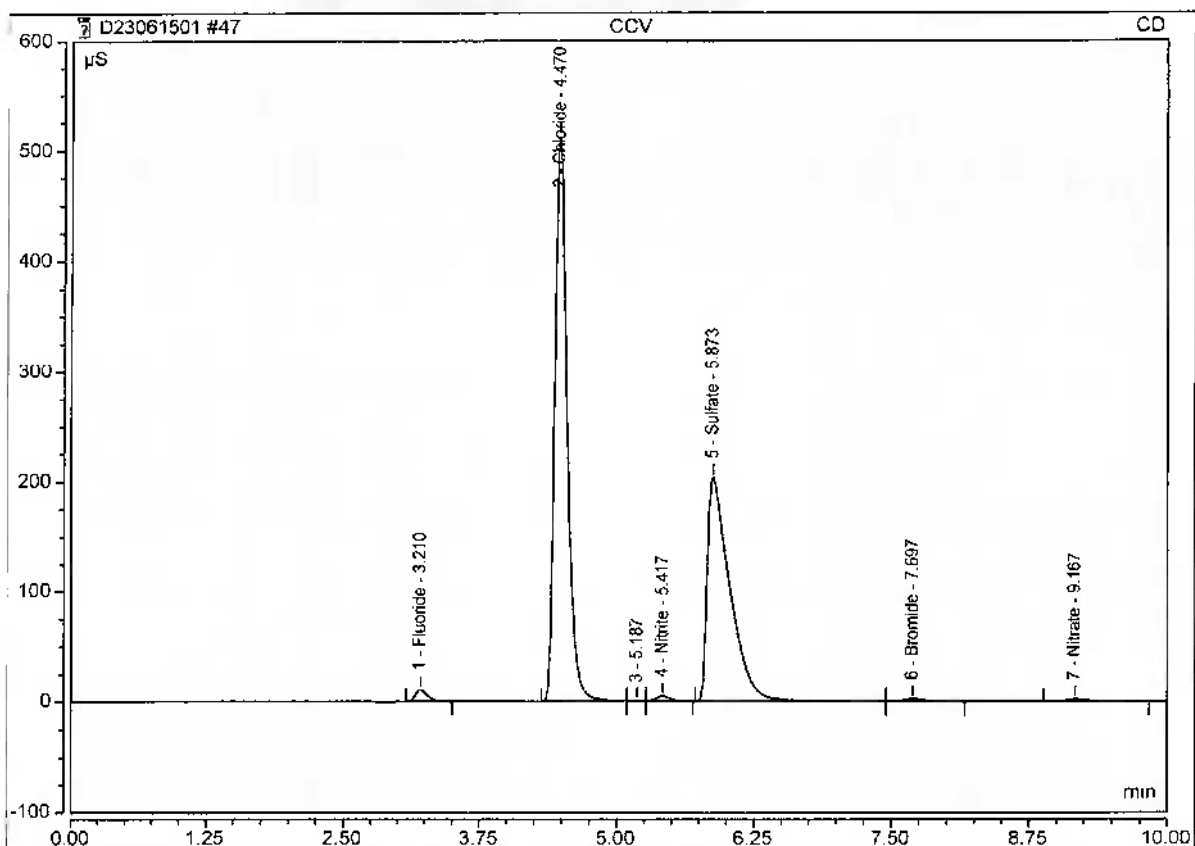
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 22:14	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB	1.382	10.692	2.9755
2	4.47	Chloride	BMB	66.384	512.511	204.3641
4	5.42	Nitrite	bMB	0.571	4.231	3.1380
5	5.87	Sulfate	BMB	48.598	203.245	206.0416
6	7.70	Bromide	bMB	0.352	1.872	2.8342
7	9.17	Nitrate	BMB	0.457	1.942	3.1244
TOTAL:				117.74	734.49	422.48



Anion/Integration

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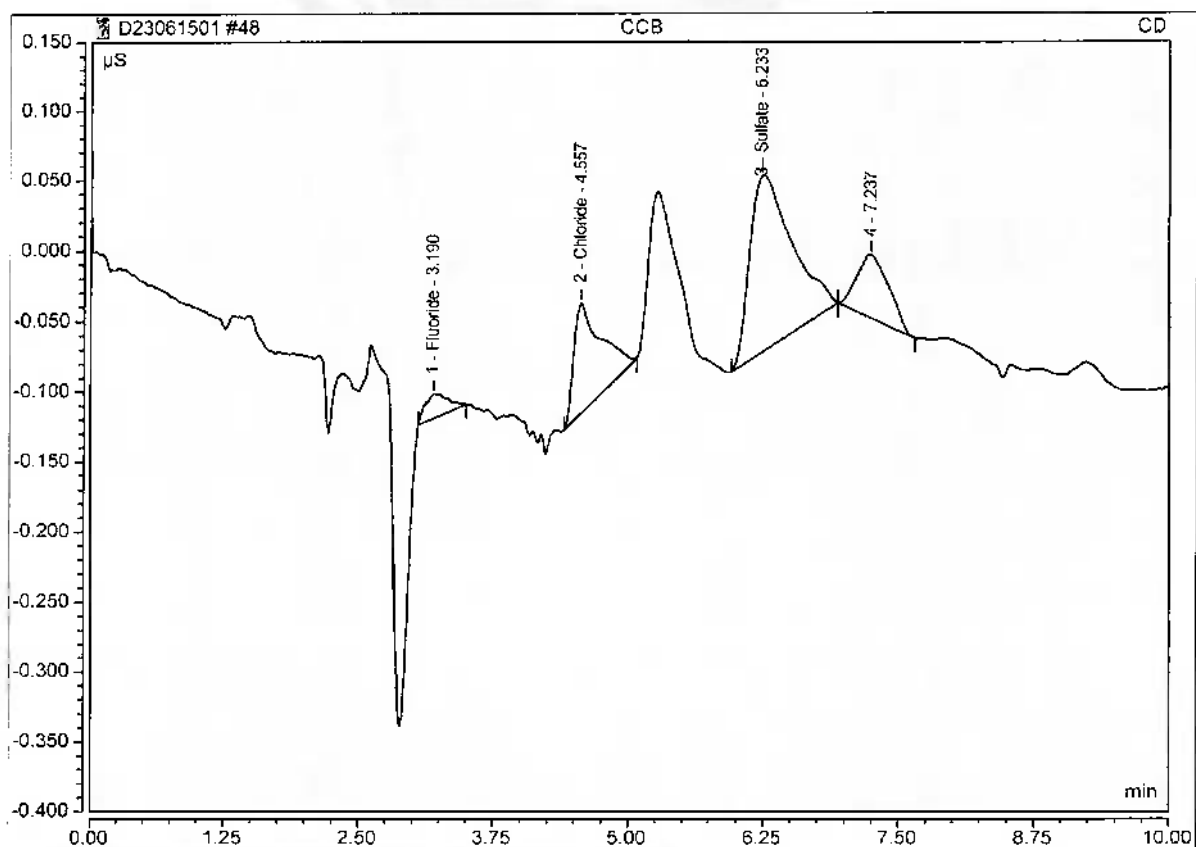
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 22:27	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.19	Fluoride	BMB	0.004	0.018	0.0359
2	4.56	Chloride	BMB	0.023	0.079	0.1996
3	6.23	Sulfate	BMB	0.056	0.125	0.2952
TOTAL:				0.08	0.22	0.53



Anion/Integration

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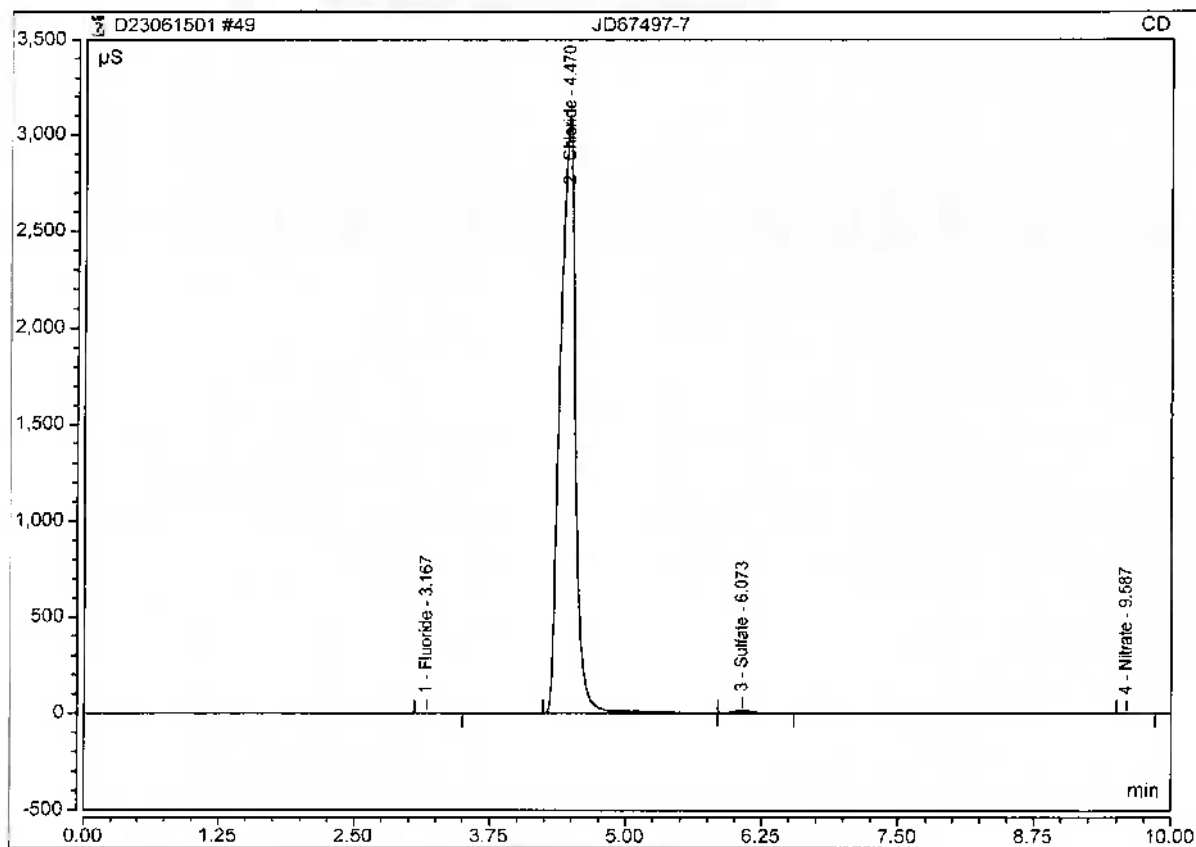
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Peak Integration Report

Sample Name:	JD67497-7	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 22:40	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.17	Fluoride	BMB	0.066	0.398	0.1669
2	4.47	Chloride	BMB	499.316	3097.692	1536.3035
3	6.07	Sulfate	bMB	2.305	12.518	9.8280
4	9.59	Nitrate	BMB	0.003	0.017	n.a.
TOTAL:				501.69	3110.62	1546.30



Anion/Integration

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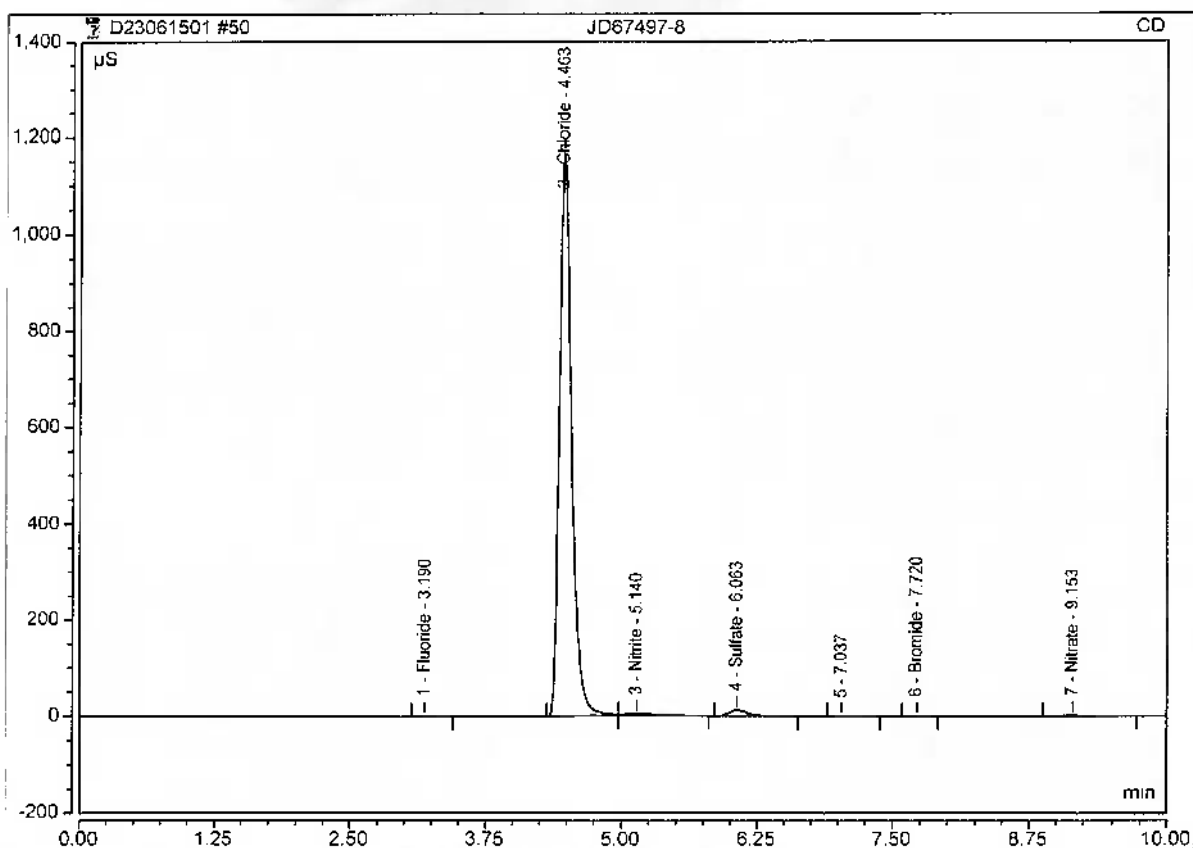
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Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67497-8	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 22:53	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.19	Fluoride	BMB	0.074	0.471	0.1849
2	4.46	Chloride	BMB	153.031	1168.986	470.9363
3	5.14	Nitrite	BMB	0.704	1.953	3.8763
4	6.06	Sulfate	BMB	2.090	11.573	8.9162
6	7.72	Bromide	BMB	0.006	0.037	0.1155
7	9.15	Nitrate	BMB	0.436	1.926	2.9821
TOTAL:				156.34	1184.95	487.01



Anion/Integration

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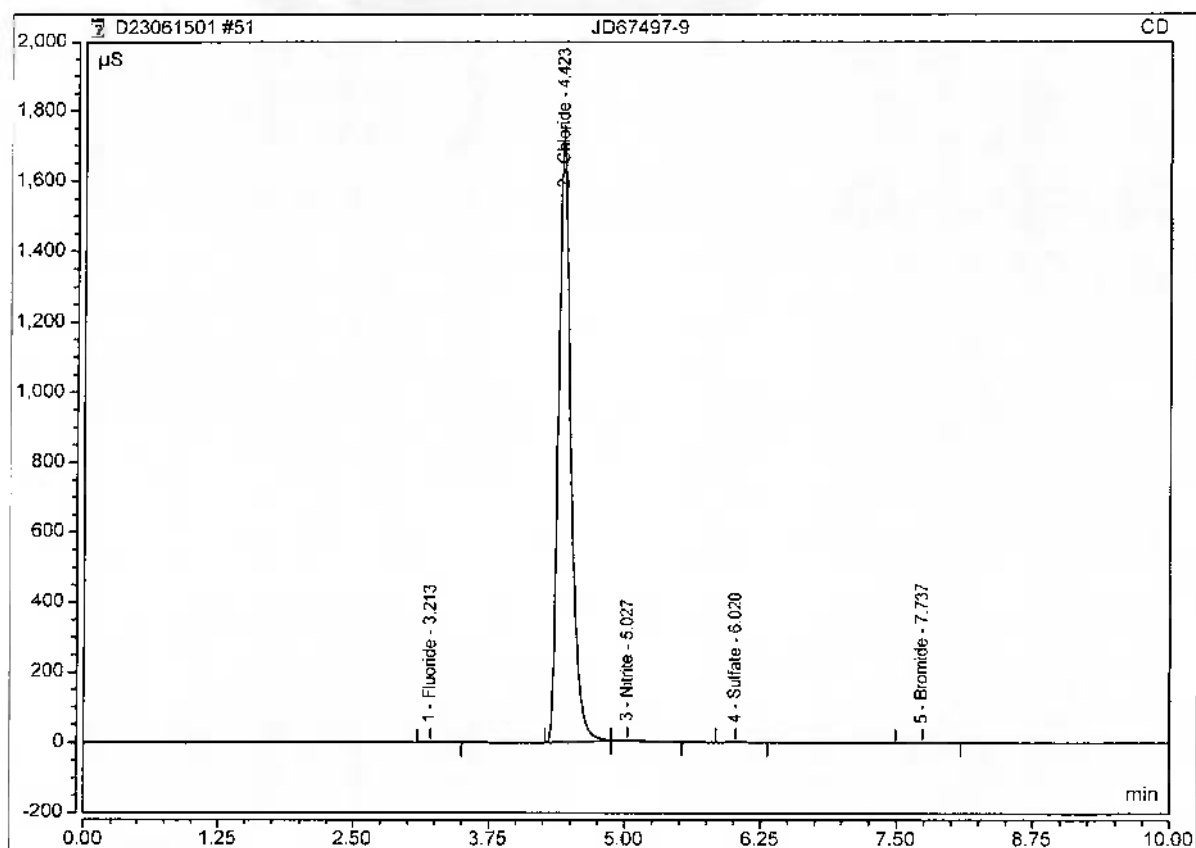
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67497-9	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 23:06	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB	0.148	1.059	0.3428
2	4.42	Chloride	BMB	230.544	1717.203	709.4122
3	5.03	Nitrite	bMB	0.485	1.536	2.6625
4	6.02	Sulfate	BMB	0.168	0.981	0.7709
5	7.74	Bromide	BMB	0.077	0.400	0.6720
TOTAL:				231.42	1721.18	713.86



Anion/Integration

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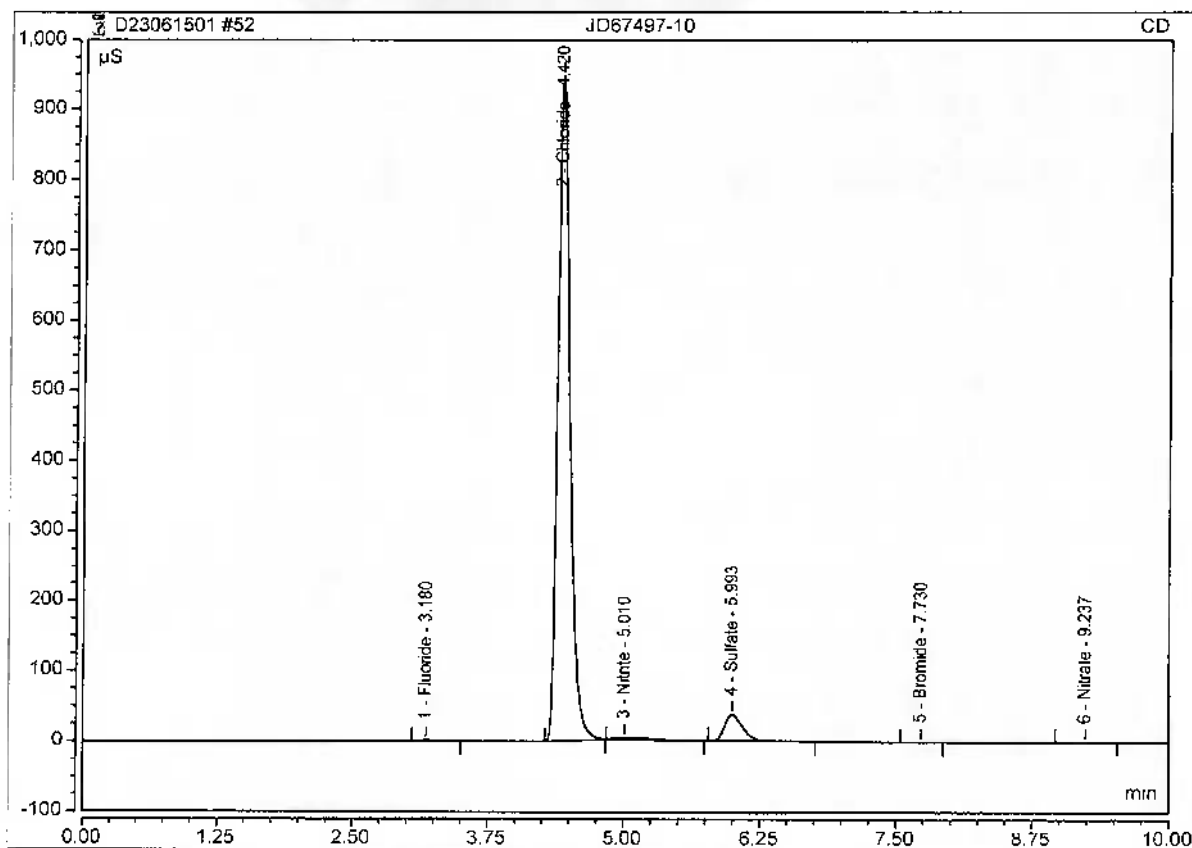
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Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67497-10	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 23:19	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.18	Fluoride	BMB	0.291	2.165	0.6479
2	4.42	Chloride	BMB	123.653	948.342	380.5553
3	5.01	Nitrite	BMB	1.095	2.824	6.0383
4	5.99	Sulfate	BMB	7.167	37.267	30.4379
5	7.73	Bromide	BMB	0.013	0.075	0.1726
6	9.24	Nitrate	BMB	0.009	0.040	0.0359
TOTAL:				132.23	990.71	417.89



Anion/Integration

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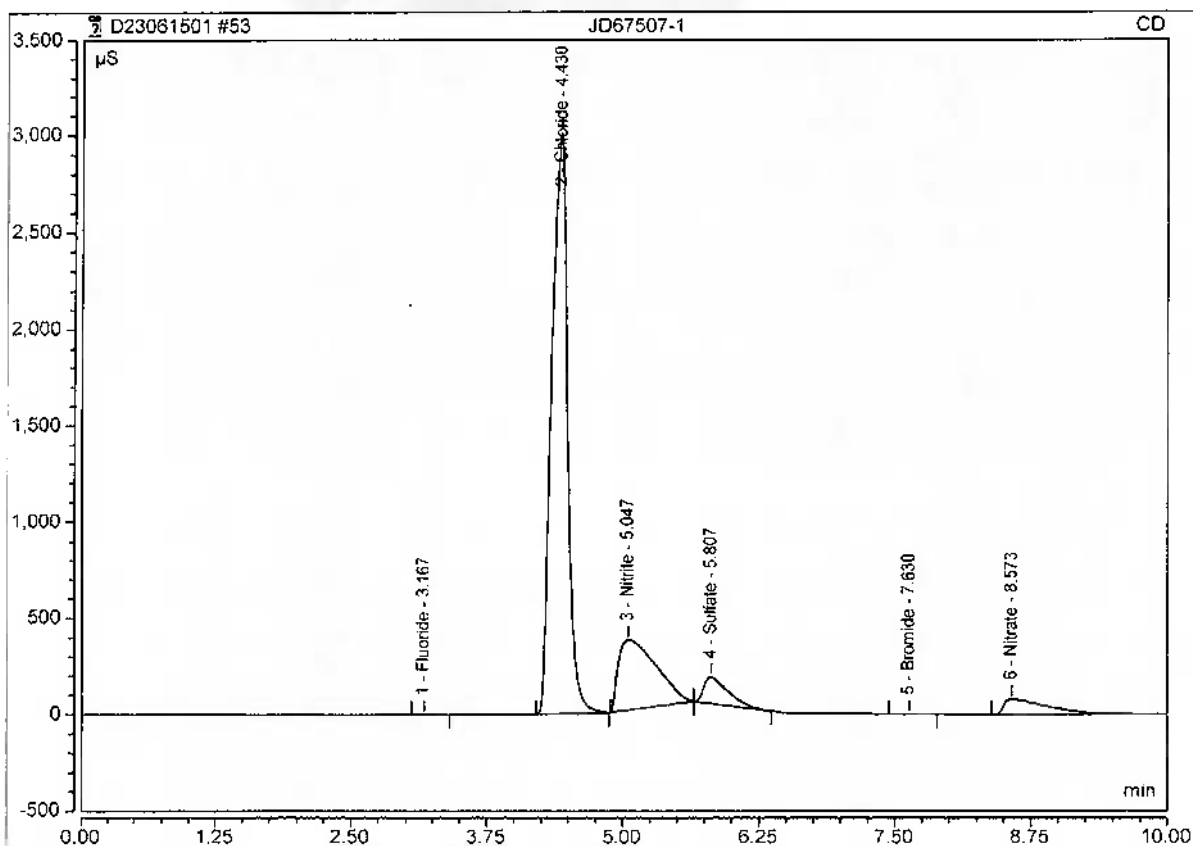
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67507-1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 23:32	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height μS	Amount
1	3.17	Fluoride	BMB	0.122	0.672	0.2876
2	4.43	Chloride	BMB	509.928	3011.739	1568.9544
3	5.05	Nitrite	BMB	145.930	364.849	807.0089
4	5.81	Sulfate	bMB	36.773	139.039	155.9236
5	7.63	Bromide	BMB	0.118	0.674	0.9963
6	8.57	Nitrate	BMB	35.076	78.606	241.7410
TOTAL:				727.95	3595.58	2774.91



Anion/Integration

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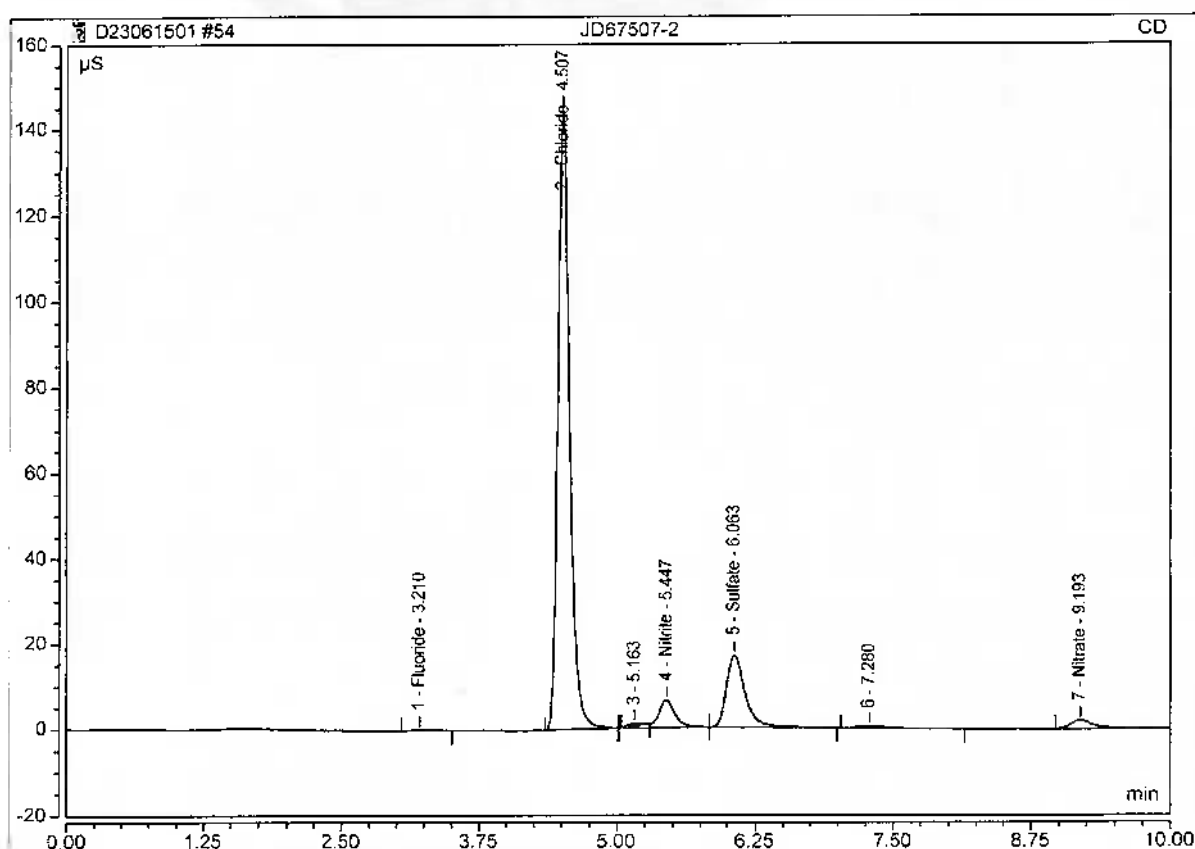
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Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67507-2	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 23:45	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB	0.037	0.204	0.1054
2	4.51	Chloride	BMB	17.821	144.204	54.9577
4	5.45	Nitrite	BMB	1.209	6.487	6.6882
5	6.06	Sulfate	bMB	3.320	16.947	14.1317
7	9.19	Nitrate	BMB	0.458	1.967	3.1324
TOTAL:				22.85	169.81	79.00



Anion/Integration

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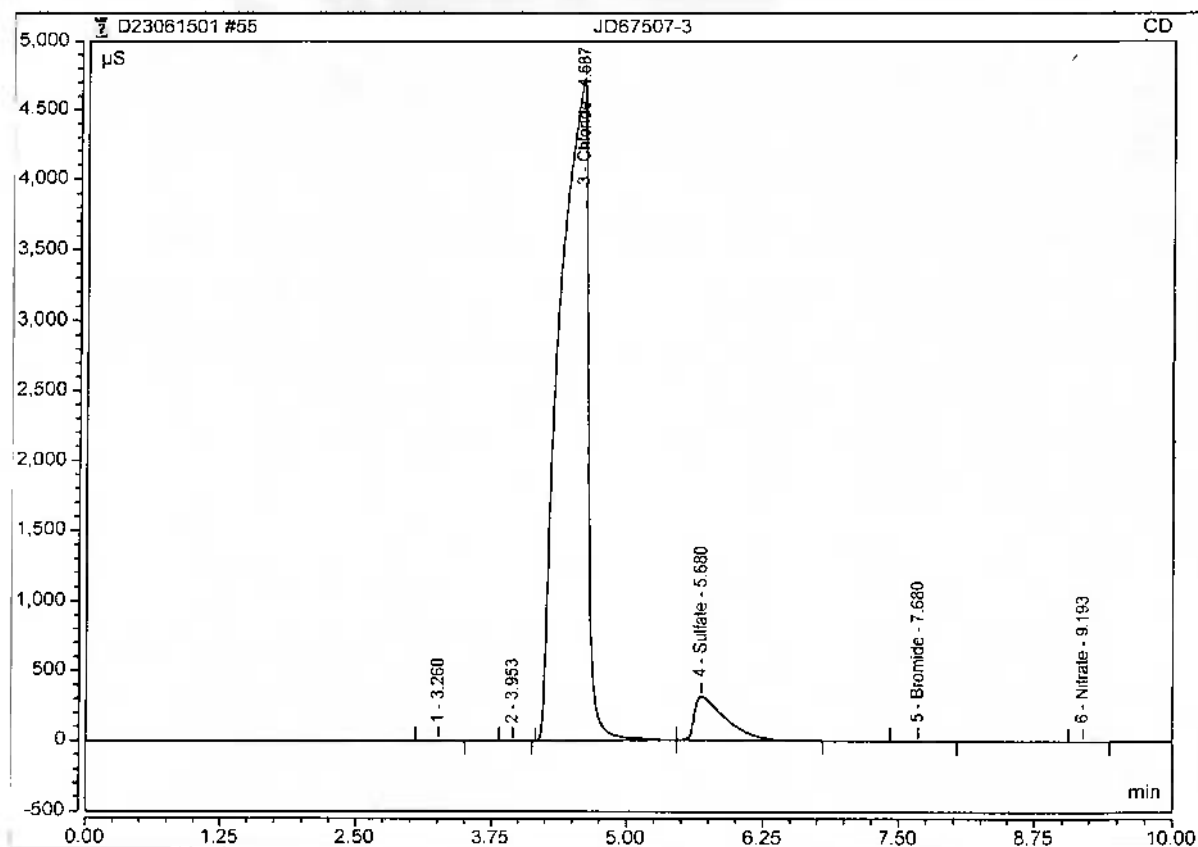
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Peak Integration Report

Sample Name:	JD67507-3	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	15-Jun-2023 / 23:58	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
3	4.59	Chloride	BMB	1442.004	4727.645	4436.5402
4	5.68	Sulfate	bMB	103.194	317.282	437.4517
5	7.68	Bromide	BMB	0.399	1.853	3.2030
6	9.19	Nitrate	BMB	0.012	0.080	0.0547
TOTAL:				1545.61	5046.86	4877.25



Anion/Integration

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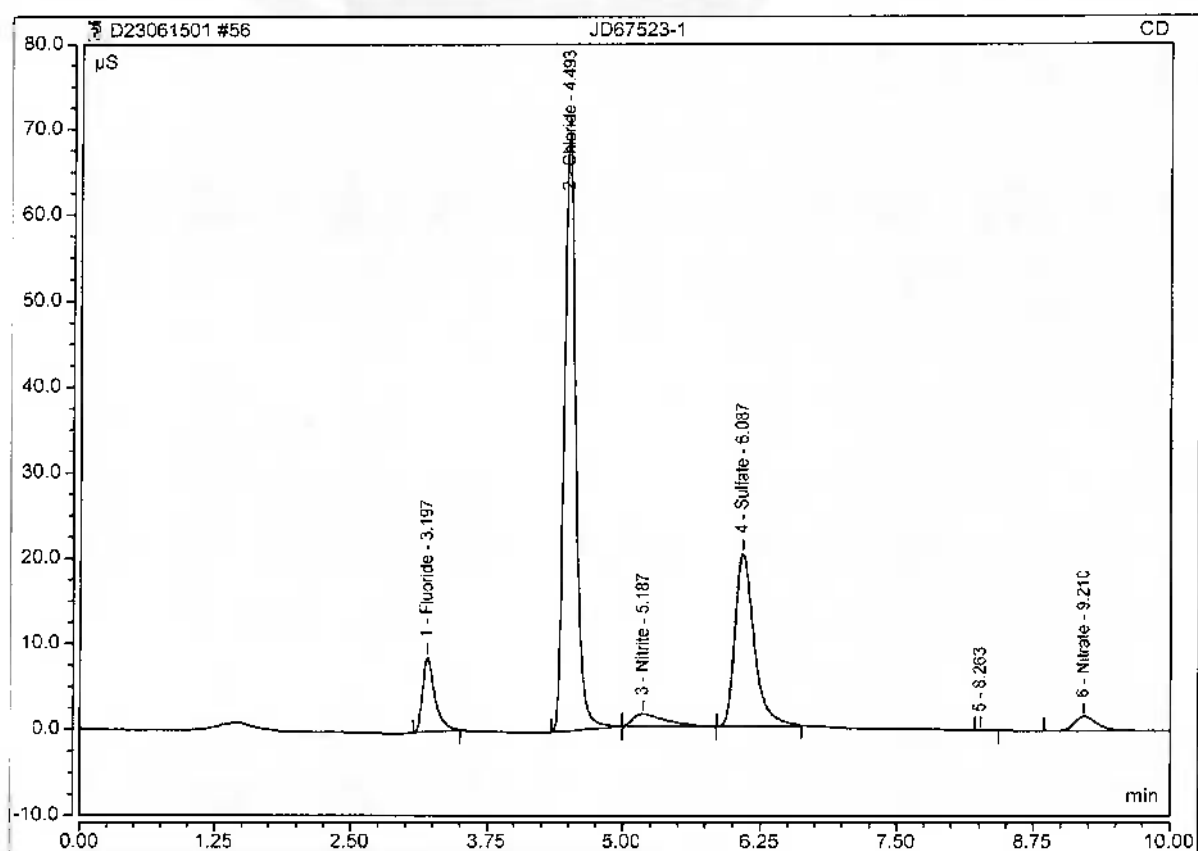
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67523-1	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 00:11	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.20	Fluoride	BMB	1.146	8.745	2.4709
2	4.49	Chloride	BMB	8.530	70.008	26.3720
3	5.19	Nitrite	bMB	0.507	1.457	2.7855
4	6.09	Sulfate	BMB	4.031	20.336	17.1459
6	9.21	Nitrate	BMB	0.411	1.658	2.8083
TOTAL:				14.62	102.20	51.58



Anion/Integration

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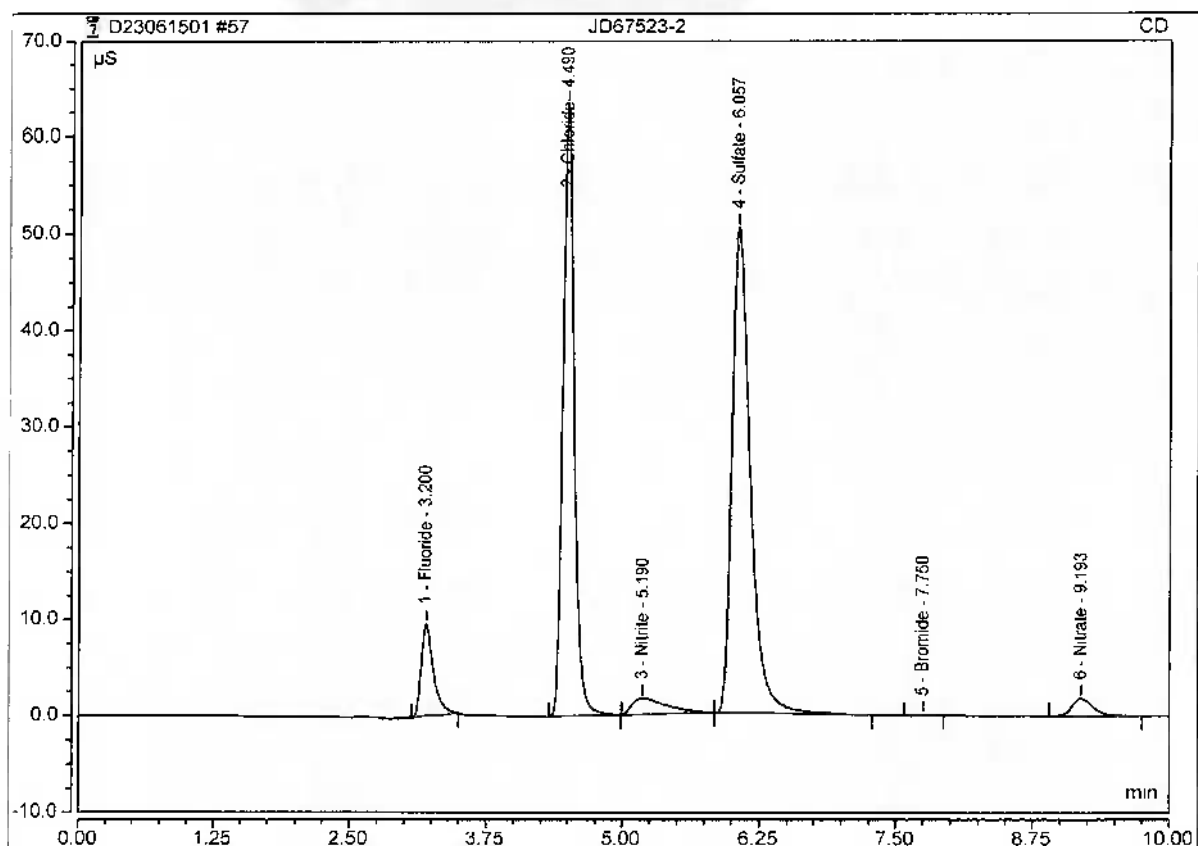
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Peak Integration Report

Sample Name:	JD67523-2	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 00:24	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.20	Fluoride	BMB	1.239	9.591	2.6686
2	4.49	Chloride	BMB	7.549	63.336	23.3544
3	5.19	Nitrite	BMB	0.597	1.648	3.2847
4	6.06	Sulfate	BMB	9.644	50.357	40.9345
5	7.75	Bromide	BMB	0.004	0.027	0.1041
6	9.19	Nitrate	BMB	0.406	1.822	2.7752
TOTAL:				19.44	126.78	73.12



Anion/Integration

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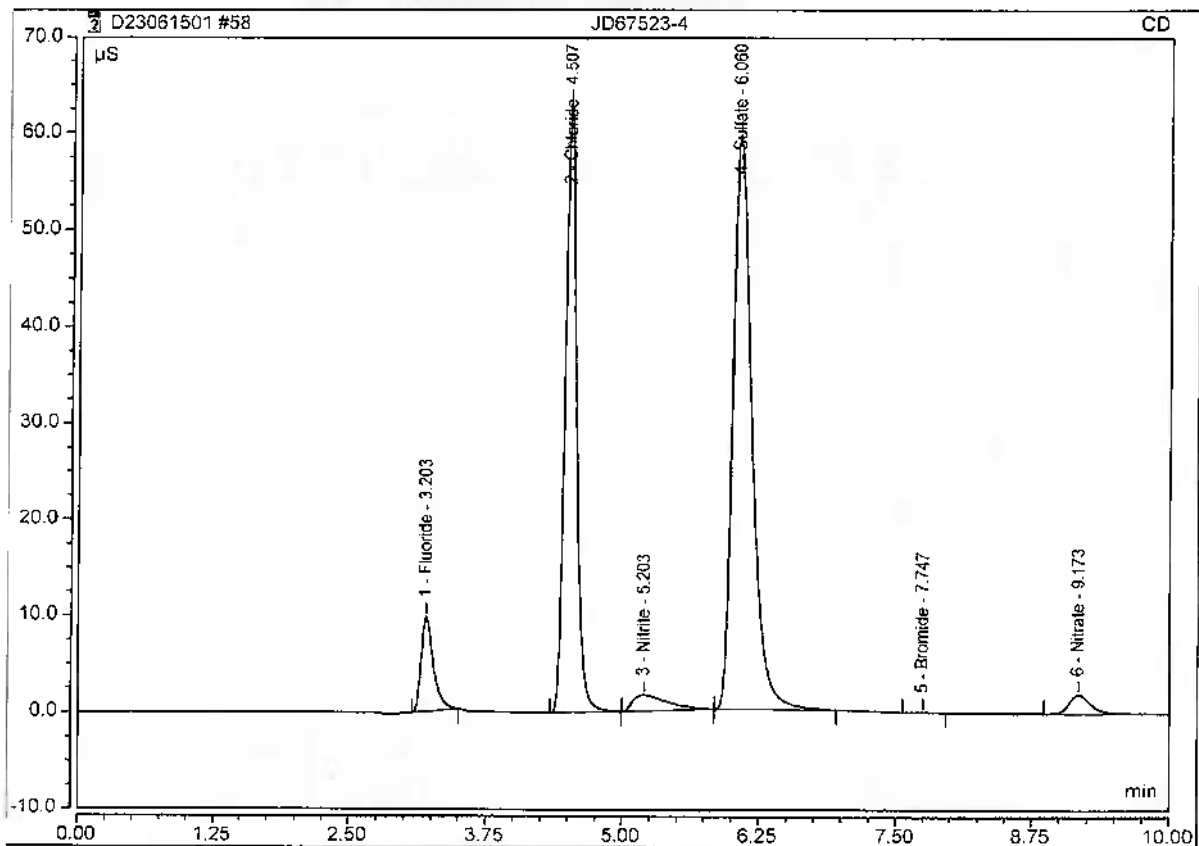
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67523-4	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 00:37	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height μS	Amount
1	3.20	Fluoride	BMB	1.273	9.821	2.7414
2	4.51	Chloride	BMB	7.588	63.153	23.4745
3	5.20	Nitrite	BMB	0.605	1.670	3.3271
4	6.06	Sulfate	BMB	11.918	59.468	50.5727
5	7.75	Bromide	BMB	0.005	0.027	0.1080
6	9.17	Nitrate	BMB	0.436	1.947	2.9826
TOTAL:				21.82	136.09	83.21



Anion/Integration

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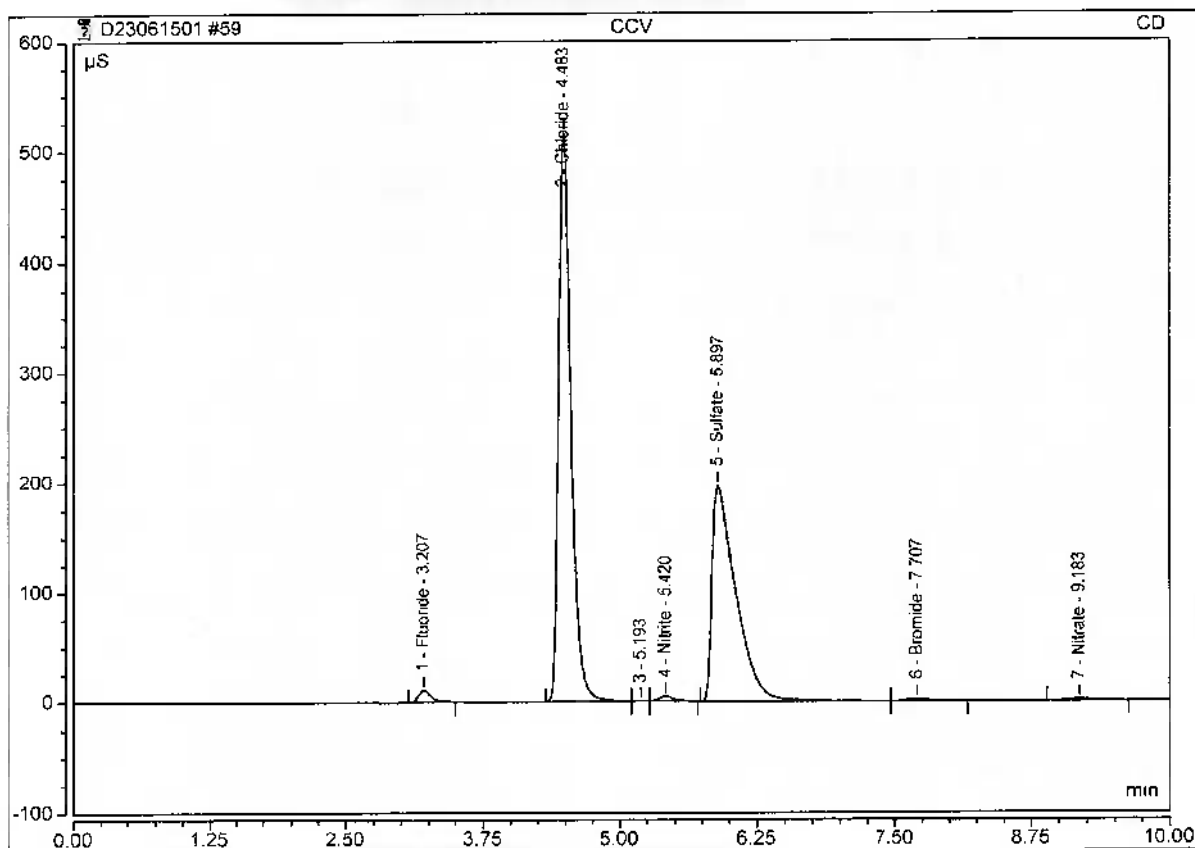
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Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	CCV	Inf. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
inj. Date / Time:	16-Jun-2023 / 00:50	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB	1.412	10.793	3.0392
2	4.48	Chloride	BMB	66.845	516.054	205.7819
4	5.42	Nitrite	bMB	0.576	4.273	3.1698
5	5.90	Sulfate	BMB	49.080	196.251	208.0845
6	7.71	Bromide	bMB	0.354	1.898	2.8523
7	9.18	Nitrate	BMB	0.452	1.959	3.0904
TOTAL:				118.72	731.23	426.02



Anion/Integration

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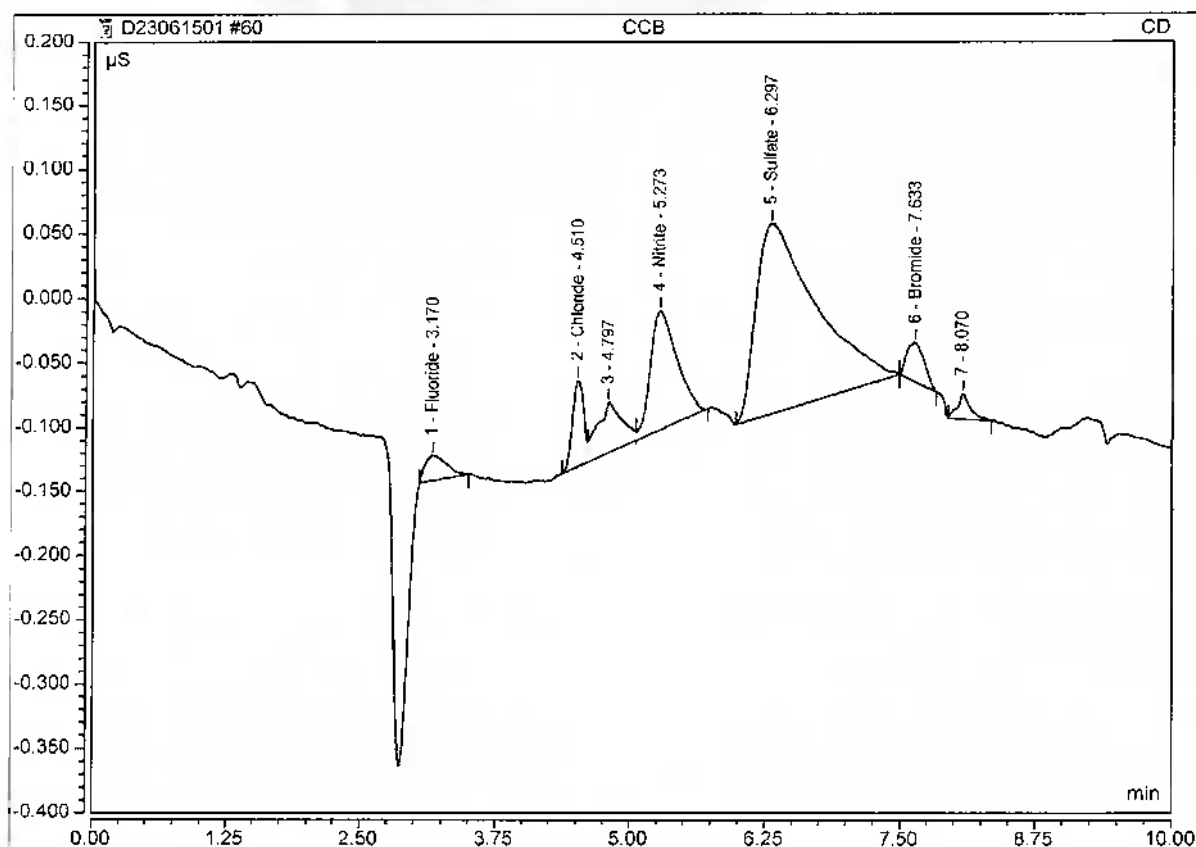
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Sequence: D23061501

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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 01:03	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.17	Fluoride	BMB	0.005	0.020	0.0363
2	4.51	Chloride	BM	0.008	0.068	0.1549
4	5.27	Nitrite	MB	0.026	0.093	0.1289
5	6.30	Sulfate	BMB	0.094	0.147	0.4553
6	7.63	Bromide	bMB	0.006	0.031	0.1168
TOTAL:				0.14	0.36	0.89



Anion/Integration

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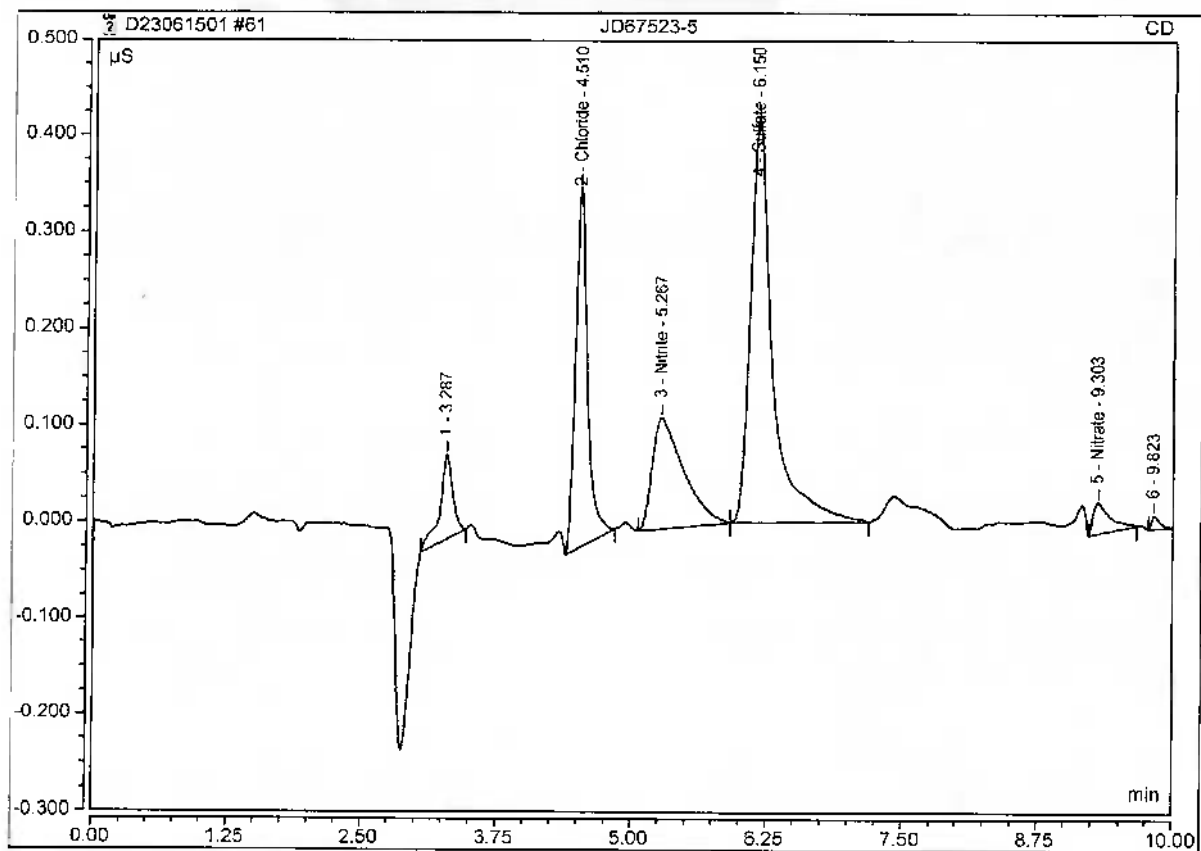
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Instrument: Integriion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67523-5	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 01:16	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height μS	Amount
2	4.51	Chloride	BMB	0.047	0.372	0.2757
3	5.27	Nitrite	BMB	0.038	0.116	0.1953
4	6.15	Sulfate	BMB	0.100	0.418	0.4830
5	9.30	Nitrate	BMB	0.006	0.033	0.0144
TOTAL:				0.19	0.94	0.97



Anion/Integration

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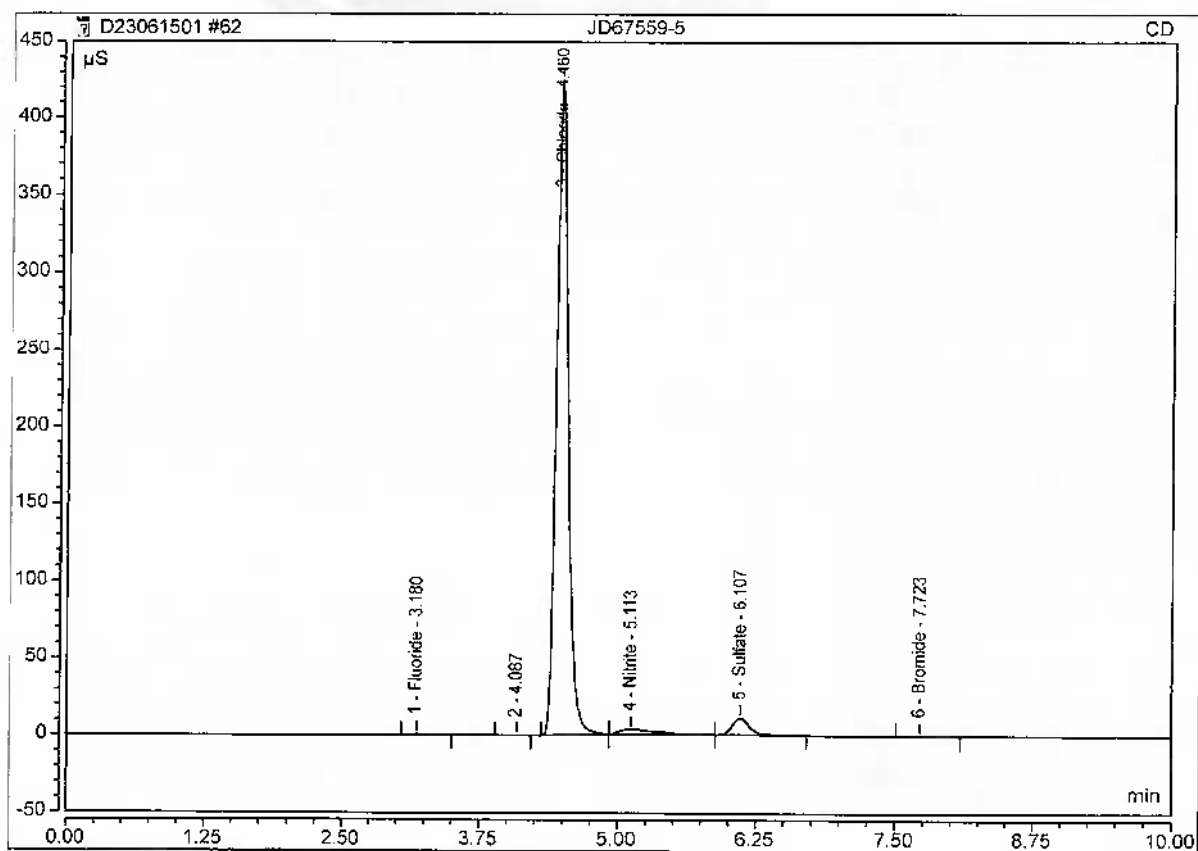
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Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67559-5	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 01:29	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.18	Fluoride	BMB	0.086	0.642	0.2107
3	4.46	Chloride	BMB	53.346	424.671	164.2516
4	5.11	Nitrite	BMB	1.299	3.087	7.1665
5	6.11	Sulfate	BMB	1.998	10.879	8.5286
6	7.72	Bromide	BMB	0.028	0.153	0.2903
TOTAL:				56.76	439.43	180.45



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

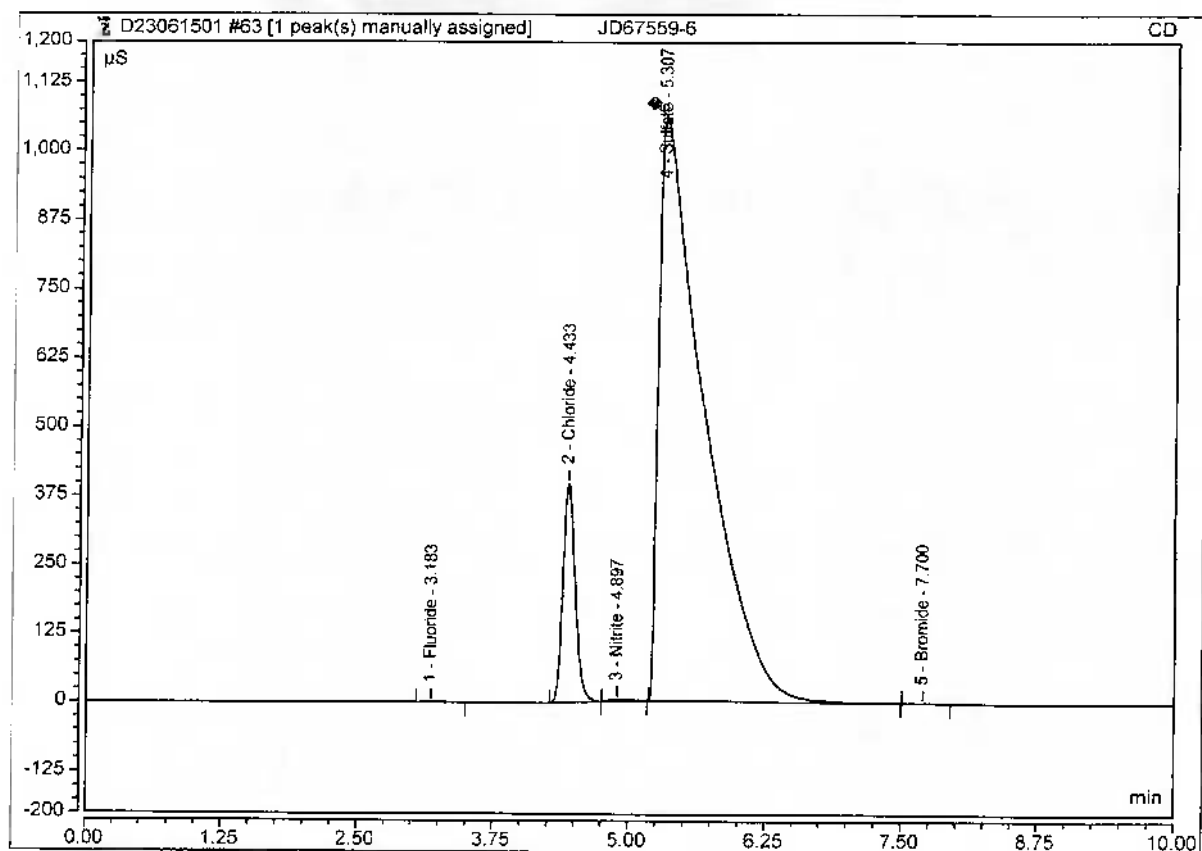
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D23061501

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6/16/2023 11:12 AM

Peak Integration Report

Sample Name:	JD67559-6	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 01:42	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.18	Fluoride	BMB	0.186	1.098	0.4232
2	4.43	Chloride	BMB	52.583	399.087	161.9044
3	4.90	Nitrite	BMB	0.961	3.773	5.2981
4	5.31	Sulfate	BMB^	513.517	1061.945	2176.6237
5	7.70	Bromide	BMB	0.090	0.487	0.7816
TOTAL:				567.34	1466.39	2345.03



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

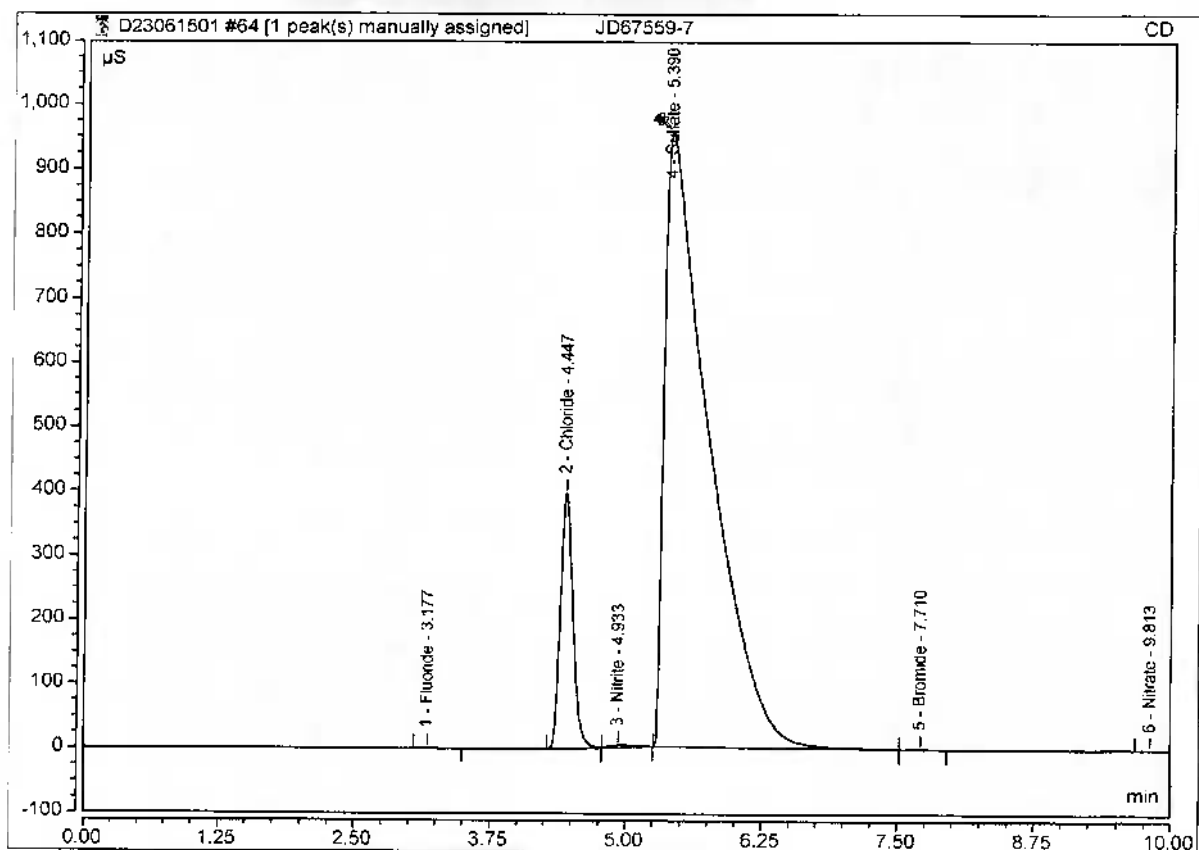
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67559-7	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 01:55	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.18	Fluoride	BMB	0.185	1.126	0.4206
2	4.45	Chloride	BMB	52.434	396.993	161.4475
3	4.93	Nitrite	BMB	1.148	4.063	6.3305
4	5.39	Sulfate	BMB^	454.545	956.409	1926.6688
5	7.71	Bromide	bMB	0.077	0.437	0.6763
6	9.81	Nitrate	BMB	0.017	0.097	0.0892
TOTAL:				508.41	1359.12	2095.63



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

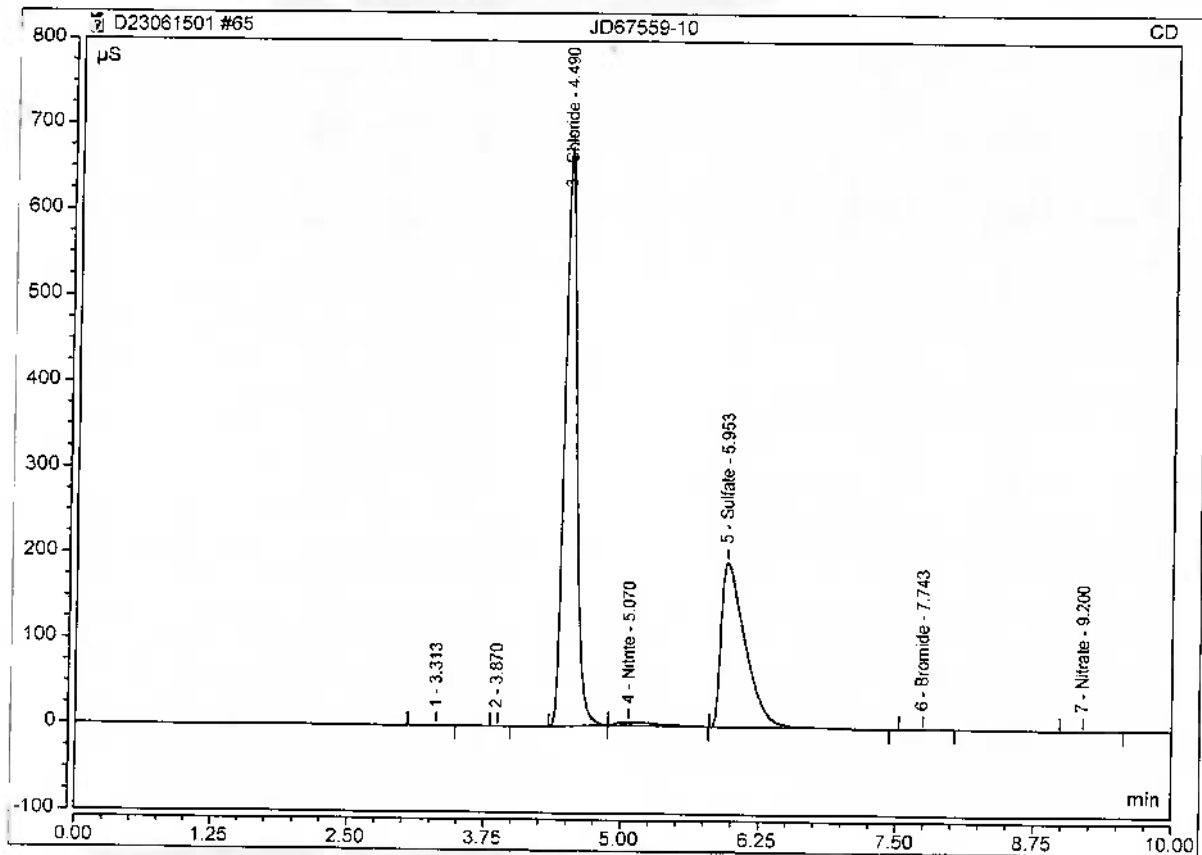
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67559-10	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 02:08	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
3	4.49	Chloride	BMB	86.486	674.886	266.2098
4	5.07	Nitrite	BMB	1.839	4.156	10.1545
5	5.95	Sulfate	BMB	47.748	192.600	202.4404
6	7.74	Bromide	BMB	0.066	0.373	0.5901
7	9.20	Nitrate	BMB	0.014	0.059	0.0689
TOTAL:				136.15	872.07	479.46



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

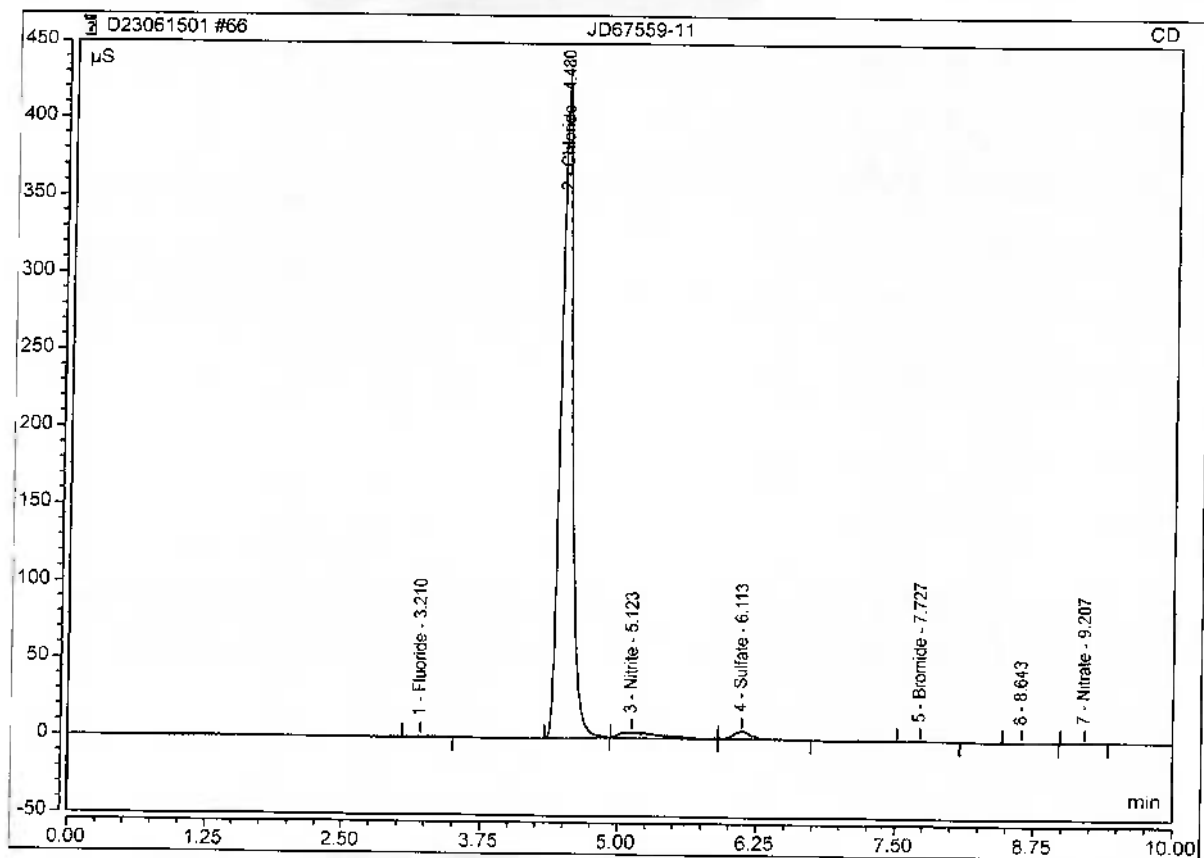
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67559-11	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 02:21	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
1	3.21	Fluoride	BMB	0.070	0.461	0.1757
2	4.48	Chloride	BMB	52.728	421.699	162.3516
3	5.12	Nitrite	BMB	1.388	3.224	7.6583
4	6.11	Sulfate	bMB	0.913	4.967	3.9294
5	7.73	Bromide	BMB	0.029	0.148	0.2967
7	9.21	Nitrate	BMB	0.009	0.042	0.0354
TOTAL:				55.14	430.54	174.45



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

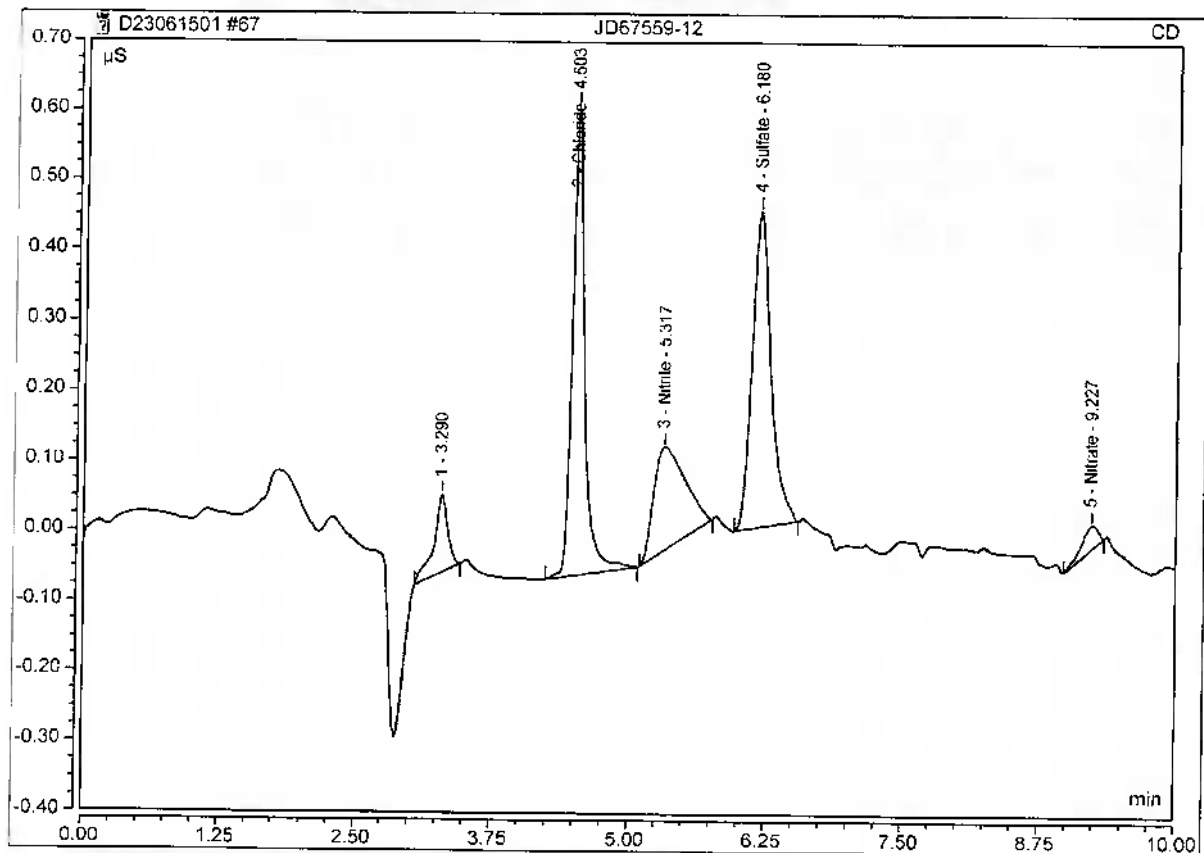
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	JD67559-12	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 02:34	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height μS	Amount
2	4.50	Chloride	BMB	0.087	0.670	0.3976
3	5.32	Nitrite	BMB	0.048	0.148	0.2503
4	6.18	Sulfate	BMB	0.089	0.449	0.4360
5	9.23	Nitrate	BMB	0.006	0.034	0.0151
TOTAL:				0.23	1.30	1.10



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

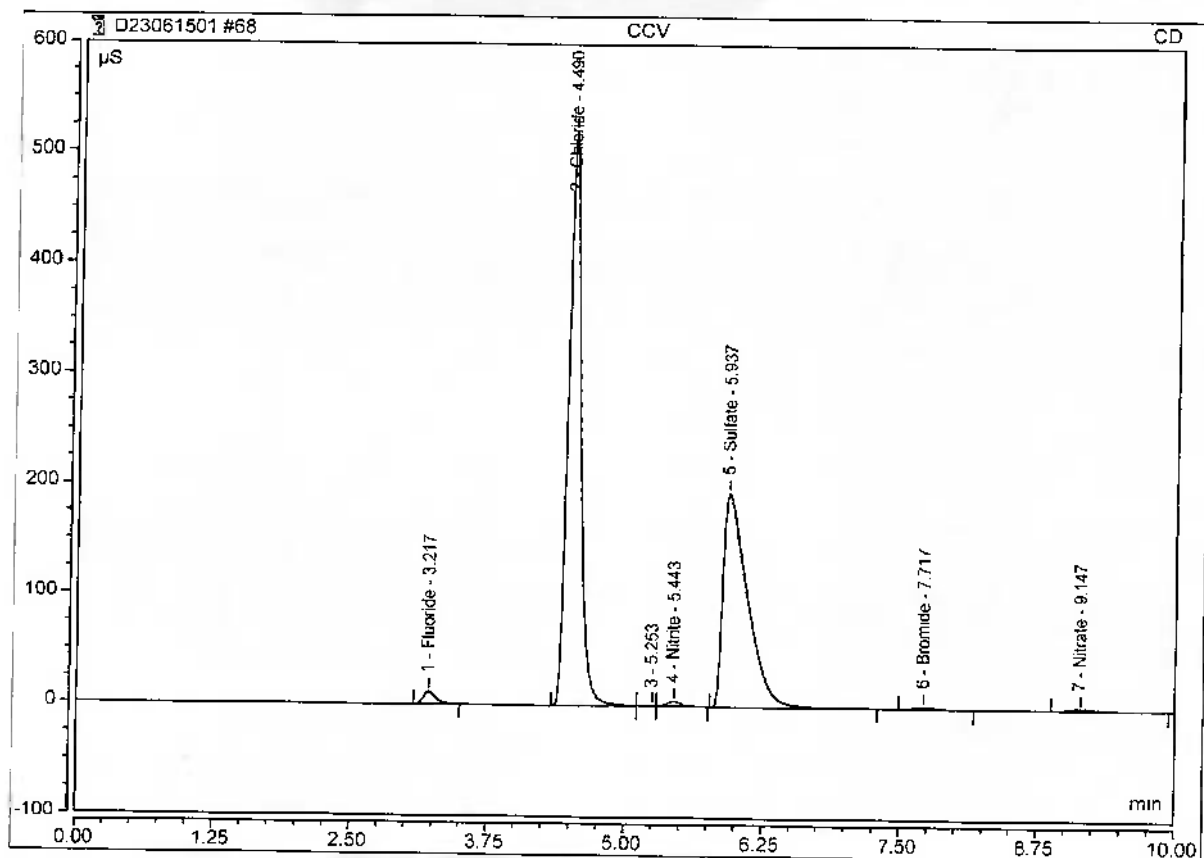
Logged on User: Chemistry
Instrument: Integration_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	CCV	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 02:47	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	3.22	Fluoride	BMB	1.420	11.077	3.0547
2	4.49	Chloride	BMB	68.434	520.328	210.6721
4	5.44	Nitrite	MB	0.642	4.455	3.5351
5	5.94	Sulfate	BMB	49.959	194.061	211.8118
6	7.72	Bromide	BMB	0.360	1.956	2.8970
7	9.15	Nitrate	BMB	0.469	2.044	3.2064
TOTAL:				121.28	733.92	435.18



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

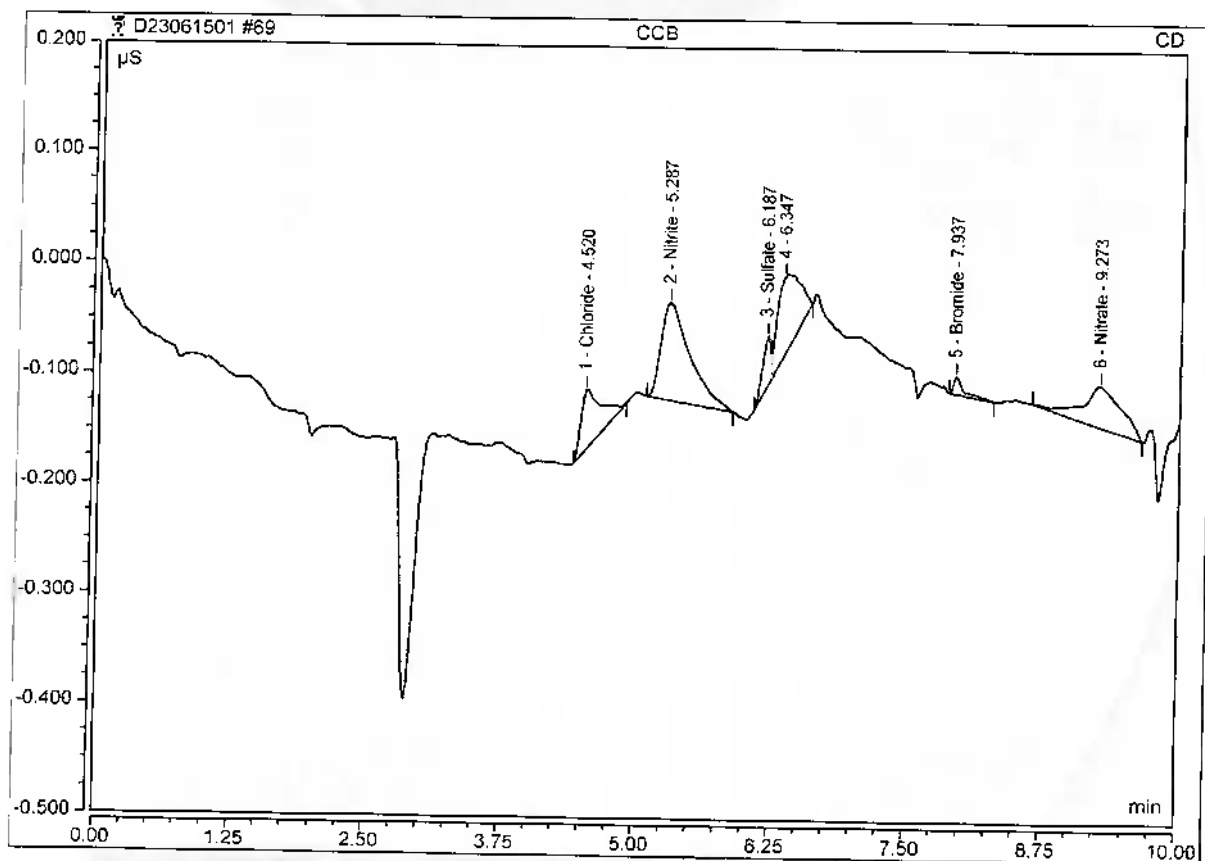
Logged on User: Chemistry
Instrument: Integrion_1
Sequence: D23061501

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Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	5000.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Instrument Method:	Anions_012919	Operator:	Chemistry
Inj. Date / Time:	16-Jun-2023 / 03:00	Run Time:	10.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height μS	Amount
1	4.52	Chloride	BMB	0.011	0.054	0.1637
2	5.29	Nitrite	BMB	0.027	0.088	0.1339
3	6.19	Sulfate	BM	0.004	0.046	0.0750
5	7.94	Bromide	BMB	0.002	0.016	0.0851
6	9.27	Nitrate	BMB	0.016	0.038	0.0815
TOTAL:				0.06	0.24	0.54



Anion/Integration

Chromeleon (c) Dionex 1996-2009
Version 7.2.8.10783

Test: Nitrogen, Nitrite
 Product: NO2
 Method: SM4500NO2 B-11 (Aqueous)
 SM4500NO2 B-11 M (Solids)

Units: mg/l
 mg/kg

Analyst: MRP
 GN Batch ID: GN42599
 GP Batch ID:
 Date: 6/15/2023
 Instrument ID:

Pipet II GLASS PIPETTE CLASS A

Original Calibration Information

Calibration Date: 4/14/2023

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7
Known:	0.000	0.010	0.025	0.050	0.075	0.100	0.200	
Absorbance:	0.000	0.032	0.065	0.172	0.257	0.344	0.687	
Actual Value:	#D W/0	0.010	0.025	0.050	0.074	0.099	0.201	
% RE	#D W/0	1.07	-0.35	-0.06	0.80	0.68	-0.27	

Continuing Calibration Check Standards Data:

6/15/2023

	Blank	Std 1	Std 6
Known:	0.000	0.010	0.200
Absorbance:	0.000	0.030	0.694
Recovery:	0.0%	93.2%	99.8%
Actual Value:		0.009	0.200

Correlation Coeff. = 0.99897

Slope = 0.28668

Intercept = 0.00072

Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units	Factor	pH between 5 and 9 (Y or N)
	ICV	12:00	50	50	1	0.332	NA	0.096	0.096	NA	mg/l	NA	
	CCV	12:20	50	50	1	0.334	NA	0.096	0.096	NA	mg/l	NA	
	CCB	12:20	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
	GN42599-MB1	12:20	50	50	1	0.000	0.060	0.001	0.001	0.010	mg/l	1	
	GN42599-B1	12:20	50	50	1	0.134	0.000	0.039	0.039	0.010	mg/l	1	
5	GN42599-S1	12:20	50	50	1	0.132	0.006	0.037	0.037	0.010	mg/l	1	Y
5	GN42599-MSD1	12:20	50	50	1	0.134	0.006	0.037	0.037	0.010	mg/l	1	Y
5	JD67523-3	12:20	50	50	1	0.018	0.006	0.004	0.004	0.010	mg/l	1	Y
5	JD67523-1	12:20	50	50	1	0.029	0.021	0.003	0.003	0.010	mg/l	1	Y
5	JD67523-2	12:20	50	50	1	0.025	0.018	0.003	0.003	0.010	mg/l	1	Y
5	JD67523-4	12:20	50	50	1	0.012	0.009	0.002	0.002	0.010	mg/l	1	Y
3	JD67523-5	12:20	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
*10	JD67543-1	12:20	50	50	1	0.050	0.116	0.001	0.001	0.010	mg/l	1	Y
	CCVA	12:20	50	50	1	0.694	NA	0.200	0.200	NA	mg/l	NA	
	CCB	12:20	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
*5	JD67543-2	12:30	50	50	1	0.035	0.070	0.001	0.001	0.010	mg/l	1	Y
2	JD67543-8	12:30	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
*6	JD67572-1	12:30	50	50	1	0.355	0.030	0.094	0.094	0.010	mg/l	1	Y
8	JD67593-1	16:40	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
*6	JD67593-2	16:48	50	50	1	0.054	0.119	0.001	0.001	0.010	mg/l	1	Y
*6	JD67593-3	16:48	50	50	1	0.045	0.092	0.001	0.001	0.010	mg/l	1	Y
*6	JD67593-4	16:48	50	50	1	0.059	0.040	0.006	0.006	0.010	mg/l	1	Y
6	JD67593-5	16:48	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
6	JD67593-6	16:48	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
*6	JD67593-7	16:48	50	50	1	0.042	0.025	0.006	0.006	0.010	mg/l	1	Y
	CCV	16:48	50	50	1	0.334	NA	0.096	0.096	NA	mg/l	NA	
	CCB	16:48	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
6	JD67593-8	16:50	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
*6	JD67593-9	16:50	50	50	1	0.036	0.036	0.001	0.001	0.010	mg/l	1	Y
6	JD67593-10	16:50	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
3	JD67609-1	16:50	50	50	50	0.294	0.000	0.085	4.250	0.500	mg/l	1	Y
	GN42599-MB2	16:50	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
	GN42599-B2	16:50	50	50	1	0.134	0.000	0.039	0.039	0.010	mg/l	1	Y
	GN42599-S2	16:50	50	50	1	0.134	0.000	0.039	0.039	0.010	mg/l	1	Y
	GN42599-MSD2	16:50	50	50	1	0.132	0.000	0.039	0.039	0.010	mg/l	1	Y
4	JD67600-1	16:50	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
4	JD67600-2	16:50	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
	CCVA	16:50	50	50	1	0.694	NA	0.200	0.200	NA	mg/l	NA	
	CCB	16:50	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	

Analyst: MRP

Date: 6/15/23

QC Reviewer:

Date:

Analyst:	MRP
GN Batch ID:	GN42599
GP Batch ID:	
Date:	6/15/2023
Instrument ID:	

Pipet II GLASS PIPETTE CLASS A

Pipette GLASS PIPETTE CLASS A												
4 JD67800-3	18:55	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
	18:55	50	50	1								
	18:55	50	50	1								
	18:55	50	50	1								
	18:55	50	50	1								
	18:55	50	50	1								
	18:55	50	50	1								
	18:55	50	50	1								
	18:55	50	50	1								
CCV	18:55	50	50	1	0.332	NA	0.096	0.096	NA	mg/l	NA	
CCB	18:55	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
CCVA		50	50	1		NA			NA		NA	
CCB		50	50	1		NA			NA		NA	
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
		50	50	1								
CCV		50	50	1		NA			NA		NA	
CCB		50	50	1		NA			NA		NA	

Blais

Analyst: M/R Date: 6/9/9 QC Reviewer: _____ Date: _____

SGS

Test: Nitrogen, Nitrite
 Product: NO2
 Method: SM18 4500 NO2B (aqueous)
 SM18 4500 NO2B M (solids)

Units: mg/l
 mg/kg

Analyst: MRP
 GNBatch ID: 02N 9299
 GPBatch ID:
 Date: 6/15/23

Preparation Batch QC Summary

Units =

Method Blank ID: 02N 612599-MB1 Date: 6/15/23 Result: <DL DL: 0.01 <DL:
 Spike Blank ID: -B1 Date: 4 Result: 0.039 Spike: 0.04 %Rec.: 97.5
 MS ID: -S1 Samp. Result: <DL MS Result: 0.039 Spike: 0.04 %Rec.: 92.5
 MSDUP ID: -MSD1 Samp. Result: <DL MSDUP Result: 0.039 Spike: 0.04 %Rec.: 92.5
 MSDUP ID: JD 67523-3 MSDUP Result: 0.039 MS Result: 0.039 %RPD:
 Method Blank ID: -MBL Date: 6/15/23 Result: <DL DL: 0.01 <DL: 4
 Spike Blank ID: -BL Date: 4 Result: 0.039 Spike: 0.04 %Rec.:
 MS ID: -S2 Samp. Result: <DL MS Result: 0.039 Spike: 0.04 %Rec.:
 MSDUP ID: -MSD2 Samp. Result: <DL MSDUP Result: 0.039 Spike: 0.04 %Rec.:
 MSDUP ID: JD 67600-1 MSDUP Result: 0.039 MS Result: 0.039 %RPD:

Analysis Batch QC Summary

Units =

ICV (Ext): 6/15/23 Result: 0.096 TV: 0.1 %Rec.: 96
 CCV: 6/15/23 Result: 0.096 TV: 0.1 %Rec.: 96
 CCVA: Result: 0.200 TV: 0.2 %Rec.: 100
 CCV: Result: 0.096 TV: 0.1 %Rec.: 96
 CCVA: Result: 0.200 TV: 0.2 %Rec.: 100
 CCV: Result: 0.096 TV: 0.1 %Rec.: 96
 CCVA: Result: TV: 0.2 %Rec.:
 CCB: Result: DL: <DL:
 CCB: Result: DL: <DL:
 CCB: Result: DL: <DL:
 CCB: Result: DL: <DL:
 CCB: Result: DL: <DL:
 CCB: Result: DL: <DL:

Reagent Reference Numbers:

QC-----BS/MS/MSD-----2 ML OF 1 PPM NO2 STD -- 50 ML DI/H2O/SAMPLE ---- TV 0.04 MG/L

MS/MSD SAMPLE NO --- QC1 = JD 67523-3

QC2 = JD 67600-1

* SIGN SAMPLE FILTERED IN LAB

Analyst: MRP Date: 6/15/23

Comments:

Form: GN032-01

Rev. Date: 9/4/09]

SGS

gn 42599

Reagent Information Log - Nitrite as Nitrogen

7.2
7

Reagent	Reagent # or Manufacturer/Lot
Calibration Source: 1000 mg/l nitrite stock (STD)	ERA LOT #261221M XP: 12/14/2023
External Check (ICV)	ERA LOT #240722M XP: 8/26/2024
Spiking Solution Source STD	ERA LOT #261221M XP: 12/14/2023
NO2 Color Reagent	GNE5-71141-NO2 XP 6/11/2023
NH4OH	FISHER 193136 XP 2/20/2027

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087A-42
Rev. Date: 6/7/2023

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

 Product: NO₂
 GN or GP Number: gn 42599

Standard	Manufacturer/Lot Number	Concentration	Expiration Date	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
1000 mg/l Nitrite Standard	ERA LOT# 261221M	1000 PPM	12/14/2023							
1000 mg/l Nitrite Standard (ICV)	ERA LOT# 120421M	1000 PPM	8/6/2024							
Standard Description	Lot or Tracking #	Initial Volume	Standard Used	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
10 PPM NO ₂ STANDARD	GN66-71478-NO ₂	1.0 ml	1000 mg/l Nitrite Standard	A	DI water	100 ml	10 mg/l	6/15/2023	MRP	6/15/2023
1 PPM NO ₂ STANDARD	GN66-71480-NO ₂	10.0 ml	10 PPM NO ₂ STANDARD	A	DI water	100 ml	1 mg/L	6/15/2023	MRP	6/15/2023
10 PPM NO ₂ EXTERNAL	GN66-71479-NO ₂	1.0 ml	Nitrite Standard (ICV)	A	DI water	100 ml	10 mg/l	6/15/2023	MRP	6/15/2023
1 PPM NO ₂ EXTERNAL	GN67-71481-NO ₂	10.0 ml	10 PPM NO ₂ EXTERNAL	A	DI water	100 ml	1 mg/l	6/15/2023	MRP	6/15/2023
Standard Description	Intermediate or Stock used to prepare standard	Initial Volume	Concentration of Standard Used	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
0.2 mg/L (high)	GN66-71480-NO ₂	20.0 ml	1.0 mg/L	A	DI water	100 ml	0.2 mg/L	6/15/2023	MRP	6/15/2023
0.1 mg/L		10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L			
0.075 mg/L		7.5 ml	1.0 mg/L	A	DI water	100 ml	0.075 mg/L			
0.05 mg/L		5.0 ml	1.0 mg/L	A	DI water	100 ml	0.05 mg/L			
0.025 mg/L		2.5 ml	1.0 mg/L	A	DI water	100 ml	0.025 mg/L			
0.01 mg/L (low)	GN66-71480-NO ₂	1.0 ml	1.0 mg/L	A	DI water	100 ml	0.01 mg/L	6/15/2023	MRP	6/15/2023
0 mg/L	NA	NA	NA	NA	NA	100 ml	NA	6/15/2023	MRP	6/15/2023
CCV	GN66-71480-NO ₂	10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L	6/15/2023	MRP	6/15/2023
CCVA	GN66-71480-NO ₂	20.0 ml	1.0 mg/L	A	DI water	100 ml	0.2 mg/L	6/15/2023	MRP	6/15/2023
ICV	GN67-71481-NO ₂	10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L	6/15/2023	MRP	6/15/2023

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

 Form: GN121-01
 Rev. Date: 1/13/09

Date: 2023-06-16 13:08:37
Analyst: wetchen

Sample Report

Run Template: Alkalinity

Run ID: 1433

Date Started: 2023-06-16 10:06:57

Date Completed: 2023-06-16 13:07:56

Sample Data

Sample ID	Script Template	Date Started	Date Completed	pH	TAlkalinity	PAIkalinity	Hydroxide	Carbonate	Bicarbonate
pH-4	pH	2023-06-16 10:06:57	2023-06-16 10:10:06	4.0080					
pH-7	pH	2023-06-16 10:10:06	2023-06-16 10:12:35	7.0039					
pH-10	pH	2023-06-16 10:12:35	2023-06-16 10:15:05	9.9996					
GN42641-MB1	Alkalinity	2023-06-16 10:15:05	2023-06-16 10:19:22	7.5813	1.7499	0.0000	0	0.0000	1.7499
GN42641-B1	Alkalinity	2023-06-16 10:19:22	2023-06-16 10:24:18	8.2792	50.7731	0.0000	0	0.0000	50.7731
GN42641-B2	Alkalinity	2023-06-16 10:24:18	2023-06-16 10:31:21	8.6801	245.7172	6.7081	0	13.4162	232.3010
GN42641-D1	Alkalinity	2023-06-16 10:31:21	2023-06-16 10:36:44	8.5984	58.8771	2.7932	0	5.5864	53.2907
JD67463-2(QC)	Alkalinity	2023-06-16 10:36:44	2023-06-16 10:41:49	8.5637	58.8786	3.2081	0	6.4162	52.4624
JD67424-6	Alkalinity	2023-06-16 10:41:49	2023-06-16 10:45:30	6.3147	1.9466	0.0000	0	0.0000	1.9466
JD67424-11	Alkalinity	2023-06-16 10:45:30	2023-06-16 10:48:29	5.4886	1.4773	0.0000	0	0.0000	1.4773
JD67463-1	Alkalinity	2023-06-16 10:48:29	2023-06-16 10:56:21	6.9794	278.1988	0.0000	0	0.0000	278.1988
JD67463-3	Alkalinity	2023-06-16 10:56:21	2023-06-16 11:06:31	7.6285	444.0711	0.0000	0	0.0000	444.0711
JD67463-4	Alkalinity	2023-06-16 11:06:31	2023-06-16 11:15:26	7.2197	339.5185	0.0000	0	0.0000	339.5185
pH-4.0	pH	2023-06-16 11:15:26	2023-06-16 11:17:55	4.0246					
JD67463-5	Alkalinity	2023-06-16 11:17:55	2023-06-16 11:21:19	5.3550	1.2359	0.0000	0	0.0000	1.2359
JD67463-6	Alkalinity	2023-06-16 11:21:19	2023-06-16 11:31:09	7.6246	442.1853	0.0000	0	0.0000	442.1853

Jaredonk 6/16/23

L 3.2

Date:
Analyst:

2023-06-16 13:08:31
welchen

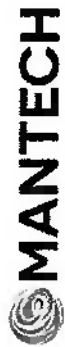


Sample Report

Run Template: Alkalinity
Run ID: 1433
Date Started: 2023-06-16 10:06:57
Date Completed: 2023-06-16 13:07:56

Sample Data

Probe Temperature	Final Titrant Volume	Raw mV	CO2
21.4706		168.9750	
21.3090		-1.8310	
21.2279		-172.4850	
	0.1600		0.0918
	1.5900		0.5339
	7.6650		0.9705
	1.8950		0.2687
	1.8700		0.2865
	0.1550		1.8863
	0.2050		9.5918
	8.5500		58.3425
	13.5750		20.8921
	10.4350		40.9443
21.8397		168.2420	
	0.1050		10.9147
	13.4950		20.9911



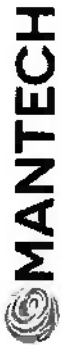
Sample Report

Date: 2023-06-16 13:08:37
Analyst: wetchen

Run Template: Alkalinity
Run ID: 1433
Date Started: 2023-06-16 10:06:57
Date Completed: 2023-06-16 13:07:56

Sample Data

Sample ID	Script Template	Date Started	Date Completed	pH	TAlkalinity	PAlkalinity	Hydroxide	Carbonate	Bicarbonate
JD67492-1	Alkalinity	2023-06-16 11:31:09	2023-06-16 11:41:09	7.1644	419.9146	0.0000	0	0.0000	419.9146
JD67492-2	Alkalinity	2023-06-16 11:41:09	2023-06-16 11:47:55	7.6316	169.8903	0.0000	0	0.0000	169.8903
JD67492-3	Alkalinity	2023-06-16 11:47:55	2023-06-16 11:57:49	7.6085	448.1438	0.0000	0	0.0000	448.1438
JD67492-4	Alkalinity	2023-06-16 11:57:49	2023-06-16 12:06:07	6.5778	300.1713	0.0000	0	0.0000	300.1713
JD67492-5	Alkalinity	2023-06-16 12:06:07	2023-06-16 12:11:58	6.7510	116.6573	0.0000	0	0.0000	116.6573
JD67492-6	Alkalinity	2023-06-16 12:11:58	2023-06-16 12:24:01	7.0848	595.9998	0.0000	0	0.0000	595.9998
JD67492-7	Alkalinity	2023-06-16 12:24:01	2023-06-16 12:32:27	7.5175	286.8366	0.0000	0	0.0000	286.8366
JD67492-8	Alkalinity	2023-06-16 12:32:27	2023-06-16 12:43:37	7.3316	510.4294	0.0000	0	0.0000	510.4294
pH-4.00	pH	2023-06-16 12:43:37	2023-06-16 12:46:07	4.0245					
JD67492-9	Alkalinity	2023-06-16 12:46:07	2023-06-16 12:52:48	7.3344	143.0590	0.0000	0	0.0000	143.0590
JD67492-10	Alkalinity	2023-06-16 12:52:48	2023-06-16 12:56:05	5.8165	1.4886	0.0000	0	0.0000	1.4886
JD67523-1	Alkalinity	2023-06-16 12:56:05	2023-06-16 13:01:20	7.3818	59.6498	0.0000	0	0.0000	59.6498
JD67523-2	Alkalinity	2023-06-16 13:01:20							



Sample Report

Date:
Analyst:

2023-06-16 13:08:31
wetchen

Run Template: Alkalinity
Run ID: 1433
Date Started: 2023-06-16 10:06:57
Date Completed: 2023-06-16 13:07:56

Sample Data

Probe Temperature	Final Titrant Volume	Raw mV	CO2
	13.0600		57.5163
	5.2150		7.9359
	13.7050		22.0774
	9.4550		158.7081
	3.6300		41.3944
	18.2250		98.0564
	8.7800		17.4247
	15.6200		47.5736
21.7073		168.1690	
	4.4350		13.2478
	0.2050		4.5426
	1.9100		4.9527



Sample Report

Date: 2023-06-16 13:35:24
Analyst: wetchen

Run Template: Alkalinity
Run ID: 1436
Date Started: 2023-06-16 13:24:37
Date Completed: 2023-06-16 13:35:24

Sample Data

Sample	Script ID	Start	End	pH	TAlkalinity	PAlkalinity	Hydroxide	Carbonate	Bicarbonate	Temp.	Final Vol.	CO2
JD67523-2	Alkalinity	2023-06-16 13:24:37	2023-06-16 13:30:48	7.3435	66.8708	0	0	0	66.8708		2.1050	6.0641
Ph-4	pH	2023-06-16 13:30:48	2023-06-16 13:35:24	4.0136						21.1322		

SGS

Reagent Information Log

Test Name: ALK

Reagent	Reagent # or Manufacturer/Lot
pH BUFFER 4	FISHER #230419 XP 3/25
pH BUFFER 7	FISHER #219096 XP 2/24
pH BUFFER 10	FISHER #224879 XP 9/24
H2SO4 TITRANT	FISHER #221917 XP 10/19/23
SODIUM PHOSPHATE DIBASIC	GNE5-71433-ALK XP 12/13/23
B1-1.0ML OF 5000PPM TO 100ML	TV 50MG/L
B2-5.0ML OF 5000PPM TO 100ML	TV 250 MG/L

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087-01
Rev. Date:6/16/2023

Sulfuric Acid

Certificate of Analysis

1 Reagent Lane

Fair Lawn, NJ 07410

201.796.7100 tel

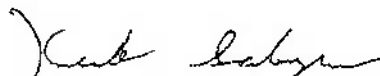
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO9001:2015 by SAI Global Certificate Number CERT - 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	SA226	Quality Test / Release Date	02/09/2023
Lot Number	224810		
Description	SULFURIC ACID, 0.02N, CERTIFIED		
Country of Origin	United States	Suggested Retest Date	Feb/2028

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, Colorless liquid
COLOR	APHA	≤ 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
NORMALITY		Inclusive Between 0.0198 - 0.0202	0.0199
TRACEABLE TO NIST KHP STD	POT. ACID PHTHALATE	= LOT 84L	LOT 84L



Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.

*Based on suggested storage condition.



GN42671

Sample Report

MARLIN K

06/16/2023

Run Template: Alkalinity
Run ID: 1441
Date Started: 2023-06-16 15:14:06
Date Completed: 2023-06-16 19:25:29

Sample Data

Sample	Script ID	Start	End	pH	TAlkalinity	PAIkalinity	Hydroxide	Carbonate	Bicarbonate	Temp.	Final Vol.
PH-4.0	pH	2023-06-16 15:14:06	2023-06-16 15:17:15	4.0049						20.7875	
PH-7.0	pH	2023-06-16 15:17:15	2023-06-16 15:19:44	6.9987						20.6657	
PH-10.0	pH	2023-06-16 15:19:44	2023-06-16 15:22:14	9.9966						20.6441	
GN42671-MB1	Alkalinity	2023-06-16 15:22:14	2023-06-16 15:26:37	7.4907	1.5742	0.0000	0	0.0000	1.5742		0.1800
GN42671-B1	Alkalinity	2023-06-16 15:26:37	2023-06-16 15:31:48	8.3256	48.4341	0.0000	0	0.0000	48.4341		1.5250
GN42671-B2	Alkalinity	2023-06-16 15:31:48	2023-06-16 15:38:42	8.7162	236.5742	6.9786	0	13.9572	222.6170		7.3550
GN42671-D1	Alkalinity	2023-06-16 15:38:42	2023-06-16 15:44:24	7.5535	66.8085	0.0000	0	0.0000	66.8085		2.0850
JD67523-3 (QC)	Alkalinity	2023-06-16 15:44:24	2023-06-16 15:49:59	7.4529	67.2427	0.0000	0	0.0000	67.2427		2.1500
JD67523-4	Alkalinity	2023-06-16 15:49:59	2023-06-16 15:55:31	7.4814	68.6432	0.0000	0	0.0000	68.6432		2.2150
JD67523-5	Alkalinity	2023-06-16 15:55:31	2023-06-16 15:58:39	5.6005	1.5128	0.0000	0	0.0000	1.5128		0.2050
JD67543-1	Alkalinity	2023-06-16 15:58:39	2023-06-16 16:23:29	7.0529	1460.3981	0.0000	0	0.0000	1460.3981		44.3950
JD67593-1	Alkalinity	2023-06-16 16:23:29	2023-06-16 16:30:10	7.0310	155.9602	0.0000	0	0.0000	155.9602		4.8550
JD67593-2	Alkalinity	2023-06-16 16:30:10	2023-06-16 16:36:29	6.4366	197.0766	0.0000	0	0.0000	197.0766		6.0900
PH-4.1	pH	2023-06-16 16:36:29	2023-06-16 16:38:58	4.0236						20.7307	
JD67593-3	Alkalinity	2023-06-16 16:38:58	2023-06-16 16:44:30	6.6853	130.7025	0.0000	0	0.0000	130.7025		4.2400
JD67593-4	Alkalinity	2023-06-16 16:44:30	2023-06-16 16:50:23	6.8375	139.5805	0.0000	0	0.0000	139.5805		4.6200



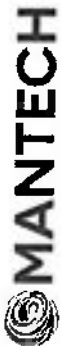
Date: 2023-06-16 19:25:29
Analyst: wetche

Sample Report

Run Template: Alkalinity
Run ID: 1441
Date Started: 2023-06-16 15:14:06
Date Completed: 2023-06-16 19:25:29

Sample Data

CO2
0.1017
0.4577
0.8558
3.7356
4.7400
4.5313
7.5912
258.5838
29.0432
144.2331
53.9528
40.5840



Sample Report

Date:
Analyst:2023-06-16 19:25:
wetche

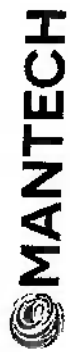
Run Template: Alkalinity
Run ID: 1441
Date Started: 2023-06-16 15:14:06
Date Completed: 2023-06-16 19:25:29

Sample Data

Sample	Script ID	Start	End	pH	TAlkalinity	PAIkalinity	Hydroxide	Carbonate	Bicarbonate	Temp.	Final Vol.
JD67593-5	Alkalinity	2023-06-16 16:50:23	2023-06-16 16:57:32	6.9046	226.8443	0.0000	0	0.0000	226.8443		7.0000
JD67593-6	Alkalinity	2023-06-16 16:57:32	2023-06-16 17:06:09	7.4552	341.2579	0.0000	0	0.0000	341.2579		10.4300
JD67593-7	Alkalinity	2023-06-16 17:06:09	2023-06-16 17:15:13	7.2074	367.1976	0.0000	0	0.0000	367.1976		11.3500
JD67593-8	Alkalinity	2023-06-16 17:15:13	2023-06-16 17:22:02	7.4006	173.1991	0.0000	0	0.0000	173.1991		5.3300
JD67593-9	Alkalinity	2023-06-16 17:22:02	2023-06-16 17:31:16	7.1598	385.1544	0.0000	0	0.0000	385.1544		11.8050
JD67593-10	Alkalinity	2023-06-16 17:31:16	2023-06-16 17:34:48	5.7685	1.3505	0.0000	0	0.0000	1.3505		0.2050
JD67609-5	Alkalinity	2023-06-16 17:34:49	2023-06-16 17:42:20	8.1040	279.0878	0.0000	0	0.0000	279.0878		8.5800
LA91257-1	Alkalinity	2023-06-16 17:42:20	2023-06-16 18:10:50	7.3324	0.0000	0.0000	0	0.0000	0.0000		50.1150
PH-4.2	pH	2023-06-16 18:10:50	2023-06-16 18:13:19	4.0458						21.0230	
LA91257-2	Alkalinity	2023-06-16 18:13:19	2023-06-16 18:32:37	7.5604	1071.9408	0.0000	0	0.0000	1071.9408		32.9800
LA91257-3	Alkalinity	2023-06-16 18:32:37	2023-06-16 18:49:43	7.6891	900.3991	0.0000	0	0.0000	900.3991		27.5050
LA91257-4	Alkalinity	2023-06-16 18:49:43	2023-06-16 18:59:50	7.6978	480.9792	0.0000	0	0.0000	480.9792		14.7450
LA91257-5	Alkalinity	2023-06-16 18:59:50	2023-06-16 19:20:52	7.4572	1156.1589	0.0000	0	0.0000	1156.1589		35.6300
PH-4.3	pH	2023-06-16 19:20:52	2023-06-16 19:25:29	4.0711						20.7729	

2023-06-16 19:25:
wetche

Date:
Analyst:



Sample Report

Run Template: Alkalinity
Run ID: 1441
Date Started: 2023-06-16 15:14:06
Date Completed: 2023-06-16 19:25:29

Sample Data

CO2
56.5142
23.9283
45.5543
13.7713
53.3169
4.6028
4.3931
0.0000
58.9930
36.8439
19.2911
80.6952

SGS**Reagent Information Log**
Test Name: ALK

<u>Reagent</u>	<u>Reagent # or Manufacturer/Lot</u>
pH BUFFER 4	FISHER #230419 XP 3/25
pH BUFFER 7	FISHER #219096 XP 2/24
pH BUFFER 10	FISHER #224879 XP 9/24
H2SO4 TITRANT	FISHER #221917 XP 10/19/23
SODIUM PHOSPHATE DIBASIC	GNE5-71433-ALK XP 12/13/23
B1-1.0ML OF 5000PPM TO 100ML	TV 50MG/L
B2-5.0ML OF 5000PPM TO 100ML	TV 250 MG/L

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087-01
Rev. Date: 6/18/2023

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)File ID: E061623W1.N032
Analyst: XMDate Analyzed: 06/16/23
Run ID: GN42674

Methods: EPA 351.2/LACHAT

The following analyst(s) have reviewed this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: MM Date 06/16/23

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee):  Date 6/16/23

GN42674

Author: Chemistry

Date: 6/17/2023

Original Run Filename: OM_6-16-2023_02-36-36PM.OMN Created: 6/16/2023 2:36:36 PM

Original Run Author's Signature: [Chemistry]

Current Run Filename: OM_6-16-2023_02-36-36PM.OMN Last Modified: 6/16/2023 3:31:53 PM

Current Run Author's Signature: [Chemistry]

Description: Default New Run

EO6016 23W1. n032

Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF
STDA	1	1	5.00	6/16/2023@2:37:29 PM	
STDB	1	2	4.00	6/16/2023@2:38:35 PM	
STDC	1	3	2.50	6/16/2023@2:39:40 PM	
STDD	1	4	1.00	6/16/2023@2:40:45 PM	
STDE	1	5	0.500	6/16/2023@2:41:50 PM	
STDF	1	6	0.200	6/16/2023@2:42:55 PM	
STDG	1	7	0.100	6/16/2023@2:44:00 PM	
STDH	1	8	0.00	6/16/2023@2:45:04 PM	
EFFCHK	1	9	2.24	6/16/2023@2:46:09 PM	
Known Conc:			2.00		
Calibration: Table/Fig.: 1					
ICV	1	10	1.99	6/16/2023@2:47:13 PM	
Known Conc:			2.00		
ICB	1	11	4.10e-3	6/16/2023@2:48:17 PM	
Known Conc:			0.00		
CCV	1	12	2.51	6/16/2023@2:49:22 PM	
Known Conc:			2.50		
CCB	1	13	-0.0125	6/16/2023@2:50:26 PM	
Known Conc:			0.00		
GP47494-MB1	1	14	4.35e-3	6/16/2023@2:51:29 PM	
GP47494-B1	1	15	2.06	6/16/2023@2:52:33 PM	
GP47494-S1	1	16	2.53	6/16/2023@2:53:39 PM	
GP47494-S2	1	17	1.04	6/16/2023@2:54:44 PM	
GP47494-D1	1	18	1.68	6/16/2023@2:55:49 PM	
LA91350-1	1	19	0.286	6/16/2023@2:56:53 PM	
JD67489-1	1	20	10.0	6/16/2023@2:57:58 PM	
JD67491-1	1	21	7.96	6/16/2023@2:59:03 PM	
JD67492-1	1	22	3.71e-3	6/16/2023@3:00:08 PM	
JD67492-2	1	23	1.44	6/16/2023@3:01:12 PM	
CCV	1	12	2.45	6/16/2023@3:02:17 PM	
Known Conc:			2.50		
CCB	1	13	-0.0111	6/16/2023@3:03:21 PM	
Known Conc:			0.00		
JD67492-3	1	24	0.0138	6/16/2023@3:04:25 PM	
JD67492-4	1	25	0.0315	6/16/2023@3:05:30 PM	
JD67492-5	1	26	3.22	6/16/2023@3:06:34 PM	
JD67492-6	1	27	0.0202	6/16/2023@3:07:38 PM	
JD67492-7	1	28	0.113	6/16/2023@3:08:42 PM	
JD67492-8	1	29	0.0136	6/16/2023@3:09:46 PM	
JD67492-9	1	30	1.61	6/16/2023@3:10:50 PM	
JD67492-10	1	31	3.36e-3	6/16/2023@3:11:57 PM	
JD67493-1	1	32	0.538	6/16/2023@3:13:01 PM	
JD67493-2	1	33	1.37	6/16/2023@3:14:07 PM	
CCV	1	12	2.39	6/16/2023@3:15:11 PM	
Known Conc:			2.50		
CCB	1	13	-8.66e-3	6/16/2023@3:16:15 PM	
Known Conc:			0.00		
JD67493-3	1	34	-0.0202	6/16/2023@3:17:20 PM	
JD67493-4	1	35	4.44e-3	6/16/2023@3:18:25 PM	
JD67493-5	1	36	3.90e-3	6/16/2023@3:19:30 PM	
JD67609-1	1	80	2.41	6/16/2023@3:20:35 PM	
GP47495-MB1	1	37	0.0124	6/16/2023@3:21:40 PM	
GP47495-B1	1	38	1.78	6/16/2023@3:22:45 PM	
GP47495-S1	1	39	-0.0112	6/16/2023@3:23:49 PM	
GP47495-S2	1	40	-0.126	6/16/2023@3:24:53 PM	
GP47495-D1	1	41	0.0183	6/16/2023@3:25:58 PM	
GP47495-B1	1	38	0.499	6/16/2023@3:27:02 PM	
CCV	1	12	0.0138	6/16/2023@3:28:07 PM	
Known Conc:			2.50		
CCB	1	13	0.157	6/16/2023@3:29:11 PM	

99.5%

100.4%

103%

98%

95.6%

Return

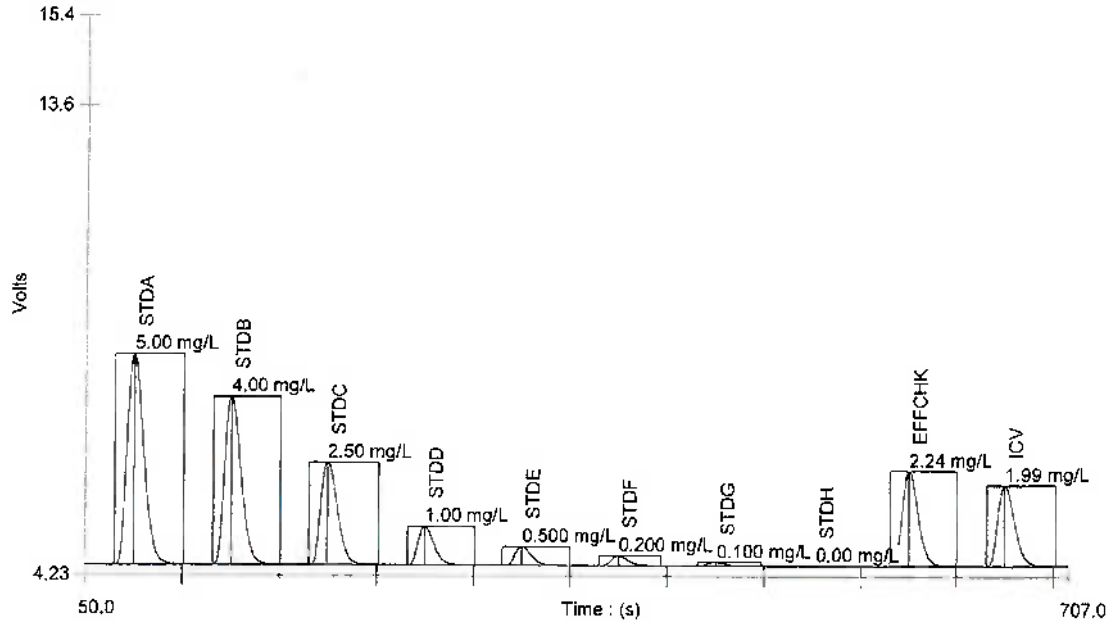
Author: Chemistry

Date : 6/17/2023

Known Conc:			0.00	
GP47495-S1	1	39	0.292	6/16/2023@3:32:12 PM
GP47495-S2	1	40	1.40	6/16/2023@3:33:27 PM
GP47495-B1	1	38	-0.0167	6/16/2023@3:34:32 PM

Rem

Channel 1 - Set: 1 / 6

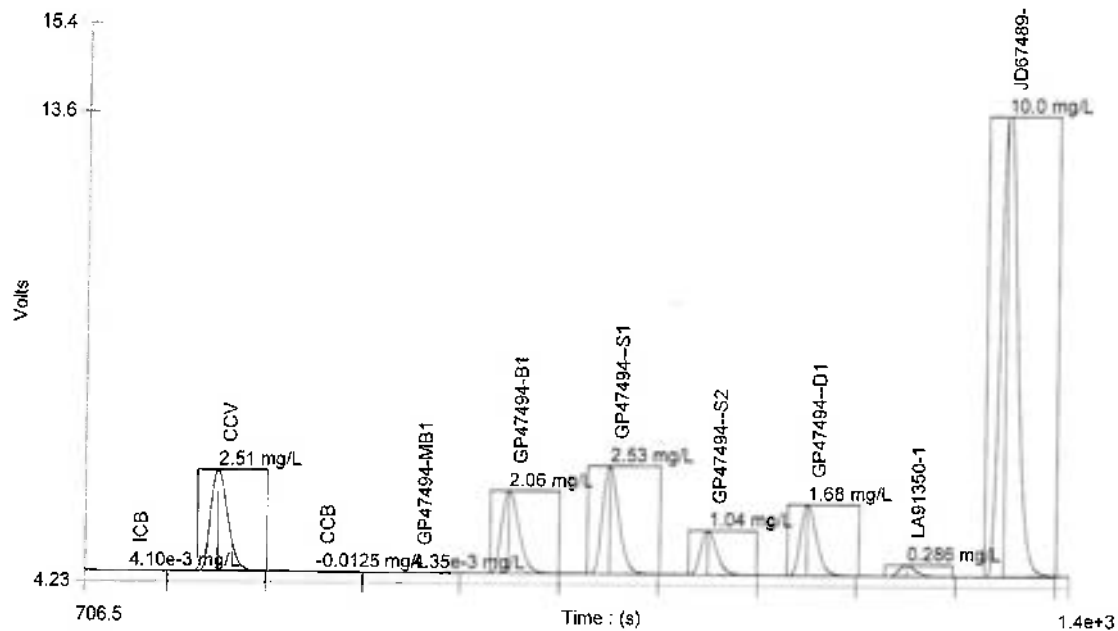


- 2 -

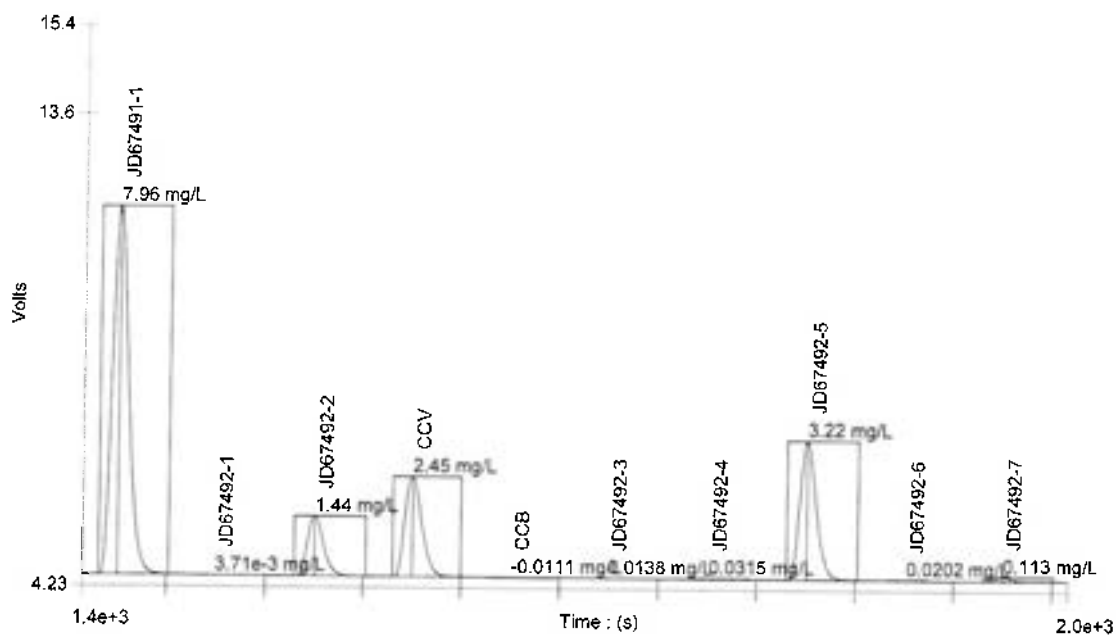
Author: Chemistry

Date : 6/17/2023

Channel 1 - Set: 2 / 6



Channel 1 - Set: 3 / 6

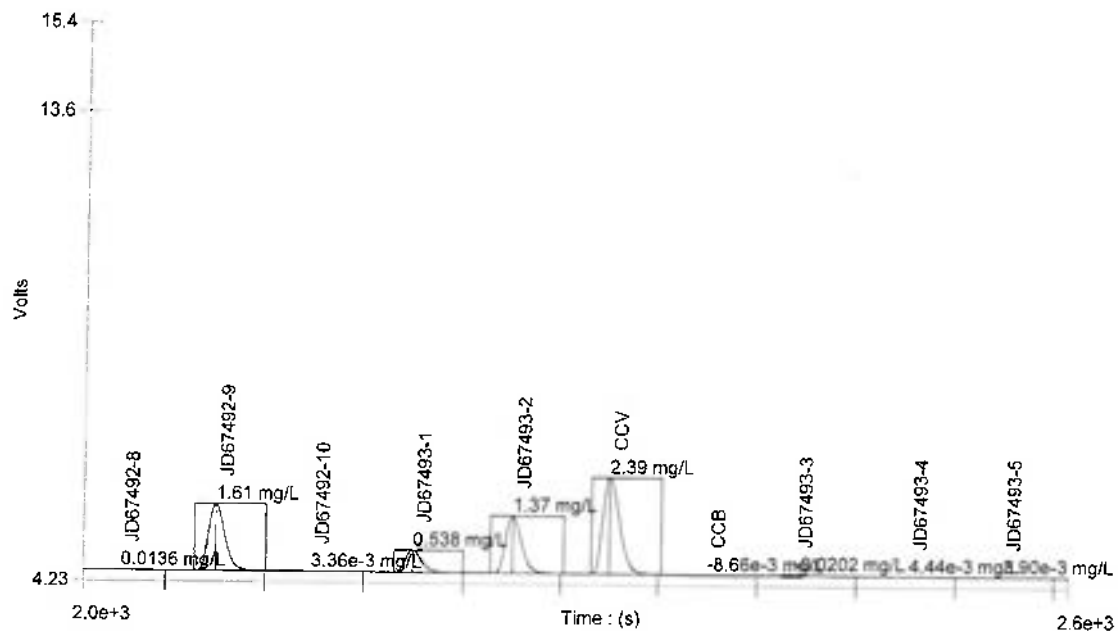


- 3 -

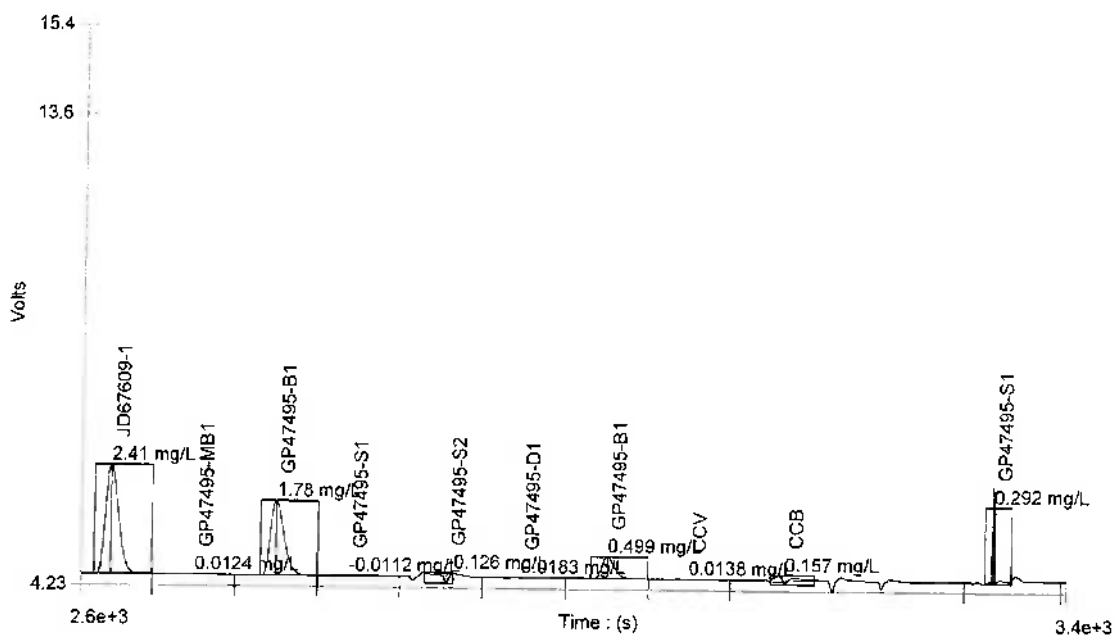
Author: Chemistry

Date : 6/17/2023

Channel 1 - Set: 4 / 6



Channel 1 - Set: 5 / 6



- 4 -

Author: Chemistry

Date : 6/17/2023

Channel 1 - Set: 6 / 6

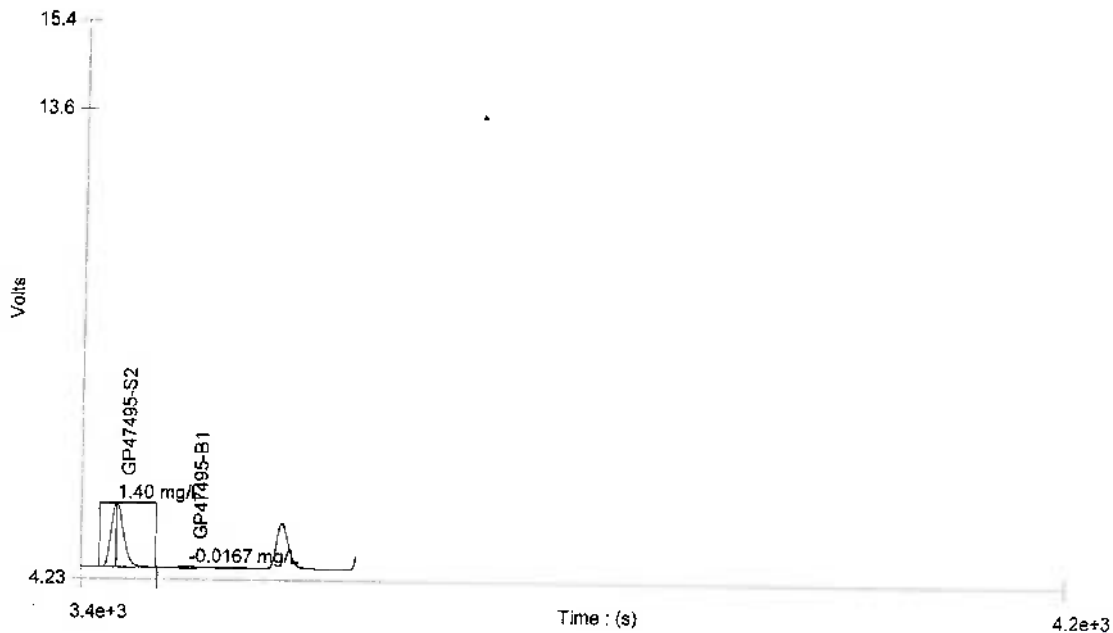


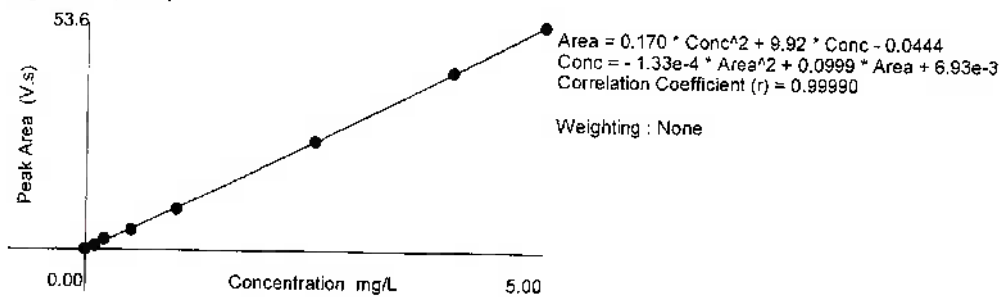
Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	53.6	4.19	0.0	0.3	4.99	6/16/2023	2:37:29 PM
2	4.00	1	42.6	3.34	0.0	-0.6	4.02	6/16/2023	2:38:35 PM
3	2.50	1	25.9	2.03	0.0	-0.4	2.51	6/16/2023	2:39:40 PM
4	1.00	1	9.71	0.769	0.0	3.3	0.965	6/16/2023	2:40:45 PM
5	0.500	1	4.65	0.370	0.0	6.2	0.469	6/16/2023	2:41:50 PM
6	0.200	1	2.47	0.197	0.0	-27.1	0.253	6/16/2023	2:42:55 PM
7	0.100	1	0.874	0.0666	0.0	7.9	0.0942	6/16/2023	2:44:00 PM
8	0.00	1	-0.0292	-2.03e-3			4.01e-3	6/16/2023	2:45:04 PM

0.4%

5.8%

Figure : 1 (NO32)



- 5 -

Author: Chemistry

Date : 6/17/2023

Original Run Filename: OM_6-16-2023_03-53-42PM.OMN Created: 6/16/2023 3:53:42 PM

Original Run Author's Signature: [Chemistry]

Current Run Filename: OM_6-16-2023_03-53-42PM.OMN Last Modified: 6/16/2023 4:30:54 PM

Current Run Author's Signature: [Chemistry]

Description: Default new Run

20611623W2.r032

Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF
CCV	1	12	2.57	6/16/2023@3:54:34 PM	
Known Conc:			2.50		
Calibration:			Table/Fig.: 1		
CCB	1	13	-8.37e-3	6/16/2023@3:55:38 PM	
Known Conc:			0.00		
JD67493-3	1	34	0.215	6/16/2023@3:56:43 PM	
JD67493-4	1	35	0.154	6/16/2023@3:57:48 PM	
JD67493-5	1	36	-0.0457	6/16/2023@3:58:53 PM	
JD67609-1	1	80	2.39	6/16/2023@3:59:58 PM	
GP47495-MB1	1	37	0.0108	6/16/2023@4:01:03 PM	
GP47495-B1	1	38	2.00	6/16/2023@4:02:08 PM	
GP47495-S1	1	39	0.842	6/16/2023@4:03:13 PM	
GP47495-S2	1	40	1.38	6/16/2023@4:04:17 PM	
GP47495-D1	1	41	0.474	6/16/2023@4:05:23 PM	
JD67523-3	1	42	0.587	6/16/2023@4:06:29 PM	
CCV	1	12	2.48	6/16/2023@4:07:30 PM	
Known Conc:			2.50		
CCB	1	13	0.0987	6/16/2023@4:08:34 PM	
Known Conc:			0.00		
JD67523-1	1	43	0.520	6/16/2023@4:09:38 PM	
JD67523-2	1	44	0.543	6/16/2023@4:10:42 PM	
JD67523-4	1	45	0.547	6/16/2023@4:11:46 PM	
JD67523-5	1	46	0.0409	6/16/2023@4:12:51 PM	
JD67497-1	1	47	0.0280	6/16/2023@4:13:56 PM	
JD67497-2	1	48	0.0207	6/16/2023@4:15:02 PM	
JD67497-3	1	49	6.38e-3	6/16/2023@4:16:07 PM	
JD67497-4	1	50	5.61e-3	6/16/2023@4:17:12 PM	
JD67497-5	1	51	0.0244	6/16/2023@4:18:17 PM	
JD67497-6	1	52	-0.0282	6/16/2023@4:19:21 PM	
CCV	1	12	2.41	6/16/2023@4:20:26 PM	
Known Conc:			2.50		
CCB	1	13	4.52e-4	6/16/2023@4:21:30 PM	
Known Conc:			0.00		
JD67497-7	1	53	0.0214	6/16/2023@4:22:34 PM	
JD67497-8	1	54	0.623	6/16/2023@4:23:39 PM	
JD67497-9	1	55	0.0263	6/16/2023@4:24:43 PM	
JD67497-10	1	56	0.0242	6/16/2023@4:25:47 PM	
JD67543-1	1	57	0.0174	6/16/2023@4:26:52 PM	
JD67543-2	1	58	0.0507	6/16/2023@4:27:56 PM	
JD67543-8	1	59	1.19	6/16/2023@4:29:00 PM	
JD67572-1 (2)	1	60	11.4	6/16/2023@4:30:04 PM	
JD67489-1	1	87	3.14	6/16/2023@4:31:08 PM	4.00
JD67491-1	1	88	3.27	6/16/2023@4:32:18 PM	3.00
CCV	1	12	2.54	6/16/2023@4:33:23 PM	
Known Conc:			2.50		
CCB	1	13	-6.00e-3	6/16/2023@4:34:27 PM	
Known Conc:			0.00		

102.8%

100%

99.2%

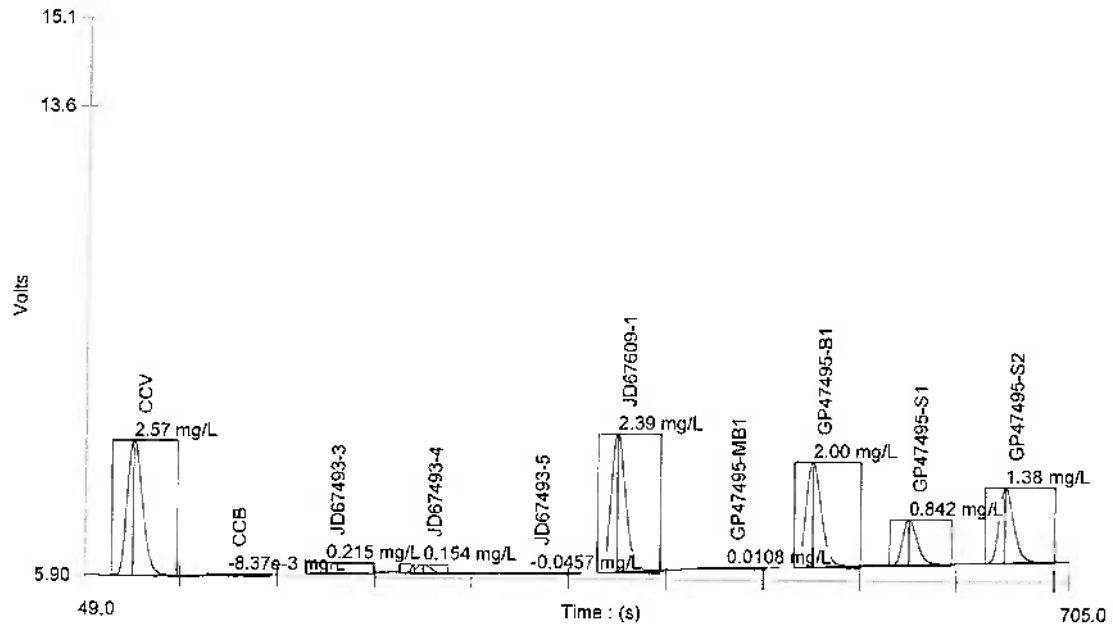
96.4%

Rev
2 ml sample + 6 ml DI
3 ml sample + 6 ml DI
101.6%

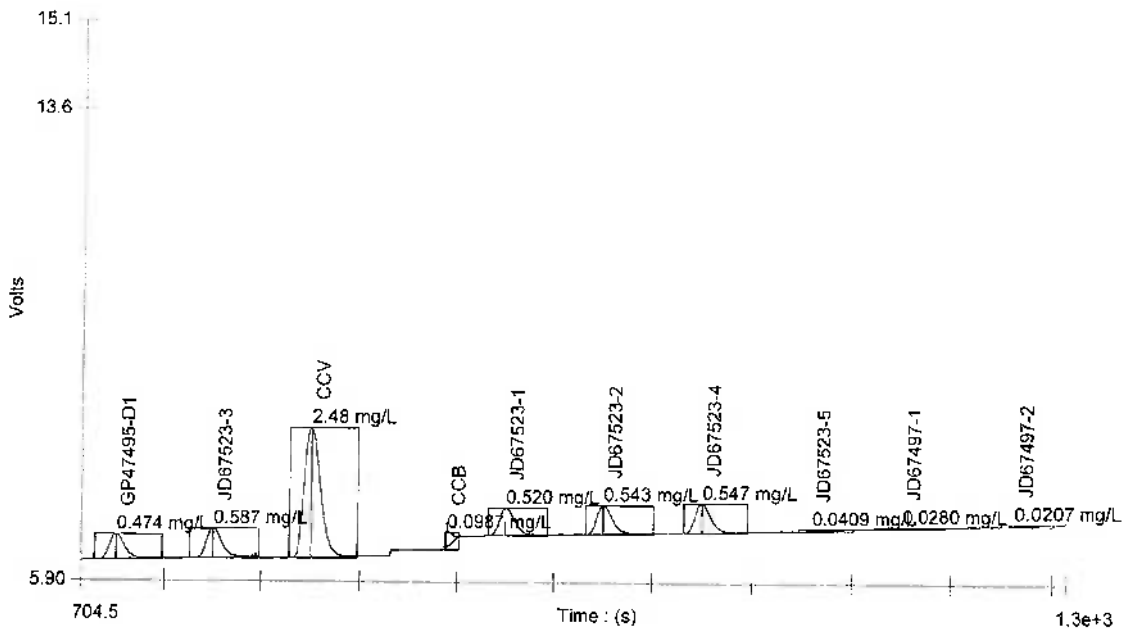
Author: Chemistry

Date: 6/17/2023

Channel 1 - Set: 1 / 4



Channel 1 - Set: 2 / 4

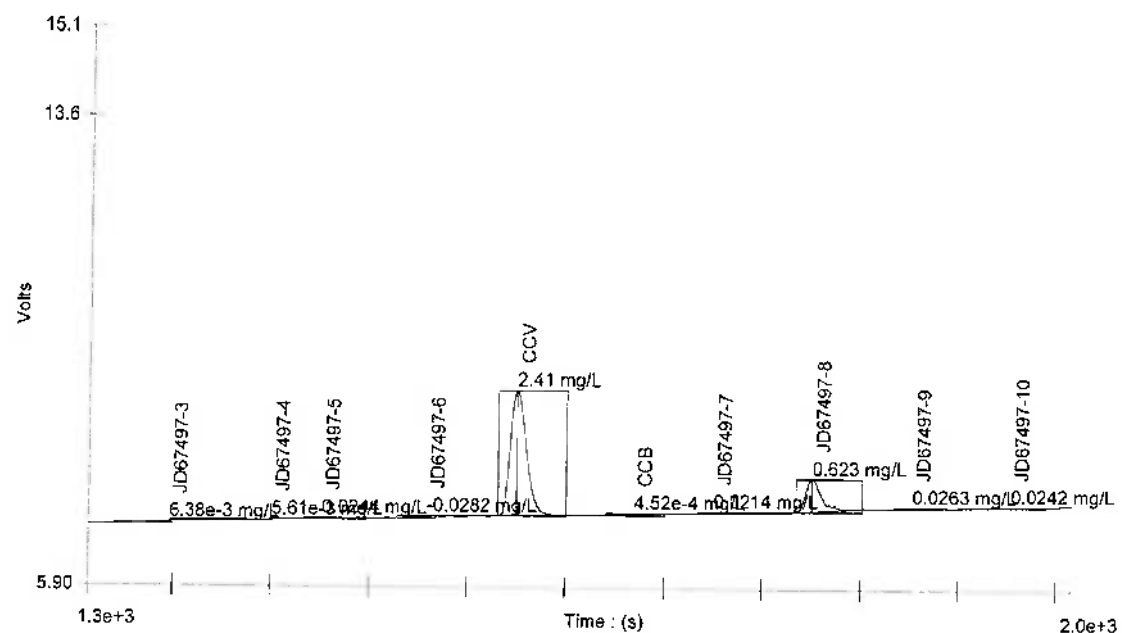


- 2 -

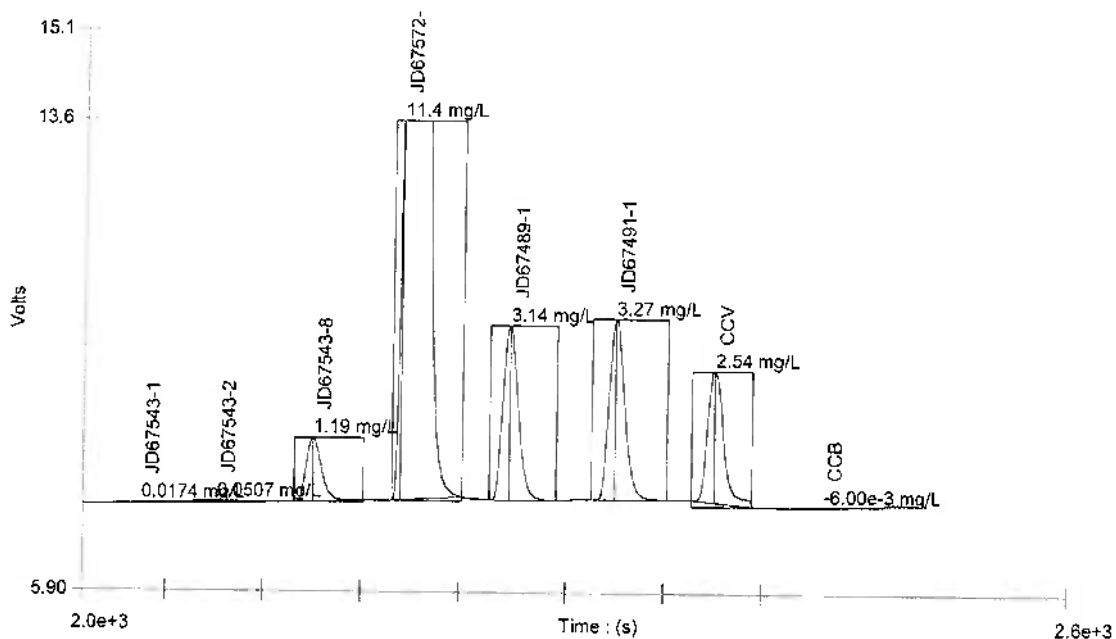
Author: Chemistry

Date : 6/17/2023

Channel 1 - Set: 3 / 4



Channel 1 - Set: 4 / 4



- 3 -

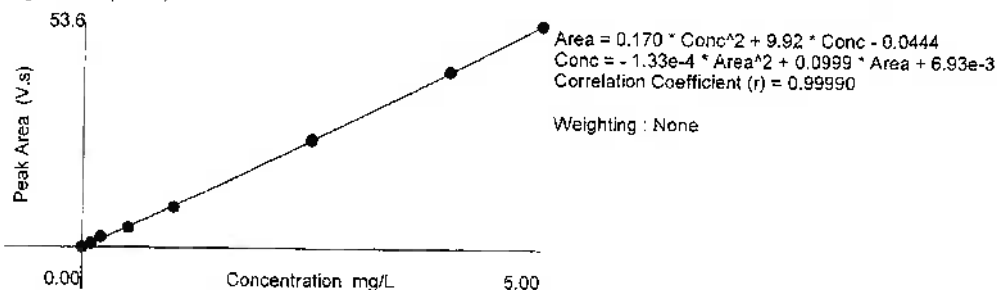
Author: Chemistry

Date : 6/17/2023

Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	53.6	4.19	0.0	0.3	4.99	6/16/2023	2:37:29 PM
2	4.00	1	42.8	3.34	0.0	-0.6	4.02	6/16/2023	2:38:35 PM
3	2.50	1	25.9	2.03	0.0	-0.4	2.51	6/16/2023	2:39:40 PM
4	1.00	1	9.71	0.789	0.0	3.3	0.965	6/16/2023	2:40:45 PM
5	0.500	1	4.85	0.370	0.0	6.2	0.469	6/16/2023	2:41:50 PM
6	0.200	1	2.47	0.197	0.0	-27.1	0.253	6/16/2023	2:42:55 PM
7	0.100	1	0.874	0.0666	0.0	7.9	0.0942	6/16/2023	2:44:00 PM
8	0.00	1	-0.0292	-2.03e-3			4.01e-3	6/16/2023	2:45:04 PM

Figure : 1 (NO32)



SGS Dayton

Analyst: MM

Prep Date: 6/16/2023

Pipette ID: 52 and 57

Batch ID: GP47494

pH paper Lot: 206722 XP 03/01/2025

Nitrate-Nitrite (NO₃²) AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume		SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosulfate
EDTA BUFFER SOLN.	N/A	N/A		9.1	
MB				Y	
BSP	1.0ML OF 100PPM	100MLS	CARRIER	Y	
MSD1	0.5ML OF 100PPM	50MLS	JD67492-9	Y	
MSD2	0.5ML OF 100PPM	50MLS	JD67492-7	Y	
DUP			JD67492-9	Y	
LA91350-1				Y	
JD67489-1				Y	
JD67491-1				Y	
JD67492-1				Y	
JD67492-2				Y	
JD67492-3				Y	
JD67492-4				Y	
JD67492-5				Y	
JD67492-6				Y	
JD67492-7				Y	
JD67492-8				Y	
JD67492-9				Y	
JD67492-10				Y	
JD67493-1				Y	
JD67493-2				Y	
JD67493-3				Y	
JD67493-4				Y	
JD67493-5				Y	
JD67609-1				Y	

Form GN319-04 Aqueous

Reviewer: _____

Rev date: 03/06/2023

Date: _____

SGS Dayton

Analyst: MM

Prep Date: 6/17/2023

Pipette ID: 52 and 57

Batch ID: GP47495

pH paper Lot: 206722 XP 03/01/2025

Nitrate-Nitrite (NO₃)² AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume		SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosulfate
EDTA BUFFER SOLN.	N/A	N/A		9.1	
MB				Y	
BSP	1.0ML OF 100PPM	100MLS	CARRIER	Y	
MSD1	0.5ML OF 100PPM	50MLS	JD67523-3	Y	
MSD2	0.5ML OF 100PPM	50MLS	JD67497-2	Y	
DUP			JD67523-3	Y	
JD67523-1				Y	
JD67523-2				Y	
JD67523-3				Y	
JD67523-4				Y	
JD67523-5				Y	
JD67497-1				Y	
JD67497-2				Y	
JD67497-3				Y	
JD67497-4				Y	
JD67497-5				Y	
JD67497-6				Y	
JD67497-7				Y	
JD67497-8				Y	
JD67497-9				Y	
JD67497-10				Y	
JD67543-1				Y	
JD67543-2				Y	
JD67543-8				Y	
				Y	
				Y	

Form GN319-04 Aqueous

Rev date: 03/06/2023

Reviewer: _____

Date: _____

6/16/20

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product:

NO32

Analyst:

MM

Date:

6/16/2023

GN/GP number:

GN42674

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume used in ml	Pipette ID*	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Standard ID
100 ppm NO3 Intermediate	GEN12-72667-NO32	1000	10	48	Carrier	100 ml	100	6/20/2023	NO32-100-052023
100 ppm NO2 Intermediate	GEN12-72665-NO32	1000	10	48	Carrier	100 ml	100	6/20/2023	NO2-100-052023
100 ppm NO3 External	GEN12-72666-NO32	1000	10	48	Carrier	100 ml	100	6/20/2023	NO32E-100-052023
Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml		Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	
5.0 mg/l NO3	NO32-100-052023	100 mg/l	5.0	48	Carrier	100 ml	5.0	6/19/2023	STDA-061223
2.5 mg/l NO3	NO32-100-052023	100 mg/l	2.5	48	Carrier	100 ml	2.5	6/19/2023	STDB-061223
1.0 mg/l NO3	NO32-100-052023	100 mg/l	1.0	48	Carrier	100 ml	1.0	6/19/2023	STDC-061223
0.5 mg/l NO3	NO32-100-052023	100 mg/l	0.5	48	Carrier	100 ml	0.5	6/19/2023	STDD-061223
0.2 mg/l NO3	NO32-100-052023	100 mg/l	0.2	48	Carrier	100 ml	0.2	6/19/2023	STDE-061223
0.1 mg/l NO3	NO32-100-052023	100 mg/l	0.1	48	Carrier	100 ml	0.1	6/19/2023	STDF-061223
Effcheck 2.0	NO2-100-052023	100 mg/l	2.0	48	Carrier	100 ml	2.0	6/16/2023	EFFcheck-061623
ICV	NO32E-100-052023	100 mg/l	2.0	48	Carrier	100 ml	2.0	6/19/2023	ICV-061223

*If Class A glass pipettes are used, enter an A.



Reagent Information Log - Nitrate Lachat Autoanalyzer

<u>Reagent</u>	<u>Reagent # or Manufacturer/Lot</u>	<u>Expiration Date</u>
Ammonium Chloride Buffer Solution	GNE5-71268-NO32	11/24/2023
Sulfanilamide Color Reagent	GNE6-71371-NO32	7/6/2023
1:1 NH ₄ OH	GNE6-71503-NO3	12/16/2023
Carrier Solution	GNE1-73258-NO32	8/2/2023
Nitrate Stock Solution	GNE6-71424-NO32	12/12/2023
1000 ppm Nitrite Solution	GNE6-71425-NO32	12/12/2023
Nitrate External Stock Solution	GNE6-71426-NO32	12/12/2023

Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-43
Rev. Date: 7/19/06