

Cover Page

Order ID : P5291

Project ID : Con Edison Non-MGP - Atlantic Avenue

Client : PARSONS Main of New York, Inc.

Lab Sample Number

P5291-01
P5291-02
P5291-03
P5291-04
P5291-05
P5291-06
P5291-07
P5291-08
P5291-09
P5291-10
P5291-11
P5291-12
P5291-13

Client Sample Number

MW1A-20241213
MW10D-20241213
MW4-20241213
MW5-20241213
MW2-20241213
MW3-20241213
MW6-20241213
P5291-07MS
P5291-07MSD
MW6-20241213-A
EQUIP-BLANK-20241213
TB-20241216
WC-20241213

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 12/20/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers “P” for ICP instrument “PM” for ICP when Microwave Digestion is used “CV” for Manual Cold Vapor AA “AV” for automated Cold Vapor AA “CA” for MIDI-Distillation Spectrophotometric “AS” for Semi -Automated Spectrophotometric “C” for Manual Spectrophotometric “T” for Titrimetric “NR” for analyte not required to be analyzed
OR	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P5291

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: NILESH PRAJAPATI

Date: 12/20/2024

LAB CHRONICLE

OrderID:	P5291	OrderDate:	12/16/2024 10:45:00 AM
Client:	PARSONS Main of New York, Inc.	Project:	Con Edison Non-MGP - Atlantic Avenue
Contact:	Stephen Liberatore	Location:	L51,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5291-01	MW1A-20241213	WATER			12/13/24 08:35			12/16/24
			Sulfate	300.0				
			TDS	SM2540 C			12/16/24 13:42 12/16/24 12:30	
P5291-02	MW10D-20241213	WATER			12/13/24 09:50			12/16/24
			Sulfate	300.0				
			TDS	SM2540 C			12/16/24 14:03 12/16/24 12:30	
P5291-03	MW4-20241213	WATER			12/13/24 11:04			12/16/24
			Sulfate	300.0				
			TDS	SM2540 C			12/16/24 14:25 12/16/24 12:30	
P5291-04	MW5-20241213	WATER			12/13/24 12:12			12/16/24
			Sulfate	300.0				
			TDS	SM2540 C			12/16/24 14:46 12/16/24 12:30	
P5291-05	MW2-20241213	WATER			12/13/24 13:22			12/16/24
			Sulfate	300.0			12/16/24 15:08	

LAB CHRONICLE

TDS SM2540 C 12/16/24
12:30

P5291-06 MW3-20241213 WATER 12/13/24 14:22 12/16/24

Sulfate 300.0 12/16/24
15:29

TDS SM2540 C 12/16/24
12:30

P5291-07 MW6-20241213 WATER 12/13/24 15:18 12/16/24

Sulfate 300.0 12/16/24
15:51

TDS SM2540 C 12/16/24
12:30

P5291-10 MW6-20241213-A WATER 12/13/24 15:18 12/16/24

Sulfate 300.0 12/16/24
17:38

TDS SM2540 C 12/16/24
12:30

P5291-10DL MW6-20241213-ADL WATER 12/13/24 15:18 12/16/24

Sulfate 300.0 12/17/24
11:17

P5291-11 EQUIP-BLANK-20241213 WATER 12/13/24 17:30 12/16/24

Sulfate 300.0 12/16/24
18:00

TDS SM2540 C 12/16/24
12:30

P5291-13 WC-20241213 Water 12/13/24 17:00 12/16/24

Flash Point 1010B 12/16/24
12:00

pH 9040C 12/16/24
10:15

LAB CHRONICLE

Reactive Cyanide	9012B	12/19/24	12/19/24
			12:02
Reactive Sulfide	9034	12/17/24	12/17/24
			11:23



SAMPLE DATA

Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 08:35
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	MW1A-20241213	SDG No.:	P5291
Lab Sample ID:	P5291-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Sulfate	7.20		1	0.032	3.00	mg/L		12/16/24 13:42	300.0
TDS	201		1	1.00	10.0	mg/L		12/16/24 12:30	SM 2540 C-15

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 09:50
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	MW10D-20241213	SDG No.:	P5291
Lab Sample ID:	P5291-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Sulfate	22.7		1	0.032	3.00	mg/L		12/16/24 14:03	300.0
TDS	303		1	1.00	10.0	mg/L		12/16/24 12:30	SM 2540 C-15

Comments: _____

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Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 11:04
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	MW4-20241213	SDG No.:	P5291
Lab Sample ID:	P5291-03	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Sulfate	29.3		1	0.032	3.00	mg/L		12/16/24 14:25	300.0
TDS	590		1	1.00	10.0	mg/L		12/16/24 12:30	SM 2540 C-15

Comments: _____

U = Not Detected

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H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 12:12
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	MW5-20241213	SDG No.:	P5291
Lab Sample ID:	P5291-04	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Sulfate	19.1		1	0.032	3.00	mg/L		12/16/24 14:46	300.0
TDS	328		1	1.00	10.0	mg/L		12/16/24 12:30	SM 2540 C-15

Comments: _____

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LOD = Limit of Detection

D = Dilution

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H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 13:22
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	MW2-20241213	SDG No.:	P5291
Lab Sample ID:	P5291-05	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Sulfate	7.10		1	0.032	3.00	mg/L		12/16/24 15:08	300.0
TDS	511		1	1.00	10.0	mg/L		12/16/24 12:30	SM 2540 C-15

Comments:

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H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 14:22
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	MW3-20241213	SDG No.:	P5291
Lab Sample ID:	P5291-06	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Sulfate	33.1		1	0.032	3.00	mg/L		12/16/24 15:29	300.0
TDS	624		1	1.00	10.0	mg/L		12/16/24 12:30	SM 2540 C-15

Comments: _____

U = Not Detected

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J = Estimated Value

B = Analyte Found in Associated Method Blank

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Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 15:18
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	MW6-20241213	SDG No.:	P5291
Lab Sample ID:	P5291-07	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Sulfate	36.9		1	0.032	3.00	mg/L		12/16/24 15:51	300.0
TDS	1020		1	1.00	10.0	mg/L		12/16/24 12:30	SM 2540 C-15

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

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LOD = Limit of Detection

D = Dilution

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H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 15:18
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	MW6-20241213-A	SDG No.:	P5291
Lab Sample ID:	P5291-10	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Sulfate	38.8	OR	1	0.032	3.00	mg/L		12/16/24 17:38	300.0
TDS	985		1	1.00	10.0	mg/L		12/16/24 12:30	SM 2540 C-15

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 15:18
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	MW6-20241213-ADL	SDG No.:	P5291
Lab Sample ID:	P5291-10DL	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Sulfate	38.7	D	2	0.064	6.00	mg/L		12/17/24 11:17	300.0

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 17:30
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	EQUIP-BLANK-20241213	SDG No.:	P5291
Lab Sample ID:	P5291-11	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Sulfate	0.032	U	1	0.032	3.00	mg/L		12/16/24 18:00	300.0
TDS	1.00	U	1	1.00	10.0	mg/L		12/16/24 12:30	SM 2540 C-15

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	PARSONS Main of New York, Inc.	Date Collected:	12/13/24 17:00
Project:	Con Edison Non-MGP - Atlantic Avenue	Date Received:	12/16/24
Client Sample ID:	WC-20241213	SDG No.:	P5291
Lab Sample ID:	P5291-13	Matrix:	Water
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Flash Point	>212		1	0	0	o F		12/16/24 12:00	1010B
pH	6.59	H	1	0	0	pH		12/16/24 10:15	9040C
Reactive Cyanide	0.00099	U	1	0.00099	0.0050	mg/L	12/19/24 09:00	12/19/24 12:02	9012B
Reactive Sulfide	0.43	U	1	0.43	1.00	mg/L	12/17/24 09:00	12/17/24 11:23	9034

Comments: Other method reference for flash point : Pensky-Martens Closed Cup Flash Point ASTM D 93 - IP 34, pH result reported at temperature

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J = Estimated Value

B = Analyte Found in Associated Method Blank

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E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits



QC RESULT SUMMARY



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Initial and Continuing Calibration Verification

Client: PARSONS Main of New York, Inc.

SDG No.: P5291

Project: Con Edison Non-MGP - Atlantic Avenue

RunNo.: LB133954

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: Flash Point	ICV ° F	81.7	81	101	78-84	12/16/2024

Initial and Continuing Calibration Verification

Client: PARSONS Main of New York, Inc.

SDG No.: P5291

Project: Con Edison Non-MGP - Atlantic Avenue

RunNo.: LB133961

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
pH		pH	7.01	7	100	90-110	12/16/2024
Sample ID:	CCV1						
pH		pH	2.01	2.00	101	90-110	12/16/2024
Sample ID:	CCV2						
pH		pH	12.02	12.00	100	90-110	12/16/2024

Initial and Continuing Calibration Verification

Client: PARSONS Main of New York, Inc.

SDG No.: P5291

Project: Con Edison Non-MGP - Atlantic Avenue

RunNo.: LB133970

Analyte	Units	Result	True Value	Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV1					
Bromide	mg/L	10	10	100	90-110	11/18/2024
Chloride	mg/L	3	3	100	90-110	11/18/2024
Fluoride	mg/L	2	2	100	90-110	11/18/2024
Nitrite	mg/L	3	3	100	90-110	11/18/2024
Nitrate	mg/L	2.5	2.5	100	90-110	11/18/2024
Sulfate	mg/L	14.6	15	97	90-110	11/18/2024
Orthophosphate as P	mg/L	5	5	100	90-110	11/18/2024
Sample ID:	CCV1					
Bromide	mg/L	10.2	10	102	90-110	12/16/2024
Chloride	mg/L	3	3	100	90-110	12/16/2024
Fluoride	mg/L	2	2	100	90-110	12/16/2024
Nitrite	mg/L	3.1	3	103	90-110	12/16/2024
Nitrate	mg/L	2.5	2.5	100	90-110	12/16/2024
Sulfate	mg/L	14.3	15	95	90-110	12/16/2024
Orthophosphate as P	mg/L	5	5	100	90-110	12/16/2024
Sample ID:	CCV2					
Bromide	mg/L	10.3	10	103	90-110	12/16/2024
Chloride	mg/L	3	3	100	90-110	12/16/2024
Fluoride	mg/L	2	2	100	90-110	12/16/2024
Nitrite	mg/L	3.1	3	103	90-110	12/16/2024
Nitrate	mg/L	2.5	2.5	100	90-110	12/16/2024
Sulfate	mg/L	14.7	15	98	90-110	12/16/2024
Orthophosphate as P	mg/L	5.2	5	104	90-110	12/16/2024
Sample ID:	CCV3					
Bromide	mg/L	10.3	10	103	90-110	12/16/2024
Chloride	mg/L	3	3	100	90-110	12/16/2024
Fluoride	mg/L	2	2	100	90-110	12/16/2024
Nitrite	mg/L	3.1	3	103	90-110	12/16/2024
Nitrate	mg/L	2.5	2.5	100	90-110	12/16/2024
Sulfate	mg/L	14.7	15	98	90-110	12/16/2024
Orthophosphate as P	mg/L	5.2	5	104	90-110	12/16/2024
Sample ID:	CCV4					
Bromide	mg/L	10.3	10	103	90-110	12/17/2024
Chloride	mg/L	3.1	3	103	90-110	12/17/2024
Fluoride	mg/L	2	2	100	90-110	12/17/2024
Nitrite	mg/L	3.1	3	103	90-110	12/17/2024
Nitrate	mg/L	2.6	2.5	104	90-110	12/17/2024
Sulfate	mg/L	14.7	15	98	90-110	12/17/2024
Orthophosphate as P	mg/L	5.1	5	102	90-110	12/17/2024
Sample ID:	CCV5					

Initial and Continuing Calibration Verification

Client: PARSONS Main of New York, Inc.

SDG No.: P5291

Project: Con Edison Non-MGP - Atlantic Avenue

RunNo.: LB133970

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Bromide	mg/L	10.3	10	103	90-110	12/17/2024
Chloride	mg/L	3.1	3	103	90-110	12/17/2024
Fluoride	mg/L	2	2	100	90-110	12/17/2024
Nitrite	mg/L	3.1	3	103	90-110	12/17/2024
Nitrate	mg/L	2.5	2.5	100	90-110	12/17/2024
Sulfate	mg/L	14.5	15	97	90-110	12/17/2024
Orthophosphate as P	mg/L	5.1	5	102	90-110	12/17/2024

Initial and Continuing Calibration Verification

Client: PARSONS Main of New York, Inc.

SDG No.: P5291

Project: Con Edison Non-MGP - Atlantic Avenue

RunNo.: LB134015

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Reactive Cyanide	mg/L	0.098	0.099	99	85-115	12/19/2024
Sample ID: CCV1 Reactive Cyanide	mg/L	0.24	0.25	96	90-110	12/19/2024
Sample ID: CCV2 Reactive Cyanide	mg/L	0.24	0.25	96	90-110	12/19/2024
Sample ID: CCV3 Reactive Cyanide	mg/L	0.25	0.25	100	90-110	12/19/2024

Initial and Continuing Calibration Blank Summary

Client: PARSONS Main of New York, Inc.

SDG No.: P5291

Project: Con Edison Non-MGP - Atlantic Avenue

RunNo.: LB133970

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	11/18/2024
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	11/18/2024
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	11/18/2024
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	11/18/2024
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	11/18/2024
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	11/18/2024
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	11/18/2024
Sample ID: CCB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	12/16/2024
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/16/2024
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	12/16/2024
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/16/2024
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	12/16/2024
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	12/16/2024
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	12/16/2024
Sample ID: CCB2							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	12/16/2024
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/16/2024
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	12/16/2024
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/16/2024
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	12/16/2024
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	12/16/2024
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	12/16/2024
Sample ID: CCB3							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	12/16/2024
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/16/2024
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	12/16/2024
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/16/2024
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	12/16/2024
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	12/16/2024
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	12/16/2024
Sample ID: CCB4							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	12/17/2024
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/17/2024
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	12/17/2024
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/17/2024
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	12/17/2024
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	12/17/2024
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	12/17/2024
Sample ID: CCB5							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	12/17/2024
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/17/2024
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	12/17/2024

Initial and Continuing Calibration Blank Summary

Client: PARSONS Main of New York, Inc.

SDG No.: P5291

Project: Con Edison Non-MGP - Atlantic Avenue

RunNo.: LB133970

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/17/2024
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	12/17/2024
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	12/17/2024
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	12/17/2024

Initial and Continuing Calibration Blank Summary

Client: PARSONS Main of New York, Inc.
Project: Con Edison Non-MGP - Atlantic Avenue

SDG No.: P5291
RunNo.: LB134015

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/19/2024
Sample ID: CCB1 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/19/2024
Sample ID: CCB2 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/19/2024
Sample ID: CCB3 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/19/2024

Preparation Blank Summary

Client: PARSONS Main of New York, Inc.

SDG No.: P5291

Project: Con Edison Non-MGP - Atlantic Avenue

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB133970BLW							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	12/16/2024
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/16/2024
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	12/16/2024
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/16/2024
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	12/16/2024
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	12/16/2024
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	12/16/2024
Sample ID: LB133970BLW2							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	12/17/2024
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/17/2024
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	12/17/2024
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/17/2024
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	12/17/2024
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	12/17/2024
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	12/17/2024
Sample ID: LB133974BL							
TDS	mg/L	< 5.0000	5.0000	U	1.0	10	12/16/2024
Sample ID: PB165672BL							
Reactive Sulfide	mg/L	< 0.5000	0.5000	U	0.43	1	12/17/2024
Sample ID: PB165745BL							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/19/2024

Matrix Spike Summary

Client:	PARSONS Main of New York, Inc.	SDG No.:	P5291
Project:	Con Edison Non-MGP - Atlantic Avenue	Sample ID:	P5291-07
Client ID:	MW6-20241213MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Bromide	mg/L	80-120	10.6		0.49	J	10	1	101		12/16/2024
Chloride	mg/L	80-120	570	OR	596	OR	3	1	-867	*	12/16/2024
Fluoride	mg/L	80-120	2.00		0.059	J	2	1	97		12/16/2024
Nitrite	mg/L	80-120	3.20		0.17	J	3	1	101		12/16/2024
Nitrate	mg/L	80-120	4.00		1.40		2.5	1	104		12/16/2024
Sulfate	mg/L	80-120	50.4	OR	36.9		15	1	90		12/16/2024
Orthophosphate as P	mg/L	80-120	5.00		0.079	U	5	1	100		12/16/2024

Matrix Spike Summary

Client:	PARSONS Main of New York, Inc.	SDG No.:	P5291
Project:	Con Edison Non-MGP - Atlantic Avenue	Sample ID:	P5291-07
Client ID:	MW6-20241213MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Bromide	mg/L	80-120	10.6		0.49	J	10	1	101		12/16/2024
Chloride	mg/L	80-120	570	OR	596	OR	3	1	-867	*	12/16/2024
Fluoride	mg/L	80-120	2.00		0.059	J	2	1	97		12/16/2024
Nitrite	mg/L	80-120	3.20		0.17	J	3	1	101		12/16/2024
Nitrate	mg/L	80-120	3.90		1.40		2.5	1	100		12/16/2024
Sulfate	mg/L	80-120	50.5	OR	36.9		15	1	91		12/16/2024
Orthophosphate as P	mg/L	80-120	5.00		0.079	U	5	1	100		12/16/2024

Duplicate Sample Summary

Client:	PARSONS Main of New York, Inc.	SDG No.:	P5291
Project:	Con Edison Non-MGP - Atlantic Avenue	Sample ID:	P5286-01
Client ID:	120424-COMPDUP	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Flash Point	o F	+/-2	>212.0		>212.0		1	0		12/16/2024

Duplicate Sample Summary

Client:	PARSONS Main of New York, Inc.	SDG No.:	P5291
Project:	Con Edison Non-MGP - Atlantic Avenue	Sample ID:	P5291-06
Client ID:	MW3-20241213DUP	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TDS	mg/L	+/-5	624		597		1	4.42		12/16/2024

Duplicate Sample Summary

Client: PARSONS Main of New York, Inc.	SDG No.: P5291
Project: Con Edison Non-MGP - Atlantic Avenue	Sample ID: P5291-07
Client ID: MW6-20241213MSD	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Bromide	mg/L	+/-20	10.6		10.6		1	0		12/16/2024
Fluoride	mg/L	+/-20	2.00		2.00		1	0		12/16/2024
Nitrite	mg/L	+/-20	3.20		3.20		1	0		12/16/2024
Orthophosphate as P	mg/L	+/-20	5.00		5.00		1	0		12/16/2024
Chloride	mg/L	+/-20	570	OR	570	OR	1	0		12/16/2024
Sulfate	mg/L	+/-20	50.4	OR	50.5	OR	1	0		12/16/2024
Nitrate	mg/L	+/-20	4.00		3.90		1	3		12/16/2024

Duplicate Sample Summary

Client: PARSONS Main of New York, Inc. Project: Con Edison Non-MGP - Atlantic Avenue Client ID: WC-20241213DUP	SDG No.: P5291 Sample ID: P5291-13 Percent Solids for Spike Sample: 0
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Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
pH	pH	+/-20	6.59		6.60		1	0.15		12/16/2024
Reactive Sulfide	mg/L	+/-20	0.43	U	0.43	U	1	0		12/17/2024
Reactive Cyanide	mg/L	+/-20	0.00099	U	0.00099	U	1	0		12/19/2024

Laboratory Control Sample Summary

Client:	PARSONS Main of New York, Inc.	SDG No.:	P5291
Project:	Con Edison Non-MGP - Atlantic Avenue	Run No.:	LB133970

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133970BSW							
Bromide	mg/L	10	10.2		102	1	90-110	12/16/2024
Chloride	mg/L	3	3.00		100	1	90-110	12/16/2024
Fluoride	mg/L	2	2.00		100	1	90-110	12/16/2024
Nitrite	mg/L	3	3.10		103	1	90-110	12/16/2024
Nitrate	mg/L	2.5	2.50		100	1	90-110	12/16/2024
Sulfate	mg/L	15	14.4		96	1	90-110	12/16/2024
Orthophosphate as P	mg/L	5	5.00		100	1	90-110	12/16/2024

Laboratory Control Sample Summary

Client:	PARSONS Main of New York, Inc.	SDG No.:	P5291
Project:	Con Edison Non-MGP - Atlantic Avenue	Run No.:	LB133970

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133970BSW2							
Bromide	mg/L	10	10.5		105	1	90-110	12/17/2024
Chloride	mg/L	3	3.10		103	1	90-110	12/17/2024
Fluoride	mg/L	2	2.00		100	1	90-110	12/17/2024
Nitrite	mg/L	3	3.10		103	1	90-110	12/17/2024
Nitrate	mg/L	2.5	2.60		104	1	90-110	12/17/2024
Sulfate	mg/L	15	14.7		98	1	90-110	12/17/2024
Orthophosphate as P	mg/L	5	5.20		104	1	90-110	12/17/2024

Laboratory Control Sample Summary

Client: PARSONS Main of New York, Inc.

SDG No.: P5291

Project: Con Edison Non-MGP - Atlantic Avenue

Run No.: LB133974

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133974BS							
TDS	mg/L	100	90.0		90	1	90-110	12/16/2024



RAW DATA

Analytical Summary Report

Analysis Method: 1010B

Reviewed By: rubina

Parameter: Flash Point

Supervisor Review By: Iwona

Run Number: LB133954

Ambient Barometric Pressure (mmHg): 771.00

Thermometer ID: Flash Point

Barometric Scale ID: 0511064

Reagent/Standard	Lot/Log #
p-xylene (ICV)	W3157

Seq	LabID	True Value °F	DL	Initial Sample °C	Celsius °C	Result °F	Final Result °F	Anal Date	Anal Time
1	ICV	81	1	9	28.00	82.4	81.7	12/16/2024	10:00
2	P5286-01		1	11	100.00	>212.0	>212.0	12/16/2024	10:30
3	P5286-01DUP		1	11	100.00	>212.0	>212.0	12/16/2024	11:00
4	P5287-05		1	13	100.00	>212.0	>212.0	12/16/2024	11:30
5	P5291-13		1	14	100.00	>212.0	>212.0	12/16/2024	12:00

Result = (Celsius * 1.8) + 32

Final Result = Result + (760 - Ambient Barometric Pressure) * 0.06

WORKLIST(Hardcopy Internal Chain)

6133954

WorkList Name : fp-12-16 WorkList ID : 186349 Department : Wet-Chemistry Date : 12-16-2024 08:32:07

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5286-01	120424-COMP	Water	Flash Point	Cool 4 deg C	PSEG03	L41	12/13/2024	1010B
P5287-05	220-2-TRANS-WATER	Water	Flash Point	Cool 4 deg C	PSEG03	L61	12/13/2024	1010B
P5291-13	WC-20241213	Water	Flash Point	Cool 4 deg C	PARS02	L51	12/13/2024	1010B

Date/Time 12/16/2024 09:50
Raw Sample Received by: R14 CWS
Raw Sample Relinquished by: R14 CWS

Date/Time 12/16/2024 12:40
Raw Sample Received by: R14 CWS
Raw Sample Relinquished by: R14 CWS

Analytical Summary Report

Analysis Method: 9040C
Parameter: pH
Run Number: LB133961

Analyst By : jignesh

Supervisor Review By : Iwona

Slope : 98.2

pH Meter ID : WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3107
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER, COLOR CD 475ML	W3094
buffer solution pH 7 yellow	W3071
Buffer Solution, PH2 (500ml)	W3005
Buffer Solution, PH12 (500ml)	W3072

True Value of ICV = 7.00 Control Limits[+/- 0.1].

True Value of CCV1 = 2.00 Control Limits[+/- 0.1].

True Value of CCV2 = 12.00 Control Limits[+/- 0.1].

Seq	LabID	DF	Matrix	Weight (gm)	Volume (ml)	Temperature (°C)	Result (pH)	Anal Date	Anal Time
1	CAL1	1	Water	NA	NA	20.2	4.01	12/16/2024	09:00
2	CAL2	1	Water	NA	NA	20.2	7.00	12/16/2024	09:01
3	CAL3	1	Water	NA	NA	20.3	10.02	12/16/2024	09:05
4	ICV	1	Water	NA	NA	20.3	7.01	12/16/2024	09:11
5	CCV1	1	Water	NA	NA	20.3	2.01	12/16/2024	09:15
6	P5283-02	1	Water	NA	NA	20.1	5.28	12/16/2024	09:25
7	P5286-01	1	Water	NA	NA	20.2	6.02	12/16/2024	09:35
8	P5286-02	1	Water	NA	NA	20.1	4.40	12/16/2024	09:44
9	P5286-03	1	Water	NA	NA	20.5	5.01	12/16/2024	09:47
10	P5286-04	1	Water	NA	NA	20.5	4.98	12/16/2024	09:55
11	P5286-05	1	Water	NA	NA	20.5	5.11	12/16/2024	10:00
12	P5286-06	1	Water	NA	NA	20.8	5.03	12/16/2024	10:05
13	P5287-05	1	Water	NA	NA	20.4	6.42	12/16/2024	10:10
14	P5291-13	1	Water	NA	NA	20.7	6.59	12/16/2024	10:15
15	P5291-13DUP	1	Water	NA	NA	20.8	6.60	12/16/2024	10:16
16	CCV2	1	Water	NA	NA	20.2	12.02	12/16/2024	10:20

WORKLIST(Hardcopy Internal Chain)

133961

WorkList Name : ph p5286 WorkList ID : 186348 Department : Wet-Chemistry Date : 12-16-2024 08:07:18

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5283-02	TT-RW10A-IDWGW-20241213	Water	pH	Cool 4 deg C	TETR06	L61	12/13/2024	9040C
P5286-01	120424-COMP	Water	pH	Cool 4 deg C	PSEG03	L41	12/13/2024	9040C
P5286-02	34850	Water	pH	Cool 4 deg C	PSEG03	L41	12/13/2024	9040C
P5286-03	34851	Water	pH	Cool 4 deg C	PSEG03	L41	12/13/2024	9040C
P5286-04	34852	Water	pH	Cool 4 deg C	PSEG03	L41	12/13/2024	9040C
P5286-05	34853	Water	pH	Cool 4 deg C	PSEG03	L41	12/13/2024	9040C
P5286-06	34854	Water	pH	Cool 4 deg C	PSEG03	L41	12/13/2024	9040C
P5287-05	220-2-TRANS-WATER	Water	pH	Cool 4 deg C	PSEG03	L61	12/13/2024	9040C
P5291-13	WC-20241213	Water	pH	Cool 4 deg C	PARS02	L51	12/13/2024	9040C

Date/Time 12-16-24 08:40
Raw Sample Received by: 78 (WC)
Raw Sample Relinquished by: ebsor

Date/Time 12-16-24 12:30
Raw Sample Received by: cf sor
Raw Sample Relinquished by: sf col

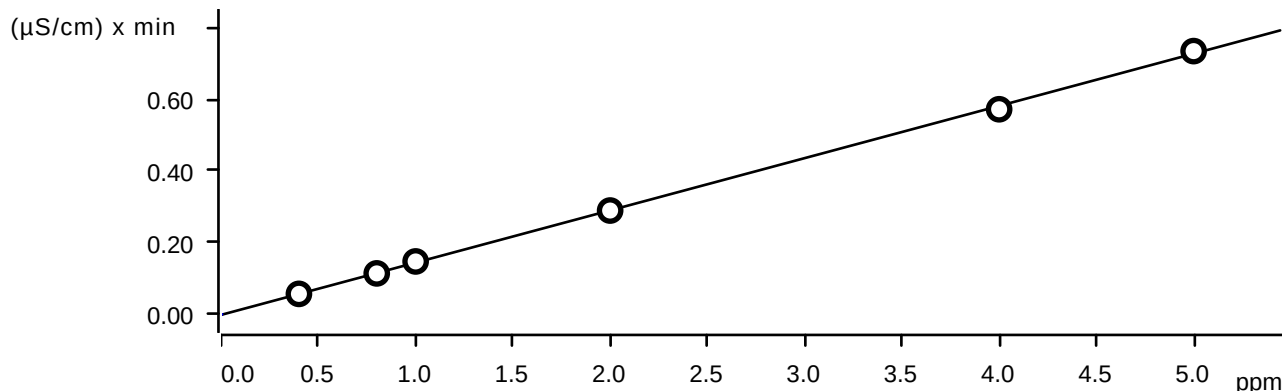
Ident	Instrument IC-1				Analyst : NF		Method: 300.0 / 9056A		date time	Initial Analyst	
	Con F-	Con CL-	Con NO2	Con BR-	Con NO3	Con HPO4	Con SO4	Method name			
STD1	0	0	0	0	0	0	0	0	IC1-111824	11/18/2024 11:24	10 NF/IZ
STD2	0.402	0.571	0.601	1.961	0.489	1.025	3.062	3.062	IC1-111824	11/18/2024 11:46	10 NF/IZ
STD3	0.794	1.185	1.175	3.939	0.997	1.928	6.062	6.062	IC1-111824	11/18/2024 12:07	10 NF/IZ
STD4	1.023	1.554	1.535	5.128	1.284	2.665	7.843	7.843	IC1-111824	11/18/2024 12:29	10 NF/IZ
STD5	1.997	3.009	2.993	9.997	2.488	4.96	14.679	14.679	IC1-111824	11/18/2024 12:50	10 NF/IZ
STD6	3.936	5.952	5.978	19.928	4.964	9.645	28.993	28.993	IC1-111824	11/18/2024 13:11	10 NF/IZ
STD7	5.049	7.529	7.517	25.045	6.279	12.776	37.863	37.863	IC1-111824	11/18/2024 13:33	10 NF/IZ
ICV	1.966	3.006	2.997	9.98	2.49	4.979	14.594	14.594	IC1-111824	11/18/2024 13:54	10 NF/IZ
ICB	0	0	0	0	0	0	0	0	IC1-111824	11/18/2024 14:16	10 NF/IZ
CCV	1.986	3.023	3.05	10.179	2.515	5.026	14.318	14.318	IC1-111824	12/16/2024 12:15	10 NF/IZ
CCB	0	0	0	0	0	0	0	0	IC1-111824	12/16/2024 12:37	10 NF/IZ
LB133970BLW	0	0	0	0	0	0	0	0	IC1-111824	12/16/2024 12:58	10 NF/IZ
LB133970BSW	1.99	3.025	3.062	10.186	2.518	5.028	14.35	14.35	IC1-111824	12/16/2024 13:20	10 NF/IZ
P5291-01	0.026	91.525	0	0.104	0.603	0	7.176	7.176	IC1-111824	12/16/2024 13:42	10 NF/IZ
P5291-02	0.068	171.027	0.042	0.241	6.115	0	22.697	22.697	IC1-111824	12/16/2024 14:03	10 NF/IZ
P5291-03	0.08	796.103	0.055	0.424	3.597	0	29.313	29.313	IC1-111824	12/16/2024 14:25	10 NF/IZ
P5291-04	0.039	153.496	0.048	0	0.602	0	19.076	19.076	IC1-111824	12/16/2024 14:46	10 NF/IZ
P5291-05	0.098	222.207	0.07	0.262	0.079	0	7.135	7.135	IC1-111824	12/16/2024 15:08	10 NF/IZ
P5291-06	0.091	439.641	0	0.466	0.95	0	33.078	33.078	IC1-111824	12/16/2024 15:29	10 NF/IZ
P5291-07	0.059	596.295	0.172	0.492	1.398	0	36.912	36.912	IC1-111824	12/16/2024 15:51	10 NF/IZ
P5291-08MS	2.03	570.007	3.166	10.565	3.973	5.024	50.444	50.444	IC1-111824	12/16/2024 16:12	10 NF/IZ
CCV	2.017	3.045	3.077	10.268	2.539	5.23	14.651	14.651	IC1-111824	12/16/2024 16:34	10 NF/IZ
CCB	0	0	0	0	0	0	0	0	IC1-111824	12/16/2024 16:55	10 NF/IZ
P5291-09MSD	2.032	569.688	3.204	10.614	3.89	5.016	50.478	50.478	IC1-111824	12/16/2024 17:17	10 NF/IZ
P5291-10	0.062	549.888	0.153	0.428	1.385	0	38.804	38.804	IC1-111824	12/16/2024 17:38	10 NF/IZ
P5291-11	0	-0.011	0	0	0	0	0	0	IC1-111824	12/16/2024 17:58	10 NF/IZ
CCV	2.027	3.048	3.086	10.294	2.545	5.232	14.66	14.66	IC1-111824	12/16/2024 18:00	10 NF/IZ
CCB	0	0	0	0	0	0	0	0	IC1-111824	12/16/2024 18:21	10 NF/IZ
CCV	2.017	3.064	3.096	10.342	2.558	5.1	14.715	14.715	IC1-111824	12/16/2024 18:43	10 NF/IZ
										12/17/2024 9:51	10 NF/IZ

CCB	0	0	0	0	0	0	0	IC1-111824	12/17/2024	10:12	10 NF/IZ
LB133970BLW2	0	0	0	0	0	0	0	IC1-111824	12/17/2024	10:34	10 NF/IZ
LB133970BSW2	2.038	3.103	3.132	10.466	2.579	5.181	14.697	IC1-111824	12/17/2024	10:55	10 NF/IZ
P5291-10DLX2	0.031	258.001	0.059	0.401	0.697	0	19.373	IC1-111824	12/17/2024	11:17	10 NF/IZ
CCV	2.004	3.056	3.08	10.283	2.533	5.1	14.497	IC1-111824	12/17/2024	11:38	10 NF/IZ
CCB	0	0	0	0	0	0	0	IC1-111824	12/17/2024	12:00	10 NF/IZ

Clear table

Instrument ID: IC-2											Analyst :		IZ		Method:		300.0 / 9056A	
ident	concentra tion F-	concentratio n CL-	concentrati on NO2	concentrati on BR-	concentrati on NO3	concentrati on HPO4	concentrati on SO4	file name	date time	Initial wt/ Final	Analyst							
STD1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 IC1-111824	11/18/2024 11:24	10	NF/IZ							
STD2	0.402	0.571	0.601	1.961	0.489	1.025	3.062	IC1-111824	11/18/2024 11:46	10	NF/IZ							
STD3	0.794	1.185	1.175	3.939	0.997	1.928	6.062	IC1-111824	11/18/2024 12:07	10	NF/IZ							
STD4	1.023	1.554	1.535	5.128	1.284	2.665	7.843	IC1-111824	11/18/2024 12:29	10	NF/IZ							
STD5	1.997	3.009	2.993	9.997	2.488	4.960	14.679	IC1-111824	11/18/2024 12:50	10	NF/IZ							
STD6	3.936	5.952	5.978	19.928	4.964	9.645	28.993	IC1-111824	11/18/2024 13:11	10	NF/IZ							
STD7	5.049	7.529	7.517	25.045	6.279	12.776	37.863	IC1-111824	11/18/2024 13:33	10	NF/IZ							
ident	True Value F-	True Value CL-	True Value NO2	True Value BR-	True Value NO3	True Value HPO4	True Value SO4											
STD1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000											
STD2	0.4000	0.6000	0.6000	2.0000	0.5000	1.0000	3.0000											
STD3	0.8000	1.2000	1.2000	4.0000	1.0000	2.0000	6.0000											
STD4	1.0000	1.5000	1.5000	5.0000	1.2500	2.5000	7.5000											
STD5	2.0000	3.0000	3.0000	10.0000	2.5000	5.0000	15.0000											
STD6	4.0000	6.0000	6.0000	20.0000	5.0000	10.0000	30.0000											
STD7	5.0000	7.5000	7.5000	25.0000	6.2500	12.5000	37.0000											
ident	Relative Error F-	Relative Error CL-	Relative Error NO2	Relative Error BR-	Relative Error NO3	Relative Error HPO4	Relative Error SO4											
STD1																		
STD2	0.5000	-4.8333	0.1667	-1.9500	-2.2000	2.5000	2.0667											
STD3	-0.7500	-1.2500	-2.0833	-1.5250	-0.3000	-3.6000	1.0333											
STD4	2.3000	3.6000	2.3333	2.5600	2.7200	6.6000	4.5733											
STD5	-0.1500	0.3000	-0.2333	-0.0300	-0.4800	-0.8000	-2.1400											
STD6	-1.6000	-0.8000	-0.3667	-0.3600	-0.7200	-3.5500	-3.3567											
STD7	0.9800	0.3867	0.2267	0.1800	0.4640	2.2080	2.3324											

Fluoride (Anions)



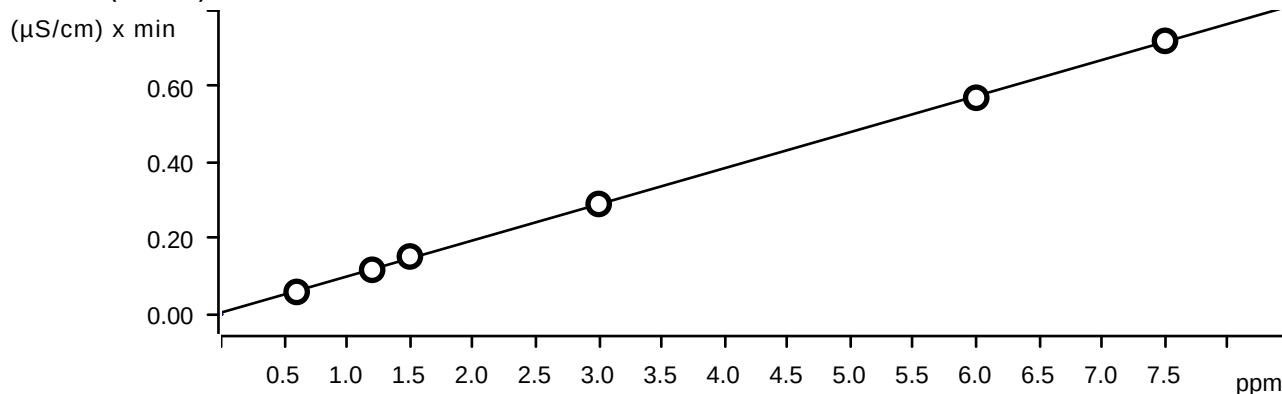
Function: $A = -1.48773E-3 + 0.0145652 \times Q$

Relative standard deviation: 1.923523 %

Correlation coefficient: 0.999800

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 1	1	0.000	10.0	1.0	1.0	n. d.	STD1	2024-11-18 11:24:52 UTC-5	used
Standard 2	1	0.400	10.0	1.0	1.0	0.057	STD2	2024-11-18 11:46:16 UTC-5	used
Standard 3	1	0.800	10.0	1.0	1.0	0.114	STD3	2024-11-18 12:07:40 UTC-5	used
Standard 4	1	1.000	10.0	1.0	1.0	0.147	STD4	2024-11-18 12:29:05 UTC-5	used
Standard 5	1	2.000	10.0	1.0	1.0	0.289	STD5	2024-11-18 12:50:30 UTC-5	used
Standard 6	1	4.000	10.0	1.0	1.0	0.572	STD6	2024-11-18 13:11:57 UTC-5	used
Standard 7	1	5.000	10.0	1.0	1.0	0.734	STD7	2024-11-18 13:33:24 UTC-5	used

Chloride (Anions)

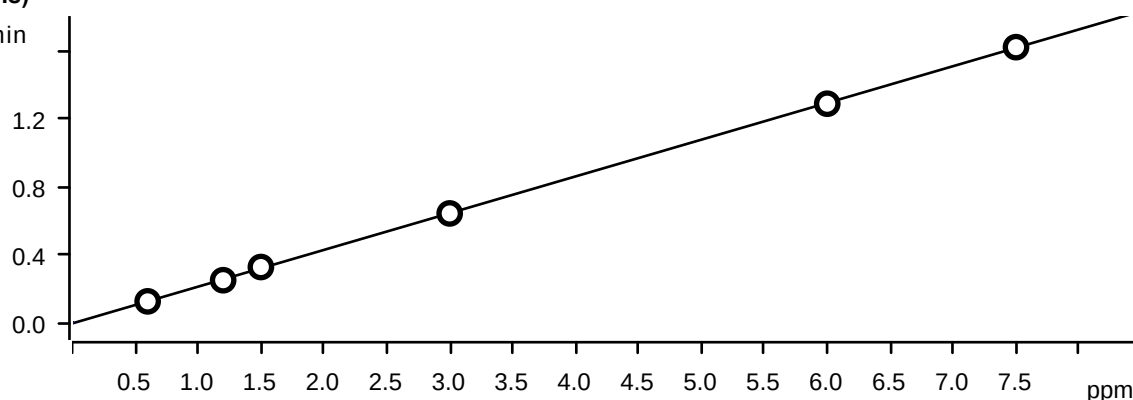


Function: $A = 4.85841E-3 + 9.50243E-3 \times Q$

Relative standard deviation 1.265280 %

Correlation coefficient 0.999910

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 1	1	0.000	10.0	1.0	1.0	n. d.	STD1	2024-11-18 11:24:52 UTC-5	used
Standard 2	1	0.600	10.0	1.0	1.0	0.059	STD2	2024-11-18 11:46:16 UTC-5	used
Standard 3	1	1.200	10.0	1.0	1.0	0.117	STD3	2024-11-18 12:07:40 UTC-5	used
Standard 4	1	1.500	10.0	1.0	1.0	0.153	STD4	2024-11-18 12:29:05 UTC-5	used
Standard 5	1	3.000	10.0	1.0	1.0	0.291	STD5	2024-11-18 12:50:30 UTC-5	used
Standard 6	1	6.000	10.0	1.0	1.0	0.570	STD6	2024-11-18 13:11:57 UTC-5	used
Standard 7	1	7.500	10.0	1.0	1.0	0.720	STD7	2024-11-18 13:33:24 UTC-5	used

Nitrite (Anions) $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -5.27414E-3 + 0.0216316 \times Q$

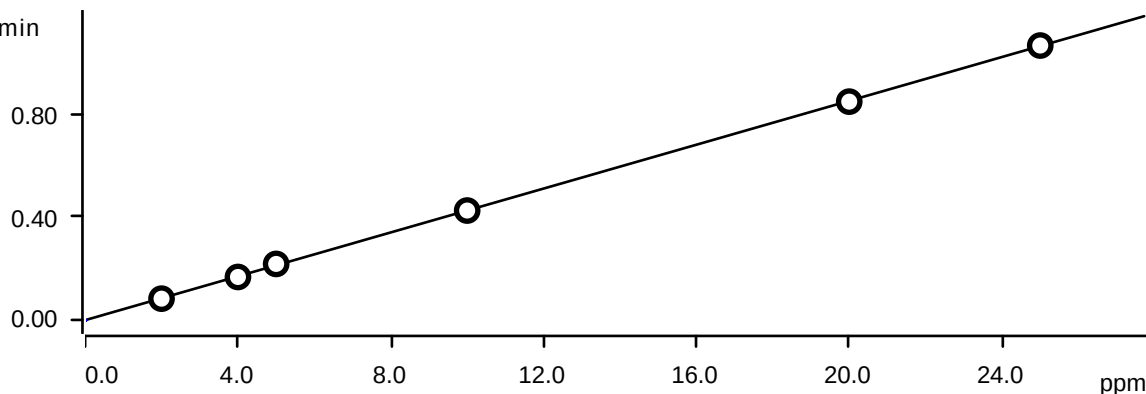
Relative standard deviation 0.783603 %

Correlation coefficient 0.999967

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 1	1	0.000	10.0	1.0	1.0	n. d.	STD1	2024-11-18 11:24:52 UTC-5	used
Standard 2	1	0.600	10.0	1.0	1.0	0.125	STD2	2024-11-18 11:46:16 UTC-5	used
Standard 3	1	1.200	10.0	1.0	1.0	0.249	STD3	2024-11-18 12:07:40 UTC-5	used
Standard 4	1	1.500	10.0	1.0	1.0	0.327	STD4	2024-11-18 12:29:05 UTC-5	used
Standard 5	1	3.000	10.0	1.0	1.0	0.642	STD5	2024-11-18 12:50:30 UTC-5	used
Standard 6	1	6.000	10.0	1.0	1.0	1.288	STD6	2024-11-18 13:11:57 UTC-5	used
Standard 7	1	7.500	10.0	1.0	1.0	1.621	STD7	2024-11-18 13:33:24 UTC-5	used

Bromide (Anions)

($\mu\text{S}/\text{cm}$) $\times$ min



Function: $A = 7.64331\text{E-}4 + 4.24604\text{E-}3 \times Q$

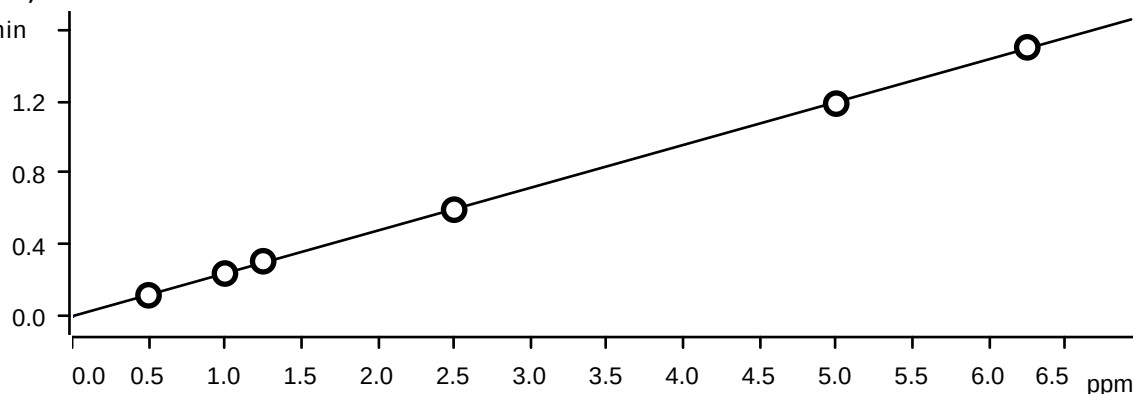
Relative standard deviation 0.771268 %

Correlation coefficient 0.999967

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 1	1	0.000	10.0	1.0	1.0	n. d.	STD1	2024-11-18 11:24:52 UTC-5	used
Standard 2	1	2.000	10.0	1.0	1.0	0.084	STD2	2024-11-18 11:46:16 UTC-5	used
Standard 3	1	4.000	10.0	1.0	1.0	0.168	STD3	2024-11-18 12:07:40 UTC-5	used
Standard 4	1	5.000	10.0	1.0	1.0	0.219	STD4	2024-11-18 12:29:05 UTC-5	used
Standard 5	1	10.000	10.0	1.0	1.0	0.425	STD5	2024-11-18 12:50:30 UTC-5	used
Standard 6	1	20.000	10.0	1.0	1.0	0.847	STD6	2024-11-18 13:11:57 UTC-5	used
Standard 7	1	25.000	10.0	1.0	1.0	1.064	STD7	2024-11-18 13:33:24 UTC-5	used

Nitrate (Anions)

($\mu\text{S}/\text{cm}$) $\times$ min

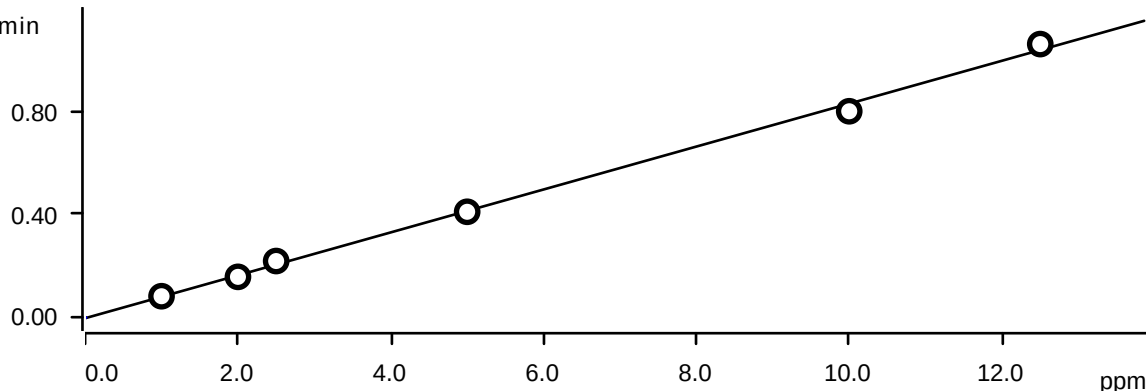


Function: $A = 1.14484\text{E-}3 + 0.0238833 \times Q$

Relative standard deviation 1.085494 %

Correlation coefficient 0.999936

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 1	1	0.000	10.0	1.0	1.0	n. d.	STD1	2024-11-18 11:24:52 UTC-5	used
Standard 2	1	0.500	10.0	1.0	1.0	0.118	STD2	2024-11-18 11:46:16 UTC-5	used
Standard 3	1	1.000	10.0	1.0	1.0	0.239	STD3	2024-11-18 12:07:40 UTC-5	used
Standard 4	1	1.250	10.0	1.0	1.0	0.308	STD4	2024-11-18 12:29:05 UTC-5	used
Standard 5	1	2.500	10.0	1.0	1.0	0.595	STD5	2024-11-18 12:50:30 UTC-5	used
Standard 6	1	5.000	10.0	1.0	1.0	1.187	STD6	2024-11-18 13:11:57 UTC-5	used
Standard 7	1	6.250	10.0	1.0	1.0	1.501	STD7	2024-11-18 13:33:24 UTC-5	used

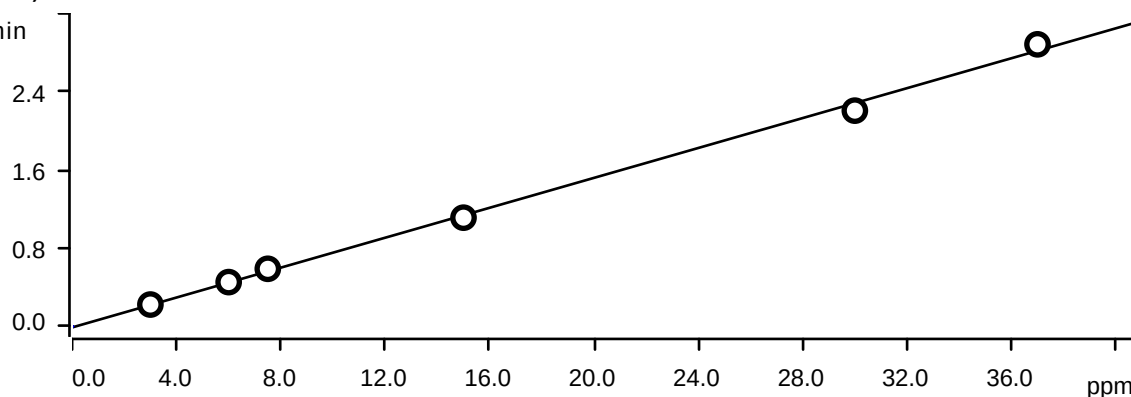
Phosphate (Anions) $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -2.33576E-3 + 8.30878E-3 \times Q$

Relative standard deviation 4.444706 %

Correlation coefficient 0.998936

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 1	1	0.000	10.0	1.0	1.0	n. d.	STD1	2024-11-18 11:24:52 UTC-5	used
Standard 2	1	1.000	10.0	1.0	1.0	0.083	STD2	2024-11-18 11:46:16 UTC-5	used
Standard 3	1	2.000	10.0	1.0	1.0	0.158	STD3	2024-11-18 12:07:40 UTC-5	used
Standard 4	1	2.500	10.0	1.0	1.0	0.219	STD4	2024-11-18 12:29:05 UTC-5	used
Standard 5	1	5.000	10.0	1.0	1.0	0.410	STD5	2024-11-18 12:50:30 UTC-5	used
Standard 6	1	10.000	10.0	1.0	1.0	0.799	STD6	2024-11-18 13:11:57 UTC-5	used
Standard 7	1	12.500	10.0	1.0	1.0	1.059	STD7	2024-11-18 13:33:24 UTC-5	used

Sulfate (Anions)

 $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -9.71222E-3 + 7.64397E-3 \times Q$

Relative standard deviation 4.327283 %

Correlation coefficient 0.998986

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 1	1	0.000	10.0	1.0	1.0	n. d.	STD1	2024-11-18 11:24:52 UTC-5	used
Standard 2	1	3.000	10.0	1.0	1.0	0.224	STD2	2024-11-18 11:46:16 UTC-5	used
Standard 3	1	6.000	10.0	1.0	1.0	0.454	STD3	2024-11-18 12:07:40 UTC-5	used
Standard 4	1	7.500	10.0	1.0	1.0	0.590	STD4	2024-11-18 12:29:05 UTC-5	used
Standard 5	1	15.000	10.0	1.0	1.0	1.112	STD5	2024-11-18 12:50:30 UTC-5	used
Standard 6	1	30.000	10.0	1.0	1.0	2.206	STD6	2024-11-18 13:11:57 UTC-5	used
Standard 7	1	37.000	10.0	1.0	1.0	2.884	STD7	2024-11-18 13:33:24 UTC-5	used

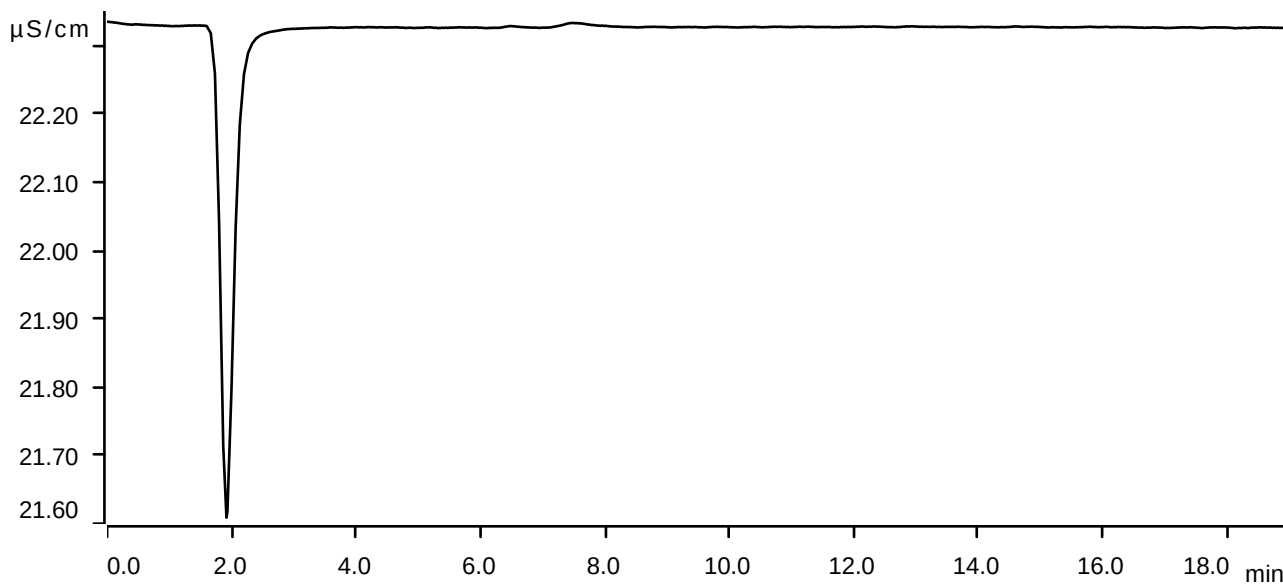
Sample data

Ident STD1
Sample type Standard 1
Determination start 2024-11-18 11:24:52 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.60 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



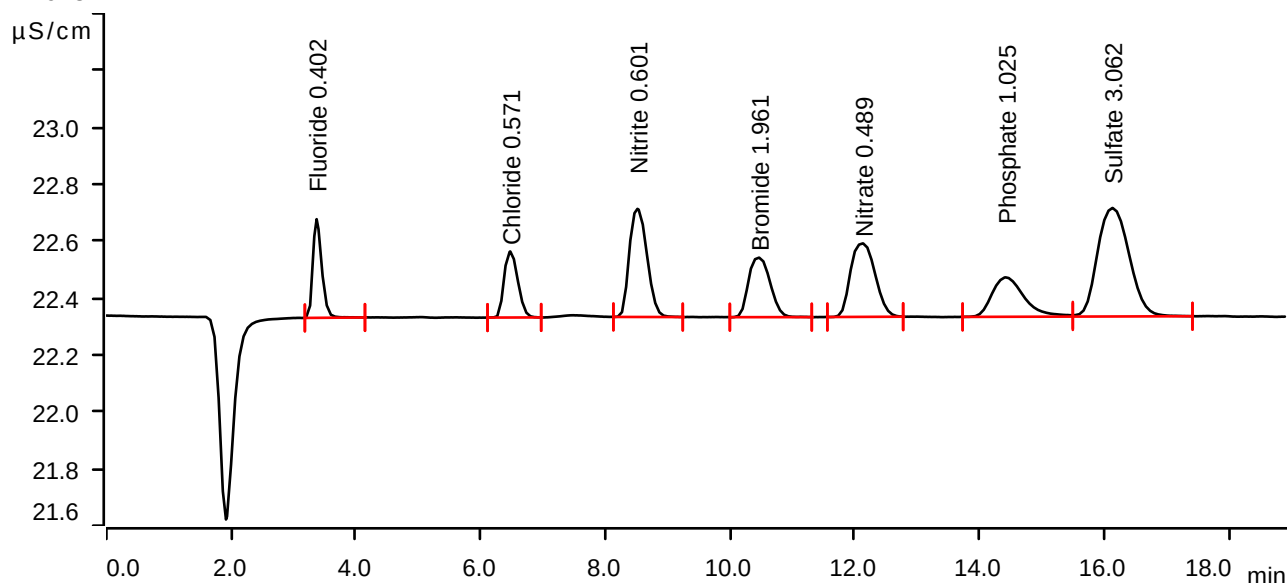
Sample data

Ident STD2
Sample type Standard 2
Determination start 2024-11-18 11:46:16 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.54 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.372	0.0570	0.347	0.402	Fluoride
2	6.477	0.0592	0.232	0.571	Chloride
3	8.515	0.1247	0.380	0.601	Nitrite
4	10.463	0.0840	0.209	1.961	Bromide
5	12.127	0.1179	0.258	0.489	Nitrate
6	14.418	0.0829	0.139	1.025	Phosphate
7	16.130	0.2243	0.381	3.062	Sulfate

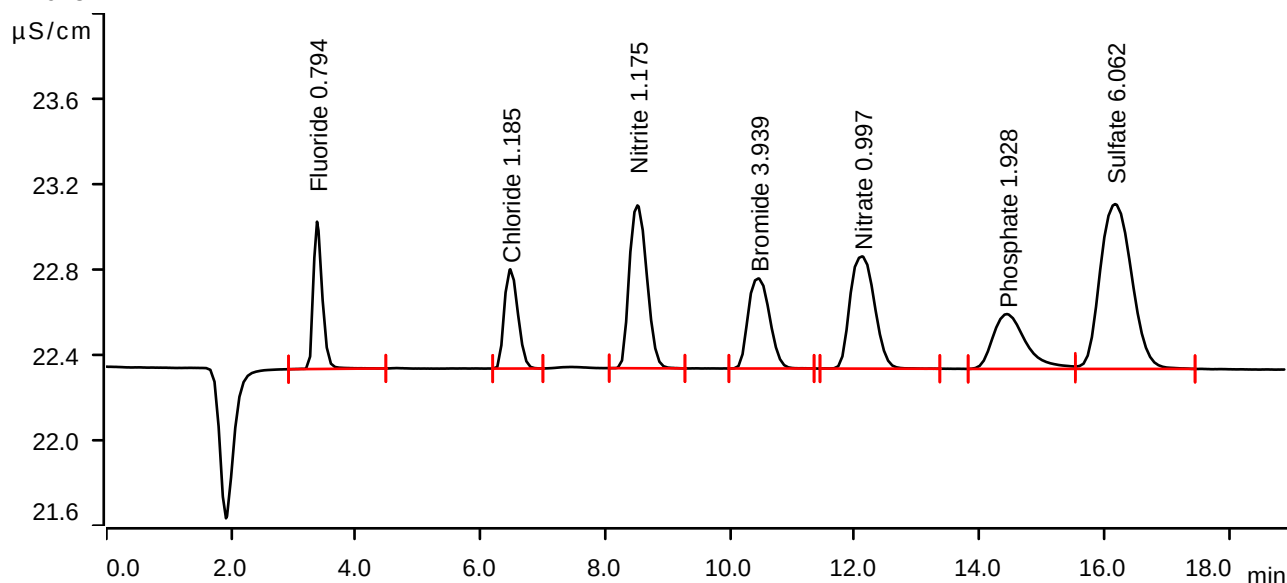
Sample data

Ident STD3
Sample type Standard 3
Determination start 2024-11-18 12:07:40 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.37 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.378	0.1141	0.690	0.794	Fluoride
2	6.478	0.1175	0.465	1.185	Chloride
3	8.515	0.2490	0.763	1.175	Nitrite
4	10.453	0.1680	0.422	3.939	Bromide
5	12.117	0.2394	0.526	0.997	Nitrate
6	14.440	0.1579	0.257	1.928	Phosphate
7	16.173	0.4537	0.772	6.062	Sulfate

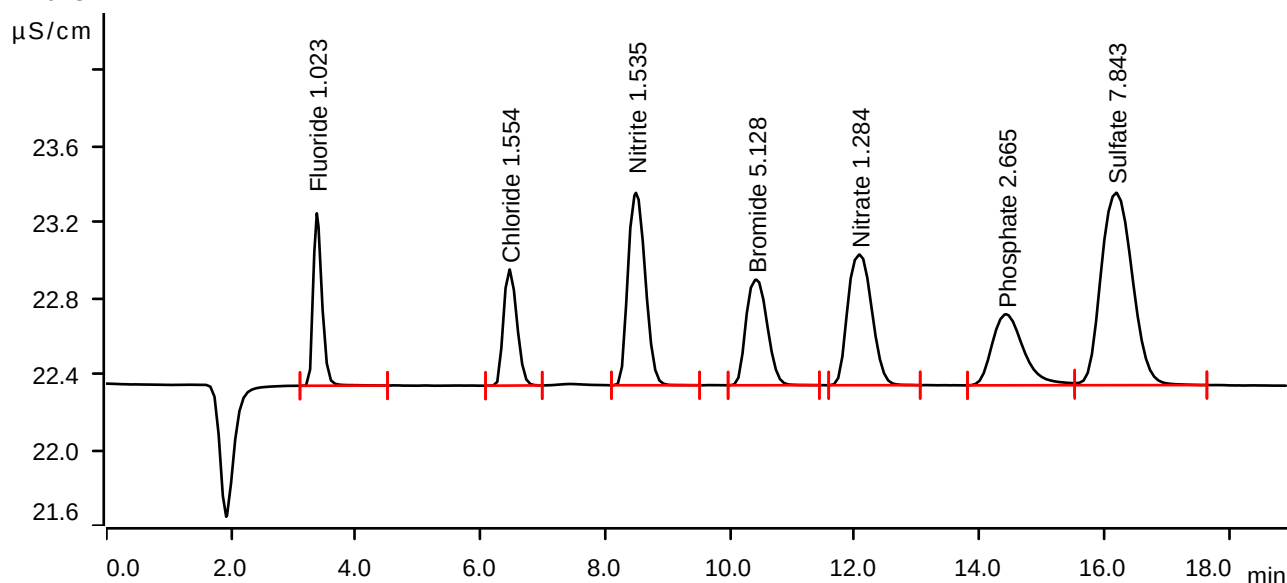
Sample data

Ident STD4
Sample type Standard 4
Determination start 2024-11-18 12:29:05 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.32 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.375	0.1475	0.909	1.023	Fluoride
2	6.465	0.1525	0.612	1.554	Chloride
3	8.493	0.3268	1.014	1.535	Nitrite
4	10.420	0.2185	0.557	5.128	Bromide
5	12.077	0.3078	0.689	1.284	Nitrate
6	14.427	0.2191	0.375	2.665	Phosphate
7	16.192	0.5898	1.014	7.843	Sulfate

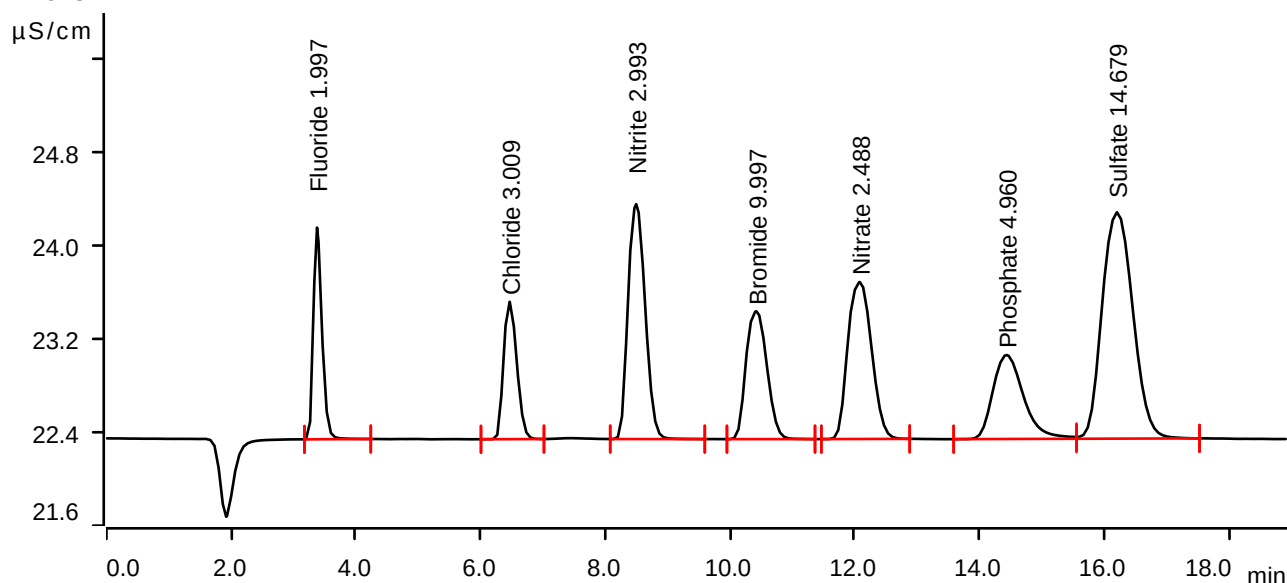
Sample data

Ident STD5
Sample type Standard 5
Determination start 2024-11-18 12:50:30 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.26 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.378	0.2894	1.819	1.997	Fluoride
2	6.467	0.2908	1.180	3.009	Chloride
3	8.495	0.6422	2.018	2.993	Nitrite
4	10.422	0.4253	1.098	9.997	Bromide
5	12.082	0.5953	1.348	2.488	Nitrate
6	14.432	0.4098	0.722	4.960	Phosphate
7	16.203	1.1123	1.944	14.679	Sulfate

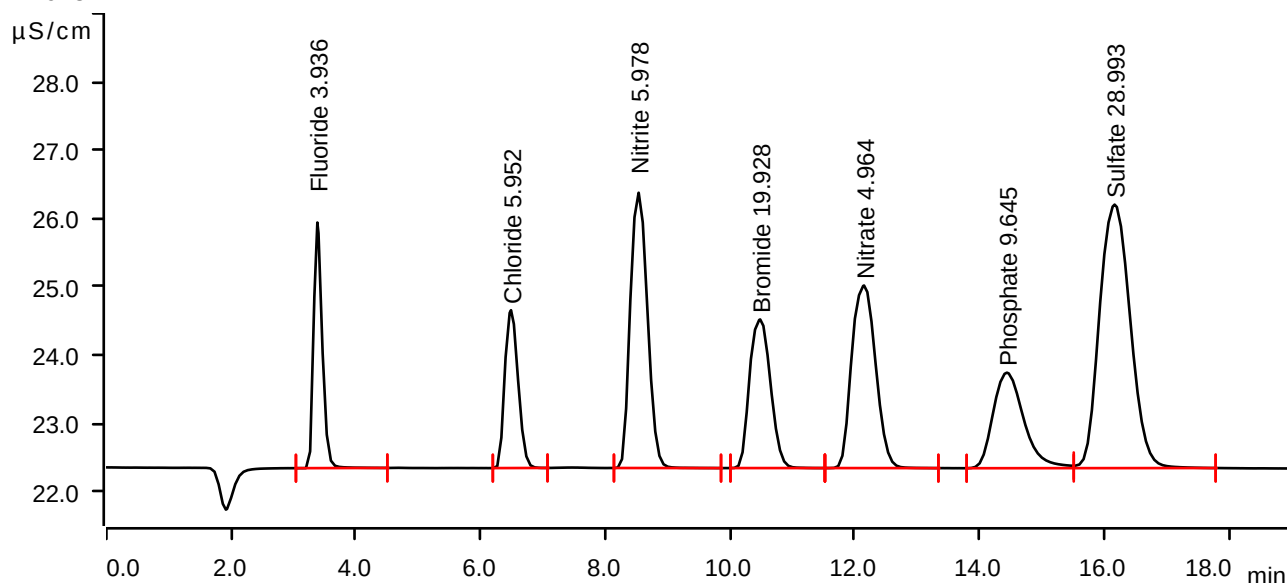
Sample data

Ident STD6
Sample type Standard 6
Determination start 2024-11-18 13:11:57 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.37 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.383	0.5717	3.596	3.936	Fluoride
2	6.488	0.5704	2.311	5.952	Chloride
3	8.533	1.2879	4.031	5.978	Nitrite
4	10.483	0.8469	2.176	19.928	Bromide
5	12.148	1.1866	2.673	4.964	Nitrate
6	14.438	0.7991	1.399	9.645	Phosphate
7	16.165	2.2065	3.859	28.993	Sulfate

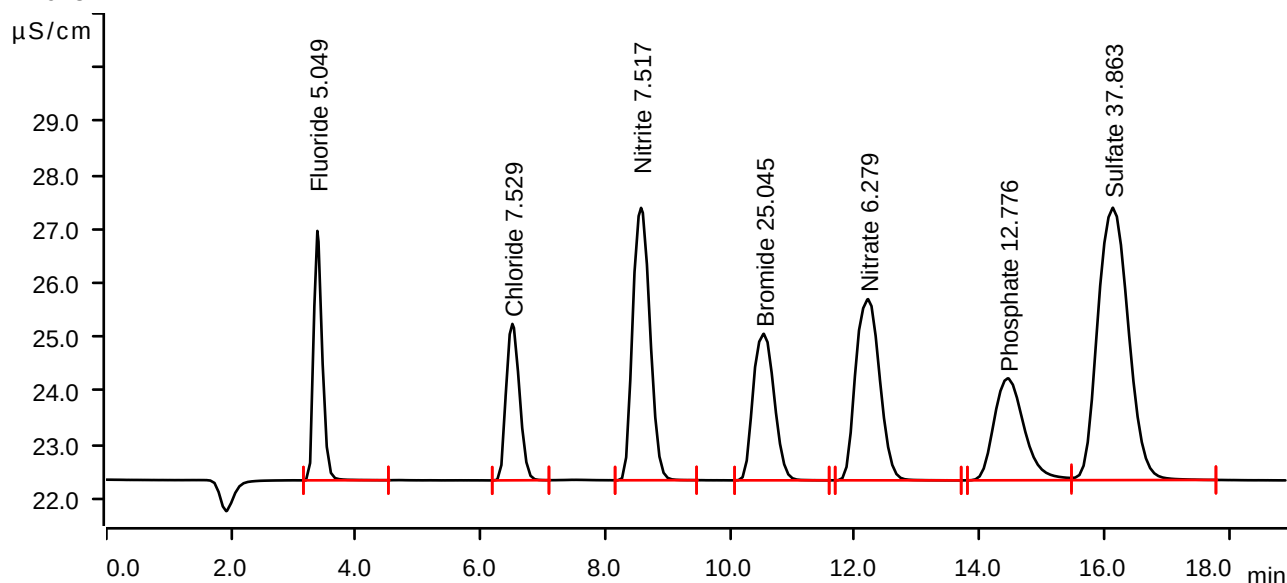
Sample data

Ident STD7
Sample type Standard 7
Determination start 2024-11-18 13:33:24 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.54 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.383	0.7339	4.626	5.049	Fluoride
2	6.510	0.7203	2.901	7.529	Chloride
3	8.573	1.6208	5.052	7.517	Nitrite
4	10.542	1.0642	2.717	25.045	Bromide
5	12.213	1.5007	3.361	6.279	Nitrate
6	14.452	1.0592	1.891	12.776	Phosphate
7	16.138	2.8845	5.052	37.863	Sulfate

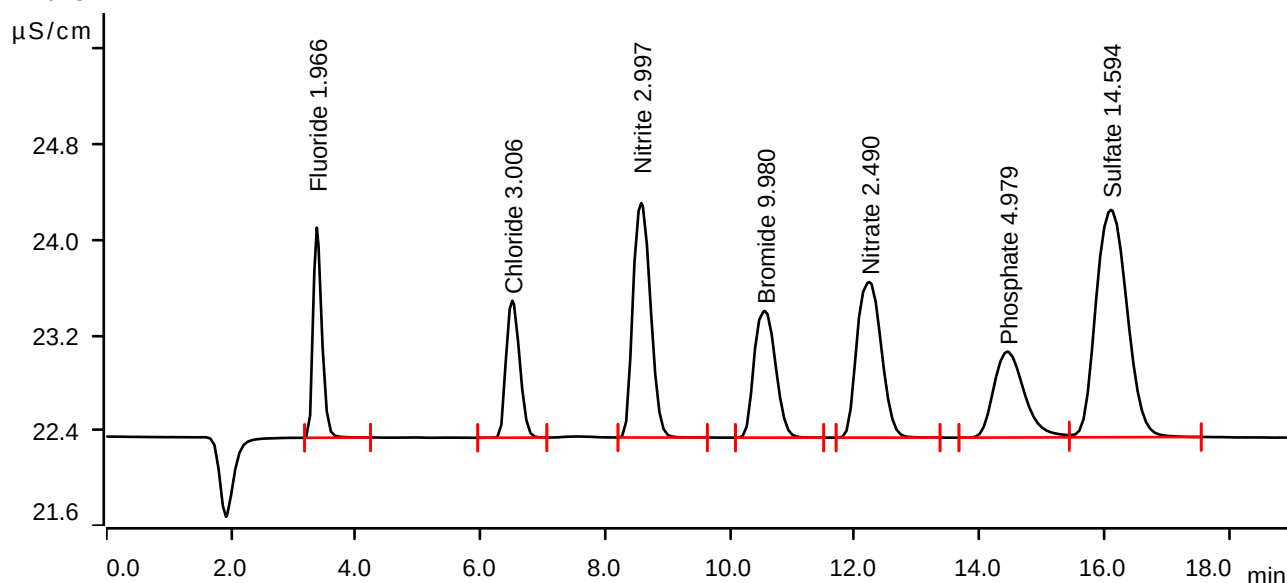
Sample data

Ident ICV
Sample type Check standard 1
Determination start 2024-11-18 13:54:44 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.66 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



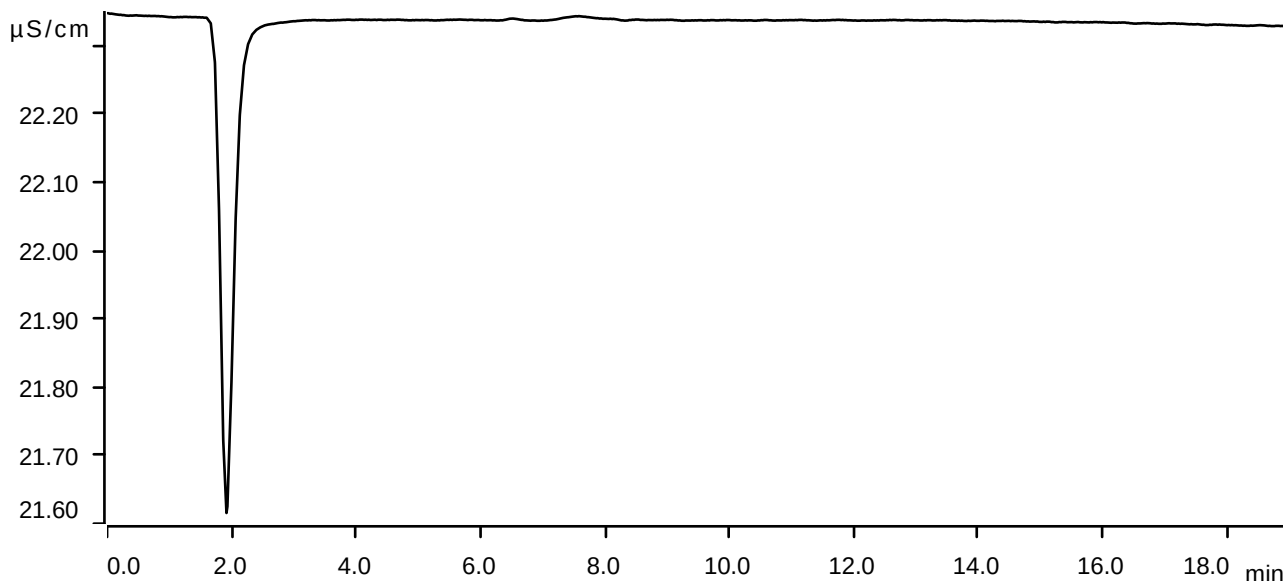
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.375	0.2848	1.764	1.966	Fluoride
2	6.508	0.2905	1.150	3.006	Chloride
3	8.577	0.6430	1.968	2.997	Nitrite
4	10.557	0.4245	1.063	9.980	Bromide
5	12.230	0.5959	1.307	2.490	Nitrate
6	14.447	0.4114	0.721	4.979	Phosphate
7	16.107	1.1058	1.909	14.594	Sulfate

Sample data

Ident ICB
Sample type Sample
Determination start 2024-11-18 14:16:12 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.66 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

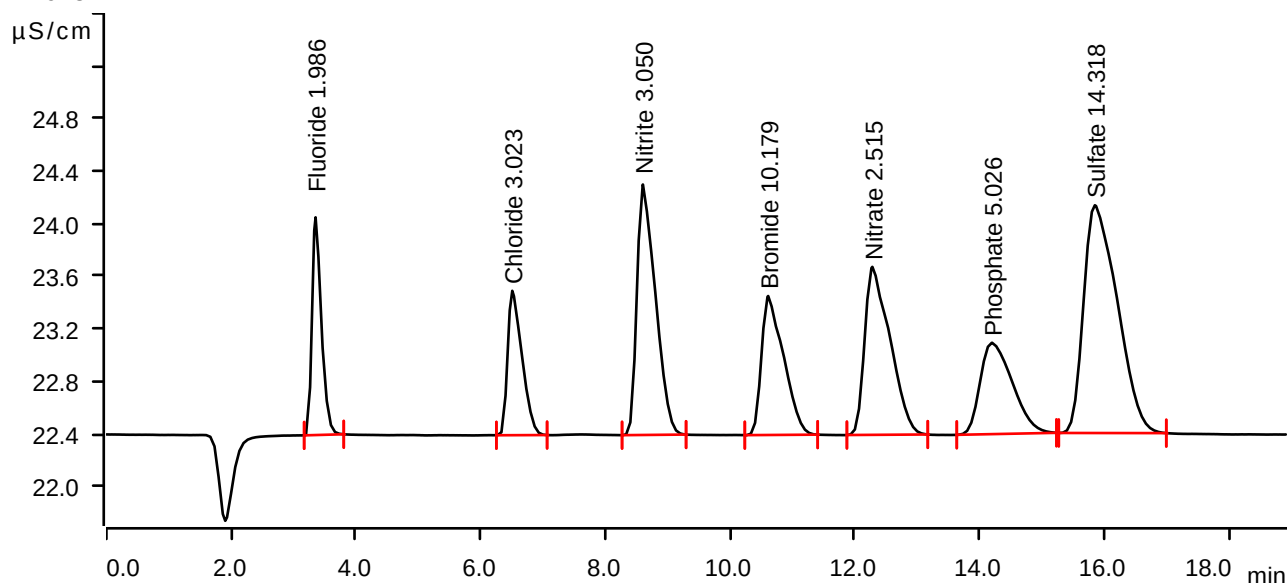
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2024-12-16 12:15:57 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.11 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



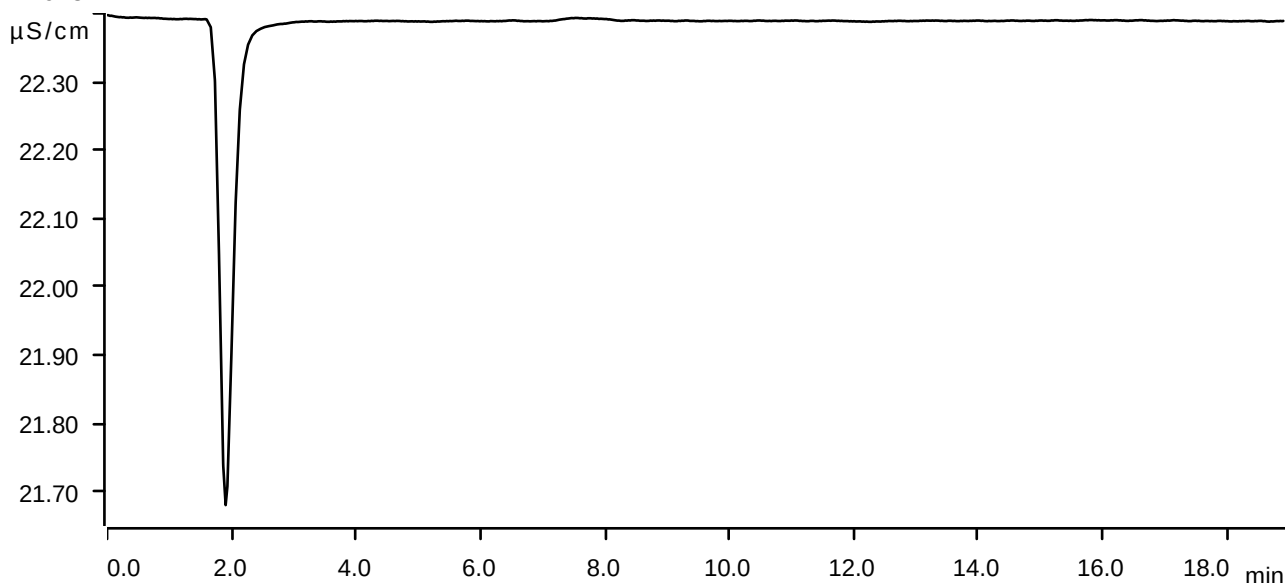
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.355	0.2877	1.658	1.986	Fluoride
2	6.508	0.2921	1.099	3.023	Chloride
3	8.603	0.6546	1.907	3.050	Nitrite
4	10.612	0.4330	1.058	10.179	Bromide
5	12.282	0.6019	1.279	2.515	Nitrate
6	14.197	0.4152	0.696	5.026	Phosphate
7	15.848	1.0848	1.734	14.318	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2024-12-16 12:37:27 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.99 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

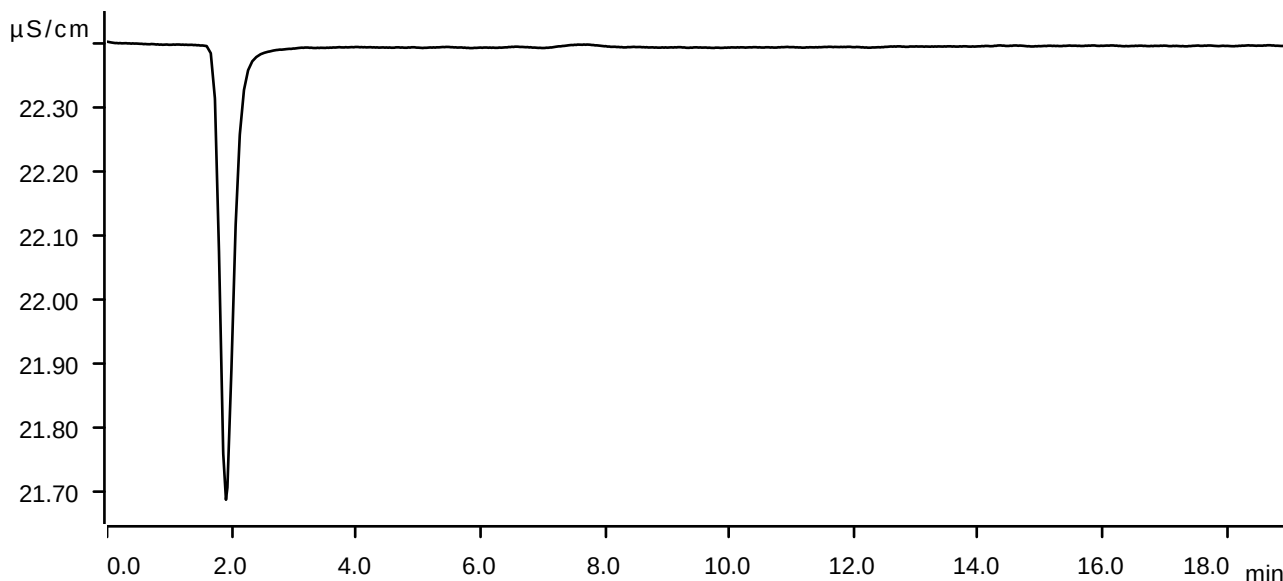
Sample data

Ident LB133970BLW
Sample type Sample
Determination start 2024-12-16 12:58:57 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.99 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



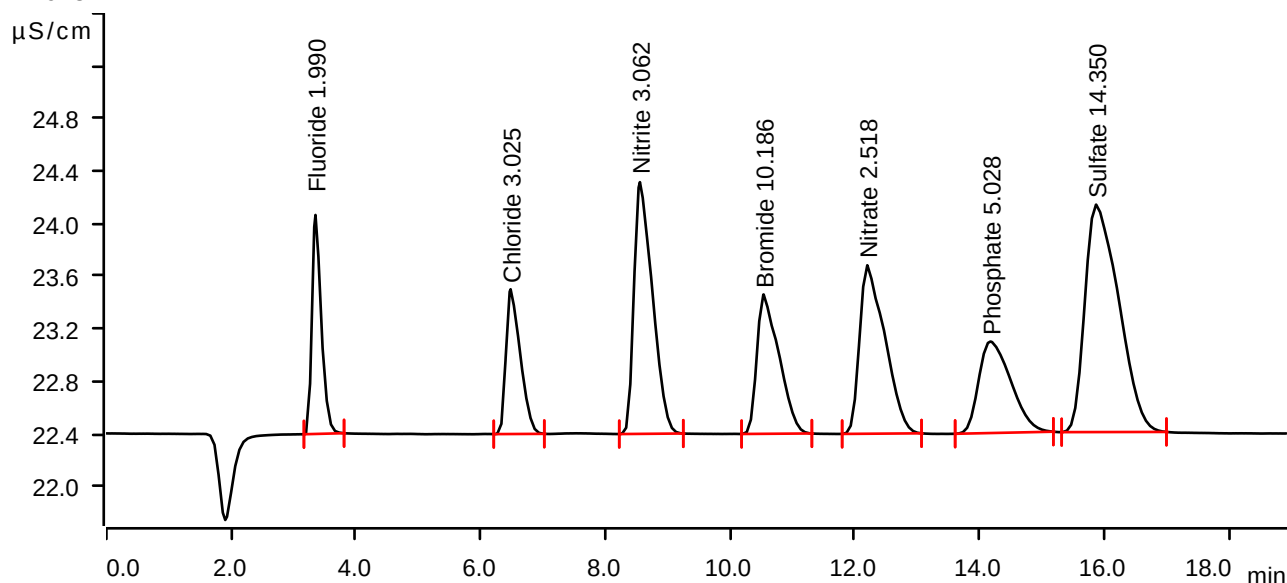
Sample data

Ident LB133970BSW
Sample type Check standard 1
Determination start 2024-12-16 13:20:28 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.99 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.353	0.2883	1.667	1.990	Fluoride
2	6.482	0.2923	1.102	3.025	Chloride
3	8.555	0.6570	1.917	3.062	Nitrite
4	10.538	0.4333	1.061	10.186	Bromide
5	12.200	0.6026	1.283	2.518	Nitrate
6	14.177	0.4154	0.697	5.028	Phosphate
7	15.870	1.0872	1.732	14.350	Sulfate

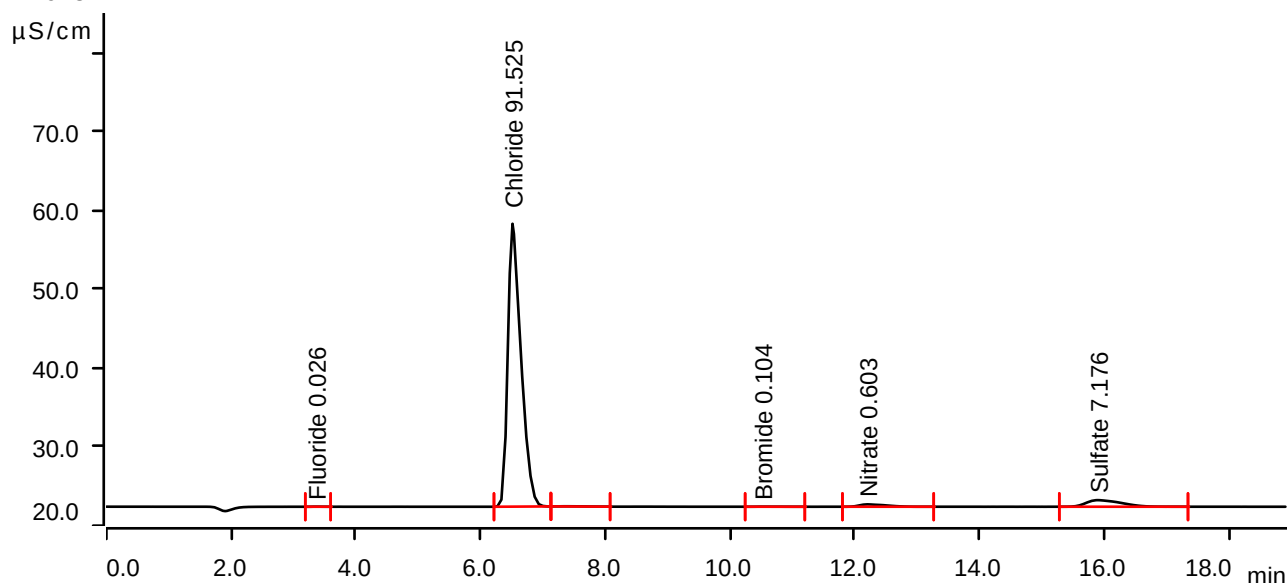
Sample data

Ident P5291-01
Sample type Sample
Determination start 2024-12-16 13:42:00 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.88 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.362	0.0023	0.014	0.026	Fluoride
2	6.512	8.7019	35.896	91.525	Chloride
3	7.388	0.0110	0.024	invalid	
4	10.517	0.0052	0.012	0.104	Bromide
5	12.200	0.1453	0.303	0.603	Nitrate
6	15.897	0.5388	0.837	7.176	Sulfate

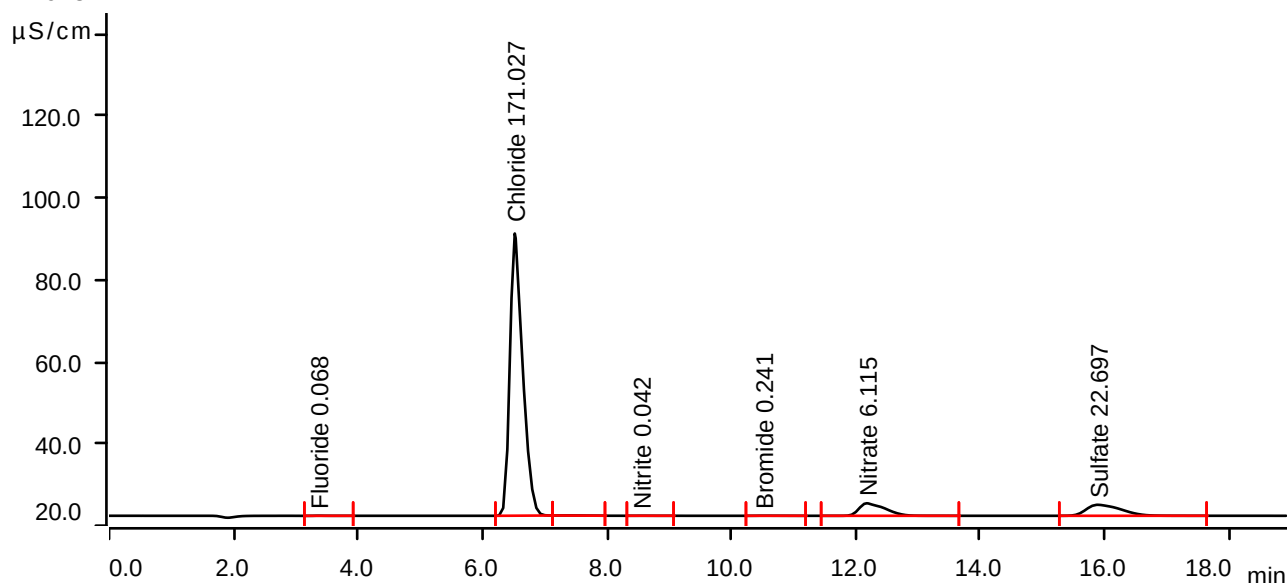
Sample data

Ident P5291-02
Sample type Sample
Determination start 2024-12-16 14:03:33 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.88 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.358	0.0083	0.037	0.068	Fluoride
2	6.520	16.2565	68.870	171.027	Chloride
3	7.352	0.0122	0.028	invalid	
4	8.543	0.0037	0.012	0.042	Nitrite
5	10.512	0.0110	0.026	0.241	Bromide
6	12.177	1.4617	3.059	6.115	Nitrate
7	15.888	1.7252	2.689	22.697	Sulfate

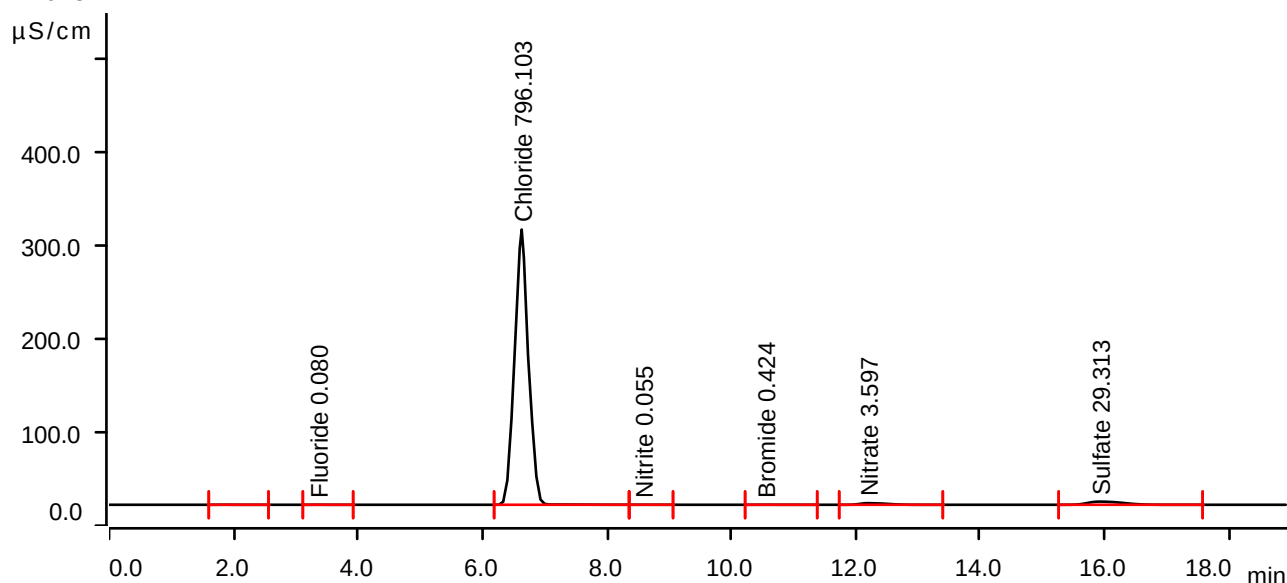
Sample data

Ident P5291-03
Sample type Sample
Determination start 2024-12-16 14:25:06 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.82 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	1.880	0.0176	0.071	invalid	
2	3.355	0.0101	0.053	0.080	Fluoride
3	6.632	75.6540	295.528	796.103	Chloride
4	8.573	0.0067	0.020	0.055	Nitrite
5	10.542	0.0188	0.044	0.424	Bromide
6	12.195	0.8602	1.747	3.597	Nitrate
7	15.920	2.2309	3.414	29.313	Sulfate

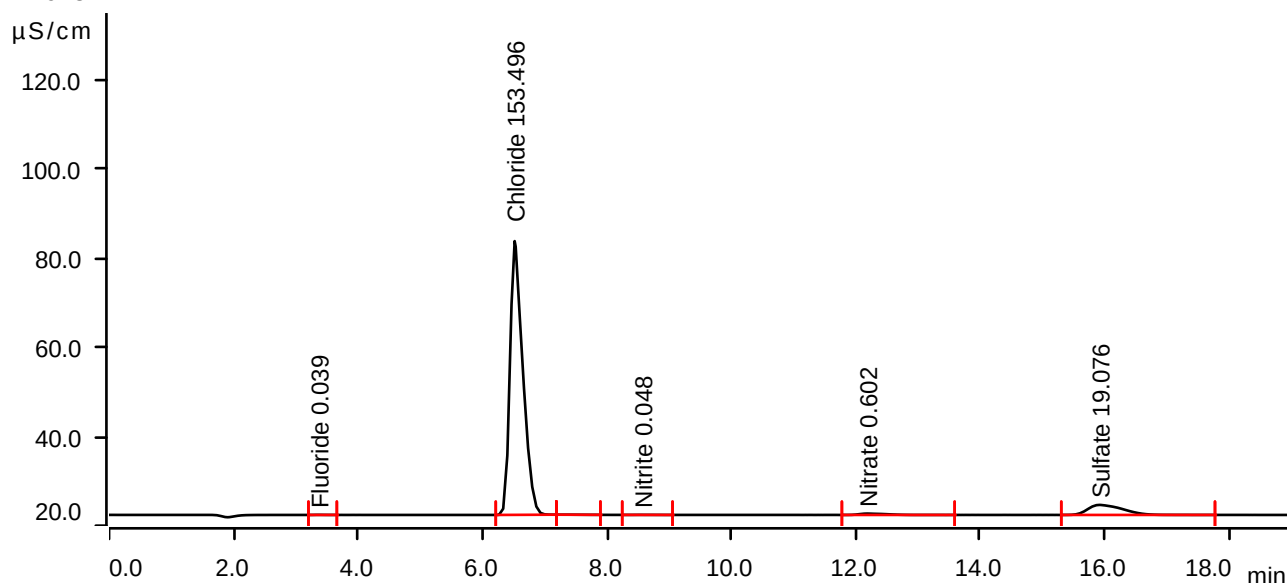
Sample data

Ident P5291-04
Sample type Sample
Determination start 2024-12-16 14:46:41 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.82 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.368	0.0042	0.024	0.039	Fluoride
2	6.518	14.5907	61.464	153.496	Chloride
3	7.357	0.0049	0.012	invalid	
4	8.563	0.0050	0.014	0.048	Nitrite
5	12.185	0.1448	0.300	0.602	Nitrate
6	15.915	1.4485	2.250	19.076	Sulfate

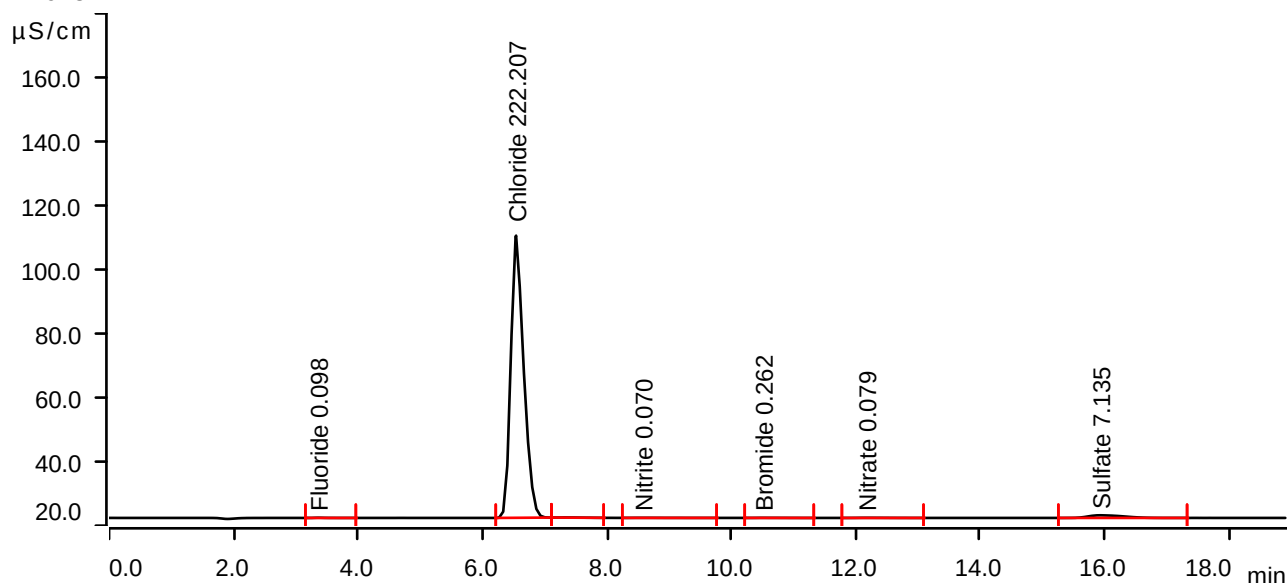
Sample data

Ident P5291-05
Sample type Sample
Determination start 2024-12-16 15:08:16 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.82 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.358	0.0128	0.066	0.098	Fluoride
2	6.542	21.1199	88.152	222.207	Chloride
3	7.315	0.0196	0.045	invalid	
4	8.570	0.0098	0.018	0.070	Nitrite
5	10.528	0.0119	0.028	0.262	Bromide
6	12.168	0.0200	0.041	0.079	Nitrate
7	15.927	0.5357	0.822	7.135	Sulfate

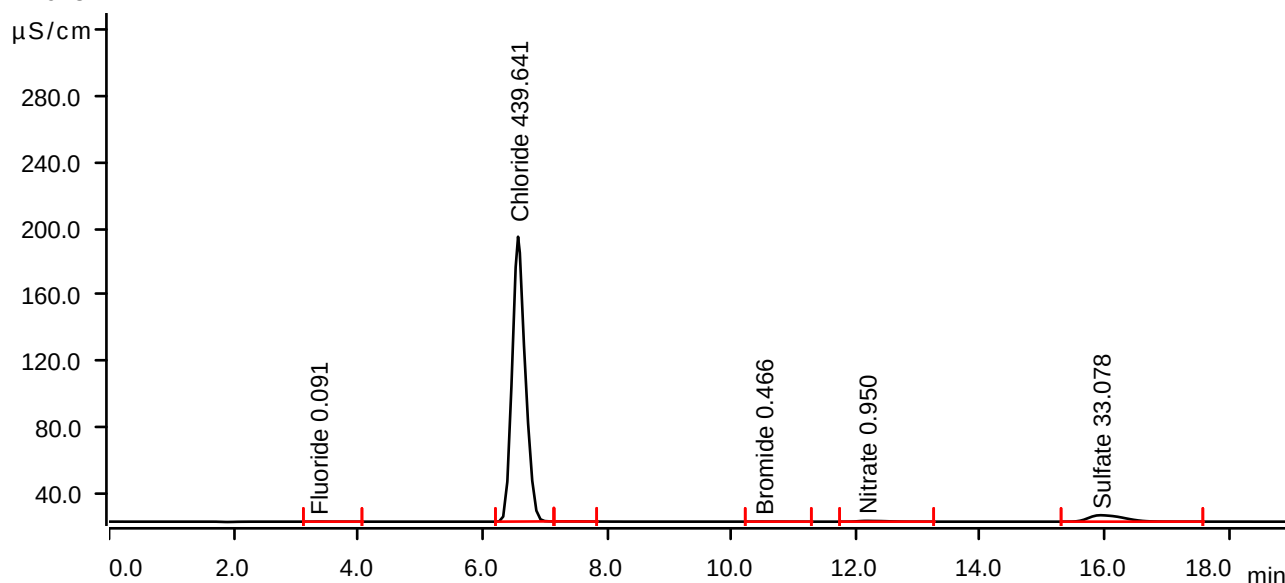
Sample data

Ident P5291-06
Sample type Sample
Determination start 2024-12-16 15:29:50 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.82 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.357	0.0118	0.059	0.091	Fluoride
2	6.573	41.7814	172.377	439.641	Chloride
3	7.288	0.0137	0.031	invalid	
4	10.508	0.0206	0.049	0.466	Bromide
5	12.172	0.2281	0.468	0.950	Nitrate
6	15.933	2.5187	3.896	33.078	Sulfate

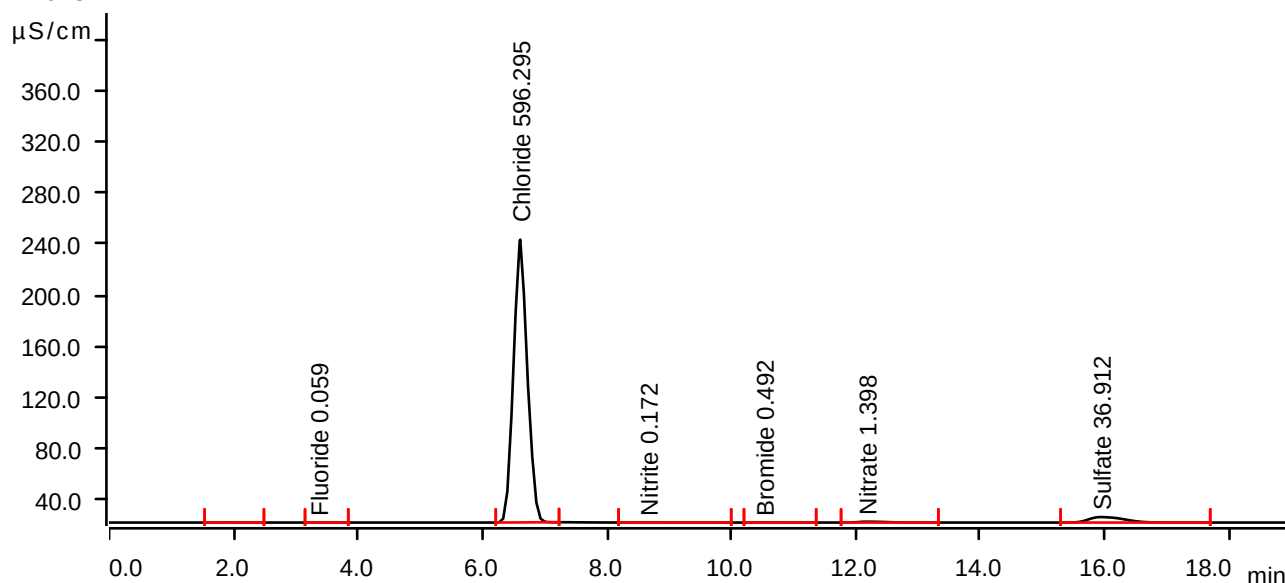
Sample data

Ident P5291-07
Sample type Sample
Determination start 2024-12-16 15:51:24 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.82 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	1.880	0.0167	0.067	invalid	
2	3.365	0.0071	0.037	0.059	Fluoride
3	6.608	56.6674	220.861	596.295	Chloride
4	8.613	0.0319	0.048	0.172	Nitrite
5	10.522	0.0217	0.050	0.492	Bromide
6	12.172	0.3350	0.679	1.398	Nitrate
7	15.938	2.8119	4.285	36.912	Sulfate

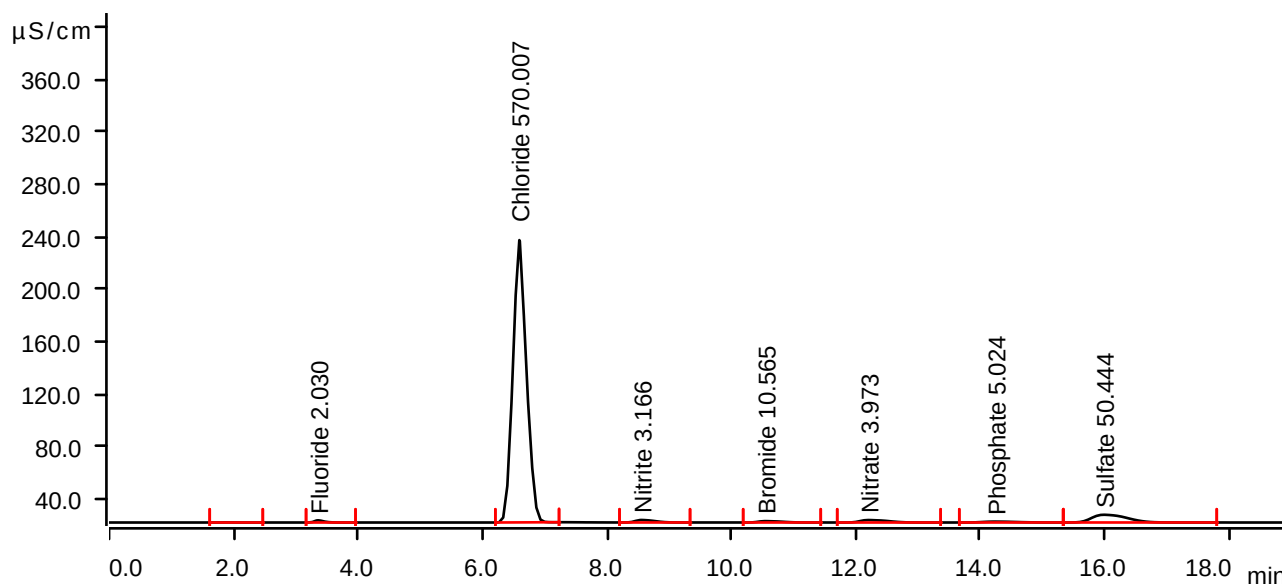
Sample data

Ident P5291-08MS
Sample type Sample
Determination start 2024-12-16 16:12:56 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.82 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area ($\mu\text{S/cm}$) x min	Height $\mu\text{S/cm}$	Concentration ppm	Component name
1	1.890	0.0190	0.078	invalid	
2	3.360	0.2942	1.672	2.030	Fluoride
3	6.593	54.1693	214.946	570.007	Chloride
4	8.558	0.6797	1.900	3.166	Nitrite
5	10.548	0.4494	1.050	10.565	Bromide
6	12.202	0.9501	1.888	3.973	Nitrate
7	14.243	0.4151	0.673	5.024	Phosphate
8	15.987	3.8462	5.885	50.444	Sulfate

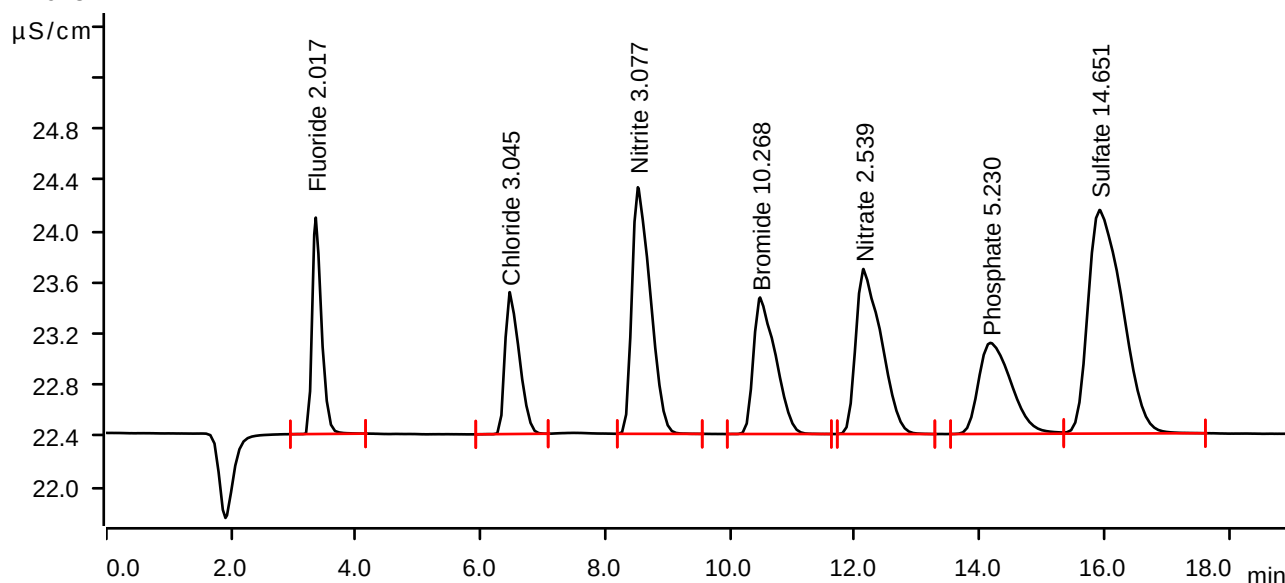
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2024-12-16 16:34:19 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.82 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



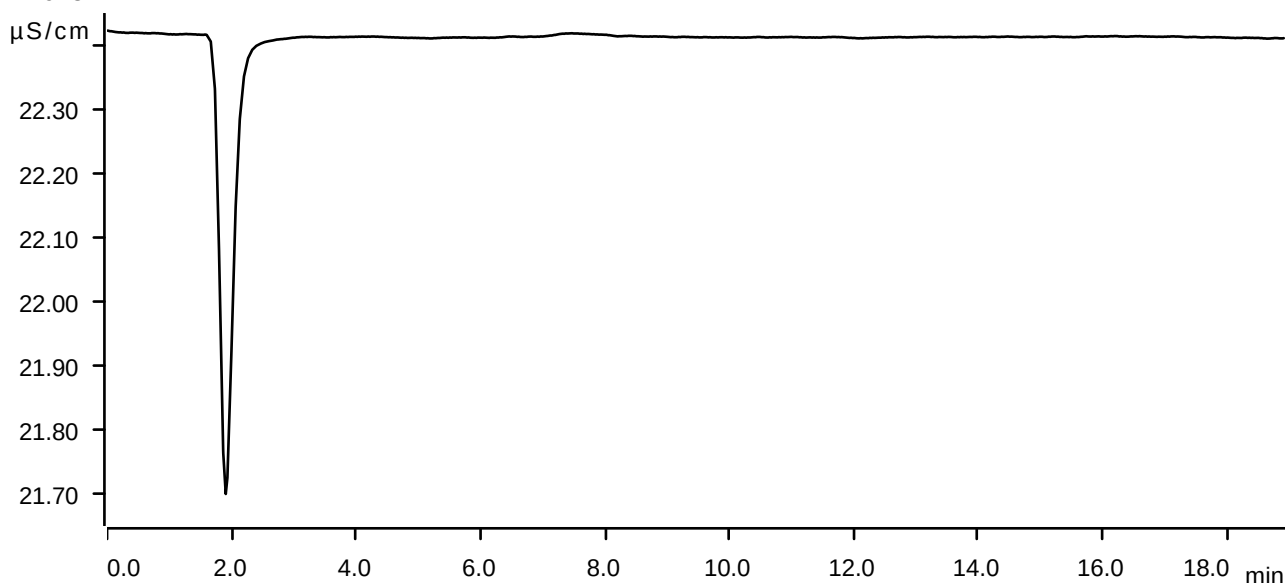
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.358	0.2923	1.690	2.017	Fluoride
2	6.465	0.2942	1.108	3.045	Chloride
3	8.522	0.6603	1.926	3.077	Nitrite
4	10.482	0.4367	1.066	10.268	Bromide
5	12.138	0.6075	1.289	2.539	Nitrate
6	14.173	0.4322	0.711	5.230	Phosphate
7	15.923	1.1102	1.746	14.651	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2024-12-16 16:55:50 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.82 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

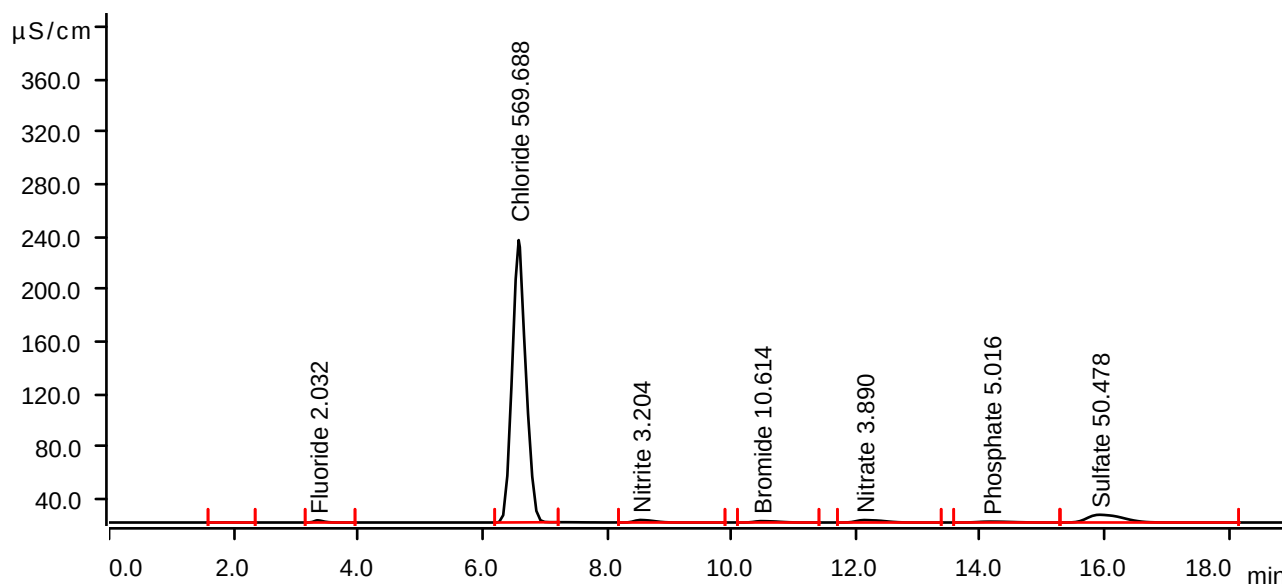
Sample data

Ident P5291-09MSD
Sample type Sample
Determination start 2024-12-16 17:17:20 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.77 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area ($\mu\text{S/cm}$) x min	Height $\mu\text{S/cm}$	Concentration ppm	Component name
1	1.883	0.0195	0.079	invalid	
2	3.355	0.2945	1.674	2.032	Fluoride
3	6.583	54.1391	214.945	569.688	Chloride
4	8.542	0.6878	1.901	3.204	Nitrite
5	10.487	0.4514	1.053	10.614	Bromide
6	12.137	0.9302	1.886	3.890	Nitrate
7	14.175	0.4144	0.670	5.016	Phosphate
8	15.917	3.8488	5.871	50.478	Sulfate

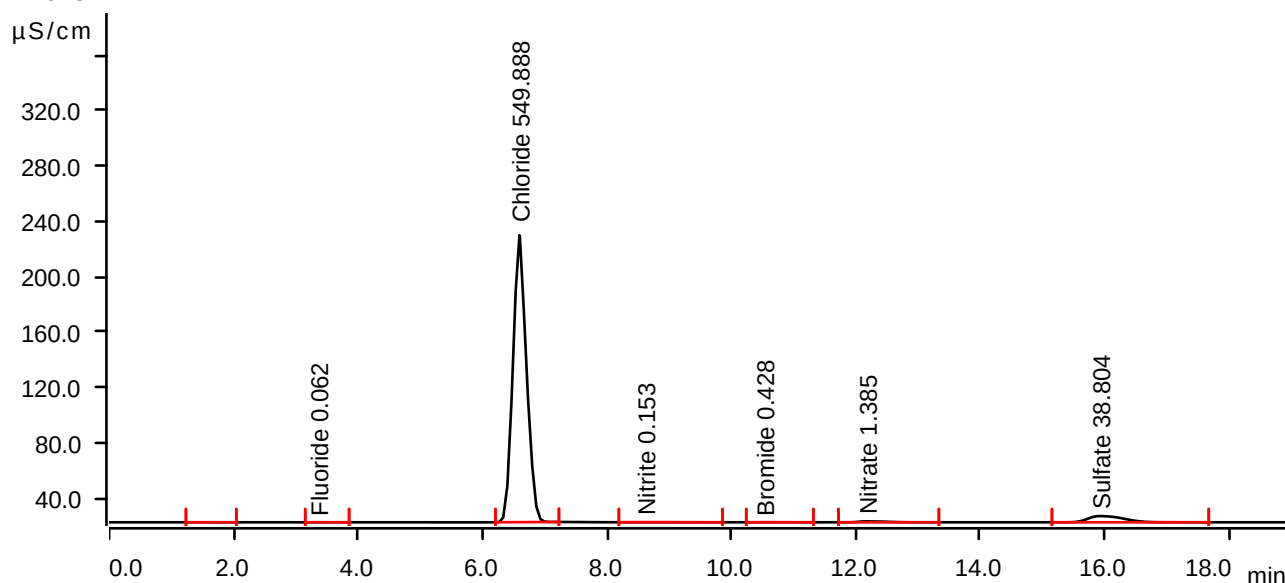
Sample data

Ident P5291-10
Sample type Sample
Determination start 2024-12-16 17:38:52 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.88 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	1.857	0.0029	0.012	invalid	
2	3.363	0.0076	0.038	0.062	Fluoride
3	6.595	52.2576	207.296	549.888	Chloride
4	8.613	0.0278	0.044	0.153	Nitrite
5	10.525	0.0190	0.044	0.428	Bromide
6	12.177	0.3319	0.669	1.385	Nitrate
7	15.925	2.9565	4.510	38.804	Sulfate

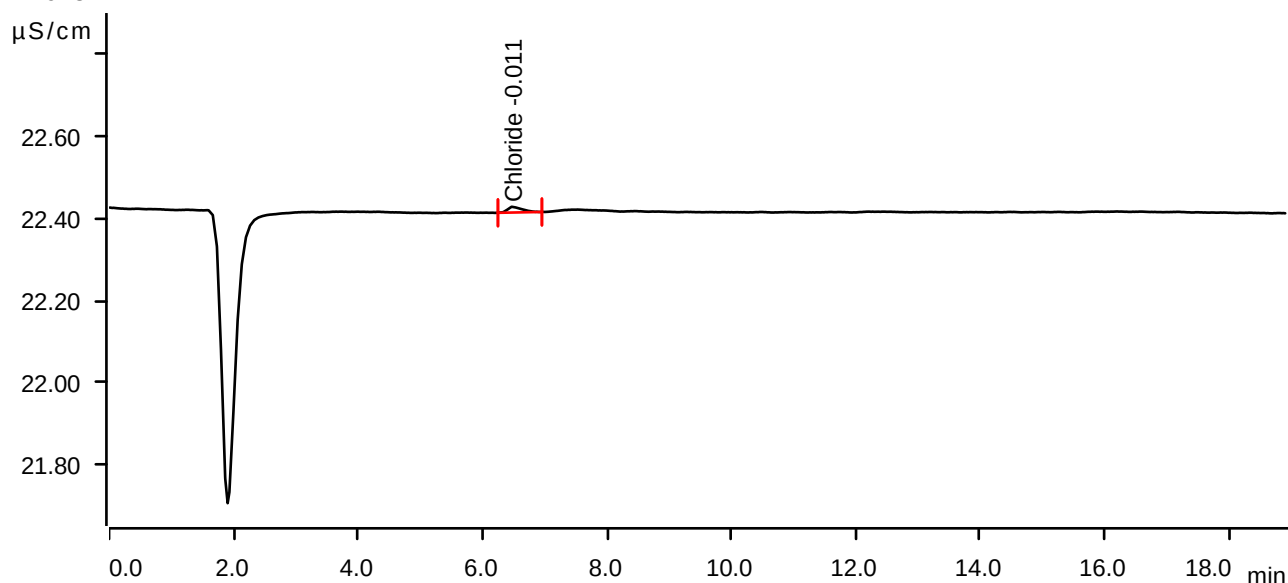
Sample data

Ident P5291-11
Sample type Sample
Determination start 2024-12-16 18:00:15 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.82 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	6.475	0.0038	0.014	-0.011	Chloride

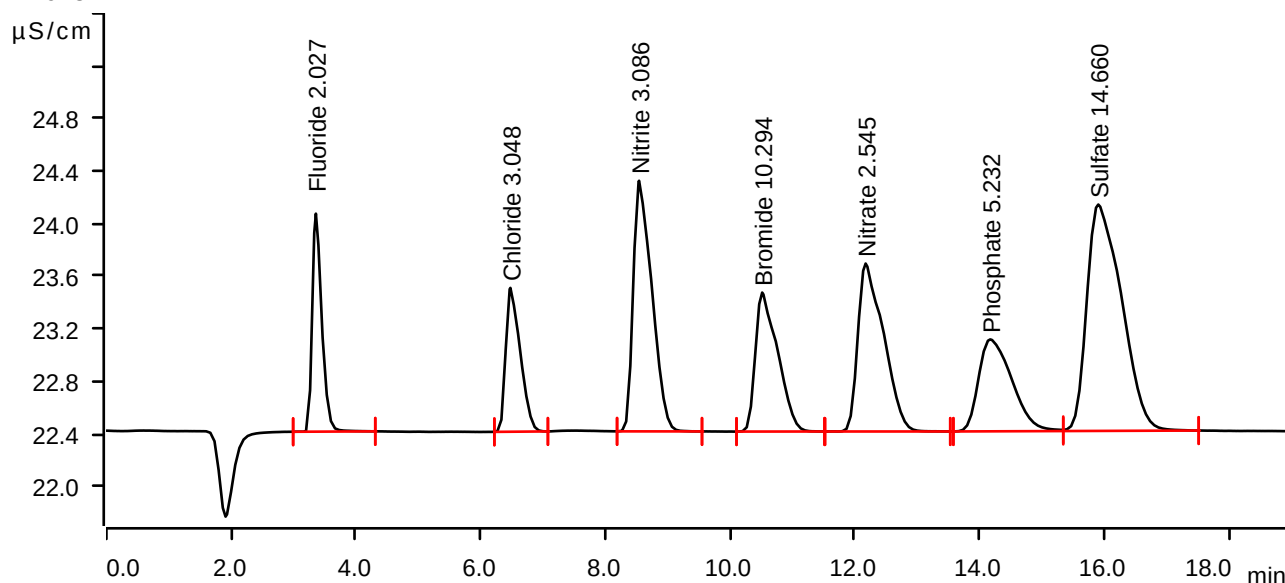
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2024-12-16 18:21:45 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.94 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



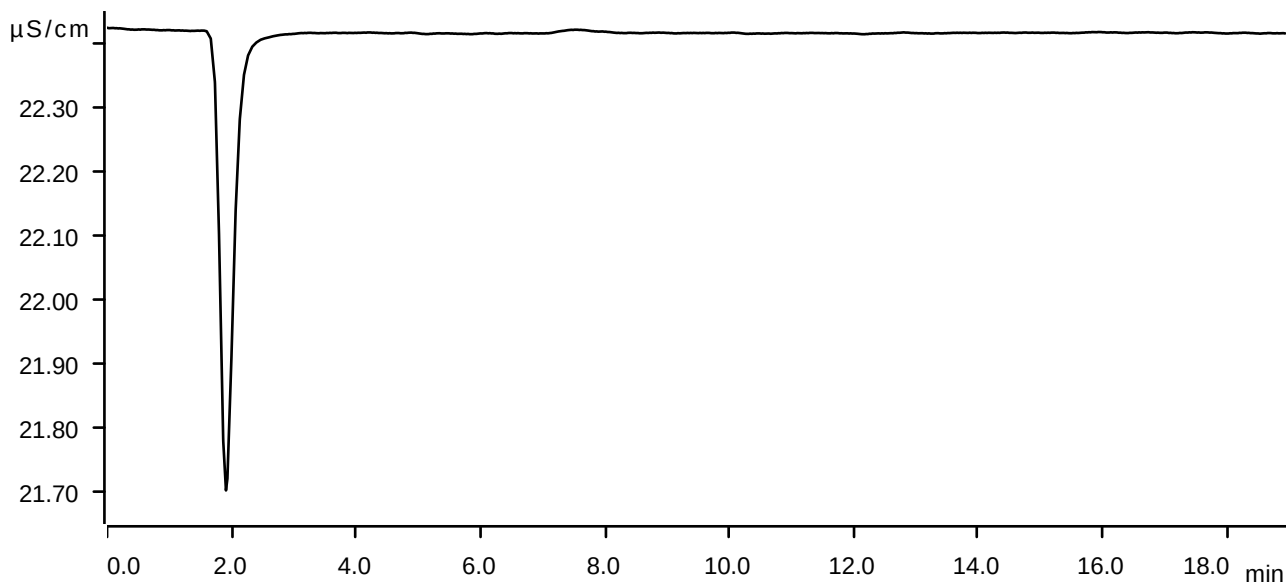
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.360	0.2937	1.660	2.027	Fluoride
2	6.478	0.2945	1.095	3.048	Chloride
3	8.542	0.6623	1.908	3.086	Nitrite
4	10.515	0.4378	1.058	10.294	Bromide
5	12.173	0.6091	1.279	2.545	Nitrate
6	14.172	0.4324	0.700	5.232	Phosphate
7	15.903	1.1109	1.724	14.660	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2024-12-16 18:43:15 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.94 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

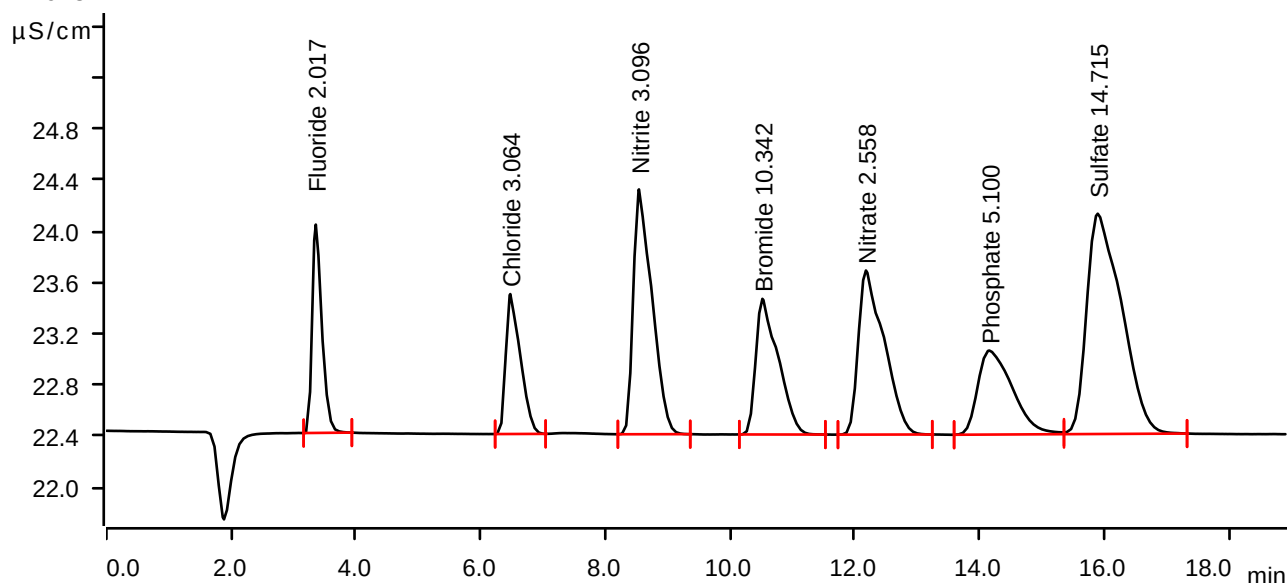
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2024-12-17 09:51:03 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.88 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



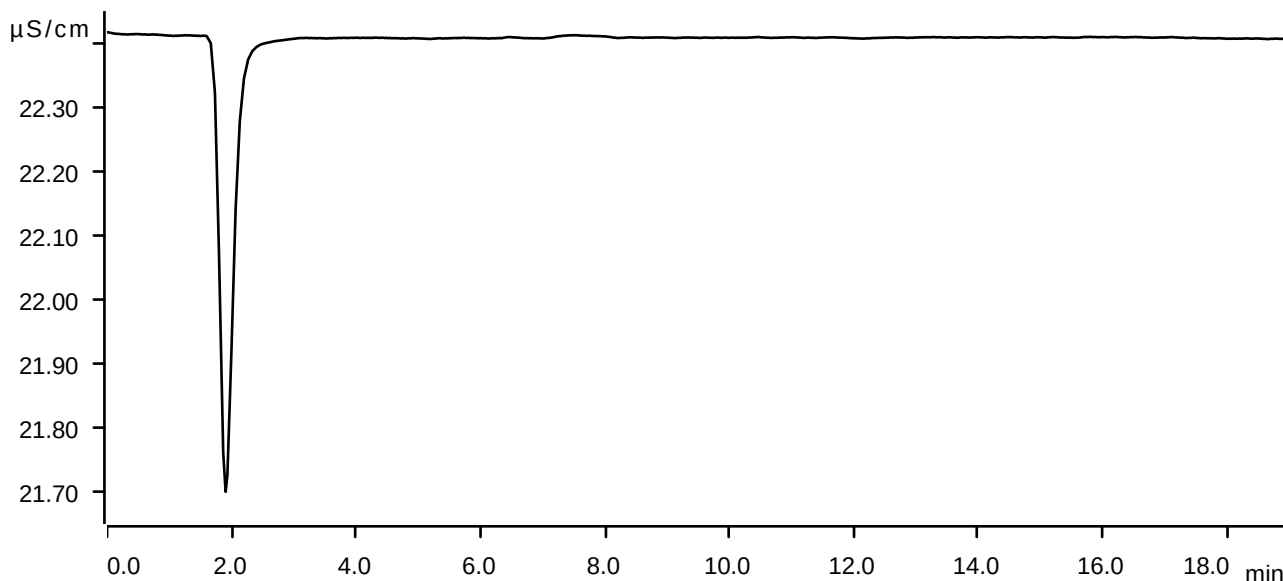
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.358	0.2923	1.627	2.017	Fluoride
2	6.477	0.2960	1.093	3.064	Chloride
3	8.540	0.6645	1.912	3.096	Nitrite
4	10.518	0.4399	1.059	10.342	Bromide
5	12.178	0.6120	1.282	2.558	Nitrate
6	14.157	0.4214	0.656	5.100	Phosphate
7	15.895	1.1151	1.720	14.715	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2024-12-17 10:12:33 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.82 MPa
Maximum pressure monitored yes
Temperature ---- °C

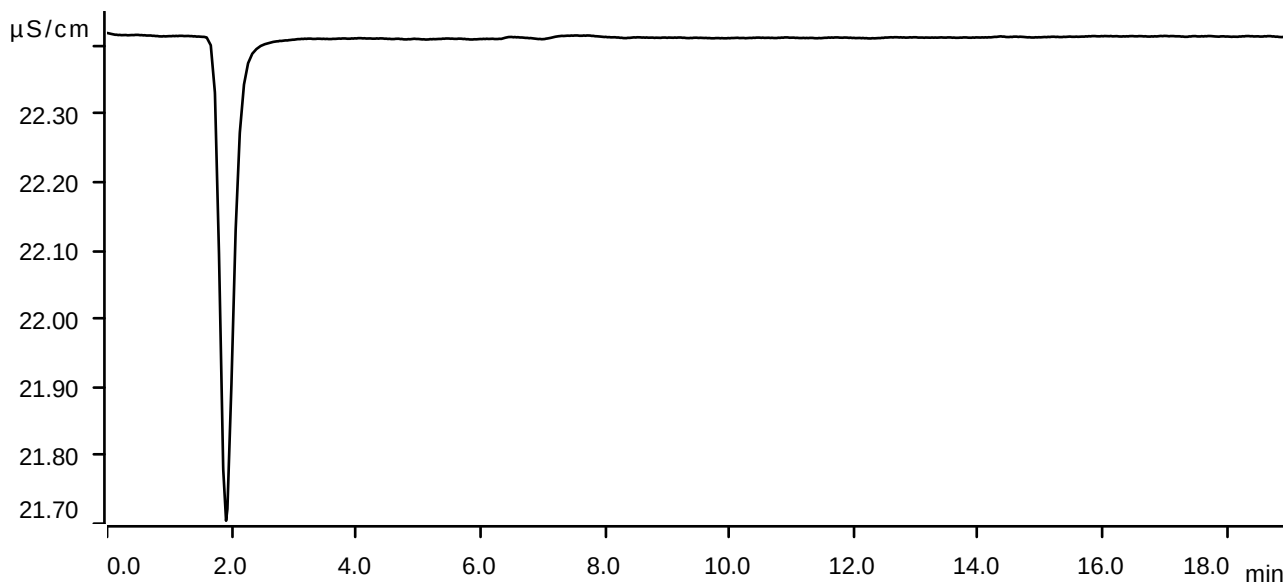
Anions

Sample data

Ident LB133970BLW2
Sample type Sample
Determination start 2024-12-17 10:34:03 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.77 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

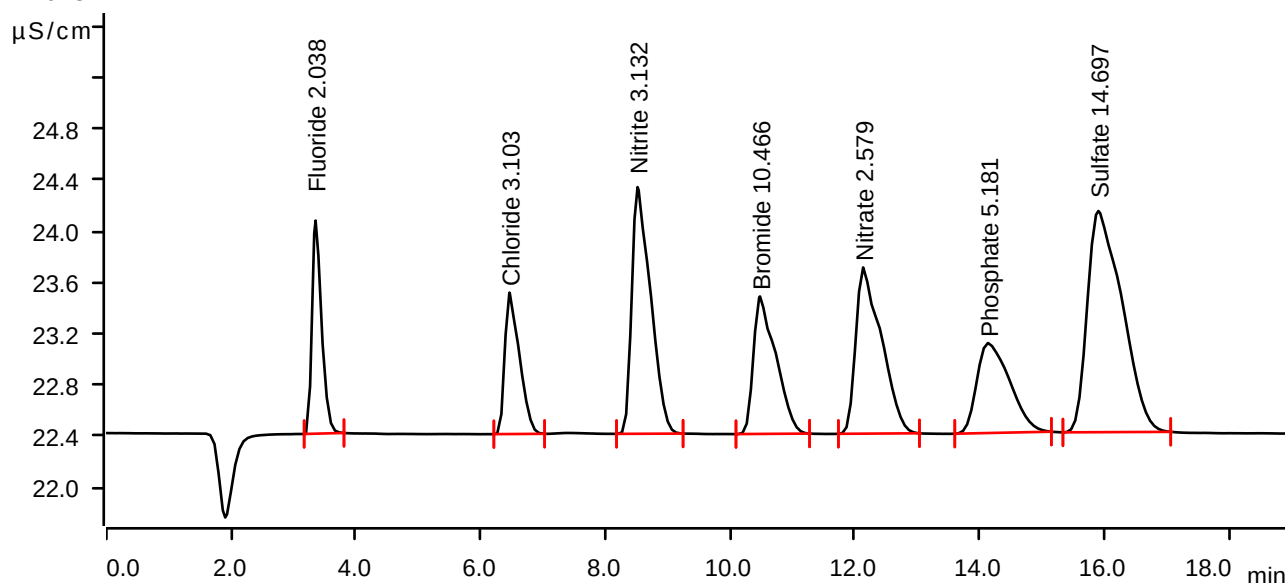
Sample data

Ident LB133970BSW2
Sample type Check standard 1
Determination start 2024-12-17 10:55:35 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.77 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.355	0.2954	1.664	2.038	Fluoride
2	6.462	0.2997	1.104	3.103	Chloride
3	8.517	0.6722	1.927	3.132	Nitrite
4	10.480	0.4451	1.073	10.466	Bromide
5	12.135	0.6171	1.298	2.579	Nitrate
6	14.138	0.4281	0.702	5.181	Phosphate
7	15.905	1.1137	1.727	14.697	Sulfate

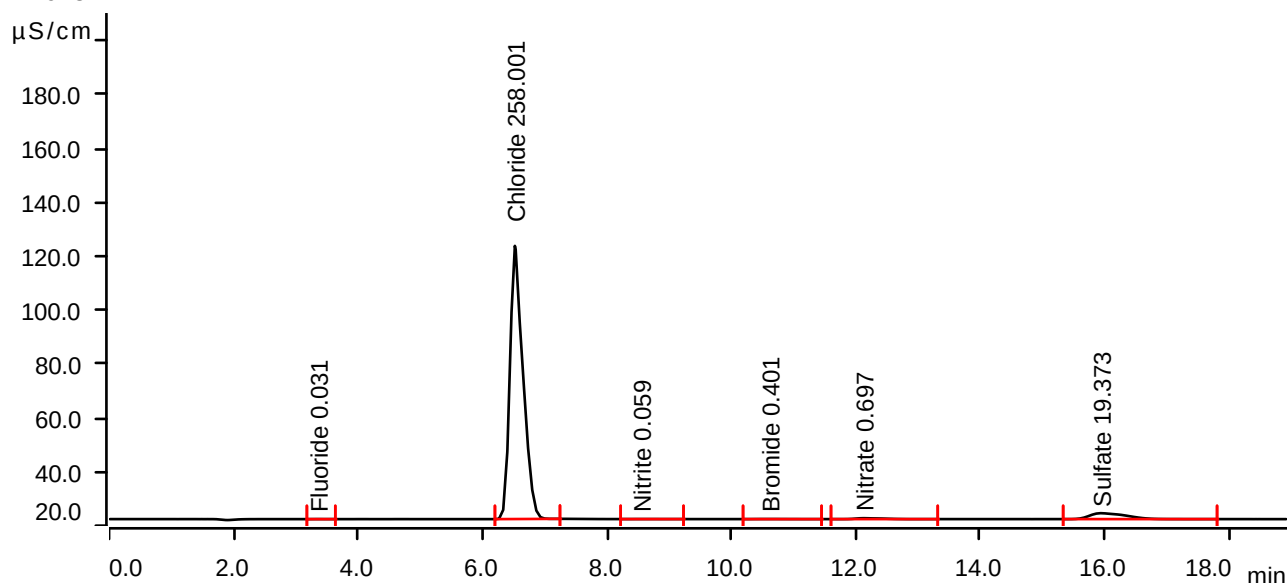
Sample data

Ident P5291-10DLX2
Sample type Sample
Determination start 2024-12-17 11:17:07 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.71 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.358	0.0031	0.017	0.031	Fluoride
2	6.522	24.5212	101.322	258.001	Chloride
3	8.545	0.0074	0.015	0.059	Nitrite
4	10.612	0.0178	0.031	0.401	Bromide
5	12.123	0.1677	0.342	0.697	Nitrate
6	15.938	1.4712	2.201	19.373	Sulfate

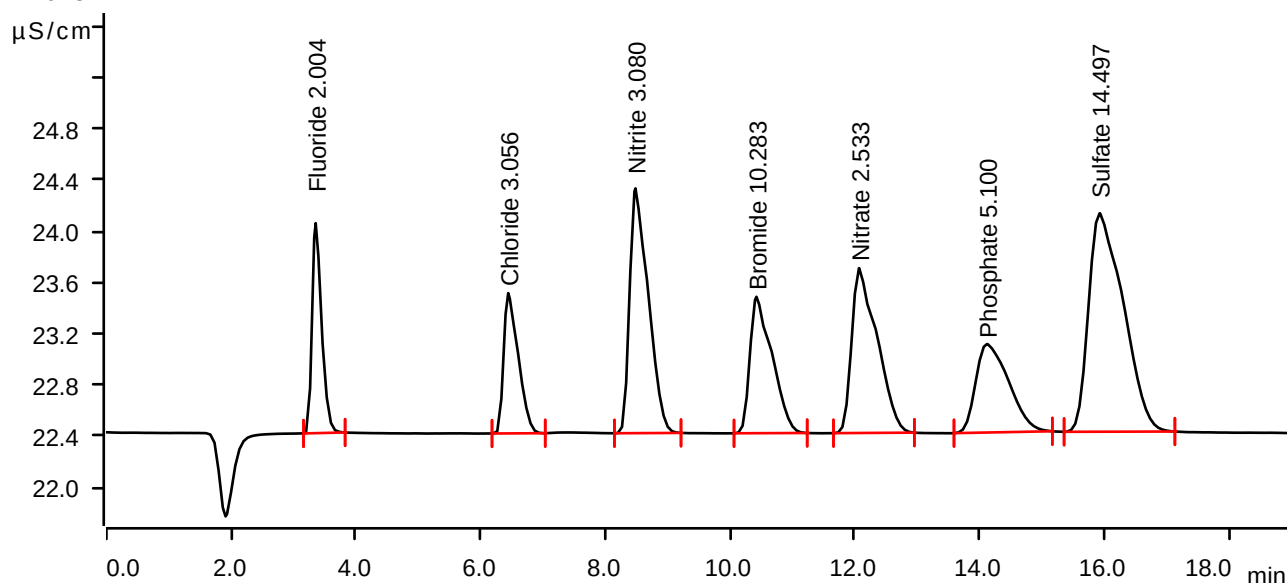
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2024-12-17 11:38:37 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.60 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



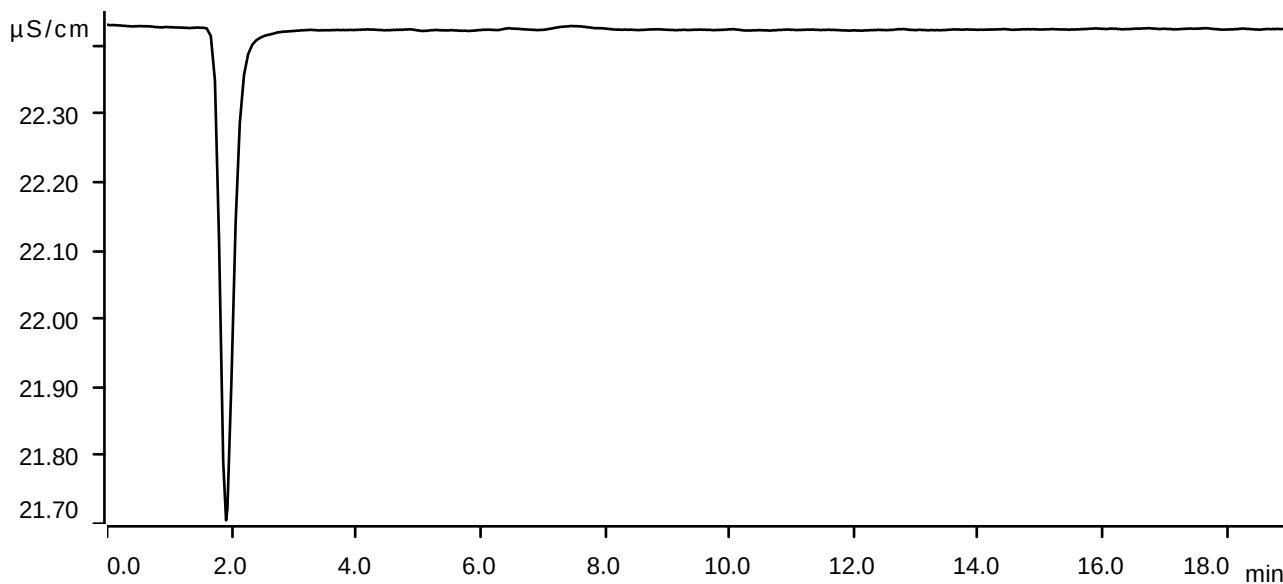
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.357	0.2904	1.640	2.004	Fluoride
2	6.443	0.2953	1.096	3.056	Chloride
3	8.483	0.6611	1.912	3.080	Nitrite
4	10.423	0.4374	1.065	10.283	Bromide
5	12.070	0.6062	1.288	2.533	Nitrate
6	14.118	0.4215	0.691	5.100	Phosphate
7	15.925	1.0984	1.706	14.497	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2024-12-17 12:00:07 UTC-5
Method IC1-111824
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.60 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

WORKLIST(Hardcopy Internal Chain)

LB133974

WorkList Name : TDS-12132024 WorkList ID : 186328 Department : Wet-Chemistry Date : 12-13-2024 12:28:02

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5270-01	MW8-20241211	Water	TDS	Cool 4 deg C	PARS02	L61	12/11/2024	SM2540 C
P5270-03	MW15-20241211	Water	TDS	Cool 4 deg C	PARS02	L61	12/11/2024	SM2540 C
P5270-04	MW17-20241211	Water	TDS	Cool 4 deg C	PARS02	L61	12/11/2024	SM2540 C
P5270-05	MW9-20241212	Water	TDS	Cool 4 deg C	PARS02	L61	12/12/2024	SM2540 C
P5270-09	MW16D-20241212	Water	TDS	Cool 4 deg C	PARS02	L61	12/12/2024	SM2540 C
P5291-01	MW1A-20241213	Water	TDS	Cool 4 deg C	PARS02	L51	12/13/2024	SM2540 C
P5291-10	MW6-20241213-A	Water	TDS	Cool 4 deg C	PARS02	L51	12/13/2024	SM2540 C
P5291-11	EQUIP-BLANK-20241213	Water	TDS	Cool 4 deg C	PARS02	L51	12/13/2024	SM2540 C
P5291-02	MW10D-20241213	Water	TDS	Cool 4 deg C	PARS02	L51	12/13/2024	SM2540 C
P5291-03	MW4-20241213	Water	TDS	Cool 4 deg C	PARS02	L51	12/13/2024	SM2540 C
P5291-04	MW5-20241213	Water	TDS	Cool 4 deg C	PARS02	L51	12/13/2024	SM2540 C
P5291-05	MW2-20241213	Water	TDS	Cool 4 deg C	PARS02	L51	12/13/2024	SM2540 C
P5291-06	MW3-20241213	Water	TDS	Cool 4 deg C	PARS02	L51	12/13/2024	SM2540 C
P5291-07	MW6-20241213	Water	TDS	Cool 4 deg C	PARS02	L51	12/13/2024	SM2540 C

Date/Time 12-16-2024, 15:00
 Raw Sample Received by: NPLuxy
 Raw Sample Relinquished by: Muel

Date/Time 12-18-2024, 17:00
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

Analysis Method: 9034

Parameter: Reactive Sulfide

Run Number: LB133983

ANALYST: rubina

SUPERVISOR REVIEW BY: Iwona

Constant: 16000

Normality1: 0.025

Normality2: 0.025

Reagent/Standard	Lot/Log #
SODIUM THIOSULFATE, 0.025N, 4LITRE	W3105
IODINE SOLUTION .025N 1L	W3114
Starch Solution, 4L	W3149

Seq	Lab ID	True Value (mg/l)	DF	Initial Volume (mL)	Final Volume (ml)	T1 (ml)	T2 Initial	T2 Final	T2 Diff. (ml)	T1 - T2 Diff (mL)	Value Corrected With Blank	Result (ppm)	Anal Date	Anal Time
1	PB165672BL		1	50	50	2.00	0.00	1.94	1.94	0.06	0.00	0.00	12/17/2024	11:20
2	P5291-13		1	50	50	2.00	0.00	1.90	1.90	0.10	0.04	0.32	12/17/2024	11:23
3	P5291-13DUP		1	50	50	2.00	0.00	1.90	1.90	0.10	0.04	0.32	12/17/2024	11:26

T1 = Titrant1

T2 = Titrant2

T2 Diff = T2 Final - T2 Initial

Value Corrected With Blank = ((T1 - T2 Diff) - Blank Correction(BL))

Result = ((T1 * Normality1) - ((T1 - Value Corrected With Blank) * Normality2)) * Constant / Initial Volume

Test results

Aquakem 7.2AQ1

Page: 1

CHEMTECH CONSULTING GROUP INC
284 Sheffield Street, Mountainside, NJ 07092

12/19/2024 12:23

Reviewed by : VF Instrument ID : Konelab

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	98.090	0.0	0.069	
ICB1	-0.042	0.0	0.002	
CCV1	244.280	0.0	0.170	
CCB1	0.072	0.0	0.002	
PB165745BL	-0.208	0.0	0.002	
P5291-13	-0.523	0.0	0.001	
P5291-13DUP	-0.432	0.0	0.001	
P5341-01	-0.246	0.0	0.002	
P5341-03	-0.337	0.0	0.002	
P5343-06	-0.445	0.0	0.001	
PB165742BL	-0.449	0.0	0.001	
P5279-02	-0.294	0.0	0.002	
P5279-02DUP	-0.189	0.0	0.002	
P5330-04	-0.321	0.0	0.002	
CCV2	244.586	0.0	0.170	
CCB2	-0.731	0.0	0.001	
P5341-02	-0.507	0.0	0.001	
P5343-05	-0.426	0.0	0.001	
CCV3	250.426	0.0	0.174	
CCB3	-0.235	0.0	0.002	

N 20
Mean 41.603
SD 90.9642
CV% 218.65

Aquakem v. 7.2AQ1

Results from time period:

Thu Dec 19 11:09:52 2024

Thu Dec 19 12:16:01 2024

Sample Id	Sam/Ctr/c	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	-0.6831	µg/l	12/19/2024 11:28:11	
5.0PPBCN	A	Total CN	P	4.7232	µg/l	12/19/2024 11:28:12	
10PPBCN	A	Total CN	P	9.3738	µg/l	12/19/2024 11:28:13	
50PPBCN	A	Total CN	P	50.6342	µg/l	12/19/2024 11:28:14	
100PPBCN	A	Total CN	P	102.7678	µg/l	12/19/2024 11:28:15	
250PPBCN	A	Total CN	P	247.5715	µg/l	12/19/2024 11:28:16	
500PPBCN	A	Total CN	P	500.6126	µg/l	12/19/2024 11:28:17	
ICV1	S	Total CN	P	98.0902	µg/l	12/19/2024 12:02:40	
ICB1	S	Total CN	P	-0.0418	µg/l	12/19/2024 12:02:42	
CCV1	S	Total CN	P	244.28	µg/l	12/19/2024 12:02:44	
CCB1	S	Total CN	P	0.072	µg/l	12/19/2024 12:02:45	
PB165745BL	S	Total CN	P	-0.2085	µg/l	12/19/2024 12:02:48	
P5291-13	S	Total CN	P	-0.5231	µg/l	12/19/2024 12:02:49	
P5291-13DUP	S	Total CN	P	-0.4315	µg/l	12/19/2024 12:10:12	
P5341-01	S	Total CN	P	-0.2455	µg/l	12/19/2024 12:10:13	
P5341-03	S	Total CN	P	-0.3366	µg/l	12/19/2024 12:10:14	
P5343-06	S	Total CN	P	-0.4453	µg/l	12/19/2024 12:10:15	
PB165742BL	S	Total CN	P	-0.4492	µg/l	12/19/2024 12:10:18	
P5279-02	S	Total CN	P	-0.2939	µg/l	12/19/2024 12:10:19	
P5279-02DUP	S	Total CN	P	-0.1889	µg/l	12/19/2024 12:10:20	
P5330-04	S	Total CN	P	-0.3215	µg/l	12/19/2024 12:10:21	
CCV2	S	Total CN	P	244.5855	µg/l	12/19/2024 12:10:22	
CCB2	S	Total CN	P	-0.7307	µg/l	12/19/2024 12:15:55	
P5341-02	S	Total CN	P	-0.5072	µg/l	12/19/2024 12:15:56	
P5343-05	S	Total CN	P	-0.426	µg/l	12/19/2024 12:15:57	
CCV3	S	Total CN	P	250.4262	µg/l	12/19/2024 12:16:00	
CCB3	S	Total CN	P	-0.2348	µg/l	12/19/2024 12:16:01	

Calibration results

Aquakem 7.2AQ1

Page: 1

CHEMTECH CONSULTING GROUP INC
284 Sheffield Street, Mountainside, NJ 07092

12/19/2024 11:28

Reviewed by : NF

Instrument ID : Konelab

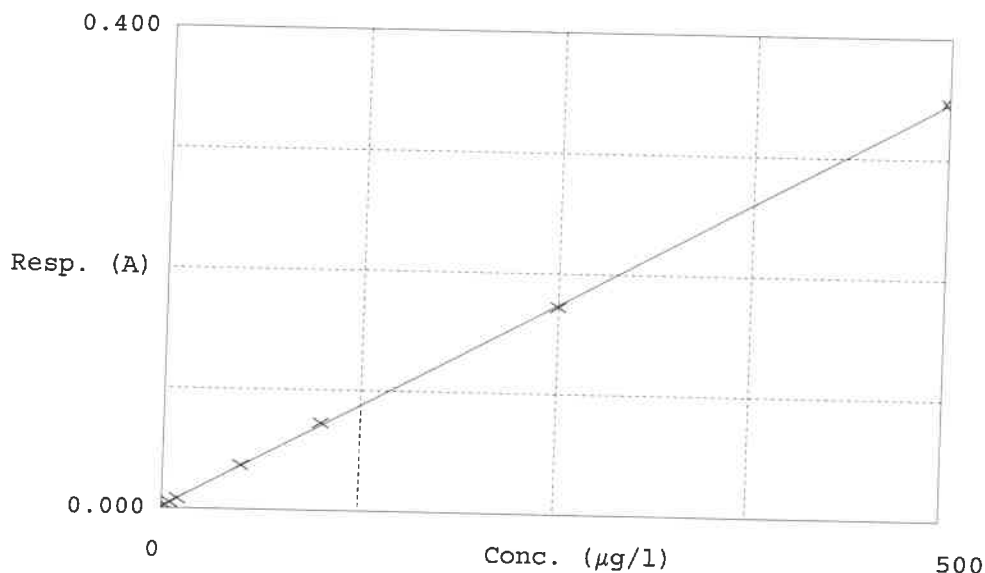
Test Total CN

Accepted 12/19/2024 11:28

Factor 1453
Bias 0.002

Coeff. of det. 0.999926

Errors



	Calibrator	Response	Calc. con.	Conc.	Re Errors
1	0.0PPBCN	0.001	-0.6831	0.0000	
2	5.0PPBCN	0.005	4.7232	5.0000	-5.5
3	10PPBCN	0.008	9.3738	10.0000	-6.3
4	50PPBCN	0.037	50.6342	50.0000	1.3
5	100PPBCN	0.072	102.7678	100.0000	2.8
6	250PPBCN	0.172	247.5715	250.0000	-1.0
7	500PPBCN	0.346	500.6126	500.0000	0.1

NF
12.19.2024

SOP ID : M9030B-Sulfide-12

SDG No : N/A

Matrix : WATER

Pipette ID : WC

Balance ID : N/A

Hood ID : HOOD#1

Block ID : MC-1

Weigh By : N/A

Start Digest Date: 12/17/2024 Time : 09:00 Temp : N/A

End Digest Date: 12/17/2024 Time : 10:30 Temp : N/A

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : N/A

Prep Technician Signature: RM

Supervisor Signature: RZ

Standard Name	MLS USED	STD REF. # FROM LOG
PBW	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.5M ZINC ACETATE	5.0ML	WP111004
FORMALDEHYDE	2.0ML	W2725
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

N/A

12/17/2024
RM

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P5291-13	WC-20241213	50	50	N/A	N/A	N/A	N/A	N/A	N/A
P5291-13DUP	WC-20241213DUP	50	50	N/A	N/A	N/A	N/A	N/A	N/A
PB165672BL	PBW672	50	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : RSUL-W-1217

WorkList ID : 186395

Department : Distillation

Date : 12-17-2024 08:29:37

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5291-13	WC-20241213	Water	Reactive Sulfide	Cool 4 deg C	PARS02	L51	12/13/2024	9034

Date/Time 12/17/2024 08:135
 Raw Sample Received by: RM cwg
 Raw Sample Relinquished by: H(cwg)

Date/Time 12/17/2024 09:15
 Raw Sample Received by: H(100)
 Raw Sample Relinquished by: RM cwg

SOP ID : M9012B-Total, Amenable and Reactive Cyanide-20

SDG No : N/A

Start Digest Date: 12/19/2024 Time : 09:00 Temp : N/A

Matrix : WATER

End Digest Date: 12/19/2024 Time : 10:30 Temp : N/A

Pipette ID : N/A

Balance ID : N/A

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : N/A

Block ID : MC-2

Filter paper ID : N/A

Prep Technician Signature: *NP*

Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature: *12*

Standard Name	MLS USED	STD REF. # FROM LOG
PBW	50ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50ML	WP108640
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Comment

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12-19-2024, 10:45	<i>NP (WC)</i>	<i>NFLWC</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P5291-13	WC-20241213	50	50	N/A	N/A	N/A	N/A	N/A	N/A
P5291-13DUP	WC-20241213DUP	50	50	N/A	N/A	N/A	N/A	N/A	N/A
P5341-01	STORMWATER-AQ-COMP	50	50	N/A	N/A	N/A	N/A	N/A	N/A
P5341-03	TOTE-425	50	50	N/A	N/A	N/A	N/A	N/A	N/A
P5343-06	PUMP-WATER-271	50	50	N/A	N/A	N/A	N/A	N/A	N/A
PB165745BL	PBW745	50	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : RCN W-12192024 WorkList ID : 186467 Department : Distillation Date : 12-19-2024 08:34:10

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5291-13	WC-20241213	Water	Reactive Cyanide	Cool 4 deg C	PARS02	L51	12/13/2024	9012B
P5341-01	STORMWATER-AQ-COMP	Water	Reactive Cyanide	Cool 4 deg C	PSEG03	N12	12/18/2024	9012B
P5341-03	TOTE-425	Water	Reactive Cyanide	Cool 4 deg C	PSEG03	N12	12/18/2024	9012B
P5343-06	PUMP-WATER-271	Water	Reactive Cyanide	Cool 4 deg C	PSEG03	N12	12/18/2024	9012B

Date/Time 12-19-2024 08:40
Raw Sample Received by: NFWCS
Raw Sample Relinquished by: RM SM

Date/Time 12-19-2024 10:00
Raw Sample Received by: RM SM
Raw Sample Relinquished by: NFWCS

Instrument ID: IGN-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133954

Review By	rubina	Review On	12/16/2024 2:21:17 PM
Supervise By	Iwona	Supervise On	12/16/2024 2:21:27 PM
SubDirectory	LB133954	Test	Flash Point
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	W3157		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	ICV	ICV	ICV	12/16/24 10:00			OK
2	P5286-01	120424-COMP	SAM	12/16/24 10:30			OK
3	P5286-01DUP	120424-COMPDUP	DUP	12/16/24 11:00			OK
4	P5287-05	220-2-TRANS-WATER	SAM	12/16/24 11:30			OK
5	P5291-13	WC-20241213	SAM	12/16/24 12:00			OK

Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133961

Review By	jignesh	Review On	12/16/2024 12:42:43 PM
Supervise By	Iwona	Supervise On	12/16/2024 12:49:24 PM
SubDirectory	LB133961	Test	pH
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	W3107,W3093,W3094,W3071,W3005,W3072		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	12/16/24 09:00		jignesh	OK
2	CAL2	CAL2	CAL	12/16/24 09:01		jignesh	OK
3	CAL3	CAL3	CAL	12/16/24 09:05		jignesh	OK
4	ICV	ICV	ICV	12/16/24 09:11		jignesh	OK
5	CCV1	CCV1	CCV	12/16/24 09:15		jignesh	OK
6	P5283-02	TT-RW10A-IDWGW-2	SAM	12/16/24 09:25		jignesh	OK
7	P5286-01	120424-COMP	SAM	12/16/24 09:35		jignesh	OK
8	P5286-02	34850	SAM	12/16/24 09:44		jignesh	OK
9	P5286-03	34851	SAM	12/16/24 09:47		jignesh	OK
10	P5286-04	34852	SAM	12/16/24 09:55		jignesh	OK
11	P5286-05	34853	SAM	12/16/24 10:00		jignesh	OK
12	P5286-06	34854	SAM	12/16/24 10:05		jignesh	OK
13	P5287-05	220-2-TRANS-WATER	SAM	12/16/24 10:10		jignesh	OK
14	P5291-13	WC-20241213	SAM	12/16/24 10:15		jignesh	OK
15	P5291-13DUP	WC-20241213DUP	DUP	12/16/24 10:16		jignesh	OK
16	CCV2	CCV2	CCV	12/16/24 10:20		jignesh	OK

Instrument ID: IC-2

Daily Analysis Runlog For Sequence/QC Batch ID # LB133970

Review By	Niha	Review On	12/18/2024 11:02:10 AM
Supervise By	Iwona	Supervise On	12/18/2024 11:29:15 AM
SubDirectory	LB133970	Test	Sulfate
STD. NAME	STD REF.#		
ICAL Standard	WP110752,WP110753,WP110754,WP110755,WP110756,WP110757,WP110758		
ICV Standard	WP110759		
CCV Standard	WP111114		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111115		
Chk Standard	WP110760,WP110761		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	STD1	STD1	CAL1	11/18/24 11:24	All standards, samples, and	NF/IZ	OK
2	STD2	STD2	CAL2	11/18/24 11:46	QC are filtered through	NF/IZ	OK
3	STD3	STD3	CAL3	11/18/24 12:07	0.45um, filter lot W3160	NF/IZ	OK
4	STD4	STD4	CAL4	11/18/24 12:29		NF/IZ	OK
5	STD5	STD5	CAL5	11/18/24 12:50		NF/IZ	OK
6	STD6	STD6	CAL6	11/18/24 13:11		NF/IZ	OK
7	STD7	STD7	CAL7	11/18/24 13:33		NF/IZ	OK
8	ICV1	ICV1	ICV	11/18/24 13:54		NF/IZ	OK
9	ICB1	ICB1	ICB	11/18/24 14:16		NF/IZ	OK
10	CCV1	CCV1	CCV	12/16/24 12:15		NF/IZ	OK
11	CCB1	CCB1	CCB	12/16/24 12:37		NF/IZ	OK
12	LB133970BLW	LB133970BLW	MB	12/16/24 12:58		NF/IZ	OK
13	LB133970BSW	LB133970BSW	LCS	12/16/24 13:20		NF/IZ	OK
14	P5291-01	MW1A-20241213	SAM	12/16/24 13:42		NF/IZ	OK
15	P5291-02	MW10D-20241213	SAM	12/16/24 14:03		NF/IZ	OK
16	P5291-03	MW4-20241213	SAM	12/16/24 14:25		NF/IZ	OK
17	P5291-04	MW5-20241213	SAM	12/16/24 14:46		NF/IZ	OK
18	P5291-05	MW2-20241213	SAM	12/16/24 15:08		NF/IZ	OK

Instrument ID: IC-2

Daily Analysis Runlog For Sequence/QC Batch ID # LB133970

Review By	Niha	Review On	12/18/2024 11:02:10 AM
Supervise By	Iwona	Supervise On	12/18/2024 11:29:15 AM
SubDirectory	LB133970	Test	Sulfate
STD. NAME	STD REF.#		
ICAL Standard	WP110752,WP110753,WP110754,WP110755,WP110756,WP110757,WP110758		
ICV Standard	WP110759		
CCV Standard	WP111114		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111115		
Chk Standard	WP110760,WP110761		

19	P5291-06	MW3-20241213	SAM	12/16/24 15:29		NF/IZ	OK
20	P5291-07	MW6-20241213	SAM	12/16/24 15:51		NF/IZ	OK
21	P5291-08	MW6-20241213MS	MS	12/16/24 16:12	9.5ml of sample, 0.5mL W3091	NF/IZ	OK
22	CCV2	CCV2	CCV	12/16/24 16:34		NF/IZ	OK
23	CCB2	CCB2	CCB	12/16/24 16:55		NF/IZ	OK
24	P5291-09	MW6-20241213MSD	MSD	12/16/24 17:17	9.5ml of sample, 0.5mL W3091	NF/IZ	OK
25	P5291-10	MW6-20241213-A	SAM	12/16/24 17:38	SO4 high	NF/IZ	Dilution
26	P5291-11	EQUIP-BLANK-20241	SAM	12/16/24 18:00		NF/IZ	OK
27	CCV3	CCV3	CCV	12/16/24 18:21		NF/IZ	OK
28	CCB3	CCB3	CCB	12/16/24 18:43		NF/IZ	OK
29	CCV4	CCV4	CCV	12/17/24 09:51		NF/IZ	OK
30	CCB4	CCB4	CCB	12/17/24 10:12		NF/IZ	OK
31	LB133970BLW2	LB133970BLW2	MB	12/17/24 10:34		NF/IZ	OK
32	LB133970BSW2	LB133970BSW2	LCS	12/17/24 10:55		NF/IZ	OK
33	P5291-10DL	MW6-20241213-ADL	SAM	12/17/24 11:17	2X for SO4	NF/IZ	Confirms
34	CCV5	CCV5	CCV	12/17/24 11:38		NF/IZ	OK
35	CCB5	CCB5	CCB	12/17/24 12:00		NF/IZ	OK

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB133974

Review By	Niha	Review On	12/18/2024 1:58:43 PM
Supervise By	Iwona	Supervise On	12/18/2024 2:20:42 PM
SubDirectory	LB133974	Test	TDS
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB133974BL	LB133974BL	MB	12/16/24 12:30		Niha	OK
2	LB133974BS	LB133974BS	LCS	12/16/24 12:30		Niha	OK
3	P5270-01	MW8-20241211	SAM	12/16/24 12:30		Niha	OK
4	P5270-03	MW15-20241211	SAM	12/16/24 12:30		Niha	OK
5	P5270-04	MW17-20241211	SAM	12/16/24 12:30		Niha	OK
6	P5270-05	MW9-20241212	SAM	12/16/24 12:30		Niha	OK
7	P5270-09	MW16D-20241212	SAM	12/16/24 12:30		Niha	OK
8	P5291-01	MW1A-20241213	SAM	12/16/24 12:30		Niha	OK
9	P5291-02	MW10D-20241213	SAM	12/16/24 12:30		Niha	OK
10	P5291-03	MW4-20241213	SAM	12/16/24 12:30		Niha	OK
11	P5291-04	MW5-20241213	SAM	12/16/24 12:30		Niha	OK
12	P5291-05	MW2-20241213	SAM	12/16/24 12:30		Niha	OK
13	P5291-06	MW3-20241213	SAM	12/16/24 12:30		Niha	OK
14	P5291-06DUP	MW3-20241213DUP	DUP	12/16/24 12:30		Niha	OK
15	P5291-07	MW6-20241213	SAM	12/16/24 12:30		Niha	OK
16	P5291-10	MW6-20241213-A	SAM	12/16/24 12:30		Niha	OK
17	P5291-11	EQUIP-BLANK-20241	SAM	12/16/24 12:30		Niha	OK



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: TITRAMETRIC

Daily Analysis Runlog For Sequence/QC Batch ID # LB133983

Review By	rubina	Review On	12/17/2024 4:27:39 PM
Supervise By	Iwona	Supervise On	12/17/2024 4:29:13 PM
SubDirectory	LB133983	Test	Reactive Sulfide
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	W3105,W3114,W3149		

Sr#	SampleID	ClientID	QcType	Date	Comment	Operator	Status
1	PB165672BL	PB165672BL	MB	12/17/24 11:20		rubina	OK
2	P5291-13	WC-20241213	SAM	12/17/24 11:23		rubina	OK
3	P5291-13DUP	WC-20241213DUP	DUP	12/17/24 11:26		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134015

Review By	Niha	Review On	12/20/2024 12:39:40 PM
Supervise By		Supervise On	
SubDirectory	LB134015	Test	Reactive Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP111150,WP111151,WP111152,WP111153,WP111154,WP111155,WP111156		
ICV Standard	WP111157		
CCV Standard	WP111151		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP111035,WP110103,WP111158		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	12/19/24 11:28		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	12/19/24 11:28		Niha	OK
3	10PPBCN	10PPBCN	CAL3	12/19/24 11:28		Niha	OK
4	50PPBCN	50PPBCN	CAL4	12/19/24 11:28		Niha	OK
5	100PPBCN	100PPBCN	CAL5	12/19/24 11:28		Niha	OK
6	250PPBCN	250PPBCN	CAL6	12/19/24 11:28		Niha	OK
7	500PPBCN	500PPBCN	CAL7	12/19/24 11:28		Niha	OK
8	ICV1	ICV1	ICV	12/19/24 12:02		Niha	OK
9	ICB1	ICB1	ICB	12/19/24 12:02		Niha	OK
10	CCV1	CCV1	CCV	12/19/24 12:02		Niha	OK
11	CCB1	CCB1	CCB	12/19/24 12:02		Niha	OK
12	PB165745BL	PB165745BL	MB	12/19/24 12:02		Niha	OK
13	P5291-13	WC-20241213	SAM	12/19/24 12:02		Niha	OK
14	P5291-13DUP	WC-20241213DUP	DUP	12/19/24 12:10		Niha	OK
15	P5341-01	STORMWATER-AQ-C	SAM	12/19/24 12:10		Niha	OK
16	P5341-03	TOTE-425	SAM	12/19/24 12:10		Niha	OK
17	P5343-06	PUMP-WATER-271	SAM	12/19/24 12:10		Niha	OK
18	PB165742BL	PB165742BL	MB	12/19/24 12:10		Niha	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134015

Review By	Niha	Review On	12/20/2024 12:39:40 PM
Supervise By		Supervise On	
SubDirectory	LB134015	Test	Reactive Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP111150,WP111151,WP111152,WP111153,WP111154,WP111155,WP111156		
ICV Standard	WP111157		
CCV Standard	WP111151		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP111035,WP110103,WP111158		

19	P5279-02	ROCKAWAY-PARK	SAM	12/19/24 12:10		Niha	OK
20	P5279-02DUP	ROCKAWAY-PARKDU	DUP	12/19/24 12:10		Niha	OK
21	P5330-04	TP-5	SAM	12/19/24 12:10		Niha	OK
22	CCV2	CCV2	CCV	12/19/24 12:10		Niha	OK
23	CCB2	CCB2	CCB	12/19/24 12:15		Niha	OK
24	P5341-02	STORMWATER-SOLI	SAM	12/19/24 12:15		Niha	OK
25	P5343-05	OILY-RAGS-274	SAM	12/19/24 12:15		Niha	OK
26	CCV3	CCV3	CCV	12/19/24 12:16		Niha	OK
27	CCB3	CCB3	CCB	12/19/24 12:16		Niha	OK

Prep Standard - Chemical Standard Summary

Order ID : P5291

Test : Flash Point,pH,Reactive Cyanide,Reactive Sulfide,Sulfate,TDS

Prepbatch ID : PB165672,PB165745,

Sequence ID/Qc Batch ID: LB133954,LB133961,LB133970,LB133974,LB133983,LB134015,

Standard ID :

WP108640,WP109549,WP110103,WP110259,WP110752,WP110753,WP110754,WP110755,WP110756,WP110757,W
P110758,WP110759,WP110760,WP110761,WP111004,WP111035,WP111114,WP111115,WP111149,WP111150,WP111
151,WP111152,WP111153,WP111154,WP111155,WP111156,WP111157,WP111158,

Chemical ID :

E3657,M5673,M6121,W2647,W2668,W2725,W2882,W2926,W3005,W3019,W3058,W3062,W3063,W3071,W3072,W30
93,W3094,W3105,W3107,W3112,W3114,W3138,W3139,W3149,W3154,W3157,



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
11	Sodium hydroxide absorbing solution 0.25 N	WP108640	07/05/2024	01/05/2025	Rubina Mughal	WETCHEM_S CALE_4 (WC SC-4)	None	Iwona Zarych 07/08/2024
<u>FROM</u> 21.00000L of W3112 + 210.00000gram of E3657 = Final Quantity: 21.000 L								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3371	Cyanide LCS Spike Solution, 5PPM	WP109549	09/06/2024	01/05/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3	Iwona Zarych
FROM 1.00000ml of W3138 + 199.00000ml of WP108640 = Final Quantity: 200.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
539	CN BUFFER	WP110103	10/08/2024	04/08/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 10/08/2024
<u>FROM</u> 138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4035	IC ELUENT CONCENTRATE FOR IC-1	WP110259	10/16/2024	04/16/2025	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 10/17/2024
<u>FROM</u> 2.10000gram of W2647 + 84.75000gram of W3058 + 913.15000ml of W3112 = Final Quantity: 1000.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2487	Anions 300/9056 calibration standard 1	WP110752	11/18/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/19/2024

FROM 10.00000ml of W3112 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
24	Anions 300/9056 calibration standard 2	WP110753	11/18/2024	11/19/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 11/19/2024

FROM 0.20000ml of W3063 + 9.80000ml of W3112 = Final Quantity: 10.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
25	Anions 300/9056 calibration standard 3	WP110754	11/18/2024	11/19/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/19/2024
<u>FROM</u> 0.40000ml of W3063 + 9.60000ml of W3112 = Final Quantity: 10.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
26	Anions 300/9056 calibration standard 4	WP110755	11/18/2024	11/19/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 11/19/2024
<u>FROM</u> 0.50000ml of W3063 + 9.50000ml of W3112 = Final Quantity: 10.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3680	Anions 300/9056 calibration standard 5-CCV	WP110756	11/18/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/19/2024

FROM 45.00000ml of W3112 + 5.00000ml of W3063 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3679	Anions 300/9056 calibration standard 6	WP110757	11/18/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/19/2024

FROM 2.00000ml of W3063 + 8.00000ml of W3112 = Final Quantity: 10.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3681	Anions 300/9056 calibration standard 7	WP110758	11/18/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/19/2024

FROM 2.50000ml of W3063 + 7.50000ml of W3112 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3233	Anions 300/9056 ICV-LCS std	WP110759	11/18/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/19/2024

FROM 45.00000ml of W3112 + 5.00000ml of W3062 = Final Quantity: 50.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4036	IC ELUENT FOR IC-1	WP110760	11/18/2024	12/18/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								11/19/2024

FROM 1980.00000ml of W3112 + 20.00000ml of WP110259 = Final Quantity: 2000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4037	IC H2SO4 FOR IC-1	WP110761	11/18/2024	12/18/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								11/19/2024

FROM 5.60000ml of M5673 + 994.40000ml of W3112 = Final Quantity: 1000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
160	0.5M ZINC ACETATE	WP111004	12/09/2024	05/13/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC-7)	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/09/2024
<u>FROM</u>	0.88900L of W3112 + 1.00000ml of M6121 + 110.00000gram of W2926 = Final Quantity: 1000.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
607	PYRIDINE-BARBITURIC ACID	WP111035	12/09/2024	04/30/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCS-5)	Glass Pipette-A	Iwona Zarych 12/10/2024
<u>FROM</u>	145.00000ml of W3112 + 15.00000gram of W2882 + 15.00000ml of M6121 + 75.00000ml of W3019 = Final Quantity: 250.000 ml							

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3680	Anions 300/9056 calibration standard 5-CCV	WP11114	12/17/2024	12/18/2024	Niha Farheen Shaik	None	None	Iwona Zarych 12/18/2024

FROM 45.00000ml of W3112 + 5.00000ml of W3063 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3233	Anions 300/9056 ICV-LCS std	WP11115	12/17/2024	12/18/2024	Niha Farheen Shaik	None	None	Iwona Zarych 12/18/2024

FROM 45.00000ml of W3112 + 5.00000ml of W3062 = Final Quantity: 50.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3456	Cyanide Intermediate Working Std, 5PPM	WP111149	12/19/2024	12/20/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 12/20/2024

FROM 0.25000ml of W3154 + 49.75000ml of WP108640 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4	Calibration standard 500 ppb	WP111150	12/19/2024	12/20/2024	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/20/2024

FROM 45.00000ml of WP108640 + 5.00000ml of WP111149 = Final Quantity: 50.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3761	Calibration-CCV CN Standard 250 ppb	WP111151	12/19/2024	12/20/2024	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/20/2024

FROM 2.50000ml of WP111149 + 47.50000ml of WP108640 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
6	Calibration Standard 100 ppb	WP111152	12/19/2024	12/20/2024	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/20/2024

FROM 1.00000ml of WP111149 + 49.00000ml of WP108640 = Final Quantity: 50.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
7	Calibration Standard 50 ppb	WP111153	12/19/2024	12/20/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 12/20/2024
<u>FROM</u>	0.50000ml of WP111149 + 49.50000ml of WP108640 = Final Quantity: 50.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
8	Calibration Standard 10 ppb	WP111154	12/19/2024	12/20/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 12/20/2024
<u>FROM</u>	1.00000ml of WP111150 + 49.00000ml of WP108640 = Final Quantity: 50.000 ml							

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
9	Calibration Standard 5 ppb	WP111155	12/19/2024	12/20/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 12/20/2024

FROM 0.50000ml of WP111150 + 49.50000ml of WP108640 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
167	0 ppb CN calibration std	WP111156	12/19/2024	12/20/2024	Niha Farheen Shaik	None	None	Iwona Zarych 12/20/2024

FROM 50.00000ml of WP108640 = Final Quantity: 50.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2168	RCN ICV STD, 100 PPB	WP111157	12/19/2024	12/20/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								12/20/2024

FROM 1.00000ml of WP109549 + 49.00000ml of WP108640 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1582	Chloramine T solution, 0.014M	WP111158	12/19/2024	12/20/2024	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych
								12/20/2024

FROM 0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 ml

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4	23B1556310	12/31/2025	12/04/2023 / Rajesh	12/01/2023 / Rajesh	E3657

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	09/21/2023 / mohan	09/05/2023 / mohan	M5673

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3506-5 / SODIUM BICARBONATE, PWD, ACS, 2.5KG	0000240594	06/03/2026	02/24/2020 / AMANDEEP	01/20/2020 / apatel	W2647

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3818-5 / SODIUM PHOSPHATE, MONOBAS/HYD, CRYST, ACS, 2.5 KG	0000225799	12/03/2025	04/05/2021 / Alexander	02/10/2020 / apatel	W2668

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EMD-FX0410-5 / FORMALDEHYDE SOLUTION 450ML	60045	06/22/2025	08/19/2024 / lwona	06/22/2020 / apatel	W2725

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-BX0035-3 / Barbituric Acid, 100 gms	1.00132.0100	04/30/2025	12/07/2021 /	11/30/2021 / apatel	W2882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J4296-1 / ZINC ACETATE,DIHYD,CRYST,AC S,500G	383058	07/05/2027	07/05/2022 / ketankumar	07/05/2022 / ketankumar	W2926

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL13850-1 / Buffer Solution, PH2 (500ml)	4212E45	12/31/2024	01/31/2023 / lwona	01/31/2023 / lwona	W3005

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
SIGMA ALDRICH	270970-1L / Pyridine 1L	SHBQ2113	04/03/2028	04/03/2023 / lwona	04/03/2023 / lwona	W3019

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-SX0395-3 / SODIUM CARBONATE ANHYDR 2.5KG	2023012653	10/19/2028	09/03/2024 / jignesh	10/19/2023 / lwona	W3058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	300-CAL-A-500ML / 300.0 Calibration Standard, 500 ml	T2-MEB716667	02/12/2025	02/12/2024 / lwona	10/30/2023 / lwona	W3062

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	300-CAL-A-500ML / 300.0 Calibration Standard, 500 ml	U2-MEB735684	04/09/2025	04/09/2024 / lwona	11/16/2023 / lwona	W3063

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14455-3 / buffer solution pH 7 yellow	4308H30	07/31/2025	01/02/2024 / JIGNESH	12/06/2023 / lwona	W3071

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14940-1 / Buffer Solution, PH12 (500ml)	2310P21	04/30/2025	01/02/2024 / JIGNESH	12/07/2023 / lwona	W3072

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	566002 / BUFFER PH 7.00 GREEN 1PINT PK6	44001f99	12/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3093

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1601-1 / PH 10.01 BUFFER,COLOR CD 475ML	4310g83	03/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3094

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL69870-8 / SODIUM THIOSULFATE,0.025N,4LIT RE	4403S13	09/30/2025	04/22/2024 / lwona	04/22/2024 / lwona	W3105

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14055-3 / PH 4 BUFFER SOLUTION	AL14055-3	02/27/2026	09/05/2024 / jignesh	05/13/2024 / jignesh	W3107

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / lwona	07/03/2024 / lwona	W3112

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL35830-4 / IODINE SOLUTION .025N 1L	2405D89	05/31/2025	07/10/2024 / lwona	07/10/2024 / lwona	W3114

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	LC135457 / Cyanide Standard, 1000 PPM, Second Source	44080060	01/30/2025	09/06/2024 / lwona	08/28/2024 / lwona	W3138

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	JTE494-6 / CHLORAMINE-T BAKER 250GM	10239484	09/09/2029	09/09/2024 / lwona	09/09/2024 / lwona	W3139

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL70850-8 / Starch Solution, 4L	4408P62	08/31/2026	10/16/2024 / lwona	10/16/2024 / lwona	W3149

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	RC2543-4 / CYANIDE STD 1000PPM 4OZ	1411J58	05/31/2025	12/02/2024 / Iwona	12/02/2024 / Iwona	W3154

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	TCX0014-500ML / p-xylene	BWDZJ	12/06/2029	/	12/06/2024 / Iwona	W3157

Sodium Bicarbonate, Powder
BAKER ANALYZED® A.C.S. Reagent

(sodium hydrogen carbonate)



Material No.: 3506-05
Batch No.: 0000240594
Manufactured Date: 2019/06/05
Retest Date: 2026/06/03
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay (NaHCO ₃) (dried basis)	99.7 – 100.3 %	100.1
Insoluble Matter	<= 0.015 %	< 0.002
Chloride (Cl)	<= 0.003 %	0.003
Phosphate (PO ₄)	<= 0.001 %	0.001
Sulfur Compounds (as SO ₄)	<= 0.003 %	0.003
Calcium (Ca)	<= 0.02 %	0.02
Trace Impurities – Iron (Fe)	<= 0.001 %	0.001
Magnesium (Mg)	<= 0.005 %	0.005
Potassium (K)	<= 0.005 %	0.005
Ammonium (NH ₄)	<= 5 ppm	5
Trace Impurities – ACS – Heavy Metals (as Pb)	<= 5 ppm	5

For Laboratory, Research or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US
Packaging Site: Paris Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700


W3071
Rec 12/6/23

Certificate of Analysis 12

Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)

Lot Number: 4308H30

Product Number: 1551

Manufacture Date: AUG 09, 2023

Expiration Date: JUL 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	0	5	10	15	20	25	30	35	40	45	50
pH	7.12	7.09	7.06	7.04	7.02	7.00	6.99	6.98	6.98	6.97	6.97

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Phosphate Dibasic	7558-79-4	ACS
Potassium Dihydrogen Phosphate	7778-77-0	ACS
Preservative	Proprietary	
Yellow Dye	Proprietary	
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result
Appearance	Yellow liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	7.002	0.02	186-I-g, 186-II-g, 191d

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer A	ASTM (D 5464)
Buffer A	ASTM (D 5128)

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1551-2.5	10 L Cubitainer®	24 months
1551-5	20 L Cubitainer®	24 months

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



Paul Brandon (08/09/2023)

Production Manager

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

This product was tested in an ISO 17025 Accredited Laboratory

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

W3019
rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Pyridine - anhydrous, 99.8%

Product Number:

270970

Batch Number:

SHBQ2113

Brand:

SIAL

CAS Number:

110-86-1

MDL Number:

MFCD00011732

Formula:

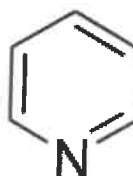
C₅H₅N

Formula Weight:

79.10 g/mol

Quality Release Date:

15 DEC 2022



Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Purity (GC)	≥ 99.75 %	99.99 %
Water (by Karl Fischer)	≤ 0.003 %	0.002 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %


Larry Coers, Director
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



Certificate Of Analysis



W 3058

Re. 10/19/23 12

Date of Release: 1/27/2023

Name: **Sodium Carbonate, Anhydrous**

Powder, ACS

Item No: **SX0395 All Sizes**

Lot / Batch No: **2023012653**

Country of Origin: **India**

Item	Specifications	Analysis
Assay (calculated on dried substance)	99.5% min.	100.2%
Calcium (Ca)	0.03% max.	0.004%
Chloride (Cl)	0.001% max.	<0.001%
Color	White	Passes Test
Form	Powder	Passes Test
Heavy metals (by ICP-OES)	5 ppm max.	<5 ppm
Insoluble Matter	0.01% max.	0.003%
Iron (Fe)	5 ppm max.	<5 ppm
Loss on heating at 285C	1.0% max.	0.1%
Magnesium (Mg)	0.005% max.	0.0008%
Phosphate (PO ₄)	0.001% max.	<0.001%
Potassium (K)	0.005% max.	0.003%
Silica (SiO ₂)	0.005% max.	<0.005%
Sulfur compounds (as SO ₄)	0.003% max.	<0.003%

Joe Schoellkopf

Quality Control Manager

This document has been produced electronically and is valid without a signature.

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany

EMD Millipore Corporation

400 Summit Drive
Burlington, MA 01803
U.S.A.

Form number: 00005624CA, Rev. 2.0

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030

F: 540-585-3012

info@inorganicventures.com

N 3062

rec on 10/30/23
12

1.0 ACCREDITATION / REGISTRATION

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



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Ion Chromatography Solution
Catalog Number: 300-CAL-A
Lot Number: T2-MEB716667
Matrix: H2O
Value / Analyte(s):
150 µg/mL ea:
Sulfate,
100 µg/mL ea:
Bromide,
50 µg/mL ea:
o-Phosphate as P,
30 µg/mL ea:
Chloride, Nitrite as N,
25 µg/mL ea:
Nitrate as N,
20 µg/mL ea:
Fluoride

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Bromide, Br	100.0 ± 0.5 µg/mL	Chloride, Cl	30.00 ± 0.13 µg/mL
Fluoride, F-	20.00 ± 0.06 µg/mL	Nitrate as N, NNO3-	25.00 ± 0.09 µg/mL
Nitrite as N, NNO2-	30.00 ± 0.15 µg/mL	o-Phosphate as P, PPO4	50.00 ± 0.30 µg/mL
Sulfate, SO4	150.0 ± 0.9 µg/mL		

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Br	IC Assay	3184	151130
Br	Fajans	999c	999c
Cl	IC Assay	3182	060925
Cl	Fajans	999c	999c
Cl	Calculated		See Sec. 4.2
F-	IC Assay	3183	140203
NNO3-	IC Assay	3185	050517
NNO2-	IC Assay		traceable to 40h
PPO4	IC Assay	3186	170606
SO4	IC Assay	3181	080603

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

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

Characterization of CRM/RM by Two or More Methods

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

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

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

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

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

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

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

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

X_a = mean of Assay Method A with

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

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

5.0 CHROMATOGRAM

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 17, 2022

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

11.2 Lot Expiration Date

- **March 17, 2027**

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

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

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

W3063
rec. 11/16/23 12

1.0 ACCREDITATION / REGISTRATION

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



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Ion Chromatography Solution
Catalog Number: 300-CAL-A
Lot Number: U2-MEB735684
Matrix: H2O
Value / Analyte(s):
150 µg/mL ea:
Sulfate,
100 µg/mL ea:
Bromide,
50 µg/mL ea:
o-Phosphate as P,
30 µg/mL ea:
Chloride, Nitrite as N,
25 µg/mL ea:
Nitrate as N,
20 µg/mL ea:
Fluoride

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Bromide, Br	100.0 ± 0.5 µg/mL	Chloride, Cl	30.00 ± 0.14 µg/mL
Fluoride, F-	20.00 ± 0.06 µg/mL	Nitrate as N, NO_3^-	25.00 ± 0.09 µg/mL
Nitrite as N, NO_2^-	30.00 ± 0.15 µg/mL	o-Phosphate as P, PO_4	50.00 ± 0.18 µg/mL
Sulfate, SO_4	150.0 ± 0.8 µg/mL		

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Br	IC Assay	3184	151130
Br	Fajans	999c	999c
Cl	IC Assay	3182	190830
Cl	Fajans	999c	999c
F-	IC Assay	3183	140203
NNO3-	IC Assay	3185	170309
NNO2-	IC Assay		traceable to 40h
PPO4	IC Assay	3186	170606
SO4	IC Assay	3181	080603

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

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

Characterization of CRM/RM by Two or More Methods

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

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

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

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

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

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

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

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

X_a = mean of Assay Method A with

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

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

5.0 CHROMATOGRAM

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 10, 2023

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

11.2 Lot Expiration Date

- **August 10, 2028**

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

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

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

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

12.0

NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Nicholas Plymale
Custom VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



**RICCA CHEMICAL COMPANY®**

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Pocomoke City, MD 21851
<http://www.riccachemical.com>
1-888-GO-RICCA
customerservice@riccachemical.com

W 3072
REC. 12/01/23
12

Certificate of Analysis

Buffer, Reference Standard, pH 12.00 ± 0.01 at 25°C

Lot Number: 2310P21

Product Number: 1615

Manufacture Date: OCT 24, 2023

Expiration Date: APR 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

°C	15	20	25	30	35	40
pH	12.35	12.17	11.99	11.78	11.62	11.46

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Chloride	7447-40-7	ACS
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result
Appearance	Colorless liquid	Passed

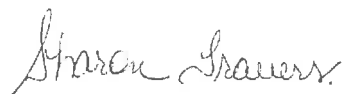
*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	12.005	0.02	186-I-g, 186-II-g, 191d

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1615-1	4 L natural poly	18 months
1615-16	500 mL clear PET-G	18 months
1615-32	1 L natural poly	18 months
1615-5	20 L Cubitainer®	18 months

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



Sharon Travers (10/24/2023)

Operations Manager

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

This product was tested in an ISO 17025 Accredited Laboratory

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.



Certificate of Analysis

Date of Release: 2/26/2020

Name: Formaldehyde Solution
GR ACS
Meets ACS Specifications

Item No: FX0410 all size codes

Lot / Batch No: 60045

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Assay	36.5	38.0	36.71	%
Chloride (Cl)		5	<5	ppm
Color (APHA)		10	<10	
Form			Passes test	
Heavy metals (as Pb)		5	<5	ppm
Iron (Fe)		5	0.6	ppm
Residue after ignition		0.005	<0.0050	%
Sulfate (SO ₄)		0.002	<0.0020	%
Titrate acid		0.006	<0.0060	meq/g

Heather Sinn,

Quality Control Manager

This document has been produced electronically and is valid without a signature.

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
290 Concord Road
Billerica, MA 01821
U.S.A

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.



Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: 0583
Grade: ACS GRADE
Batch Number: 23B1556310

Chemical Formula: NaOH
Molecular Weight: 40
CAS #: 1310-73-2
Appearance:

Manufacture Date: 12/14/2022
Expiration Date: 12/31/2025

Storage: Room Temperature

Pellets

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Calcium	$\leq 0.005 \%$	$< 0.005 \%$	PASS
Chloride	$\leq 0.005 \%$	0.002 %	PASS
Heavy Metals	$\leq 0.002 \%$	$< 0.002 \%$	PASS
Iron	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Magnesium	$\leq 0.002 \%$	$< 0.002 \%$	PASS
Mercury	$\leq 0.1 \text{ ppm}$	$< 0.1 \text{ ppm}$	PASS
Nickel	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Nitrogen Compounds	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Phosphate	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Potassium	$\leq 0.02 \%$	$< 0.02 \%$	PASS
Purity	$\geq 97.0 \%$	99.2 %	PASS
Sodium Carbonate	$\leq 1.0 \%$	0.5 %	PASS
Sulfate	$\leq 0.003 \%$	$< 0.003 \%$	PASS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

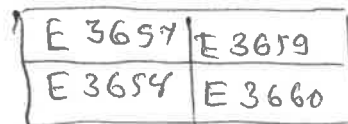
This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon
VWR Chemicals, LLC.
28600 Fountain Parkway, Solon OH 44139 USA

Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.



Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

 **avantor**™



Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H ₂ SO ₄)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO ₂)	≤ 2 ppm	< 2 ppm
Ammonium (NH ₄)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO ₃)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO ₄)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium



Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities – Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities – Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory, Research, or Manufacturing Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

A handwritten signature in cursive script that reads 'James Ethier'.
Jamie Ethier
Vice President Global Quality

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™



R → 16/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	1
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	≤ 0.005 %	< 0.005
ACS – Extractable Organic Substances	≤ 5 ppm	1
ACS – Free Chlorine (as Cl ₂)	≤ 0.5 ppm	< 0.5
Phosphate (PO ₄)	≤ 0.05 ppm	< 0.03
Sulfate (SO ₄)	≤ 0.5 ppm	< 0.3
Sulfite (SO ₃)	≤ 0.8 ppm	0.3
Ammonium (NH ₄)	≤ 3 ppm	< 1
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	≤ 5 ppb	< 3
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 0.2
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	29.7
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	< 0.4
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

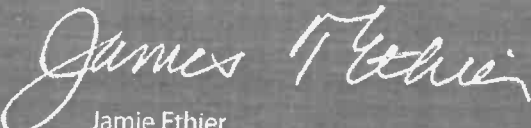
Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Test	Specification	Result
Trace Impurities – Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities – Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities – Iron (Fe)	<= 15.0 ppb	< 1
Trace Impurities – Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities – Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities – Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities – Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities – Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities – Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities – Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities – Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities – Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities – Selenium (Se), For Information Only	ppb	1.0
Trace Impurities – Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities – Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities – Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities – Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities – Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities – Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities – Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities – Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities – Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities – Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities – Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700



Certificate of Analysis

1.00132.0000 Barbituric acid for analysis EMSURE®
Batch N020065932

	Spec. Values		Batch Values	
Assay (acidimetric)	≥ 99	%	99.6	%
Identity (IR-spectrum)	passes test		passes test	
Chloride (Cl)	≤ 40	ppm	≤ 40	ppm
Heavy metals (as Pb)	≤ 50	ppm	≤ 50	ppm
Fe (Iron)	≤ 10	ppm	≤ 10	ppm
Sulfated ash	≤ 0.1	%	≤ 0.1	%
Loss on Drying (105 °C)	≤ 0.1	%	≤ 0.1	%
Suitability as reagent (for cyanide determination)	passes test		passes test	

Date of release (DD.MM.YYYY) 17.04.2020
Minimum shelf life (DD.MM.YYYY) 30.04.2025

Ioannis Chartomatsidis
Responsible laboratory manager quality control

This document has been produced electronically and is valid without a signature.

Sodium Phosphate, Monobasic, Monohydrate,
Crystal
BAKER ANALYZED® A.C.S. Reagent

(sodium dihydrogen phosphate, monohydrate)



Material No.: 3818-05
Batch No.: 0000225799
Manufactured Date: 2018/12/05
Retest Date: 2025/12/03
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$)	98.0 – 102.0 %	99.5
pH of 5% Solution at 25°C	4.1 – 4.5	4.3
Insoluble Matter	≤ 0.01 %	< 0.01
Chloride (Cl)	≤ 5 ppm	< 5
ACS – Sulfate (SO_4)	≤ 0.003 %	< 0.003
Calcium (Ca)	≤ 0.005 %	< 0.005
Potassium (K)	≤ 0.01 %	< 0.01
Heavy Metals (as Pb)	≤ 0.001 %	< 0.001
Trace Impurities – Iron (Fe)	≤ 0.001 %	< 0.001

For Laboratory, Research or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: IN
Packaging Site: Paris Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

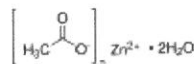
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Certificate of Analysis

Product Name:

Zinc acetate dihydrate - ACS reagent, $\geq 98\%$

Product Number: 383058
Batch Number: MKCQ9159
Brand: SIGALD
CAS Number: 5970-45-6
MDL Number: MFCD00066961
Formula: $C_4H_6O_4Zn \cdot 2H_2O$
Formula Weight: 219.51 g/mol
Quality Release Date: 06 JAN 2022



W2926
Open 7/5/22
received
on 7/5/22

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystal or Chunk(s)	Powder
Infrared Spectrum	Conforms to Structure	Conforms
Insoluble Matter	$\leq 0.005\%$	0.003 %
Calcium (Ca)	$\leq 0.005\%$	0.003 %
Chloride (Cl)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 5 ppm	< 5 ppm
Potassium (K)	$\leq 0.01\%$	0.00 %
Magnesium (Mg)	$\leq 0.005\%$	0.003 %
Sodium (Na)	$\leq 0.05\%$	0.03 %
Lead (Pb)	$\leq 0.002\%$	$< 0.001\%$
pH	6.0 - 7.0	6.1
Sulfate (SO ₄)	$\leq 0.005\%$	$< 0.005\%$
Complexometric EDTA	98.0 - 101.0 %	100.3 %
Meets ACS Requirements	Meets Requirements	Meets Requirements


Larry Coers, Director
Quality Control
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



**RICCA CHEMICAL COMPANY®**

W 3005

REC- 1/31/23

12

1490 Lammers Pike

Batesville, IN 47006

<http://www.riccachemical.com>

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customerservice@riccachemical.com

Certificate of Analysis

Buffer, Reference Standard, pH 2.00 ± 0.01 at 25°C**Lot Number: 4212E45****Product Number: 1493****Manufacture Date: DEC 20, 2022****Expiration Date: DEC 2024**

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	10	15	20	25	30	35	40	45	50
pH	1.93	1.98	1.98	2.00	2.01	2.03	2.03	2.04	2.04

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Chloride	7447-40-7	ACS
Hydrochloric Acid	7647-01-0	ACS

Test	Specification	Result
Appearance	Colorless liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	2.000	0.02	185i, 186-I-g, 186-II-g

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1493-1	4 L natural poly	24 months
1493-16	500 mL natural poly	24 months
1493-32	1 L natural poly	24 months
1493-5	20 L Cubitainer®	24 months

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



Paul Brandon (12/20/2022)

Production Manager

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

This product was tested in an ISO 17025 Accredited Laboratory

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Certificate of Analysis

W3093
004121
04/03/2024
16

Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)**Lot Number:** 4401F99**Product Number:** 1551**Manufacture Date:** JAN 08, 2024**Expiration Date:** DEC 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	0	5	10	15	20	25	30	35	40	45	50
pH	7.12	7.09	7.06	7.04	7.02	7.00	6.99	6.98	6.98	6.97	6.97

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Phosphate Dibasic	7558-79-4	ACS
Potassium Dihydrogen Phosphate	7778-77-0	ACS
Preservative	Proprietary	
Yellow Dye	Proprietary	
Sodium Hydroxide	1310-73-2	

Test	Specification	Result
Appearance	Yellow liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	7.004	0.02	186-I-g, 186-II-g, 191d

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer A	ASTM (D 5464)
Buffer A	ASTM (D 5128)

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1551-1	4 L natural poly	24 months
1551-1CT	4 L Cubitainer®	24 months
1551-2.5	10 L Cubitainer®	24 months
1551-5	20 L Cubitainer®	24 months

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



Paul Brandon (01/08/2024)

Production Manager

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Certificate of Analysis

Buffer, Reference Standard, pH 10.00 ± 0.01 at 25°C (Color Coded Blue)

Lot Number: 4310G83

Product Number: 1601

Manufacture Date: OCT 09, 2023

Expiration Date: MAR 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	0	5	10	15	20	25	30	35	40	50
pH	10.31	10.23	10.17	10.11	10.05	10.00	9.95	9.91	9.87	9.81

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Carbonate	497-19-8	ACS
Sodium Bicarbonate	144-55-8	ACS
Sodium Hydroxide	1310-73-2	Reagent
Preservative	Proprietary	
Blue Dye	Proprietary	

Test	Specification	Result
Appearance	Blue liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	10.003	0.02	186-I-g, 186-II-g, 191d

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer C	ASTM (D 5464)
Buffer C	ASTM (D 5128)

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1601-16	500 mL natural poly	18 months
1601-5	20 L Cubitainer®	18 months

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



Paul Brandon (10/09/2023)

Production Manager

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Certificate of Analysis

Sodium Thiosulfate, 0.0250 Normal (N/40)

Lot Number: 4403S13

Product Number: 7900

Manufacture Date: MAR 29, 2024

Expiration Date: SEP 2025

This product is specially formulated to increase its stability. A preservative is added to prevent bacterial contamination. However, all Sodium Thiosulfate solutions are subject to slow chemical deterioration and should be restandardized periodically.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Thiosulfate Pentahydrate	10102-17-7	ACS
Organic Preservative	Proprietary	
Sodium Carbonate	497-19-8	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Iodate/Starch)	0.02499-0.02501 N at 20°C	0.02501 N at 20°C	136

Specification	Reference
Standard Sodium Thiosulfate Solution, 0.0250 N	APHA (4500-S2- F)
Standard Sodium Thiosulfate Titrant	APHA (4500-O D)
Standard Sodium Thiosulfate Titrant	APHA (4500-O E)
Standard Sodium Thiosulfate Titrant	APHA (4500-O F)
Standard Sodium Thiosulfate Titrant, 0.025 N	APHA (4500-CI B)
Standard Sodium Thiosulfate Titrant	APHA (4500-O C)
Standard Sodium Thiosulfate Titrant, 0.025 M	APHA (5530 C)
Standard Sodium Thiosulfate Solution (0.025 N)	EPA (SW-846) (9031)
Standard Sodium Thiosulfate solution (0.025 N)	EPA (SW-846) (9034)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
7900-1	4 L natural poly	18 months
7900-16	500 mL natural poly	18 months
7900-1CT	4 L Cubitainer®	18 months
7900-32	1 L natural poly	18 months

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



Paul Brandon (03/29/2024)

Production Manager

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Certificate of Analysis

Buffer, Reference Standard, pH 4.00 ± 0.01 at 25°C (Color Coded Red)

Lot Number: 4403F90

Product Number: 1501

Manufacture Date: MAR 09, 2024

Expiration Date: FEB 2026

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST Traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	0	5	10	15	20	25	30	35	40	45	50
pH	4.00	4.00	4.00	4.00	4.00	4.00	4.01	4.02	4.03	4.04	4.06

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	Buffer
Preservative	Proprietary	Commercial
Red Dye	Proprietary	Purified

Test	Specification	Result
Appearance	Red liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	4.000	0.02	185i, 186-I-g, 186-II-g

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer B	ASTM (D 5464)
Buffer B	ASTM (D 5128)

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1501-2.5	10 L Cubitainer®	24 months
1501-32	1 L natural poly	24 months
1501-5	20 L Cubitainer®	24 months

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



Paul Brandon (03/09/2024)

Production Manager

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Certificate of Analysis

Iodine (Iodine-Iodide), 0.0250 Normal (N/40), 1 mL = 0.4008 mg S²⁻

Lot Number: 2405D89

Product Number: 3975

Manufacture Date: MAY 10, 2024

Expiration Date: MAY 2025

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Iodide	7681-11-0	ACS
Iodine	7553-56-2	ACS

Test	Specification	Result	NIST SRM#
Appearance	Dark brown liquid	Passed	
Assay (vs. Sodium Thiosulfate/Starch)	0.02498-0.02502 N at 20°C	0.02502 N at 20°C	136

Specification	Reference
Standard Iodine Solution, 0.0250 N	APHA (4500-S2- F)
Iodine Solution (approximately 0.025 N)	EPA (SW-846) (9031)
Standard Iodine Solution, 0.0250 N	EPA (376.1)
Iodine Solution (approximately 0.025 N)	EPA (SW-846) (9034)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3975-1	4 L amber glass	12 months
3975-16	500 mL amber glass	12 months
3975-32	1 L amber glass	12 months

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



Jose Pena (05/10/2024)
Operations Manager

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Part of TCP Analytical Group

Jackson's Pointe Commerce Park- Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063

Certificate of Analysis

Cyanide Standard 1000 ppm (1ml = 1mg CN)

Product Code: **LC13545**

Manufacture Date: August 01, 2024

Lot Number: **44080060**

Expiration Date: January 30, 2025

Test	Specification	Result
Appearance (clarity)	clear solution	clear solution
Appearance (color)	colorless	colorless
Concentration (CN)	0.990 - 1.010mg/mL	1.008mg/mL
Concentration (CN)	990 - 1,010ppm	1,008ppm
Traceable to NIST SRM	Report	999b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

The suffix of the product code may differ from what is on your product label. The suffix will designate the size and be associated with a numeric digit(s). Visit LabChem.com for more information

Suffix	1	2	3/3S/36/36S	4/4C	5	6	7	8	9	20	44	200	246	486
Size	500mL or g	1L or 1kg	2.5L/2.5L Coated/6x2.5L/6x2.5L Coated	4L	20L	10L	125mL	25g	100g	20x20mL	4x4L	200L	24x6mL	48x6mL

Michael Monteleone

Michael Monteleone
Chemistry Supervisor - Quality Control

ISO9001:2015 Registration #0306-01

2024080113:32:16bsturges-0-0

W3139 Received on 9/9/24 by IZ

Product No.: A12044
Product: Chloramine-T trihydrate, 98%
Lot No.: 10239484

Appearance:	White powder
Melting Point:	166°C(dec)
Assay (Iodometric titration):	100.5%
Identification (FTIR):	Conforms

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Certificate of Analysis

Starch Indicator, 0.5% (w/v), Mercury Free, for Iodometric Titrations

Lot Number: 4408P62

Product Number: 8000

Manufacture Date: AUG 28, 2024

Expiration Date: AUG 2026

This product is Mercury-free.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Starch, soluble	9005-84-9	ACS
Salicylic Acid	69-72-7	ACS

Test	Specification	Result
Appearance	White translucent liquid	Passed
Suitability for Use	Colorless (Iodine absent) - Blue (Iodine present)	Passed

Specification	Reference
Starch Solution	APHA (4500-S2- F)
Starch Indicator Solution	APHA (4500-CI B)
Starch Indicator	APHA (4500-SO32- B)
Starch indicator solution	APHA (2350 B)
Starch indicator solution	APHA (2350 E)
Starch Solution	APHA (510 B)
Starch Solution	APHA (5530 C)
Starch Indicator	APHA (4500-CI C)
Starch Indicator	EPA (345.1)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
8000-1	4 L natural poly	24 months
8000-16	500 mL natural poly	24 months
8000-32	1 L natural poly	24 months

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

A handwritten signature in blue ink that reads "Paul Brandon". The signature is fluid and cursive, with the first name "Paul" and last name "Brandon" clearly distinguishable.

Paul Brandon (08/28/2024)
Production Manager

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Certificate of Analysis

Cyanide Standard, 1000 ppm CN⁻

Lot Number: 1411J58**Product Number:** 2543**Manufacture Date:** NOV 22, 2024**Expiration Date:** MAY 2025

This standard is prepared using accurate volumetric techniques from material that has been assayed against Silver Nitrate solution certified traceable to NIST Standard Reference Material 999. The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is the combined uncertainty based on the stability of the assayed Potassium Cyanide, and the uncertainty in the mass and volume measurements.

Use 0.16% (w/v) (0.04 N) Sodium Hydroxide or 0.225 % (w/v) (0.04 N) Potassium Hydroxide to make dilutions of this standard. Restandardize weekly if extreme accuracy is required.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Cyanide	151-50-8	ACS
Sodium Hydroxide	1310-73-2	Reagent

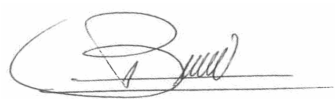
Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN ⁻)	995-1005 ppm	1000 ppm

Specification	Reference
Stock Standard Cyanide Solution	APHA (4500-CN- F)
Stock Cyanide Solution	APHA (4500-CN- E)
Stock Cyanide Solution	APHA (4500-CN- K)
Stock Cyanide Solution	APHA (4500-CN- H)
Cyanide Reference Solution (1000 mg/L)	EPA (SW-846) (7.3.3.2)
Cyanide Calibration Stock Solution (1,000 mg/L CN ⁻)	EPA (SW-846) (9213)
Stock Cyanide Solution	EPA (335.3)
Stock Cyanide Solution	EPA (335.2)
Cyanide Solution Stock	ASTM (D 4282)
Simple Cyanide Solution, Stock (1.0 g/L CN ⁻)	ASTM (D 4374)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
2543-16	500 mL amber poly	6 months
2543-32	1 L amber poly	6 months
2543-4	120 mL amber poly	6 months

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

A handwritten signature in black ink, appearing to read 'Luis Briceno', is written over a horizontal line.

Luis Briceno (11/22/2024)
Operations Supervisor

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.



W3157, W3158, W3159 Received on 12/6/24 by IZ

Certificate of Analysis

12/06/2024(JST)

TOKYO CHEMICAL INDUSTRY CO.,LTD.

T-PLUS Nihonbashi-Kodemmacho

16-12 Nihonbashi-kodemmacho, Chuo-ku, Tokyo 103-0001, Japan

Chemical Name: p-Xylene		
Product Number: X0014 CAS RN: 106-42-3	Lot: BWDZJ	

Tests	Results	Specifications
Appearance	Colorless clear liquid	Colorless to Almost colorless clear liquid
Purity(GC)	99.7 %	min. 99.0 %

TCI Lot numbers are 4-5 characters in length. Characters listed after the first 4-5 characters are control numbers for internal purpose only.

The contents of the specifications are subject to change without advance notice. The specification values displayed here are the most up to date values. There may be cases where the product labels display a different specification, however, the product quality still meets the latest specification.

Customer Service:

TCI AMERICA

Tel: +1-800-423-8616 / +1-503-283-1681

Fax: +1-888-520-1075 / +1-503-283-1987

E-mail: Sales-US@TCIchemicals.com

Takuya Nishioka
Quality Assurance Department Manager



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Parsons
ADDRESS: 301 Plainfield Rd.
CITY: Syracuse STATE: NY ZIP: 13212
ATTENTION: Stephen Liberatore
PHONE: 315-418-8767 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Con Ed Atlantic Ave
PROJECT NO.: 453957 LOCATION: Brooklyn, NY
PROJECT MANAGER: Stephen Liberatore
e-mail: stephen.liberatore@parsons.com
PHONE: 315-418-8767 FAX:

CLIENT BILLING INFORMATION

BILL TO: Parsons PO#:
ADDRESS: 301 Plainfield Rd.
CITY: Syracuse STATE: NY ZIP: 13212
ATTENTION: Stephen L. PHONE: 315-418-8767

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard DAYS*
HARDCOPY (DATA PACKAGE): Standard DAYS*
EDD: Standard DAYS*

*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B
+ Raw Data) ☐ Other
☐ EDD FORMAT

VOC+TICS
SVOC+TICS
Sulfate
TDS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		A	E	E	E						
1.	MW1A-20241213	GW		X	12-13-24	0835	4	X			X	X					
2.	MW10D-20241213	GW		X	12-13-24	0950	4	X			X	X					
3.	MW4-20241213	GW		X	12-13-24	1104	4	X			X	X					
4.	MW5-20241213	GW		X	12-13-24	1212	4	X			X	X					
5.	MW2-20241213	GW		X	12-13-24	1322	5	X	X	X	X	X					
6.	MW3-20241213	GW		X	12-13-24	1422	5	X	X	X	X	X					
7.	MW6-20241213	GW		X	12-13-24	1518	15	X	X	X	X	X					
8.	MW6-20241213A	GW		X	12-13-24	1518	5	X	X	X	X	X					
9.	Equip Blank-20241213	W		X	12-13-24	1730	5	X	X	X	X	X					
10.	Trip Blank	W		X	12-6-24		2	X									

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <u>Bill Chaky</u>	DATE/TIME: <u>12-13-24/2001</u>	RECEIVED BY: <u></u>
RELINQUISHED BY SAMPLER: 2. <u></u>	DATE/TIME: <u>12-16-24</u>	RECEIVED BY: <u></u>
RELINQUISHED BY SAMPLER: 3. <u></u>	DATE/TIME: <u></u>	RECEIVED BY: <u></u>

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.3 °C
Comments: IF Cont #1

Page of

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete
☐ YES ☐ NO

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Parsons
ADDRESS: 301 Plainfield Rd.
CITY: Syracuse STATE: NY ZIP: 13212
ATTENTION: Stephen Liberatore
PHONE: 315-418-8767 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Con Ed Atlantic Ave
PROJECT NO.: 453957 LOCATION: Brooklyn, NY
PROJECT MANAGER: Stephen Liberatore
e-mail: stephen.liberatore@parsons.com
PHONE: FAX:

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BILL TO: Parsons PO#:
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ATTENTION: Stephen L. PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard DAYS*
HARDCOPY (DATA PACKAGE) Standard DAYS*
EDD: Standard DAYS*

*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B
+ Raw Data ☐ Other
☐ EDD FORMAT

TCLP BNA
PCB
Flash Point
PH
React CN/Sulfide
TCLP VOC
TCLP Metals/Hg

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		E	E	E	E	E	A	E			
1.	WC-20241213	GW	X		12-13-24	1700	8	X	X	X	X	X	X	X			
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <u>Bill Chaky</u>	DATE/TIME: <u>12-13-24/2000</u>	RECEIVED BY: <u>[Signature]</u>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>2.2 °C</u>
RELINQUISHED BY SAMPLER: 2. <u>[Signature]</u>	DATE/TIME: <u>12-16-24</u>	RECEIVED BY: <u>[Signature]</u>	Comments: <u>IR-6141</u>
RELINQUISHED BY SAMPLER: 3. <u>[Signature]</u>	DATE/TIME: <u> </u>	RECEIVED BY: <u> </u>	

Page of CLIENT: ☐ Hand Delivered ☐ Other Shipment Complete ☐ YES ☐ NO



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P5291 PARS02

Order Date : 12/16/2024 10:45:00 AM

Project Mgr :

Client Name : PARSONS Main of New Yc

Project Name : Con Edison Non-MGP - Atl

Report Type : Results Only

Client Contact : Stephen Liberatore

Receive DateTime : 12/16/2024 7:30:00 AM

EDD Type : Excel NY

Invoice Name : PARSONS Main of New Yc

Purchase Order :

Hard Copy Date :

Invoice Contact : Stephen Liberatore

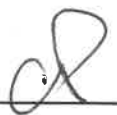
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P5291-01	MW1A-20241213	Water	12/13/2024	08:35					
					VOCMS Group1		8260-Low	10 Bus. Days	5 days
P5291-02	MW10D-20241213	Water	12/13/2024	09:50					
					VOCMS Group1		8260-Low	10 Bus. Days	
P5291-03	MW4-20241213	Water	12/13/2024	11:04					
					VOCMS Group1		8260-Low	10 Bus. Days	
P5291-04	MW5-20241213	Water	12/13/2024	12:12					
					VOCMS Group1		8260-Low	10 Bus. Days	
P5291-05	MW2-20241213	Water	12/13/2024	13:22					
					VOCMS Group1		8260-Low	10 Bus. Days	
P5291-06	MW3-20241213	Water	12/13/2024	14:22					
					VOCMS Group1		8260-Low	10 Bus. Days	
P5291-07	MW6-20241213	Water	12/13/2024	15:18					
					VOCMS Group1		8260-Low	10 Bus. Days	
P5291-08	P5291-07MS	Water	12/13/2024	15:18					

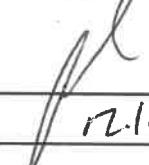
LOGIN REPORT/SAMPLE TRANSFER

Order ID : P5291	PARS02	Order Date : 12/16/2024 10:45:00 AM	Project Mgr :
Client Name : PARSONS Main of New Yc		Project Name : Con Edison Non-MGP - Atl	Report Type : Results Only
Client Contact : Stephen Liberatore		Receive DateTime : 12/16/2024 7:30:00 AM	EDD Type : Excel NY
Invoice Name : PARSONS Main of New Yc		Purchase Order :	Hard Copy Date :
Invoice Contact : Stephen Liberatore			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P5291-09	P5291-07MSD	Water	12/13/2024	15:18	VOCMS Group1		8260-Low	10 Bus. Days	5 days
P5291-10	MW6-20241213-A	Water	12/13/2024	15:18	VOCMS Group1		8260-Low	10 Bus. Days	
P5291-11	EQUID-BLANK-20241213 ⁺ EQUIP-BLANK-20241213	Water	12/13/2024	17:30	VOCMS Group1		8260-Low	10 Bus. Days	
P5291-12	TB-20241216	Water	12/13/2024	00:00	VOCMS Group1		8260-Low	10 Bus. Days	
P5291-13	WC-20241213	Water	12/13/2024	17:00	VOCMS Group1		8260-Low	10 Bus. Days	
					TCLP VOA		8260D	10 Bus. Days	

Relinquished By : 

Date / Time : 12-16-24 11:25

Received By : 

Date / Time : 12-16-24 11:25

Storage Area : VOA Refridgerator Room