

Cover Page

Order ID : Q1322

Project ID : Outfall 001 - Orangetown Dis Permit 2025

Client : Spectra East Inc.

Lab Sample Number

Q1322-01
Q1322-02
Q1322-03
Q1322-04

Client Sample Number

MANHOLE
Q1322-01MS
Q1322-01MSD
MANHOLE

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: 2/19/2025

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 #: Q1322

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: PRADIP PRAJAPATI

Date: 02/19/2025

LAB CHRONICLE

OrderID:	Q1322	OrderDate:	2/6/2025 1:17:00 PM
Client:	Spectra East Inc.	Project:	Outfall 001 - Orangetown Dis Permit 2025
Contact:	Jacob Valeich	Location:	N41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1322-01	MANHOLE	WATER			02/06/25 10:55			02/06/25
			Anions Group1	300.0			02/07/25 12:33	
			Cyanide	SM4500-CN C,E		02/11/25	02/11/25 13:45	
			Cyanide-Amenable	SM4500-CN B,G Cyanide-Amenable			02/11/25 00:00	
			Field pH	9045D			02/06/25 11:00	
			Field Temperature	SM2550-B			02/06/25 11:00	
			Oil and Grease	1664A			02/07/25 10:25	
			Phenolics	420.1		02/10/25	02/10/25 15:55	
Q1322-04	MANHOLE	WATER			02/06/25 10:55			02/06/25
			Ammonia	SM4500-NH3		02/07/25	02/07/25 12:33	
			BOD5	SM5210 B			02/07/25 17:10	
			COD	SM5220 D			02/07/25 15:32	
			TSS	SM2540 D			02/10/25 10:00	



SAMPLE DATA

Report of Analysis

Client:	Spectra East Inc.	Date Collected:	02/06/25 10:55
Project:	Outfall 001 - Orangetown Dis Permit 2025	Date Received:	02/06/25
Client Sample ID:	MANHOLE	SDG No.:	Q1322
Lab Sample ID:	Q1322-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Nitrate	0.47	J	1	0.0034	0.50	mg/L		02/07/25 12:33	300.0
Cyanide	0.0034	J	1	0.00093	0.0050	mg/L	02/11/25 11:00	02/11/25 13:45	SM 4500-CN C-16 plus E-16
Cyanide-Amenable	0.0050	U	1	0.00093	0.0050	mg/L		02/11/25 00:00	SM 4500-CN B-16 plus G-16
Field pH	8.22		1	0	0	pH		02/06/25 11:00	9045D
Field Temperature	16.2		1	0	0	o C		02/06/25 11:00	SM 2550 B-10
Oil and Grease	0.40	U	1	0.40	5.00	mg/L		02/07/25 10:25	1664A
Phenolics	0.023	U	1	0.023	0.050	mg/L	02/10/25 09:00	02/10/25 15:55	420.1

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Spectra East Inc.	Date Collected:	02/06/25 10:55
Project:	Outfall 001 - Orangetown Dis Permit 2025	Date Received:	02/06/25
Client Sample ID:	MANHOLE	SDG No.:	Q1322
Lab Sample ID:	Q1322-04	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	1.30		1	0.045	0.10	mg/L	02/07/25 09:10	02/07/25 12:33	SM 4500-NH3 B plus G-11
BOD5	18.2		1	0.17	2.00	mg/L		02/07/25 17:10	SM 5210 B-16
COD	54.3		1	2.35	10.0	mg/L		02/07/25 15:32	SM 5220 D-11
TSS	25.5		1	1.00	4.00	mg/L		02/10/25 10:00	SM 2540 D-15

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits



QC RESULT SUMMARY

Initial and Continuing Calibration Verification

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134623

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Ammonia as N	mg/L	1	1	100	90-110	02/07/2025
Sample ID: CCV1 Ammonia as N	mg/L	0.99	1	99	90-110	02/07/2025
Sample ID: CCV2 Ammonia as N	mg/L	1	1	100	90-110	02/07/2025
Sample ID: CCV3 Ammonia as N	mg/L	1.1	1	110	90-110	02/07/2025
Sample ID: CCV4 Ammonia as N	mg/L	0.97	1	97	90-110	02/07/2025

Initial and Continuing Calibration Verification

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134631

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: COD	ICV	mg/L	49.329	50	99	95-105	01/22/2025
Sample ID: COD	CCV1	mg/L	49.329	50	99	95-105	02/07/2025
Sample ID: COD	CCV2	mg/L	49.329	50	99	95-105	02/07/2025

Initial and Continuing Calibration Verification

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134634

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	10.2	10	102	90-110	02/07/2025
Chloride	mg/L	3.1	3	103	90-110	02/07/2025
Fluoride	mg/L	2	2	100	90-110	02/07/2025
Nitrite	mg/L	3	3	100	90-110	02/07/2025
Nitrate	mg/L	2.5	2.5	100	90-110	02/07/2025
Sulfate	mg/L	15.2	15	101	90-110	02/07/2025
Orthophosphate as P	mg/L	5	5	100	90-110	02/07/2025
Sample ID: CCV2						
Bromide	mg/L	10.2	10	102	90-110	02/07/2025
Chloride	mg/L	3.1	3	103	90-110	02/07/2025
Fluoride	mg/L	2	2	100	90-110	02/07/2025
Nitrite	mg/L	3	3	100	90-110	02/07/2025
Nitrate	mg/L	2.6	2.5	104	90-110	02/07/2025
Sulfate	mg/L	15.2	15	101	90-110	02/07/2025
Orthophosphate as P	mg/L	5.1	5	102	90-110	02/07/2025

Initial and Continuing Calibration Verification

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134656

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV1						
Phenolics		mg/L	1	1	100	90-110	02/10/2025
Sample ID:	CCV1						
Phenolics		mg/L	0.99	1	99	90-110	02/10/2025
Sample ID:	CCV2						
Phenolics		mg/L	1	1	100	90-110	02/10/2025

Initial and Continuing Calibration Verification

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134673

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Cyanide	mg/L	0.098	0.099	99	85-115	02/11/2025
Sample ID: CCV1 Cyanide	mg/L	0.25	0.25	100	90-110	02/11/2025
Sample ID: CCV2 Cyanide	mg/L	0.25	0.25	100	90-110	02/11/2025
Sample ID: CCV3 Cyanide	mg/L	0.25	0.25	100	90-110	02/11/2025

Initial and Continuing Calibration Verification

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134762

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
Field pH		pH	7	7	100	90-110	02/06/2025
Sample ID:	CCV1						
Field pH		pH	7	7	100	90-110	02/06/2025
Sample ID:	CCV2						
Field pH		pH	7	7	100	90-110	02/06/2025

Initial and Continuing Calibration Verification

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134762

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
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Initial and Continuing Calibration Blank Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134623

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	02/07/2025
Sample ID: CCB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	02/07/2025
Sample ID: CCB2 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	02/07/2025
Sample ID: CCB3 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	02/07/2025
Sample ID: CCB4 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	02/07/2025

Initial and Continuing Calibration Blank Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134631

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB COD	mg/L	< 5.0000	5.0000	U	2.35	10	01/22/2025
Sample ID: CCB1 COD	mg/L	< 5.0000	5.0000	U	2.35	10	02/07/2025
Sample ID: CCB2 COD	mg/L	< 5.0000	5.0000	U	2.35	10	02/07/2025

Initial and Continuing Calibration Blank Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134634

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	02/07/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/07/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	02/07/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/07/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	02/07/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	02/07/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	02/07/2025
Sample ID: CCB2							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	02/07/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/07/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	02/07/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/07/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	02/07/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	02/07/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	02/07/2025

Initial and Continuing Calibration Blank Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134656

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Phenolics	mg/L	< 0.0250	0.0250	U	0.023	0.05	02/10/2025
Sample ID: CCB1 Phenolics	mg/L	< 0.0250	0.0250	U	0.023	0.05	02/10/2025
Sample ID: CCB2 Phenolics	mg/L	< 0.0250	0.0250	U	0.023	0.05	02/10/2025

Initial and Continuing Calibration Blank Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134673

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00093	0.005	02/11/2025
Sample ID: CCB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00093	0.005	02/11/2025
Sample ID: CCB2 Cyanide	mg/L	< 0.0025	0.0025	U	0.00093	0.005	02/11/2025
Sample ID: CCB3 Cyanide	mg/L	< 0.0025	0.0025	U	0.00093	0.005	02/11/2025

Initial and Continuing Calibration Blank Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

RunNo.: LB134673

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

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB134620BL							
Oil and Grease	mg/L	< 2.5000	2.5000	U	0.4	5.0	02/07/2025
Sample ID: LB134631BL							
COD	mg/L	< 5.0000	5.0000	U	2.35	10.0	02/07/2025
Sample ID: LB134633BL							
BOD5	mg/L	< 0.2000	0.2000	U	0.17	2.0	02/07/2025
Sample ID: LB134634BLW							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	02/07/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/07/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	02/07/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	02/07/2025
Nitrate	mg/L	0.14	0.2500	J	0.0034	0.5	02/07/2025
Sulfate	mg/L	0.59	1.5000	J	0.032	3	02/07/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	02/07/2025
Sample ID: LB134646BL							
TSS	mg/L	1	2.0000	J	1	4	02/10/2025
Sample ID: PB166612BL							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	02/07/2025
Sample ID: PB166642BL							
Phenolics	mg/L	< 0.0250	0.0250	U	0.023	0.05	02/10/2025
Sample ID: PB166674BL							
Cyanide	mg/L	< 0.0025	0.0025	U	0.00093	0.005	02/11/2025

Matrix Spike Summary

Client:	Spectra East Inc.	SDG No.:	Q1322
Project:	Outfall 001 - Orangetown Dis Permit 2025	Sample ID:	Q1322-01
Client ID:	MANHOLEMS	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	9.30		0.034	U	10	1	93		02/07/2025
Cyanide	mg/L	75-125	0.037		0.0034	J	0.04	1	84		02/11/2025
Chloride	mg/L	80-120	152	OR	156	OR	3	1	-133	*	02/07/2025
Fluoride	mg/L	80-120	1.90		0.066	J	2	1	92		02/07/2025
Nitrite	mg/L	80-120	2.80		0.099	J	3	1	90		02/07/2025
Nitrate	mg/L	80-120	2.80		0.47	J	2.5	1	93		02/07/2025
Phenolics	mg/L	75-125	1.00		0.023	U	1	1	100		02/10/2025
Sulfate	mg/L	80-120	29.6		16.1		15	1	90		02/07/2025
Orthophosphate as P	mg/L	80-120	5.40		0.87	J	5	1	91		02/07/2025

Matrix Spike Summary

Client:	Spectra East Inc.	SDG No.:	Q1322
Project:	Outfall 001 - Orangetown Dis Permit 2025	Sample ID:	Q1322-01
Client ID:	MANHOLEMSD	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	9.30		0.034	U	10	1	93		02/07/2025
Cyanide	mg/L	75-125	0.037		0.0034	J	0.04	1	84		02/11/2025
Chloride	mg/L	80-120	153	OR	156	OR	3	1	-100	*	02/07/2025
Fluoride	mg/L	80-120	1.90		0.066	J	2	1	92		02/07/2025
Nitrite	mg/L	80-120	2.80		0.099	J	3	1	90		02/07/2025
Nitrate	mg/L	80-120	2.80		0.47	J	2.5	1	93		02/07/2025
Phenolics	mg/L	75-125	1.00		0.023	U	1	1	100		02/10/2025
Sulfate	mg/L	80-120	29.7		16.1		15	1	91		02/07/2025
Orthophosphate as P	mg/L	80-120	5.50		0.87	J	5	1	93		02/07/2025

Matrix Spike Summary

Client:	Spectra East Inc.	SDG No.:	Q1322
Project:	Outfall 001 - Orangetown Dis Permit 2025	Sample ID:	Q1322-01
Client ID:	MANHOLEMS	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
Oil and Grease	mg/L	78-114	20.1		0.40	U	20.0	1	101		02/07/2025

Matrix Spike Summary

Client:	Spectra East Inc.	SDG No.:	Q1322
Project:	Outfall 001 - Orangetown Dis Permit 2025	Sample ID:	Q1322-01
Client ID:	MANHOLEMSD	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
Oil and Grease	mg/L	78-114	20.3		0.40	U	20.0	1	102		02/07/2025

Matrix Spike Summary

Client:	Spectra East Inc.	SDG No.:	Q1322
Project:	Outfall 001 - Orangetown Dis Permit 2025	Sample ID:	Q1325-01
Client ID:	DSN002MS	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
Ammonia as N	mg/L	75-125	7.70	OR	6.90	OR	1	1	80		02/07/2025
COD	mg/L	75-125	91.9		47.4		50.0	1	89		02/07/2025

Matrix Spike Summary

Client:	Spectra East Inc.	SDG No.:	Q1322
Project:	Outfall 001 - Orangetown Dis Permit 2025	Sample ID:	Q1325-01
Client ID:	DSN002MSD	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
Ammonia as N	mg/L	75-125	8.20	OR	6.90	OR	1	1	130	*	02/07/2025
COD	mg/L	75-125	89.9		47.4		50.0	1	85		02/07/2025

Duplicate Sample Summary

Client:	Spectra East Inc.	SDG No.:	Q1322
Project:	Outfall 001 - Orangetown Dis Permit 2025	Sample ID:	Q1316-02
Client ID:	002-35TH-AVE(FEB)DUP	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
TSS	mg/L	+/-5	48.3		47.0		1	2.73		02/10/2025

Duplicate Sample Summary

Client: Spectra East Inc.	SDG No.: Q1322
Project: Outfall 001 - Orangetown Dis Permit 2025	Sample ID: Q1322-01
Client ID: MANHOLEDUP	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
Phenolics	mg/L	+/-20	0.023	U	0.023	U	1	0		02/10/2025
Cyanide	mg/L	+/-20	0.0034	J	0.0032	J	1	6		02/11/2025
Field pH	pH	+/-20	8.22		8.23		1	0.12		02/06/2025

Duplicate Sample Summary

Client: Spectra East Inc.	SDG No.: Q1322
Project: Outfall 001 - Orangetown Dis Permit 2025	Sample ID: Q1322-01
Client ID: MANHOLEMSD	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	9.30		9.30		1	0		02/07/2025
Fluoride	mg/L	+/-20	1.90		1.90		1	0		02/07/2025
Nitrate	mg/L	+/-20	2.80		2.80		1	0		02/07/2025
Nitrite	mg/L	+/-20	2.80		2.80		1	0		02/07/2025
Sulfate	mg/L	+/-20	29.6		29.7		1	0		02/07/2025
Chloride	mg/L	+/-20	152	OR	153	OR	1	1		02/07/2025
Orthophosphate as P	mg/L	+/-20	5.40		5.50		1	2		02/07/2025
Phenolics	mg/L	+/-20	1.00		1.00		1	0		02/10/2025
Cyanide	mg/L	+/-20	0.037		0.037		1	0		02/11/2025

Duplicate Sample Summary

Client:	Spectra East Inc.	SDG No.:	Q1322
Project:	Outfall 001 - Orangetown Dis Permit 2025	Sample ID:	Q1322-01
Client ID:	MANHOLEMSD	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
Oil and Grease	mg/L	+/-18	20.1		20.3		1	0.99		02/07/2025

Duplicate Sample Summary

Client:	Spectra East Inc.	SDG No.:	Q1322
Project:	Outfall 001 - Orangetown Dis Permit 2025	Sample ID:	Q1322-04
Client ID:	MANHOLEDUP	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	18.2		18.0		1	1.1		02/07/2025

Duplicate Sample Summary

Client: Spectra East Inc.	SDG No.: Q1322
Project: Outfall 001 - Orangetown Dis Permit 2025	Sample ID: Q1325-01
Client ID: DSN002DUP	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
Ammonia as N	mg/L	+/-20	6.90	OR	6.90	OR	1	0		02/07/2025
COD	mg/L	+/-20	47.4		49.3		1	3.93		02/07/2025

Duplicate Sample Summary

Client:	Spectra East Inc.	SDG No.:	Q1322
Project:	Outfall 001 - Orangetown Dis Permit 2025	Sample ID:	Q1325-01
Client ID:	DSN002MSD	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
Ammonia as N	mg/L	+/-20	7.70	OR	8.20	OR	1	6		02/07/2025
COD	mg/L	+/-20	91.9		89.9		1	2.2		02/07/2025

Laboratory Control Sample Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

Run No.: LB134620

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134620BS							
Oil and Grease	mg/L	20.0	16.7		84	1	78-114	02/07/2025

Laboratory Control Sample Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

Run No.: LB134631

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134631BS							
COD	mg/L	50	53.3		107	1	90-110	02/07/2025

Laboratory Control Sample Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

Run No.: LB134633

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134633BS							
BOD5	mg/L	198	193		97	1	84.6-115.4	02/07/2025

Laboratory Control Sample Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

Run No.: LB134634

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134634BSW							
Bromide	mg/L	10	10.0		100	1	90-110	02/07/2025
Chloride	mg/L	3	3.00		100	1	90-110	02/07/2025
Fluoride	mg/L	2	2.00		100	1	90-110	02/07/2025
Nitrite	mg/L	3	3.00		100	1	90-110	02/07/2025
Nitrate	mg/L	2.5	2.50		100	1	90-110	02/07/2025
Sulfate	mg/L	15	15.0		100	1	90-110	02/07/2025
Orthophosphate as P	mg/L	5	5.10		102	1	90-110	02/07/2025

Laboratory Control Sample Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

Run No.: LB134646

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134646BS							
TSS	mg/L	550	532		97	1	90-110	02/10/2025

Laboratory Control Sample Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

Run No.: LB134623

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB166612BS							
Ammonia as N	mg/L	1	1.00		100	1	90-110	02/07/2025

Laboratory Control Sample Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

Run No.: LB134656

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB166642BS							
Phenolics	mg/L	1	1.00		100	1	80-120	02/10/2025

Laboratory Control Sample Summary

Client: Spectra East Inc.

SDG No.: Q1322

Project: Outfall 001 - Orangetown Dis Permit 2025

Run No.: LB134673

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB166674BS							
Cyanide	mg/L	0.1	0.098		98	1	85-115	02/11/2025



RAW DATA

Extraction and Analytical Summary Report

Analysis Method: 1664A
Test: Oil and Grease
Run Number: LB134620
Analysis Date: 02/07/2025
BalanceID: WC SC-6
OvenID: EXT OVEN-3

ANALYST: jignesh
REVIEWED BY: Iwona
Extraction Date: 02/07/2025
Extraction IN Time: 08:40
Extraction OUT Time: 09:25
Thermometer ID: EXT OVEN#3

Dish #	Lab ID	Client ID	Matrix	pH	Sample Vol (ml)	Final Volume (ml)	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Silica Gel Weight (g)	Weight After Drying (g)	Final Weight After Drying (g)	Change Weight (g)	Result in ppm
1	LB134620BL	LB134620BL	WATER	1.3	1000	100	2.5674	2.5674	0	2.5675	2.5675	0.0001	0.1
2	LB134620BS	LB134620BS	WATER	1.3	1000	100	3.1456	3.1456	0	3.1623	3.1623	0.0167	16.7
3	Q1168-09	MDL-WATER-03-QT1-2025	WATER	1.3	1000	100	2.8563	2.8563	0	2.8581	2.8581	0.0018	1.8
4	Q1316-01	001-WILLETS-PT-BLVD (FE	WATER	1.3	1000	100	3.0473	3.0473	0	3.0522	3.0522	0.0049	4.9
5	Q1316-02	002-35TH-AVE (FEB)	WATER	1.3	1000	100	3.0750	3.0750	0	3.0786	3.0786	0.0036	3.6
6	Q1322-01	MANHOLE	WATER	1.3	1000	100	3.0505	3.0505	0	3.0506	3.0506	0.0001	0.1
7	Q1322-02	Q1322-01MS	WATER	1.3	1000	100	2.7413	2.7413	0	2.7614	2.7614	0.0201	20.1
8	Q1322-03	Q1322-01MSD	WATER	1.3	1000	100	2.9366	2.9366	0	2.9569	2.9569	0.0203	20.3

QC Batch# LB134620

Test: Oil and Grease

Analysis Date: 02/07/2025

Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3177
pH Paper 0-14	M6069
Sodium Sulfate	EP2581
1:1 HCL	WP110826
Silica Gel	NA
Sand	NA

Standards Used:

Standard Name	Amount Used	Standard Lot #
LCSW	2.5 ML	WP100827
LCSWD	NA	NA
MS/MSD	2.5 ML	WP100828

BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

Before Analysis

0.0020 gram Balance: 0.0018 (0.0018-0.0022) In OVEN TEMP1 : 70 °C Dessicator Time In1 : 11:16

1.0000 gram Balance: 1.0004 (0.9950-1.0050) In Time1: 10:25

Bal Check Time: 08:50 Out OVEN TEMP1: 70 °C Dessicator Time Out1: 12:00

Out Time1: 11:15

After Analysis

0.0020 gram Balance: 0.0021 (0.0018-0.0022) In OVEN TEMP2 : 71 °C Dessicator Time In2 : 13:01

1.0000 gram Balance: 1.0005 (0.9950-1.0050) In Time2: 12:30

Bal Check Time: 13:37 Out OVEN TEMP2: 71 °C Dessicator Time Out2: 13:35

Out Time2: 13:00

WORKLIST(Hardcopy Internal Chain)

VB 134620

WorkList Name : oil & grease p1316 WorkList ID : 187560 Department : Wet-Chemistry Date : 02-07-2025 08:23:01

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1168-09	MDL-WATER-03-QT1-2025	Water	Oil and Grease	Conc H2SO4 to pH < 2	CHEM02	QA Of	01/23/2025	1664A
Q1316-01	H 001-WILLETTS-PT-BLVD(FEB)	Water	Oil and Grease	Conc H2SO4 to pH < 2	TULL01	N41	02/05/2025	1664A
Q1316-02	H 002-35TH-AVE(FEB)	Water	Oil and Grease	Conc H2SO4 to pH < 2	TULL01	N41	02/05/2025	1664A
Q1322-01	H MANHOLE	Water	Oil and Grease	Conc H2SO4 to pH < 2	SPEC01	N41	02/06/2025	1664A
Q1322-02	Q1322-01MS	Water	Oil and Grease	Conc H2SO4 to pH < 2	SPEC01	N41	02/06/2025	1664A
Q1322-03	Q1322-01MSD	Water	Oil and Grease	Conc H2SO4 to pH < 2	SPEC01	N41	02/06/2025	1664A

Date/Time 02/07/25 08:30

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 02/07/25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

151-00

Test results

Aquakem 7.2AQ1

Page: 1

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

2/7/2025 13:56

Reviewed by: RM

Instrument ID : Konelab

Test: Ammonia-N

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	1.007	0.0	0.149	
ICB1	0.011	0.0	0.015	
CCV1	0.986	0.0	0.146	
CCB1	0.024	0.0	0.016	
RL CHECK	0.103	0.0	0.027	
PB166612BL	0.014	0.0	0.015	
PB166612BS	1.022	0.0	0.151	
Q1316-01	7.394	0.0	1.008	
Q1316-02	7.985	0.0	1.088	Test limit high
Q1322-04	1.271	0.0	0.184	Test limit high
Q1324-01	2.126	0.0	0.299	
Q1325-01	6.907	0.0	0.943	Test limit high
Q1325-01DUP	6.903	0.0	0.942	Test limit high
CCV2	1.007	0.0	0.149	
CCB2	0.044	0.0	0.019	
Q1325-01MS	7.695	0.0	1.049	
Q1325-01MSD	8.197	0.0	1.116	Test limit high
Q1325-03	0.243	0.0	0.046	Test limit high
Q1325-05	7.028	0.0	0.959	
PB166614BL	0.040	0.0	0.019	Test limit high
PB166614BS	0.998	0.0	0.147	
CCV3	1.052	0.0	0.155	
CCB3	0.026	0.0	0.017	
Q1168-09	0.088	0.0	0.025	
Q1168-03	0.087	0.0	0.025	
Q1316-01DLX10	0.711	0.0	0.109	
Q1316-02DLX10	0.760	0.0	0.115	
Q1324-01DLX2	1.178	0.0	0.172	
Q1325-01DLX10	0.668	0.0	0.103	
Q1325-05DLX10	0.703	0.0	0.108	
CCV4	0.967	0.0	0.143	
CCB4	0.012	0.0	0.015	

103% (50-150)
02/07/2025
RM

N 32
Mean 2.102
SD 2.9235
CV% 139.09

Aquakem v. 7.2AQ1

Results from time period:

Fri Feb 07 11:18:10 2025

Fri Feb 07 13:35:03 2025

Sample Id	Sam/Ctr/c	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	Ammonia-1 P		0.0217	mg/l	2/7/2025 11:18:10	
0.1PPM	A	Ammonia-1 P		0.1109	mg/l	2/7/2025 11:18:11	
0.2PPM	A	Ammonia-1 P		0.1992	mg/l	2/7/2025 11:18:12	
0.4PPM	A	Ammonia-1 P		0.3919	mg/l	2/7/2025 11:18:13	
1.0PPM	A	Ammonia-1 P		0.9525	mg/l	2/7/2025 11:18:14	
1.3PPM	A	Ammonia-1 P		1.3301	mg/l	2/7/2025 11:18:15	
2.0PPM	A	Ammonia-1 P		2.027	mg/l	2/7/2025 11:18:16	
ICV1	S	Ammonia-1 P		1.0072	mg/l	2/7/2025 12:22:38	
ICB1	S	Ammonia-1 P		0.0113	mg/l	2/7/2025 12:22:40	
CCV1	S	Ammonia-1 P		0.9864	mg/l	2/7/2025 12:22:42	
CCB1	S	Ammonia-1 P		0.0237	mg/l	2/7/2025 12:22:43	
RL CHECK	S	Ammonia-1 P		0.1026	mg/l	2/7/2025 12:22:46	
PB166612BL	S	Ammonia-1 P		0.0142	mg/l	2/7/2025 12:22:47	
PB166612BS	S	Ammonia-1 P		1.0224	mg/l	2/7/2025 12:33:21	
Q1316-01	S	Ammonia-1 P		7.3941	mg/l	2/7/2025 12:33:26	
Q1316-02	S	Ammonia-1 P		7.9848	mg/l	2/7/2025 12:33:27	
Q1322-04	S	Ammonia-1 P		1.2715	mg/l	2/7/2025 12:33:28	
Q1324-01	S	Ammonia-1 P		2.1259	mg/l	2/7/2025 12:33:29	
Q1325-01	S	Ammonia-1 P		6.9074	mg/l	2/7/2025 12:33:30	
Q1325-01DUP	S	Ammonia-1 P		6.9033	mg/l	2/7/2025 12:33:32	
CCV2	S	Ammonia-1 P		1.0068	mg/l	2/7/2025 12:44:05	
CCB2	S	Ammonia-1 P		0.0437	mg/l	2/7/2025 12:44:07	
Q1325-01MS	S	Ammonia-1 P		7.6953	mg/l	2/7/2025 12:44:08	
Q1325-01MSD	S	Ammonia-1 P		8.1966	mg/l	2/7/2025 12:44:09	
Q1325-03	S	Ammonia-1 P		0.2432	mg/l	2/7/2025 12:44:10	
Q1325-05	S	Ammonia-1 P		7.0284	mg/l	2/7/2025 12:44:11	
PB166614BL	S	Ammonia-1 P		0.0402	mg/l	2/7/2025 12:44:12	
PB166614BS	S	Ammonia-1 P		0.9982	mg/l	2/7/2025 12:44:14	
CCV3	S	Ammonia-1 P		1.0523	mg/l	2/7/2025 12:52:32	
CCB3	S	Ammonia-1 P		0.026	mg/l	2/7/2025 12:52:34	
Q1168-09	S	Ammonia-1 P		0.0877	mg/l	2/7/2025 13:25:56	
Q1168-03	S	Ammonia-1 P		0.0872	mg/l	2/7/2025 13:25:58	
Q1316-01DLX10	S	Ammonia-1 P		0.7106	mg/l	2/7/2025 13:34:55	
Q1316-02DLX10	S	Ammonia-1 P		0.7603	mg/l	2/7/2025 13:34:56	
Q1324-01DLX2	S	Ammonia-1 P		1.1777	mg/l	2/7/2025 13:34:59	
Q1325-01DLX10	S	Ammonia-1 P		0.6678	mg/l	2/7/2025 13:35:00	
Q1325-05DLX10	S	Ammonia-1 P		0.7028	mg/l	2/7/2025 13:35:01	
CCV4	S	Ammonia-1 P		0.9672	mg/l	2/7/2025 13:35:02	
CCB4	S	Ammonia-1 P		0.0124	mg/l	2/7/2025 13:35:03	

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 11:35

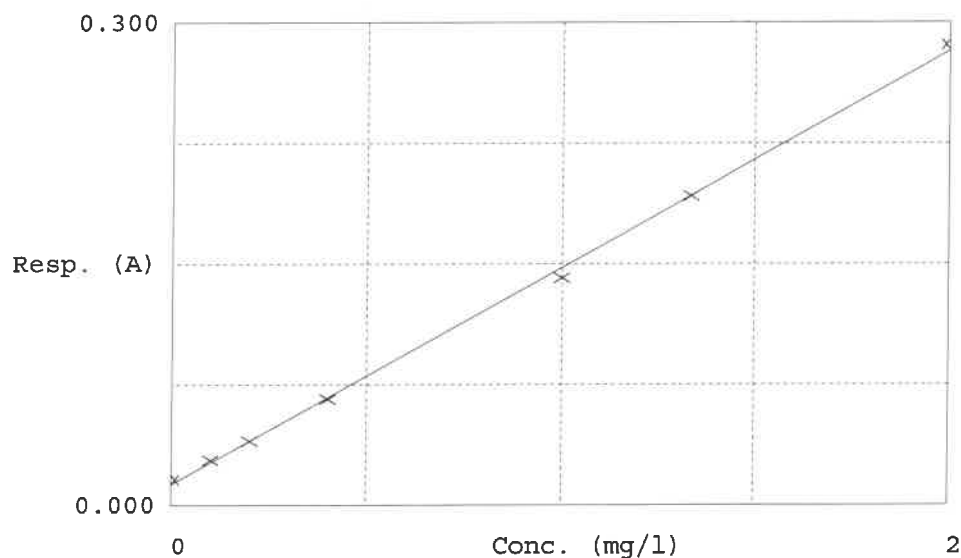
Test Ammonia-N

Accepted 2/7/2025 11:23

Factor 7.431
Bias 0.013

Coeff. of det. 0.998918

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.016	0.0217	0.0000	10.9
2	NH3-2PPM	0.028	0.1109	0.1000	-0.4
3	NH3-2PPM	0.040	0.1992	0.2000	-2.0
4	NH3-2PPM	0.066	0.3919	0.4000	-4.8
5	NH3-2PPM	0.141	0.9525	1.0000	2.3
6	NH3-2PPM	0.192	1.3301	1.3333	1.4
7	NH3-2PPM	0.286	2.0270	2.0000	

02/07/2025
RM

Analytical Summary Report

Analysis Method: SM5220 D

ANALYST: Niha

Parameter: COD

SUPERVISOR REVIEW BY: Iwona

Run Number: LB134631

Reagent/Standard	Lot/Log #
COD Digestion Vials Low Level 0-150Mg/L	W3125
COD ICV-LCS std, 50ppm	WP111522
COD calibration std. 100 ppm	WP111519
COD calibration std. 10 ppm	WP111517
COD calibration std. 150 ppm	WP111520
COD calibration std. 50 ppm	WP111518
COD calibration std. 0 ppm	WP111516
COD ICV-LCS std, 50ppm	WP111764
COD CCV std, 50ppm	WP111763

Temp In (C): 148	Date In: 02/07/2025	Time In: 11:15
Temp Out (C): 150	Date Out: 02/07/2025	Time Out: 13:15

Intercept: 0.1675

Slope: 1.0102

Regression: 1

Seq	Lab ID	TrueValue (mg/l)	DF	MATRIX	Reading	Result (mg/l)	%D	Anal Date	Anal Time
1	CAL1	0	1	Water	0.000	-0.166		01/22/2025	13:30
2	CAL2	10	1	Water	11.000	10.723	7.2	01/22/2025	13:30
3	CAL3	50	1	Water	50.000	49.329	-1.3	01/22/2025	13:31
4	CAL4	100	1	Water	101.000	99.814	-0.2	01/22/2025	13:31
5	CAL5	150	1	Water	152.000	150.299	0.2	01/22/2025	13:32

Analytical Summary Report

Analysis Method: SM5220 D

ANALYST: Niha

Parameter: COD

SUPERVISOR REVIEW BY: Iwona

Run Number: LB134631

Seq	Lab ID	True Value (mg/l)	Initial Weight (g)	Final Vol (ml)	DF	MATRIX	Reading	Result	AnalDate	AnalTime
1	ICV	50	NA	NA	1	Water	50.000	49.329	01/22/2025	13:32
2	ICB		NA	NA	1	Water	0.000	-0.166	01/22/2025	13:33
3	CCV1	50	NA	NA	1	Water	50.000	49.329	02/07/2025	15:30
4	CCB1		NA	NA	1	Water	0.000	-0.166	02/07/2025	15:30
5	LB134631BL		NA	NA	1	Water	0.000	-0.166	02/07/2025	15:31
6	LB134631BS	50	NA	NA	1	Water	54.000	53.289	02/07/2025	15:31
7	Q1322-04		NA	NA	1	Water	55.000	54.279	02/07/2025	15:32
8	Q1325-01		NA	NA	1	Water	48.000	47.350	02/07/2025	15:32
9	Q1325-01DUP		NA	NA	1	Water	50.000	49.329	02/07/2025	15:33
10	Q1325-01MS	50	NA	NA	1	Water	93.000	91.895	02/07/2025	15:33
11	Q1325-01MSD	50	NA	NA	1	Water	91.000	89.915	02/07/2025	15:34
12	Q1325-03		NA	NA	1	Water	93.000	91.895	02/07/2025	15:34
13	Q1325-04		NA	NA	1	Water	88.000	86.946	02/07/2025	15:35
14	Q1325-05		NA	NA	1	Water	35.000	34.481	02/07/2025	15:35
15	CCV2	50	NA	NA	1	Water	50.000	49.329	02/07/2025	15:36
16	CCB2		NA	NA	1	Water	0.000	-0.166	02/07/2025	15:36

LB134631

WORKLIST(Hardcopy Internal Chain)

WorkList Name : COD-02072025

WorkList ID : 187587

Department : Wet-Chemistry

Date : 02-07-2025 09:42:05

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1322-04	MANHOLE	Water	COD	Conc H2SO4 to pH < 2	SPEC01	N41	02/06/2025	SM5220 D
Q1325-01	DSN002	Water	COD	Conc H2SO4 to pH < 2	PSEG04	N41	02/06/2025	SM5220 D
Q1325-03	DSN001	Water	COD	Conc H2SO4 to pH < 2	PSEG04	N41	02/06/2025	SM5220 D
Q1325-04	DSN001	Water	COD	Conc H2SO4 to pH < 2	PSEG04	N41	02/06/2025	SM5220 D
Q1325-05	DSN003	Water	COD	Conc H2SO4 to pH < 2	PSEG04	N41	02/06/2025	SM5220 D

Date/Time 02.07.2025, 09:45

Raw Sample Received by: NFWCJ

Raw Sample Relinquished by: NFWCJ

Date/Time

Raw Sample Received by: NFWCJ

Raw Sample Relinquished by: NFWCJ

BOD5 LOG

ANALYST: rubin
Inst Id :DO METER
LB :LB134633

SUPERVISOR: Iwona

QC BATCH ID: LB134633

Analysis Date: 02/07/2025

BOD Water: WP111861

MANGANOUS SULFATE SOLUTION: W3103

Starch: W3149

Alkaline Iodide Azide: W3109

Sulfuric acid, 1N: WP110386

Sodium Thiosulfate, 0.025N: W3105

POLYSEED: WP111863

NaOH, 1N: WP111323

GGA: WP111862

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	9.9	19.5	9.6	9.6

Meter Calibration1: 9.40 Zero DO Reading1: 0.14 mg/L (<=0.2 Criteria)

Barometric Pressure1: 760 mmHg DO Meter BOD fluid reading for winkler comparison: 9.62

After Incubation

Meter Calibration2: 9.05 Zero DO Reading2: 0.14 mg/L (<=0.2 Criteria)

Barometric Pressure2: 771 mmHg

QC BATCH ID: LB134633

INCUBATOR TEMP IN(C): 20.0

INCUBATOR TEMP OUT(C): 19.8

TIME IN: 17:10

TIME OUT: 11:40

DATE IN: 02/07/2025

DATE OUT: 02/12/2025

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
LB134633BL	1	No	6.67	N/A	20.80	300	9.62	9.60	0.02	0.02	0.02	
POLYSEED	1					10	9.59	7.04	2.55	0.51	0.54	
POLYSEED	2					15	9.54	5.12	4.42	0.59		
POLYSEED	3					20	9.43	4.29	5.14	0.51		
GGA	1					6	9.58	5.24	4.34	190	192.5	
GGA	2					6	9.58	5.21	4.37	191.5		
GGA	3					6	9.55	5.09	4.46	196		
Q1322-04	1	No	7.34	N/A	20.40	5	9.62	8.89	-	0	18.2	
Q1322-04	2					20	9.57	8.45	-	0		
Q1322-04	3					50	9.27	4.30	4.97	26.58		
Q1322-04	4					150	8.92	3.47	5.45	9.82		
Q1322-04DUP	1	No	7.34	N/A	20.40	5	9.62	8.80	-	0	18	
Q1322-04DUP	2					20	9.56	8.33	-	0		
Q1322-04DUP	3					50	9.25	4.35	4.9	26.16		
Q1322-04DUP	4					150	8.90	3.44	5.46	9.84		

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

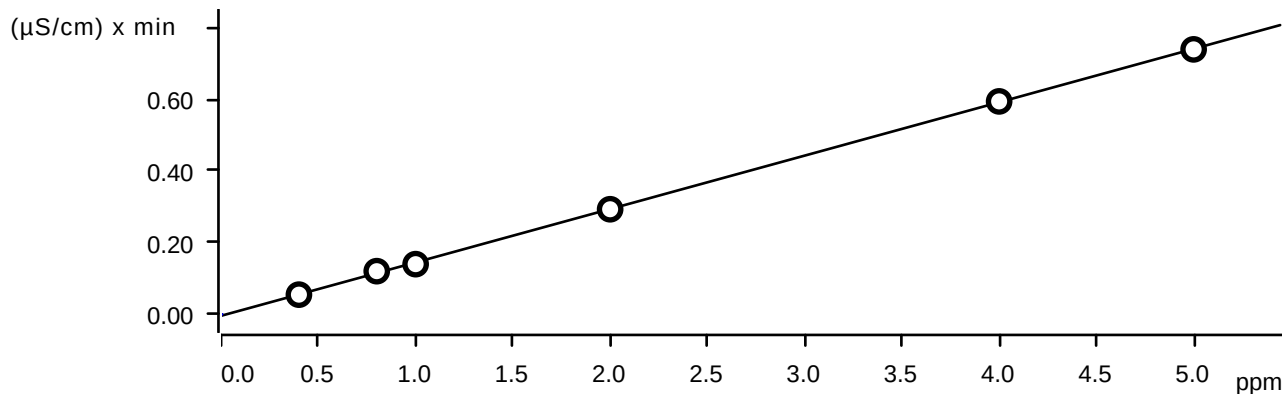
NOTE (For, CBOD5): 0.16 g Nitrification Inhibitor added to GGA and all the Samples, but not in Blank.

Instrument II		IC-1	Analyst :		NF	Method: .00.0 / 9056A					
Ident	Con F-	Con CL-	Con NO2	Con BR-	Con NO3	Con HPO4	Con SO4	Method name	date time	al wt/Fina	Analyst
STD1	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
ICV	2.059	3.086	3.062	10.267	2.569	5.158	15.361	IC1-012025	1/20/2025 13:44	10	NF/IZ
ICB	0	0	0	0	0	0	0	IC1-012025	1/20/2025 14:06	10	NF/IZ
CCV	2.038	3.099	3.025	10.182	2.546	4.967	15.168	IC1-012025	2/7/2025 11:07	10	NF/IZ
CCB	0	0	0	0	0	0	0	IC1-012025	2/7/2025 11:28	10	NF/IZ
LB134634BLW	0	0	0	0	0.138	0	0.585	IC1-012025	2/7/2025 11:50	10	NF/IZ
LB134634BSW	2.007	3.015	3.008	10.033	2.509	5.109	14.977	IC1-012025	2/7/2025 12:11	10	NF/IZ
Q1322-01	0.066	156.333	0.099	0	0.465	0.869	16.135	IC1-012025	2/7/2025 12:33	10	NF/IZ
Q1322-01MS	1.859	152.315	2.83	9.327	2.765	5.411	29.643	IC1-012025	2/7/2025 12:55	10	NF/IZ
Q1322-01MSD	1.883	152.593	2.829	9.321	2.759	5.53	29.677	IC1-012025	2/7/2025 13:16	10	NF/IZ
CCV	2.039	3.108	3.038	10.217	2.552	5.118	15.174	IC1-012025	2/7/2025 13:38	10	NF/IZ
CCB	0.042	0	0	0	0	0	0	IC1-012025	2/7/2025 15:41	10	NF/IZ

Clear table

Instrument ID: IC-2										Analyst : IZ		Method: 300.0 / 9056A	
ident	concentra tion F-	concentratio n CL-	concentratio on NO2	concentratio on BR-	concentratio on NO3	concentratio on HPO4	concentratio 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		
ident	True Value F-	True Value CL-	True Value NO2	True Value BR-	True Value NO3	True Value HPO4	True Value SO4						
STD1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
STD2	0.4000	0.6000	0.6000	2.0000	0.5000	1.0000	3.0000						
STD3	0.8000	1.2000	1.2000	4.0000	1.0000	2.0000	6.0000						
STD4	1.0000	1.5000	1.5000	5.0000	1.2500	2.5000	7.5000						
STD5	2.0000	3.0000	3.0000	10.0000	2.5000	5.0000	15.0000						
STD6	4.0000	6.0000	6.0000	20.0000	5.0000	10.0000	30.0000						
STD7	5.0000	7.5000	7.5000	25.0000	6.2500	12.5000	37.0000						
ident	Relative Error F-	Relative Error CL-	Relative Error NO2	Relative Error BR-	Relative Error NO3	Relative Error HPO4	Relative Error SO4						
STD1	-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)



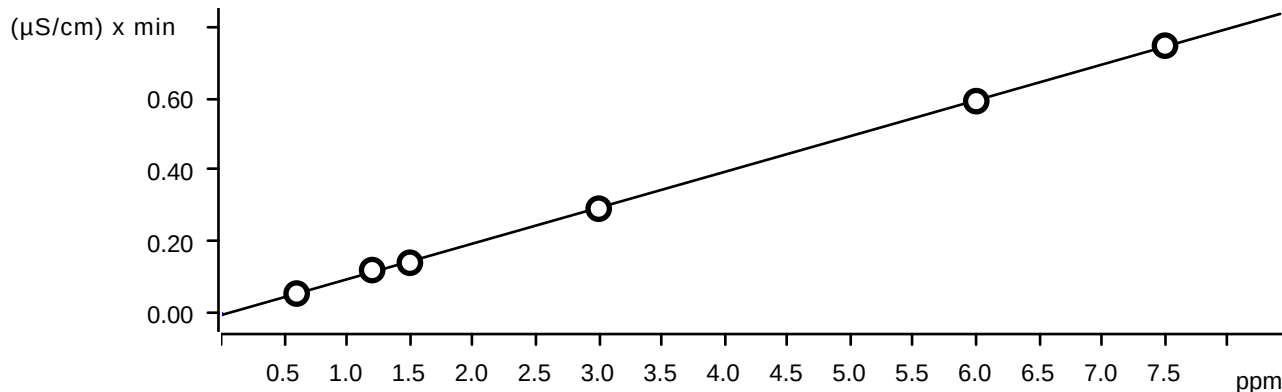
Function: $A = -4.02271E-3 + 0.0148839 \times Q$

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)

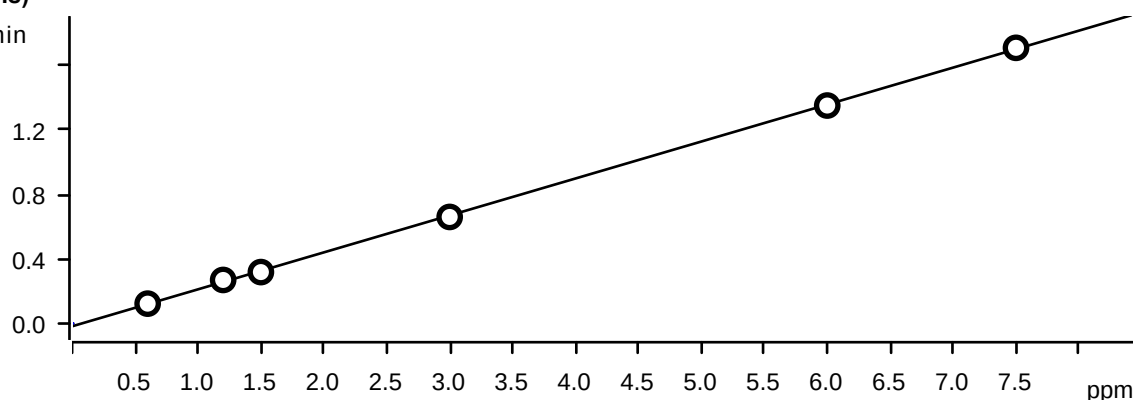


Function: $A = -4.62538E-3 + 9.98029E-3 \times Q$

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

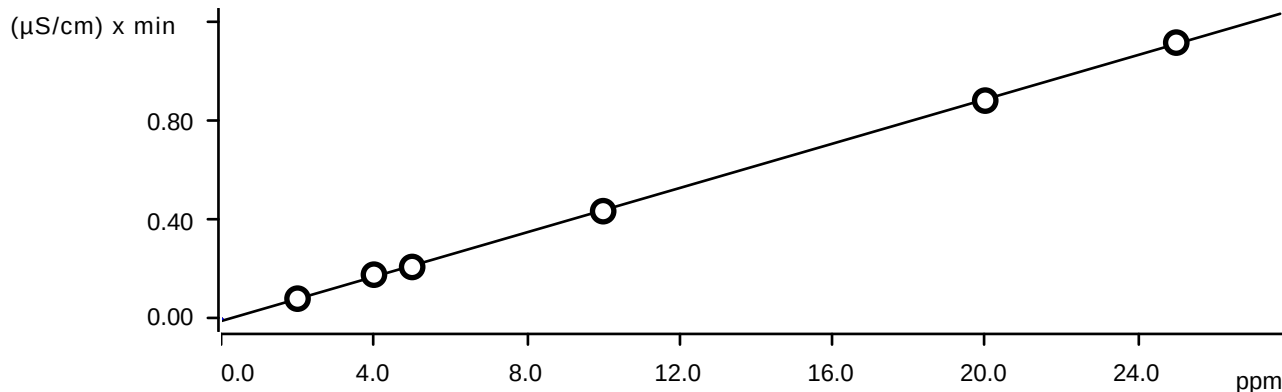
Nitrite (Anions) $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -0.0179856 + 0.0228967 \times Q$

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)



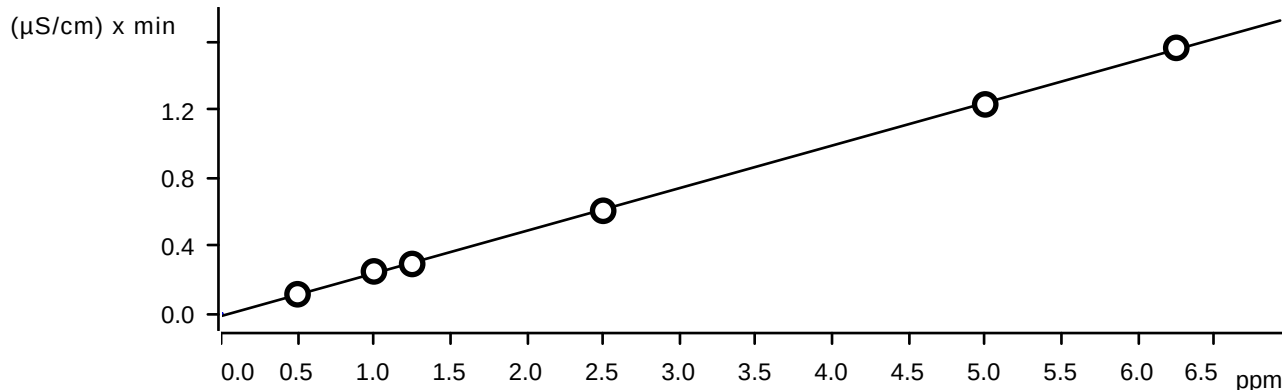
Function: $A = -8.89651E-3 + 4.46429E-3 \times Q$

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)

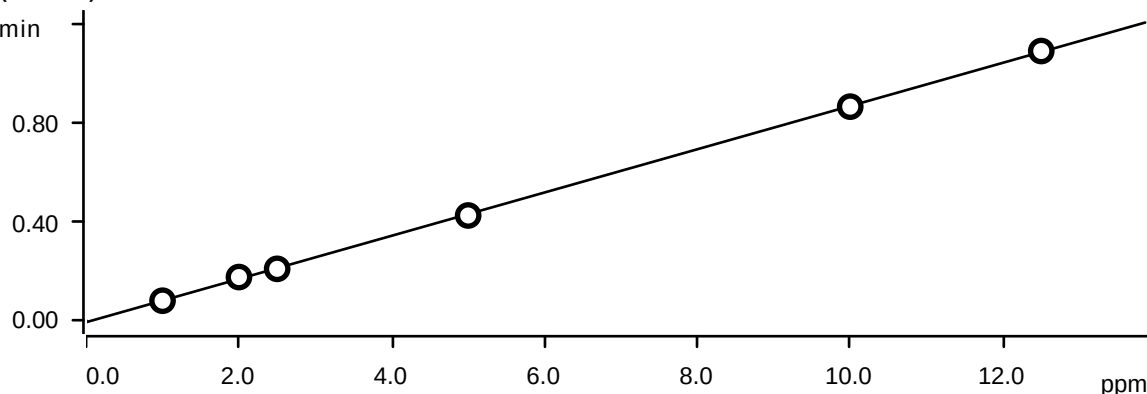


Function: $A = -0.0155875 + 0.0250988 \times Q$

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

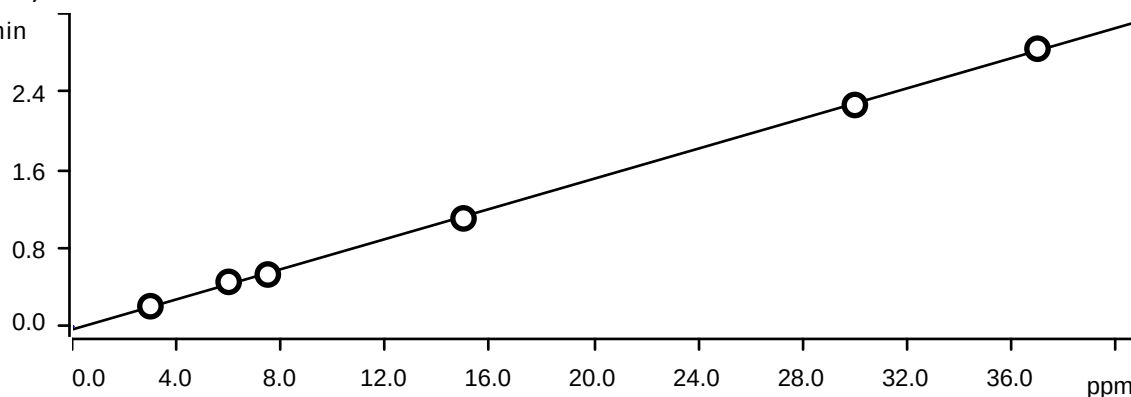
Phosphate (Anions) $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -4.38887E-3 + 8.70711E-3 \times Q$

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

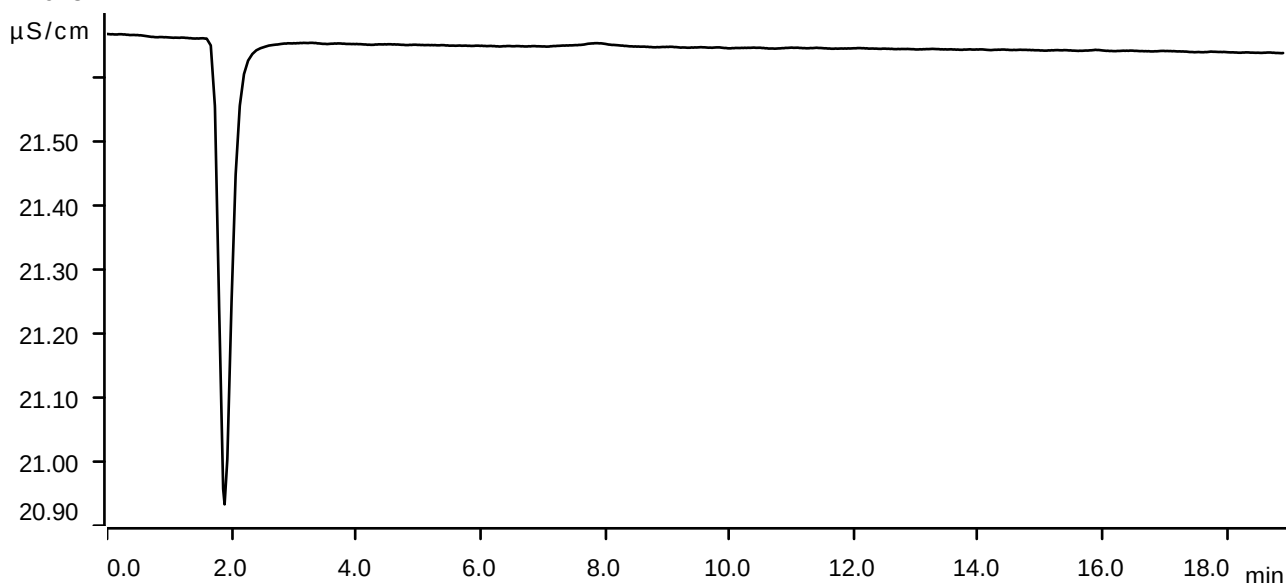
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 1	1	0.000	10.0	1.0	1.0	n. d.	STD1	2025-01-20 11:14:39 UTC-5	used
Standard 2	1	3.000	10.0	1.0	1.0	0.207	STD2	2025-01-20 11:36:02 UTC-5	used
Standard 3	1	6.000	10.0	1.0	1.0	0.456	STD3	2025-01-20 11:57:26 UTC-5	used
Standard 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

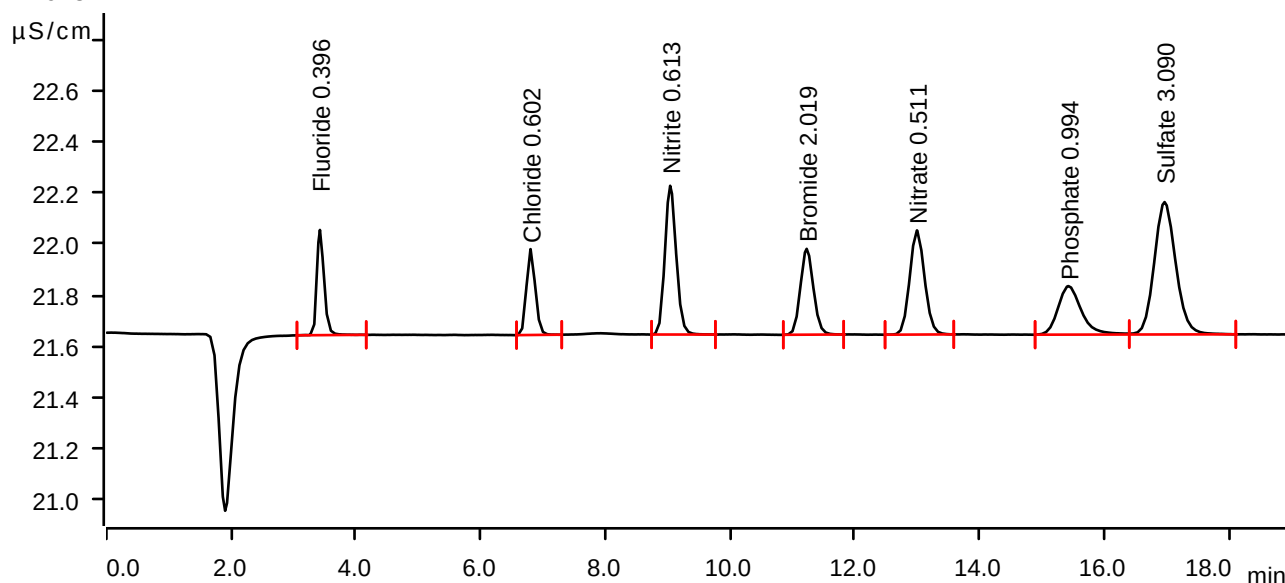
Sample data

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

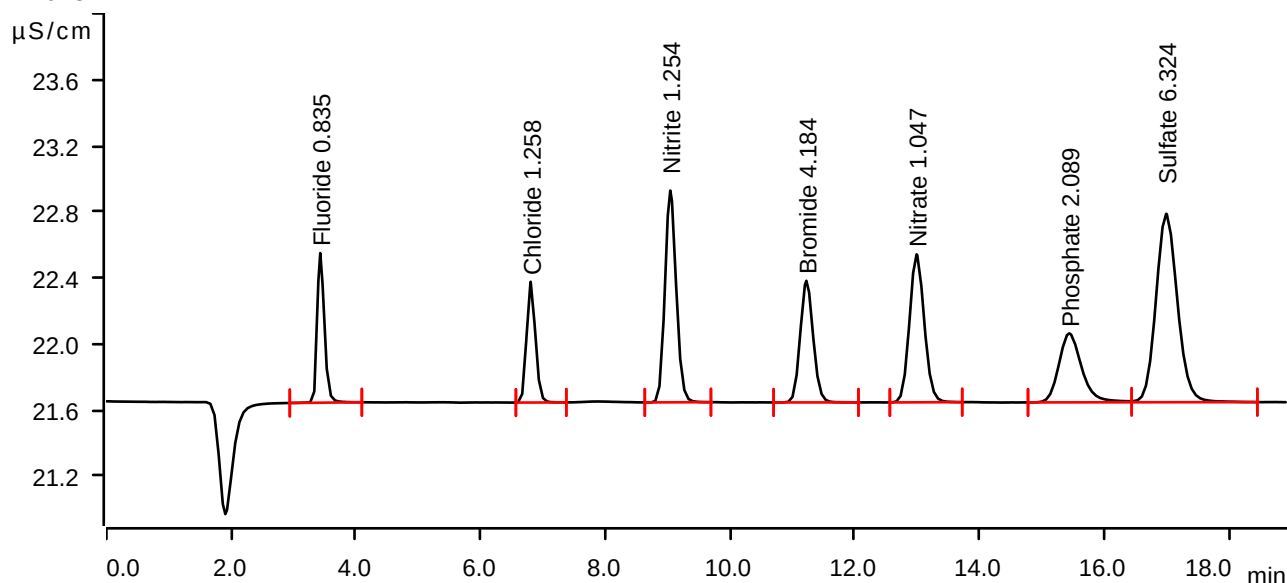
Sample data

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

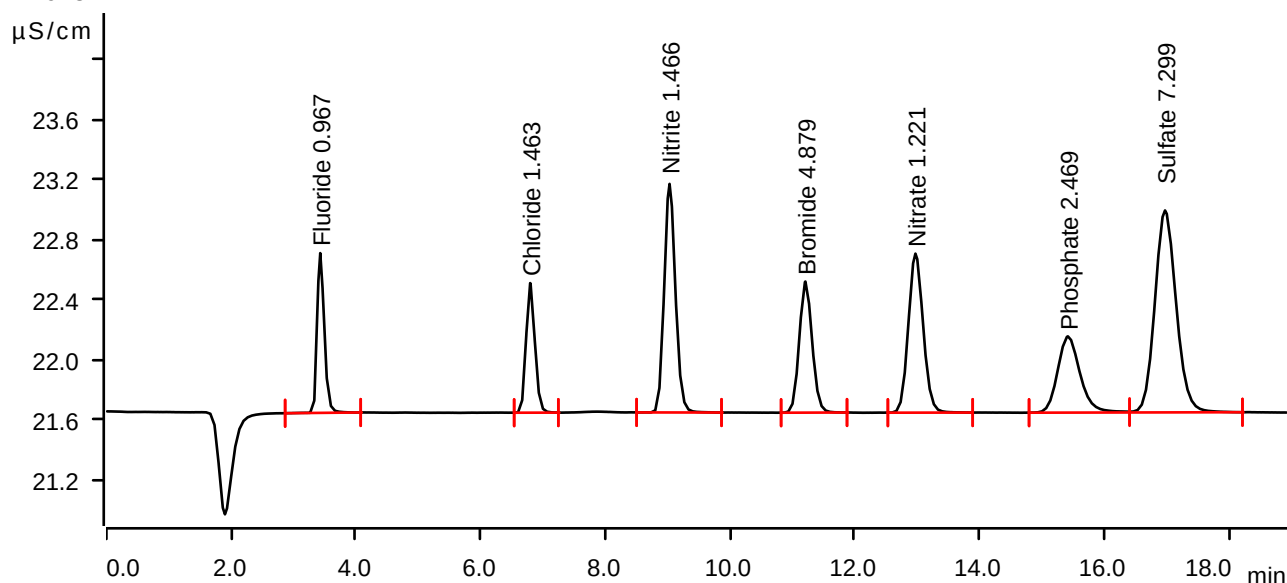
Sample data

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

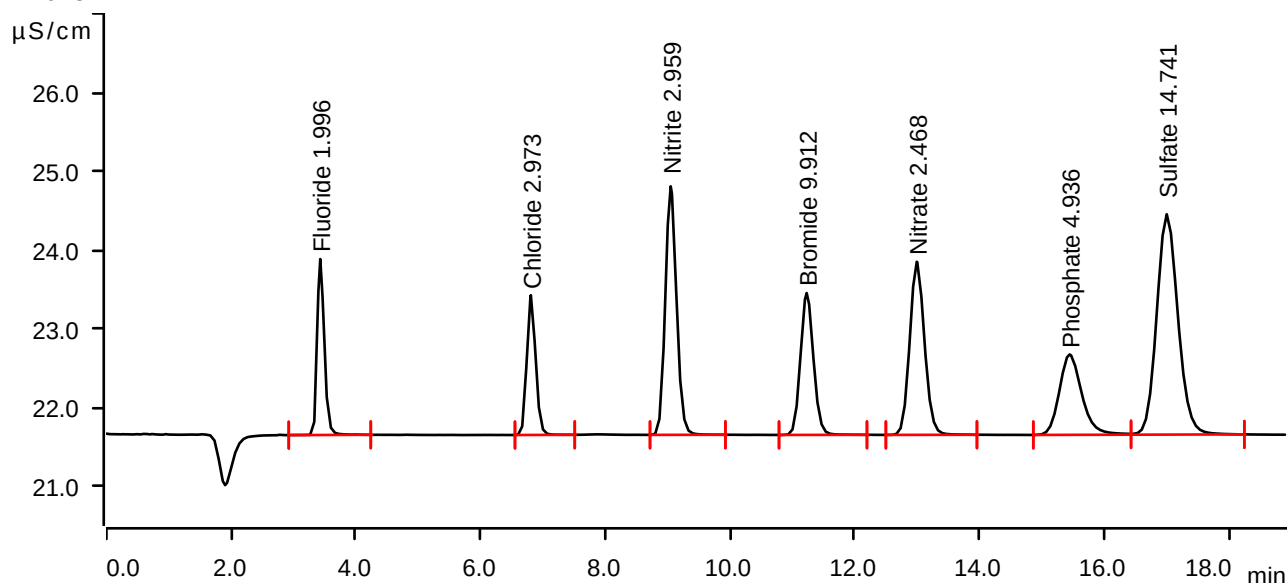
Sample data

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

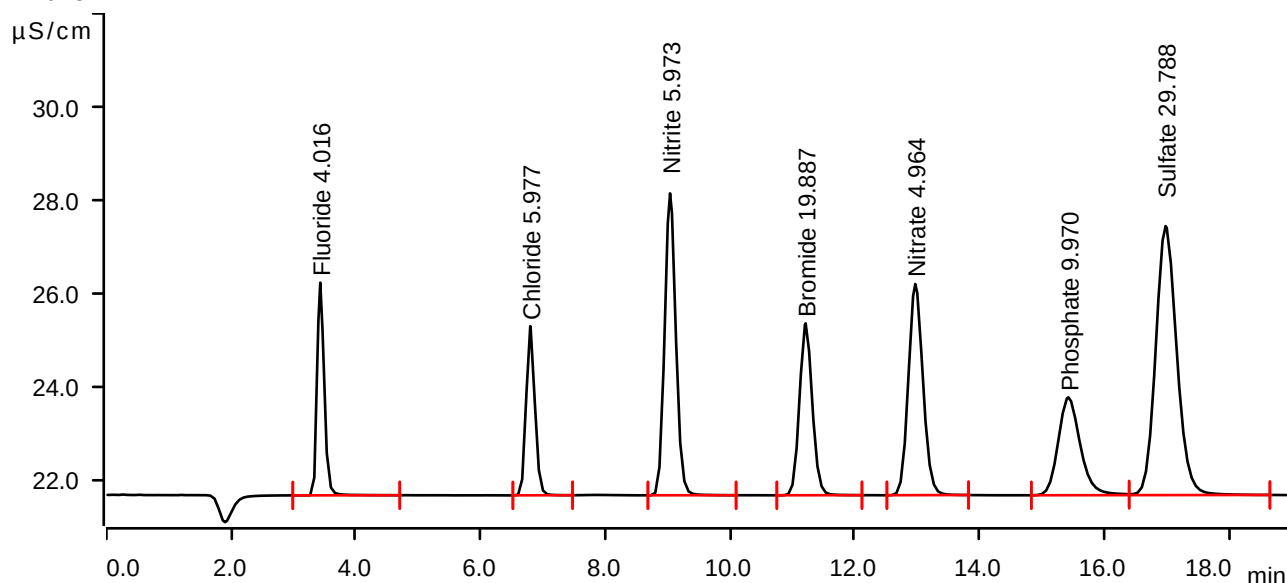
Sample data

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

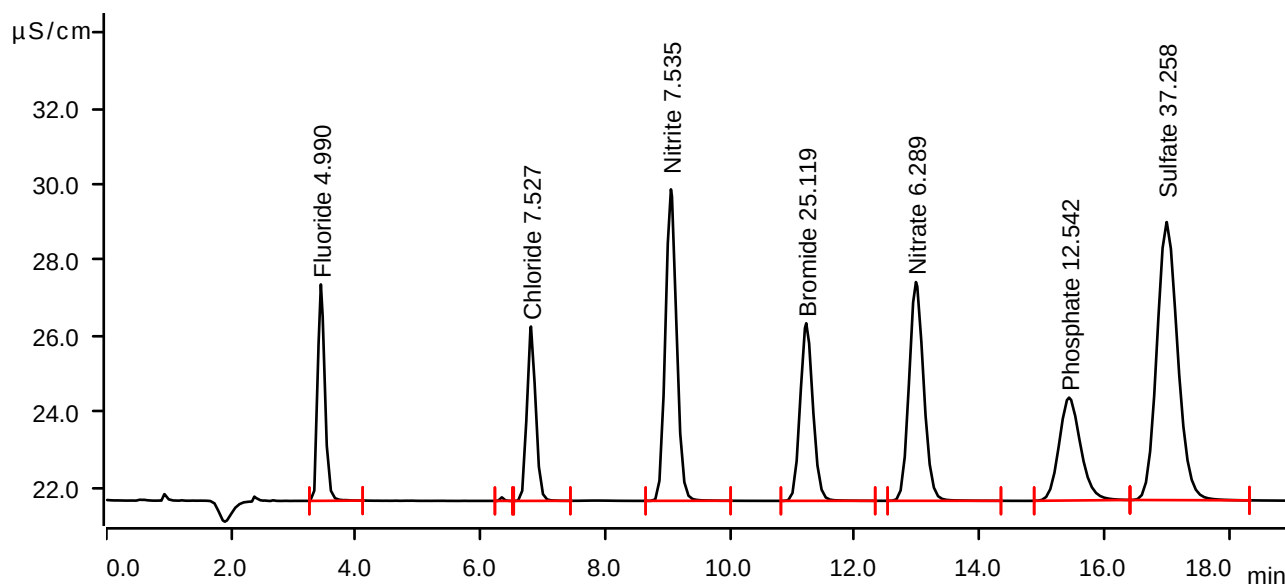
Sample data

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

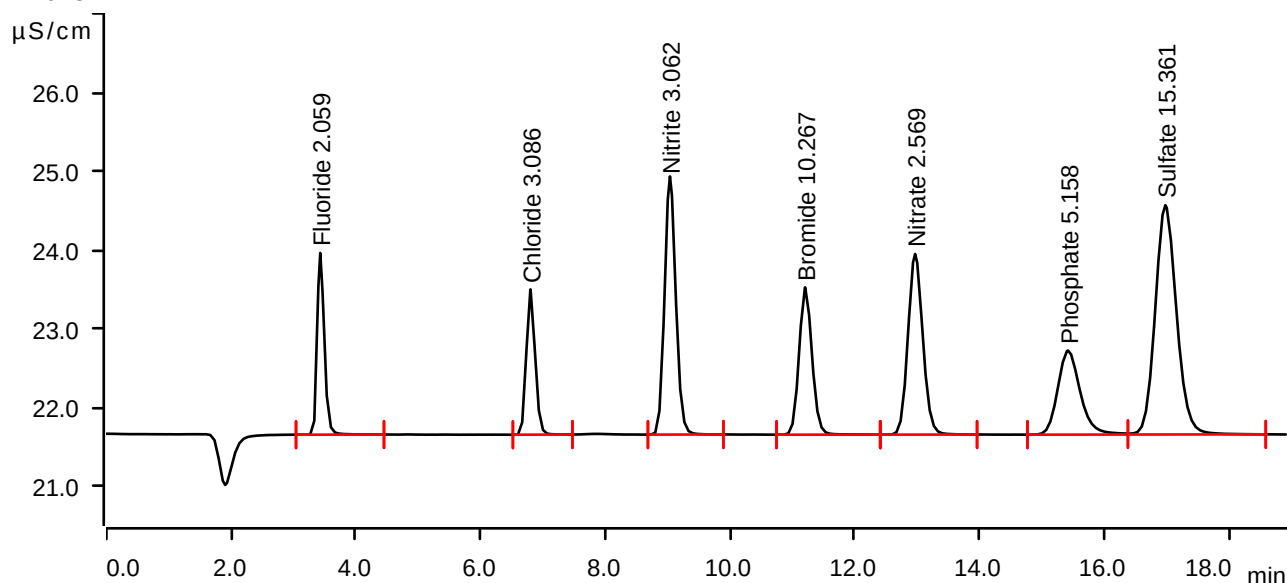
Sample data

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

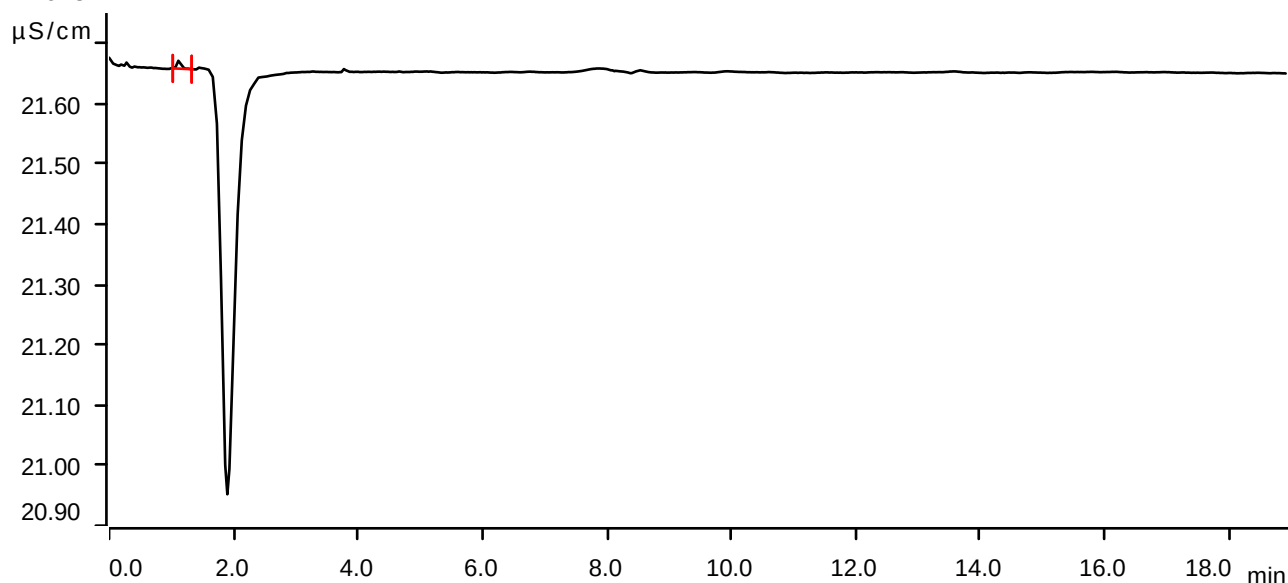
Sample data

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	

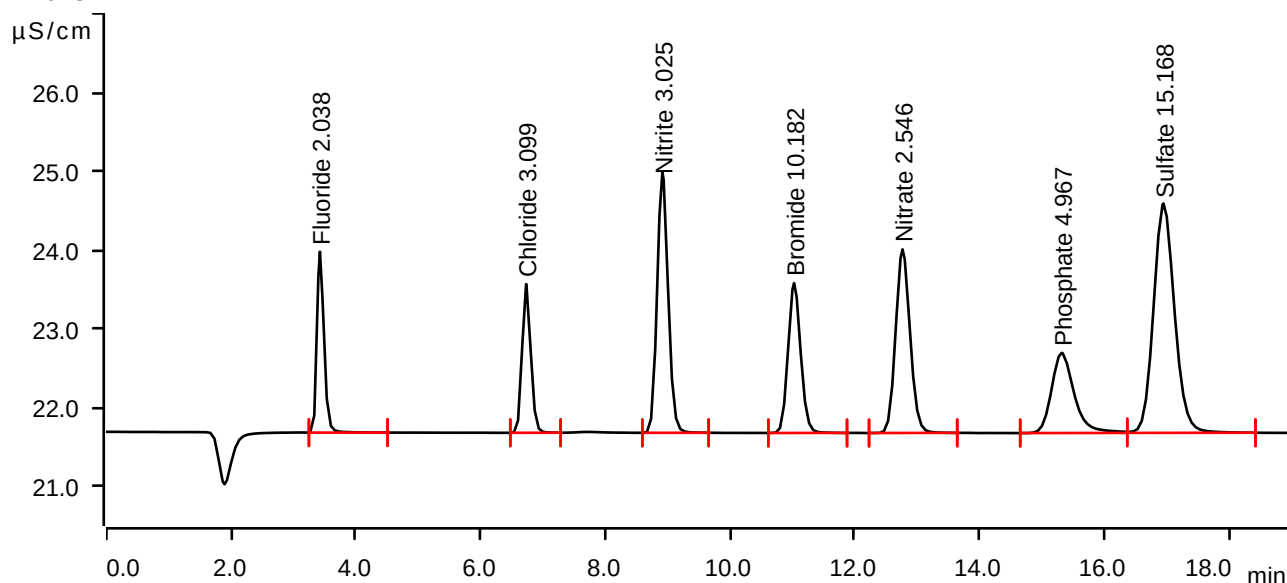
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2025-02-07 11:07:22 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 11.43 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



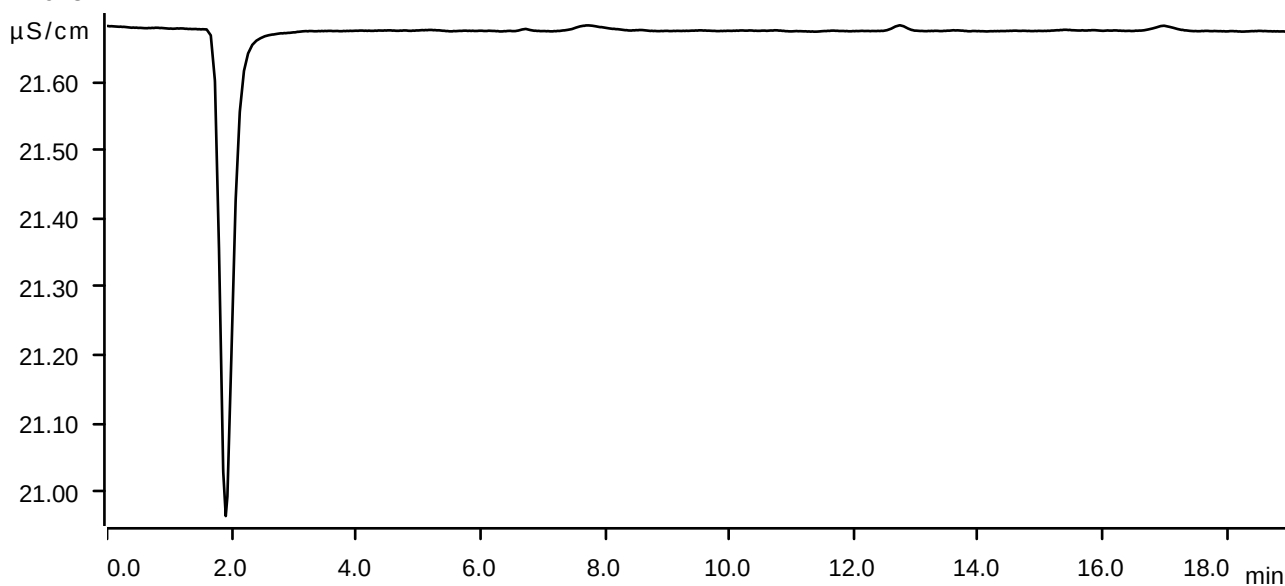
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.425	0.2993	2.296	2.038	Fluoride
2	6.730	0.3047	1.887	3.099	Chloride
3	8.915	0.6746	3.311	3.025	Nitrite
4	11.027	0.4457	1.902	10.182	Bromide
5	12.765	0.6234	2.330	2.546	Nitrate
6	15.317	0.4281	1.017	4.967	Phosphate
7	16.948	1.1377	2.911	15.168	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2025-02-07 11:28:52 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

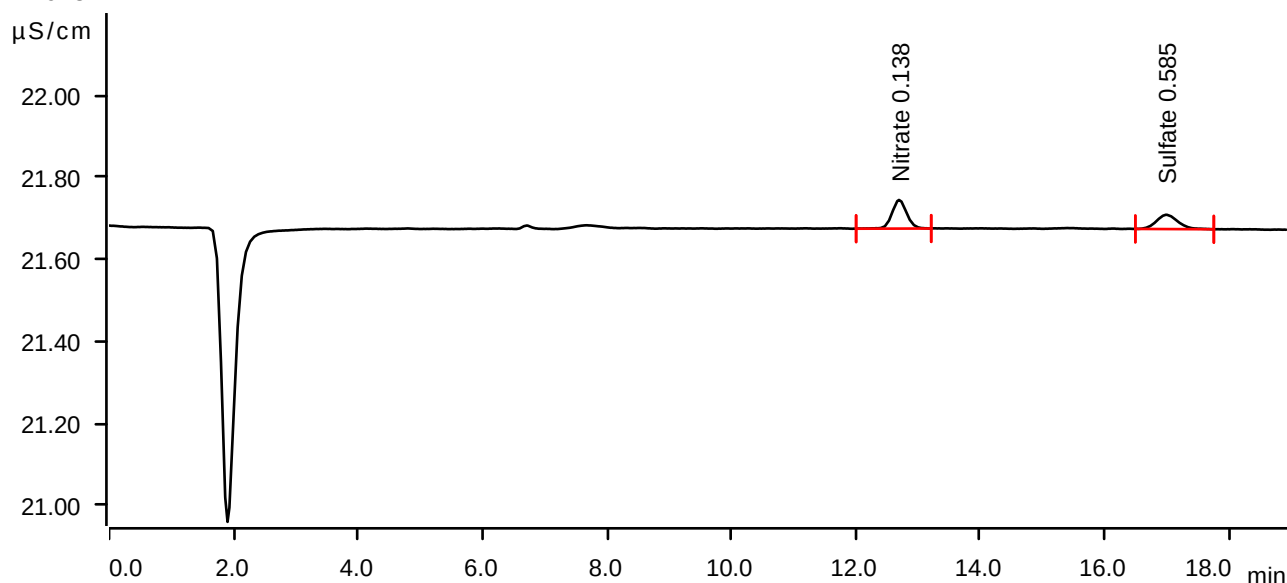
Sample data

Ident LB134634BLW
Sample type Sample
Determination start 2025-02-07 11:50:23 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	12.695	0.0191	0.070	0.138	Nitrate
2	16.982	0.0140	0.035	0.585	Sulfate

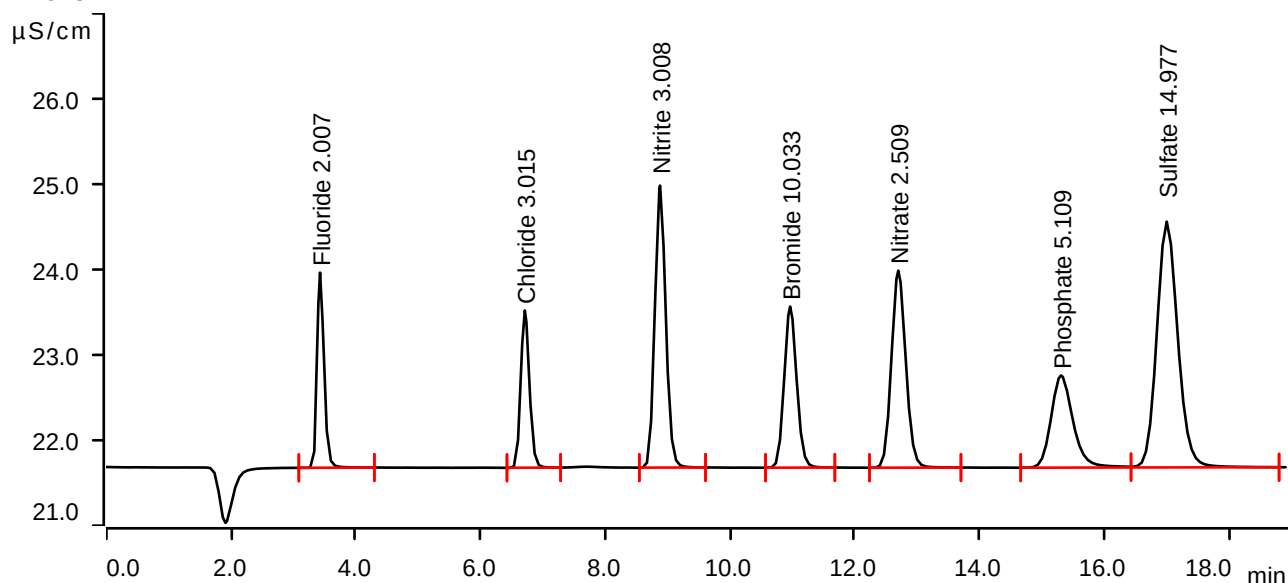
Sample data

Ident LB134634BSW
Sample type Check standard 1
Determination start 2025-02-07 12:11:54 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	3.427	0.2947	2.286	2.007	Fluoride
2	6.710	0.2963	1.842	3.015	Chloride
3	8.878	0.6708	3.303	3.008	Nitrite
4	10.963	0.4390	1.887	10.033	Bromide
5	12.697	0.6142	2.308	2.509	Nitrate
6	15.307	0.4405	1.080	5.109	Phosphate
7	17.002	1.1230	2.879	14.977	Sulfate

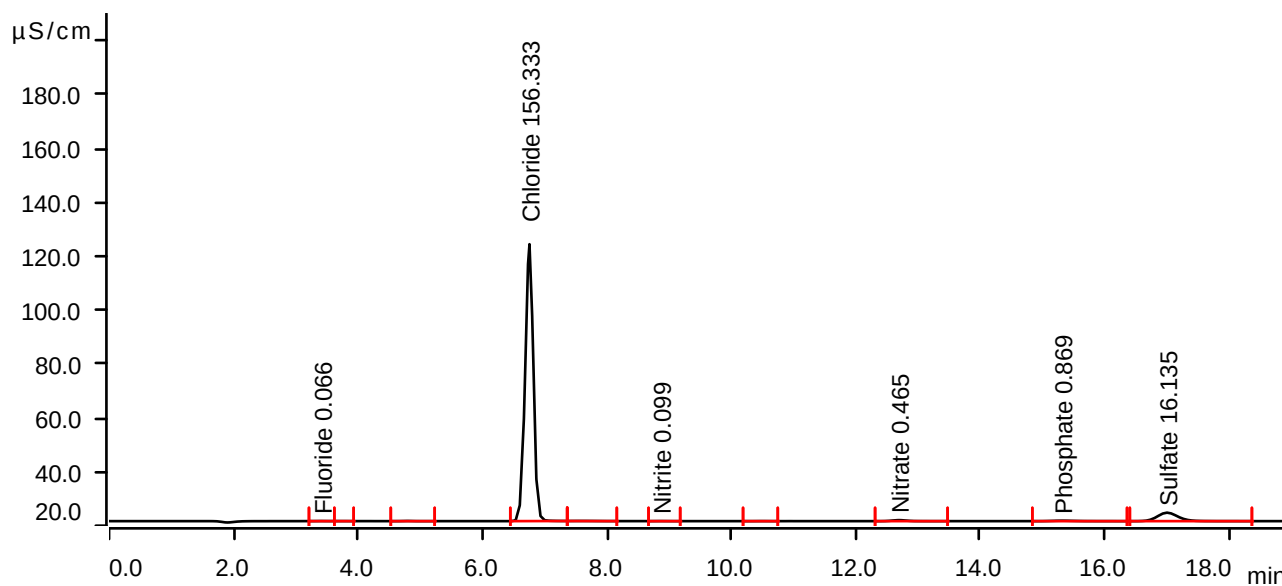
Sample data

Ident Q1322-01
Sample type Sample
Determination start 2025-02-07 12:33:27 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	3.422	0.0058	0.034	0.066	Fluoride
2	3.748	0.0031	0.017	invalid	
3	4.795	0.0118	0.068	invalid	
4	6.757	15.5978	102.723	156.333	Chloride
5	7.595	0.0114	0.032	invalid	
6	8.865	0.0047	0.024	0.099	Nitrite
7	10.478	0.0038	0.017	invalid	
8	12.693	0.1012	0.373	0.465	Nitrate
9	15.317	0.0713	0.167	0.869	Phosphate
10	17.002	1.2122	3.141	16.135	Sulfate

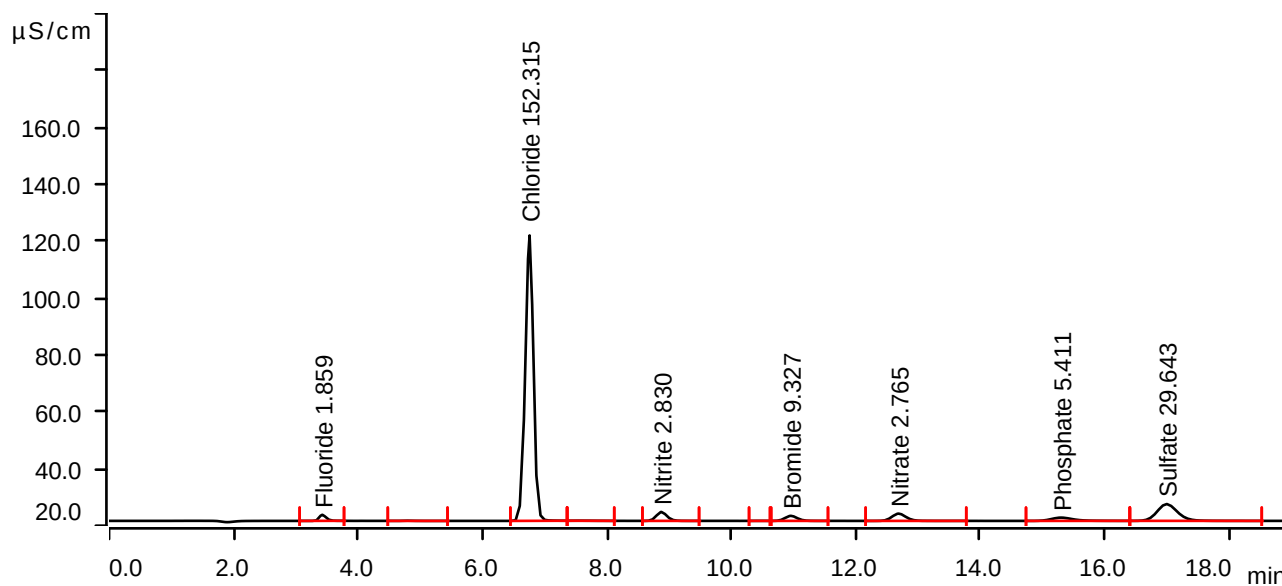
Sample data

Ident Q1322-01MS
Sample type Sample
Determination start 2025-02-07 12:55:01 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	3.428	0.2727	2.141	1.859	Fluoride
2	4.797	0.0118	0.068	invalid	
3	6.758	15.1968	100.293	152.315	Chloride
4	7.590	0.0113	0.032	invalid	
5	8.877	0.6300	3.130	2.830	Nitrite
6	10.478	0.0022	0.012	invalid	
7	10.957	0.4075	1.768	9.327	Bromide
8	12.688	0.6784	2.555	2.765	Nitrate
9	15.300	0.4668	1.148	5.411	Phosphate
10	16.995	2.2530	5.891	29.643	Sulfate

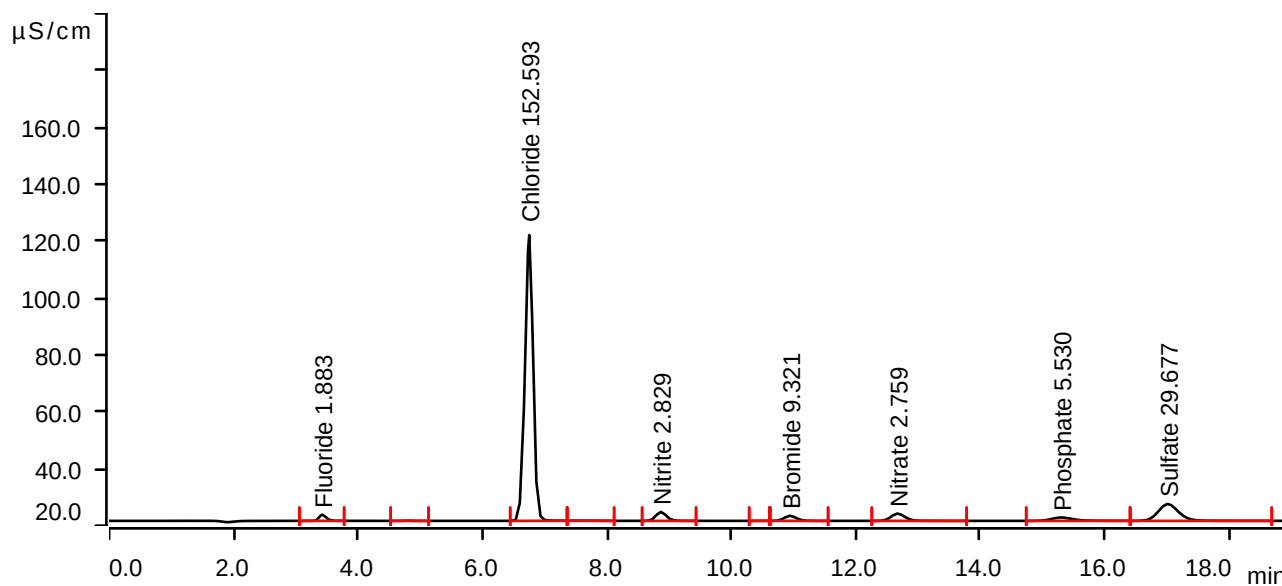
Sample data

Ident Q1322-01MSD
Sample type Sample
Determination start 2025-02-07 13:16:35 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	3.427	0.2763	2.166	1.883	Fluoride
2	4.795	0.0114	0.067	invalid	
3	6.753	15.2246	100.443	152.593	Chloride
4	7.588	0.0113	0.032	invalid	
5	8.868	0.6298	3.133	2.829	Nitrite
6	10.472	0.0020	0.012	invalid	
7	10.943	0.4072	1.769	9.321	Bromide
8	12.672	0.6769	2.552	2.759	Nitrate
9	15.300	0.4771	1.184	5.530	Phosphate
10	17.013	2.2557	5.898	29.677	Sulfate

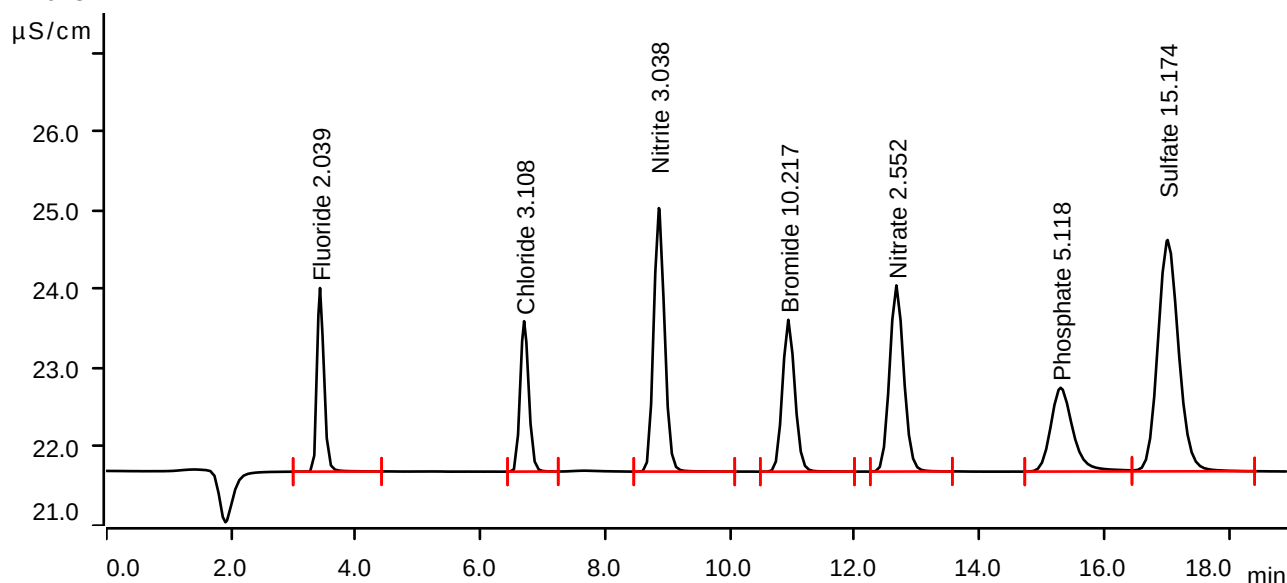
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2025-02-07 13:38:09 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 11.09 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	3.427	0.2995	2.330	2.039	Fluoride
2	6.698	0.3056	1.909	3.108	Chloride
3	8.858	0.6777	3.344	3.038	Nitrite
4	10.935	0.4472	1.927	10.217	Bromide
5	12.667	0.6248	2.362	2.552	Nitrate
6	15.300	0.4413	1.063	5.118	Phosphate
7	17.015	1.1382	2.937	15.174	Sulfate

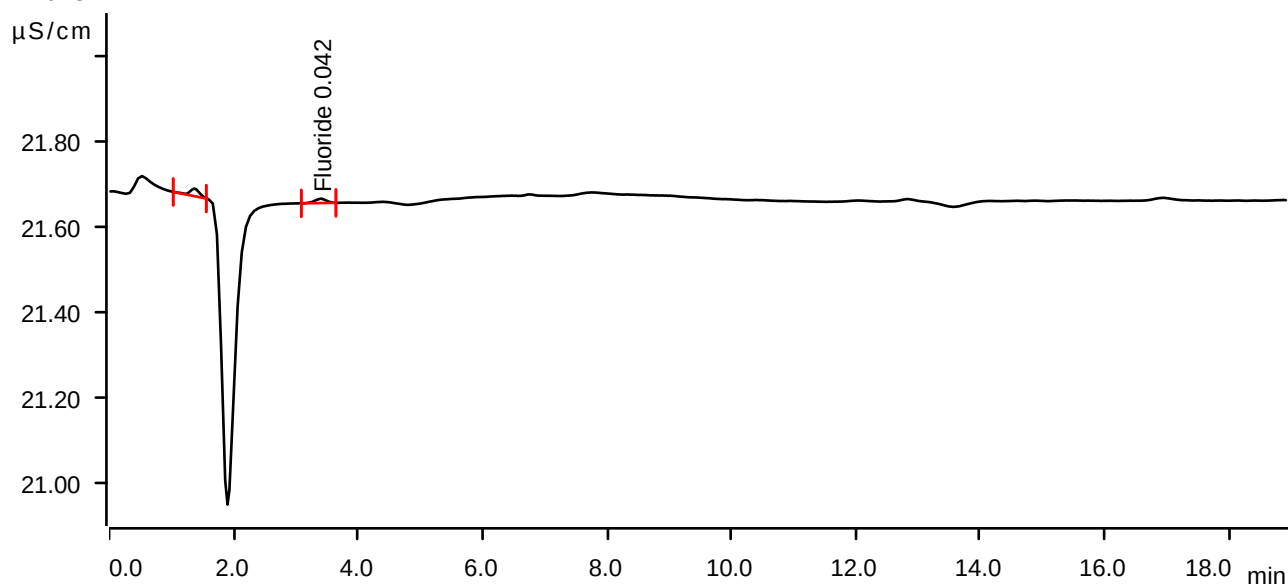
Sample data

Ident CCB
Sample type Sample
Determination start 2025-02-07 15:41:13 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 11.94 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	1.370	0.0031	0.018	invalid	
2	3.410	0.0022	0.010	0.042	Fluoride

TOTAL SUSPENDED SOLIDS - SM2540D

TEMP1 IN: 103 °C 02/07/2025 14:00 **TEMP1 OUT:** 104 °C 02/07/2025 15:00
TEMP2 IN: 105 °C 02/07/2025 15:30 **TEMP2 OUT:** 104 °C 02/07/2025 16:30
TEMP3 IN: 104 °C 02/10/2025 10:00 **TEMP3 OUT:** 103 °C 02/10/2025 11:30
TEMP4 IN: 104 °C 02/10/2025 12:00 **TEMP4 OUT:** 103 °C 02/10/2025 13:35

SUPERVISOR: Iwona
ANALYST: jignesh
Date: 02/07/2025
Run Number: LB134646
BalanceID: WC SC-6
OvenID: WC OVEN-1
FilterID: 17416528
ThermometerID: WET OVEN#1

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	LB134646BL	LB134646BL	1.4856	1.4856	100	1.4857	1.4857	1.4857	0.0001	1
2	LB134646BS	LB134646BS	1.8963	1.8963	100	1.9495	1.9495	1.9495	0.0532	532
3	Q1300-02	COMP	1.4691	1.4691	50	1.5536	1.5536	1.5536	0.0845	1690
4	Q1316-01	001-WILLETTS-PT-BLVD (FEB)	1.4740	1.4740	300	1.4885	1.4885	1.4885	0.0145	48.3
5	Q1316-02	002-35TH-AVE (FEB)	1.4928	1.4928	300	1.5073	1.5073	1.5073	0.0145	48.3
6	Q1316-02DUP	002-35TH-AVE (FEB) DUP	1.4776	1.4776	300	1.4917	1.4917	1.4917	0.0141	47
7	Q1322-04	MANHOLE	1.3685	1.3685	1000	1.3940	1.3940	1.3940	0.0255	25.5
8	Q1325-01	DSN002	1.3578	1.3578	1000	1.3672	1.3672	1.3672	0.0094	9.4
9	Q1325-03	DSN001	1.4914	1.4914	1000	1.5093	1.5093	1.5093	0.0179	17.9
10	Q1325-05	DSN003	1.3631	1.3631	3000	1.3825	1.3825	1.3825	0.0194	6.5
11	Q1326-01	TOWER-1	1.4664	1.4664	2000	1.4750	1.4750	1.4750	0.0086	4.3
12	Q1326-02	TOWER-2	1.4599	1.4599	2000	1.4676	1.4676	1.4676	0.0077	3.9

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 02/07/2025

Run Number: LB134646

BalanceID: WC SC-6

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 103 °C 02/07/2025 14:00 **TEMP1 OUT:** 104 °C 02/07/2025 15:00
TEMP2 IN: 105 °C 02/07/2025 15:30 **TEMP2 OUT:** 104 °C 02/07/2025 16:30
TEMP3 IN: 104 °C 02/10/2025 10:00 **TEMP3 OUT:** 103 °C 02/10/2025 11:30
TEMP4 IN: 104 °C 02/10/2025 12:00 **TEMP4 OUT:** 103 °C 02/10/2025 13:35

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

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 134646

WorkList Name : TSS Q1234

WorkList ID : 187596

Department : Wet-Chemistry

Date : 02-10-2025 08:17:23

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1300-02 B	COMP	Water	TSS	Cool 4 deg C	ARAM01	D11	02/05/2025	SM2540 D
Q1316-01 F	001-WILLETS-PT-BLVD(FEB)	Water	TSS	Cool 4 deg C	TULL01	N41	02/05/2025	SM2540 D
Q1316-02 F	002-35TH-AVE(FEB)	Water	TSS	Cool 4 deg C	TULL01	N41	02/05/2025	SM2540 D
Q1322-04 F	MANHOLE	Water	TSS	Cool 4 deg C	SPEC01	N41	02/06/2025	SM2540 D
Q1325-01 F	DSN002	Water	TSS	Cool 4 deg C	PSEG04	N41	02/06/2025	SM2540 D
Q1325-03 H	DSN001	Water	TSS	Cool 4 deg C	PSEG04	N41	02/06/2025	SM2540 D
Q1325-05	DSN003 B, I, G	Water	TSS	Cool 4 deg C	PSEG04	N41	02/06/2025	SM2540 D
Q1326-01 D, B	TOWER-1	Water	TSS	Cool 4 deg C	PSEG04	N41	02/06/2025	SM2540 D
Q1326-02 B, C	TOWER-2	Water	TSS	Cool 4 deg C	PSEG04	N41	02/06/2025	SM2540 D

Date/Time 02/10/25 08:25

Raw Sample Received by: 186000

Raw Sample Relinquished by: CH SH

Date/Time 02/10/25

Raw Sample Received by: CH SH

Raw Sample Relinquished by: 186000

LB134656

Test results

Aquakem 7.2AQ1

Page:

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

2/10/2025 16:04

Reviewed by : RM

Instrument ID : Konelab

Test: Phenolics-

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	1.014	0.0	0.103	
ICB1	-0.002	0.0	0.003	
CCV1	0.995	0.0	0.101	
CCB1	-0.001	0.0	0.003	
PB166642BL	-0.004	0.0	0.003	
PB166642BS	1.014	0.0	0.103	
Q1168-12	0.024	0.0	0.005	
Q1322-01	0.021	0.0	0.005	
Q1322-01DUP	0.022	0.0	0.005	
Q1322-01MS	1.031	0.0	0.105	
Q1322-01MSD	1.023	0.0	0.104	
Q1325-02	-0.001	0.0	0.003	
Q1325-04	-0.003	0.0	0.003	
Q1325-06	0.003	0.0	0.003	
CCV2	1.016	0.0	0.103	
CCB2	-0.001	0.0	0.003	
N	16			
Mean	0.384			
SD	0.5050			
CV%	131.38			

Aquakem v. 7.2AQ1

Results from time period:

Mon Feb 10 14:58:47 2025

Mon Feb 10 16:01:33 2025

Sample Id	Sam/Ctr/cA	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.00PPM	A	Phenolics-	P	-0.0042	mg/l	2/10/2025 15:17:27	
0.05PPM	A	Phenolics-	P	0.0485	mg/l	2/10/2025 15:17:28	
0.1PPM	A	Phenolics-	P	0.1025	mg/l	2/10/2025 15:17:29	
0.25PPM	A	Phenolics-	P	0.2508	mg/l	2/10/2025 15:17:30	
0.50PPM	A	Phenolics-	P	0.5049	mg/l	2/10/2025 15:17:31	
1.0PPM	A	Phenolics-	P	0.9979	mg/l	2/10/2025 15:17:32	
2.0PPM	A	Phenolics-	P	1.9996	mg/l	2/10/2025 15:17:33	
ICV1	S	Phenolics-	P	1.0145	mg/l	2/10/2025 15:45:08	
ICB1	S	Phenolics-	P	-0.0016	mg/l	2/10/2025 15:45:10	
CCV1	S	Phenolics-	P	0.9947	mg/l	2/10/2025 15:45:11	
CCB1	S	Phenolics-	P	-0.0011	mg/l	2/10/2025 15:45:13	
PB166642BL	S	Phenolics-	P	-0.0043	mg/l	2/10/2025 15:45:16	
PB166642BS	S	Phenolics-	P	1.0143	mg/l	2/10/2025 15:45:18	
Q1168-12	S	Phenolics-	P	0.0236	mg/l	2/10/2025 15:55:09	
Q1322-01	S	Phenolics-	P	0.0212	mg/l	2/10/2025 15:55:12	
Q1322-01DUP	S	Phenolics-	P	0.0221	mg/l	2/10/2025 15:55:13	
Q1322-01MS	S	Phenolics-	P	1.0307	mg/l	2/10/2025 15:55:17	
Q1322-01MSD	S	Phenolics-	P	1.0228	mg/l	2/10/2025 15:55:18	
Q1325-02	S	Phenolics-	P	-0.0008	mg/l	2/10/2025 15:55:19	
Q1325-04	S	Phenolics-	P	-0.0032	mg/l	2/10/2025 15:55:20	
Q1325-06	S	Phenolics-	P	0.0026	mg/l	2/10/2025 16:01:27	
CCV2	S	Phenolics-	P	1.0161	mg/l	2/10/2025 16:01:28	
CCB2	S	Phenolics-	P	-0.0012	mg/l	2/10/2025 16:01:30	

=====

Calibration results Aquakem 7.2AQ1 Page: 1

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

Reviewed by : RM Instrument ID : Konelab

2/10/2025 15:19

Test Phenolics-

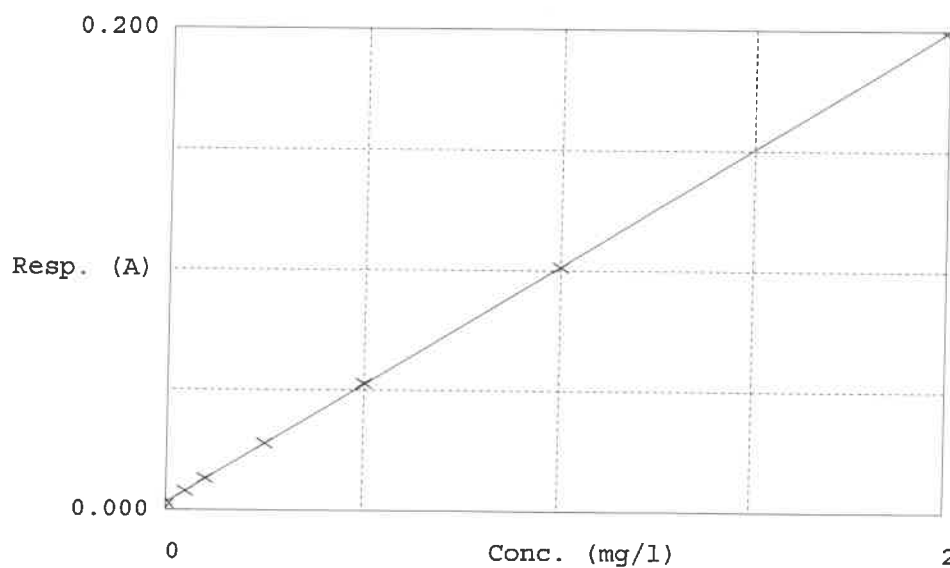
Accepted 2/10/2025 15:19

Factor 10.16

Bias 0.003

Coeff. of det. 0.999982

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.003	-0.0042	0.0000	-
2	Phenol-2	0.008	0.0485	0.0500	-3.0
3	Phenol-2	0.013	0.1025	0.1000	2.5
4	Phenol-2	0.028	0.2508	0.2500	0.3
5	Phenol-2	0.053	0.5049	0.5000	1.0
6	Phenol-2	0.101	0.9979	1.0000	-0.2
7	Phenol-2	0.200	1.9996	2.0000	0.0

02/10/2025
RM

LB13

Test results

Aquakem 7.2AQ1

Page:

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

Reviewed by : NF Instrument ID : Konelab

2/11/2025 15:17

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	97.752	0.0	0.077	
ICB1	0.706	0.0	0.002	
CCV1	246.244	0.0	0.192	
CCB1	0.668	0.0	0.002	
RL CHECK	5.294	0.0	0.006	
PB166674BL	0.292	0.0	0.002	
PB166674BS	97.602	0.0	0.077	
MIDPB166674	243.769	0.0	0.190	
Q1322-01	3.373	0.0	0.004	
Q1322-01DUP	3.198	0.0	0.004	
Q1322-01MS	36.800	0.0	0.030	
Q1322-01MSD	37.282	0.0	0.030	
CCV2	247.634	0.0	0.193	
CCB2	0.785	0.0	0.002	
IDOC-01	97.200	0.0	0.077	
IDOC-02	96.535	0.0	0.076	
IDOC-03	96.894	0.0	0.077	
IDOC-04	97.242	0.0	0.077	
CCV3	249.527	0.0	0.195	
CCB3	0.596	0.0	0.002	

105% (50-150)

97% (90-110)

NF

02.11.2025

N 20
Mean 82.970
SD 93.3176
CV% 112.47

Aquakem v. 7.2AQ1

Results from time period:

Tue Feb 11 13:38:00 2025

Tue Feb 11 14:54:11 2025

Sample Id	Sam/Ctr/c	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	0.164	µg/l	2/11/2025 11:01:50	
5.0PPBCN	A	Total CN	P	5.1584	µg/l	2/11/2025 11:01:51	
10PPBCN	A	Total CN	P	10.2168	µg/l	2/11/2025 11:01:52	
50PPBCN	A	Total CN	P	49.6766	µg/l	2/11/2025 11:01:53	
100PPBCN	A	Total CN	P	98.6332	µg/l	2/11/2025 11:01:54	
250PPBCN	A	Total CN	P	251.7024	µg/l	2/11/2025 11:01:55	
500PPBCN	A	Total CN	P	499.4486	µg/l	2/11/2025 11:01:56	
ICV1	S	Total CN	P	97.7524	µg/l	2/11/2025 13:38:01	
ICB1	S	Total CN	P	0.706	µg/l	2/11/2025 13:38:02	
CCV1	S	Total CN	P	246.2444	µg/l	2/11/2025 13:38:04	
CCB1	S	Total CN	P	0.6681	µg/l	2/11/2025 13:38:07	
RL CHECK	S	Total CN	P	5.2938	µg/l	2/11/2025 13:38:09	
PB166674BL	S	Total CN	P	0.2919	µg/l	2/11/2025 13:45:32	
PB166674BS	S	Total CN	P	97.6021	µg/l	2/11/2025 13:45:34	
MIDPB166674	S	Total CN	P	243.7689	µg/l	2/11/2025 13:45:36	
Q1322-01	S	Total CN	P	3.3733	µg/l	2/11/2025 13:45:37	
Q1322-01DUP	S	Total CN	P	3.198	µg/l	2/11/2025 13:45:40	
Q1322-01MS	S	Total CN	P	36.8	µg/l	2/11/2025 14:46:13	
Q1322-01MSD	S	Total CN	P	37.2815	µg/l	2/11/2025 14:46:14	
CCV2	S	Total CN	P	247.6341	µg/l	2/11/2025 14:46:16	
CCB2	S	Total CN	P	0.7854	µg/l	2/11/2025 14:46:18	
IDOC-01	S	Total CN	P	97.2001	µg/l	2/11/2025 14:46:20	
IDOC-02	S	Total CN	P	96.5348	µg/l	2/11/2025 14:46:22	
IDOC-03	S	Total CN	P	96.8943	µg/l	2/11/2025 14:54:05	
IDOC-04	S	Total CN	P	97.2423	µg/l	2/11/2025 14:54:07	
CCV3	S	Total CN	P	249.5265	µg/l	2/11/2025 14:54:09	
CCB3	S	Total CN	P	0.596	µg/l	2/11/2025 14:54:11	

Calibration results

Aquakem 7.2AQ1

Page:

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

2/11/2025 11:03

Reviewed by : NF

Instrument ID : Konelab

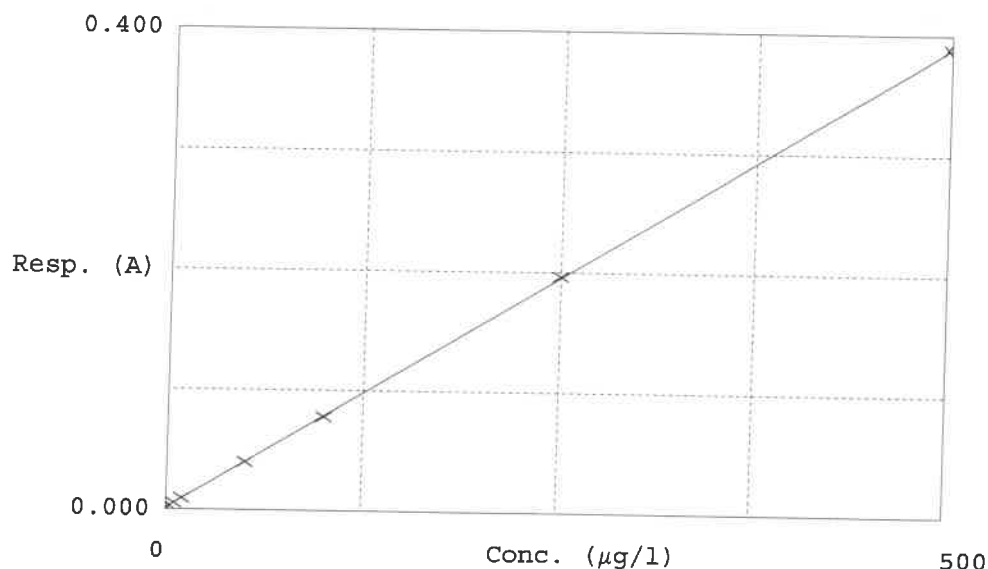
Test Total CN

Accepted 2/11/2025 11:03

Factor 1290
Bias 0.001

Coeff. of det. 0.999974

Errors



	Calibrator	Response	Calc. con.	Conc.	Re Errors
1	0.0PPBCN	0.002	0.1640	0.0000	
2	5.0PPBCN	0.005	5.1584	5.0000	
3	10PPBCN	0.009	10.2168	10.0000	3.2
4	50PPBCN	0.040	49.6766	50.0000	2.2
5	100PPBCN	0.078	98.6332	100.0000	-0.6
6	250PPBCN	0.197	251.7024	250.0000	-1.4
7	500PPBCN	0.389	499.4486	500.0000	0.7
					-0.1

NF

02-11-2025

SOP ID : MSM4500-NH3 B,G-Ammonia-17

SDG No : N/A

Start Digest Date: 02/07/2025 Time : 09:10 Temp : 150 °C

Matrix : WATER

End Digest Date: 02/07/2025 Time : 10:10 Temp : 160 °C

Pipette ID : WC

if batch 02/07/2025 10:30 150°C } RM
02/07/2025 11:30 160°C }

Balance ID : N/A

Hood ID : HOOD#2

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

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: 12

Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	1.0ML	WP111420
MS/MSD SPIKE SOL.	1.0ML	WP111419
PBW	50.0ML	W3112
RL CHECK	0.1ML	WP111419
MDL	0.8ML	WP111832

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP111325
NAOH 6N	0.5-2.0ML	WP111318
H2SO4 0.04N	5.0ML	WP110335
pH strip-Ammonia	N/A	W3133
KI-starch paper	N/A	W3155
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:

ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT
WP111604,

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02/07/2025 11:45	RM (WC)	RM (WC)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB166612BL	PBW612	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB166612BS	LCS612	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1168-09	MDL-WATER-03-QT1-2025	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1316-01	001-WILLETS-PT-BLVD(FEB)	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1316-02	002-35TH-AVE(FEB)	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1322-04	MANHOLE	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1324-01	WATER TREATMENT DISCHARGE	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1325-01	DSN002	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1325-01DUP	DSN002DUP	50	50	<2	N/A	Negative	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q1325-01MS	DSN002MS	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1325-01MSD	DSN002MSD	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1325-03	DSN001	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1325-05	DSN003	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : ammonia-2-7

WorkList ID : 187561

Department : Distillation

Date : 02-07-2025 08:20:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1168-09	MDL-WATER-03-QT1-2025	Water	Ammonia	Conc H2SO4 to pH < 2	CHEM02	QA Of	01/23/2025	SM4500-NH3
Q1316-01	001-WILLETS-PT-BLVD(FEB)	Water	Ammonia	Conc H2SO4 to pH < 2	TULL01	N41	02/05/2025	SM4500-NH3
Q1316-02	002-35TH-AVE(FEB)	Water	Ammonia	Conc H2SO4 to pH < 2	TULL01	N41	02/05/2025	SM4500-NH3
Q1322-04	MANHOLE	Water	Ammonia	Conc H2SO4 to pH < 2	SPEC01	N41	02/06/2025	SM4500-NH3
Q1324-01	WATER TREATMENT DISCHAF	Water	Ammonia	Conc H2SO4 to pH < 2	VERI01	D11	02/06/2025	SM4500-NH3
Q1325-01	DSN002	Water	Ammonia	Conc H2SO4 to pH < 2	PSEG04	N41	02/06/2025	SM4500-NH3
Q1325-03	DSN001	Water	Ammonia	Conc H2SO4 to pH < 2	PSEG04	N41	02/06/2025	SM4500-NH3
Q1325-05	DSN003	Water	Ammonia	Conc H2SO4 to pH < 2	PSEG04	N41	02/06/2025	SM4500-NH3

Date/Time 02/07/2025 08:25
 Raw Sample Received by: RM (w/c)
 Raw Sample Relinquished by: SP (De)

Date/Time 02/07/2025 09:50
 Raw Sample Received by: SP (De)
 Raw Sample Relinquished by: RM (w/c)

SOP ID : M420.1 & 9065-Phenolics-13

SDG No : N/A

Matrix : WATER

Pipette ID : WC

Balance ID : N/A

Hood ID : HOOD#2

Block ID : WC-DIST-BLOCK-1

Weigh By : N/A

Start Digest Date: 02/10/2025 Time : 09:00 Temp : 150 °C

End Digest Date: 02/10/2025 Time : 10:00 Temp : 160 °C

1st batch
02/10/2025 10:30 150°C
02/10/2025 11:30 160°C RM

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

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
LCSW	1.0ML	WP111836
MS/MSD SPIKE SOL.	1.0ML	WP111835
PBW	50.0ML	W3112
MDL	0.25ML	WP111868
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
pH Paper 0-14	N/A	W3140
CONC H2SO4	N/A	M6041
KI-starch paper	N/A	W3155
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02/10/2025 11:45	RM (WC)	RM (WC)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB166642BL	PBW642	50	50	>12	N/A	Negative	N/A	N/A	N/A
PB166642BS	LCS642	50	50	>12	N/A	Negative	N/A	N/A	N/A
Q1168-12	MDL-WATER-06-QT1-2025	50	50	>12	N/A	Negative	N/A	N/A	N/A
Q1322-01	MANHOLE	50	50	>12	N/A	Negative	N/A	N/A	N/A
Q1322-01DUP	MANHOLEDUP	50	50	>12	N/A	Negative	N/A	N/A	N/A
Q1322-01MS	MANHOLEMS	50	50	>12	N/A	Negative	N/A	N/A	N/A
Q1322-01MSD	MANHOLEMSD	50	50	>12	N/A	Negative	N/A	N/A	N/A
Q1325-02	DSN002	50	50	>12	N/A	Negative	N/A	N/A	N/A
Q1325-04	DSN001	50	50	>12	N/A	Negative	N/A	N/A	N/A
Q1325-06	DSN003	50	50	>12	N/A	Negative	N/A	N/A	N/A

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB166642BL	PBW642	50	50	<2	N/A	Negative	N/A	N/A	N/A
PB166642BS	LCS642	50	50	<2	N/A	Negative	N/A	N/A	N/A
Q1168-12	MDL-WATER-06-QT1-2025	50	50	<2	N/A	Negative	N/A	N/A	N/A
Q1322-01	MANHOLE	50	50	<2	N/A	Negative	N/A	N/A	N/A
Q1322-01DUP	MANHOLEDUP	50	50	<2	N/A	Negative	N/A	N/A	N/A
Q1322-01MS	MANHOLEMS	50	50	<2	N/A	Negative	N/A	N/A	N/A
Q1322-01MSD	MANHOLEMSD	50	50	<2	N/A	Negative	N/A	N/A	N/A
Q1325-02	DSN002	50	50	<2	N/A	Negative	N/A	N/A	N/A
Q1325-04	DSN001	50	50	<2	N/A	Negative	N/A	N/A	N/A
Q1325-06	DSN003	50	50	<2	N/A	Negative	N/A	N/A	N/A

SOP ID : MSM4500-CN C,E-Cyanide-12

SDG No : N/A

Start Digest Date: 02/11/2025 Time : 11:00 Temp : 124 °C

Matrix : WATER

End Digest Date: 02/11/2025 Time : 12:30 Temp : 126 °C

Pipette ID : WC

Balance ID : N/A

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Block ID : MC-1, MC-2

Filter paper ID : N/A

Prep Technician Signature:

Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature:

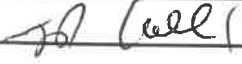
Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	1ML	WP111296
MS/MSD SPIKE SOL.	0.40ML	WP111295
PBW	50ML	W3112
RL CHECK	50ML	WP111882
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50ML	WP111294
50% v/v H2SO4	5ML	WP110391
51% w/v MgCL2	2ML	WP110390
pH Paper 0-14	N/A	W3140
Nitrate/Nitrite Strip	N/A	W3101
Lead Acetate strip	N/A	W3134
KI-starch paper	N/A	W3155
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
S0	S0	N/A	N/A
S5.0	S5.0	N/A	N/A
S10.0	S10.0	N/A	N/A
S100.0	S100.0	N/A	N/A
S250.0	S250.0	N/A	N/A
S500.0	S500.0	N/A	N/A
ICV	ICV	0.5ML	W3012
ICB	ICB	N/A	N/A
CCV	CCV	N/A	N/A
CCB	CCB	N/A	N/A
Midrange	Midrange	2.5ML	WP111295
HIGHSTD	HIGHSTD	N/A	N/A
LOWSTD	LOWSTD	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02/11/2025, 12:45		
	Preparation Group	Analysis Group

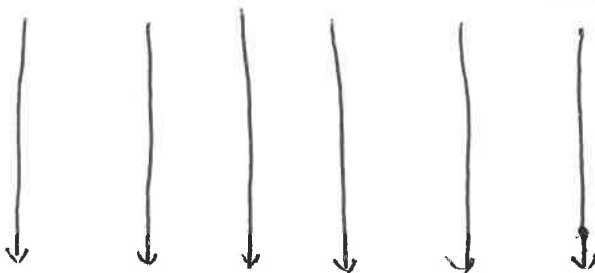
Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/Nitrite	Comment	Prep Pos
PB166674BL	PBW674	50	50	>12	Negative	Negative	Negative	N/A	N/A
PB166674BS	LCS674	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q1322-01DUP	MANHOLEDUP	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q1322-01MS	MANHOLEMS	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q1322-01MSD	MANHOLEMSD	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q1322-01	MANHOLE	50	50	>12	Negative	Negative	Negative	N/A	N/A

1DOC-01

1DOC-02

1DOC-03

1DOC-04



NF

02.11.2025

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB134620

Review By	jignesh	Review On	2/7/2025 2:26:53 PM
Supervise By	Iwona	Supervise On	2/7/2025 2:52:19 PM
SubDirectory	LB134620	Test	Oil and Grease
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	W3177,M6069,EP2581,WP110826,NA,NA,WP100827,NA,WP100828		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB134620BL	LB134620BL	MB	02/07/25 10:25		jignesh	OK
2	LB134620BS	LB134620BS	LCS	02/07/25 10:25		jignesh	OK
3	Q1168-09	MDL-WATER-03-QT1	SAM	02/07/25 10:25	ADD 0.25 ML WP100827	jignesh	OK
4	Q1316-01	001-WILLETTS-PT-BLV	SAM	02/07/25 10:25		jignesh	OK
5	Q1316-02	002-35TH-AVE(FEB)	SAM	02/07/25 10:25		jignesh	OK
6	Q1322-01	MANHOLE	SAM	02/07/25 10:25		jignesh	OK
7	Q1322-02	Q1322-01MS	MS	02/07/25 10:25		jignesh	OK
8	Q1322-03	Q1322-01MSD	MSD	02/07/25 10:25		jignesh	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134623

Review By	rubina	Review On	2/10/2025 8:55:56 AM
Supervise By	Iwona	Supervise On	2/10/2025 9:22:59 AM
SubDirectory	LB134623	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP111829		
ICV Standard	WP111831		
CCV Standard	WP111830		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111420		
Chk Standard	WP110416,WP111745,WP111385,WP111660,WP111832		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	02/07/25 11:18		rubina	OK
2	0.1PPM	0.1PPM	CAL2	02/07/25 11:18		rubina	OK
3	0.2PPM	0.2PPM	CAL3	02/07/25 11:18		rubina	OK
4	0.4PPM	0.4PPM	CAL4	02/07/25 11:18		rubina	OK
5	1.0PPM	1.0PPM	CAL5	02/07/25 11:18		rubina	OK
6	1.3PPM	1.3PPM	CAL6	02/07/25 11:18		rubina	OK
7	2.0PPM	2.0PPM	CAL7	02/07/25 11:18		rubina	OK
8	ICV1	ICV1	ICV	02/07/25 12:22		rubina	OK
9	ICB1	ICB1	ICB	02/07/25 12:22		rubina	OK
10	CCV1	CCV1	CCV	02/07/25 12:22		rubina	OK
11	CCB1	CCB1	CCB	02/07/25 12:22		rubina	OK
12	RL	RL	SAM	02/07/25 12:22		rubina	OK
13	PB166612BL	PB166612BL	MB	02/07/25 12:22		rubina	OK
14	PB166612BS	PB166612BS	LCS	02/07/25 12:33		rubina	OK
15	Q1316-01	001-WILLETS-PT-BL	SAM	02/07/25 12:33	High	rubina	Dilution
16	Q1316-02	002-35TH-AVE(FEB)	SAM	02/07/25 12:33	High	rubina	Dilution
17	Q1322-04	MANHOLE	SAM	02/07/25 12:33		rubina	OK
18	Q1324-01	WATER TREATMENT	SAM	02/07/25 12:33	High	rubina	Dilution

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134623

Review By	rubina	Review On	2/10/2025 8:55:56 AM
Supervise By	Iwona	Supervise On	2/10/2025 9:22:59 AM
SubDirectory	LB134623	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP111829		
ICV Standard	WP111831		
CCV Standard	WP111830		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111420		
Chk Standard	WP110416,WP111745,WP111385,WP111660,WP111832		

19	Q1325-01	DSN002	SAM	02/07/25 12:33	High	rubina	Dilution
20	Q1325-01DUP	DSN002DUP	DUP	02/07/25 12:33		rubina	OK
21	CCV2	CCV2	CCV	02/07/25 12:44		rubina	OK
22	CCB2	CCB2	CCB	02/07/25 12:44		rubina	OK
23	Q1325-01MS	DSN002MS	MS	02/07/25 12:44		rubina	OK
24	Q1325-01MSD	DSN002MSD	MSD	02/07/25 12:44		rubina	OK
25	Q1325-03	DSN001	SAM	02/07/25 12:44		rubina	OK
26	Q1325-05	DSN003	SAM	02/07/25 12:44	High	rubina	Dilution
27	PB166614BL	PB166614BL	MB	02/07/25 12:44		rubina	OK
28	PB166614BS	PB166614BS	LCS	02/07/25 12:44		rubina	OK
29	CCV3	CCV3	CCV	02/07/25 12:52		rubina	OK
30	CCB3	CCB3	CCB	02/07/25 12:52		rubina	OK
31	Q1168-09	MDL-WATER-03-QT1	SAM	02/07/25 13:25		rubina	OK
32	Q1168-03	MDL-SOIL-03-QT1-20	SAM	02/07/25 13:25		rubina	OK
33	Q1316-01DL	001-WILLETTS-PT-BLV	SAM	02/07/25 13:34	Report 10X	rubina	Confirms
34	Q1316-02DL	002-35TH-AVE(FEB)D	SAM	02/07/25 13:34	Report 10X	rubina	Confirms
35	Q1324-01DL	WATER TREATMENT	SAM	02/07/25 13:34	Report 2X	rubina	Confirms
36	Q1325-01DL	DSN002DL	SAM	02/07/25 13:35	Report 10X	rubina	Confirms
37	Q1325-05DL	DSN003DL	SAM	02/07/25 13:35	Report 10X	rubina	Confirms
38	CCV4	CCV4	CCV	02/07/25 13:35		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134623

Review By	rubina	Review On	2/10/2025 8:55:56 AM
Supervise By	Iwona	Supervise On	2/10/2025 9:22:59 AM
SubDirectory	LB134623	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP111829		
ICV Standard	WP111831		
CCV Standard	WP111830		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111420		
Chk Standard	WP110416,WP111745,WP111385,WP111660,WP111832		

39	CCB4	CCB4	CCB	02/07/25 13:35		rubina	OK
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Instrument ID: SPECTROPHOTOMETER-2

Daily Analysis Runlog For Sequence/QC Batch ID # LB134631

Review By	Niha	Review On	2/7/2025 4:32:04 PM
Supervise By	Iwona	Supervise On	2/7/2025 4:35:20 PM
SubDirectory	LB134631	Test	COD
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	W3125,WP111522,WP111519,WP111517,WP111520,WP111518,WP111516,WP111764,WP111763		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	01/22/25 13:30		Niha	OK
2	CAL2	CAL2	CAL	01/22/25 13:30		Niha	OK
3	CAL3	CAL3	CAL	01/22/25 13:31		Niha	OK
4	CAL4	CAL4	CAL	01/22/25 13:31		Niha	OK
5	CAL5	CAL5	CAL	01/22/25 13:32		Niha	OK
6	ICV	ICV	ICV	01/22/25 13:32		Niha	OK
7	ICB	ICB	ICB	01/22/25 13:33		Niha	OK
8	CCV1	CCV1	CCV	02/07/25 15:30		Niha	OK
9	CCB1	CCB1	CCB	02/07/25 15:30		Niha	OK
10	LB134631BL	LB134631BL	MB	02/07/25 15:31		Niha	OK
11	LB134631BS	LB134631BS	LCS	02/07/25 15:31		Niha	OK
12	Q1322-04	MANHOLE	SAM	02/07/25 15:32		Niha	OK
13	Q1325-01	DSN002	SAM	02/07/25 15:32		Niha	OK
14	Q1325-01DUP	DSN002DUP	DUP	02/07/25 15:33		Niha	OK
15	Q1325-01MS	DSN002MS	MS	02/07/25 15:33		Niha	OK
16	Q1325-01MSD	DSN002MSD	MSD	02/07/25 15:34		Niha	OK
17	Q1325-03	DSN001	SAM	02/07/25 15:34		Niha	OK
18	Q1325-04	DSN001	SAM	02/07/25 15:35		Niha	OK

Instrument ID: SPECTROPHOTOMETER-2

Daily Analysis Runlog For Sequence/QC Batch ID # LB134631

Review By	Niha	Review On	2/7/2025 4:32:04 PM
Supervise By	Iwona	Supervise On	2/7/2025 4:35:20 PM
SubDirectory	LB134631	Test	COD
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	W3125,WP111522,WP111519,WP111517,WP111520,WP111518,WP111516,WP111764,WP111763		

19	Q1325-05	DSN003	SAM	02/07/25 15:35		Niha	OK
20	CCV2	CCV2	CCV	02/07/25 15:36		Niha	OK
21	CCB2	CCB2	CCB	02/07/25 15:36		Niha	OK

Instrument ID: DO METER

Daily Analysis Runlog For Sequence/QC Batch ID # LB134633

Review By	rubina	Review On	2/12/2025 1:36:25 PM
Supervise By	Iwona	Supervise On	2/12/2025 1:36:57 PM
SubDirectory	LB134633	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	WP111861,W3149,WP110386,W3103,W3109,W3105,WP111863,WP111862,WP111323		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB134633BL	LB134633BL	MB	02/07/25 17:10		rubina	OK
2	LB134633BS	LB134633BS	LCS	02/07/25 17:10		rubina	OK
3	Q1322-04	MANHOLE	SAM	02/07/25 17:10		rubina	OK
4	Q1322-04DUP	MANHOLEDUP	DUP	02/07/25 17:10		rubina	OK

Instrument ID: IC-2

Daily Analysis Runlog For Sequence/QC Batch ID # LB134634

Review By	Niha	Review On	2/10/2025 9:15:59 AM
Supervise By	Iwona	Supervise On	2/10/2025 9:23:47 AM
SubDirectory	LB134634	Test	Anions
STD. NAME	STD REF.#		
ICAL Standard	WP111484,WP111485,WP111486,WP111487,WP111488,WP111489,WP111490		
ICV Standard	WP111491		
CCV Standard	WP111859		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111860		
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	02/07/25 11:07		NF/IZ	OK
11	CCB1	CCB1	CCB	02/07/25 11:28		NF/IZ	OK
12	LB134634BLW	LB134634BLW	MB	02/07/25 11:50		NF/IZ	OK
13	LB134634BSW	LB134634BSW	LCS	02/07/25 12:11		NF/IZ	OK
14	Q1322-01	MANHOLE	SAM	02/07/25 12:33		NF/IZ	OK
15	Q1322-01MS	MANHOLEMS	MS	02/07/25 12:55	9.5ml of sample, 0.5mL W3091	NF/IZ	OK
16	Q1322-01MSD	MANHOLEMSD	MSD	02/07/25 13:16	9.5ml of sample, 0.5mL W3091	NF/IZ	OK
17	CCV2	CCV2	CCV	02/07/25 13:38		NF/IZ	OK
18	CCB2	CCB2	CCB	02/07/25 15:41		NF/IZ	OK

Instrument ID: IC-2

Daily Analysis Runlog For Sequence/QCBatch ID # LB134634

Review By	Niha	Review On	2/10/2025 9:15:59 AM
Supervise By	Iwona	Supervise On	2/10/2025 9:23:47 AM
SubDirectory	LB134634	Test	Anions
STD. NAME	STD REF.#		
ICAL Standard	WP111484,WP111485,WP111486,WP111487,WP111488,WP111489,WP111490		
ICV Standard	WP111491		
CCV Standard	WP111859		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111860		
Chk Standard	WP111492,WP111493		

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB134646

Review By	jignesh	Review On	2/10/2025 1:05:20 PM
Supervise By	Iwona	Supervise On	2/10/2025 1:09:12 PM
SubDirectory	LB134646	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	LB134646BL	LB134646BL	MB	02/10/25 10:00		jignesh	OK
2	LB134646BS	LB134646BS	LCS	02/10/25 10:00		jignesh	OK
3	Q1300-02	COMP	SAM	02/10/25 10:00		jignesh	OK
4	Q1316-01	001-WILLETS-PT-BL	SAM	02/10/25 10:00		jignesh	OK
5	Q1316-02	002-35TH-AVE(FEB)	SAM	02/10/25 10:00		jignesh	OK
6	Q1316-02DUP	002-35TH-AVE(FEB)	DUP	02/10/25 10:00		jignesh	OK
7	Q1322-04	MANHOLE	SAM	02/10/25 10:00		jignesh	OK
8	Q1325-01	DSN002	SAM	02/10/25 10:00		jignesh	OK
9	Q1325-03	DSN001	SAM	02/10/25 10:00		jignesh	OK
10	Q1325-05	DSN003	SAM	02/10/25 10:00		jignesh	OK
11	Q1326-01	TOWER-1	SAM	02/10/25 10:00		jignesh	OK
12	Q1326-02	TOWER-2	SAM	02/10/25 10:00		jignesh	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134656

Review By	rubina	Review On	2/11/2025 12:23:33 PM
Supervise By	Iwona	Supervise On	2/11/2025 12:55:32 PM
SubDirectory	LB134656	Test	Phenolics
STD. NAME	STD REF.#		
ICAL Standard	WP111864		
ICV Standard	WP111866		
CCV Standard	WP111865		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111836		
Chk Standard	WP110020,WP110021,WP111868,WP111867		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.00PPM	0.00PPM	CAL1	02/10/25 15:17		rubina	OK
2	0.05PPM	0.05PPM	CAL2	02/10/25 15:17		rubina	OK
3	0.1PPM	0.1PPM	CAL3	02/10/25 15:17		rubina	OK
4	0.25PPM	0.25PPM	CAL4	02/10/25 15:17		rubina	OK
5	0.50PPM	0.50PPM	CAL5	02/10/25 15:17		rubina	OK
6	1.0PPM	1.0PPM	CAL6	02/10/25 15:17		rubina	OK
7	2.0PPM	2.0PPM	CAL7	02/10/25 15:17		rubina	OK
8	ICV1	ICV1	ICV	02/10/25 15:45		rubina	OK
9	ICB1	ICB1	ICB	02/10/25 15:45		rubina	OK
10	CCV1	CCV1	CCV	02/10/25 15:45		rubina	OK
11	CCB1	CCB1	CCB	02/10/25 15:45		rubina	OK
12	PB166642BL	PB166642BL	MB	02/10/25 15:45		rubina	OK
13	PB166642BS	PB166642BS	LCS	02/10/25 15:45		rubina	OK
14	Q1168-12	MDL-WATER-06-QT1	SAM	02/10/25 15:55		rubina	OK
15	Q1322-01	MANHOLE	SAM	02/10/25 15:55		rubina	OK
16	Q1322-01DUP	MANHOLEDUP	DUP	02/10/25 15:55		rubina	OK
17	Q1322-01MS	MANHOLEMS	MS	02/10/25 15:55		rubina	OK
18	Q1322-01MSD	MANHOLEMSD	MSD	02/10/25 15:55		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134656

Review By	rubina	Review On	2/11/2025 12:23:33 PM
Supervise By	Iwona	Supervise On	2/11/2025 12:55:32 PM
SubDirectory	LB134656	Test	Phenolics
STD. NAME	STD REF.#		
ICAL Standard	WP111864		
ICV Standard	WP111866		
CCV Standard	WP111865		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111836		
Chk Standard	WP110020,WP110021,WP111868,WP111867		

19	Q1325-02	DSN002	SAM	02/10/25 15:55		rubina	OK
20	Q1325-04	DSN001	SAM	02/10/25 15:55		rubina	OK
21	Q1325-06	DSN003	SAM	02/10/25 16:01		rubina	OK
22	CCV2	CCV2	CCV	02/10/25 16:01		rubina	OK
23	CCB2	CCB2	CCB	02/10/25 16:01		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134673

Review By	Niha	Review On	2/12/2025 10:08:52 AM
Supervise By	Iwona	Supervise On	2/12/2025 1:08:24 PM
SubDirectory	LB134673	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP111877,WP111878,WP111879,WP111880,WP111881,WP111882,WP111883		
ICV Standard	W3012		
CCV Standard	WP111878		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111296		
Chk Standard	WP111035,WP110103,WP111885		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	02/11/25 11:01		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	02/11/25 11:01		Niha	OK
3	10PPBCN	10PPBCN	CAL3	02/11/25 11:01		Niha	OK
4	50PPBCN	50PPBCN	CAL4	02/11/25 11:01		Niha	OK
5	100PPBCN	100PPBCN	CAL5	02/11/25 11:01		Niha	OK
6	250PPBCN	250PPBCN	CAL6	02/11/25 11:01		Niha	OK
7	500PPBCN	500PPBCN	CAL7	02/11/25 11:01		Niha	OK
8	ICV1	ICV1	ICV	02/11/25 13:38		Niha	OK
9	ICB1	ICB1	ICB	02/11/25 13:38		Niha	OK
10	CCV1	CCV1	CCV	02/11/25 13:38		Niha	OK
11	CCB1	CCB1	CCB	02/11/25 13:38		Niha	OK
12	RL	RL	SAM	02/11/25 13:38		Niha	OK
13	PB166674BL	PB166674BL	MB	02/11/25 13:45		Niha	OK
14	PB166674BS	PB166674BS	LCS	02/11/25 13:45		Niha	OK
15	MIDPB166674	MIDPB166674	SAM	02/11/25 13:45		Niha	OK
16	Q1322-01	MANHOLE	SAM	02/11/25 13:45		Niha	OK
17	Q1322-01DUP	MANHOLEDUP	DUP	02/11/25 13:45		Niha	OK
18	Q1322-01MS	MANHOLEMS	MS	02/11/25 14:46		Niha	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB134673

Review By	Niha	Review On	2/12/2025 10:08:52 AM
Supervise By	Iwona	Supervise On	2/12/2025 1:08:24 PM
SubDirectory	LB134673	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP111877,WP111878,WP111879,WP111880,WP111881,WP111882,WP111883		
ICV Standard	W3012		
CCV Standard	WP111878		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111296		
Chk Standard	WP111035,WP110103,WP111885		

19	Q1322-01MSD	MANHOLEMSD	MSD	02/11/25 14:46		Niha	OK
20	CCV2	CCV2	CCV	02/11/25 14:46		Niha	OK
21	CCB2	CCB2	CCB	02/11/25 14:46		Niha	OK
22	IDOC-01	IDOC-01	LCS	02/11/25 14:46		Niha	OK
23	IDOC-02	IDOC-02	LCS	02/11/25 14:46		Niha	OK
24	IDOC-03	IDOC-03	LCS	02/11/25 14:54		Niha	OK
25	IDOC-04	IDOC-04	LCS	02/11/25 14:54		Niha	OK
26	CCV3	CCV3	CCV	02/11/25 14:54		Niha	OK
27	CCB3	CCB3	CCB	02/11/25 14:54		Niha	OK

Instrument ID: PH METER

Daily Analysis Runlog For Sequence/QC Batch ID # LB134762

Review By	Ayul	Review On	2/20/2025 3:23:04 PM
Supervise By	amarnath	Supervise On	2/20/2025 3:26:05 PM
SubDirectory	LB134762	Test	Field 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,W3071,W3094,W3093,W3071,W3071		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL2	CAL2	CAL	02/06/25 10:38		Ayul	OK
2	CAL1	CAL1	CAL	02/06/25 10:40		Ayul	OK
3	CAL3	CAL3	CAL	02/06/25 10:42		Ayul	OK
4	ICV	ICV	ICV	02/06/25 10:45		Ayul	OK
5	CCV1	CCV1	CCV	02/06/25 10:54		Ayul	OK
6	Q1322-01	MANHOLE	SAM	02/06/25 11:00		Ayul	OK
7	Q1322-01DUP	MANHOLEDUP	DUP	02/06/25 11:07		Ayul	OK
8	CCV2	CCV2	CCV	02/06/25 11:13		Ayul	OK

Instrument ID: THERMOMETER

Daily Analysis Runlog For Sequence/QC Batch ID # LB134763

Review By	Ayul	Review On	2/20/2025 3:24:35 PM
Supervise By	amarnath	Supervise On	2/20/2025 3:26:32 PM
SubDirectory	LB134763	Test	Field Temperature
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	Q1322-01	MANHOLE	SAM	02/06/25 11:00		Ayul	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 : Q1322

Test : Ammonia, Anions Group1, BOD5, COD, Cyanide, Cyanide-Amenable, Field pH, Field Temperature, Oil and Grease, Phenolics, TSS

Prepbatch ID : PB166612, PB166642, PB166674,

Sequence ID/Qc Batch ID: LB134620, LB134623, LB134631, LB134633, LB134634, LB134646, LB134656, LB134673, LB134762, LB134763

Standard ID :

EP2581, WP100827, WP100828, WP110020, WP110021, WP110103, WP110149, WP110150, WP110259, WP110335, WP110386, WP110390, WP110391, WP110416, WP110826, WP111035, WP111294, WP111295, WP111296, WP111317, WP111318, WP111323, WP111325, WP111385, WP111419, WP111420, WP111484, WP111485, WP111486, WP111487, WP111488, WP111489, WP111490, WP111491, WP111492, WP111493, WP111514, WP111515, WP111516, WP111517, WP111518, WP111519, WP111520, WP111522, WP111660, WP111745, WP111761, WP111762, WP111763, WP111764, WP111829, WP111830, WP111831, WP111832, WP111833, WP111834, WP111835, WP111836, WP111859, WP111860, WP111861, WP111862, WP111863, WP111864, WP111865, WP111866, WP111867, WP111868, WP111876, WP111877, WP111878, WP111879, WP111880, WP111881, WP111882, WP111883, WP111885, WP99896,

Chemical ID :

E3551, M5673, M6041, M6069, M6121, W1992, W1993, W2211, W2606, W2647, W2653, W2654, W2663, W2666, W2668, W2700, W2783, W2784, W2845, W2858, W2882, W2898, W2979, W3001, W3012, W3019, W3058, W3059, W3062, W3063, W3071, W3093, W3094, W3101, W3103, W3105, W3107, W3109, W3112, W3113, W3125, W3132, W3133, W3138, W3139, W3140, W3141, W3144, W3149, W3154, W3155, W3169, W3174, W3176, W3177,



<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>
3923	Baked Sodium Sulfate	EP2581	02/03/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SC ALE_2 (EX-SC-2)	None	Rajesh Parikh 02/03/2025
<u>FROM</u> 4000.00000gram of E3551 = Final Quantity: 4000.000 gram								

<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	WP100827	02/02/2023	02/09/2023	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 02/02/2023
<u>FROM</u> 0.25000gram of W2979 + 50.00000ml of W2783 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3456	Cyanide Intermediate Working Std, 5PPM	WP100828	02/02/2023	02/03/2023	Iwona Zarych	None	WETCHEM_FIPETTE_3 (WC)	Sohil Jodhani 02/07/2023

FROM 0.25000ml of W2898 + 49.75000ml of WP99896 = 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>
672	ammonia buffer for phenol	WP110020	10/03/2024	04/03/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/04/2024

FROM 143.00000ml of W3141 + 16.90000gram of W1992 + 90.10000ml of W3112 = Final Quantity: 250.000 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>
1935	Potassium ferricyanide solution-phenol	WP110021	10/03/2024	04/03/2025	Rubina Mughal	WETCHEM_S CALE_4 (WC SC-4)	None	Iwona Zarych 10/04/2024
<u>FROM</u> 8.00000gram of W2211 + 92.00000ml 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>
539	CN BUFFER	WP110103	10/08/2024	04/08/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 10/08/2024
<u>FROM</u> 138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
153	Ammonia Stock Std. (1000 ppm)	WP110149	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 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_SCALE_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_FIPETTE_3 (WC)	Iwona Zarych 10/22/2024
<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>
1841	Sulfuric Acid, 1N	WP110386	10/24/2024	04/24/2025	Rubina Mughal	None	WETCHEM_FIPETTE_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>
3214	Magnesium Chloride For Cyanide 2.5M(51%W/V)	WP110390	10/24/2024	04/24/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 10/24/2024
<u>FROM</u> 500.00000ml of W3112 + 510.00000gram of W3001 = 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>
1714	Sulfuric Acid, 50% (v/v)	WP110391	10/24/2024	04/24/2025	Niha Farheen Shaik	None	None	Iwona Zarych
								10/24/2024

FROM 1000.00000ml of M5673 + 1000.00000ml of W3112 = 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>
740	sodium nitroferricyanide for ammonia	WP110416	10/25/2024	04/25/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych
								10/25/2024

FROM 0.05000gram of W2666 + 99.95000ml of W3112 = 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>
229	1:1 HCL	WP110826	11/22/2024	05/13/2025	Jignesh Parikh	None	None	Iwona Zarych
								11/22/2024

FROM 500.00000ml of M6121 + 500.00000ml 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>
607	PYRIDINE-BARBITURIC ACID	WP111035	12/09/2024	04/30/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych
								12/10/2024

FROM 145.00000ml of W3112 + 15.00000gram of W2882 + 15.00000ml of M6121 + 75.00000ml of W3019 = Final Quantity: 250.000 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>
11	Sodium hydroxide absorbing solution 0.25 N	WP111294	01/07/2025	07/07/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC-5)	None	Iwona Zarych 01/07/2025
<u>FROM</u>	21.00000L of W3112 + 210.00000gram of W3113 = Final Quantity: 21.000 L							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3850	Cyanide MS-MSD spiking solution, 5PPM	WP111295	01/07/2025	07/07/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u>		1.00000ml of W3154 + 199.00000ml of WP111294 = Final Quantity: 200.000 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>
3371	Cyanide LCS Spike Solution, 5PPM	WP111296	01/07/2025	07/07/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 01/07/2025

FROM 1.00000ml of W3138 + 199.00000ml of WP111294 = Final Quantity: 200.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1796	NaOH, 0.1N	WP111317	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_7 (WC SC-6)	None	Iwona Zarych 01/09/2025

FROM 4.00000gram of W3113 + 996.00000ml 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>
1471	NaOH Solution, 6N	WP111318	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_7 (WCS-6)	None	Iwona Zarych 01/09/2025
<u>FROM</u> 240.00000gram of W3113 + 760.00000ml 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								

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>
1494	BORATE BUFFER	WP111325	01/09/2025	07/09/2025	Rubina Mughal	None	None	Iwona Zarych
								01/09/2025

FROM 100.00000L of W3112 + 9.50000gram of W2700 + 88.00000ml of WP111317 = Final Quantity: 100.000 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>
290	Phenol reagent for Ammonia	WP111385	01/13/2025	07/13/2025	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych
								01/13/2025

FROM 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	Iwona Zarych
(WC) <u>FROM</u> 95.00000ml of W3112 + 5.00000ml of WP110149 = 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>
1639	Ammonia Intermediate Std-Second source, 50PPM	WP111420	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 WP110150 = 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 (WC)	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>
2456	COD Stock std, 1000ppm	WP111514	01/22/2025	01/29/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 01/22/2025
<u>FROM</u>	0.08500gram of W3169 + 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>
2457	COD Stock std-SS, 1000ppm	WP111515	01/22/2025	01/29/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 01/22/2025
<u>FROM</u> 0.08500gram of W2784 + 100.00000ml of W3112 = 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>
139	COD calibration std. 0 ppm	WP111516	01/22/2025	01/29/2025	Niha Farheen Shaik	None	None	Iwona Zarych
								01/22/2025

FROM 10.00000ml of W3112 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
138	COD calibration std. 10 ppm	WP111517	01/22/2025	01/29/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3	Iwona Zarych
							(WC)	01/22/2025

FROM 9.90000ml of W3112 + 0.10000ml of WP111514 = 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>
137	COD calibration std. 50 ppm	WP111518	01/22/2025	01/29/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 01/22/2025
<u>FROM</u>	9.50000ml of W3112 + 0.50000ml of WP111514 = 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>
136	COD calibration std. 100 ppm	WP111519	01/22/2025	01/29/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 01/22/2025
<u>FROM</u> 9.00000ml of W3112 + 1.00000ml of WP111514 = 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>
135	COD calibration std. 150 ppm	WP111520	01/22/2025	01/29/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3	Iwona Zarych 01/22/2025
FROM 8.50000ml of W3112 + 1.50000ml of WP111514 = 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>
2459	COD ICV-LCS std, 50ppm	WP111522	01/22/2025	01/29/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/22/2025
<u>FROM</u> 9.50000ml of W3112 + 0.50000ml of WP111515 = 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>
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>
2456	COD Stock std, 1000ppm	WP111761	02/03/2025	02/04/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 02/04/2025
<u>FROM</u>	0.08500gram of W3169 + 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>
2457	COD Stock std-SS, 1000ppm	WP111762	02/03/2025	02/04/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 02/04/2025
<u>FROM</u>	0.08500gram of W2784 + 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>
2458	COD CCV std, 50ppm	WP111763	02/03/2025	02/04/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3	Iwona Zarych 02/04/2025
FROM 9.50000ml of W3112 + 0.50000ml of WP111761 = 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>
2459	COD ICV-LCS std, 50ppm	WP111764	02/03/2025	02/04/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3	Iwona Zarych 02/04/2025
<u>FROM</u> 9.50000ml of W3112 + 0.50000ml of WP111762 = 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>
275	Ammonia Calibration Std. (2 ppm)	WP111829	02/07/2025	02/08/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 48.00000ml of W3112 + 2.00000ml of WP111419 = 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>
285	Ammonia CCV Std. (1 ppm)	WP111830	02/07/2025	02/08/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/07/2025
<u>FROM</u> 49.00000ml of W3112 + 1.00000ml of WP111419 = 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>
286	Ammonia ICV Std. (1 ppm)	WP111831	02/07/2025	02/08/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/07/2025
<u>FROM</u> 49.00000ml of W3112 + 1.00000ml of WP111420 = 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>
3906	Ammonia MDL-LOD-LOQ spiking solution -5ppm	WP111832	02/07/2025	02/08/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/07/2025
<u>FROM</u> 45.00000ml of W3112 + 5.00000ml of WP111419 = 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>
1903	Phenol stock std, 1000PPM	WP111833	02/07/2025	08/07/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 02/07/2025
<u>FROM</u>	1.00000gram of W2663 + 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>
1904	Phenol stock std, 1000PPM-SS	WP111834	02/07/2025	08/07/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 02/07/2025
<u>FROM</u>	1.00000gram of W2858 + 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>
1478	Phenol Intermediate Std - 50PPM	WP111835	02/07/2025	03/07/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/07/2025
<u>FROM</u> 47.50000ml of W3112 + 2.50000ml of WP111833 = 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>
1635	Phenol Intermediate Std Second Source-50PPM	WP111836	02/07/2025	03/07/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) <u>FROM</u> 47.50000ml of W3112 + 2.50000ml of WP111834 = 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>
3680	Anions 300/9056 calibration standard 5-CCV	WP111859	02/07/2025	02/08/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/11/2025

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	WP111860	02/07/2025	02/08/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/11/2025

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	WP111861	02/07/2025	02/08/2025	Rubina Mughal	None	None	Iwona Zarych
								02/11/2025

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	WP111862	02/07/2025	02/08/2025	Rubina Mughal	WETCHEM_SCALE_7 (WC SC-6)	None	Iwona Zarych
								02/11/2025

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	WP111863	02/07/2025	02/08/2025	Rubina Mughal	None	None	Iwona Zarych
								02/11/2025

FROM 1.00000PILLOW of W3059 + 300.00000ml of WP111861 = 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>
1633	Phenol Calibration Std, 2PPM	WP111864	02/10/2025	02/11/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3	Iwona Zarych
							(WC)	02/11/2025

FROM 48.00000ml of W3112 + 2.00000ml of WP111835 = 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>
1634	Phenol CCV Std, 1PPM	WP111865	02/10/2025	02/11/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u>		49.00000ml of W3112 + 1.00000ml of WP111835 = 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>
1636	Phenol ICV Std, 1PPM	WP111866	02/10/2025	02/11/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 02/11/2025
<u>FROM</u> 49.00000ml of W3112 + 1.00000ml of WP111836 = 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>
1962	PHENOL LOD LOQ INTERMEDIATE STD, 5PPM	WP111867	02/10/2025	02/11/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych 02/11/2025
<u>FROM</u> 90.00000ml of W3112 + 10.00000ml of WP111836 = 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>
506	4-AMINOANTIPYRINE	WP111868	02/10/2025	02/11/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych 02/11/2025
<u>FROM</u> 0.40000gram of W3176 + 20.00000ml of W3112 = Final Quantity: 20.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3456	Cyanide Intermediate Working Std, 5PPM	WP111876	02/11/2025	02/12/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/14/2025

FROM 0.25000ml of W3154 + 49.75000ml of WP111294 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4	Calibration standard 500 ppb	WP111877	02/11/2025	02/12/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/14/2025

FROM 45.00000ml of WP111294 + 5.00000ml of WP111876 = Final Quantity: 50.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3761	Calibration-CCV CN Standard 250 ppb	WP111878	02/11/2025	02/12/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/14/2025

FROM 2.50000ml of WP111876 + 47.50000ml of WP111294 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
6	Calibration Standard 100 ppb	WP111879	02/11/2025	02/12/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/14/2025

FROM 1.00000ml of WP111876 + 49.00000ml of WP111294 = 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>
7	Calibration Standard 50 ppb	WP111880	02/11/2025	02/12/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3	Iwona Zarych

(WC)

FROM 0.50000ml of WP111876 + 49.50000ml of WP111294 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
8	Calibration Standard 10 ppb	WP111881	02/11/2025	02/12/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3	Iwona Zarych

(WC)

FROM 1.00000ml of WP111877 + 49.00000ml of WP111294 = 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>
9	Calibration Standard 5 ppb	WP111882	02/11/2025	02/12/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 0.50000ml of WP111877 + 49.50000ml of WP111294 = 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>PipettelD</u>	<u>Supervised By</u>
167	0 ppb CN calibration std	WP111883	02/11/2025	02/12/2025	Niha Farheen Shaik	None	None	Iwona Zarych 02/14/2025
<u>FROM</u> 50.00000ml of WP111294 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1582	Chloramine T solution, 0.014M	WP111885	02/11/2025	02/12/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 02/14/2025
<u>FROM</u>	0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 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>
11	Sodium hydroxide absorbing solution 0.25 N	WP99896	11/15/2022	05/15/2023	Jignesh Parikh	WETCHEM_SCALE_4 (WCS-4)	None	Iwona Zarych 11/15/2022
<u>FROM</u>	21.00000L of W2606 + 210.00000gram of W2845 = Final Quantity: 21.000 L							

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	07/01/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

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.	140440 / TEST PAPERS,PH,0-2.5,.2SENSI, 100PK	80A0441	02/29/2028	09/03/2024 / jignesh	08/19/2024 / Jaswal	M6069

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

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

CHEMICAL RECEIPT LOG BOOK

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.	97062-260 / POTASSIUM FERRICYANIDE ACS GRADE 500G	1136C335	03/01/2027	03/01/2017 / apatel	02/28/2017 / apatel	W2211

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	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

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	2HD0179	01/27/2030	01/27/2020 / apatel	01/27/2020 / apatel	W2663

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.	J3818-5 / SODIUM PHOSPHATE, MONOBAS/HYD, CRYST, ACS, 2.5 KG	0000225799	12/03/2025	04/05/2021 / Alexander	02/10/2020 / apatel	W2668

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3568-1 / Sodium Borate, 500 gms	2019111354	04/23/2025	04/23/2020 / apatel	03/11/2020 / apatel	W2700

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)	0000263246	06/17/2023	12/23/2020 / ketankumar	12/23/2020 / ketankumar	W2783

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	201089	06/30/2025	12/23/2020 / apatel	12/16/2020 / apatel	W2784

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19510-7 / Sodium Hydroxide Pellets 12 Kg	21C2456604	01/31/2024	03/30/2022 / JIGNESH	06/24/2021 / apatel	W2845

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.	EM-BX0035-3 / Barbituric Acid, 100 gms	1.00132.0100	04/30/2025	12/07/2021 /	11/30/2021 / apatel	W2882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Supelco	90157 / Cyanide Standard, 1000ppm from Supelco	HC03107133	06/30/2023	01/24/2022 / apatel	01/24/2022 / apatel	W2898

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.	01237-10KG / Magnesium Chloride Hexahydrate ACS 10KG	002251-03319	06/06/2027	01/23/2023 / lwona	06/06/2022 / lwona	W3001

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	/ ICV-CN	ICV6-400	12/31/2025	01/08/2025 / lwona	02/20/2020 / lwona	W3012

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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

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

CHEMICAL RECEIPT LOG BOOK

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 / Iwona	W3071

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.	470112-662 / TEST STRIPES, NITRATE/NITRITE, PK50	402403	04/30/2026	05/02/2024 / Iwona	04/10/2024 / Iwona	W3101

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 / Iwona	04/22/2024 / Iwona	W3103

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,4LITRE	4403S13	09/30/2025	04/22/2024 / Iwona	04/22/2024 / Iwona	W3105

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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 #
Environmental Express LTD	B1010 / COD Digestion Vials Low Level 0-150Mg/L	13798	09/30/2027	12/06/2024 / lwona	07/25/2024 / lwona	W3125

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.	140476 / Test Paper,PH Short Range 9.0/10.0	L23	08/22/2029	08/22/2024 / lwona	08/22/2024 / lwona	W3133

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	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 #
PCI Scientific Supply, Inc.	J9721-3 / Ammonium Hydroxide, 2.5 L	431110	11/30/2025	09/18/2024 / lwona	09/18/2024 / lwona	W3141

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

CHEMICAL RECEIPT LOG BOOK

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.	RC2543-4 / CYANIDE STD 1000PPM 4OZ	1411J58	05/31/2025	12/02/2024 / lwona	12/02/2024 / lwona	W3154

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140730 / TEST PAPER,POT.IOD-STRCH,P K100,CS12	14-860	12/02/2029	12/02/2024 / lwona	12/02/2024 / lwona	W3155

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	24H0956262	04/28/2026	01/03/2025 / lwona	01/03/2025 / lwona	W3169

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	JA630-5 / 4-aminoanti pyrine, 100 gm	50107308	07/31/2028	01/24/2025 / lwona	01/24/2025 / lwona	W3176

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24G1962003	08/22/2025	02/03/2025 / jignesh	01/31/2025 / jignesh	W3177



ISO 9001 CERTIFIED
ISO 13485 CERTIFIED

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Email: info@amresco-inc.com

CERTIFICATE OF QUALITY / CERTIFICATE OF ANALYSIS

Potassium Ferricyanide

Code: 0713

Chemical Formula:	K ₃ Fe(CN) ₆	Manufacture Date:	(batch specific)
Molecular Weight:	329.25	Expiration/Reassay Date:	(batch specific)
CAS #:	13746-66-2		
Appearance:		Storage:	
Dark orange crystals		Grade:	ACS GRADE

Additional Information

TEST	SPECIFICATION	DISPOSITION
Chloride	<= 0.01 %	PASS
Ferro Compounds	<= 0.05 %	PASS
Insolubles	<= 0.005 %	PASS
Purity	>= 99.0 %	PASS
Sulfate	<= 0.01 %	PASS

Spec Set: 0713ACS

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

Product meets analytical specifications of the grades listed.

Internal ID #: 269

Signature: _____

Title:

Date Printed:

03/09/2016

Page 1 of 1

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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Certificate of Analysis

1.19533.0500 Cyanide standard solution traceable to SRM from NIST $K_2[Zn(CN)_4]$ in H_2O
1000 mg/l CN Certipur®
Batch HC03107133

Batch Values

Concentration	β (CN ⁻)	1002	mg/l
---------------	----------------------------	------	------

Determination method: Argentometric titration.

The content of this solution was determined with silver nitrate standard solution (article number 1.09081) standardized against volumetric standard sodium chloride (article number 1.02406). The expanded measurement uncertainty is $\pm 0.7\%$ ($k=2$ coverage factor for 95% coverage probability). The certified value is traceable to primary standard NIST SRM 999c (NIST: National Institute of Standards and Technology, USA) by means of volumetric standard sodium chloride, measured in the accredited calibration laboratory of Merck KGaA, Darmstadt, Germany in accordance to DIN EN ISO/IEC 17025.

Date of release (DD.MM.YYYY) 02.07.2020

Minimum shelf life (DD.MM.YYYY) 30.06.2023

Ayfer Yildirim

Responsible laboratory manager quality control

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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



Certificate Of Analysis

Item Number	P1060	Lot Number	2HD0179
Item	Phenol, Loose Crystal, Reagent, ACS		
CAS Number	108-95-2		
Molecular Formula	C ₆ H ₆ O	Molecular Weight	94.11

Test	Specification		Result
	min	max	
ASSAY (C ₆ H ₅ OH)	99.0 %		100.02 %
FREEZING POINT (DRY)	40.5 C		40.5°C
CLARITY OF SOLUTION	TO PASS TEST		PASSES TEST
RESIDUE AFTER EVAPORATION		0.05 %	<0.05 %
WATER		0.5 %	0.0087 %
DATE OF MANUFACTURE			06-MAR-2018

Spectrum Chemical Mfg Corp
755 Jersey Avenue
New Brunswick 08901 NJ



Certificate Of Analysis Results Certified by

Ibad Tirmizi
Director of Quality
Spectrum Chemical Mfg. Corp.

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.

Acetone
ULTRA RESI-ANALYZED
For Organic Residue Analysis



Material No.: 9254-03
Batch No.: 0000263246
Manufactured Date: 2020/06/17
Expiration Date: 2023/06/17
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.7
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0000 ppm	0.1000
Substances Reducing Permanganate	Passes Test	PT
Titration Acid (µeq/g)	<= 0.3	0.1
Titration Base (µeq/g)	<= 0.6	< 0.1
Water (H ₂ O)	<= 0.5 %	0.3
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	5

For Laboratory, Research or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

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


Jamie Ethier
Vice President Global Quality

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

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

Order our products online [alfa.com](https://www.alfa.com)**This document has been electronically generated and does not require a signature.**

This is to certify that units of the lot number above 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 purchaser, formulator or those performing further manufacturing 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 above information is the actual analytical results obtained.

W2666 Recived on 02/10/2020 by AP

Product No.: 87683

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

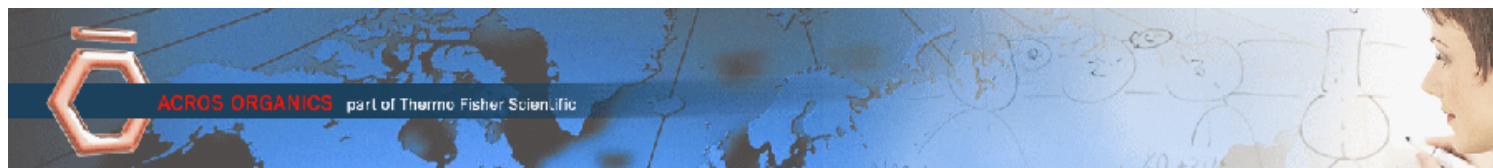
Lot No.: W12F013

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)

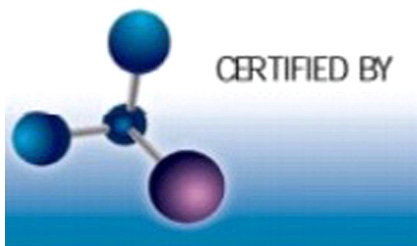
Certificate of Analysis

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. Acros Organics 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 human or animals. It is the responsibility of the purchaser, formulator or those performing further manufacturing 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	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.

W2918
W3001
rec. 06/06/22
exp. 06/06/27

Chem-Impex International, Inc.

Tel: (630) 766-2112
E-mail: sales@chemimpex.com
Shipping and Correspondence:
935 Dillon Drive
Wood Dale, IL 60191

Fax: (630) 766-2218
Web site: www.chemimpex.com
Manufacturing site:
825 Dillon Drive
Wood Dale, IL 60191

Certificate of Analysis

Catalogue Number	01237
Product	Magnesium chloride hexahydrate
Lot Number	002251-03319 Magnesium chloride•6H ₂ O
CAS Number	7791-18-6
Molecular Formula	MgCl ₂ •6H ₂ O
Molecular Weight	203.3

Appearance	Colorless crystals, very deliquescent
Heavy Metals	< 5 ppm
Anion	Nitrate : < 0.001% Phosphate : < 5 ppm Sulfate : < 0.002%
Cation	Ammonium : < 0.002% Barium : < 0.005% Calcium : 0.0006% Iron : < 5 ppm Manganese : 1.8 ppm Potassium : 0.0006% Sodium : 0.0008% Strontium : 0.0015%
Insoluble material	0.0025%
Assay by titration	100.29%
Grade	ACS reagent
Storage	Store at RT
Country of Origin	India

Certificate of Analysis

Catalog Number: 01237

Lot Number: 002251-03319

Remarks

See material safety data sheet for additional information

For laboratory use only

The foregoing is a copy of the Certificate of Analysis as provided by our supplier



Bala Kumar
Quality Control Manager

W3019
rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

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

Certificate of Analysis

Product Name:

Pyridine - anhydrous, 99.8%

Product Number:

270970

Batch Number:

SHBQ2113

Brand:

SIAL

CAS Number:

110-86-1

MDL Number:

MFCD00011732

Formula:

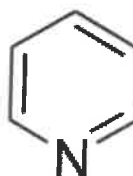
C₅H₅N

Formula Weight:

79.10 g/mol

Quality Release Date:

15 DEC 2022



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


Larry Coers, Director
Quality Control
Sheboygan Falls, WI US

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



Certificate Of Analysis



W 3058

Re. 10/19/23 12

Date of Release: 1/27/2023

Name: **Sodium Carbonate, Anhydrous**

Powder, ACS

Item No: **SX0395 All Sizes**

Lot / Batch No: **2023012653**

Country of Origin: **India**

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

Joe Schoellkopf

Quality Control Manager

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

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

EMD Millipore Corporation

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

Form number: 00005624CA, Rev. 2.0



CERTIFICATE OF ANALYSIS

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

W3063
rec. 11/16/23 12

1.0 ACCREDITATION / REGISTRATION

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



2.0 PRODUCT DESCRIPTION

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Bromide, Br	100.0 ± 0.5 µg/mL	Chloride, Cl	30.00 ± 0.14 µg/mL
Fluoride, F-	20.00 ± 0.06 µg/mL	Nitrate as N, 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



Certificate Of Analysis



Date of Release: 11/14/2019

W2700 Recived by AP on 3/11/2020

Name: **Sodium Borate, Decahydrate**
ACS

Item No: **SX0355 All Sizes**

Lot / Batch No: **2019111354**

Country of Origin: **India**

Item	Specifications	Analysis
Assay (Na ₂ B ₄ O ₇ • 10H ₂ O)	99.5 - 105.0%	101.7%
Calcium (Ca)	0.005% max.	0.003%
Chloride (Cl)	0.001% max.	<0.001%
Color	White	Passes Test
Form	Crystals	Passes Test
Heavy Metals (as Pb)	0.001% max.	<0.001%
Insoluble Matter	0.005% max.	0.002%
Iron (Fe)	5 ppm max.	<5 ppm
pH of a 0.01 M solution at 25C	9.15 - 9.20	9.17
Phosphate (PO ₄)	0.001% max.	<0.001%
Sulfate (SO ₄)	0.005% max.	<0.005%

Joe Schoellkopf

Quality Control Manager

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

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

EMD Millipore Corporation

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

Form number: 00005624CA, Rev. 2.0



Certificate of Analysis

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

ThermoFisher
SCIENTIFIC

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	P243	Quality Test / Release Date	06/19/2020
Lot Number	201089		
Description	POTASSIUM HYDROGEN PHTHALATE, ACIDIMETRIC STANDARD, A.C.S.		
Country of Origin	Spain	Suggested Retest Date	Jun/2025
Chemical Origin	Organic - 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.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	WHITE CRYSTALS
ASSAY POTASSIUM HYDROGEN PHTHALATE	%	Inclusive Between 99.95 - 100.05	100.03
CHLORINE COMPOUNDS	%	<= 0.003	<0.003
HEAVY METALS (as Pb)	ppm	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5
PH OF 0.05M SOLUTION		Inclusive Between 4.00 - 4.02	4.00
SODIUM (Na)	%	<= 0.005	<0.005
SULFUR COMPOUNDS	%	<= 0.002	<0.002%
TRACEABLE TO NIST	SOD CARBONATE	= LOT 351a	351a
TRACEABLE TO NIST KHP STD	POT. ACID PHTHALATE	= LOT 84L	84L



Julian Burton - Quality Control Manager – 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.



**PRODUCTOS
QUÍMICOS
MONTERREY, S.A. DE C.V.**

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na ₂ SO ₄
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO ₄)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreign matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

Recd. by R3 on 7/24/23 E 3551

RC-02-01, Ed. 3



R: 02/20/20
53

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

For ICP-MS use: dilute the ICV1 concentrate 50-fold with 1% (v/v) nitric acid; pipet 2 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415

For the cold vapor analysis of mercury by AA: dilute the ICV5 concentrate 100-fold with 2% (v/v) nitric acid; pipet 1 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400

For the analysis of cyanide: dilute the ICV6 concentrate 100-fold with Type II water; pipet 1 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS

ICV1-1014		
Element	Concentration (µg/L) (after 10-fold dilution)	Concentration (µg/L) (after 50-fold dilution)
Al	2520	504
Sb	1010	202
As	997	199
Ba	518	104
Be	514	103
Cd	514	103
Ca	10000	2000
Cr	517	103
Co	521	104
Cu	505	101
Fe	10100	2020
Pb	1030	206
Mg	5990	1198
Mn	524	105
Ni	525	105
K	9940	1988
Se	1030	206
Ag	252	50
Na	10100	2020
Tl	1040	208
V	504	101
Zn	1010	202

ICV5-0415		ICV6-0400	
Element	Concentration (µg/L) (after 100-fold dilution)	Analyte	Concentration (µg/L) (after 100-fold dilution)
Hg	4.0	CN ⁻	99

W3011
W3012
W3013
W3014
W3015

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

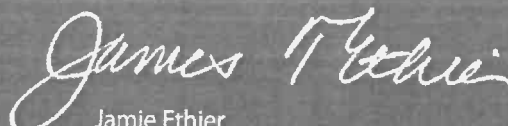


Material No.: 9673-33
Batch No.: 23D2462010

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


Jamie Ethier
Vice President Global Quality

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

 **avantor™**

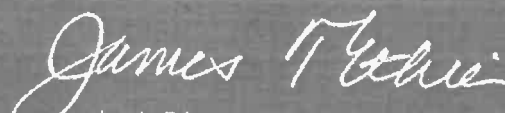


Material No.: 9673-33
Batch No.: 23D2462010

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



Certificate of Analysis

Product information

Product	pH-Fix 0.3-2.3
REF	92180
LOT	80A0441
Expiration date:	29.02.2028
Date of examination:	23.01.2024
Gradation:	pH 0.3-0.7-1.0-1.3-1.6-1.9-2.3

Confirmation

Hereby we confirm, that the above mentioned product has successfully passed our quality control system in accordance with ISO 9001 and meets the specific quality criteria.

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



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

avantor™



R → 16/13/24
Met dig

M 6121

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

Certificate of Analysis

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

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

Avantor Performance Materials, LLC

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

Material No.: 9530-33
Batch No.: 0000275677

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

For Laboratory, Research or Manufacturing Use

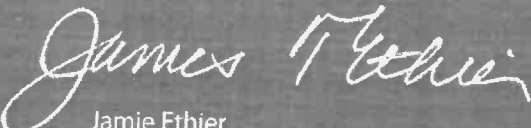
Product Information (not specifications):

Appearance (clear, fuming liquid)

Meets ACS Specifications

Country of Origin: US

Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier

Vice President Global Quality

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

Avantor Performance Materials, LLC

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



Certificate of Analysis

1.00132.0000 Barbituric acid for analysis EMSURE®
Batch N020065932

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

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

Ioannis Chartomatsidis
Responsible laboratory manager quality control

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

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

(sodium dihydrogen phosphate, monohydrate)



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

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

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

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

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


Jamie Ethier
Vice President Global Quality

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

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:

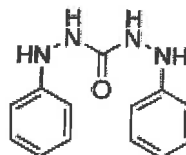
C₁₃H₁₄N₄O

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®**

1490 Lammers Pike

Batesville, IN 47006

<http://www.riccachemical.com>

1-888-GO-RICCA

customerservice@riccachemical.com

Certificate of Analysis

W3093
004121
04/03/2024
16

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

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

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

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

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

Test	Specification	Result
Appearance	Yellow liquid	Passed

*Not a certified value.

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

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

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

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

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



Paul Brandon (01/08/2024)

Production Manager

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

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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

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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

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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.

W 3122 . fee. 7/25/24
W 3123 12
W 3124
W 3125 Exp. 9/30/27
W 3126

ENVIRONMENTAL EXPRESS
Charleston, SC USA
www.envexp.com
(800) 343-5319

October 20, 2022

CERTIFICATE OF ANALYSIS

Environmental Express certifies that the following COD Reagent Vials have been rigorously checked against NIST Traceable standards and also compared for conformance to another major brand name product. Environmental Express COD Vial performance is evaluated using bench top spectrophotometers. Acceptance guidelines are strict and ensure dependable, quality results.

Environmental Express further certifies that the COD products listed below are recognized by the United States Environmental Protection Agency (USEPA) as equivalent to an approved Water Pollutant Testing Procedure for COD (Federal Register, Vol. 45, No. 78, Monday, April 20th, 1980, page 26811) and as such can be used for National Pollution Discharge Elimination System (NPDES) reporting.

<u>Cat. No.</u>	<u>Lot No.</u>	<u>Product Description</u>
B1010	13798	COD Reagent Vials, 0 - 150 ppm

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.



Part of TCP Analytical Group

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

Certificate of Analysis

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

Product Code: **LC13545**

Manufacture Date: August 01, 2024

Lot Number: **44080060**

Expiration Date: January 30, 2025

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

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

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

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

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

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

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

Michael Monteleone

Michael Monteleone
Chemistry Supervisor - Quality Control

ISO9001:2015 Registration #0306-01

2024080113:32:16bsturges-0-0

W3139 Received on 9/9/24 by IZ

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

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

Order our products online thermofisher.com/chemicals

This document has been electronically generated and does not require a signature.

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

W3141 Rec on 9/18/24 by IZ

CERTIFICATE OF ANALYSIS

Date: 11/10/2023

Lot No. 431110

Ammonium Hydroxide, ACS

Reagent Grade

<u>TEST</u>	<u>MAXIMUM LIMITS</u>	<u>RESULT</u>
Appearance	Colorless and free from Suspended matter or sediment	Pass
Assay	28-30%	29.85%
Residue after ignition	0.002%	.0005%
Carbon Dioxide (CO ₂)	0.002%	.0001%
Chloride	0.5 ppm	<.2 ppm
Phosphate (PO ₄)	2 ppm	< 1 ppm
Total Sulfur (as SO ₄)	2 ppm	< 1 ppm
Heavy Metals (as Pb)	0.5 ppm	< .05 ppm
Iron (Fe)	0.2 ppm	< .02 ppm
Sub. Red. Permanganate	Passes Test	Pass
Nitrate (NO ₃)	2 ppm	< 1 ppm
Specific Gravity @ 60 Degrees	0.896- 0.902	Pass

Date of MFG: 11/2023

Retest Date: 11/2025



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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Certificate of Analysis

Cyanide Standard, 1000 ppm CN⁻

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

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

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

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

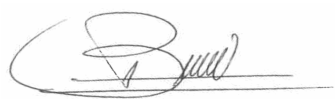
Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN ⁻)	995-1005 ppm	1000 ppm

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

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

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

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

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

Luis Briceno (11/22/2024)
Operations Supervisor

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Material	BDH9260-500G
Material Description	BDH POTASS HYDRGN PHTHLTE 500G
Grade	ACS GRADE
Batch	24H0956262
Reassay Date	04/28/2026
CAS Number	877-24-7
Molecular Formula	HOCC6H4COOK
Molecular Mass	204.22
Date of Manufacture	04/29/2023
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	White crystals.	White crystals.
Assay (dried basis)	99.95 - 100.05 %	99.98 %
Chlorine Compounds	<= 0.003 %	<0.003 %
Heavy Metals (as Pb)	<= 5 ppm	<5 ppm
Insoluble Matter	<= 0.005 %	0.003 %
Iron	<= 5 ppm	<5 ppm
pH (0.05M, Water) @25C	4.00 - 4.02	4.00
Sodium	<= 0.005 %	<0.005 %
Sulfur Compounds	<= 0.002 %	<0.002 %

Internal ID #: 322

Signature	Additional Information
We certify that this batch conforms to the specifications listed above. 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	Analysis may have been rounded to significant digits in specification limits Product meets analytical specifications of the grades listed.

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

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Certificate of Analysis

Catalog Number 212760
Product Description 4-Aminoantipyrine, 97%
CAS Number 83-07-8

Lot Number 50107308

Test Results

	<u>Specifications</u>	<u>Results</u>
Assay	≥97.0% min	99.61%
Appearance	Light yellow to tan fine crystals	Conforms
Identification	To pass test	Passes test
Melting Point	107-109°C	107.5-108.6°C
Sensitivity to phenol	To pass test	Passes test
Residue after Ignition	≤0.10%	0.09%
Loss on drying	≤0.5%	0.08%
Clarity of solution (1g/20ml water)	Clear solution	Clear solution
Clarity of solution (1g/20ml EtOH)	Clear solution	Clear solution
Suggested retest date	July 2028	

This certificate of analysis has been electronically generated and is valid without a signature.

BEANTOWN CHEMICAL CORPORATION, 9 SAGAMORE PARK ROAD, HUDSON NH 03051

WWW.BEANTOWNCHEM.COM TOLL FREE: 1-844-891-6306 EMAIL: TECHNICAL@BEANTOWNCHEM.COM

n-Hexane 95%
ULTRA RESI-ANALYZED
For Organic Residue Analysis



Material No.: 9262-03
Batch No.: 24G1962003
Manufactured Date: 2024-05-23
Expiration Date: 2025-08-22
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	3
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C ₆ Isomers) (by GC, corrected for water)	$\geq 99.5 \%$	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	$\geq 95 \%$	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Substances Darkened by H ₂ SO ₄	Passes Test	Passes Test
Water (by KF, coulometric)	$\leq 0.05 \%$	< 0.01 %

For Laboratory, Research, or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

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

Jamie Croak
Director Quality Operations, Bioscience Production



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Spectra East inc
ADDRESS: 8 King Road
CITY: Rockleigh STATE: NJ ZIP: 07647
ATTENTION: Jacob Valeich
PHONE: 201-767-7070 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: outfall 001-Orangetown
D.S permit 2025
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

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

1. Oil & Grease + Mynal
2. Phenolics
3. SVOC
4. PCB
5. Pesticides
6. NH4-N
7. BOD5
8. TSS
9. VOC →

PRESERVATIVES

COMMENTS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	Manhole	W	✓		2-6-25	1055	19	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2.																	PH 8.22
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:	DATE/TIME: <u>1150</u>	RECEIVED BY: <u>[Signature]</u>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>3.16</u> °C
1. <u>[Signature]</u>	DATE/TIME: <u>2-6-25</u>	1. <u>[Signature]</u>	Comments:
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
2. <u>[Signature]</u>		2. <u>[Signature]</u>	
RELINQUISHED BY SAMPLER:	DATE/TIME: <u>1830</u>	RECEIVED BY:	
3. <u>[Signature]</u>	DATE/TIME: <u>2-6-25</u>	3. <u>[Signature]</u>	

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Spectra East Inc.

ADDRESS: 8 King Road

CITY: Rockleigh STATE: NJ ZIP: 07647

ATTENTION: Jacob Valeich

PHONE: 201-767-7070 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Outfall 001-0mngz+bwn Dis permit 2025

PROJECT NO.: LOCATION:

PROJECT MANAGER:

e-mail:

PHONE:

FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:

ADDRESS:

CITY STATE: ZIP:

ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS*

HARDCOPY (DATA PACKAGE): DAYS*

EDD: DAYS*

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)

☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP

☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B

+ Raw Data) ☐ Other

☐ EDD FORMAT

Metals
Cyanide
Cyanide-Ammonia
COD
Ammonia
LL Hg

PRESERVATIVES

COMMENTS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										COMMENTS
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	Manhole	W	✓		2-6-25	1055	19	✓	✓	✓	✓	✓	✓	✓			
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:	DATE/TIME: 1150 2-6-25	RECEIVED BY: [Signature] 1150 2-6-25	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.1 °C
1.			Comments:
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
2.			
RELINQUISHED BY SAMPLER:	DATE/TIME: 1830 2-6-25	RECEIVED BY:	
3.			

Page 2 of 2

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete

☐ YES ☐ NO

FIELD SAMPLING LOGClient Name: Spectra East Inc.Client Address: 8 King Rd. RockleighClient Rep on Site: Jacob ValeichSampling Date: 2-6-25Arrival Time: 1030 Departure Time: 1118Project Name: Outfall 001 - Orange town D.S Permit 2025Project Location: RockleighCooler Custody Seal: N/ATemperature Correction Factor (°C): +3**FIELD EQUIPMENT CALIBRATION**

pH Calibration (SM4500-H B/9040C)				
Calibration				ICV (± 0.1 pH unit)
	7.00 Buffer	4.00 Buffer	10.00 Buffer	7.00 Buffer
	W 3071	W 3107	W 3094	W 3093
Time	1038	1040	1042	1045
Temp °C	18.82 ^c	18.80 ^c	18.84 ^c	18.81 ^c
pH	7.00	4.00	10.00	7.00

FIELD EQUIPMENT CALIBRATION

Specific Conductance (mS/cm) (99% -101%)/(mmho/cm) (SM2510 B/120.1/9050A)		
Calibration (± 1%) (99% -101%)		ICV (± 1%) (99% -101%)
	WP	WP
Time		
Temp °C		
Reading (mS/cm)		

Sampler Signature/Date:

 2-6-25

Supervisor Review/Date:

 2/6/25

284 Sheffield Street, Mountainside, NJ 07092 Tel. 908-789-8900 Fax 908-789-8922
FIELD SAMPLING LOG

Client Name: Spectra East Inc.

Client Address: 8 King Road, Rockleigh

Client Rep on Site: Jacob Valeich

Sampling Date: 2-5-25

Arrival Time: 1030 Departure Time: 1118

Project Name: Outfall out-Orangebach Dis permit 2025

Project Location: Rockleigh

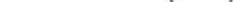
Cooler Custody Seal: N/A

Temperature Correction Factor ($^{\circ}\text{C}$): +3

FIELD SAMPLING INFORMATION

[illegible]

Meter: YSI MPS, Model # 556, Serial # 085A0063

Sampler Signature/Date:  2.6.25

Supervisor Review/Date: [Signature] 2/5/25

QA Control# A3041249



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 : Q1322	SPEC01	Order Date : 2/6/2025 1:17:00 PM	Project Mgr :
Client Name : Spectra East Inc.		Project Name : Outfall 001 - Orangetown E	Report Type : Level 2
Client Contact : Jacob Valeich		Receive DateTime : 2/6/2025 12:00:00 AM	EDD Type : EXCEL NOCLEANUP
Invoice Name : Spectra East Inc.		Purchase Order : 18:30	Hard Copy Date :
Invoice Contact : Jacob Valeich			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1322-01	MANHOLE	Water	02/06/2025	10:55	VOCMS Group1		624.1	10 Bus. Days	

Relinquished By :

Date / Time : 2-7-25 10:23

Received By :

Date / Time :

Storage Area : VOA Refridgerator Room