

Cover Page

Order ID : Q1282

Project ID : 540 Degraw St, Brooklyn, NY - E9309

Client : ENTACT

Lab Sample Number

Q1282-01

Client Sample Number

SW-WTS-02

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: 2/11/2025

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 #: Q1282

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 Castody

✓

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: 02/11/2025

LAB CHRONICLE

OrderID:	Q1282	OrderDate:	2/3/2025 4:26:00 PM
Client:	ENTACT	Project:	540 Degraw St, Brooklyn, NY - E9309
Contact:	Jarod Stanfield	Location:	D11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1282-01	SW-WTS-02	WATER			01/31/25 16:00			02/03/25
			Anions Group2	300.0			02/04/25 11:45	
			BOD5	SM5210 B			02/05/25 15:30	
			Flash Point	1010B			02/05/25 09:50	
			Hexavalent Chromium	7196A			02/04/25 12:54	
			pH	9040C			02/05/25 15:25	
			TKN	SM4500-N Org C-11 plus NH3 B plus G-11		02/07/25	02/07/25 15:34	
			Total Nitrogen	Cal			02/07/25 15:34	
			TS	SM2540 B			02/04/25 13:00	
			TSS	SM2540 D			02/05/25 09:30	
Q1282-01DL	SW-WTS-02DL	WATER			01/31/25 16:00			02/03/25
			Anions Group2	300.0			02/04/25 13:43	



SAMPLE DATA

Report of Analysis

Client:	ENTACT	Date Collected:	01/31/25 16:00
Project:	540 Degraw St, Brooklyn, NY - E9309	Date Received:	02/03/25
Client Sample ID:	SW-WTS-02	SDG No.:	Q1282
Lab Sample ID:	Q1282-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Chloride	50.1	OR	1	0.011	0.60	mg/L		02/04/25 11:45	300.0
Nitrite	3.70	H	1	0.011	0.60	mg/L		02/04/25 11:45	300.0
Nitrate	14.5	HOR	1	0.0034	0.50	mg/L		02/04/25 11:45	300.0
Nitrate+Nitrite	17.2		1	0.040	5.60	mg/L		02/04/25 11:45	300.0
BOD5	24.9	H	1	0.17	2.00	mg/L		02/05/25 15:30	SM 5210 B-16
Flash Point	>212		1	0	0	o F		02/05/25 09:50	1010B
Dissolved Hexavalent Chromium	0.0030	U	1	0.0030	0.010	mg/L		02/04/25 12:54	7196A
pH	5.80	H	1	0	0	pH		02/05/25 15:25	9040C
TKN	0.61		1	0.18	0.50	mg/L	02/07/25 09:40	02/07/25 15:34	SM4500-N Org C-11 plus NH3 B plus G-11
Nitrogen	17.8		1	0.31	1.30	mg/L		02/07/25 15:34	SM 4500-N Org C-11 plus NH3 B plus G-11
TS	1400		1	1.00	5.00	mg/L		02/04/25 13:00	SM 2540 B-15
TSS	23.5		1	1.00	4.00	mg/L		02/05/25 09:30	SM 2540 D-15

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

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:	ENTACT	Date Collected:	01/31/25 16:00
Project:	540 Degraw St, Brooklyn, NY - E9309	Date Received:	02/03/25
Client Sample ID:	SW-WTS-02DL	SDG No.:	Q1282
Lab Sample ID:	Q1282-01DL	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Chloride	42.0	D	10	0.11	6.00	mg/L		02/04/25 13:43	300.0
Nitrate	13.5	HD	10	0.034	5.00	mg/L		02/04/25 13:43	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

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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



QC RESULT SUMMARY



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

Initial and Continuing Calibration Verification

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

RunNo.: LB134549

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Hexavalent Chromium	mg/L	0.500	0.5	100	90-110	02/04/2025
Sample ID: CCV1 Hexavalent Chromium	mg/L	0.497	0.5	99	90-110	02/04/2025
Sample ID: CCV2 Hexavalent Chromium	mg/L	0.503	0.5	101	90-110	02/04/2025

Initial and Continuing Calibration Verification

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

RunNo.: LB134556

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Bromide	mg/L	10.3	10	103	90-110	01/20/2025
Chloride	mg/L	3.1	3	103	90-110	01/20/2025
Fluoride	mg/L	2.1	2	105	90-110	01/20/2025
Nitrite	mg/L	3.1	3	103	90-110	01/20/2025
Nitrate	mg/L	2.6	2.5	104	90-110	01/20/2025
Sulfate	mg/L	15.4	15	103	90-110	01/20/2025
Orthophosphate as P	mg/L	5.2	5	104	90-110	01/20/2025
Sample ID: CCV1						
Bromide	mg/L	10.3	10	103	90-110	02/04/2025
Chloride	mg/L	3.1	3	103	90-110	02/04/2025
Fluoride	mg/L	2	2	100	90-110	02/04/2025
Nitrite	mg/L	3.1	3	103	90-110	02/04/2025
Nitrate	mg/L	2.6	2.5	104	90-110	02/04/2025
Sulfate	mg/L	15.2	15	101	90-110	02/04/2025
Orthophosphate as P	mg/L	4.7	5	94	90-110	02/04/2025
Sample ID: CCV2						
Bromide	mg/L	10.3	10	103	90-110	02/04/2025
Chloride	mg/L	3.1	3	103	90-110	02/04/2025
Fluoride	mg/L	2	2	100	90-110	02/04/2025
Nitrite	mg/L	3.1	3	103	90-110	02/04/2025
Nitrate	mg/L	2.6	2.5	104	90-110	02/04/2025
Sulfate	mg/L	15.3	15	102	90-110	02/04/2025
Orthophosphate as P	mg/L	5.2	5	104	90-110	02/04/2025

Initial and Continuing Calibration Verification

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

RunNo.: LB134573

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Flash Point	o F	81.7	81	101	78-84	02/05/2025

Initial and Continuing Calibration Verification

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

RunNo.: LB134584

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
pH		pH	6.98	7	100	90-110	02/05/2025
Sample ID:	CCV1						
pH		pH	2.01	2.00	101	90-110	02/05/2025
Sample ID:	CCV2						
pH		pH	12.02	12.00	100	90-110	02/05/2025

Initial and Continuing Calibration Verification

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

RunNo.: LB134632

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: TKN	ICV1 mg/L	4.6	5	92	90-110	02/07/2025
Sample ID: TKN	CCV1 mg/L	4.9	5	98	90-110	02/07/2025
Sample ID: TKN	CCV2 mg/L	4.9	5	98	90-110	02/07/2025

Initial and Continuing Calibration Verification

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

RunNo.: LB134632

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
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284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Initial and Continuing Calibration Blank Summary

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

RunNo.: LB134549

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	02/04/2025
Sample ID: CCB1 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	02/04/2025
Sample ID: CCB2 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	02/04/2025

Initial and Continuing Calibration Blank Summary

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

RunNo.: LB134556

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	01/20/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/20/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	01/20/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/20/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	01/20/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	01/20/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	01/20/2025
Sample ID: CCB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	02/04/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/04/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	02/04/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/04/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	02/04/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	02/04/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	02/04/2025
Sample ID: CCB2							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	02/04/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/04/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	02/04/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/04/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	02/04/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	02/04/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	02/04/2025

Initial and Continuing Calibration Blank Summary

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

RunNo.: LB134632

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 TKN	mg/L	< 0.2500	0.2500	U	0.18	0.5	02/07/2025
Sample ID: CCB1 TKN	mg/L	< 0.2500	0.2500	U	0.18	0.5	02/07/2025
Sample ID: CCB2 TKN	mg/L	< 0.2500	0.2500	U	0.18	0.5	02/07/2025

Initial and Continuing Calibration Blank Summary

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

RunNo.: LB134632

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
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Preparation Blank Summary

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: lb134549BL							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.003	0.01	02/04/2025
Sample ID: LB134556BLW							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	02/04/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/04/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	02/04/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/04/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	02/04/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	02/04/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	02/04/2025
Sample ID: LB134560BL							
TS	mg/L	< 2.5000	2.5000	U	1	5	02/04/2025
Sample ID: LB134570BL							
TSS	mg/L	1	2.0000	J	1	4	02/05/2025
Sample ID: LB134586BL							
BOD5	mg/L	< 0.2000	0.2000	U	0.17	2.0	02/05/2025
Sample ID: PB166559BL							
TKN	mg/L	< 0.2500	0.2500	U	0.18	0.5	02/07/2025

Matrix Spike Summary

Client:	ENTACT	SDG No.:	Q1282
Project:	540 Degraw St, Brooklyn, NY - E9309	Sample ID:	Q1282-01
Client ID:	SW-WTS-02MS	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	12.2		1.10	J	10	1	111		02/04/2025
Chloride	mg/L	80-120	52.0	OR	50.1	OR	3	1	63	*	02/04/2025
Fluoride	mg/L	80-120	2.70		0.53		2	1	109		02/04/2025
Nitrite	mg/L	80-120	7.00		3.70		3	1	110		02/04/2025
Nitrate	mg/L	80-120	17.2	OR	14.5	OR	2.5	1	108		02/04/2025
Sulfate	mg/L	80-120	965	OR	994	OR	15	1	-193	*	02/04/2025
Orthophosphate as P	mg/L	80-120	5.40		0.079	U	5	1	108		02/04/2025

Matrix Spike Summary

Client:	ENTACT	SDG No.:	Q1282
Project:	540 Degraw St, Brooklyn, NY - E9309	Sample ID:	Q1282-01
Client ID:	SW-WTS-02MSD	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	12.2		1.10	J	10	1	111		02/04/2025
Chloride	mg/L	80-120	52.0	OR	50.1	OR	3	1	63	*	02/04/2025
Fluoride	mg/L	80-120	2.70		0.53		2	1	109		02/04/2025
Nitrite	mg/L	80-120	7.00		3.70		3	1	110		02/04/2025
Nitrate	mg/L	80-120	17.2	OR	14.5	OR	2.5	1	108		02/04/2025
Sulfate	mg/L	80-120	966	OR	994	OR	15	1	-187	*	02/04/2025
Orthophosphate as P	mg/L	80-120	5.40		0.079	U	5	1	108		02/04/2025

Duplicate Sample Summary

Client: ENTACT Project: 540 Degraw St, Brooklyn, NY - E9309 Client ID: EFFLUENTDUP	SDG No.: Q1282 Sample ID: Q1252-01 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
TSS	mg/L	+/-5	1630		1630		1	0.25		02/05/2025

Duplicate Sample Summary

Client: ENTACT Project: 540 Degraw St, Brooklyn, NY - E9309 Client ID: 3190DUP	SDG No.: Q1282 Sample ID: Q1271-04 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
Flash Point	o F	+/-2	>212.0		>212.0		1	0		02/05/2025

Duplicate Sample Summary

Client: ENTACT	SDG No.: Q1282
Project: 540 Degraw St, Brooklyn, NY - E9309	Sample ID: Q1282-01
Client ID: SW-WTS-02MSD	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	12.2		12.2		1	0		02/04/2025
Fluoride	mg/L	+/-20	2.70		2.70		1	0		02/04/2025
Nitrite	mg/L	+/-20	7.00		7.00		1	0		02/04/2025
Orthophosphate as P	mg/L	+/-20	5.40		5.40		1	0		02/04/2025
Chloride	mg/L	+/-20	52.0	OR	52.0	OR	1	0		02/04/2025
Nitrate	mg/L	+/-20	17.2	OR	17.2	OR	1	0		02/04/2025
Sulfate	mg/L	+/-20	965	OR	966	OR	1	0		02/04/2025

Duplicate Sample Summary

Client:	ENTACT	SDG No.:	Q1282
Project:	540 Degraw St, Brooklyn, NY - E9309	Sample ID:	Q1298-07
Client ID:	0131-CDUP	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
pH	pH	+/-20	6.99		7.00		1	0.14		02/05/2025

Duplicate Sample Summary

Client:	ENTACT	SDG No.:	Q1282
Project:	540 Degraw St, Brooklyn, NY - E9309	Sample ID:	Q1300-02
Client ID:	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
BOD5	mg/L	+/-20	3240		3170		1	2.06		02/05/2025

Laboratory Control Sample Summary

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

Run No.: LB134549

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	lb134549BS							
Hexavalent Chromium	mg/L	0.5	0.51		101	1	90-111	02/04/2025

Laboratory Control Sample Summary

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

Run No.: LB134556

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134556BSW							
Bromide	mg/L	10	10.4		104	1	90-110	02/04/2025
Chloride	mg/L	3	3.10		103	1	90-110	02/04/2025
Fluoride	mg/L	2	2.00		100	1	90-110	02/04/2025
Nitrite	mg/L	3	3.10		103	1	90-110	02/04/2025
Nitrate	mg/L	2.5	2.60		104	1	90-110	02/04/2025
Sulfate	mg/L	15	15.4		103	1	90-110	02/04/2025
Orthophosphate as P	mg/L	5	5.10		102	1	90-110	02/04/2025

Laboratory Control Sample Summary

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

Run No.: LB134570

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134570BS							
TSS	mg/L	550	532		97	1	90-110	02/05/2025

Laboratory Control Sample Summary

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

Run No.: LB134586

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134586BS							
BOD5	mg/L	198	190		96	1	84.6-115.4	02/05/2025

Laboratory Control Sample Summary

Client: ENTACT

SDG No.: Q1282

Project: 540 Degraw St, Brooklyn, NY - E9309

Run No.: LB134632

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB166559BS							
TKN	mg/L	5	4.90		98	1	90-110	02/07/2025



RAW DATA

Analysis Method: 7196A

ANALYST: rubina

Parameter: ~~Hexavalent Chromium~~

SUPERVISOR REVIEW BY: Iwona

Run Number: LB134549

pH Meter ID: WC pH Meter-1

Reagent/Standard	Lot/Log #
Calibration Std. hexchrome 0.1 ppm	WP111772
Calibration Std. hexchrome 0.05 ppm	WP111771
calibration std. hexchrome 0.01 ppm	WP111769
calibration std. hexchrome 0 ppm	WP111768
hexavalent chromium color reagent	WP111767
5N sulfuric acid	WP110380
Calibration Std Hexachrome 0.025 ppm	WP111770
Hexavalent Chromium ICV-LCS Std	WP111775
Calibration and CCV std HexChrome 0.5PPM	WP111773
Calibration std HexChrome 1.0PPM	WP111774

Intercept: 0.0003

Slope: 0.7834

Regression: 0.999991

Seq	Lab ID	True Value (mg/l)	DF	Initial Vol (ml)	Final Vol (ml)	pH HN03	pH H2SO4	Absorb.at 540nm		Absorbance Difference	Result (mg/L)	%D	Anal Date	Anal Time
								Backgrnd	Color					
1	CAL1	0	1	100	100		1.81	0.000	0.000	0.000	-0.00		02/04/2025	12:40
2	CAL2	0.01	1	100	100		1.88	0.000	0.007	0.007	0.008	-20	02/04/2025	12:41
3	CAL3	0.025	1	100	100		1.85	0.000	0.019	0.019	0.023	-8	02/04/2025	12:42
4	CAL4	0.05	1	100	100		1.87	0.000	0.039	0.039	0.049	-2	02/04/2025	12:43
5	CAL5	0.1	1	100	100		1.87	0.000	0.081	0.081	0.103	3	02/04/2025	12:44
6	CAL6	0.5	1	100	100		1.89	0.000	0.393	0.393	0.501	0.2	02/04/2025	12:45
7	CAL7	1	1	100	100		1.88	0.000	0.783	0.783	0.999	-0.1	02/04/2025	12:46

Analytical Summary Report

Analysis Method: 7196A

ANALYST:rubina

Parameter: Hexavalent Chromium

SUPERVISOR REVIEW BY:Iwona

Run Number: LB134549

pH Meter ID:WC pH Meter-1

Seq	Lab ID	True Value	DF	Initial Vol (ml/gm)	Final Vol (ml)	pH HN03	pH H2SO4	Absorb.at540nm		Absorbance Difference	Intermediate Result (mg/L)	Anal Date	Anal Time
								Backgrnd	Color				
1	ICV	0.5	1	100	100		1.90	0.000	0.392	0.392	0.500	02/04/2025	12:47
2	ICB		1	100	100		1.78	0.000	0.001	0.001	0.001	02/04/2025	12:48
3	CCV1	0.5	1	100	100		1.92	0.000	0.390	0.390	0.497	02/04/2025	12:49
4	CCB1		1	100	100		1.76	0.000	0.000	0.000	0.000	02/04/2025	12:50
5	RL Check	0.01	1	100	100		1.90	0.000	0.008	0.008	0.010	02/04/2025	12:51
6	lb134549BL		1	100	100		1.78	0.000	0.001	0.001	0.001	02/04/2025	12:52
7	lb134549BS	0.5	1	100	100		1.91	0.000	0.396	0.396	0.505	02/04/2025	12:53
8	Q1282-01		1	100	100		2.05	0.000	0.000	0.000	0.000	02/04/2025	12:54
9	CCV2	0.5	1	100	100		1.95	0.000	0.394	0.394	0.503	02/04/2025	12:55
10	CCB2		1	100	100		1.81	0.000	0.000	0.000	0.000	02/04/2025	12:56

WORKLIST(Hardcopy Internal Chain)

6134549

WorkList Name : hex-2-3

WorkList ID : 187443

Department : Wet-Chemistry

Date : 02-03-2025 16:43:03

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1282-01	SW-WTS-02	Water	Hexavalent Chromium	Ammonium sulfate buffer	ENTA05	D11	01/31/2025	7196A

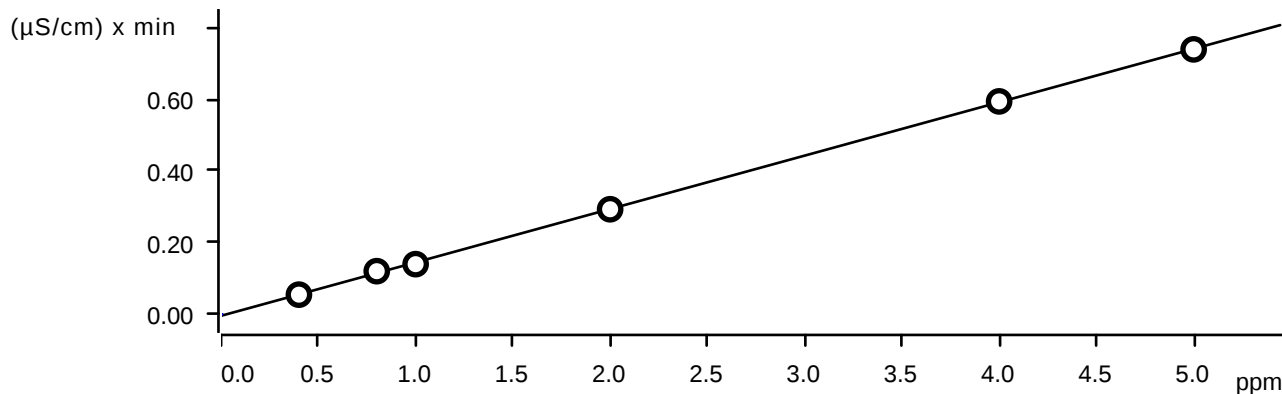
Date/Time 02/03/2025 16.50
 Raw Sample Received by: RM (w.c.)
 Raw Sample Relinquished by: JB (w.c.)

Date/Time 02/04/2025 12.30
 Raw Sample Received by: JB (w.c.)
 Raw Sample Relinquished by: RM (w.c.)

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	0	0	0	0	0	0	0 IC1-012025	1/20/2025 11:14	10	NF/IZ
STD2	0.396	0.602	0.613	2.019	0.511	0.994	3.09	IC1-012025	1/20/2025 11:36	10	NF/IZ
STD3	0.835	1.258	1.254	4.184	1.047	2.089	6.324	IC1-012025	1/20/2025 11:57	10	NF/IZ
STD4	0.967	1.463	1.466	4.879	1.221	2.469	7.299	IC1-012025	1/20/2025 12:18	10	NF/IZ
STD5	1.996	2.973	2.959	9.912	2.468	4.936	14.741	IC1-012025	1/20/2025 12:40	10	NF/IZ
STD6	4.016	5.977	5.973	19.887	4.964	9.97	29.788	IC1-012025	1/20/2025 13:01	10	NF/IZ
STD7	4.99	7.527	7.535	25.119	6.289	12.542	37.258	IC1-012025	1/20/2025 13:23	10	NF/IZ
		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	2.0000	4.0000	0.5000	1.0000	3.0000				
STD3	0.8000	1.2000	4.0000	8.0000	1.0000	2.0000	6.0000				
STD4	1.0000	1.5000	5.0000	10.0000	1.2500	2.5000	7.5000				
STD5	2.0000	3.0000	6.0000	12.0000	2.5000	5.0000	15.0000				
STD6	4.0000	6.0000	12.0000	24.0000	5.0000	10.0000	30.0000				
STD7	5.0000	7.5000	15.0000	30.0000	6.2500	12.5000	37.0000				
		Relative Error CL-	Relative Error NO2	Relative Error BR-	Relative Error NO3	Relative Error HPO4	Relative Error SO4				
STD1	-1.0000	0.3333	2.1667	0.9500	2.2000	-0.6000	3.0000				
STD2	4.3750	4.8333	4.5000	4.6000	4.7000	4.4500	5.4000				
STD3	-3.3000	-2.4667	-2.2667	-2.4200	-2.3200	-1.2400	-2.6800				
STD4	-0.2000	-0.9000	-1.3667	-0.8800	-1.2800	-1.2800	-1.7267				
STD5	0.4000	-0.3833	-0.4500	-0.5650	-0.7200	-0.3000	-0.7067				
STD6	-0.2000	0.3600	0.4667	0.4760	0.6240	0.3360	0.6973				

Fluoride (Anions)



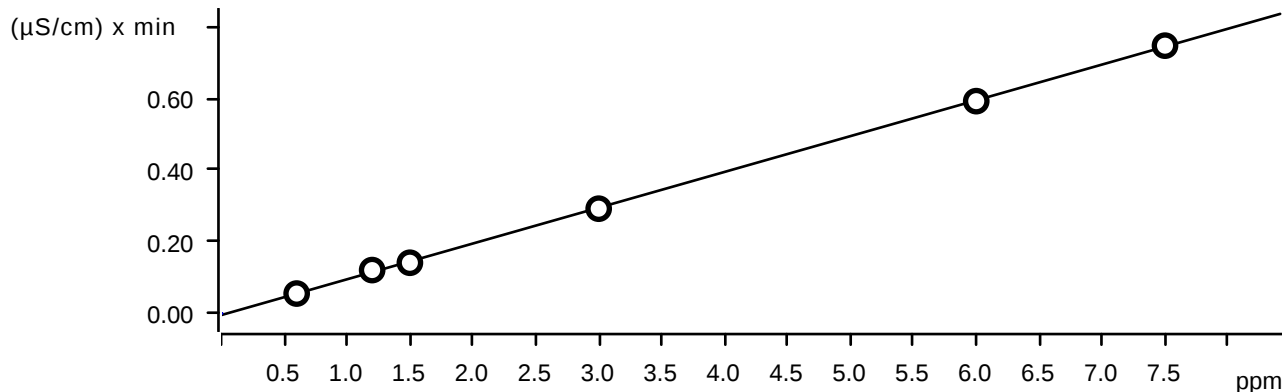
Function: $A = -4.02271E-3 + 0.0148839 \times Q$

Relative standard deviation 1.203859 %

Correlation coefficient 0.999923

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	2025-01-20 11:14:39 UTC-5	used
Standard 2	1	0.400	10.0	1.0	1.0	0.055	STD2	2025-01-20 11:36:02 UTC-5	used
Standard 3	1	0.800	10.0	1.0	1.0	0.120	STD3	2025-01-20 11:57:26 UTC-5	used
Standard 4	1	1.000	10.0	1.0	1.0	0.140	STD4	2025-01-20 12:18:50 UTC-5	used
Standard 5	1	2.000	10.0	1.0	1.0	0.293	STD5	2025-01-20 12:40:15 UTC-5	used
Standard 6	1	4.000	10.0	1.0	1.0	0.594	STD6	2025-01-20 13:01:41 UTC-5	used
Standard 7	1	5.000	10.0	1.0	1.0	0.739	STD7	2025-01-20 13:23:08 UTC-5	used

Chloride (Anions)



Function: $A = -4.62538E-3 + 9.98029E-3 \times Q$

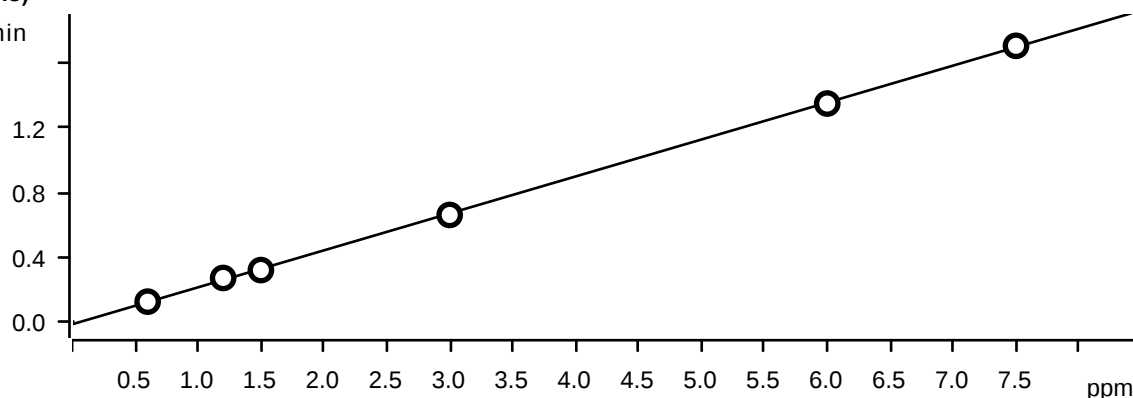
Relative standard deviation 1.261416 %

Correlation coefficient 0.999916

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	2025-01-20 11:14:39 UTC-5	used
Standard 2	1	0.600	10.0	1.0	1.0	0.055	STD2	2025-01-20 11:36:02 UTC-5	used
Standard 3	1	1.200	10.0	1.0	1.0	0.121	STD3	2025-01-20 11:57:26 UTC-5	used
Standard 4	1	1.500	10.0	1.0	1.0	0.141	STD4	2025-01-20 12:18:50 UTC-5	used
Standard 5	1	3.000	10.0	1.0	1.0	0.292	STD5	2025-01-20 12:40:15 UTC-5	used
Standard 6	1	6.000	10.0	1.0	1.0	0.592	STD6	2025-01-20 13:01:41 UTC-5	used
Standard 7	1	7.500	10.0	1.0	1.0	0.747	STD7	2025-01-20 13:23:08 UTC-5	used

Nitrite (Anions)

(μS/cm) x min

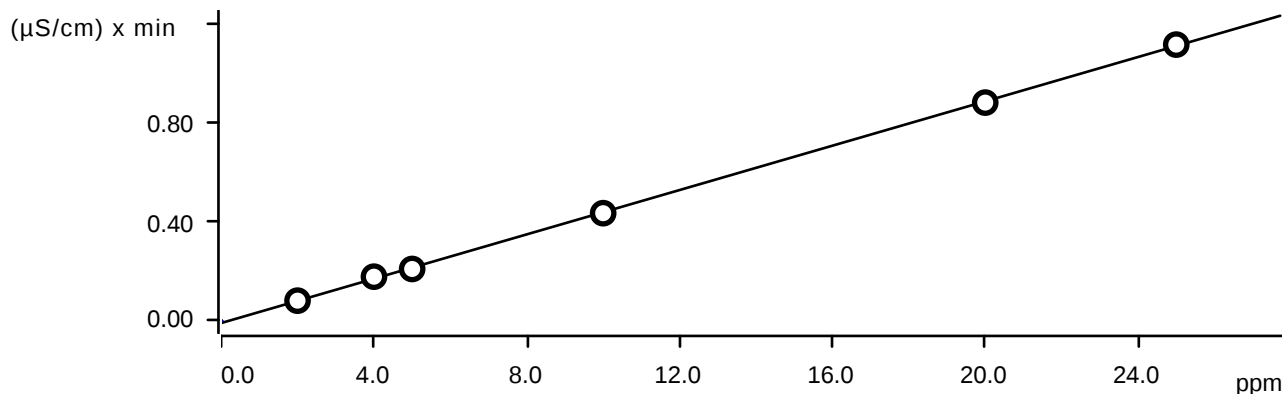
Function: $A = -0.0179856 + 0.0228967 \times Q$

Relative standard deviation 1.369596 %

Correlation coefficient 0.999903

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	2025-01-20 11:14:39 UTC-5	used
Standard 2	1	0.600	10.0	1.0	1.0	0.122	STD2	2025-01-20 11:36:02 UTC-5	used
Standard 3	1	1.200	10.0	1.0	1.0	0.269	STD3	2025-01-20 11:57:26 UTC-5	used
Standard 4	1	1.500	10.0	1.0	1.0	0.318	STD4	2025-01-20 12:18:50 UTC-5	used
Standard 5	1	3.000	10.0	1.0	1.0	0.660	STD5	2025-01-20 12:40:15 UTC-5	used
Standard 6	1	6.000	10.0	1.0	1.0	1.350	STD6	2025-01-20 13:01:41 UTC-5	used
Standard 7	1	7.500	10.0	1.0	1.0	1.707	STD7	2025-01-20 13:23:08 UTC-5	used

Bromide (Anions)



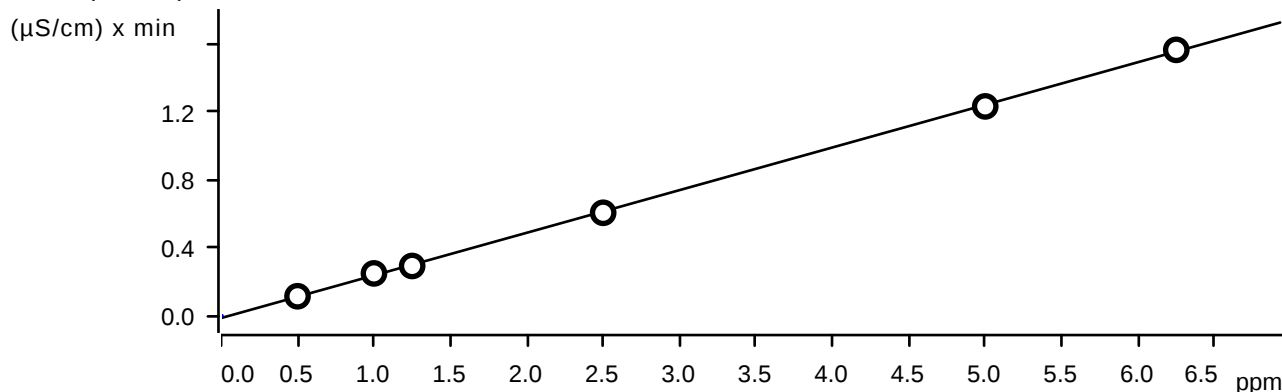
Function: $A = -8.89651E-3 + 4.46429E-3 \times Q$

Relative standard deviation 1.338167 %

Correlation coefficient 0.999906

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	2025-01-20 11:14:39 UTC-5	used
Standard 2	1	2.000	10.0	1.0	1.0	0.081	STD2	2025-01-20 11:36:02 UTC-5	used
Standard 3	1	4.000	10.0	1.0	1.0	0.178	STD3	2025-01-20 11:57:26 UTC-5	used
Standard 4	1	5.000	10.0	1.0	1.0	0.209	STD4	2025-01-20 12:18:50 UTC-5	used
Standard 5	1	10.000	10.0	1.0	1.0	0.434	STD5	2025-01-20 12:40:15 UTC-5	used
Standard 6	1	20.000	10.0	1.0	1.0	0.879	STD6	2025-01-20 13:01:41 UTC-5	used
Standard 7	1	25.000	10.0	1.0	1.0	1.112	STD7	2025-01-20 13:23:08 UTC-5	used

Nitrate (Anions)

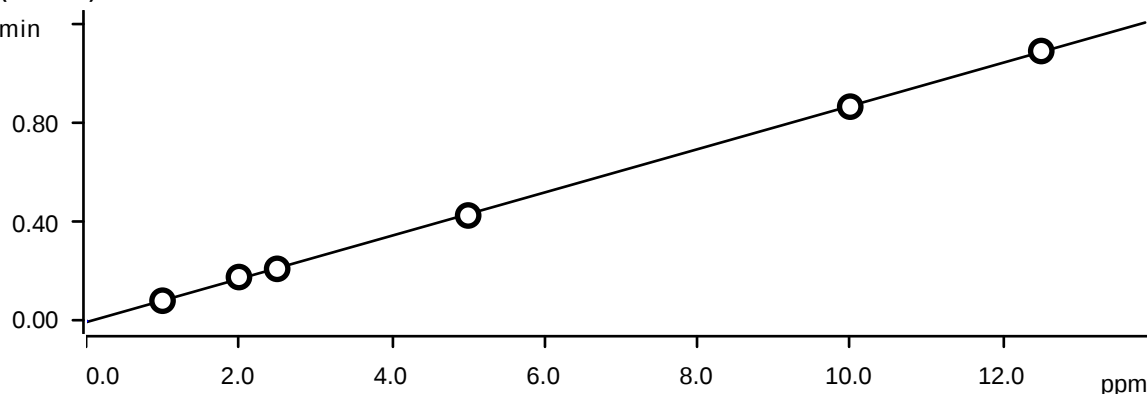


Function: $A = -0.0155875 + 0.0250988 \times Q$

Relative standard deviation 1.561944 %

Correlation coefficient 0.999873

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	2025-01-20 11:14:39 UTC-5	used
Standard 2	1	0.500	10.0	1.0	1.0	0.113	STD2	2025-01-20 11:36:02 UTC-5	used
Standard 3	1	1.000	10.0	1.0	1.0	0.247	STD3	2025-01-20 11:57:26 UTC-5	used
Standard 4	1	1.250	10.0	1.0	1.0	0.291	STD4	2025-01-20 12:18:50 UTC-5	used
Standard 5	1	2.500	10.0	1.0	1.0	0.604	STD5	2025-01-20 12:40:15 UTC-5	used
Standard 6	1	5.000	10.0	1.0	1.0	1.230	STD6	2025-01-20 13:01:41 UTC-5	used
Standard 7	1	6.250	10.0	1.0	1.0	1.563	STD7	2025-01-20 13:23:08 UTC-5	used

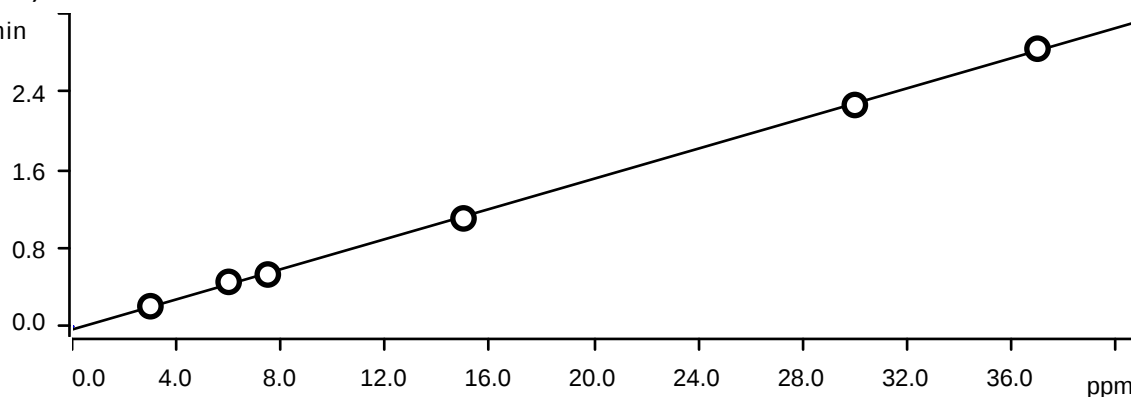
Phosphate (Anions) $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -4.38887E-3 + 8.70711E-3 \times Q$

Relative standard deviation 1.148005 %

Correlation coefficient 0.999929

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	2025-01-20 11:14:39 UTC-5	used
Standard 2	1	1.000	10.0	1.0	1.0	0.082	STD2	2025-01-20 11:36:02 UTC-5	used
Standard 3	1	2.000	10.0	1.0	1.0	0.177	STD3	2025-01-20 11:57:26 UTC-5	used
Standard 4	1	2.500	10.0	1.0	1.0	0.211	STD4	2025-01-20 12:18:50 UTC-5	used
Standard 5	1	5.000	10.0	1.0	1.0	0.425	STD5	2025-01-20 12:40:15 UTC-5	used
Standard 6	1	10.000	10.0	1.0	1.0	0.864	STD6	2025-01-20 13:01:41 UTC-5	used
Standard 7	1	12.500	10.0	1.0	1.0	1.088	STD7	2025-01-20 13:23:08 UTC-5	used

Sulfate (Anions)

 $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -0.0310554 + 7.70543E-3 \times Q$

Relative standard deviation 1.797524 %

Correlation coefficient 0.999831

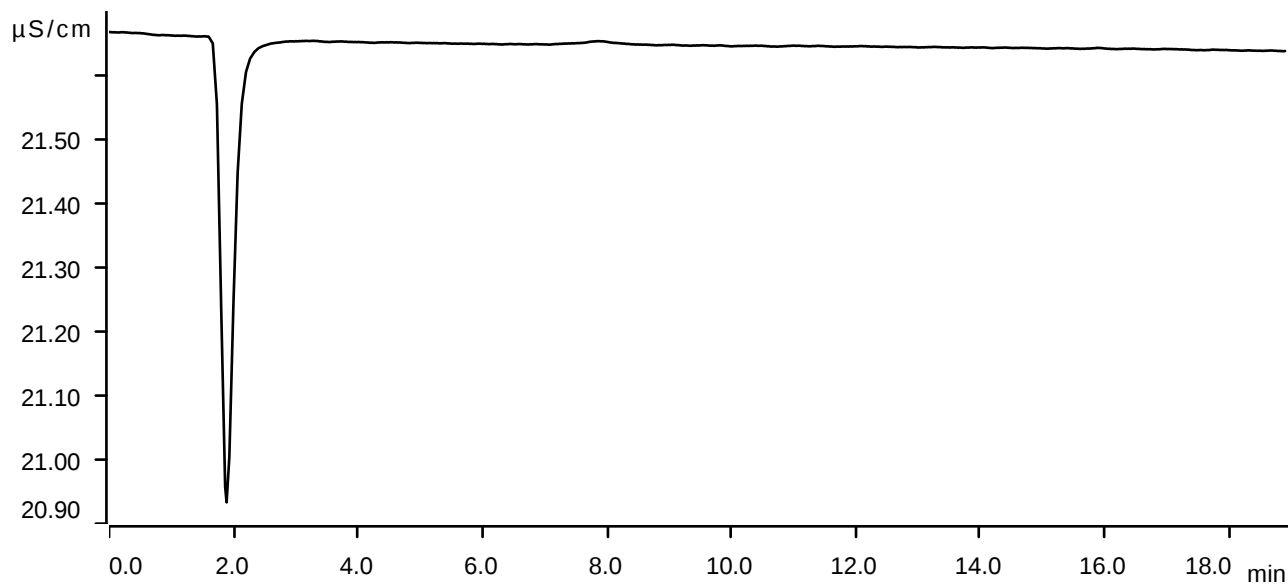
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 1	1	0.000	10.0	1.0	1.0	n. d.	STD1	2025-01-20 11:14:39 UTC-5	used
Standard 2	1	3.000	10.0	1.0	1.0	0.207	STD2	2025-01-20 11:36:02 UTC-5	used
Standard 3	1	6.000	10.0	1.0	1.0	0.456	STD3	2025-01-20 11:57:26 UTC-5	used
Standard 4	1	7.500	10.0	1.0	1.0	0.531	STD4	2025-01-20 12:18:50 UTC-5	used
Standard 5	1	15.000	10.0	1.0	1.0	1.105	STD5	2025-01-20 12:40:15 UTC-5	used
Standard 6	1	30.000	10.0	1.0	1.0	2.264	STD6	2025-01-20 13:01:41 UTC-5	used
Standard 7	1	37.000	10.0	1.0	1.0	2.840	STD7	2025-01-20 13:23:08 UTC-5	used

Sample data

Ident STD1
Sample type Standard 1
Determination start 2025-01-20 11:14:39 UTC-5
Method IC1-012025
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 12.39 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

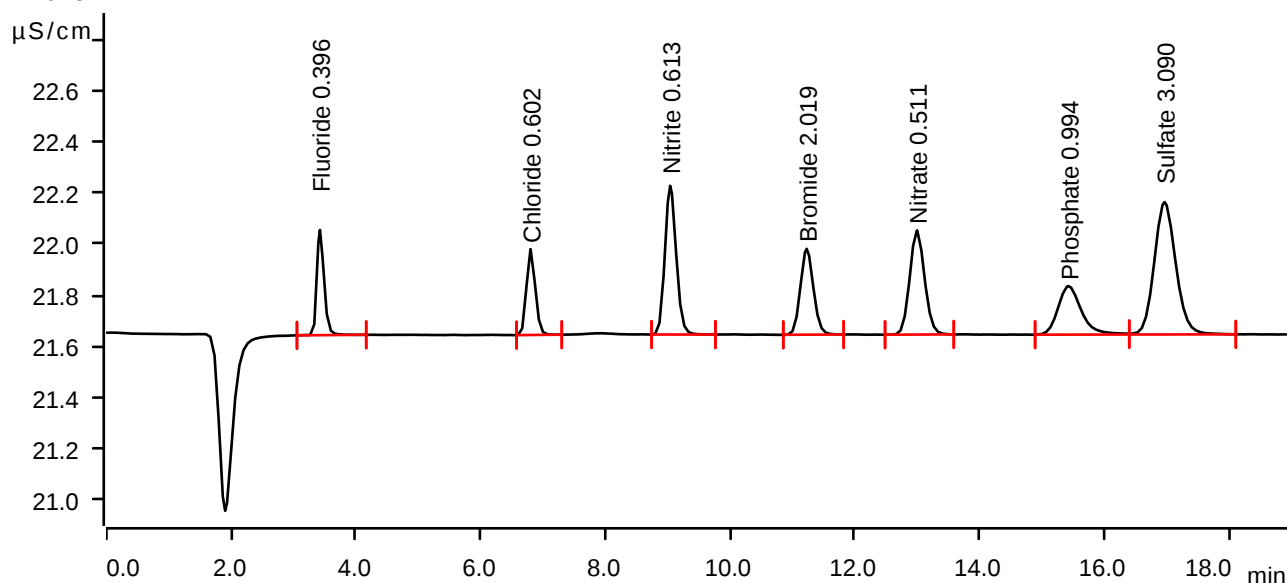
Sample data

Ident STD2
Sample type Standard 2
Determination start 2025-01-20 11:36:02 UTC-5
Method IC1-012025
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	3.425	0.0549	0.411	0.396	Fluoride
2	6.802	0.0555	0.335	0.602	Chloride
3	9.040	0.1223	0.581	0.613	Nitrite
4	11.228	0.0813	0.335	2.019	Bromide
5	12.995	0.1126	0.407	0.511	Nitrate
6	15.423	0.0822	0.190	0.994	Phosphate
7	16.967	0.2070	0.517	3.090	Sulfate

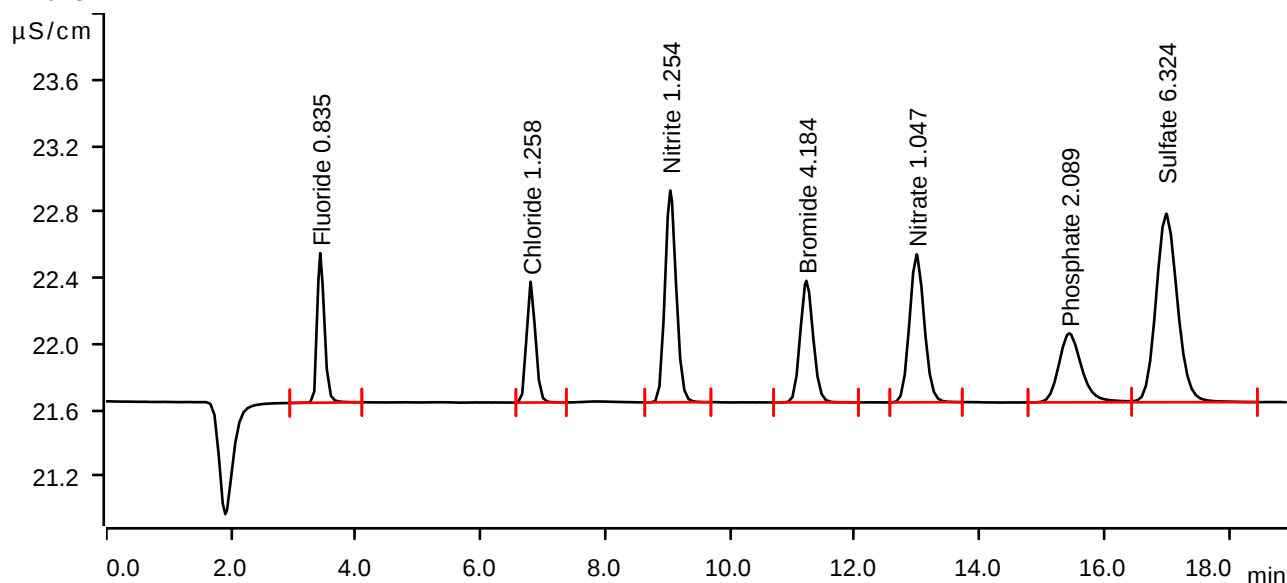
Sample data

Ident STD3
Sample type Standard 3
Determination start 2025-01-20 11:57:26 UTC-5
Method IC1-012025
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	3.430	0.1203	0.906	0.835	Fluoride
2	6.803	0.1209	0.731	1.258	Chloride
3	9.042	0.2691	1.282	1.254	Nitrite
4	11.223	0.1779	0.736	4.184	Bromide
5	12.990	0.2472	0.896	1.047	Nitrate
6	15.438	0.1775	0.418	2.089	Phosphate
7	16.992	0.4562	1.141	6.324	Sulfate

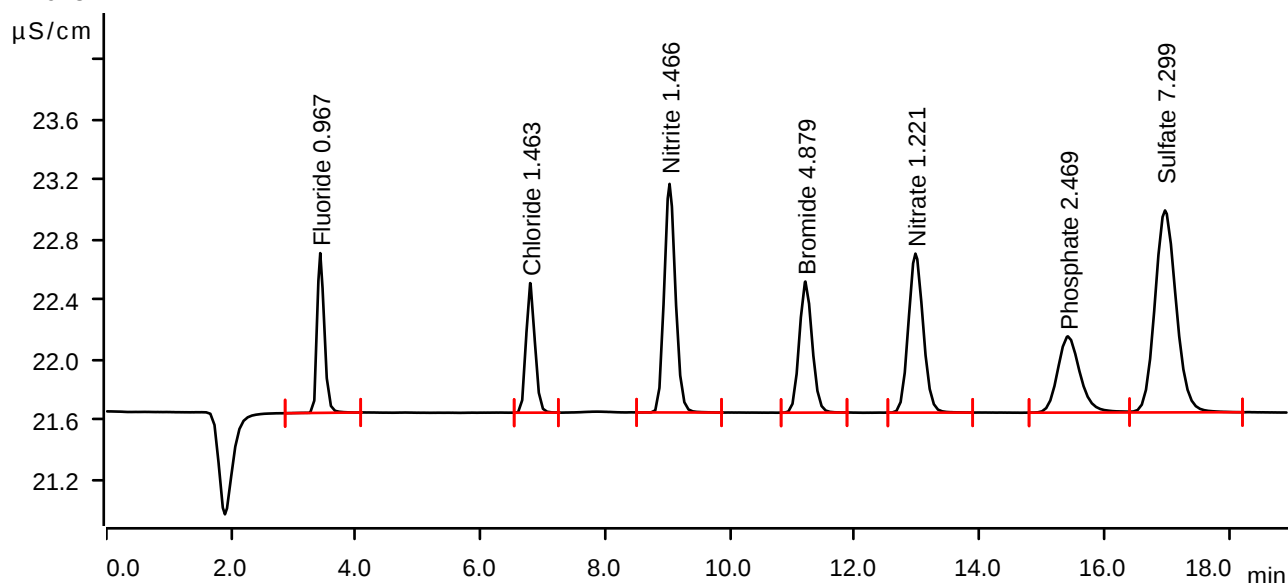
Sample data

Ident STD4
Sample type Standard 4
Determination start 2025-01-20 12:18:50 UTC-5
Method IC1-012025
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	3.430	0.1399	1.061	0.967	Fluoride
2	6.795	0.1414	0.860	1.463	Chloride
3	9.030	0.3178	1.517	1.466	Nitrite
4	11.208	0.2089	0.870	4.879	Bromide
5	12.972	0.2908	1.056	1.221	Nitrate
6	15.417	0.2105	0.506	2.469	Phosphate
7	16.973	0.5314	1.341	7.299	Sulfate

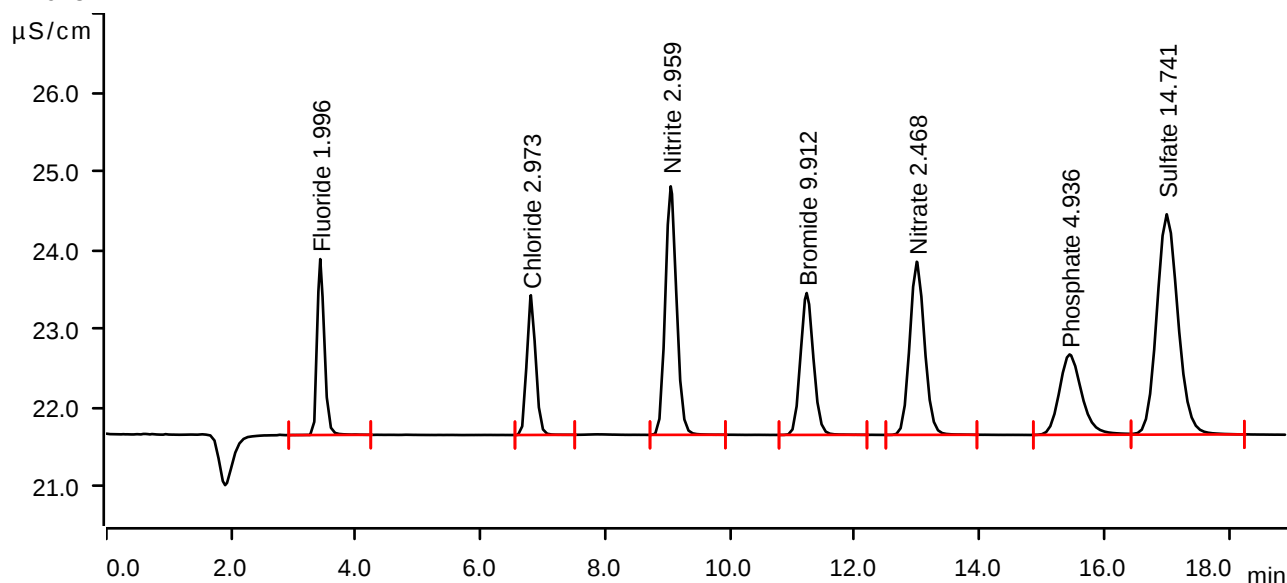
Sample data

Ident STD5
Sample type Standard 5
Determination start 2025-01-20 12:40:15 UTC-5
Method IC1-012025
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	3.430	0.2930	2.233	1.996	Fluoride
2	6.807	0.2921	1.773	2.973	Chloride
3	9.048	0.6595	3.154	2.959	Nitrite
4	11.228	0.4336	1.801	9.912	Bromide
5	12.993	0.6039	2.197	2.468	Nitrate
6	15.443	0.4254	1.020	4.936	Phosphate
7	17.002	1.1048	2.795	14.741	Sulfate

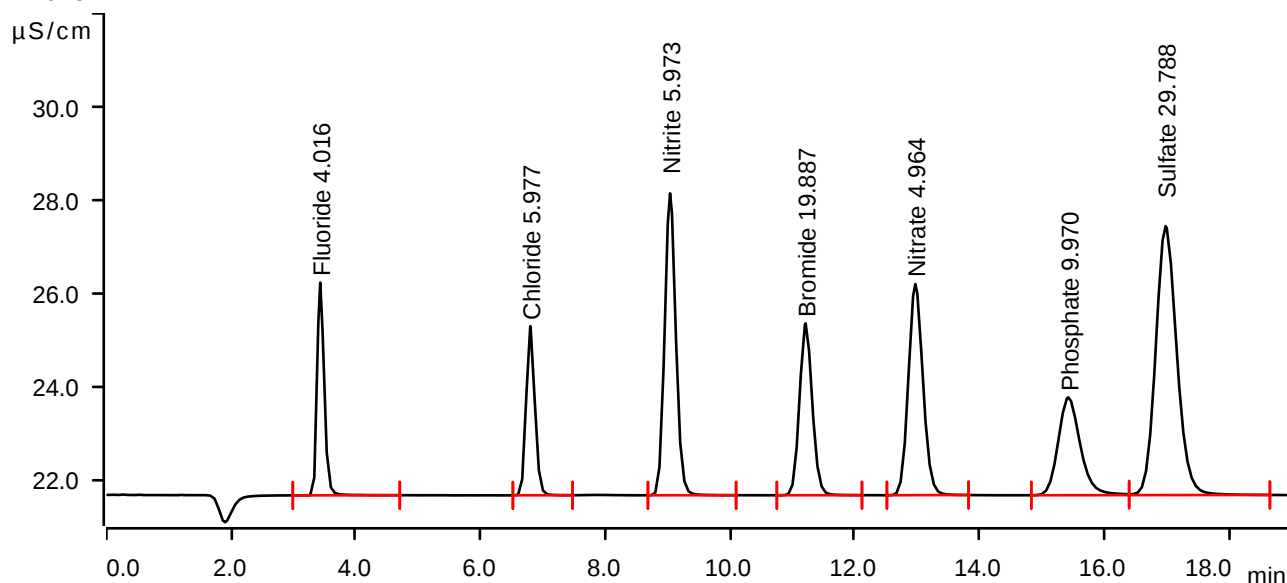
Sample data

Ident STD6
Sample type Standard 6
Determination start 2025-01-20 13:01:41 UTC-5
Method IC1-012025
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	3.430	0.5937	4.568	4.016	Fluoride
2	6.797	0.5919	3.633	5.977	Chloride
3	9.038	1.3497	6.484	5.973	Nitrite
4	11.212	0.8789	3.691	19.887	Bromide
5	12.970	1.2302	4.535	4.964	Nitrate
6	15.423	0.8637	2.101	9.970	Phosphate
7	16.983	2.2643	5.777	29.788	Sulfate

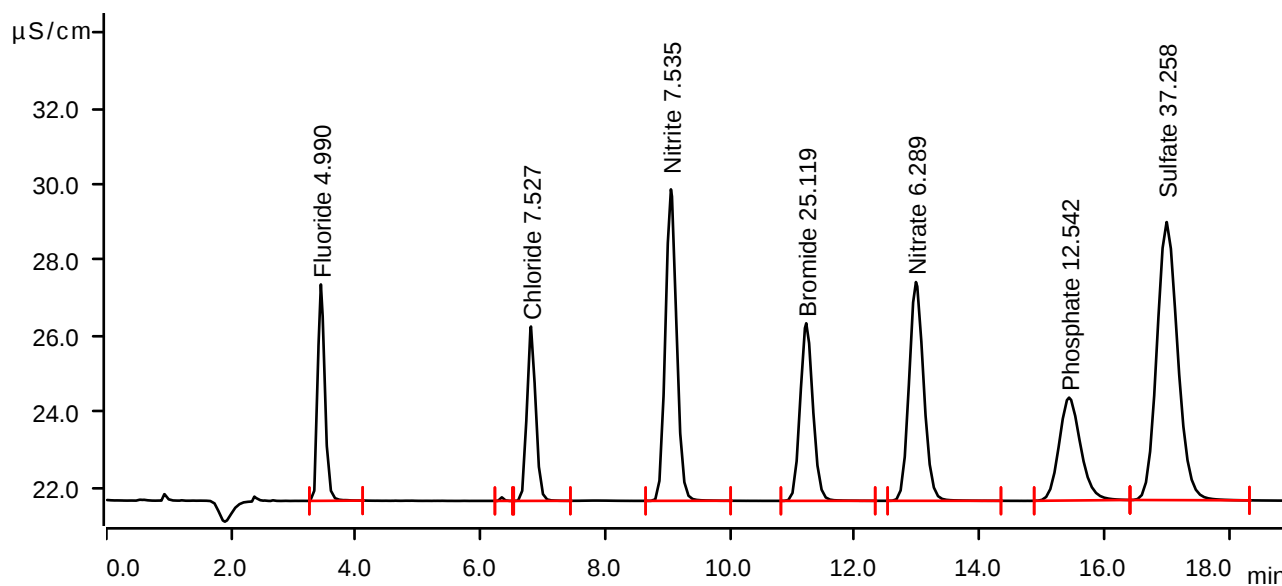
Sample data

Ident STD7
Sample type Standard 7
Determination start 2025-01-20 13:23:08 UTC-5
Method IC1-012025
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



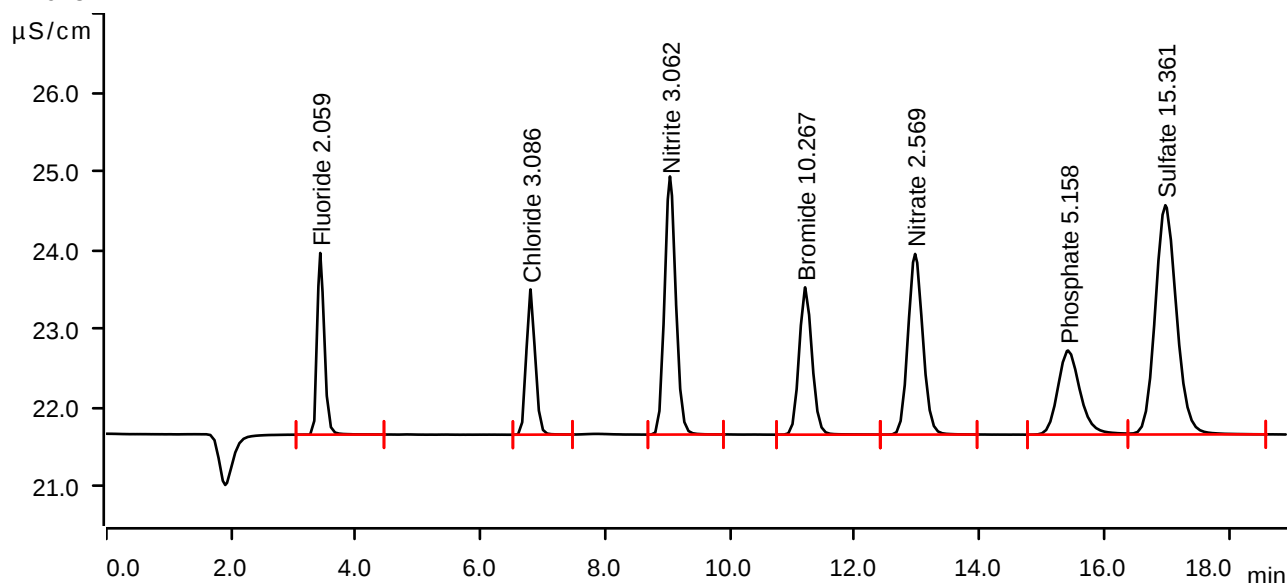
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.440	0.7387	5.703	4.990	Fluoride
2	6.342	0.0051	0.093	invalid	
3	6.808	0.7466	4.595	7.527	Chloride
4	9.052	1.7073	8.209	7.535	Nitrite
5	11.222	1.1125	4.681	25.119	Bromide
6	12.980	1.5629	5.766	6.289	Nitrate
7	15.435	1.0877	2.713	12.542	Phosphate
8	16.998	2.8398	7.327	37.258	Sulfate

Sample data

Ident ICV
 Sample type Check standard 1
 Determination start 2025-01-20 13:44:36 UTC-5
 Method IC1-012025
 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	3.430	0.3025	2.306	2.059	Fluoride
2	6.798	0.3033	1.843	3.086	Chloride
3	9.037	0.6832	3.276	3.062	Nitrite
4	11.205	0.4495	1.869	10.267	Bromide
5	12.967	0.6293	2.293	2.569	Nitrate
6	15.418	0.4447	1.067	5.158	Phosphate
7	16.978	1.1525	2.909	15.361	Sulfate

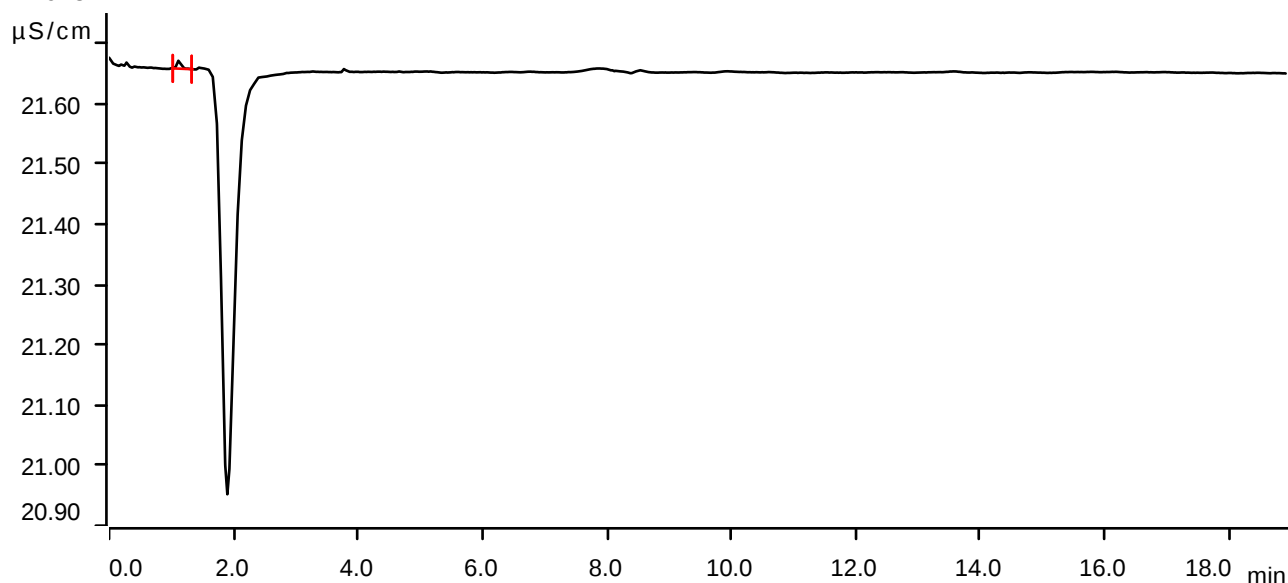
Sample data

Ident ICB
Sample type Sample
Determination start 2025-01-20 14:06:05 UTC-5
Method IC1-012025
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 12.44 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	1.115	0.0010	0.013	invalid	

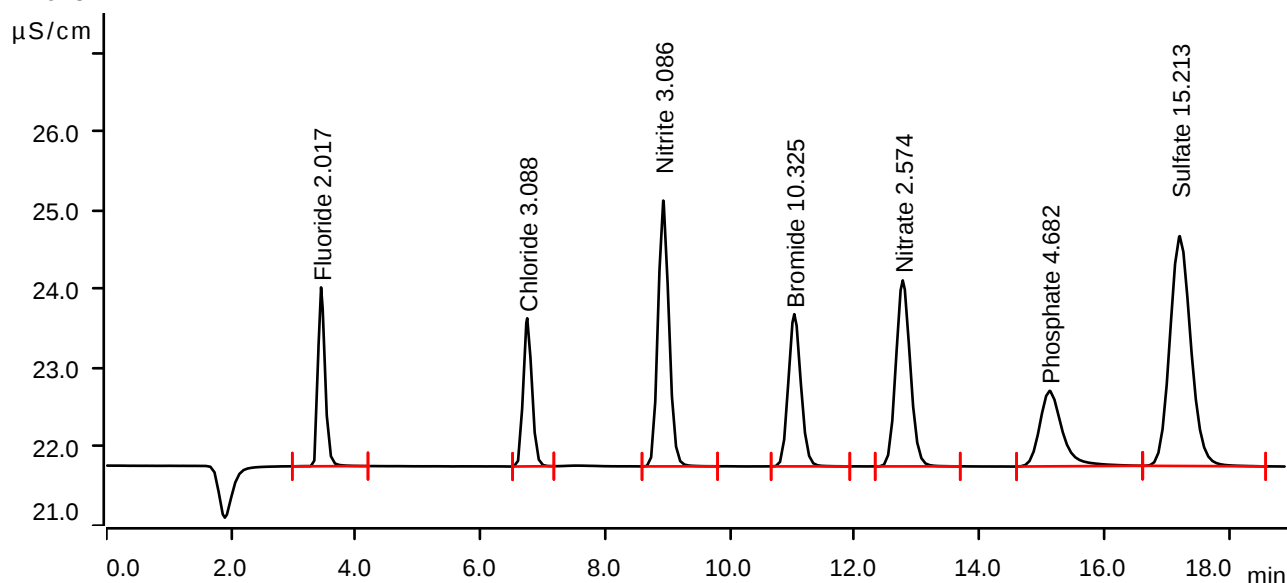
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2025-02-04 10:19:10 UTC-5
Method IC1-012025
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



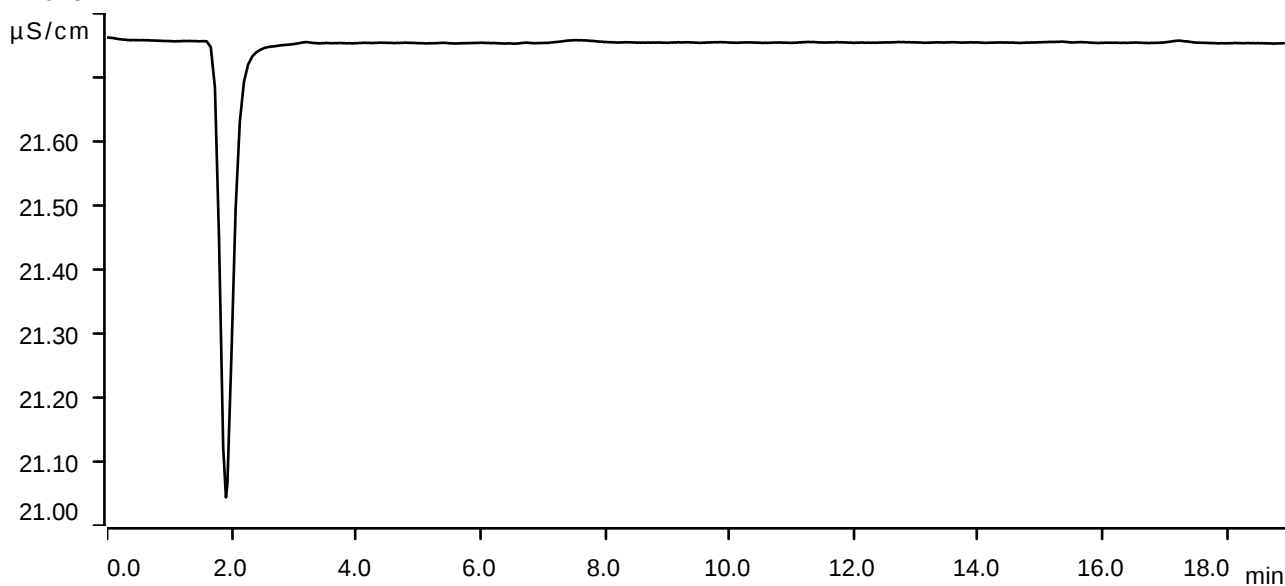
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.443	0.2962	2.270	2.017	Fluoride
2	6.748	0.3036	1.880	3.088	Chloride
3	8.928	0.6887	3.373	3.086	Nitrite
4	11.030	0.4520	1.932	10.325	Bromide
5	12.768	0.6304	2.361	2.574	Nitrate
6	15.123	0.4033	0.958	4.682	Phosphate
7	17.210	1.1412	2.916	15.213	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2025-02-04 10:40:40 UTC-5
Method IC1-012025
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

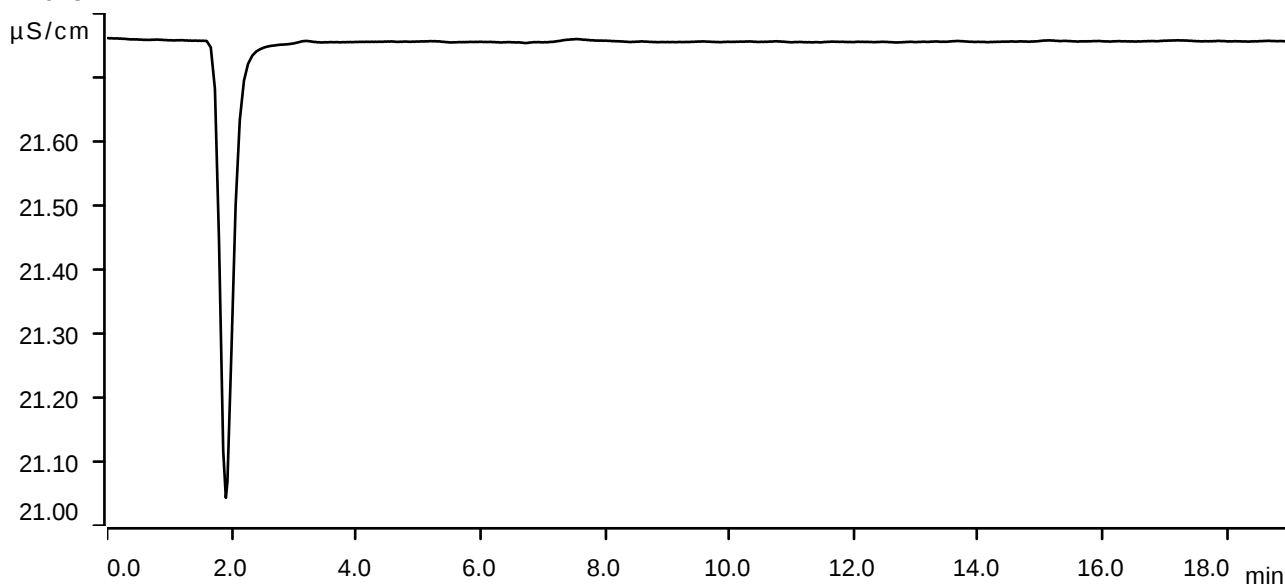
Anions

Sample data

Ident LB134556BLW
Sample type Sample
Determination start 2025-02-04 11:02:11 UTC-5
Method IC1-012025
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

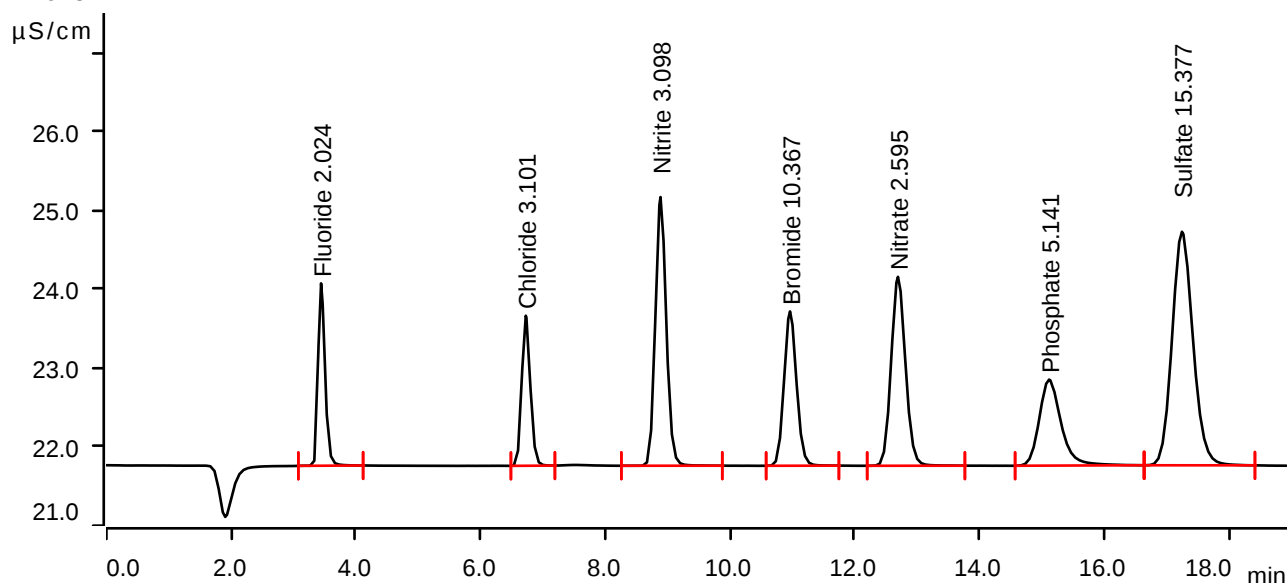
Sample data

Ident LB134556BSW
Sample type Check standard 1
Determination start 2025-02-04 11:23:42 UTC-5
Method IC1-012025
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 11.15 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	3.443	0.2972	2.314	2.024	Fluoride
2	6.725	0.3049	1.904	3.101	Chloride
3	8.885	0.6914	3.409	3.098	Nitrite
4	10.962	0.4539	1.958	10.367	Bromide
5	12.692	0.6358	2.398	2.595	Nitrate
6	15.115	0.4432	1.092	5.141	Phosphate
7	17.245	1.1538	2.964	15.377	Sulfate

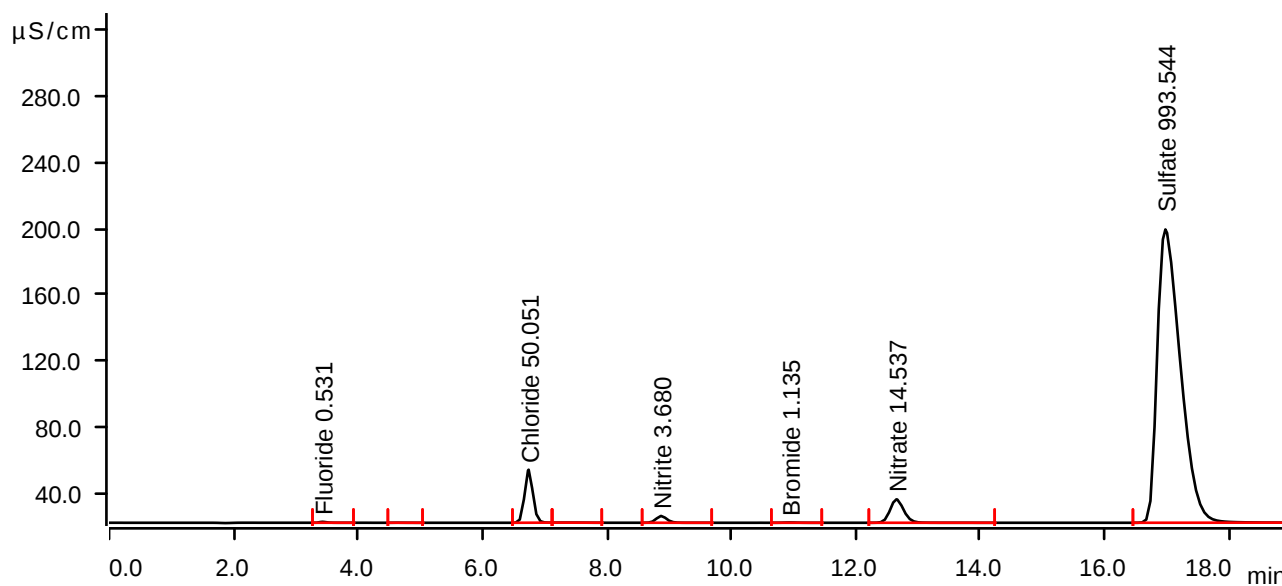
Sample data

Ident Q1282-01
Sample type Sample
Determination start 2025-02-04 11:45:14 UTC-5
Method IC1-012025
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 11.20 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	3.432	0.0751	0.568	0.531	Fluoride
2	4.648	0.0094	0.053	invalid	
3	6.743	4.9906	32.076	50.051	Chloride
4	7.350	0.0208	0.054	invalid	
5	8.873	0.8246	4.091	3.680	Nitrite
6	10.942	0.0418	0.179	1.135	Bromide
7	12.653	3.6329	14.194	14.537	Nitrate
8	16.975	76.5258	177.502	993.544	Sulfate

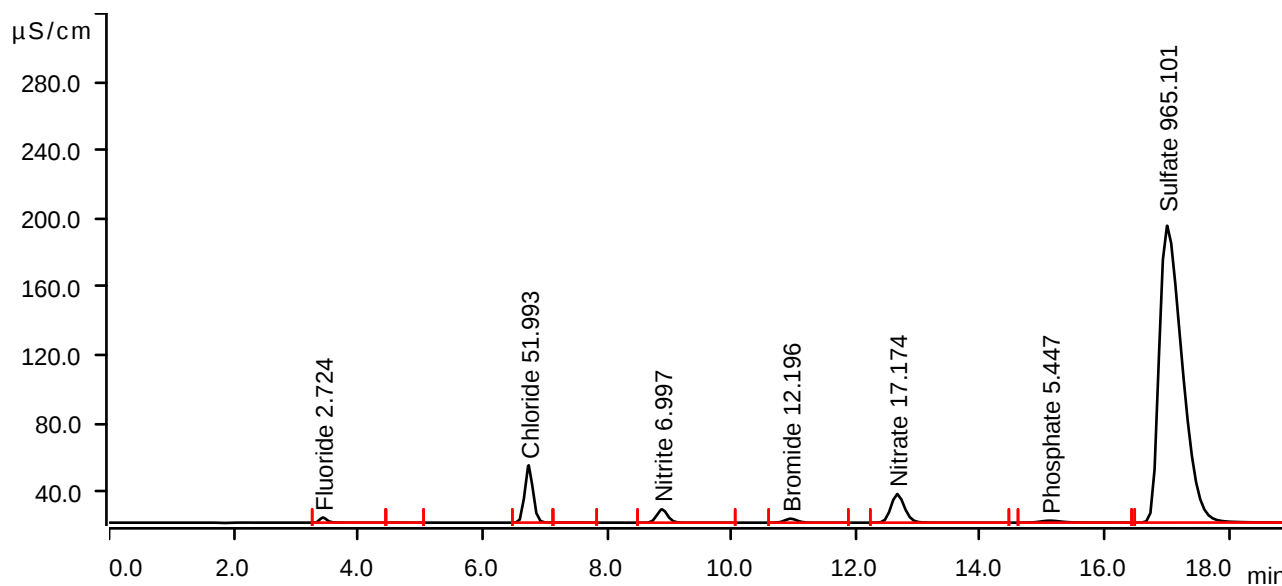
Sample data

Ident Q1282-01MS
Sample type Sample
Determination start 2025-02-04 13:00:30 UTC-5
Method IC1-012025
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 10.98 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	3.437	0.4014	3.043	2.724	Fluoride
2	4.650	0.0088	0.050	invalid	
3	6.745	5.1844	33.562	51.993	Chloride
4	7.345	0.0134	0.039	invalid	
5	8.887	1.5841	7.858	6.997	Nitrite
6	10.953	0.5356	2.316	12.196	Bromide
7	12.667	4.2948	16.814	17.174	Nitrate
8	15.120	0.4699	1.163	5.447	Phosphate
9	17.005	74.3342	173.878	965.101	Sulfate

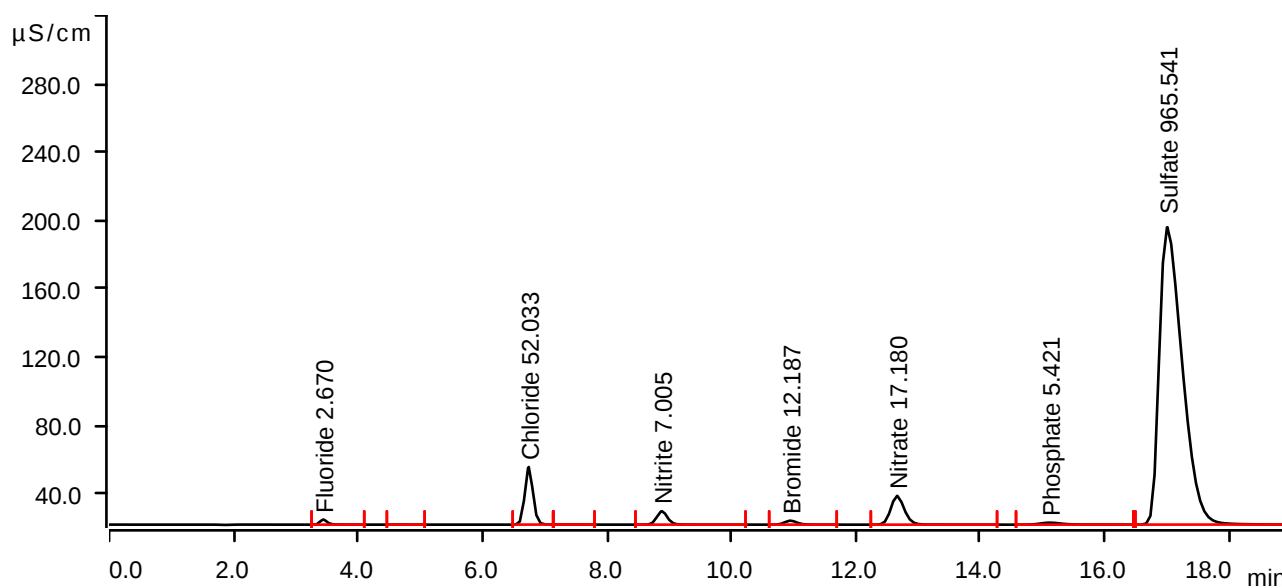
Sample data

Ident Q1282-01MSD
Sample type Sample
Determination start 2025-02-04 13:22:04 UTC-5
Method IC1-012025
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 ($\mu\text{S/cm}$) x min	Height $\mu\text{S/cm}$	Concentration ppm	Component name
1	3.442	0.3934	3.020	2.670	Fluoride
2	4.653	0.0091	0.051	invalid	
3	6.745	5.1884	33.726	52.033	Chloride
4	7.323	0.0120	0.035	invalid	
5	8.885	1.5859	7.879	7.005	Nitrite
6	10.950	0.5352	2.323	12.187	Bromide
7	12.663	4.2963	16.864	17.180	Nitrate
8	15.118	0.4676	1.157	5.421	Phosphate
9	17.007	74.3681	174.229	965.541	Sulfate

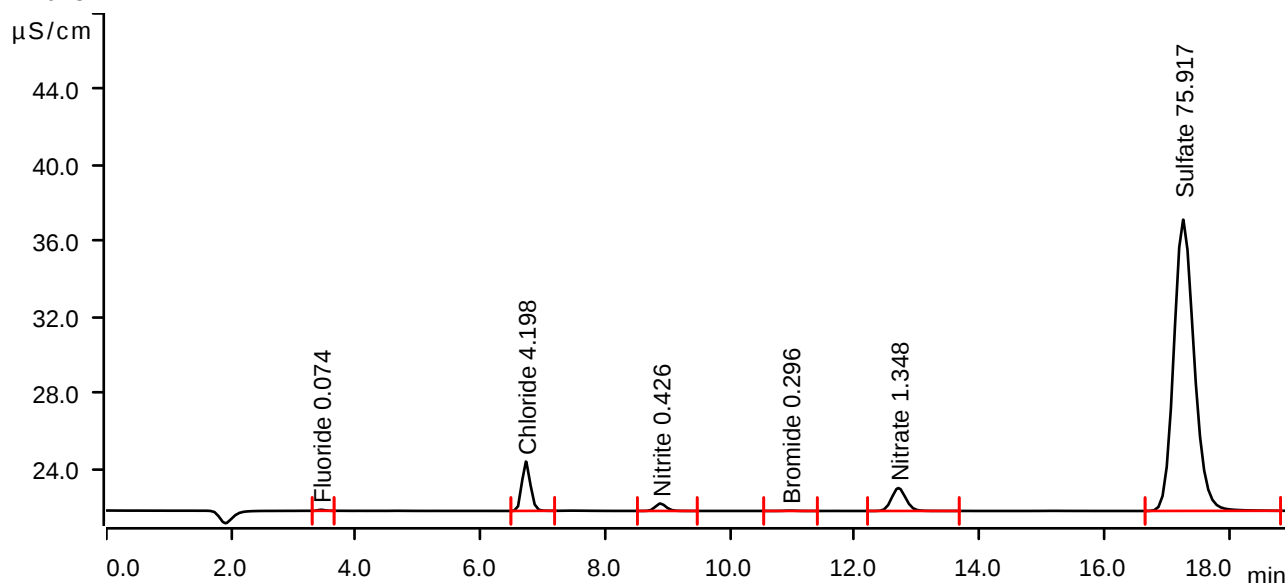
Sample data

Ident Q1282-01DLX10
Sample type Sample
Determination start 2025-02-04 13:43:38 UTC-5
Method IC1-012025
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 10.98 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	3.440	0.0070	0.055	0.074	Fluoride
2	6.727	0.4144	2.601	4.198	Chloride
3	8.883	0.0795	0.389	0.426	Nitrite
4	10.962	0.0043	0.018	0.296	Bromide
5	12.698	0.3228	1.212	1.348	Nitrate
6	17.263	5.8187	15.353	75.917	Sulfate

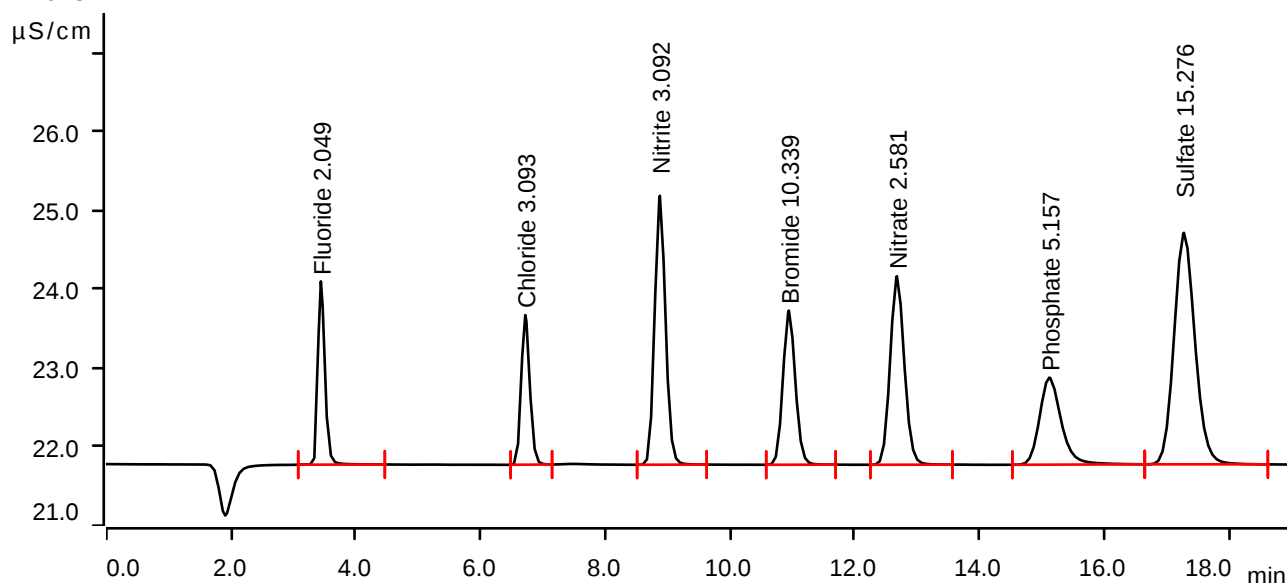
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2025-02-04 14:05:13 UTC-5
Method IC1-012025
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 11.04 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



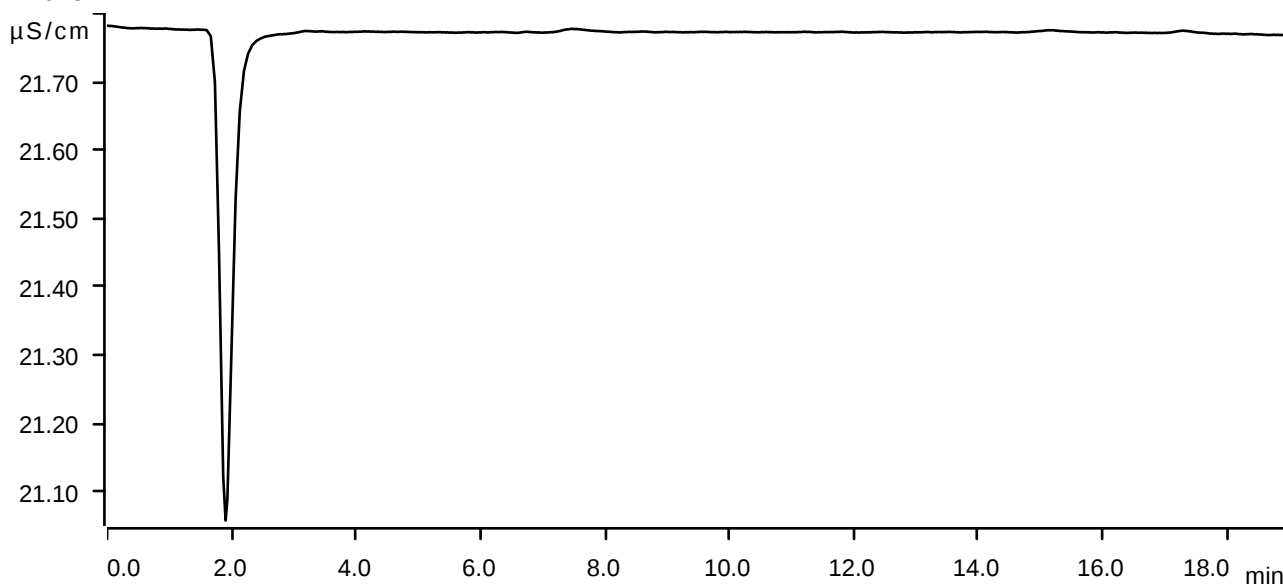
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.440	0.3010	2.325	2.049	Fluoride
2	6.717	0.3041	1.899	3.093	Chloride
3	8.875	0.6901	3.413	3.092	Nitrite
4	10.943	0.4527	1.956	10.339	Bromide
5	12.675	0.6323	2.392	2.581	Nitrate
6	15.118	0.4447	1.105	5.157	Phosphate
7	17.277	1.1461	2.938	15.276	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2025-02-04 14:26:43 UTC-5
Method IC1-012025
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 10.92 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

TOTAL SOLIDS - SM2540B

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 02/04/2025

Run Number: LB134560

BalanceID: WC SC-6

OvenID: WC OVEN-1

ThermometerID: WET OVEN#1

TEMP1 IN: 104 °C 02/04/2025 13:00 **TEMP1 OUT:** 103 °C 02/04/2025 14:00
TEMP2 IN: 104 °C 02/04/2025 15:00 **TEMP2 OUT:** 103 °C 02/04/2025 16:00
TEMP3 IN: 104 °C 02/04/2025 16:40 **TEMP3 OUT:** 103 °C 02/05/2025 08:00
TEMP4 IN: 104 °C 02/05/2025 08:30 **TEMP4 OUT:** 103 °C 02/05/2025 10:10

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Vol (ml)	Original weight 1st Dish+Sample weight after Drying @103-@105°C (g)	Constant weight 2nd Dish+Sample weight after Drying @103-@105°C (g)	Final Constant weight Final Dish+Sample weight after Drying @103-@105°C (g)	Weight (g)	Result (mg/L)
1	LB134560BL	LB134560BL	89.6374	89.6374	100	89.6374	89.6374	89.6374	0.0000	0
2	Q1282-01	SW-WTS-02	106.1355	106.1355	100	106.2757	106.2757	106.2760	0.1402	1402

A = Sample Volume (ml)

B = Final Empty Dish Weight (g)

C = Final Dish+Sample weight after Drying @103-@105°C (g)

$$\text{Result mg/L} = ((C - B) / A) * 1000 * 1000$$

WORKLIST(Hardcopy Internal Chain)

VB 134560

WorkList Name : ts q1282 WorkList ID : 187464 Department : Wet-Chemistry Date : 02-04-2025 13:37:04

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1282-01 - D	SW-WTS-02	Water	TS	Cool 4 deg C	ENTA05	D11	01/31/2025	SM2540 B

Date/Time 02/04/25 13:45
Raw Sample Received by: SP
Raw Sample Relinquished by: CP

Date/Time 02/04/25 17:00
Raw Sample Received by: CP
Raw Sample Relinquished by: SP

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 02/04/2025

Run Number: LB134570

BalanceID: WC SC-6

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 103 °C 02/04/2025 14:00 TEMP1 OUT: 103 °C 02/04/2025 15:00
 TEMP2 IN: 104 °C 02/04/2025 15:30 TEMP2 OUT: 104 °C 02/04/2025 16:30
 TEMP3 IN: 103 °C 02/05/2025 09:30 TEMP3 OUT: 104 °C 02/05/2025 11:00
 TEMP4 IN: 104 °C 02/05/2025 11:30 TEMP4 OUT: 103 °C 02/05/2025 13:00

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
1	LB134570BL	LB134570BL	1.3652	1.3652	100	1.3653	1.3653	1.3653	0.0001	1
2	LB134570BS	LB134570BS	1.5893	1.5893	100	1.6425	1.6425	1.6425	0.0532	532
3	Q1252-01	EFFLUENT	1.4691	1.4691	50	1.5505	1.5505	1.5505	0.0814	1628
4	Q1252-01DUP	EFFLUENTDUP	1.5893	1.5893	50	1.6709	1.6709	1.6709	0.0816	1632
5	Q1252-04	AERATION 1	1.4805	1.4805	100	1.5438	1.5438	1.5438	0.0633	633
6	Q1282-01	SW-WTS-02	1.4781	1.4781	200	1.4828	1.4828	1.4828	0.0047	23.5

A = Sample Volume (ml)
 B = Final Empty Dish Weight (g)
 C = Final Empty Dish + Sample weight after 1.5 hr drying @105°C(g)
 D = Weight (g)

Weight (g) = C - B

Result mg/L = $\frac{D}{A} \times 1000 \times 1000$

WORKLIST(Hardcopy Internal Chain)

VB 134570

WorkList Name : tss q1282

WorkList ID : 187482

Department : Wet-Chemistry

Date : 02-05-2025 07:44:38

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1252-01	EFFLUENT	Water	TSS	Cool 4 deg C	HOLL01	E11	01/31/2025	SM2540 D
Q1252-04	AERATION 1	Water	TSS	Cool 4 deg C	HOLL01	E11	01/31/2025	SM2540 D
Q1282-01	SW-WTS-02	Water	TSS	Cool 4 deg C	ENTA05	D11	01/31/2025	SM2540 D

Date/Time 02/05/25 07:50

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 02/05/25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

12:30

[Signature]

[Signature]

Analytical Summary Report

Analysis Method: 1010B

Reviewed By: rubina

Parameter: Flash Point

Supervisor Review By: Iwona

Run Number: LB134573

Ambient Barometric Pressure (mmHg): 771.00

Thermometer ID: Flash Point

Barometric Scale ID: 0511064

Reagent/Standard	Lot/Log #
p-xylene (ICV)	W3158

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	02/05/2025	08:20
2	Q1271-04		1	12	100.00	>212.0	>212.0	02/05/2025	08:50
3	Q1271-04DUP		1	12	100.00	>212.0	>212.0	02/05/2025	09:20
4	Q1282-01		1	14	100.00	>212.0	>212.0	02/05/2025	09:50

Result = (Celsius * 1.8) + 32

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

WORKLIST(Hardcopy Internal Chain)

6134573

WorkList Name : fp-2-5 WorkList ID : 187486 Department : Wet-Chemistry Date : 02-05-2025 08:07:59

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1271-04	3190	Water	Flash Point	Cool 4 deg C	PSEG03	D21	01/31/2025	1010B
Q1282-01	SW-WTS-02	Water	Flash Point	Cool 4 deg C	ENTA05	D11	01/31/2025	1010B

Date/Time 02/05/2025 08:10
 Raw Sample Received by: RM WWC
 Raw Sample Relinquished by: RM WWC

Date/Time 02/05/2025 10:30
 Raw Sample Received by: RM WWC
 Raw Sample Relinquished by: RM WWC

Analytical Summary Report

Analysis Method: 9040C

Analyst By : jignesh

Parameter: pH

Supervisor Review By : Iwona

Run Number: LB134584

Slope : 98.5

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)	W3161
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	02/05/2025	15:00
2	CAL2	1	Water	NA	NA	20.3	7.01	02/05/2025	15:05
3	CAL3	1	Water	NA	NA	20.3	10.02	02/05/2025	15:10
4	ICV	1	Water	NA	NA	20.1	6.98	02/05/2025	15:15
5	CCV1	1	Water	NA	NA	20.2	2.01	02/05/2025	15:20
6	Q1282-01	1	Water	NA	NA	20.1	5.80	02/05/2025	15:25
7	Q1293-01	1	Water	NA	NA	20.3	6.75	02/05/2025	15:33
8	Q1298-01	1	Water	NA	NA	20.2	7.05	02/05/2025	15:37
9	Q1298-02	1	Water	NA	NA	20.2	7.11	02/05/2025	15:40
10	Q1298-03	1	Water	NA	NA	20.4	7.06	02/05/2025	15:47
11	Q1298-05	1	Water	NA	NA	20.7	7.11	02/05/2025	15:55
12	Q1298-06	1	Water	NA	NA	20.9	7.12	02/05/2025	16:00
13	Q1298-07	1	Water	NA	NA	20.5	6.99	02/05/2025	16:10
14	Q1298-07DUP	1	Water	NA	NA	20.4	7.00	02/05/2025	16:11
15	CCV2	1	Water	NA	NA	20.3	12.02	02/05/2025	16:15

WORKLIST(Hardcopy Internal Chain)

134584

WorkList Name : PH W Q1282

WorkList ID : 187507

Department : Wet-Chemistry

Date : 02-05-2025 14:39:23

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1282-01	D SW-WTS-02	Water	pH	Cool 4 deg C	ENTA05	D11	01/31/2025	9040C
Q1293-01	NWB-2123	Water	pH	Cool 4 deg C	PSEG03	D11	02/05/2025	9040C
Q1298-01	0114-A	Water	pH	Cool 4 deg C	PSEG03	N41	02/05/2025	9040C
Q1298-02	0114-B	Water	pH	Cool 4 deg C	PSEG03	N41	02/05/2025	9040C
Q1298-03	0114-C	Water	pH	Cool 4 deg C	PSEG03	N41	02/05/2025	9040C
Q1298-05	0131-A	Water	pH	Cool 4 deg C	PSEG03	N41	02/05/2025	9040C
Q1298-06	0131-B	Water	pH	Cool 4 deg C	PSEG03	N41	02/05/2025	9040C
Q1298-07	0131-C	Water	pH	Cool 4 deg C	PSEG03	N41	02/05/2025	9040C

Date/Time

Raw Sample Received by:

Raw Sample Relinquished by:

02/05/25 14:50

SS W20

IT (SM)

Date/Time

Raw Sample Received by:

Raw Sample Relinquished by:

02/05/25

14:40

IT (SM)

SS W20

BOD5 LOG

ANALYST: rubin
Inst Id :DO METER
LB :LB134586

Reviewed By:Iwona
On:2/10/2025 1:00:48
PM

SUPERVISOR: Iwona

QC BATCH ID: LB134586

Analysis Date: 02/05/2025

BOD Water: WP111807

MANGANOUS SULFATE SOLUTION: W3103

Starch: W3149

Alkaline Iodide Azide: W3109

Sulfuric acid, 1N: WP110386

Sodium Thiosulfate, 0.025N: W3105

POLYSEED: WP111809

NaOH, 1N: WP111323

GGA: WP111808

IncubatorID: INCUBATOR #3

Chlorine Strips: W3155

GuageID: 0511062

pH Strips: W3140

Zero DO: WP111324

Lab SampleID	Client ID	Bottle No.	VOL. ML	Initial Reading (ML)	Final Reading (ML)	Difference	Average
WINKLER 1	WINKLER 1	1	300	0.0	9.6	9.6	9.6
WINKLER 2	WINKLER 2	2	300	9.8	19.4	9.6	9.6

Meter Calibration1: 9.62

Zero DO Reading1: 0.14 mg/L (<=0.2 Criteria)

Barometric Pressure1: 771 mmHg

DO Meter BOD fluid reading for winkler comparison: 9.69

After Incubation

Meter Calibration2: 9.10

Zero DO Reading2: 0.10 mg/L (<=0.2 Criteria)

Barometric Pressure2: 771 mmHg

QC BATCH ID: LB134586

INCUBATOR TEMP IN(C): 19.9

INCUBATOR TEMP OUT(C): 19.8

TIME IN: 15:30

TIME OUT: 09:50

DATE IN: 02/05/2025

DATE OUT: 02/10/2025

Lab SampleID	Bottle No.	Check CL	Initial PH	Final PH	Temp °C	Sam Vol. (mL)	D.O.1 Initial	D.O.2 Final	Depletion	BOD Result (mg/L)	Avg Result (mg/L)	Comment
LB134586BL	1	No	6.62	N/A	20.80	300	9.69	9.67	0.02	0.02	0.02	
POLYSEED	1					10	9.61	5.67	3.94	0.79	0.7	
POLYSEED	2					15	9.59	4.66	4.93	0.66		
POLYSEED	3					20	9.53	2.93	6.6	0.66		
GGA	1					6	9.65	5.24	4.41	185.5	189.5	
GGA	2					6	9.64	5.19	4.45	187.5		
GGA	3					6	9.64	5.03	4.61	195.5		
Q1282-01	1	No	6.05	6.87	20.00	5	9.67	8.43	-	0	24.9	pH Adjusted
Q1282-01	2					20	9.65	6.22	3.43	40.95		
Q1282-01	3					50	9.64	5.49	4.15	20.7		
Q1282-01	4					150	9.62	2.40	7.22	13.04		
Q1300-02	1	No	7.65	7.02	20.60	0.5	9.62	3.52	6.1	3240	3240	pH Adjusted
Q1300-02	2					1	9.53	0.08	-	0		
Q1300-02	3					2	9.45	0.06	-	0		
Q1300-02	4					3	9.30	0.05	-	0		
Q1300-02DUP	1	No	7.65	7.02	20.60	0.5	9.63	3.64	5.99	3174	3174	pH Adjusted
Q1300-02DUP	2					1	9.54	0.08	-	0		
Q1300-02DUP	3					2	9.43	0.06	-	0		
Q1300-02DUP	4					3	9.29	0.05	-	0		

NOTE: 2ml POLYSEED added to GGA and all the Samples, but not in Blank.

NOTE (For, CBOD5): 0.16 g Nitrification Inhibitor added to GGA and all the Samples, but not in Blank.

Test results

Aquakem 7.2AQ1

Page: 1

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

2/7/2025 15:55

Reviewed by : RM

Instrument ID : Konelab

Test: TKN-NH3

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	4.564	0.0	0.677	
ICB1	0.051	0.0	0.016	
CCV1	4.883	0.0	0.724	
CCB1	0.050	0.0	0.015	
RL CHECK	0.483	0.0	0.079	
PB166559BL	0.043	0.0	0.014	
PB166559BS	4.928	0.0	0.730	
Q1168-07	0.275	0.0	0.048	
Q1168-08	0.514	0.0	0.084	
Q1282-01	0.614	0.0	0.098	
PB166560BL	0.052	0.0	0.016	
PB166560BS	4.882	0.0	0.724	
Q1168-01	0.279	0.0	0.049	
Q1168-02	0.518	0.0	0.084	
CCV2	4.907	0.0	0.727	
CCB2	0.060	0.0	0.017	

96% (50-150)

02/07/2025
RM

N 16
Mean 1.694
SD 2.1950
CV% 129.59

Aquakem v. 7.2AQ1

Results from time period:

Fri Feb 07 14:21:20 2025

Fri Feb 07 15:50:02 2025

Sample Id	Sam/Ctr/c/	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	TKN-NH3	P	0.059	mg/l	2/7/2025 14:21:20	
0.5PPM	A	TKN-NH3	P	0.5079	mg/l	2/7/2025 14:21:21	
1.0PPM	A	TKN-NH3	P	0.9384	mg/l	2/7/2025 14:21:22	
2.5PPM	A	TKN-NH3	P	2.5083	mg/l	2/7/2025 14:21:23	
5.0PPM	A	TKN-NH3	P	4.9095	mg/l	2/7/2025 14:21:24	
6.7PPM	A	TKN-NH3	P	6.7509	mg/l	2/7/2025 14:21:25	
10.0PPM	A	TKN-NH3	P	9.9928	mg/l	2/7/2025 14:21:26	
ICV1	S	TKN-NH3	P	4.5636	mg/l	2/7/2025 15:12:57	
ICB1	S	TKN-NH3	P	0.0514	mg/l	2/7/2025 15:12:59	
CCV1	S	TKN-NH3	P	4.8826	mg/l	2/7/2025 15:13:01	
CCB1	S	TKN-NH3	P	0.0498	mg/l	2/7/2025 15:13:03	
RL CHECK	S	TKN-NH3	P	0.4826	mg/l	2/7/2025 15:13:06	
PB166559BL	S	TKN-NH3	P	0.0433	mg/l	2/7/2025 15:13:07	
PB166559BS	S	TKN-NH3	P	4.928	mg/l	2/7/2025 15:23:42	
Q1168-07	S	TKN-NH3	P	0.2745	mg/l	2/7/2025 15:23:43	
Q1168-08	S	TKN-NH3	P	0.5144	mg/l	2/7/2025 15:23:49	
Q1282-01	S	TKN-NH3	P	0.6135	mg/l	2/7/2025 15:34:27	
PB166560BL	S	TKN-NH3	P	0.0519	mg/l	2/7/2025 15:34:29	
PB166560BS	S	TKN-NH3	P	4.8819	mg/l	2/7/2025 15:34:32	
Q1168-01	S	TKN-NH3	P	0.2786	mg/l	2/7/2025 15:34:34	
Q1168-02	S	TKN-NH3	P	0.5177	mg/l	2/7/2025 15:45:10	
CCV2	S	TKN-NH3	P	4.9073	mg/l	2/7/2025 15:45:16	
CCB2	S	TKN-NH3	P	0.06	mg/l	2/7/2025 15:45:18	

Calibration results

Aquakem 7.2AQ1

Page: 1

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

Reviewed by : RM Instrument ID : Konelab

2/7/2025 14:34

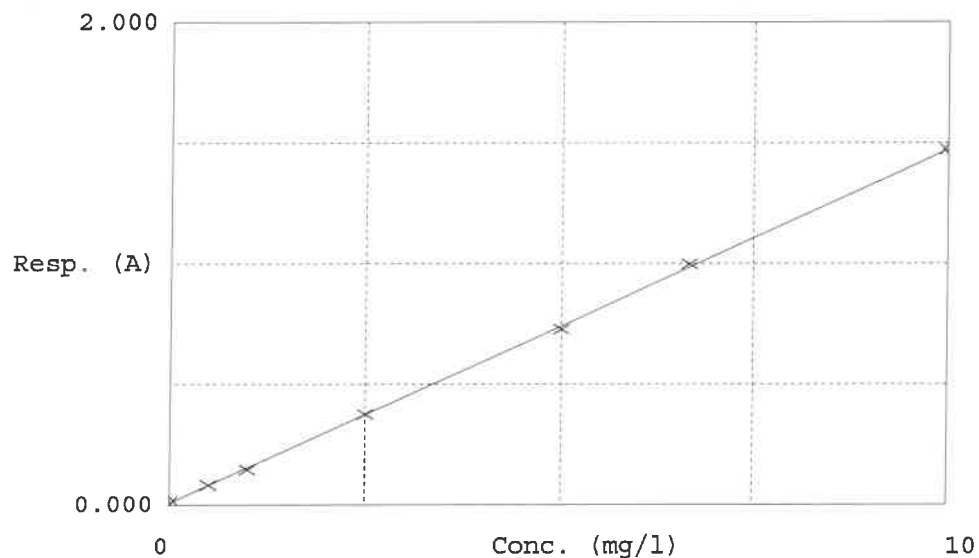
Test TKN-NH3

Accepted 2/7/2025 14:34

Factor 6.823
Bias 0.008

Coeff. of det. 0.999726

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.017	0.0590	0.0000	1.6
2	TKN-10	0.083	0.5079	0.5000	-6.2
3	TKN-10	0.146	0.9384	1.0000	0.3
4	TKN-10	0.376	2.5083	2.5000	-1.8
5	TKN-10	0.728	4.9095	5.0000	0.8
6	TKN-10	0.997	6.7509	6.6667	-0.1
7	TKN-10	1.473	9.9928	10.0000	

02/07/2025
RM

SOP ID : MSM4500-N Org C-TKN-11

SDG No : N/A

Start Digest Date: 02/07/2025 Time : 09:40 Temp : 380 °C

Matrix : WATER

End Digest Date: 02/07/2025 Time : 11:10 Temp : 378 °C

Pipette ID : WC

Start Distillation Date: 02/07/2025 Time : 11:55 Temp : 150 °C

Balance ID : N/A

End Distillation Date: 02/07/2025 Time : 12:55 Temp : 160 °C

Hood ID : HOOD#2&3

Digestion tube ID : M5595

Block Thermometer ID : Therm#2(2179)

Block ID : WC-DIST-BLOCK-1

Filter paper ID : N/A

Prep Technician Signature: RM

Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature: IL

Standard Name	MLS USED	STD REF. # FROM LOG
TKN CAL STD	50.0ML	WP111823
TKN CCV STD	50.0ML	WP111824
TKN ICV STD	50.0ML	WP111825
TKN LCS STD	50.0ML	WP111826
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
TKN DIGESTION FLUID	10.0ML	WP111319
TKN DISTILLATION BUFFER	10.0ML	WP109441
H2SO4 0.04N	5.0ML	WP110335
pH Paper 0-14	N/A	W3140
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:

RL CHECK 10ML FROM WP111824 ,ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT WP111604,LOD WP111827,LOQ WP111828

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02/07/2025 13:10	RM CW	RM CW
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB166559BL	PBW559	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
PB166559BS	LCS559	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q1168-07	LOD-MDL-WATER-01-QT1-2025	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q1168-08	LOQ-WATER-02-QT1-2025	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q1282-01	SW-WTS-02	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A

SOP ID : MSM4500-N Org C-TKN-11

SDG No : N/A

Matrix : SOIL

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#2

Block ID : WC-DIST-BLOCK-1

Weigh By : RM

Start Digest Date: 02/07/2025 Time : 09:40 Temp : 380 °C

End Digest Date: 02/07/2025 Time : 11:10 Temp : 378 °C

Start Distillation Date: 02/07/2025 Time : 13:25 Temp : 150 °C

End Distillation Date: 02/07/2025 Time : 14:25 Temp : 160 °C

Digestion tube ID : M5595

Block Thermometer ID : Therm#2(2179)

Filter paper ID : N/A

Prep Technician Signature: RM

pH Meter ID : N/A

Supervisor Signature: 12

Standard Name	MLS USED	STD REF. # FROM LOG
TKN CAL STD	50.0ML	WP111823
TKN CCV STD	50.0ML	WP111824
TKN ICV STD	50.0ML	WP111825
TKN LCS STD	50.0ML	WP111826
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
TKN DIGESTION FLUID	10.0ML	WP111319
TKN DISTILLATION BUFFER	10.0ML	WP109441
H2SO4 0.04N	5.0ML	WP110335
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:

RL CHECK AS PER PB166559 ,ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT WP111604,LOD WP111827,LOQ WP111828

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02/07/2025 14:35	RM WC	RM WC
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB166560BL	PBS560	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
PB166560BS	LCS560	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1168-01	LOD-MDL-SOIL-01-QT1-2025	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1168-02	LOQ-SOIL-02-QT1-2025	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB134549

Review By	rubina	Review On	2/4/2025 4:18:46 PM
Supervise By	Iwona	Supervise On	2/4/2025 4:28:27 PM
SubDirectory	LB134549	Test	Hexavalent Chromium
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	WP111772,WP111771,WP111769,WP111768,WP111767,WP110380,WP111770,WP111775,WP111773,WP111774		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	02/04/25 12:40			OK
2	CAL2	CAL2	CAL	02/04/25 12:41			OK
3	CAL3	CAL3	CAL	02/04/25 12:42			OK
4	CAL4	CAL4	CAL	02/04/25 12:43			OK
5	CAL5	CAL5	CAL	02/04/25 12:44			OK
6	CAL6	CAL6	CAL	02/04/25 12:45			OK
7	CAL7	CAL7	CAL	02/04/25 12:46			OK
8	ICV	ICV	ICV	02/04/25 12:47			OK
9	ICB	ICB	ICB	02/04/25 12:48			OK
10	CCV1	CCV1	CCV	02/04/25 12:49			OK
11	CCB1	CCB1	CCB	02/04/25 12:50			OK
12	RL Check	RL Check	SAM	02/04/25 12:51			OK
13	Ib134549BL	Ib134549BL	MB	02/04/25 12:52			OK
14	Ib134549BS	Ib134549BS	LCS	02/04/25 12:53			OK
15	Q1282-01	SW-WTS-02	SAM	02/04/25 12:54			OK
16	CCV2	CCV2	CCV	02/04/25 12:55			OK
17	CCB2	CCB2	CCB	02/04/25 12:56			OK

Instrument ID: IC-2

Daily Analysis Runlog For Sequence/QC Batch ID # LB134556

Review By	Niha	Review On	2/5/2025 9:34:39 AM
Supervise By	Iwona	Supervise On	2/5/2025 10:39:56 AM
SubDirectory	LB134556	Test	Anions
STD. NAME	STD REF.#		
ICAL Standard	WP111484,WP111485,WP111486,WP111487,WP111488,WP111489,WP111490		
ICV Standard	WP111491		
CCV Standard	WP111782		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111783		
Chk Standard	WP111492,WP111493		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	STD1	STD1	CAL1	01/20/25 11:14	All standards, samples, and	NF/IZ	OK
2	STD2	STD2	CAL2	01/20/25 11:36	QC are filtered through	NF/IZ	OK
3	STD3	STD3	CAL3	01/20/25 11:57	0.45um, filter lot W3160	NF/IZ	OK
4	STD4	STD4	CAL4	01/20/25 12:18		NF/IZ	OK
5	STD5	STD5	CAL5	01/20/25 12:40		NF/IZ	OK
6	STD6	STD6	CAL6	01/20/25 13:01		NF/IZ	OK
7	STD7	STD7	CAL7	01/20/25 13:23		NF/IZ	OK
8	ICV1	ICV1	ICV	01/20/25 13:44		NF/IZ	OK
9	ICB1	ICB1	ICB	01/20/25 14:06		NF/IZ	OK
10	CCV1	CCV1	CCV	02/04/25 10:19		NF/IZ	OK
11	CCB1	CCB1	CCB	02/04/25 10:40		NF/IZ	OK
12	LB134556BLW	LB134556BLW	MB	02/04/25 11:02		NF/IZ	OK
13	LB134556BSW	LB134556BSW	LCS	02/04/25 11:23		NF/IZ	OK
14	Q1282-01	SW-WTS-02	SAM	02/04/25 11:45	Cl, No3 high	NF/IZ	Dilution
15	Q1282-01MS	SW-WTS-02MS	MS	02/04/25 13:00	9.5ml of sample, 0.5mL W3091	NF/IZ	OK
16	Q1282-01MSD	SW-WTS-02MSD	MSD	02/04/25 13:22	9.5ml of sample, 0.5mL W3091	NF/IZ	OK
17	Q1282-01DL	SW-WTS-02DL	SAM	02/04/25 13:43	Report 10X for Cl, No3	NF/IZ	Confirms
18	CCV2	CCV2	CCV	02/04/25 14:05		NF/IZ	OK

Instrument ID: IC-2

Daily Analysis Runlog For Sequence/QC Batch ID # LB134556

Review By	Niha	Review On	2/5/2025 9:34:39 AM
Supervise By	Iwona	Supervise On	2/5/2025 10:39:56 AM
SubDirectory	LB134556	Test	Anions
STD. NAME	STD REF.#		
ICAL Standard	WP111484,WP111485,WP111486,WP111487,WP111488,WP111489,WP111490		
ICV Standard	WP111491		
CCV Standard	WP111782		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111783		
Chk Standard	WP111492,WP111493		

19	CCB2	CCB2	CCB	02/04/25 14:26		NF/IZ	OK
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Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB134560

Review By	jignesh	Review On	2/5/2025 8:47:54 AM
Supervise By	Iwona	Supervise On	2/5/2025 9:32:13 AM
SubDirectory	LB134560	Test	TS

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	LB134560BL	LB134560BL	MB	02/04/25 13:00		jignesh	OK
2	Q1282-01	SW-WTS-02	SAM	02/04/25 13:00		jignesh	OK

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB134570

Review By	jignesh	Review On	2/5/2025 8:30:49 AM
Supervise By	Iwona	Supervise On	2/5/2025 9:31:50 AM
SubDirectory	LB134570	Test	TSS
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	LB134570BL	LB134570BL	MB	02/05/25 09:30		jignesh	OK
2	LB134570BS	LB134570BS	LCS	02/05/25 09:30		jignesh	OK
3	Q1252-01	EFFLUENT	SAM	02/05/25 09:30		jignesh	OK
4	Q1252-01DUP	EFFLUENTDUP	DUP	02/05/25 09:30		jignesh	OK
5	Q1252-04	AERATION 1	SAM	02/05/25 09:30		jignesh	OK
6	Q1282-01	SW-WTS-02	SAM	02/05/25 09:30		jignesh	OK

Instrument ID: IGN-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134573

Review By	rubina	Review On	2/5/2025 10:44:52 AM
Supervise By	Iwona	Supervise On	2/5/2025 1:11:31 PM
SubDirectory	LB134573	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	W3158		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	ICV	ICV	ICV	02/05/25 08:20		rubina	OK
2	Q1271-04	3190	SAM	02/05/25 08:50		rubina	OK
3	Q1271-04DUP	3190DUP	DUP	02/05/25 09:20		rubina	OK
4	Q1282-01	SW-WTS-02	SAM	02/05/25 09:50		rubina	OK

Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB134584

Review By	jignesh	Review On	2/5/2025 3:20:51 PM
Supervise By	Iwona	Supervise On	2/5/2025 3:38:59 PM
SubDirectory	LB134584	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,W3161,W3072		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	02/05/25 15:00		jignesh	OK
2	CAL2	CAL2	CAL	02/05/25 15:05		jignesh	OK
3	CAL3	CAL3	CAL	02/05/25 15:10		jignesh	OK
4	ICV	ICV	ICV	02/05/25 15:15		jignesh	OK
5	CCV1	CCV1	CCV	02/05/25 15:20		jignesh	OK
6	Q1282-01	SW-WTS-02	SAM	02/05/25 15:25		jignesh	OK
7	Q1293-01	NWB-2123	SAM	02/05/25 15:33		jignesh	OK
8	Q1298-01	0114-A	SAM	02/05/25 15:37		jignesh	OK
9	Q1298-02	0114-B	SAM	02/05/25 15:40		jignesh	OK
10	Q1298-03	0114-C	SAM	02/05/25 15:47		jignesh	OK
11	Q1298-05	0131-A	SAM	02/05/25 15:55		jignesh	OK
12	Q1298-06	0131-B	SAM	02/05/25 16:00		jignesh	OK
13	Q1298-07	0131-C	SAM	02/05/25 16:10		jignesh	OK
14	Q1298-07DUP	0131-CDUP	DUP	02/05/25 16:11		jignesh	OK
15	CCV2	CCV2	CCV	02/05/25 16:15		jignesh	OK

Instrument ID: DO METER

Daily Analysis Runlog For Sequence/QC Batch ID # LB134586

Review By	rubina	Review On	2/10/2025 1:00:33 PM
Supervise By	Iwona	Supervise On	2/10/2025 1:00:48 PM
SubDirectory	LB134586	Test	BOD5
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	WP111807,W3149,WP110386,W3103,W3109,W3105,WP111809,WP111808,WP111323		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB134586BL	LB134586BL	MB	02/05/25 15:30		rubina	OK
2	LB134586BS	LB134586BS	LCS	02/05/25 15:30		rubina	OK
3	Q1282-01	SW-WTS-02	SAM	02/05/25 15:30		rubina	OK
4	Q1300-02	COMP	SAM	02/05/25 15:30		rubina	OK
5	Q1300-02DUP	COMPDUP	DUP	02/05/25 15:30		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134632

Review By	rubina	Review On	2/10/2025 8:57:39 AM
Supervise By	Iwona	Supervise On	2/10/2025 9:23:27 AM
SubDirectory	LB134632	Test	TKN
STD. NAME	STD REF.#		
ICAL Standard	WP111823		
ICV Standard	WP111825		
CCV Standard	WP111824		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111826		
Chk Standard	WP110416,WP111745,WP111385,WP111660,WP111827,WP111828		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	02/07/25 14:21		rubina	OK
2	0.5PPM	0.5PPM	CAL2	02/07/25 14:21		rubina	OK
3	1.0PPM	1.0PPM	CAL3	02/07/25 14:21		rubina	OK
4	2.5PPM	2.5PPM	CAL4	02/07/25 14:21		rubina	OK
5	5.0PPM	5.0PPM	CAL5	02/07/25 14:21		rubina	OK
6	6.7PPM	6.7PPM	CAL6	02/07/25 14:21		rubina	OK
7	10.0PPM	10.0PPM	CAL7	02/07/25 14:21		rubina	OK
8	ICV1	ICV1	ICV	02/07/25 15:12		rubina	OK
9	ICB1	ICB1	ICB	02/07/25 15:12		rubina	OK
10	CCV1	CCV1	CCV	02/07/25 15:13		rubina	OK
11	CCB1	CCB1	CCB	02/07/25 15:13		rubina	OK
12	RL	RL	SAM	02/07/25 15:13		rubina	OK
13	PB166559BL	PB166559BL	MB	02/07/25 15:13		rubina	OK
14	PB166559BS	PB166559BS	LCS	02/07/25 15:23		rubina	OK
15	Q1168-07	LOD-MDL-WATER-01	SAM	02/07/25 15:23		rubina	OK
16	Q1168-08	LOQ-WATER-02-QT1	LOQ	02/07/25 15:23		rubina	OK
17	Q1282-01	SW-WTS-02	SAM	02/07/25 15:34		rubina	OK
18	PB166560BL	PB166560BL	MB	02/07/25 15:34		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134632

Review By	rubina	Review On	2/10/2025 8:57:39 AM
Supervise By	Iwona	Supervise On	2/10/2025 9:23:27 AM
SubDirectory	LB134632	Test	TKN
STD. NAME	STD REF.#		
ICAL Standard	WP111823		
ICV Standard	WP111825		
CCV Standard	WP111824		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111826		
Chk Standard	WP110416,WP111745,WP111385,WP111660,WP111827,WP111828		

19	PB166560BS	PB166560BS	LCS	02/07/25 15:34		rubina	OK
20	Q1168-01	LOD-MDL-SOIL-01-Q	SAM	02/07/25 15:34		rubina	OK
21	Q1168-02	LOQ-SOIL-02-QT1-20	LOQ	02/07/25 15:45		rubina	OK
22	CCV2	CCV2	CCV	02/07/25 15:45		rubina	OK
23	CCB2	CCB2	CCB	02/07/25 15:45		rubina	OK



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

Instrument ID:

Daily Analysis Runlog For Sequence/QC Batch ID #

Review By	Review On
Supervise By	Supervise On

STD. NAME	STD REF.#
ICAL Standard ICV Standard CCV Standard ICSA Standard CRI Standard LCS Standard Chk Standard	

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status

Prep Standard - Chemical Standard Summary

Order ID : Q1282

Test : Anions Group2,BOD5,Flash Point,Hexavalent Chromium,pH,TKN,Total Nitrogen,TS,TSS

Prepbatch ID : PB166559,

Sequence ID/Qc Batch ID: LB134549, LB134556, LB134560, LB134570, LB134573, LB134584, LB134586, LB134632, LB134652,

Standard ID :

WP109441, WP110149, WP110150, WP110259, WP110335, WP110380, WP110386, WP110416, WP111315, WP111316, WP111319, WP111323, WP111385, WP111419, WP111484, WP111485, WP111486, WP111487, WP111488, WP111489, WP111490, WP111491, WP111492, WP111493, WP111660, WP111745, WP111766, WP111767, WP111768, WP111769, WP111770, WP111771, WP111772, WP111773, WP111774, WP111775, WP111782, WP111783, WP111807, WP111808, WP111809, WP111823, WP111824, WP111825, WP111826, WP111827, WP111828,

Chemical ID :

E3873, M5673, M6041, W1992, W1993, W2647, W2651, W2652, W2653, W2654, W2666, W2697, W2858, W2979, W2983, W3058, W3059, W3062, W3063, W3071, W3072, W3093, W3094, W3103, W3105, W3107, W3109, W3112, W3113, W3132, W3136, W3140, W3144, W3149, W3158, W3161, W3174,



<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>
1338	TKN DISTILLING BUFFER	WP109441	08/29/2024	02/28/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 08/30/2024
FROM 0.47500L of W3112 + 25.00000gram of W3136 + 500.00000gram of W3113 = Final Quantity: 1.000 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>
153	Ammonia Stock Std. (1000 ppm)	WP110149	10/11/2024	04/08/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/14/2024
FROM 3.81900gram of W1993 + 996.18100ml 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>
1895	Ammonia Stock Std, 1000PPM-SS	WP110150	10/11/2024	04/08/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 10/14/2024
<u>FROM</u> 3.81900gram of W1992 + 996.18100ml 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								



<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>
1597	0.04 N H2SO4	WP110335	10/22/2024	04/22/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u>		1.00000ml of M5673 + 999.00000ml 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>
126	5N sulfuric acid	WP110380	10/24/2024	04/24/2025	Rubina Mughal	None	None	Iwona Zarych 10/24/2024
<u>FROM</u> 140.00000ml of M5673 + 860.00000ml of W3112 = Final Quantity: 1.000 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>
1841	Sulfuric Acid, 1N	WP110386	10/24/2024	04/24/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 10/24/2024
<u>FROM</u> 2.80000ml of M5673 + 97.20000ml of W3112 = Final Quantity: 100.000 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>
740	sodium nitroferricyanide for ammonia	WP110416	10/25/2024	04/25/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 10/25/2024
<u>FROM</u> 0.05000gram of W2666 + 99.95000ml of W3112 = Final Quantity: 100.000 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>
1993	HEXAVALENTCHROMIUM STOCK STD 1, 50PPM	WP111315	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 01/09/2025
<u>FROM</u> 0.14140gram of W2651 + 1000.00000ml 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>
1994	HEXAVALENTCHROMIUM STOCK STD 2, 50PPM	WP111316	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 01/09/2025
<u>FROM</u> 0.14140gram of W2652 + 1000.00000ml 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>
619	TKN digestion solution	WP111319	01/09/2025	04/23/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 01/09/2025
<u>FROM</u>	134.00000gram of W2983 + 134.00000ml of M6041 + 7.30000gram of W2697 + 725.00000ml 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>
1571	Sodium hydroxide, 1N	WP111323	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 01/09/2025
<u>FROM</u> 4.00000gram of W3113 + 96.00000ml of W3112 = Final Quantity: 100.000 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>
290	Phenol reagent for Ammonia	WP111385	01/13/2025	07/13/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCS-7)	None	Iwona Zarych 01/13/2025
<u>FROM</u> 3.20000gram of W3113 + 8.30000gram of W2858 + 88.80000ml of W3112 = Final Quantity: 100.000 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>
1322	Ammonia Intermediate Std, 50PPM	WP111419	01/16/2025	02/16/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025
<u>FROM</u> 95.00000ml of W3112 + 5.00000ml of WP110149 = Final Quantity: 100.000 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	WP111484	01/20/2025	01/21/2025	Niha Farheen Shaik	None	None	Iwona Zarych 01/20/2025

FROM 100.00000ml 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	WP111485	01/20/2025	01/21/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 01/20/2025

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	WP111486	01/20/2025	01/21/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/20/2025
<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	WP111487	01/20/2025	01/21/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3	Iwona Zarych 01/20/2025
<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	WP111488	01/20/2025	01/21/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/20/2025

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	WP111489	01/20/2025	01/21/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/20/2025

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	WP111490	01/20/2025	01/21/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/20/2025

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	WP111491	01/20/2025	01/21/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/20/2025

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	WP111492	01/20/2025	02/20/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/20/2025

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	WP111493	01/20/2025	02/20/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/20/2025

FROM 5.60000ml of M6041 + 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>
635	EDTA BUFFER FOR AMMONIA	WP111660	01/28/2025	07/28/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCS-7)	None	Iwona Zarych 01/28/2025
<u>FROM</u> 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml 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>
289	Sodium Hypochlorite for Ammonia	WP111745	02/03/2025	07/31/2025	Rubina Mughal	None	None	Iwona Zarych 02/03/2025
<u>FROM</u> 50.00000ml of W3112 + 50.00000ml of W3174 = Final Quantity: 100.000 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>
1103	HEX CHROME INTERMEDIATE STD SOURCE 1 (5PPM)	WP111766	02/04/2025	02/05/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/04/2025
<u>FROM</u> 9.00000ml of W3112 + 1.00000ml of WP111315 = 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>
114	hexavalent chromium color reagent	WP111767	02/04/2025	02/11/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 02/04/2025
<u>FROM</u> 0.25000gram of W2979 + 50.00000ml of E3873 = 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>
110	calibration std. hexchrome 0 ppm	WP111768	02/04/2025	02/05/2025	Rubina Mughal	None	None	Iwona Zarych
								02/04/2025

FROM 100.00000ml of W3112 = Final Quantity: 100.000 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>
109	calibration std. hexchrome 0.01 ppm	WP111769	02/04/2025	02/05/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3	Iwona Zarych
							(WC)	02/04/2025

FROM 99.80000ml of W3112 + 0.20000ml of WP111766 = Final Quantity: 100.000 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>
3800	Calibration Std Hexachrome 0.025 ppm	WP111770	02/04/2025	02/05/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/04/2025
<u>FROM</u> 99.50000ml of W3112 + 0.50000ml of WP111766 = Final Quantity: 100.000 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>
108	Calibration Std. hexchrome 0.05 ppm	WP111771	02/04/2025	02/05/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) <u>FROM</u> 99.00000ml of W3112 + 1.00000ml of WP111766 = Final Quantity: 100.000 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>
107	Calibration Std. hexchrome 0.1 ppm	WP111772	02/04/2025	02/05/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/04/2025
<u>FROM</u> 99.80000ml of W3112 + 0.20000ml of WP111315 = Final Quantity: 100.000 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>
3808	Calibration and CCV std HexChrome 0.5PPM	WP111773	02/04/2025	02/05/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/04/2025
<u>FROM</u> 99.00000ml of W3112 + 1.00000ml of WP111315 = Final Quantity: 100.000 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>
3809	Calibration std HexChrome 1.0PPM	WP111774	02/04/2025	02/05/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/04/2025
<u>FROM</u> 98.00000ml of W3112 + 2.00000ml of WP111315 = Final Quantity: 100.000 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>
3804	Hexavalent Chromium ICV-LCS Std	WP111775	02/04/2025	02/05/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/04/2025
<u>FROM</u> 99.00000ml of W3112 + 1.00000ml of WP111316 = Final Quantity: 100.000 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	WP111782	02/04/2025	02/05/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/07/2025

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	WP111783	02/04/2025	02/05/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/07/2025

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>
127	BOD Dilution fluid	WP111807	02/05/2025	02/06/2025	Rubina Mughal	None	None	Iwona Zarych
								02/07/2025

FROM 18.00000L of W3112 + 3.00000PILLOW of W3144 = Final Quantity: 18.000 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>
129	Glutamic acid-glucose mix for BOD	WP111808	02/05/2025	02/06/2025	Rubina Mughal	WETCHEM_SCALE_7 (WC SC-6)	None	Iwona Zarych
								02/07/2025

FROM 0.15000gram of W2653 + 0.15000gram of W2654 + 1000.00000ml 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>
128	polyseed seed control	WP111809	02/05/2025	02/06/2025	Rubina Mughal	None	None	Iwona Zarych
								02/07/2025

FROM 1.00000PILLOW of W3059 + 300.00000ml of WP111807 = Final Quantity: 300.000 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>
295	TKN Calibration Std (10 ppm)	WP111823	02/07/2025	02/14/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3	Iwona Zarych
							(WC)	02/07/2025

FROM 49.50000ml of W3112 + 0.50000ml of WP110149 = 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>
297	TKN CCV STD 5 ppm	WP111824	02/07/2025	02/14/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/07/2025
<u>FROM</u> 49.75000ml of W3112 + 0.25000ml of WP110149 = 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>
296	TKN ICV STD 5 ppm	WP111825	02/07/2025	02/14/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/07/2025
<u>FROM</u> 49.75000ml of W3112 + 0.25000ml of WP110150 = 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>
298	TKN LCS STD 5 ppm	WP111826	02/07/2025	02/14/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/07/2025
<u>FROM</u> 49.75000ml of W3112 + 0.25000ml of WP110150 = 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>
3590	TKN LOD-MDL 0.25PPM	WP111827	02/07/2025	02/14/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/07/2025
<u>FROM</u> 99.50000ml of W3112 + 0.50000ml of WP111419 = Final Quantity: 100.000 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>
3741	TKN LOQ 0.5ppm	WP111828	02/07/2025	02/14/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/07/2025
<u>FROM</u> 99.00000ml of W3112 + 1.00000ml of WP111419 = Final Quantity: 100.000 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	07/29/2025	01/29/2025 / Rajesh	01/29/2025 / Rajesh	E3873

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-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	WL13B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1992

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	XE09B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1993

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AA13450-36 / Potassium Dichromate, 500g(NEW)	T15F019	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2651

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P188-500 / Potassium Dichromate, 500g(new-2nd lot)	194664	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2652

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AC156212500 / GLUTAMIC ACID BIOCHEM REG, 250G	A0405990	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2653

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	D16-500 / DEXTROSE ANHYDROUS ACS REAGENT, 500G(New)	186122A	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2654

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	87683 / Sodium Nitroferricyanide 250g	W12F013	02/10/2030	02/10/2020 / apatel	02/10/2020 / apatel	W2666

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	0330-500G / Cupric Sulfate Pentahydrate	CPECG2635	04/23/2025	04/23/2020 / apatel	04/23/2020 / apatel	W2697

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P1060-10 / PHENOL, ACS, 500G	M13H048	01/07/2026	07/07/2021 / apatel	07/07/2021 / apatel	W2858

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	31390 / 1,5-Diphenylcarbazine	MKCR6636	12/09/2027	12/09/2022 / lwona	12/09/2022 / lwona	W2979

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3278-5 / Potassium Sulfate, 2.5 Kgs	SLCM9788	11/21/2027	11/21/2022 / lwona	11/21/2022 / lwona	W2983

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 #
PCI Scientific Supply, Inc.	136742-80 / POLYSEED	152305	05/30/2025	02/15/2024 / Rubina	10/18/2023 / lwona	W3059

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.	4620-32 / MANGANOUS SULFATE SOLUTION-364	2403J02	03/31/2026	04/22/2024 / lwona	04/22/2024 / lwona	W3103

CHEMICAL RECEIPT LOG BOOK

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

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 #
PCI Scientific Supply, Inc.	AL04100-4 / Alkaline Iodide Azide, 1 L	1405D67	04/30/2026	05/23/2024 / lwona	05/23/2024 / lwona	W3109

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.	PC19510-7 / Sodium Hydroxide Pellets 12 Kg	23B1556310	12/31/2025	07/08/2024 / lwona	07/08/2024 / lwona	W3113

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC05050-1 / EDTA, disodium salt, dihydrate 1 lb	2ND0156	07/10/2026	07/26/2024 / lwona	07/26/2024 / lwona	W3132

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3946-1 / Sodium Thiosulfate Pentahydrate, 500 gms	MKCV5080	01/31/2029	08/26/2024 / lwona	08/26/2024 / lwona	W3136

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140444 / TEST PAPERS,PH 0-14,.5 SENSI,100PK	10D0142	09/17/2029	09/17/2024 / lwona	09/17/2024 / lwona	W3140

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
HACH	1486266 / BOD Nutrient Buffer Pillows, 6 mL concentrate to make 6 L, 50/pk	A4169	06/30/2029	11/20/2024 / rubina	10/01/2024 / lwona	W3144

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

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	01/27/2025 / rubina	12/06/2024 / lwona	W3158

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)	2411E26	10/31/2026	12/09/2024 / lwona	12/09/2024 / lwona	W3161

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J9416-1 / Sodium Hypochlorite 500 ml	2501J28	07/31/2025	01/24/2025 / lwona	01/24/2025 / lwona	W3174

Certificate of Analysis



Date of Release: 12/18/2013

Product: Ammonium Chloride GR ACS

Catalog No.: AX1270 all
size codes

Grade: Meets ACS Specifications

CAS #: 12125-02-9

Country of Origin: India

FW: 53.49

Lot No.: WL13B



Characteristic	Requirement		Results	UOM
	Minimum	Maximum		
Assay (argentometric)	99.5		99.9	%
Calcium (Ca)		0.001	0.0001	%
Form	White crystals		White crystals	
Heavy metals (as Pb)		5	5	ppm
Identification	To pass test		Passes	
Insoluble matter		0.005	0.002	%
Iron (Fe)		2	2	ppm
Loss on drying (105 C)		0.5	0.21	%
Magnesium (Mg)		5	0.6	ppm
pH of a 5% solution at 25 C	4.5	5.5	4.76	
Phosphate (PO4)		2	2	ppm
Residue after ignition		0.01	0.002	%
Sulfate (SO4)		0.002	0.002	%

Joe Schoellkopf

Quality Control Manager

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Certificate of Analysis



Date of Release: 5/12/2014

Product: Ammonium Chloride GR ACS

Catalog No.: AX1270 all
size codes

Grade: Meets ACS Specifications

CAS #: 12125-02-9

Country of Origin: India

FW: 53.49

Lot No.: XE09B



Characteristic	Requirement		Results	UOM
	Minimum	Maximum		
Assay (argentometric)	99.5		99.8	%
Calcium (Ca)		0.001	0.0001	%
Form	White crystals		White crystals	
Heavy metals (as Pb)		5	5	ppm
Identification	To pass test		Passes	
Insoluble matter		0.005	0.002	%
Iron (Fe)		2	2	ppm
Loss on drying (105 C)		0.5	0.22	%
Magnesium (Mg)		5	0.7	ppm
pH of a 5% solution at 25 C	4.5	5.5	4.95	
Phosphate (PO4)		2	2	ppm
Residue after ignition		0.01	0.002	%
Sulfate (SO4)		0.002	0.002	%

Joe Schoellkopf

Quality Control Manager

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Product No.: 13450
Product: Potassium dichromate, ACS, 99.0% min
Lot No.: T15F019

Test	Limits	Results
Appearance	Orange-red crystals	Orange-red crystals
Identification	To Pass	Passes
Purity	99.0 % min	99.67 %
Insoluble matter	0.005 % max	0.004 %
Loss on drying	0.05 % max	0.03 %
Chloride	0.001 % max	< 0.001 %
Sulfate	0.005 % max	< 0.005 %
Iron	0.001 % max	< 0.001 %
Calcium	0.003 % max	0.0012 %
Sodium	0.02 % max	0.0047 %

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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

James Ethier
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

W2858 Received by AP on 07/07/2021

Product No.: 33213
Product: Phenol, ACS, 99+%, stab.
Lot No.: M13H048

Test	Limits	Results
Assay	99.0 % min	99.8 %
Freezing point	40.5°C min	40.5 °C
Clarity of solution	To pass test	Passes
Residue after evaporation	0.05 % max	< 0.05 %
Water	0.5 % max	0.2 %

Retest date: January 7, 2026

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W2666 Recived on 02/10/2020 by AP

Product No.: 87683

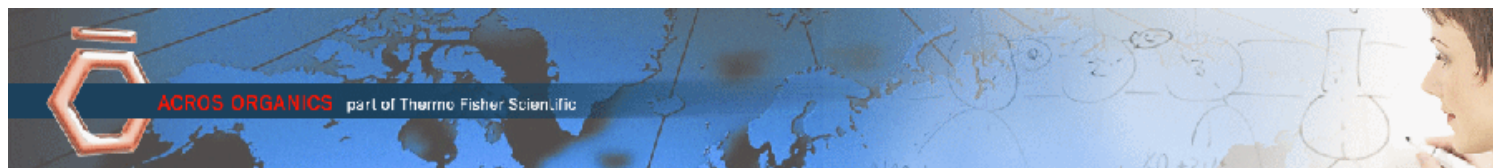
Product: Sodium pentacyanonitrosylferrate(III) dihydrate, ACS,
99.0-102.0%

Lot No.: W12F013

Test	Limits	Results
Assay	99.0 - 102.0 %	99.67 %
Insoluble	0.01 % max	0.0079 %
Chloride	0.02 % max	Not detected
Sulfate	To pass test	Passes test
Aqueous solubility	To pass test	Passes test
Limit on Ferricyanide	To pass test	Passes test
Limit on Ferrocyanide	To pass test	Passes test

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ACROS
ORGANICS

Version 0
Molecular weight 147.13
Molecular formula C₅ H₉ N O₄
CAS No 56-86-0
Linear formula HO₂CCH₂CH₂CH(NH₂)CO₂H
Flash point (°C)

Certificate of Analysis

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Catalog Number	15621	Quality Test / Release Date	13 March 2019
Lot Number	A0405990	Suggested Retest Date	March 2022
Description	L(+)-Glutamic acid, 99%		
Country of Origin	CHINA		
Declaration of Origin	plant		

Origin Comment	The product is made by fermentation of sugar molasses
-----------------------	---

Result Name	Specifications	Test Value
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Infrared spectrum	Conforms	Conforms
Titration with NaOH	98.5 to 100.5 % (On dried substance)	99.32 % (On dried substance)
Loss on drying	=<0.5 % (105°C, 3 hrs)	0.002 % (105°C, 3 hrs)
Heavy metals (as Pb)	=<10 ppm	=<10 ppm
Sulfated ash	=<0.1 %	0.08 %
Other amino acids	not detectable	not detectable
Specific optical rotation	+30.5° to +32.5° (20°C, 589 nm) (on dried substance)	+32° (20°C, 589 nm) (on dried substance)
Specific optical rotation	(c=10, 2N HCl)	(c=10, 2N HCl)
Chloride (Cl)	=<200 ppm	=<200 ppm
Iron (Fe)	=<30 ppm	=<10 ppm
Sulfate (SO ₄)	=<300 ppm	=<200 ppm
Ammonium (NH ₄)	=<200 ppm	=<200 ppm
Arsenic oxide (As ₂ O ₃)	=<1 ppm	=<1 ppm



A handwritten signature in black ink, which appears to read "L. Van den Broek".

L. Van den Broek, QA Manager

Issued: 24 January 2020

Acros Organics

ENA23, zone 1, nr 1350, Janssen Pharmaceuticaaan 3a, B-2440 Geel, Belgium

Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: <http://www.acros.com>

1 Reagent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329


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.

~~112778~~ W2983
Rec. 11/21/22 12

Certificate of Analysis

Product Name:

Potassium sulfate - ReagentPlus®, ≥99.0%

Product Number:

P0772

Batch Number:

SLCM9788

Brand:

SIGALD

CAS Number:

7778-80-5

MDL Number:

MFCD00011388

Formula:

K₂O₄S

Formula Weight:

174.26 g/mol

Quality Release Date:

03 MAR 2022

K₂SO₄

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity)	Clear	Clear
10 g plus 150 mL, H ₂ O		
Titration with NaOH	≥ 99.0 %	99.2 %



Brian Dulle, Supervisor

Quality Assurance

St. Louis, Missouri 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

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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

PO BOX 130549 Spring, TX 77393
Phone: (281) 298-9410 Fax: (281) 298-9411

W 3059
REC. 10/18/23 12

FINISHED PRODUCT, LOT NUMBER, MFG. /EXP DATE:

PolySeed® • Part No. P-110 • Lot 152305 • Mfg. Date: 05/2023 • Exp. Date: 05/2025

FORMULATION:

The formulation for this product contains a range of naturally occurring microorganisms, which are known to be non-pathogenic to man or animals.

VIABLE COUNT, FINAL TEST RESULT:

The product has been fully tested in accordance with Finished Product Specifications and contains a minimum viable count of 4.00×10^9 cfu/g.

GLUCOSE/GLUTAMIC-ACID RESULTS:

Tested results within acceptable range 198 ± 30.5 mg/L (167.5 - 228.5 mg/L). GGA Lot# L257-09 – Average Test Result: 203.4

See www.polyseed.com for details.

SEED CONTROL FACTOR:

Tested results within acceptable range 0.6 – 1.0 see www.polyseed.com for details

SALMONELLA TEST RESULT:

The product has been shown to be Salmonella negative using procedures recommended in the Microbiology Laboratory Guidebook, published by the USDA Food Safety and Inspection Service.

The purpose of this document is to assure that the Finished Product conforms to the above specification.

Signature: _____

Quality Control Department

Date: 05/15/2023

POLYSEED.Ref.1.19

Revised Jan 23

InterLab®
International Laboratory Supply



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

N/3063
rec. 11/16/23 12

1.0 ACCREDITATION / REGISTRATION

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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, NNO ₃ -	25.00 ± 0.09 µg/mL
Nitrite as N, NNO ₂ -	30.00 ± 0.15 µg/mL	o-Phosphate as P, PPO 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®**

1841 Broad Street
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

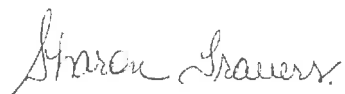
*Not a certified value.

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

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

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

Catalog Number	D16	Quality Test / Release Date	03/19/2019
Lot Number	186122A		
Description	DEXTROSE, ANHYDROUS, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Mar/2022
Chemical Origin	Organic - Plant		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		
Chemical Comment			

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White, granular powder
TITRATABLE ACID	MEQ/G	<= 0.002	<0.002
STARCH		= PASS TEST	pass test
SPECIFIC ROTATION @ 25 C	DEGREES (+ OR -)	Inclusive Between +52.5 - +53.0	53.0
SULFATE & SULFITE	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5
CHLORIDE	%	<= 0.01	<0.01
IGNITION RESIDUE	%	<= 0.02	<0.02
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
HEAVY METALS (as Pb)	ppm	<= 5	<5
LOSS ON DRYING @ 105 C	%	<= 0.2	<0.2
INSOLUBLE MATTER	%	<= 0.005	0.002

Jerisa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

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

*Based on suggested storage condition.



Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

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

Catalog Number	P188	Quality Test / Release Date	08/12/2019
Lot Number	194664		
Description	POTASSIUM DICHROMATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Aug/2024
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		
Chemical Comment			

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Fine, orange-red crystals
ASSAY	%	>= 99	99.2
CALCIUM	%	<= 0.003	<0.003
CHLORIDE	%	<= 0.001	<0.001
LOSS ON DRYING @ 105 C	%	<= 0.05	<0.05
SULFATE (SO4)	%	<= 0.005	<0.005
INSOLUBLE MATTER	%	<= 0.005	0.003
IRON (Fe)	%	<= 0.001	<0.001
SODIUM (Na)	%	<= 0.02	<0.02
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

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

*Based on suggested storage condition.

Allan Chemical Corporation

235 Margaret King Avenue
Ringwood NJ 07456

Telephone: 973-962-4014
Fax: 973-962-6820
E-Mail: allanchem@allanchem.com

ATTN: ALLAN CHEMICAL - QC DEPT.
DATE: September 20, 2021
P.O. #: 14410
PART #: N/A
LOT #: CPECG2635

W2697

CERTIFICATE OF ANALYSIS CUPRIC SULFATE CRYSTAL – ACS GRADE

<u>ASSAY:</u>	102.0 %
<u>LEAD:</u>	< 0.0001 %
<u>NITROGEN COMPOUNDS:</u>	< 0.001 %
<u>ZINC:</u>	< 0.0001 %
<u>INSOLUBLE MATTER:</u>	< 0.001 %
<u>CHLORIDE:</u>	< 0.001 %
<u>CHROMIUM:</u>	< 0.00002 %
<u>IRON:</u>	0.0003 %
<u>NICKEL:</u>	< 0.0001 %
<u>CADMIUM:</u>	< 0.0001 %
<u>MANGANESE:</u>	< 0.0001 %
<u>CALCIUM:</u>	< 0.005 %
<u>POTASSIUM:</u>	< 0.001 %
<u>SODIUM:</u>	< 0.001 %

Acetone

BAKER RESI-ANALYZED® Reagent

For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H2762008

Manufactured Date: 2024-04-18

Expiration Date: 2027-04-18

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (μeq/g)	<= 0.3	0.2
Titration Base (μeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RP on 1/29/25

E 3873

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials LLC

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

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

avantor™



M 6041-4b
MS

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

 **avantor™**

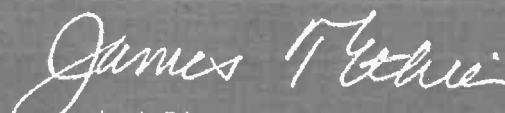


Material No.: 9673-33
Batch No.: 23D2462010

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


Jamie Ethier
Vice President Global Quality

W 2979

Rec: 12/09/22

exp. 12/09/27

Product Name:

1,5-Diphenylcarbazide - ACS reagent

Product Number:

259225

Batch Number:

MKCR6636

Brand:

SIAL

CAS Number:

140-22-7

MDL Number:

MFCD00003013

Formula:

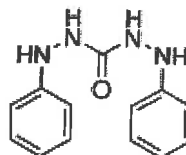
C₁₃H₁₄N₄O

Formula Weight:

242.28 g/mol

Quality Release Date:

02 JUN 2022



Certificate of Analysis

Test	Specification	Result
Appearance (Color)	Conforms to Requirements	Pink
Off-White to Pink, Light Purple or Tan		
Appearance (Form)	Powder or Chunks	Powder
Melting Point	173.0 - 176.0 °C	173.0 °C
Infrared Spectrum	Conforms to Structure	Conforms
Residue on ignition (Ash)	≤ 0.05 %	0.01 %
15 minutes, 800 Degrees Celsius		
Solubility	Pass	Pass
Sensitivity Test	Pass	Pass
Meets ACS Requirements	Current ACS Specification	Conforms



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®**

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Batesville, IN 47006

<http://www.riccachemical.com>

1-888-GO-RICCA

customerservice@riccachemical.com

Certificate of Analysis

W3093
094121
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

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

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

This document is designed to comply with ISO Guide 31 "Reference Materials --
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This product was tested in an ISO 17025 Accredited Laboratory

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Certificate of Analysis

Manganous Sulfate Solution, 364 g/L**Lot Number:** 2403J02**Product Number:** 4620**Manufacture Date:** MAR 15, 2024**Expiration Date:** MAR 2026

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Manganous Sulfate Monohydrate	10034-96-5	Reagent
Sulfuric Acid	7664-93-9	ACS

Test	Specification	Result
Appearance	Pink liquid	Passed
Assay (by Refractive Index)	360-368 g/L	367 g/L

Specification	Reference
Manganous Sulfate Solution	ASTM (D 888 A)
Manganous Sulfate Solution	ASTM (D 888 A)
Manganous Sulfate Solution	APHA (4500-O E)
Manganous Sulfate Solution	APHA (4500-O F)
Manganous Sulfate Solution	APHA (4500-O D)
Manganous Sulfate Solution	APHA (4500-O E)
Manganous Sulfate Solution	APHA (4500-O F)
Manganous Sulfate Solution	APHA (4500-O D)
Manganous Sulfate Solution	APHA (4500-O C)
Manganous Sulfate Solution	APHA (4500-O C)
Manganous Sulfate Solution	EPA (360.2)
Manganous Sulfate Solution	EPA (360.2)

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)
4620-32	1 L natural poly	24 months

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



Jose Pena (03/15/2024)

Operations 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

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

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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

This document is designed to comply with ISO Guide 31 "Reference Materials --
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This product was tested in an ISO 17025 Accredited Laboratory

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Certificate of Analysis

Alkaline-Iodide-Azide, Pomeroy Formulation for Dissolved Oxygen (DO) Analysis

Lot Number: 1405D67

Product Number: 535

Manufacture Date: APR 05, 2024

Expiration Date: APR 2026

This solution is intended for use with samples with high Dissolved Oxygen content (above 15 mg/L) and for samples with high concentrations of organic material.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Iodide	7681-82-5	ACS
Sodium Hydroxide	1310-73-2	ACS
Sodium Azide	26628-22-8	Reagent

Test	Specification	Result
Appearance	Colorless liquid	Passed
Free Iodine	To Pass Test	Passed

Specification	Reference
Alkaline Iodide-Sodium Azide Solution II	ASTM (D 888 A)
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)
535-32	1 L natural poly	24 months

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



Heidi J Green (04/05/2024)
Operations Manager

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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	<= 0.005 %	<0.005 %	PASS
Chloride	<= 0.005 %	0.002 %	PASS
Heavy Metals	<= 0.002 %	<0.002 %	PASS
Iron	<= 0.001 %	<0.001 %	PASS
Magnesium	<= 0.002 %	<0.002 %	PASS
Mercury	<= 0.1 ppm	<0.1 ppm	PASS
Nickel	<= 0.001 %	<0.001 %	PASS
Nitrogen Compounds	<= 0.001 %	<0.001 %	PASS
Phosphate	<= 0.001 %	<0.001 %	PASS
Potassium	<= 0.02 %	<0.02 %	PASS
Purity	>= 97.0 %	99.2 %	PASS
Sodium Carbonate	<= 1.0 %	0.5 %	PASS
Sulfate	<= 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.



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

Spec Set: 0583ACS

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.

Item Number	ED150	Lot Number	2ND0156
Item	Edetate Disodium, Dihydrate, USP	CAS Number	6381-92-6
Molecular Formula	$C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$	Molecular Weight	372.24

TEST	SPECIFICATION		RESULT
	MIN	MAX	
ASSAY (DRIED BASIS)	99.0	101.0 %	99.5 %
pH OF A 5% SOLUTION @ 25°C	4.0	6.0	4.6
LOSS ON DRYING	8.7	11.4 %	8.90 %
CALCIUM (Ca)	NO PRECIPITATE IS FORMED		NO PRECIPITATE IS FORMED
ELEMENTAL IMPURITIES:			.
NICKEL (Ni)	AS REPORTED		<0.3 ppm
CHROMIUM (Cr)	AS REPORTED		<0.3 ppm
NITRILOTRIACETIC ACID[n[(HOCOCH ₂) ₃ N]		0.1 %	<0.10 %
IDENTIFICATION A	MATCHES REFERENCE		MATCHES REFERENCE
IDENTIFICATION B	RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION		RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION
IDENTIFICATION C	MEETS THE REQUIREMENTS FOR SODIUM		MEETS THE REQUIREMENTS FOR SODIUM
CERTIFIED HALAL			CERTIFIED HALAL
EXPIRATION DATE			10-JUL-2026
DATE OF MANUFACTURE			11-JUL-2023
APPEARANCE			WHITE CRYSTALLINE POWDER
RESIDUAL SOLVENTS		AS REPORTED	NO RESIDUAL SOLVENTS PRESENT
MONOGRAPH EDITION			USP 2024

Certificate of Analysis Results Entered By:

CACEVEDO
Charmian Acevedo
22-MAY-24 08:12:30

Certificate of Analysis Results Approved By:

GHERRERA
Genaro Herrera
22-MAY-24 12:32:01

Spectrum Chemical Mfg Corp
755 Jersey Avenue
New Brunswick 08901 NJ



All pharmaceutical ingredients are tested using current edition of applicable pharmacopeia.

Read and understand label and SDS before handling any chemicals. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. It is the customer's responsibility to provide adequate hazardous material training and ensure that appropriate Personal Protective Equipment (PPE) is used before handling any chemical.

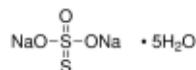
The Elemental Impurities standards implemented by USP and other Pharmaceutical Compendia reflect a growing understanding of the toxicology of trace levels of elemental impurities that can remain in drug substances originating from either raw materials or manufacturing processes. Identifying and quantifying impurities can be critical to predicting the best possible patient outcomes. Elemental Impurities has been a requirement of all products meeting USP/NF, EP and BP monographs since January 1, 2018. More information can be found in USP sections <232> Elemental Impurities – Limits and <233> Elemental Impurities – Procedures. Data for drug substances furnished by Spectrum Chemical Mfg. Corp can be used to ensure that patient daily exposures by oral administration to the selected elements are not exceeded in the formulation of pharmaceutical products.

Certificate of Analysis

Product Name:

Sodium thiosulfate pentahydrate - ACS reagent, ≥99.5%

Product Number: 217247
Batch Number: MKCV5080
Brand: SIGALD
CAS Number: 10102-17-7
MDL Number: MFCD00149186
Formula: Na₂O₃S₂ · 5H₂O
Formula Weight: 248.18 g/mol
Quality Release Date: 10 JAN 2024
Recommended Retest Date: JAN 2029



Test	Specification	Result
Appearance (Color)	Colorless or White	White
Appearance (Form)	Powder or Crystals or Pellets	Crystals
ICP Major Analysis	Confirmed	Confirmed
Confirms Sodium and Sulfur Components		
Titration by Iodine	99.5 - 101.0 %	99.8 %
pH	6.0 - 8.4	7.2
c = 5%; Water; At 25 Deg C		
Insoluble Matter	≤ 0.005 %	0.003 %
c = 10%; Water		
Nitrogen Compounds	≤ 0.002 %	< 0.002 %
Sulfate & Sulfite (as SO ₄)	≤ 0.1 %	< 0.1 %
Sulfide	Pass	Pass
Meets ACS Requirements	Current ACS Specification	Conforms
Recommended Retest Period	-----	-----
5 Years		



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.





An ISO 9001 Certified Company

Loveland, CO 80539

(970) 669-3050

Certificate of Analysis

This is a Component of 1486266 / LOT A4169

PRODUCT: BOD Nutrient Buffer Pillows

PRODUCT NUMBER: 1486227

LOT NUMBER: A4169

MANUFACTURE DATE: 06/24/2024

DATE OF ANALYSIS: 07/03/2024

TEST	SPECIFICATIONS	RESULTS
Calcium Concentration of a diluted pillow	0.93 to 1.29 ppm	0.960 ppm
Magnesium Concentration of a diluted pillow	0.35 to 0.48 ppm	0.390 ppm
pH in a 6 L of DI water	7.1 to 7.6	7.37
Ammonia Concentration of a diluted pillow	0.57 to 0.79 ppm	0.593 ppm
Iron Concentration of a diluted pillow	0.27 to 0.36 ppm	0.311 ppm
Sterility	To Pass	Passed
Phosphorus Concentration of a diluted pillow	7.6 to 10.3 ppm	8.32 ppm
Five Day Change in Dissolved Oxygen Concentration	-0.2 to 0.2 ppm	0.03 ppm

The expiration date is Jun 2029

Certified by: *Scott Als*

Analytical Services Chemist



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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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



Certificate of Analysis

Buffer, Reference Standard, pH 2.00 ± 0.01 at 25°C**Lot Number:** 2411E26**Product Number:** 1493**Manufacture Date:** NOV 11, 2024**Expiration Date:** OCT 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	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)	1.994	0.02	185i, 186-I-g, 186-II-g

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)
1493-1	4 L natural poly	24 months
1493-16	500 mL natural poly	24 months
1493-1CT	4 L Cubitainer®	24 months
1493-2.5	10 L Cubitainer®	24 months
1493-32	1 L natural poly	24 months

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



Jose Pena (11/11/2024)
Operations Manager

This product was tested in an ISO 17025 Accredited Laboratory

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Certificate of Analysis

Sodium Hypochlorite Solution, 5% available Chlorine

Lot Number: 2501J28**Product Number:** 7495.5**Manufacture Date:** JAN 17, 2025**Expiration Date:** JUL 2025

This solution is subject to slow decomposition upon exposure to air. Keep container tightly capped. Refrigeration may improve stability.
When used in the Phenate method for Ammonia, APHA recommends replacing this solution about every 2 months.

Name	CAS#	Grade
Water	7732-18-5	Commercial
Sodium Hypochlorite	7681-52-9	Commercial

Test	Specification	Result	NIST SRM#
Appearance	Colorless to greenish-yellow liquid	Passed	
Assay (vs. Sodium Thiosulfate/Starch)	4.75-5.25 % (w/w) Cl ₂	5.17 % (w/w) Cl ₂	136

Specification	Reference
Sodium Hypochlorite, 5%	APHA (4500-NH3 F)
Sodium Hypochlorite	ASTM (D 4785)

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)
7495.5-1	4 L black poly	6 months
7495.5-16	500 mL amber poly	6 months
7495.5-32	1 L amber poly	6 months
7495.5-8	250 mL amber poly	6 months

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

Jose Pena (01/17/2025)
Operations Manager

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



SHIPPING DOCUMENTS



284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax: (908) 788-9222

www.chemtech.net

CHAIN OF CUSTODY RECORD

Alliance Project Number:

Q1282

COC Number: 2042108

Page 1 of 1

CLIENT INFORMATION

COMPANY: ENTACT, LLC

ADDRESS: 150 Bay Street, Suite 806

CITY: Jersey City STATE: NJ ZIP: 07302

ATTENTION: Jarod Stanfield

PHONE: 570-886-0442

FAX:

PROJECT INFORMATION

PROJECT NAME: 540 Degraw St Brooklyn, NY

PROJECT #: E9309

LOCATION: Brooklyn, NY

PROJECT MANAGER: Jarod Stanfield

E-MAIL: jstanfield@entact.com

PHONE: 570-886-0442

FAX:

BILLING INFORMATION

BILL TO: ENTACT, LLC

PO# E9309

ADDRESS: 999 Oakmont Plaza Drive, Suite 300

CITY: Westmont

STATE: IL ZIP: 60559

ATTENTION: Wendy Murray

PHONE: 800-936-8228

ANALYSIS

Metals	Flashpoint + PCB	VOC	SVOC + Chloride (Anions)	BOD+TSS					
1	2	3	4	5	6	7	8	9	

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl B-HNO3
C-H2SO4 D-NaOH
E-ICE F-Other

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles	B	E	E	E	E				
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9
1.	SW-WTS-02	Surface Water		X	1/31	16:00	4	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. Jarod Stanfield	DATE/TIME 01/31/25 14:30	RECEIVED BY 1. _____	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 3.2 °C ☐ Ice in Cooler? YES
RELINQUISHED BY 2. _____	DATE/TIME 16:10 2-13/25	RECEIVED BY 2. _____	Comments:
RELINQUISHED BY 3. _____	DATE/TIME	RECEIVED FOR LAB BY 3. _____	SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight ALLIANCE: ☐ Picked Up ☐ Overnight

Page _____ of _____

SHIPMENT COMPLETE
☐ YES ☐ NO

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT

YELLOW - ALLIANCE COPY

PINK - SAMPLER COPY



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 :** Q1282 ENTA05**Order Date :** 2/3/2025 4:26:00 PM**Project Mgr :****Client Name :** ENTACT**Project Name :** 540 Degraw St, Brooklyn, N**Report Type :** Level 1**Client Contact :** Jarod Stanfield**Receive DateTime :** 2/3/2025 4:10:00 PM**EDD Type :** NYSDEC EDD V-3**Invoice Name :** ENTACT**Purchase Order :****Hard Copy Date :****Invoice Contact :** Jarod Stanfield**Date Signoff :**

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1282-01	SW-WTS-02	Water	01/31/2025	16:00		VOCMS Group4	8260-Low		5 Bus. Days

Relinquished By : CL**Date / Time :** 2-4-25 10:05**Received By :** Jarod**Date / Time :** 2/4/25 10:05**Storage Area :** VOA Refridgerator Room