

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

LAB CHRONICLE

OrderID:	Q3734	OrderDate:	11/26/2025 2:02:00 PM
Client:	ATG-GREENVILLE AEC	Project:	AEC-2025-0013
Contact:	Greg Etter	Location:	A43

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3734-01	SW-1	WATER			11/25/25 09:45			11/26/25
			Anions Group1	300.0			11/26/25 14:58	
			Oil and Grease	1664A			12/01/25 09:00	
			Phosphorus-Total	365.3		12/05/25	12/05/25 13:47	
			TKN	SM4500-N Org C-11 plus NH3 B plus G-11		12/05/25	12/05/25 14:22	
			Total Nitrogen	Cal			12/05/25 14:22	
			TSS	SM2540 D			11/26/25 19:00	
Q3734-02	SW-2	WATER			11/25/25 10:00			11/26/25
			Anions Group1	300.0			11/26/25 15:19	
			Oil and Grease	1664A			12/01/25 09:00	
			Phosphorus-Total	365.3		12/05/25	12/05/25 13:48	
			TKN	SM4500-N Org C-11 plus NH3 B plus G-11		12/05/25	12/05/25 14:22	
			Total Nitrogen	Cal			12/05/25 14:22	

LAB CHRONICLE

TSS

SM2540 D

11/26/25
19:00



SAMPLE DATA

Report of Analysis

Client: ATG-GREENVILLE AEC
Project: AEC-2025-0013
Client Sample ID: SW-1
Lab Sample ID: Q3734-01

Date Collected: 11/25/25 09:45
Date Received: 11/26/25
SDG No.: Q3734
Matrix: WATER
% Solid: 0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Nitrite	0.098	J	1	0.074	0.60	mg/L		11/26/25 14:58	300.0
Nitrate	0.20	J	1	0.095	0.50	mg/L		11/26/25 14:58	300.0
Nitrate+Nitrite	0.30	J	1	0.17	1.10	mg/L		11/26/25 14:58	300.0
Oil and Grease	4.78	J	1	0.29	5.00	mg/L		12/01/25 09:00	1664A
Phosphorus, Total	0.14		1	0.0050	0.050	mg/L	12/05/25 10:45	12/05/25 13:47	365.3
TKN	0.23	J	1	0.11	0.50	mg/L	12/05/25 08:50	12/05/25 14:22	SM4500-N Org C-21 plus NH3 B plus G-21
Nitrogen	0.53	J	1	0.31	1.30	mg/L		12/05/25 14:22	SM 4500-N Org C-11 plus NH3 B plus G-11
TSS	59.4		1	1.00	4.00	mg/L		11/26/25 19:00	SM 2540 D-20

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: ATG-GREENVILLE AEC
Project: AEC-2025-0013
Client Sample ID: SW-2
Lab Sample ID: Q3734-02

Date Collected: 11/25/25 10:00
Date Received: 11/26/25
SDG No.: Q3734
Matrix: WATER
% Solid: 0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Nitrite	0.11	J	1	0.074	0.60	mg/L		11/26/25 15:19	300.0
Nitrate	0.20	J	1	0.095	0.50	mg/L		11/26/25 15:19	300.0
Nitrate+Nitrite	0.31	J	1	0.17	1.10	mg/L		11/26/25 15:19	300.0
Oil and Grease	6.29		1	0.29	5.00	mg/L		12/01/25 09:00	1664A
Phosphorus, Total	0.072		1	0.0050	0.050	mg/L	12/05/25 10:45	12/05/25 13:48	365.3
TKN	3.30		1	0.11	0.50	mg/L	12/05/25 08:50	12/05/25 14:22	SM4500-N Org C-21 plus NH3 B plus G-21
Nitrogen	3.61		1	0.31	1.30	mg/L		12/05/25 14:22	SM 4500-N Org C-11 plus NH3 B plus G-11
TSS	804		1	1.00	4.00	mg/L		11/26/25 19:00	SM 2540 D-20

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: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

RunNo.: LB138070

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Bromide	mg/L	9.7	10	97	90-110	11/03/2025
Chloride	mg/L	2.9	3	97	90-110	11/03/2025
Fluoride	mg/L	2	2	100	90-110	11/03/2025
Nitrite	mg/L	2.9	3	97	90-110	11/03/2025
Nitrate	mg/L	2.4	2.5	96	90-110	11/03/2025
Sulfate	mg/L	14.5	15	97	90-110	11/03/2025
Orthophosphate as P	mg/L	5.2	5	104	90-110	11/03/2025
Sample ID: CCV1						
Bromide	mg/L	10.4	10	104	90-110	11/26/2025
Chloride	mg/L	3.1	3	103	90-110	11/26/2025
Fluoride	mg/L	2.1	2	105	90-110	11/26/2025
Nitrite	mg/L	3.1	3	103	90-110	11/26/2025
Nitrate	mg/L	2.5	2.5	100	90-110	11/26/2025
Sulfate	mg/L	15.6	15	104	90-110	11/26/2025
Orthophosphate as P	mg/L	4.9	5	98	90-110	11/26/2025
Sample ID: CCV2						
Bromide	mg/L	10.4	10	104	90-110	11/26/2025
Chloride	mg/L	3.1	3	103	90-110	11/26/2025
Fluoride	mg/L	2.1	2	105	90-110	11/26/2025
Nitrite	mg/L	3.1	3	103	90-110	11/26/2025
Nitrate	mg/L	2.5	2.5	100	90-110	11/26/2025
Sulfate	mg/L	15.4	15	103	90-110	11/26/2025
Orthophosphate as P	mg/L	5.1	5	102	90-110	11/26/2025

Initial and Continuing Calibration Verification

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

RunNo.: LB138131

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 TKN	mg/L	5	5	100	90-110	12/05/2025
Sample ID: CCV1 TKN	mg/L	5.1	5	102	90-110	12/05/2025
Sample ID: CCV2 TKN	mg/L	5	5	100	90-110	12/05/2025
Sample ID: CCV3 TKN	mg/L	5.1	5	102	90-110	12/05/2025

Initial and Continuing Calibration Verification

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

RunNo.: LB138132

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Phosphorus, Total	mg/L	0.522	0.50	104	90-110	12/05/2025
Sample ID: CCV1 Phosphorus, Total	mg/L	0.499	0.50	100	90-110	12/05/2025
Sample ID: CCV2 Phosphorus, Total	mg/L	0.507	0.50	101	90-110	12/05/2025
Sample ID: CCV3 Phosphorus, Total	mg/L	0.498	0.50	100	90-110	12/05/2025

Initial and Continuing Calibration Blank Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

RunNo.: LB138070

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	11/03/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	11/03/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	11/03/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	11/03/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	11/03/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	11/03/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	11/03/2025
Sample ID: CCB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	11/26/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	11/26/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	11/26/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	11/26/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	11/26/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	11/26/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	11/26/2025
Sample ID: CCB2							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	11/26/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	11/26/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	11/26/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	11/26/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	11/26/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	11/26/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	11/26/2025

Initial and Continuing Calibration Blank Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

RunNo.: LB138131

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 TKN	mg/L	< 0.2500	0.2500	U	0.11	0.5	12/05/2025
Sample ID: CCB1 TKN	mg/L	< 0.2500	0.2500	U	0.11	0.5	12/05/2025
Sample ID: CCB2 TKN	mg/L	< 0.2500	0.2500	U	0.11	0.5	12/05/2025
Sample ID: CCB3 TKN	mg/L	< 0.2500	0.2500	U	0.11	0.5	12/05/2025

Initial and Continuing Calibration Blank Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

RunNo.: LB138132

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Phosphorus, Total	mg/L	0.010	0.0250	J	0.0045	0.05	12/05/2025
Sample ID: CCB1 Phosphorus, Total	mg/L	0.009	0.0250	J	0.0045	0.05	12/05/2025
Sample ID: CCB2 Phosphorus, Total	mg/L	0.010	0.0250	J	0.0045	0.05	12/05/2025
Sample ID: CCB3 Phosphorus, Total	mg/L	0.010	0.0250	J	0.0045	0.05	12/05/2025

Preparation Blank Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB138060BL							
TSS	mg/L	< 2.0000	2.0000	U	1	4	11/26/2025
Sample ID: LB138064BL							
Oil and Grease	mg/L	< 2.5000	2.5000	U	0.29	5.0	12/01/2025
Sample ID: LB138070BLW							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	11/26/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	11/26/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	11/26/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	11/26/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	11/26/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	11/26/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	11/26/2025
Sample ID: PB170831BL							
TKN	mg/L	< 0.2500	0.2500	U	0.11	0.5	12/05/2025
Sample ID: PB170844BL							
Phosphorus, Total	mg/L	0.009	0.0250	J	0.005	0.05	12/05/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3734
Project:	AEC-2025-0013	Sample ID:	Q3728-01
Client ID:	SW-1MS	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	9.80	OR	0.37	U	10	1	98		11/26/2025
Chloride	mg/L	80-120	10.8		8.00	OR	3	1	93		11/26/2025
Fluoride	mg/L	80-120	2.10		0.11	U	2	1	105		11/26/2025
TKN	mg/L	75-125	5.00		0.62		5	1	88		12/05/2025
Nitrite	mg/L	80-120	2.90		0.074	U	3	1	97		11/26/2025
Nitrate	mg/L	80-120	2.40		0.10	J	2.5	1	92		11/26/2025
Sulfate	mg/L	80-120	16.5		2.50	J	15	1	93		11/26/2025
Orthophosphate as P	mg/L	80-120	4.70		0.34	U	5	1	94		11/26/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3734
Project:	AEC-2025-0013	Sample ID:	Q3728-01
Client ID:	SW-1MSD	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	9.40	OR	0.37	U	10	1	94		11/26/2025
Chloride	mg/L	80-120	10.6		8.00	OR	3	1	87		11/26/2025
Fluoride	mg/L	80-120	1.80		0.11	U	2	1	90		11/26/2025
TKN	mg/L	75-125	5.10		0.62		5	1	90		12/05/2025
Nitrite	mg/L	80-120	2.80		0.074	U	3	1	93		11/26/2025
Nitrate	mg/L	80-120	2.30		0.10	J	2.5	1	88		11/26/2025
Sulfate	mg/L	80-120	16.1		2.50	J	15	1	91		11/26/2025
Orthophosphate as P	mg/L	80-120	4.40		0.34	U	5	1	88		11/26/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3734
Project:	AEC-2025-0013	Sample ID:	Q3778-01
Client ID:	SW-2MS	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
Phosphorus, Total	mg/L	90-110	0.53		0.064		0.5	1	93		12/05/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3734
Project:	AEC-2025-0013	Sample ID:	Q3778-01
Client ID:	SW-2MSD	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
Phosphorus, Total	mg/L	90-110	0.52		0.064		0.5	1	92		12/05/2025

Duplicate Sample Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3734
Project:	AEC-2025-0013	Sample ID:	LB138064BS
Client ID:	LB138064BSD	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	18.9		19.2		1	1.57		12/01/2025

Duplicate Sample Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3734
Project:	AEC-2025-0013	Sample ID:	Q3728-01
Client ID:	SW-1DUP	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
TKN	mg/L	+/-20	0.62		0.63		1	2		12/05/2025

Duplicate Sample Summary

Client: ATG-GREENVILLE AEC	SDG No.: Q3734
Project: AEC-2025-0013	Sample ID: Q3728-01
Client ID: SW-1MSD	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
Fluoride	mg/L	+/-20	2.10		1.80		1	15		11/26/2025
Sulfate	mg/L	+/-20	16.5		16.1		1	2		11/26/2025
Chloride	mg/L	+/-20	10.8	OR	10.6	OR	1	2		11/26/2025
Bromide	mg/L	+/-20	9.80		9.40		1	4		11/26/2025
Nitrate	mg/L	+/-20	2.40		2.30		1	4		11/26/2025
Nitrite	mg/L	+/-20	2.90		2.80		1	4		11/26/2025
Orthophosphate as P	mg/L	+/-20	4.70		4.40		1	7		11/26/2025
TKN	mg/L	+/-20	5.00		5.10		1	2		12/05/2025

Duplicate Sample Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3734
Project:	AEC-2025-0013	Sample ID:	Q3730-02
Client ID:	CompDUP	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TSS	mg/L	+/-5	97.6		98.2		1	0.61		11/26/2025

Duplicate Sample Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3734
Project:	AEC-2025-0013	Sample ID:	Q3778-01
Client ID:	SW-2DUP	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
Phosphorus, Total	mg/L	+/-20	0.064		0.063		1	1.57		12/05/2025

Duplicate Sample Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3734
Project:	AEC-2025-0013	Sample ID:	Q3778-01
Client ID:	SW-2MSD	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
Phosphorus, Total	mg/L	+/-20	0.53		0.52		1	0.95		12/05/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

Run No.: LB138060

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB138060BS							
TSS	mg/L	550	568		103	1	90-110	11/26/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

Run No.: LB138064

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB138064BS							
Oil and Grease	mg/L	20.0	18.9		94	1	78-114	12/01/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

Run No.: LB138064

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB138064BSD							
Oil and Grease	mg/L	20.0	19.2		96	1	78-114	12/01/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

Run No.: LB138070

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB138070BSW							
Bromide	mg/L	10	10.4		104	1	90-110	11/26/2025
Chloride	mg/L	3	3.10		103	1	90-110	11/26/2025
Fluoride	mg/L	2	2.10		105	1	90-110	11/26/2025
Nitrite	mg/L	3	3.10		103	1	90-110	11/26/2025
Nitrate	mg/L	2.5	2.50		100	1	90-110	11/26/2025
Sulfate	mg/L	15	15.4		103	1	90-110	11/26/2025
Orthophosphate as P	mg/L	5	5.00		100	1	90-110	11/26/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

Run No.: LB138131

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170831BS							
TKN	mg/L	5	5.00		100	1	90-110	12/05/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3734

Project: AEC-2025-0013

Run No.: LB138132

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170844BS							
Phosphorus, Total	mg/L	0.50	0.52		104	1	90-110	12/05/2025



RAW DATA

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 11/26/2025

Run Number: LB138060

BalanceID: WC SC-5

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 104 °C 11/26/2025 11:00 TEMP1 OUT: 103 °C 11/26/2025 12:00
 TEMP2 IN: 104 °C 11/26/2025 12:30 TEMP2 OUT: 104 °C 11/26/2025 13:30
 TEMP3 IN: 104 °C 11/26/2025 19:00 TEMP3 OUT: 103 °C 11/26/2025 20:30
 TEMP4 IN: 104 °C 11/26/2025 21:00 TEMP4 OUT: 103 °C 11/26/2025 22:30

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	LB138060BL	LB138060BL	1.7853	1.7854	100	1.7854	1.7854	1.7854	0.0000	0
2	LB138060BS	LB138060BS	1.3526	1.3527	100	1.4095	1.4095	1.4095	0.0568	568
3	Q3727-01	Outfall #1	1.4853	1.4853	1000	1.5008	1.5008	1.5008	0.0155	15.5
4	Q3727-02	Outfall #2	1.5039	1.5039	1000	1.5346	1.5346	1.5346	0.0307	30.7
5	Q3727-03	Outfall #3	1.4692	1.4692	1000	1.5014	1.5014	1.5014	0.0322	32.2
6	Q3727-04	Outfall #4	1.4703	1.4703	1000	1.4748	1.4748	1.4748	0.0045	4.5
7	Q3728-01	SW-1	1.5031	1.5032	1000	1.5395	1.5395	1.5395	0.0363	36.3
8	Q3729-01	1	1.4802	1.4802	200	5.5869	5.5869	5.5869	4.1067	20533.5
9	Q3730-02	Comp	1.4755	1.4755	500	1.5243	1.5243	1.5243	0.0488	97.6
10	Q3730-02DUP	CompDUP	1.4905	1.4905	500	1.5396	1.5396	1.5396	0.0491	98.2
11	Q3734-01	SW-1	1.4679	1.4679	1000	1.5273	1.5273	1.5273	0.0594	59.4
12	Q3734-02	SW-2	1.4774	1.4774	1000	2.2809	2.2809	2.2809	0.8035	803.5

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 11/26/2025

Run Number: LB138060

BalanceID: WC SC-5

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 104 °C 11/26/2025 11:00 **TEMP1 OUT:** 103 °C 11/26/2025 12:00
TEMP2 IN: 104 °C 11/26/2025 12:30 **TEMP2 OUT:** 104 °C 11/26/2025 13:30
TEMP3 IN: 104 °C 11/26/2025 19:00 **TEMP3 OUT:** 103 °C 11/26/2025 20:30
TEMP4 IN: 104 °C 11/26/2025 21:00 **TEMP4 OUT:** 103 °C 11/26/2025 22:30

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)

138060

WorkList Name : tss q3727 WorkList ID : 193353 Department : Wet-Chemistry Date : 11-26-2025 09:09:46

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3727-01	Outfall #1	Water	TSS	Cool 4 deg C	DALT01	A11	11/21/2025	SM2540 D
Q3727-02	Outfall #2	Water	TSS	Cool 4 deg C	DALT01	A11	11/21/2025	SM2540 D
Q3727-03	Outfall #3	Water	TSS	Cool 4 deg C	DALT01	A11	11/21/2025	SM2540 D
Q3727-04	Outfall #4	Water	TSS	Cool 4 deg C	DALT01	A11	11/21/2025	SM2540 D
Q3728-01	SW-1	Water	TSS	Cool 4 deg C	ATGG01	A11	11/25/2025	SM2540 D
Q3729-01	1	Water	TSS	Cool 4 deg C	ATGG01	A11	11/25/2025	SM2540 D
Q3730-02	Comp	Water	TSS	Cool 4 deg C	ARAM01	A11	11/26/2025	SM2540 D
Q3734-01	SW-1	Water	TSS	Cool 4 deg C	ATGG01	A43	11/25/2025	SM2540 D
Q3734-02	SW-2	Water	TSS	Cool 4 deg C	ATGG01	A43	11/25/2025	SM2540 D

Date/Time 11-26-25 18:35

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 11-26-25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Extraction and Analytical Summary Report

Analysis Method: 1664A
Test: Oil and Grease
Run Number: LB138064
Analysis Date: 12/01/2025
BalanceID: WC SC-5
OvenID: EXT OVEN-3

ANALYST: jignesh
REVIEWED BY: Iwona
Extraction Date: 12/01/2025
Extraction IN Time: 08:00
Extraction OUT Time: 08:30
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	LB138064BL	LB138064BL	WATER	1.3	1000	100	3.0524	3.0524	0	3.0525	3.0525	0.0001	0.1
2	LB138064BS	LB138064BS	WATER	1.3	1000	100	2.7453	2.7453	0	2.7642	2.7642	0.0189	18.9
3	LB138064BSD	LB138064BSD	WATER	1.3	1000	100	2.9366	2.9366	0	2.9558	2.9558	0.0192	19.2
4	Q3729-01	1	WATER	1.6	1000	100	3.0586	3.0586	0	3.1009	3.1009	0.0423	42.3
5	Q3734-01	SW-1	WATER	1.3	900	100	3.0345	3.0345	0	3.0388	3.0388	0.0043	4.78
6	Q3734-02	SW-2	WATER	1.3	700	100	3.0718	3.0718	0	3.0762	3.0762	0.0044	6.29

QC Batch# LB138064

Test: Oil and Grease

Analysis Date: 12/01/2025

Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3240
pH Paper 0-14	M6069
Sodium Sulfate	EP2663
1:1 HCL	WP115016
Silica Gel	N/A
Sand	N/A

Standards Used:

Standard Name	Amount Used	Standard Lot #
LCSW	2.5 ML	WP115017
LCSWD	2.5 ML	WP115018
MS/MSD	N/A	N/A

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 : 71 °C Dessicator Time In1 : 09:46

1.0000 gram Balance: 1.0004 (0.9950-1.0050) In Time1: 09:00

Bal Check Time: 08:10 Out OVEN TEMP1: 71 °C Dessicator Time Out1: 10:25

Out Time1: 09:45

After Analysis

0.0020 gram Balance: 0.0019 (0.0018-0.0022) In OVEN TEMP2 : 70 °C Dessicator Time In2 : 11:32

1.0000 gram Balance: 1.0005 (0.9950-1.0050) In Time2: 11:00

Bal Check Time: 12:11 Out OVEN TEMP2: 71 °C Dessicator Time Out2: 12:10

Out Time2: 11:30

W 138064

WORKLIST(Hardcopy Internal Chain)

WorkList Name : OIL & GREASE Q3729 WorkList ID : 193378 Department : Wet-Chemistry Date : 12-01-2025 07:49:47

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3729-01	D 1	Water	Oil and Grease	Conc H2SO4 to pH < 2	ATGG01	A11	11/25/2025	1664A
Q3734-01	D SW-1	Water	Oil and Grease	Conc H2SO4 to pH < 2	ATGG01	A43	11/25/2025	1664A
Q3734-02	D SW-2	Water	Oil and Grease	Conc H2SO4 to pH < 2	ATGG01	A43	11/25/2025	1664A

Date/Time 12/01/25
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

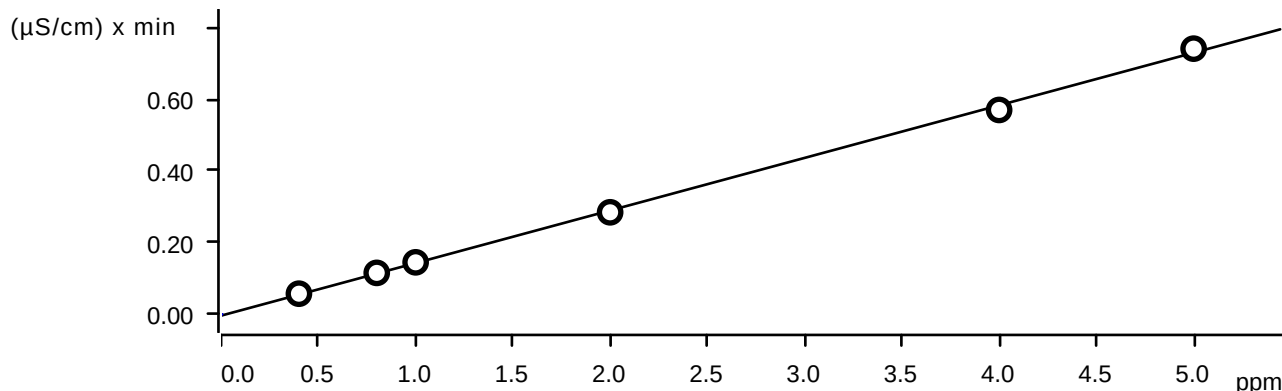
Date/Time 12/01/25
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

Ident	Con F-	Con CL-	Con NO2	Con BR-	Con NO3	Con HPO4	Con SO4	Method name	date time	Initial v	Analyst
STD1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/3/2025 15:58	10	RM/IZ
STD2	0.417	0.655	0.659	2.182	0.549	0.953	3.345	IC1-110325	11/3/2025 16:22	10	RM/IZ
STD3	0.813	1.228	1.228	4.086	1.024	2.097	6.147	IC1-110325	11/3/2025 17:04	10	RM/IZ
STD4	1.014	1.491	1.496	4.984	1.245	2.506	7.444	IC1-110325	11/3/2025 17:47	10	RM/IZ
STD5	1.966	2.918	2.907	9.724	2.426	5.166	14.580	IC1-110325	11/3/2025 18:08	10	RM/IZ
STD6	3.912	5.914	5.907	19.694	4.918	9.286	29.234	IC1-110325	11/3/2025 18:30	10	RM/IZ
STD7	5.078	7.595	7.603	25.330	6.339	12.992	37.751	IC1-110325	11/3/2025 18:51	10	RM/IZ
ICV	1.960	2.885	2.908	9.698	2.364	5.176	14.547	IC1-110325	11/3/2025 19:13	10	RM/IZ
ICB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/3/2025 19:34	10	RM/IZ
CCB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/26/2025 9:35	10	RM/IZ
LB138070BLW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/26/2025 9:57	10	RM/IZ
LB138070BSW	2.086	3.100	3.107	10.443	2.548	5.018	15.425	IC1-110325	11/26/2025 10:18	10	RM/IZ
Q3728-01	0.000	7.993	0.000	0.000	0.100	0.000	2.505	IC1-110325	11/26/2025 13:10	10	RM/IZ
Q3728-01MS	2.057	10.811	2.933	9.817	2.421	4.713	16.545	IC1-110325	11/26/2025 13:31	10	RM/IZ
Q3728-01MSD	1.831	10.613	2.817	9.397	2.324	4.377	16.097	IC1-110325	11/26/2025 13:53	10	RM/IZ
Q3734-01	0.516	157.927	0.098	0.000	0.204	0.000	32.040	IC1-110325	11/26/2025 14:58	10	RM/IZ
Q3734-02	0.200	17.273	0.107	0.000	0.202	0.000	28.222	IC1-110325	11/26/2025 15:19	10	RM/IZ
CCV	2.075	3.092	3.118	10.412	2.539	5.108	15.376	IC1-110325	11/26/2025 15:41	10	RM/IZ
CCB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/26/2025 16:02	10	RM/IZ

Clear table

Instrument ID: IC-2 Analyst : IZ Method: 300.0 / 9056A											
ident	concentra tion F-	concentratio n CL-	concentrati on NO2	concentrati on BR-	concentrati on NO3	concentrati on HPO4	concentrati on SO4	file name	date time	Initial wt/ Final	Analyst
STD1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	IC1-110325	11/3/2025 15:58	10	RM/IZ
STD2	0.4170	0.6550	0.6590	2.1820	0.5490	0.9530	3.3450	IC1-110325	11/3/2025 16:22	10	RM/IZ
STD3	0.8130	1.2280	1.2280	4.0860	1.0240	2.0970	6.1470	IC1-110325	11/3/2025 17:04	10	RM/IZ
STD4	1.0140	1.4910	1.4960	4.9840	1.2450	2.5060	7.4440	IC1-110325	11/3/2025 17:47	10	RM/IZ
STD5	1.9660	2.9180	2.9070	9.7240	2.4260	5.1660	14.5800	IC1-110325	11/3/2025 18:08	10	RM/IZ
STD6	3.9120	5.9140	5.9070	19.6940	4.9180	9.2860	29.2340	IC1-110325	11/3/2025 18:30	10	RM/IZ
STD7	5.0780	7.5950	7.6030	25.3300	6.3390	12.9920	37.7510	IC1-110325	11/3/2025 18:51	10	RM/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	4.2500	9.1667	9.8333	9.1000	9.8000	-4.7000	11.5000				
STD2	1.6250	2.3333	2.3333	2.1500	2.4000	4.8500	2.4500				
STD3	1.4000	-0.6000	-0.2667	-0.3200	-0.4000	0.2400	-0.7467				
STD4	-1.7000	-2.7333	-3.1000	-2.7600	-2.9600	3.3200	-2.8000				
STD5	-2.2000	-1.4333	-1.5500	-1.5300	-1.6400	-7.1400	-2.5533				
STD6	1.5600	1.2667	1.3733	1.3200	1.4240	3.9360	2.0297				

Fluoride (Anions)



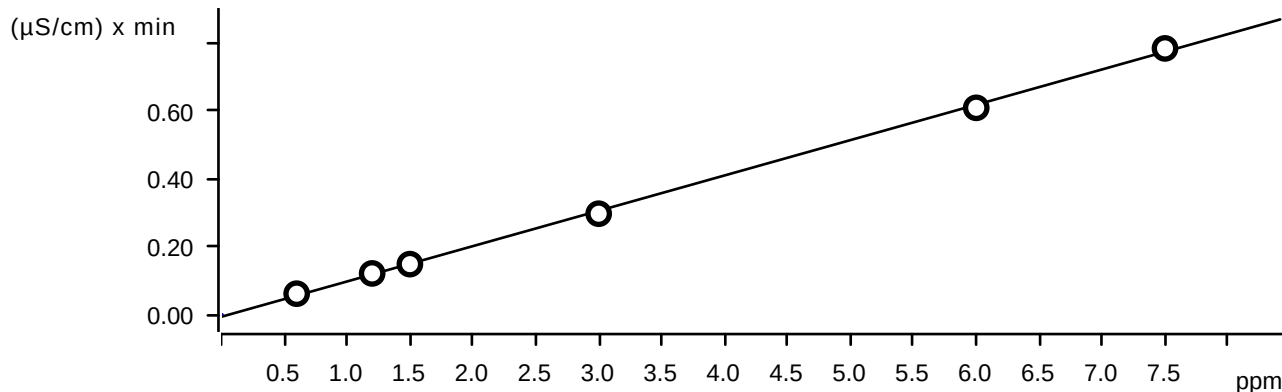
Function: $A = -3.63197E-3 + 0.0146595 \times Q$

Relative standard deviation 2.880512 %

Correlation coefficient 0.999558

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	2025-11-03 15:58:57 UTC-5	used
Standard 2	1	0.400	10.0	1.0	1.0	0.058	STD2	2025-11-03 16:22:03 UTC-5	used
Standard 3	1	0.800	10.0	1.0	1.0	0.116	STD3	2025-11-03 17:04:52 UTC-5	used
Standard 4	1	1.000	10.0	1.0	1.0	0.145	STD4	2025-11-03 17:47:32 UTC-5	used
Standard 5	1	2.000	10.0	1.0	1.0	0.285	STD5	2025-11-03 18:08:59 UTC-5	used
Standard 6	1	4.000	10.0	1.0	1.0	0.570	STD6	2025-11-03 18:30:25 UTC-5	used
Standard 7	1	5.000	10.0	1.0	1.0	0.741	STD7	2025-11-03 18:51:52 UTC-5	used

Chloride (Anions)

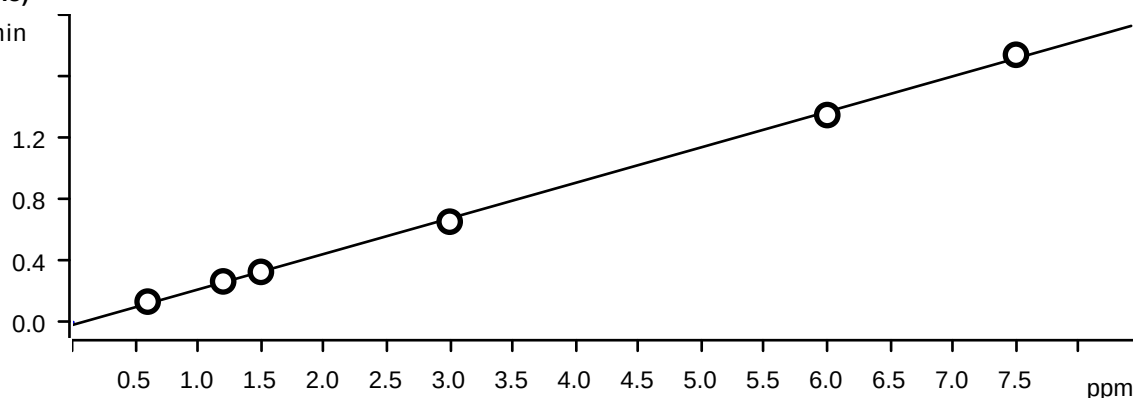


Function: $A = -7.14286E-3 + 0.0104011 \times Q$

Relative standard deviation 2.544562 %

Correlation coefficient 0.999662

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	2025-11-03 15:58:57 UTC-5	used
Standard 2	1	0.600	10.0	1.0	1.0	0.061	STD2	2025-11-03 16:22:03 UTC-5	used
Standard 3	1	1.200	10.0	1.0	1.0	0.121	STD3	2025-11-03 17:04:52 UTC-5	used
Standard 4	1	1.500	10.0	1.0	1.0	0.148	STD4	2025-11-03 17:47:32 UTC-5	used
Standard 5	1	3.000	10.0	1.0	1.0	0.296	STD5	2025-11-03 18:08:59 UTC-5	used
Standard 6	1	6.000	10.0	1.0	1.0	0.608	STD6	2025-11-03 18:30:25 UTC-5	used
Standard 7	1	7.500	10.0	1.0	1.0	0.783	STD7	2025-11-03 18:51:52 UTC-5	used

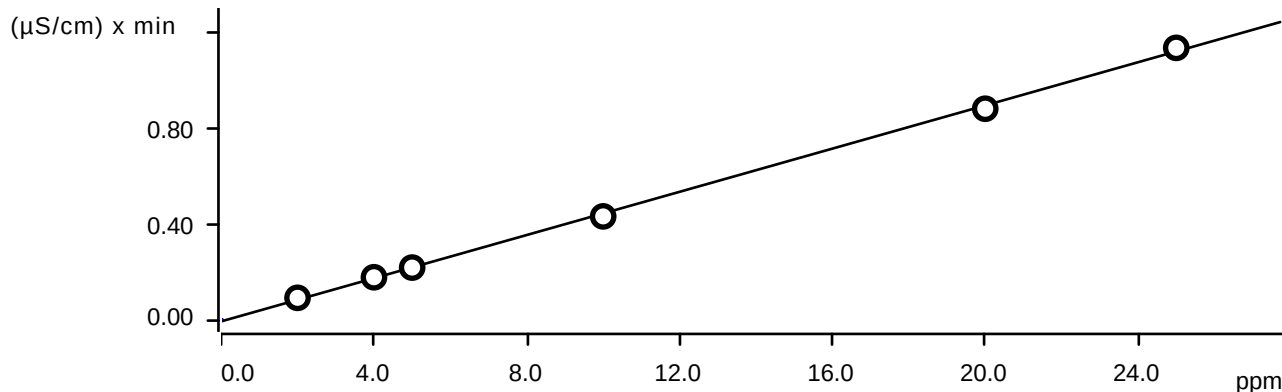
Nitrite (Anions) $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -0.0188106 + 0.0231263 \times Q$

Relative standard deviation 2.785229 %

Correlation coefficient 0.999598

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	2025-11-03 15:58:57 UTC-5	used
Standard 2	1	0.600	10.0	1.0	1.0	0.134	STD2	2025-11-03 16:22:03 UTC-5	used
Standard 3	1	1.200	10.0	1.0	1.0	0.265	STD3	2025-11-03 17:04:52 UTC-5	used
Standard 4	1	1.500	10.0	1.0	1.0	0.327	STD4	2025-11-03 17:47:32 UTC-5	used
Standard 5	1	3.000	10.0	1.0	1.0	0.654	STD5	2025-11-03 18:08:59 UTC-5	used
Standard 6	1	6.000	10.0	1.0	1.0	1.347	STD6	2025-11-03 18:30:25 UTC-5	used
Standard 7	1	7.500	10.0	1.0	1.0	1.740	STD7	2025-11-03 18:51:52 UTC-5	used

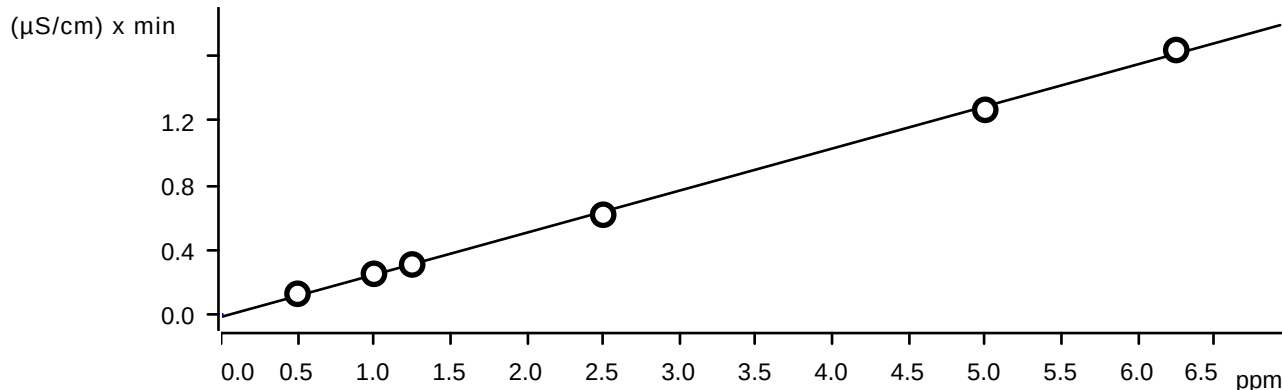
Bromide (Anions)



Function: $A = -8.73633E-3 + 4.51609E-3 \times Q$
 Relative standard deviation: 2.618377 %
 Correlation coefficient: 0.999640

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	2025-11-03 15:58:57 UTC-5	used
Standard 2	1	2.000	10.0	1.0	1.0	0.090	STD2	2025-11-03 16:22:03 UTC-5	used
Standard 3	1	4.000	10.0	1.0	1.0	0.176	STD3	2025-11-03 17:04:52 UTC-5	used
Standard 4	1	5.000	10.0	1.0	1.0	0.216	STD4	2025-11-03 17:47:32 UTC-5	used
Standard 5	1	10.000	10.0	1.0	1.0	0.430	STD5	2025-11-03 18:08:59 UTC-5	used
Standard 6	1	20.000	10.0	1.0	1.0	0.881	STD6	2025-11-03 18:30:25 UTC-5	used
Standard 7	1	25.000	10.0	1.0	1.0	1.135	STD7	2025-11-03 18:51:52 UTC-5	used

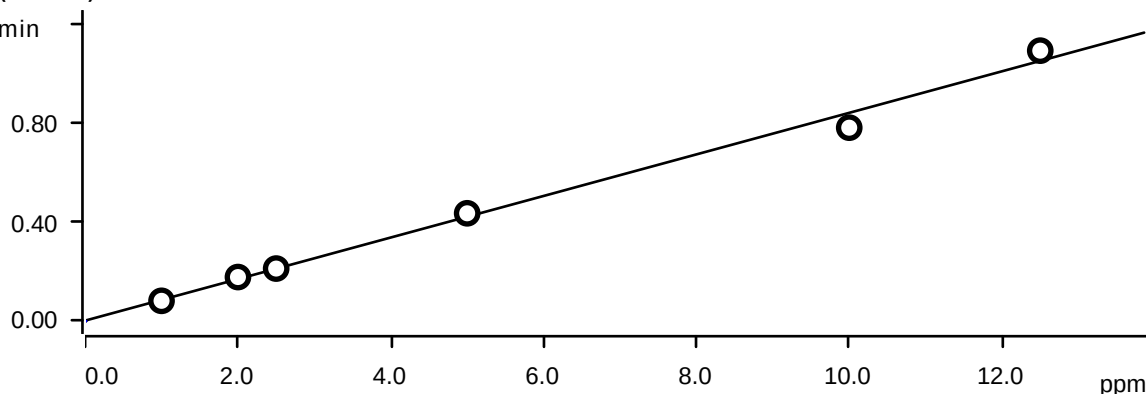
Nitrate (Anions)



Function: $A = -0.0164240 + 0.0260850 \times Q$
 Relative standard deviation: 2.824357 %

Correlation coefficient 0.999585

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	2025-11-03 15:58:57 UTC-5	used
Standard 2	1	0.500	10.0	1.0	1.0	0.127	STD2	2025-11-03 16:22:03 UTC-5	used
Standard 3	1	1.000	10.0	1.0	1.0	0.251	STD3	2025-11-03 17:04:52 UTC-5	used
Standard 4	1	1.250	10.0	1.0	1.0	0.308	STD4	2025-11-03 17:47:32 UTC-5	used
Standard 5	1	2.500	10.0	1.0	1.0	0.616	STD5	2025-11-03 18:08:59 UTC-5	used
Standard 6	1	5.000	10.0	1.0	1.0	1.266	STD6	2025-11-03 18:30:25 UTC-5	used
Standard 7	1	6.250	10.0	1.0	1.0	1.637	STD7	2025-11-03 18:51:52 UTC-5	used

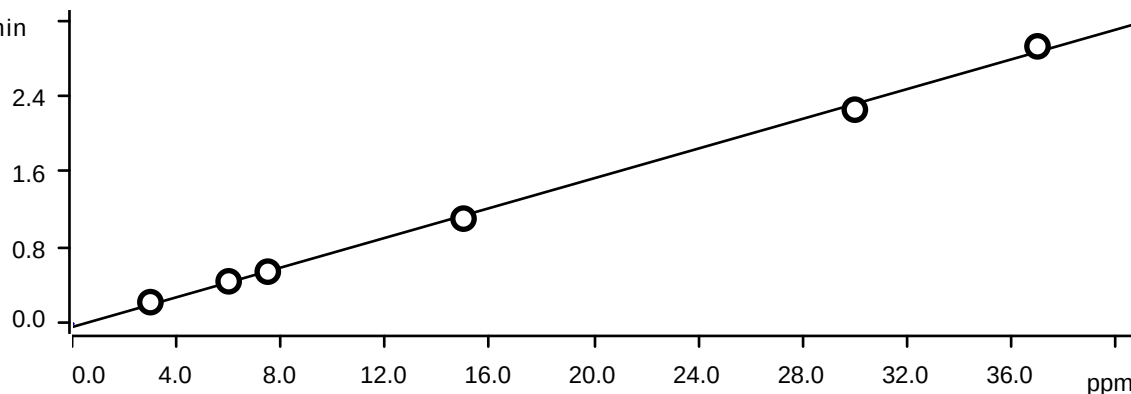
Phosphate (Anions) $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = 1.95294E-3 + 8.36815E-3 \times Q$

Relative standard deviation 8.053642 %

Correlation coefficient 0.996454

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	2025-11-03 15:58:57 UTC-5	used
Standard 2	1	1.000	10.0	1.0	1.0	0.082	STD2	2025-11-03 16:22:03 UTC-5	used
Standard 3	1	2.000	10.0	1.0	1.0	0.177	STD3	2025-11-03 17:04:52 UTC-5	used
Standard 4	1	2.500	10.0	1.0	1.0	0.212	STD4	2025-11-03 17:47:32 UTC-5	used
Standard 5	1	5.000	10.0	1.0	1.0	0.434	STD5	2025-11-03 18:08:59 UTC-5	used
Standard 6	1	10.000	10.0	1.0	1.0	0.779	STD6	2025-11-03 18:30:25 UTC-5	used
Standard 7	1	12.500	10.0	1.0	1.0	1.089	STD7	2025-11-03 18:51:52 UTC-5	used

Sulfate (Anions)

 $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -0.0341972 + 7.83080E-3 \times Q$

Relative standard deviation 3.795793 %

Correlation coefficient 0.999249

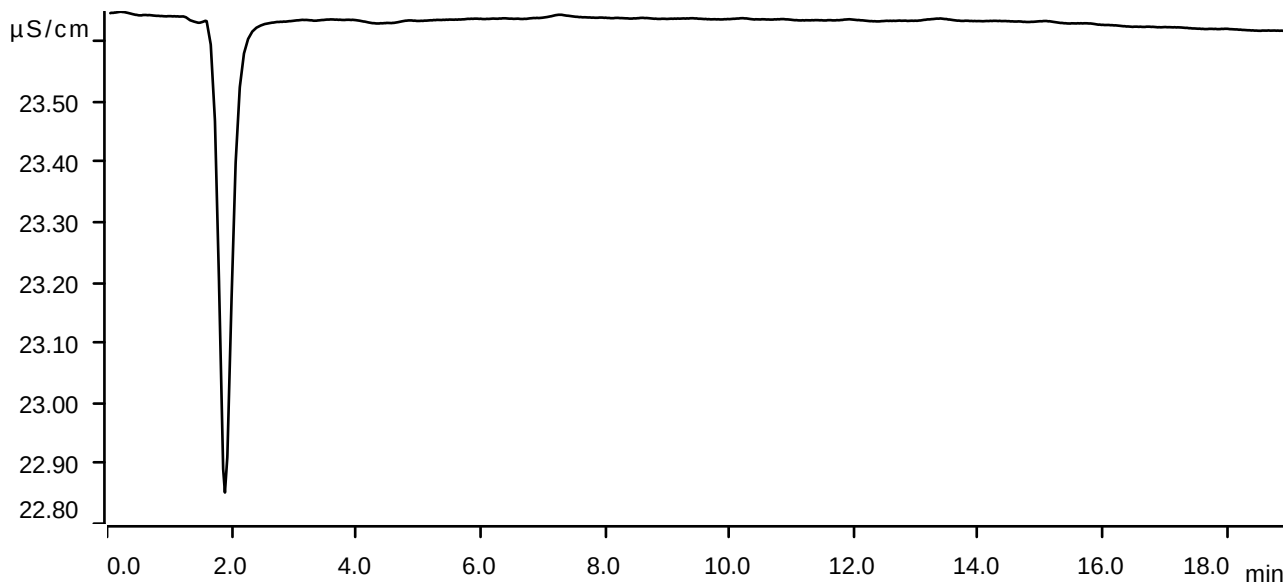
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 1	1	0.000	10.0	1.0	1.0	n. d.	STD1	2025-11-03 15:58:57 UTC-5	used
Standard 2	1	3.000	10.0	1.0	1.0	0.228	STD2	2025-11-03 16:22:03 UTC-5	used
Standard 3	1	6.000	10.0	1.0	1.0	0.447	STD3	2025-11-03 17:04:52 UTC-5	used
Standard 4	1	7.500	10.0	1.0	1.0	0.549	STD4	2025-11-03 17:47:32 UTC-5	used
Standard 5	1	15.000	10.0	1.0	1.0	1.108	STD5	2025-11-03 18:08:59 UTC-5	used
Standard 6	1	30.000	10.0	1.0	1.0	2.255	STD6	2025-11-03 18:30:25 UTC-5	used
Standard 7	1	37.000	10.0	1.0	1.0	2.922	STD7	2025-11-03 18:51:52 UTC-5	used

Sample data

Ident STD1
Sample type Standard 1
Determination start 2025-11-03 15:58:57 UTC-5
Method IC1-110325
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

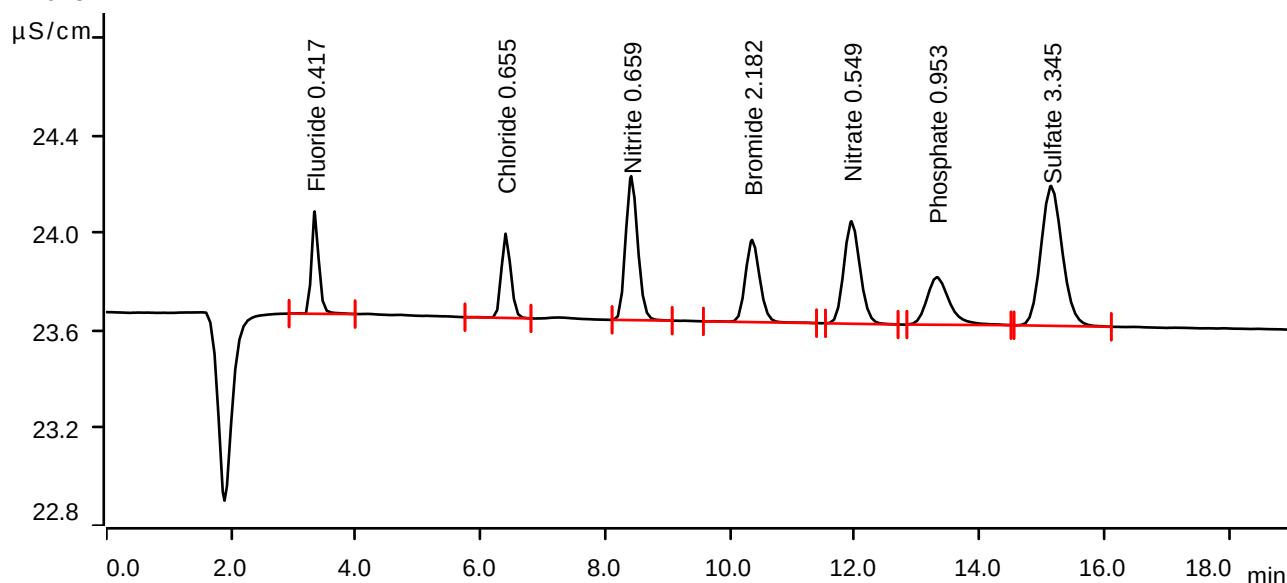
Sample data

Ident STD2
Sample type Standard 2
Determination start 2025-11-03 16:22:03 UTC-5
Method IC1-110325
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 12.27 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	3.340	0.0576	0.420	0.417	Fluoride
2	6.402	0.0609	0.345	0.655	Chloride
3	8.415	0.1336	0.590	0.659	Nitrite
4	10.353	0.0898	0.337	2.182	Bromide
5	11.947	0.1268	0.420	0.549	Nitrate
6	13.317	0.0817	0.195	0.953	Phosphate
7	15.147	0.2277	0.574	3.345	Sulfate

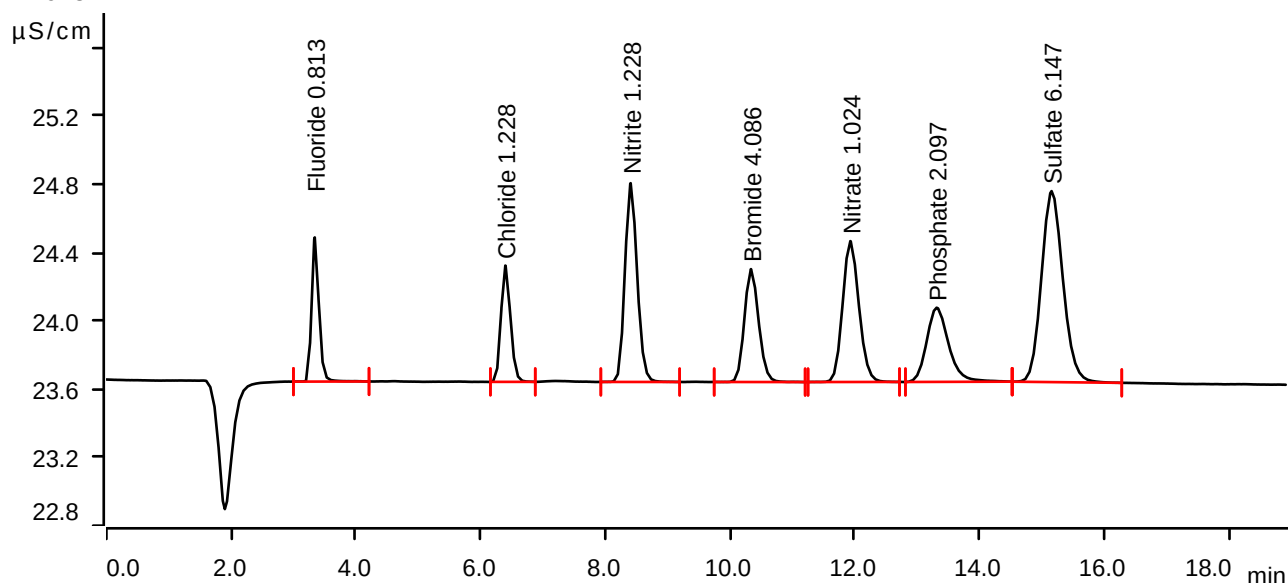
Sample data

Ident STD3
Sample type Standard 3
Determination start 2025-11-03 17:04:52 UTC-5
Method IC1-110325
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 12.27 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	3.342	0.1156	0.844	0.813	Fluoride
2	6.397	0.1206	0.681	1.228	Chloride
3	8.407	0.2651	1.164	1.228	Nitrite
4	10.337	0.1758	0.661	4.086	Bromide
5	11.928	0.2506	0.825	1.024	Nitrate
6	13.312	0.1774	0.435	2.097	Phosphate
7	15.155	0.4471	1.119	6.147	Sulfate

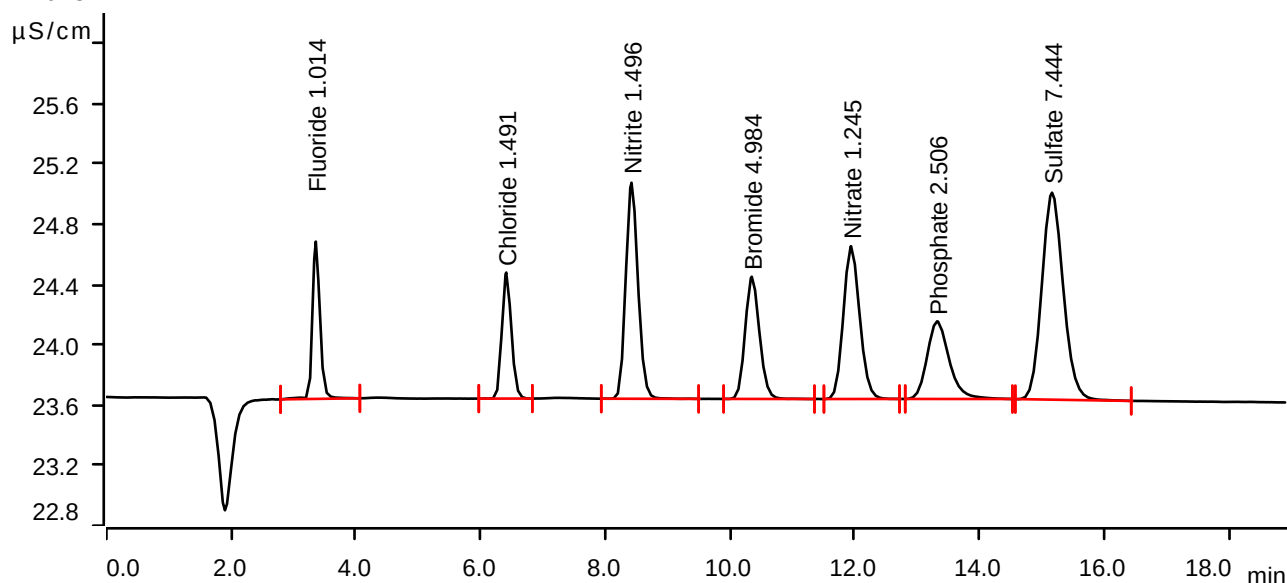
Sample data

Ident STD4
Sample type Standard 4
Determination start 2025-11-03 17:47:32 UTC-5
Method IC1-110325
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	3.358	0.1450	1.044	1.014	Fluoride
2	6.412	0.1479	0.837	1.491	Chloride
3	8.420	0.3271	1.434	1.496	Nitrite
4	10.348	0.2164	0.811	4.984	Bromide
5	11.940	0.3084	1.014	1.245	Nitrate
6	13.320	0.2117	0.516	2.506	Phosphate
7	15.162	0.5487	1.374	7.444	Sulfate

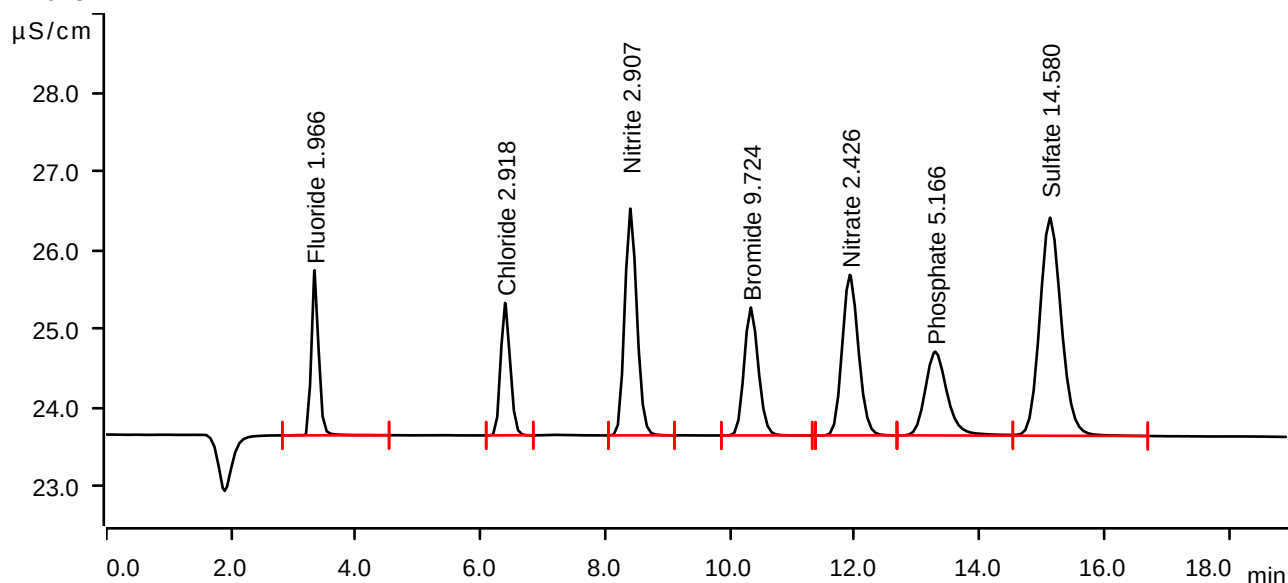
Sample data

Ident STD5
Sample type Standard 5
Determination start 2025-11-03 18:08:59 UTC-5
Method IC1-110325
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	3.338	0.2845	2.095	1.966	Fluoride
2	6.393	0.2963	1.681	2.918	Chloride
3	8.403	0.6535	2.878	2.907	Nitrite
4	10.332	0.4304	1.624	9.724	Bromide
5	11.920	0.6163	2.038	2.426	Nitrate
6	13.290	0.4342	1.063	5.166	Phosphate
7	15.128	1.1075	2.767	14.580	Sulfate

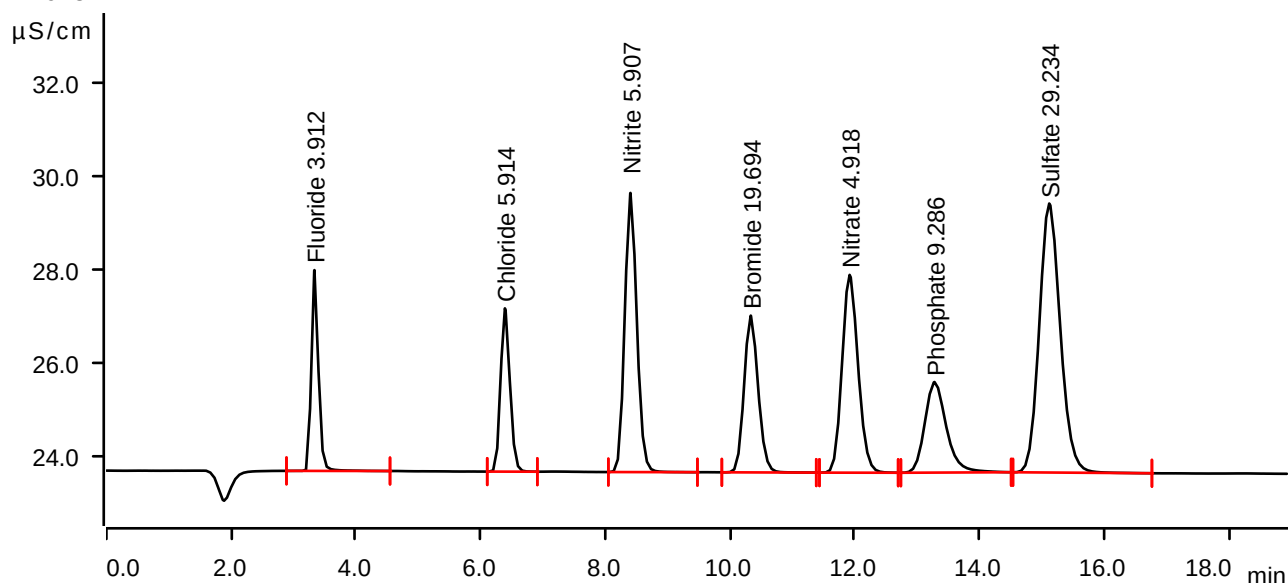
Sample data

Ident STD6
Sample type Standard 6
Determination start 2025-11-03 18:30:25 UTC-5
Method IC1-110325
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 12.50 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	3.337	0.5698	4.312	3.912	Fluoride
2	6.390	0.6080	3.506	5.914	Chloride
3	8.403	1.3473	5.995	5.907	Nitrite
4	10.330	0.8806	3.367	19.694	Bromide
5	11.917	1.2665	4.248	4.918	Nitrate
6	13.278	0.7790	1.945	9.286	Phosphate
7	15.117	2.2550	5.777	29.234	Sulfate

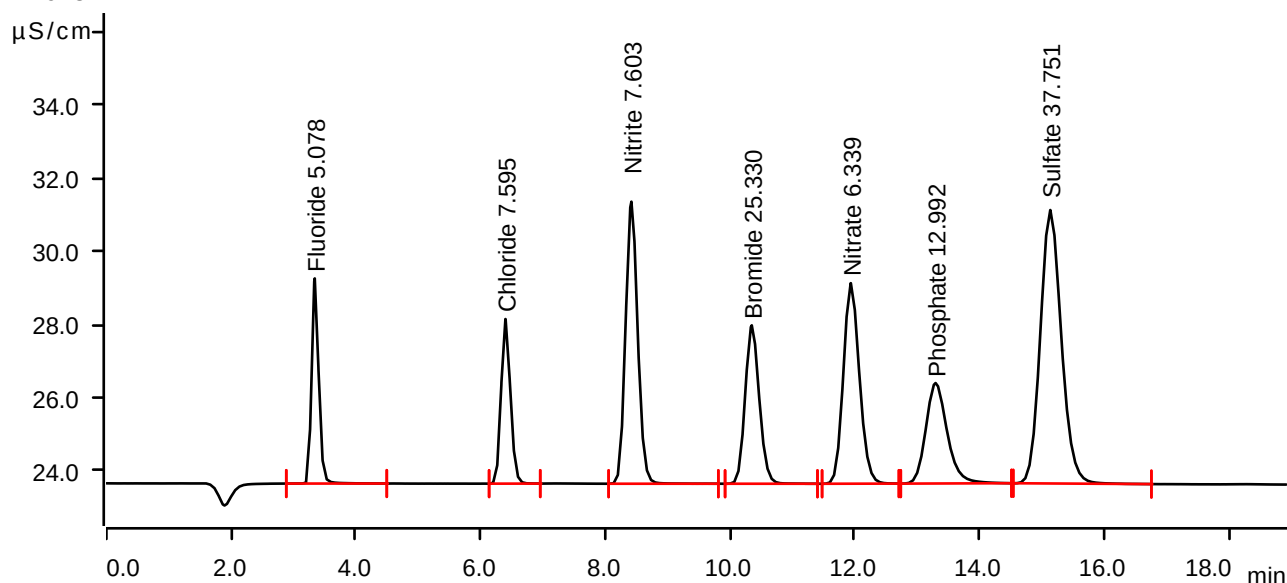
Sample data

Ident STD7
Sample type Standard 7
Determination start 2025-11-03 18:51:52 UTC-5
Method IC1-110325
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 12.50 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	3.342	0.7408	5.606	5.078	Fluoride
2	6.398	0.7828	4.499	7.595	Chloride
3	8.418	1.7395	7.709	7.603	Nitrite
4	10.348	1.1352	4.330	25.330	Bromide
5	11.937	1.6370	5.482	6.339	Nitrate
6	13.295	1.0891	2.746	12.992	Phosphate
7	15.133	2.9220	7.473	37.751	Sulfate

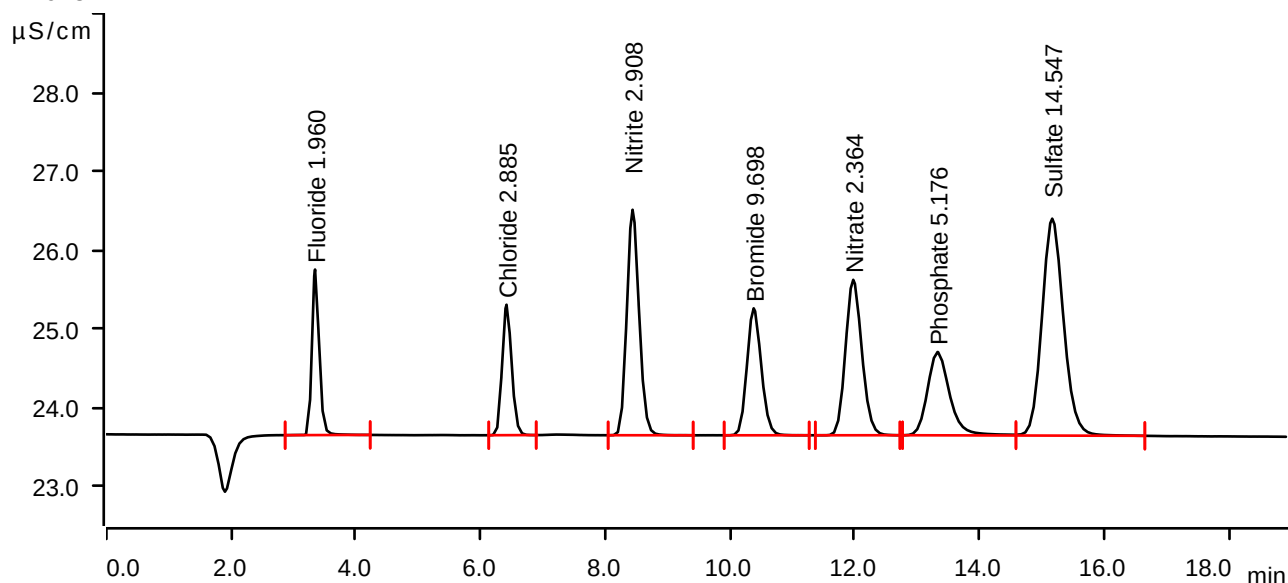
Sample data

Ident ICV
Sample type Check standard 1
Determination start 2025-11-03 19:13:20 UTC-5
Method IC1-110325
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



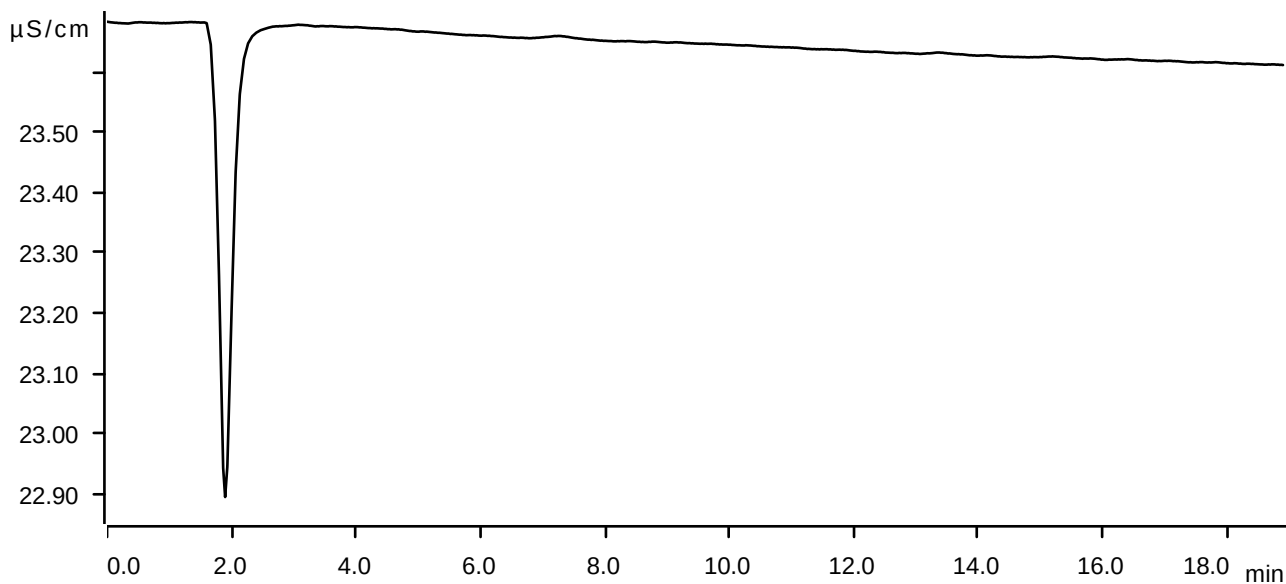
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.347	0.2837	2.100	1.960	Fluoride
2	6.417	0.2929	1.656	2.885	Chloride
3	8.437	0.6536	2.862	2.908	Nitrite
4	10.378	0.4292	1.611	9.698	Bromide
5	11.975	0.6003	1.973	2.364	Nitrate
6	13.327	0.4351	1.058	5.176	Phosphate
7	15.165	1.1050	2.753	14.547	Sulfate

Sample data

Ident ICB
Sample type Sample
Determination start 2025-11-03 19:34:48 UTC-5
Method IC1-110325
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

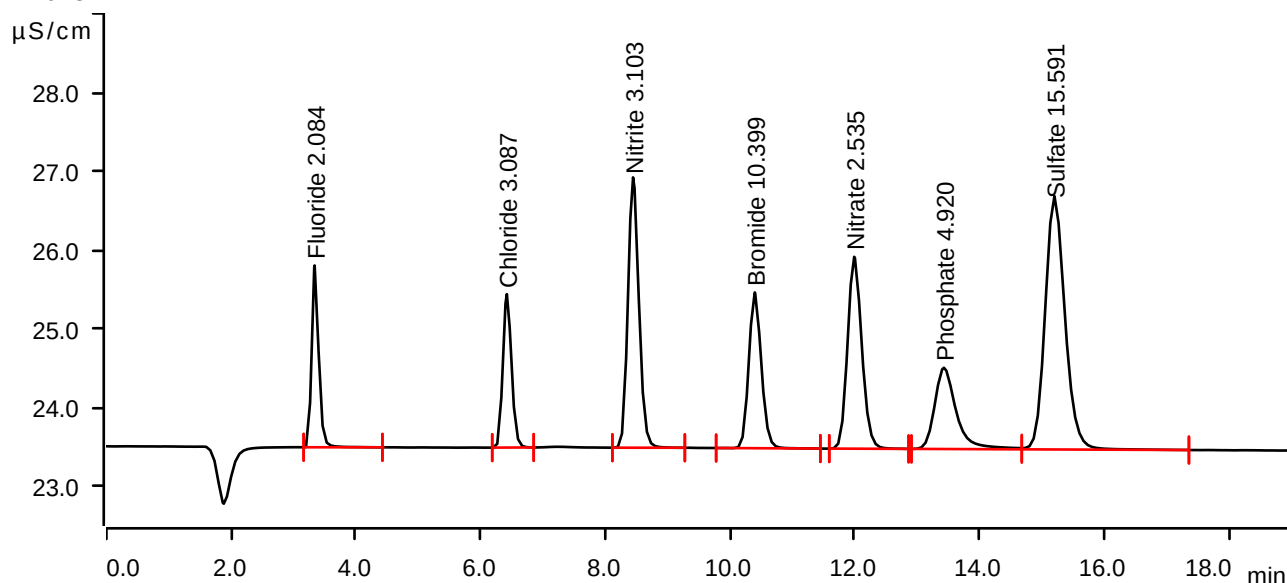
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2025-11-26 09:14:26 UTC-5
Method IC1-110325
Operator

Anions

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

Anions



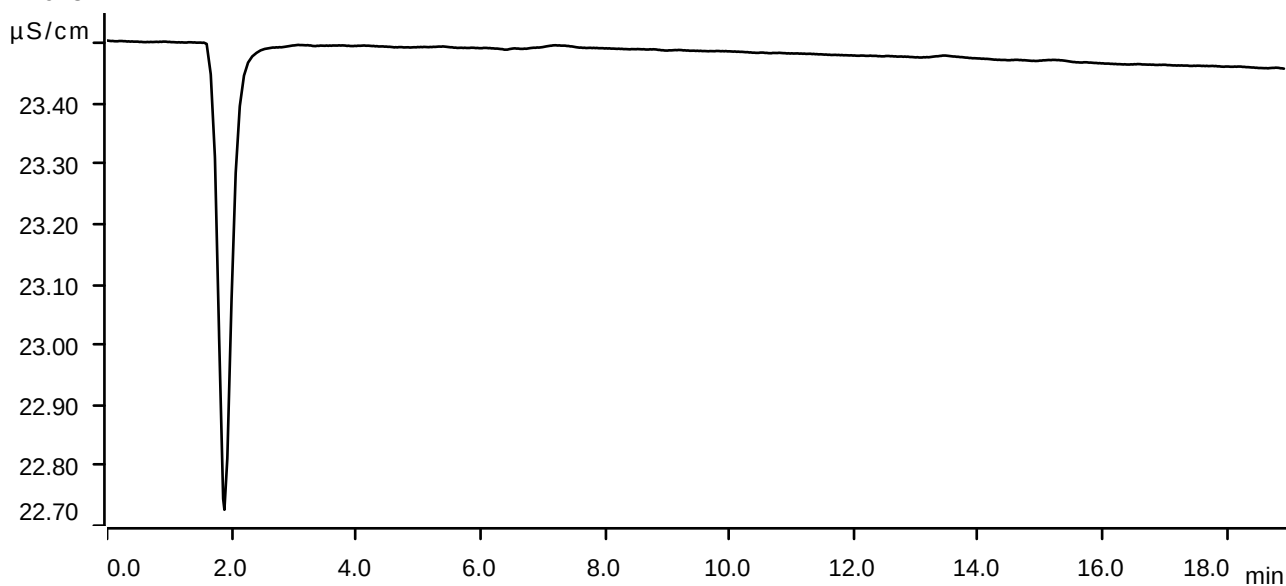
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.340	0.3019	2.306	2.084	Fluoride
2	6.422	0.3140	1.947	3.087	Chloride
3	8.445	0.6987	3.430	3.103	Nitrite
4	10.395	0.4609	1.977	10.399	Bromide
5	11.990	0.6449	2.435	2.535	Nitrate
6	13.428	0.4137	1.031	4.920	Phosphate
7	15.200	1.1867	3.214	15.591	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2025-11-26 09:35:57 UTC-5
Method IC1-110325
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

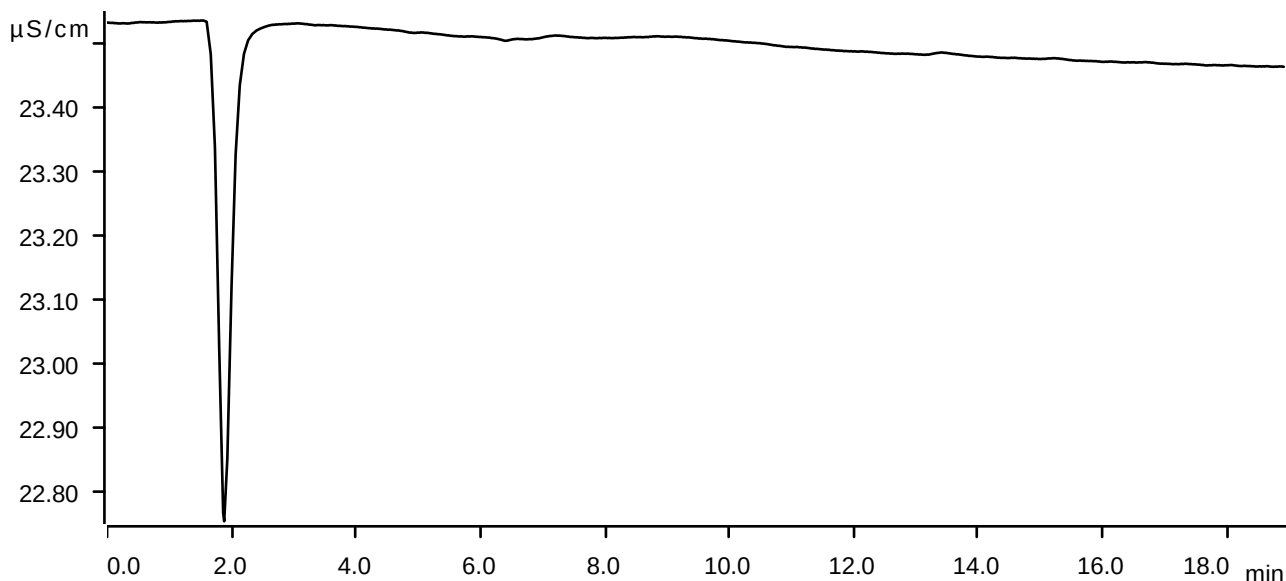
Anions

Sample data

Ident LB138070BLW
Sample type Sample
Determination start 2025-11-26 09:57:27 UTC-5
Method IC1-110325
Operator

Anions

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

Anions

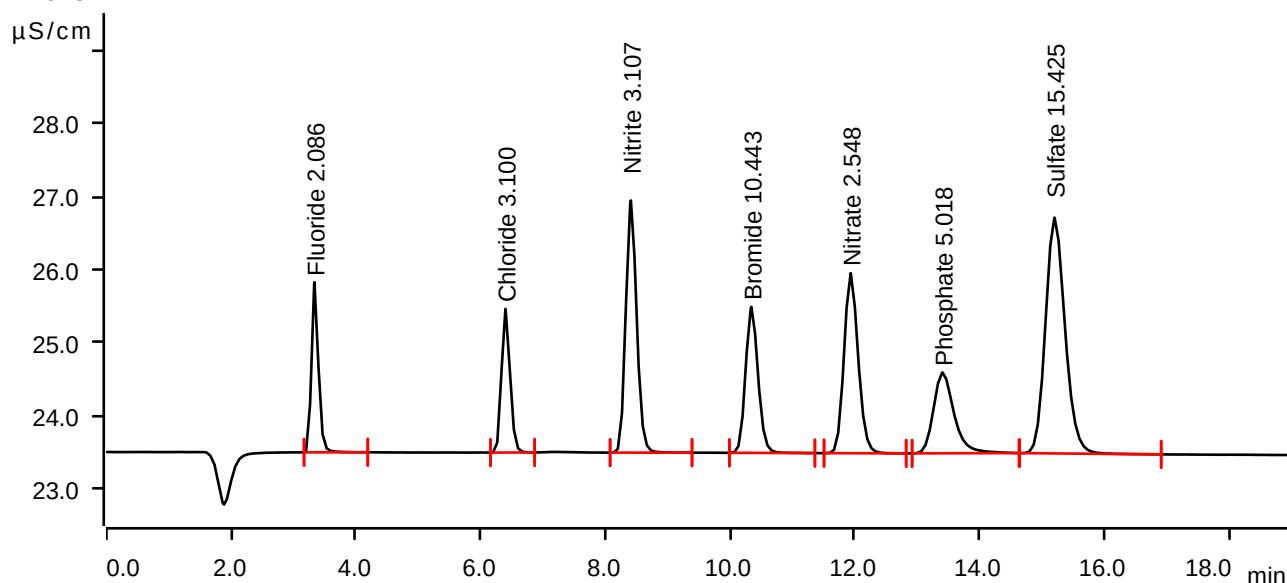
Sample data

Ident LB138070BSW
Sample type Check standard 1
Determination start 2025-11-26 10:18:58 UTC-5
Method IC1-110325
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	3.337	0.3022	2.325	2.086	Fluoride
2	6.398	0.3153	1.963	3.100	Chloride
3	8.410	0.6997	3.446	3.107	Nitrite
4	10.342	0.4629	1.995	10.443	Bromide
5	11.933	0.6482	2.461	2.548	Nitrate
6	13.407	0.4219	1.105	5.018	Phosphate
7	15.203	1.1737	3.222	15.425	Sulfate

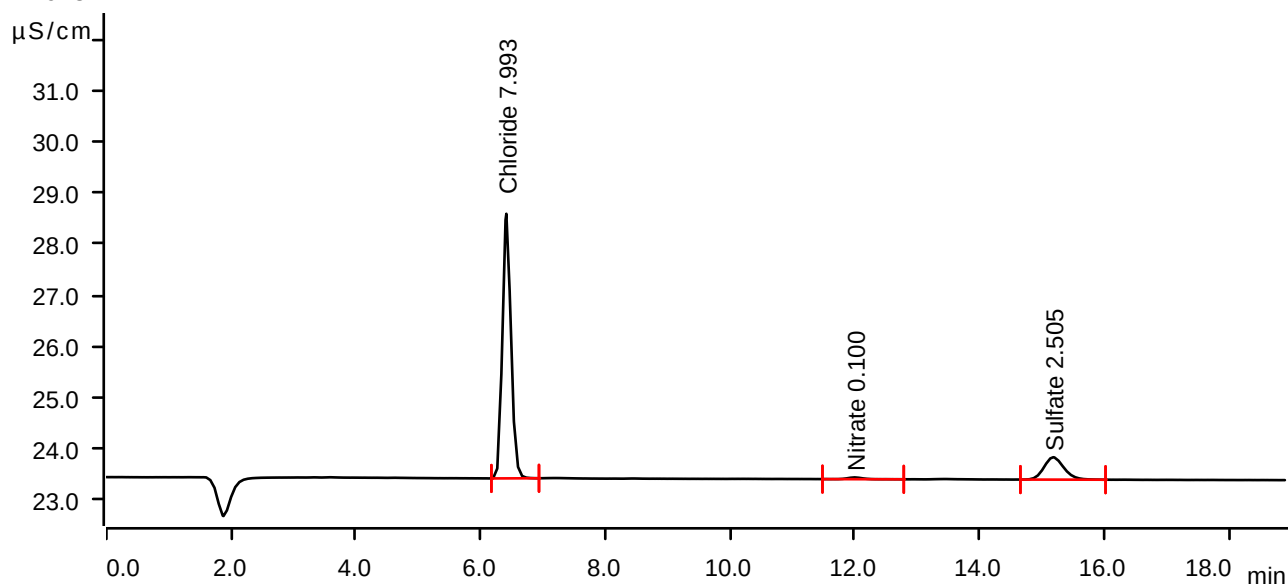
Sample data

Ident Q3728-01
Sample type Sample
Determination start 2025-11-26 13:10:26 UTC-5
Method IC1-110325
Operator

Anions

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

Anions



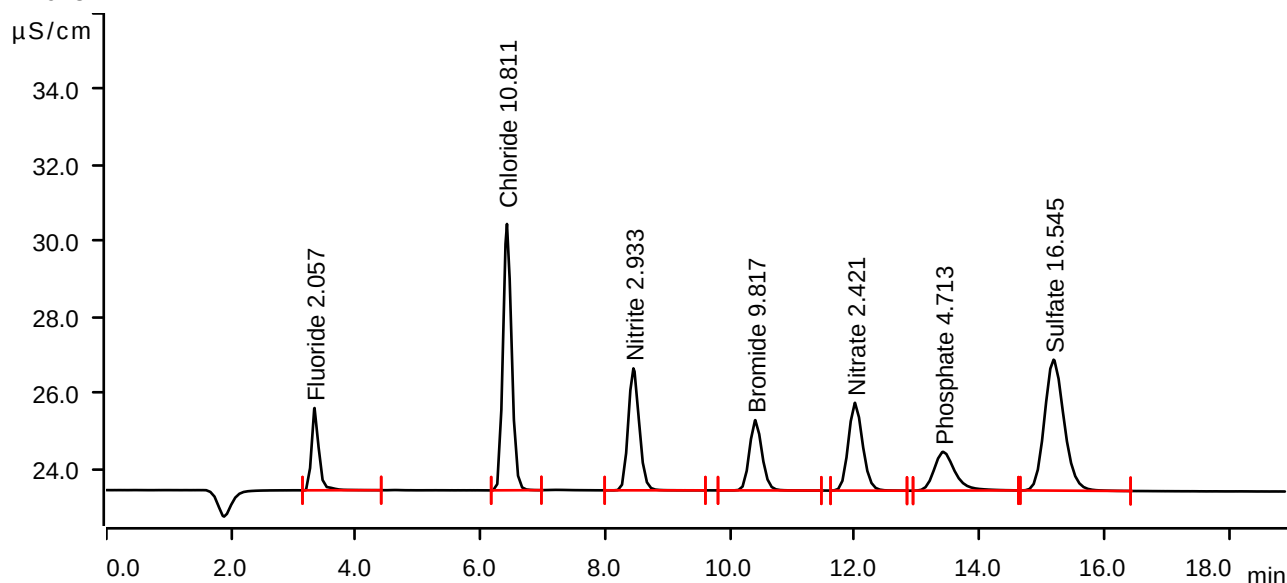
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	6.413	0.8242	5.165	7.993	Chloride
2	11.998	0.0096	0.034	0.100	Nitrate
3	15.182	0.1619	0.437	2.505	Sulfate

Sample data

Ident Q3728-01MS
 Sample type Sample
 Determination start 2025-11-26 13:31:58 UTC-5
 Method IC1-110325
 Operator

Anions

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

Anions

Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.338	0.2980	2.168	2.057	Fluoride
2	6.423	1.1173	7.019	10.811	Chloride
3	8.450	0.6596	3.214	2.933	Nitrite
4	10.405	0.4346	1.853	9.817	Bromide
5	12.003	0.6152	2.313	2.421	Nitrate
6	13.417	0.3964	1.023	4.713	Phosphate
7	15.187	1.2614	3.450	16.545	Sulfate

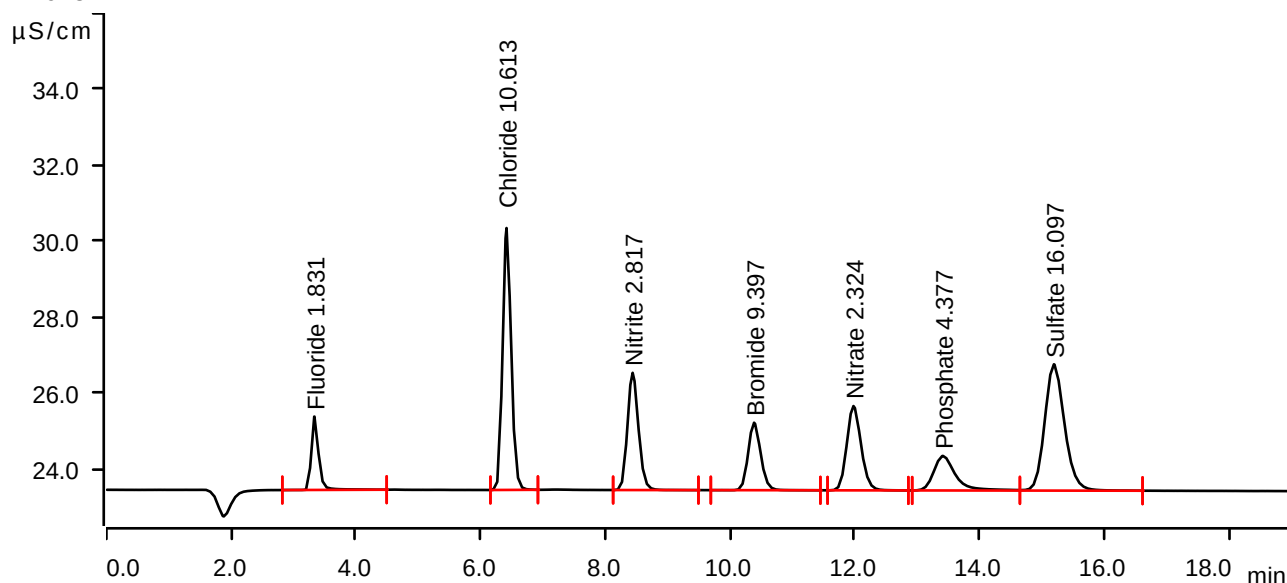
Sample data

Ident Q3728-01MSD
Sample type Sample
Determination start 2025-11-26 13:53:32 UTC-5
Method IC1-110325
Operator

Anions

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

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.337	0.2648	1.935	1.831	Fluoride
2	6.417	1.0967	6.902	10.613	Chloride
3	8.438	0.6327	3.090	2.817	Nitrite
4	10.385	0.4157	1.779	9.397	Bromide
5	11.978	0.5897	2.222	2.324	Nitrate
6	13.413	0.3682	0.911	4.377	Phosphate
7	15.192	1.2263	3.330	16.097	Sulfate

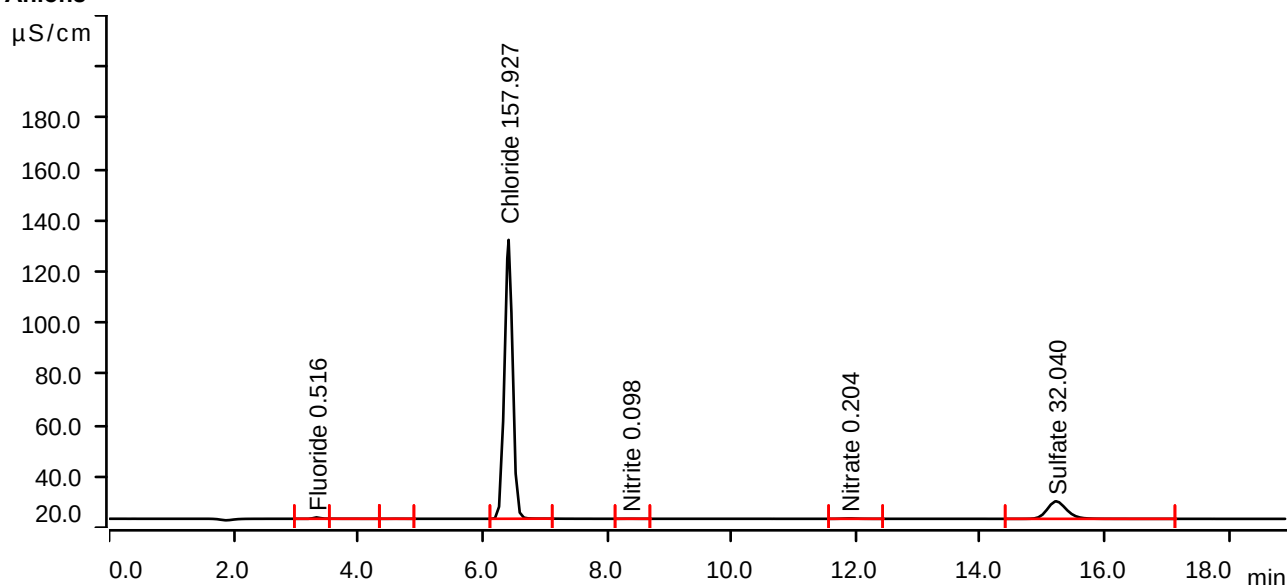
Sample data

Ident Q3734-01
Sample type Sample
Determination start 2025-11-26 14:58:07 UTC-5
Method IC1-110325
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	3.333	0.0720	0.540	0.516	Fluoride
2	3.600	0.0068	0.028	invalid	
3	4.615	0.0029	0.016	invalid	
4	6.422	16.4189	108.883	157.927	Chloride
5	8.377	0.0039	0.019	0.098	Nitrite
6	11.895	0.0368	0.140	0.204	Nitrate
7	15.220	2.4748	6.844	32.040	Sulfate

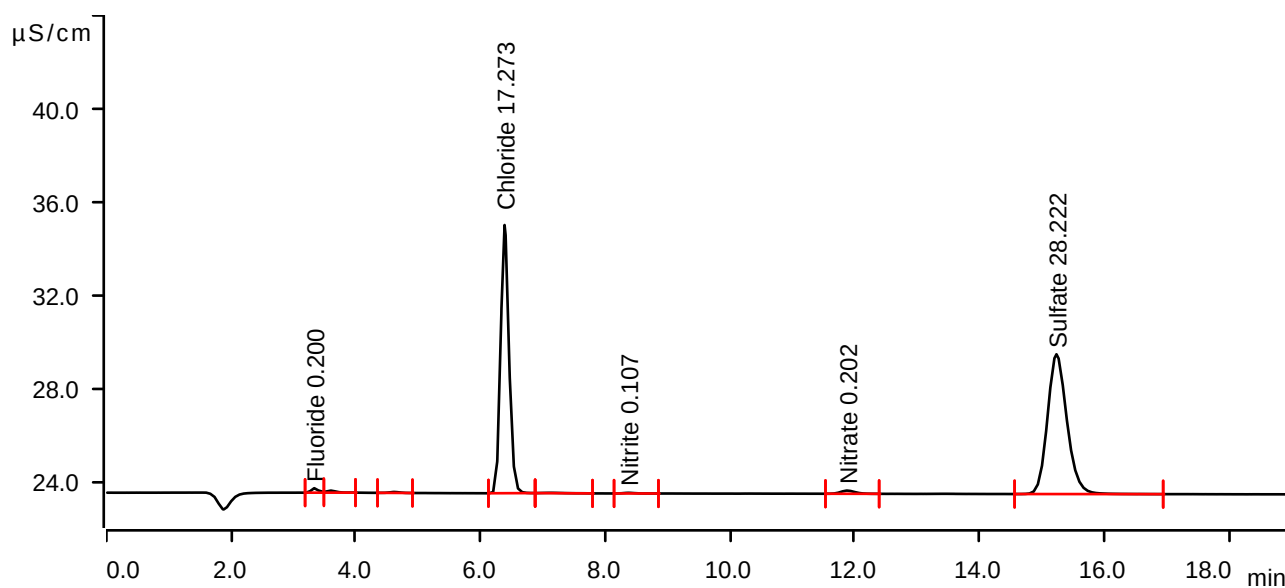
Sample data

Ident Q3734-02
Sample type Sample
Determination start 2025-11-26 15:19:31 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 10.98 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area ($\mu\text{S/cm}$) x min	Height $\mu\text{S/cm}$	Concentration ppm	Component name
1	3.332	0.0257	0.190	0.200	Fluoride
2	3.602	0.0155	0.087	invalid	
3	4.615	0.0075	0.041	invalid	
4	6.385	1.7894	11.517	17.273	Chloride
5	7.105	0.0061	0.015	invalid	
6	8.368	0.0059	0.028	0.107	Nitrite
7	11.878	0.0364	0.137	0.202	Nitrate
8	15.233	2.1758	6.004	28.222	Sulfate

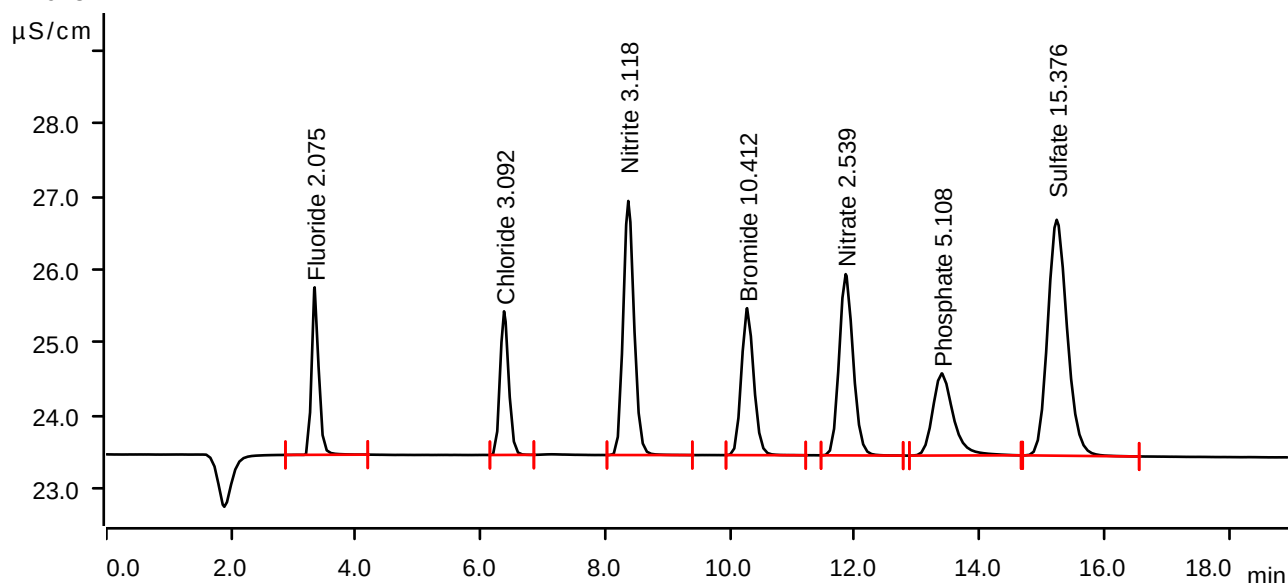
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2025-11-26 15:41:06 UTC-5
Method IC1-110325
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



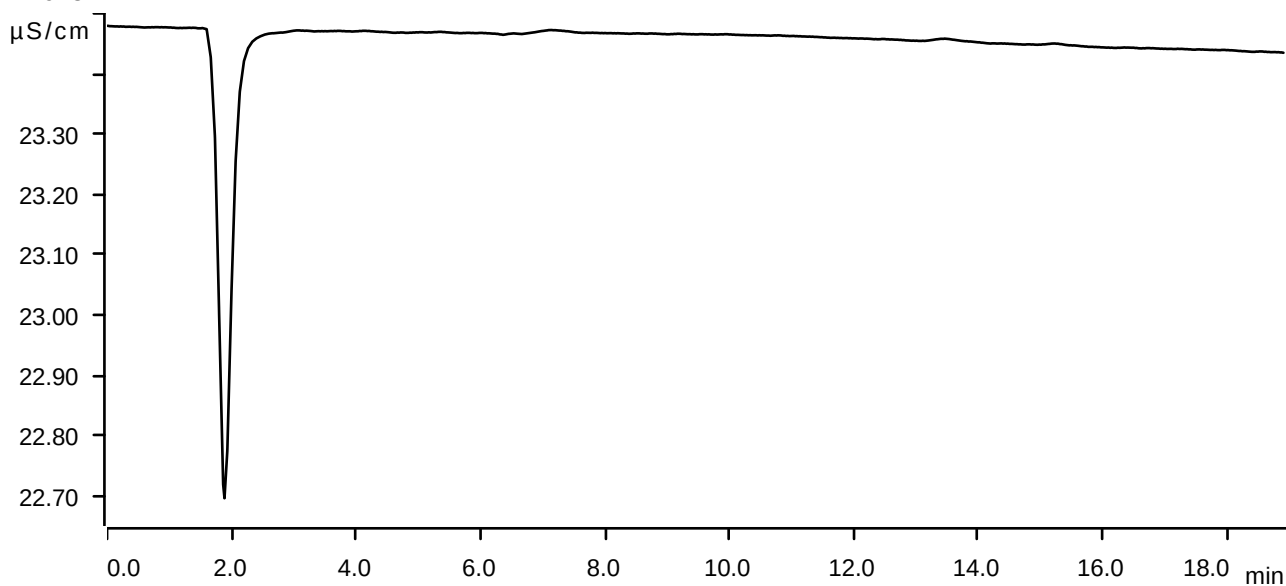
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.340	0.3006	2.288	2.075	Fluoride
2	6.377	0.3145	1.963	3.092	Chloride
3	8.368	0.7024	3.472	3.118	Nitrite
4	10.273	0.4615	2.008	10.412	Bromide
5	11.853	0.6459	2.477	2.539	Nitrate
6	13.393	0.4294	1.122	5.108	Phosphate
7	15.237	1.1698	3.224	15.376	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2025-11-26 16:02:36 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 11.04 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

LB138131

Test results

Aquakem 7.2AQ1

Page:

Alliance Technical Group

284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

12/5/2025 14:30

Test: TKN-NH3

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	4.999	0.0	1.003	
ICB1	0.081	0.0	0.019	
CCV1	5.094	0.0	1.022	
CCB1	0.080	0.0	0.019	
RL CHECK	0.509	0.0	0.104	
PB170831BL	0.078	0.0	0.018	
PB170831BS	5.023	0.0	1.008	
Q3728-01	0.624	0.0	0.127	
Q3728-01DUP	0.626	0.0	0.128	
Q3728-01MS	4.984	0.0	1.000	
Q3728-01MSD	5.096	0.0	1.022	
Q3734-01	0.234	0.0	0.049	
Q3734-02	3.310	0.0	0.665	
Q3777-01	1.562	0.0	0.315	
CCV2	5.012	0.0	1.005	
CCB2	0.080	0.0	0.018	
Q3778-01	0.284	0.0	0.059	
CCV3	5.060	0.0	1.015	
CCB3	0.079	0.0	0.018	

101% (50-150)

12/5/2025
RM

N 19
Mean 2.253
SD 2.3072
CV% 102.39

Aquakem v. 7.2AQ1

Results from time period:

Fri Dec 05 13:08:39 2025

Fri Dec 05 14:27:55 2025

Sample Id	Sam/Ctr/c/	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	TKN-NH3	P	0.1032	mg/l	12/5/2025 13:08:39	
0.5PPM	A	TKN-NH3	P	0.5347	mg/l	12/5/2025 13:08:40	
1.0PPM	A	TKN-NH3	P	1.0112	mg/l	12/5/2025 13:08:41	
2.5PPM	A	TKN-NH3	P	2.4987	mg/l	12/5/2025 13:08:42	
5.0PPM	A	TKN-NH3	P	4.9625	mg/l	12/5/2025 13:08:43	
6.7PPM	A	TKN-NH3	P	6.2869	mg/l	12/5/2025 13:08:44	
10.0PPM	A	TKN-NH3	P	10.2694	mg/l	12/5/2025 13:08:45	
ICV1	S	TKN-NH3	P	4.9986	mg/l	12/5/2025 14:00:58	
ICB1	S	TKN-NH3	P	0.0814	mg/l	12/5/2025 14:01:00	
CCV1	S	TKN-NH3	P	5.0943	mg/l	12/5/2025 14:01:03	
CCB1	S	TKN-NH3	P	0.0804	mg/l	12/5/2025 14:01:05	
RL CHECK	S	TKN-NH3	P	0.5091	mg/l	12/5/2025 14:01:08	
PB170831BL	S	TKN-NH3	P	0.0784	mg/l	12/5/2025 14:11:43	
PB170831BS	S	TKN-NH3	P	5.023	mg/l	12/5/2025 14:11:46	
Q3728-01	S	TKN-NH3	P	0.6243	mg/l	12/5/2025 14:11:47	
Q3728-01DUP	S	TKN-NH3	P	0.6255	mg/l	12/5/2025 14:11:49	
Q3728-01MS	S	TKN-NH3	P	4.9838	mg/l	12/5/2025 14:11:51	
Q3728-01MSD	S	TKN-NH3	P	5.0958	mg/l	12/5/2025 14:11:52	
Q3734-01	S	TKN-NH3	P	0.2341	mg/l	12/5/2025 14:22:24	
Q3734-02	S	TKN-NH3	P	3.31	mg/l	12/5/2025 14:22:25	
Q3777-01	S	TKN-NH3	P	1.5616	mg/l	12/5/2025 14:22:26	
CCV2	S	TKN-NH3	P	5.0121	mg/l	12/5/2025 14:22:29	
CCB2	S	TKN-NH3	P	0.0797	mg/l	12/5/2025 14:22:32	
Q3778-01	S	TKN-NH3	P	0.2842	mg/l	12/5/2025 14:22:33	
CCV3	S	TKN-NH3	P	5.0603	mg/l	12/5/2025 14:22:34	
CCB3	S	TKN-NH3	P	0.0794	mg/l	12/5/2025 14:27:54	

Calibration results

Aquakem 7.2AQ1

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Alliance Technical Group

284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

12/5/2025 13:18

Test TKN-NH3

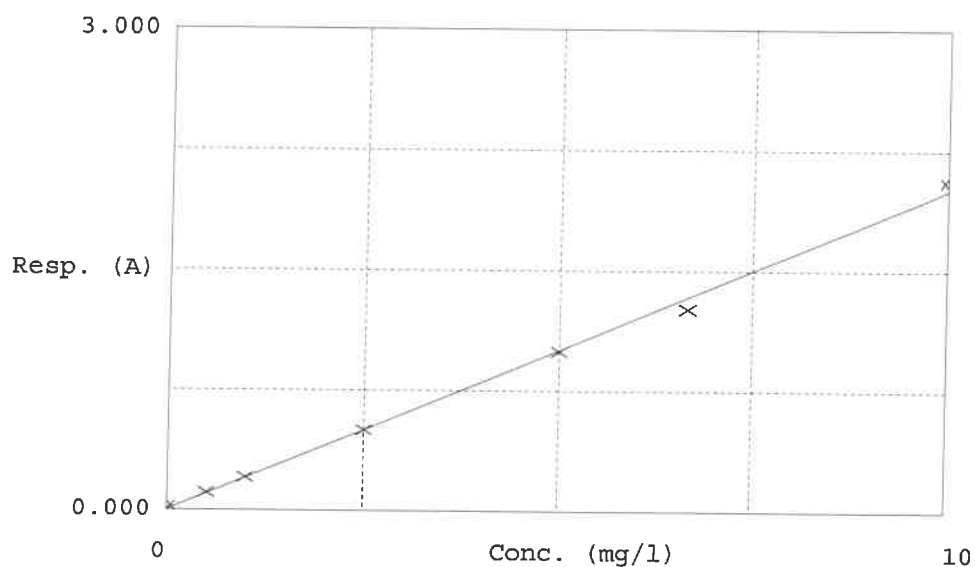
Accepted 12/5/2025 13:18

Factor 4.998

Bias 0.003

Coeff. of det. 0.997229

Errors



	Calibrator	Response	Calc. con.	Conc.	Re Errors
1	0.00PPM	0.023	0.1032	0.0000	-
2	TKN-10	0.110	0.5347	0.5000	6.9
3	TKN-10	0.205	1.0112	1.0000	1.1
4	TKN-10	0.503	2.4987	2.5000	-0.1
5	TKN-10	0.996	4.9625	5.0000	-0.7
6	TKN-10	1.261	6.2869	6.6667	-6.2
7	TKN-10	2.057	10.2694	10.0000	2.7

12/5/2025

RM

Analysis Method: 365.3
Parameter: Phosphorus-Total
Run Number: LB138132

ANALYST: Iwona
SUPERVISOR REVIEW BY: jignesh

Reagent/Standard	Lot/Log #
calibration std. phosphate 1 ppm	WP115969
calibration std. phosphate 0.5 ppm	WP115968
calibration std. phosphate 0.3 ppm	WP115967
calibration std. phosphate 0.1 ppm	WP115966
calibration std. phosphate 0.05 ppm	WP115965
calibration std. 0 ppm	WP115964
phosphate CCV std.	WP115970
5N sulfuric acid	WP115340
Combined reagent	WP115974
Phenolphthalein indicator	WP115975
Sodium hydroxide, 1N	WP113878
Phosphate ICV-LCS Std	WP115971

Intercept: -0.0037 Slope: 0.6502 Regression: 0.99972

Seq	Lab ID	True Value (mg/L)	DF	Initial Volume (mL)	Final Volume (mL)	Absorbance Reading at 880nm	Result (mg/L)	%D	AnalDate	AnalTime
1	CAL1	0.00	1	50	50	0.000	0.006		12/05/2025	13:40
2	CAL2	0.05	1	50	50	0.032	0.055	10	12/05/2025	13:40
3	CAL3	0.10	1	50	50	0.064	0.104	4	12/05/2025	13:41
4	CAL4	0.30	1	50	50	0.181	0.284	-5.3	12/05/2025	13:41
5	CAL5	0.50	1	50	50	0.318	0.495	-1	12/05/2025	13:42
6	CAL6	1.00	1	50	50	0.651	1.007	0.7	12/05/2025	13:42

Analytical Summary Report

Analysis Method: 365.3

ANALYST: Iwona

Parameter: Phosphorus-Total

SUPERVISOR REVIEW BY: jignesh

Run Number: LB138132

Seq	Lab ID	True Value (mg/l)	DF	Initial Volume (mL)	Final Volume (mL)	Absorbance Reading at 880nm	Result (mg/L)	AnalDate	AnalTime
1	ICV	0.50	1	50	50	0.336	0.522	12/05/2025	13:43
2	ICB		1	50	50	0.003	0.010	12/05/2025	13:43
3	CCV1	0.50	1	50	50	0.321	0.499	12/05/2025	13:44
4	CCB1		1	50	50	0.002	0.009	12/05/2025	13:44
5	RL Check	0.05	1	50	50	0.024	0.043	12/05/2025	13:45
6	PB170844BL		1	50	50	0.002	0.009	12/05/2025	13:45
7	PB170844BS	0.50	1	50	50	0.334	0.519	12/05/2025	13:46
8	Q3728-01		1	50	50	0.063	0.103	12/05/2025	13:46
9	Q3729-01		1	50	50	0.048	0.080	12/05/2025	13:47
10	Q3734-01		1	50	50	0.089	0.143	12/05/2025	13:47
11	Q3734-02		1	50	50	0.043	0.072	12/05/2025	13:48
12	Q3772-01		1	50	50	0.040	0.067	12/05/2025	13:48
13	Q3777-01		1	50	50	0.134	0.212	12/05/2025	13:49
14	Q3778-01		1	50	50	0.038	0.064	12/05/2025	13:49
15	Q3778-01DUP		1	50	50	0.037	0.063	12/05/2025	13:50
16	CCV2	0.50	1	50	50	0.326	0.507	12/05/2025	13:50
17	CCB2		1	50	50	0.003	0.010	12/05/2025	13:51
18	Q3778-01MS	0.50	1	50	50	0.340	0.529	12/05/2025	13:51
19	Q3778-01MSD	0.50	1	50	50	0.337	0.524	12/05/2025	13:52
20	CCV3	0.50	1	50	50	0.320	0.498	12/05/2025	13:52
21	CCB3		1	50	50	0.003	0.010	12/05/2025	13:53

SOP ID : MSM4500-N Org C-TKN-12

SDG No : N/A

Start Digest Date: 12/05/2025 Time : 08:50 Temp : 380 °C

Matrix : WATER

End Digest Date: 12/05/2025 Time : 10:20 Temp : 385 °C

Pipette ID : WC

Start Distillation Date: 12/05/2025 Time : 10:45 Temp : 150 °C

Balance ID : N/A

End Distillation Date: 12/05/2025 Time : 11:45 Temp : 159 °C

Hood ID : HOOD#2&3

Digestion tube ID : M5595

Block Thermometer ID : Therm#2(2179)

Block ID : WC-DIST-BLOCK-1

Filter paper ID : N/A

Prep Technician Signature: RM

Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature: 12

Standard Name	MLS USED	STD REF. # FROM LOG
TKN CAL STD	50.0ML	WP115952
TKN CCV STD	50.0ML	WP115953
TKN ICV STD	50.0ML	WP115954
TKN LCS STD	50.0ML	WP115955
MS/MSD SPIKE SOL.	0.25ML	WP115085

Chemical Used	ML/SAMPLE USED	Lot Number
TKN DIGESTION FLUID	10.0ML	WP115817
TKN DISTILLATION BUFFER	10.0ML	WP114445
H2SO4 0.04N	5.0ML	WP115336
pH Paper 0-14	N/A	W3241
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

RL CHECK 10ML FROM WP115953 ,ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT WP114104

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/5/2025 12:00	RM WWC	RM WWC
12/5/2025 13:20	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170831BL	PBW831	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
PB170831BS	LCS831	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3728-01	SW-1	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3728-01DUP	SW-1DUP	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3728-01MS	SW-1MS	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3728-01MSD	SW-1MSD	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3734-01	SW-1	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3734-02	SW-2	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3777-01	SW-1	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3778-01	SW-2	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : tkn-12-01

WorkList ID : 193389

Department : Distillation

Date : 12-01-2025 08:44:07

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3728-01	SW-1	Water	TKN	Conc H2SO4 to pH < 2	ATGG01	A11	11/25/2025	SM4500 N Org
Q3734-01	SW-1	Water	TKN	Conc H2SO4 to pH < 2	ATGG01	A43	11/25/2025	SM4500 N Org
Q3734-02	SW-2	Water	TKN	Conc H2SO4 to pH < 2	ATGG01	A43	11/25/2025	SM4500 N Org
Q3777-01	SW-1	Water	TKN	Conc H2SO4 to pH < 2	ATGG01	A11	12/02/2025	SM4500 N Org
Q3778-01	SW-2	Water	TKN	Conc H2SO4 to pH < 2	ATGG01	A11	12/02/2025	SM4500 N Org

Date/Time 12/5/2025 08:15
 Raw Sample Received by: RM 12/5/2025
 Raw Sample Relinquished by: RM 12/5/2025

Date/Time 12/5/2025 11:00
 Raw Sample Received by: RM 12/5/2025
 Raw Sample Relinquished by: RM 12/5/2025

SOP ID : M365.3 & SM4500-P E-19

SDG No : N/A

Matrix : WATER

Pipette ID : WC

Balance ID : N/A

Hood ID : HOOD#3

Block ID : WC S-1, WC S-2

Weigh By : N/A

Start Digest Date: 12/05/2025 Time : 10:45 Temp : 95 °C

End Digest Date: 12/05/2025 Time : 11:50 Temp : 96 °C

Ind below 12/05/2025 12:00 95% yr
 12/05/2025 13:00 96% yr

Digestion tube ID : M5595

Block Thermometer ID : WC-BLOCK#1

Filter paper ID : 400213

Prep Technician Signature: 12

pH Meter ID : N/A

Supervisor Signature: SP

Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	0.5ML	WP115559
MS/MSD SPIKE SOL.	0.5ML	WP115558
PBW	50.ML	W3112
RL CHECK	50.0ML	WP115972
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
11N H2SO4	1ML	WP115089
AMMONIUM PERSULFATE	0.4g	W3035
pH Paper 0-14	N/A	W3241
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
CAL1	CAL1	50.0ML	WP115964
CAL2	CAL2	50.0ML	WP115965
CAL3	CAL3	50.0ML	WP115966
CAL4	CAL4	50.0ML	WP115967
CAL5	CAL5	50.0ML	WP115968
CAL6	CAL6	50.0ML	WP115969
ICV	ICV	50.0ML	WP115971
ICB	ICB	50.0ML	W3112
CCV	CCV	50.0ML	WP115970
CCB	CCB	50.0ML	W3112

Extraction Conformance/Non-Conformance Comments:

N/A

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

12 12/05/25

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170844BL	PBW844	50	50	<2	N/A	N/A	N/A	N/A	N/A
PB170844BS	LCS844	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3728-01	SW-1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3729-01	1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3734-01	SW-1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3734-02	SW-2	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3772-01	EFFLUENT	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3777-01	SW-1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3778-01	SW-2	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3778-01DUP	SW-2DUP	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3778-01MS	SW-2MS	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3778-01MSD	SW-2MSD	50	50	<2	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : phos total

WorkList ID : 193497

Department : Distillation

Date : 12-05-2025 08:12:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3728-01	SW-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	11/25/2025	365.3
Q3729-01	1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	11/25/2025	365.3
Q3734-01	SW-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A43	11/25/2025	365.3
Q3734-02	SW-2	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A43	11/25/2025	365.3
Q3772-01	EFFLUENT	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	HOLL01	A11	12/03/2025	365.3
Q3777-01	SW-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	12/02/2025	365.3
Q3778-01	SW-2	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	12/02/2025	365.3

Date/Time 12/05/25 10:10
 Raw Sample Received by: 12 (WC)
 Raw Sample Relinquished by: 12 (WC)

Date/Time 12/05/25 12:30
 Raw Sample Received by: 12 (WC)
 Raw Sample Relinquished by: 12 (WC)

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB138060

Review By	jignesh	Review On	12/2/2025 11:42:32 AM
Supervise By	Iwona	Supervise On	12/2/2025 12:06:11 PM
SubDirectory	LB138060	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	LB138060BL	LB138060BL	MB	11/26/25 19:00		jignesh	OK
2	LB138060BS	LB138060BS	LCS	11/26/25 19:00	55 mg w3186 +100 ml w3112	jignesh	OK
3	Q3727-01	Outfall #1	SAM	11/26/25 19:00		jignesh	OK
4	Q3727-02	Outfall #2	SAM	11/26/25 19:00		jignesh	OK
5	Q3727-03	Outfall #3	SAM	11/26/25 19:00		jignesh	OK
6	Q3727-04	Outfall #4	SAM	11/26/25 19:00		jignesh	OK
7	Q3728-01	SW-1	SAM	11/26/25 19:00		jignesh	OK
8	Q3729-01	1	SAM	11/26/25 19:00		jignesh	OK
9	Q3730-02	Comp	SAM	11/26/25 19:00		jignesh	OK
10	Q3730-02DUP	CompDUP	DUP	11/26/25 19:00		jignesh	OK
11	Q3734-01	SW-1	SAM	11/26/25 19:00		jignesh	OK
12	Q3734-02	SW-2	SAM	11/26/25 19:00		jignesh	OK

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB138064

Review By	jignesh	Review On	12/1/2025 2:03:20 PM
Supervise By	Iwona	Supervise On	12/1/2025 2:08:10 PM
SubDirectory	LB138064	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	W3240,M6069,EP2663,WP115016,N/A,N/A,WP115017,WP115018,N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB138064BL	LB138064BL	MB	12/01/25 09:00		jignesh	OK
2	LB138064BS	LB138064BS	LCS	12/01/25 09:00		jignesh	OK
3	LB138064BSD	LB138064BSD	LCSD	12/01/25 09:00		jignesh	OK
4	Q3729-01	1	SAM	12/01/25 09:00		jignesh	OK
5	Q3734-01	SW-1	SAM	12/01/25 09:00		jignesh	OK
6	Q3734-02	SW-2	SAM	12/01/25 09:00		jignesh	OK

Instrument ID: IC-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB138070

Review By	rubina	Review On	12/2/2025 12:01:26 PM
Supervise By	Iwona	Supervise On	12/2/2025 1:44:07 PM
SubDirectory	LB138070	Test	Anions
STD. NAME	STD REF.#		
ICAL Standard	WP115441,WP115442,WP115443,WP115444,WP115445,WP115446,WP115447		
ICV Standard	WP115448		
CCV Standard	WP115849		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115850		
Chk Standard	WP115449,WP115450		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	STD6	STD6	CAL6	11/03/25 18:30	All standards, samples, and	RM/IZ	OK
2	STD7	STD7	CAL7	11/03/25 18:51	QC are filtered through	RM/IZ	OK
3	ICV1	ICV1	ICV	11/03/25 19:13	0.45um, filter lot W3160	RM/IZ	OK
4	ICB1	ICB1	ICB	11/03/25 19:34		RM/IZ	OK
5	CCV1	CCV1	CCV	11/26/25 09:14		RM/IZ	OK
6	CCB1	CCB1	CCB	11/26/25 09:35		RM/IZ	OK
7	LB138070BLW	LB138070BLW	MB	11/26/25 09:57		RM/IZ	OK
8	LB138070BSW	LB138070BSW	LCS	11/26/25 10:18		RM/IZ	OK
9	Q3728-01	SW-1	SAM	11/26/25 13:10		RM/IZ	OK
10	Q3728-01MS	SW-1MS	MS	11/26/25 13:31	9.5ml of sample, 0.5mL W3096	RM/IZ	OK
11	Q3728-01MSD	SW-1MSD	MSD	11/26/25 13:53	9.5ml of sample, 0.5mL W3096	RM/IZ	OK
12	Q3734-01	SW-1	SAM	11/26/25 14:58		RM/IZ	OK
13	Q3734-02	SW-2	SAM	11/26/25 15:19		RM/IZ	OK
14	CCV2	CCV2	CCV	11/26/25 15:41		RM/IZ	OK
15	CCB2	CCB2	CCB	11/26/25 16:02		RM/IZ	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB138131

Review By	rubina	Review On	12/5/2025 4:29:39 PM
Supervise By	Iwona	Supervise On	12/5/2025 4:31:34 PM
SubDirectory	LB138131	Test	TKN
STD. NAME	STD REF.#		
ICAL Standard	WP115952		
ICV Standard	WP115954		
CCV Standard	WP115953		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115955		
Chk Standard	WP115821,WP114133,WP113929,WP114132		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	12/05/25 13:08		rubina	OK
2	0.5PPM	0.5PPM	CAL2	12/05/25 13:08		rubina	OK
3	1.0PPM	1.0PPM	CAL3	12/05/25 13:08		rubina	OK
4	2.5PPM	2.5PPM	CAL4	12/05/25 13:08		rubina	OK
5	5.0PPM	5.0PPM	CAL5	12/05/25 13:08		rubina	OK
6	6.7PPM	6.7PPM	CAL6	12/05/25 13:08		rubina	OK
7	10.0PPM	10.0PPM	CAL7	12/05/25 13:08		rubina	OK
8	ICV1	ICV1	ICV	12/05/25 14:00		rubina	OK
9	ICB1	ICB1	ICB	12/05/25 14:01		rubina	OK
10	CCV1	CCV1	CCV	12/05/25 14:01		rubina	OK
11	CCB1	CCB1	CCB	12/05/25 14:01		rubina	OK
12	RL	RL	LOQ	12/05/25 14:01		rubina	OK
13	PB170831BL	PB170831BL	MB	12/05/25 14:11		rubina	OK
14	PB170831BS	PB170831BS	LCS	12/05/25 14:11		rubina	OK
15	Q3728-01	SW-1	SAM	12/05/25 14:11		rubina	OK
16	Q3728-01DUP	SW-1DUP	DUP	12/05/25 14:11		rubina	OK
17	Q3728-01MS	SW-1MS	MS	12/05/25 14:11		rubina	OK
18	Q3728-01MSD	SW-1MSD	MSD	12/05/25 14:11		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB138131

Review By	rubina	Review On	12/5/2025 4:29:39 PM
Supervise By	Iwona	Supervise On	12/5/2025 4:31:34 PM
SubDirectory	LB138131	Test	TKN
STD. NAME	STD REF.#		
ICAL Standard	WP115952		
ICV Standard	WP115954		
CCV Standard	WP115953		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115955		
Chk Standard	WP115821,WP114133,WP113929,WP114132		

19	Q3734-01	SW-1	SAM	12/05/25 14:22		rubina	OK
20	Q3734-02	SW-2	SAM	12/05/25 14:22		rubina	OK
21	Q3777-01	SW-1	SAM	12/05/25 14:22		rubina	OK
22	CCV2	CCV2	CCV	12/05/25 14:22		rubina	OK
23	CCB2	CCB2	CCB	12/05/25 14:22		rubina	OK
24	Q3778-01	SW-2	SAM	12/05/25 14:22		rubina	OK
25	CCV3	CCV3	CCV	12/05/25 14:22		rubina	OK
26	CCB3	CCB3	CCB	12/05/25 14:27		rubina	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB138132

Review By	Iwona	Review On	12/5/2025 2:53:20 PM
Supervise By	jignesh	Supervise On	12/5/2025 2:59:51 PM
SubDirectory	LB138132	Test	Phosphorus-Total
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	WP115969,WP115968,WP115967,WP115966,WP115965,WP115964,WP115970,WP115340,WP115974,WP115975,V		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	12/05/25 13:40		Iwona	OK
2	CAL2	CAL2	CAL	12/05/25 13:40		Iwona	OK
3	CAL3	CAL3	CAL	12/05/25 13:41		Iwona	OK
4	CAL4	CAL4	CAL	12/05/25 13:41		Iwona	OK
5	CAL5	CAL5	CAL	12/05/25 13:42		Iwona	OK
6	CAL6	CAL6	CAL	12/05/25 13:42		Iwona	OK
7	ICV	ICV	ICV	12/05/25 13:43		Iwona	OK
8	ICB	ICB	ICB	12/05/25 13:43		Iwona	OK
9	CCV1	CCV1	CCV	12/05/25 13:44		Iwona	OK
10	CCB1	CCB1	CCB	12/05/25 13:44		Iwona	OK
11	RL Check	RL Check	RL	12/05/25 13:45		Iwona	OK
12	PB170844BL	PB170844BL	MB	12/05/25 13:45		Iwona	OK
13	PB170844BS	PB170844BS	LCS	12/05/25 13:46		Iwona	OK
14	Q3728-01	SW-1	SAM	12/05/25 13:46		Iwona	OK
15	Q3729-01	1	SAM	12/05/25 13:47		Iwona	OK
16	Q3734-01	SW-1	SAM	12/05/25 13:47		Iwona	OK
17	Q3734-02	SW-2	SAM	12/05/25 13:48		Iwona	OK
18	Q3772-01	EFFLUENT	SAM	12/05/25 13:48		Iwona	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB138132

Review By	Iwona	Review On	12/5/2025 2:53:20 PM
Supervise By	jignesh	Supervise On	12/5/2025 2:59:51 PM
SubDirectory	LB138132	Test	Phosphorus-Total
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	WP115969,WP115968,WP115967,WP115966,WP115965,WP115964,WP115970,WP115340,WP115974,WP115975,V		

19	Q3777-01	SW-1	SAM	12/05/25 13:49		Iwona	OK
20	Q3778-01	SW-2	SAM	12/05/25 13:49		Iwona	OK
21	Q3778-01DUP	SW-2DUP	DUP	12/05/25 13:50		Iwona	OK
22	CCV2	CCV2	CCV	12/05/25 13:50		Iwona	OK
23	CCB2	CCB2	CCB	12/05/25 13:51		Iwona	OK
24	Q3778-01MS	SW-2MS	MS	12/05/25 13:51		Iwona	OK
25	Q3778-01MSD	SW-2MSD	MSD	12/05/25 13:52		Iwona	OK
26	CCV3	CCV3	CCV	12/05/25 13:52		Iwona	OK
27	CCB3	CCB3	CCB	12/05/25 13:53		Iwona	OK

Prep Standard - Chemical Standard Summary

Order ID : Q3734

Test : Anions Group1,Oil and Grease,Phosphorus-Total,TKN,Total Nitrogen,TSS

Prepbatch ID : PB170831,PB170844,

Sequence ID/Qc Batch ID: LB138060,LB138064,LB138070,LB138131,LB138132,LB138136,

Standard ID :

EP2663,WP113878,WP113929,WP114132,WP114133,WP114445,WP115016,WP115017,WP115018,WP115085,WP115086,WP115089,WP115336,WP115340,WP115344,WP115441,WP115442,WP115443,WP115444,WP115445,WP115446,WP115447,WP115448,WP115449,WP115450,WP115558,WP115559,WP115793,WP115794,WP115817,WP115821,WP115849,WP115850,WP115952,WP115953,WP115954,WP115955,WP115964,WP115965,WP115966,WP115967,WP115968,WP115969,WP115970,WP115971,WP115972,WP115973,WP115974,WP115975,

Chemical ID :

E3875,E3972,M6069,M6151,M6186,W2306,W2647,W2663,W2664,W2666,W2817,W2871,W2983,W3009,W3035,W3082,W3112,W3113,W3132,W3148,W3163,W3180,W3195,W3196,W3197,W3199,W3202,W3206,W3218,W3222,W3240,W3241,W3243,



<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	EP2663	11/20/2025	05/20/2026	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 11/20/2025
<u>FROM</u> 4000.00000gram of E3875 = 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>
1571	Sodium hydroxide, 1N	WP113878	07/09/2025	12/31/2025	Iwona Zarych	WETCHEM_SCALE_7 (WCS-6)	None	Jignesh Parikh 07/09/2025
<u>FROM</u> 4.00000gram of W3113 + 96.00000ml of W3112 = Final Quantity: 100.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
290	Phenol reagent for Ammonia	WP113929	07/14/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 07/15/2025
<u>FROM</u> 3.20000gram of W3113 + 8.30000gram of W2663 + 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>
635	EDTA BUFFER FOR AMMONIA	WP114132	07/31/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC-7)	None	Iwona Zarych 07/31/2025
<u>FROM</u> 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml 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>
289	Sodium Hypochlorite for Ammonia	WP114133	07/31/2025	12/31/2025	Rubina Mughal	None	None	Iwona Zarych
								08/04/2025

FROM 50.00000ml of W3112 + 50.00000ml of W3222 = 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>
1338	TKN DISTILLING BUFFER	WP114445	08/27/2025	12/31/2025	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych
								09/03/2025

FROM 0.47500L of W3112 + 25.00000gram of W3148 + 500.00000gram of W3113 = Final Quantity: 1.000 L

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	WP115016	10/02/2025	02/17/2026	Jignesh Parikh	None	None	Iwona Zarych 10/02/2025

FROM 500.00000ml of M6151 + 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>
2470	1664A SPIKING SOLN	WP115017	10/02/2025	04/02/2026	Jignesh Parikh	WETCHEM_S CALE_7 (WC SC-6)	None	Iwona Zarych 10/02/2025

FROM 1000.00000ml of E3972 + 4.00000gram of W2817 + 4.00000gram of W2871 = 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>
3374	1664A QCS spiking solution-SS	WP115018	10/02/2025	04/02/2026	Jignesh Parikh	WETCHEM_S CALE_7 (WC SC-8)	None	Iwona Zarych 10/02/2025
<u>FROM</u>	1000.00000ml of E3972 + 4.00000gram of W3009 + 4.00000gram of W3082 = 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)	WP115085	10/08/2025	04/08/2026	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych 10/08/2025
<u>FROM</u>	3.81900gram of W3196 + 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	WP115086	10/08/2025	04/08/2026	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych 10/08/2025
<u>FROM</u>	3.81900gram of W3195 + 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>
1211	11 N sulfuric acid	WP115089	10/08/2025	04/08/2026	Rubina Mughal	None	None	Iwona Zarych 10/08/2025
<u>FROM</u> 306.00000ml of M6186 + 694.00000ml 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>
1597	0.04 N H2SO4	WP115336	10/27/2025	04/27/2026	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Jignesh Parikh 10/27/2025

FROM 1.00000ml of M6186 + 999.00000ml of W3112 = Final Quantity: 1000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
126	5N sulfuric acid	WP115340	10/27/2025	04/27/2026	Rubina Mughal	None	None	Jignesh Parikh 10/27/2025

FROM 140.00000ml of M6186 + 860.00000ml of W3112 = Final Quantity: 1.000 L



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4035	IC ELUENT CONCENTRATE FOR IC-1	WP115344	10/23/2025	04/23/2026	Iwona Zarych	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh
FROM 2.10000gram of W2647 + 84.75000gram of W3163 + 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>
2487	Anions 300/9056 calibration standard 1	WP115441	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 11/07/2025
<u>FROM</u> 10.00000ml of W3112 = Final Quantity: 10.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
24	Anions 300/9056 calibration standard 2	WP115442	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3	Jignesh Parikh
(WC)								
<u>FROM</u>	0.20000ml of W3180 + 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	WP115443	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3 (WC)	Jignesh Parikh 11/07/2025
<u>FROM</u> 0.40000ml of W3180 + 9.60000ml 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>
26	Anions 300/9056 calibration standard 4	WP115444	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
FROM 0.50000ml of W3180 + 9.50000ml 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>
3680	Anions 300/9056 calibration standard 5-CCV	WP115445	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
FROM 45.00000ml of W3112 + 5.00000ml of W3180 = 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	WP115446	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 11/07/2025
<u>FROM</u> 2.00000ml of W3180 + 8.00000ml 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>
3681	Anions 300/9056 calibration standard 7	WP115447	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 11/07/2025
<u>FROM</u> 2.50000ml of W3180 + 7.50000ml 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>
3233	Anions 300/9056 ICV-LCS std	WP115448	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
FROM 45.00000ml of W3112 + 5.00000ml of W3180 = 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>
4036	IC ELUENT FOR IC-1	WP115449	11/03/2025	12/03/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 11/07/2025
FROM 1980.00000ml of W3112 + 20.00000ml of WP115344 = Final Quantity: 2000.000 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>
4037	IC H2SO4 FOR IC-1	WP115450	11/03/2025	12/03/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 11/07/2025

FROM 5.60000ml of M6186 + 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>
115	Phosphate Stock Std. (50 ppm)	WP115558	11/07/2025	05/07/2026	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 11/10/2025

FROM 0.11000gram of W3206 + 500.00000ml of W3112 = Final Quantity: 500.000 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>
2790	Phosphate Stock std, 50PPM-SS	WP115559	11/07/2025	05/07/2026	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 11/10/2025
<u>FROM</u> 0.11000gram of W3202 + 500.00000ml of W3112 = Final Quantity: 500.000 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>
648	Ammonium molybdate solution	WP115793	11/21/2025	02/11/2026	Iwona Zarych	WETCHEM_SCALE_5 (WC SC-5)	None	Jignesh Parikh 11/21/2025
FROM 20.00000gram of W2664 + 480.00000ml of W3112 = Final Quantity: 500.000 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>
588	Potassium Antimonyl Tartrate	WP115794	11/21/2025	05/21/2026	Iwona Zarych	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh
<u>FROM</u>	1.37150gram of W2306 + 500.00000ml of W3112 = Final Quantity: 500.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
619	TKN digestion solution	WP115817	11/24/2025	05/24/2026	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 11/24/2025
<u>FROM</u> 134.00000gram of W2983 + 134.00000ml of M6186 + 7.30000gram of W3199 + 725.00000ml of W3112 = Final Quantity: 1000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
740	sodium nitroferricyanide for ammonia	WP115821	11/25/2025	12/25/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 11/25/2025
<u>FROM</u> 0.05000gram of W2666 + 99.95000ml of W3112 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3680	Anions 300/9056 calibration standard 5-CCV	WP115849	11/26/2025	11/27/2025	Iwona Zarych	None	None	Jignesh Parikh 12/01/2025
<u>FROM</u> 45.00000ml of W3112 + 5.00000ml of W3180 = 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	WP115850	11/26/2025	11/27/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3	Jignesh Parikh
<u>FROM</u>		45.00000ml of W3112 + 5.00000ml of W3197 = 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>
295	TKN Calibration Std (10 ppm)	WP115952	12/05/2025	12/12/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 49.50000ml of W3112 + 0.50000ml of WP115085 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
297	TKN CCV STD 5 ppm	WP115953	12/05/2025	12/12/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/05/2025
<u>FROM</u> 49.75000ml of W3112 + 0.25000ml of WP115085 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
296	TKN ICV STD 5 ppm	WP115954	12/05/2025	12/12/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 49.75000ml of W3112 + 0.25000ml of WP115086 = 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>
298	TKN LCS STD 5 ppm	WP115955	12/05/2025	12/12/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 12/05/2025

FROM 49.75000ml of W3112 + 0.25000ml of WP115086 = 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>
122	calibration std. 0 ppm	WP115964	12/05/2025	12/12/2025	Iwona Zarych	None	None	Jignesh Parikh 12/05/2025

FROM 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>
121	calibration std. phosphate 0.05 ppm	WP115965	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025
FROM 99.90000ml of W3112 + 0.10000ml of WP115558 = 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>
120	calibration std. phosphate 0.1 ppm	WP115966	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025
FROM 99.80000ml of W3112 + 0.20000ml of WP115558 = 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>
119	calibration std. phosphate 0.3 ppm	WP115967	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 12/05/2025
<u>FROM</u> 99.40000ml of W3112 + 0.60000ml of WP115558 = 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>
118	calibration std. phosphate 0.5 ppm	WP115968	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 12/05/2025
<u>FROM</u> 99.00000ml of W3112 + 1.00000ml of WP115558 = 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>
117	calibration std. phosphate 1 ppm	WP115969	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025
FROM 98.00000ml of W3112 + 2.00000ml of WP115558 = 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>
124	phosphate CCV std.	WP115970	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025
FROM 99.00000ml of W3112 + 1.00000ml of WP115558 = 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>
3805	Phosphate ICV-LCS Std	WP115971	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025
FROM 99.00000ml of W3112 + 1.00000ml of WP115559 = 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>
4212	Phosphate RL CHECK	WP115972	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025
FROM 99.80000ml of W3112 + 0.20000ml of WP115558 = 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>
590	Ascorbic Acid	WP115973	12/05/2025	12/06/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh
FROM 0.52800gram of W3243 + 30.00000ml of W3112 = Final Quantity: 30.000 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>
658	Combined reagent	WP115974	12/05/2025	12/06/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 12/05/2025
<u>FROM</u> 15.00000ml of WP115793 + 30.00000ml of WP115973 + 5.00000ml of WP115794 + 50.00000ml of WP115340 = 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>
1213	Phenolphthalein indicator	WP115975	12/05/2025	06/05/2026	Iwona Zarych	None	None	Jignesh Parikh 12/05/2025
<u>FROM</u> 50.00000ml of W3112 + 50.00000ml of W3218 = Final Quantity: 100.000 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	417203	07/28/2026	07/28/2025 / RUPESH	01/29/2025 / Rajesh	E3875

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)	24H1462005	05/24/2027	09/16/2025 / Evelyn	09/04/2025 / Riteshkumar	E3972

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)	22G2862015	02/17/2026	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

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	07/12/2026	08/13/2025 / Sagar	08/06/2025 / Sagar	M6186

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	A1561-500GM / POTASSIUM ANTIMONY TARTRATE TRIHYDRATE, 500G	2GH0057	12/11/2027	12/11/2017 / apatel	12/11/2017 / apatel	W2306

CHEMICAL RECEIPT LOG BOOK

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.	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.	J07716-1 / Ammonium Molybdate 500G	0000234410	02/11/2026	02/10/2020 / AMANDEEP	01/31/2020 / apatel	W2664

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.	A12244 / Stearic acid, 98%, 100 g	U20E006	04/02/2026	04/02/2021 / apatel	04/02/2021 / apatel	W2817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	H223-57 / Hexadecane, 99.0%	0000266903	05/04/2027	09/07/2021 / apatel	08/26/2021 / apatel	W2871

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	H223-57 / Hexadecane, 99.0%	SHBP8192	02/27/2028	02/27/2023 / lwona	02/27/2023 / lwona	W3009

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	BDH0214-500G / Ammonium Persulfate Crystal, 500g	MKCR9319	06/30/2028	03/05/2024 / lwona	06/06/2023 / lwona	W3035

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	A12244 / Stearic acid, 98%, 100 g	U23E020	02/26/2029	02/26/2024 / lwona	02/26/2024 / lwona	W3082

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

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3946-1 / Sodium Thiosulfate Pentahydrate, 500 gms	MK CW3077	07/31/2029	10/07/2024 / lwona	10/07/2024 / lwona	W3148

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	24E3156178	09/30/2027	12/10/2024 / lwona	12/10/2024 / lwona	W3163

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	V2-MEB742616	02/19/2026	02/19/2025 / lwona	01/27/2025 / lwona	W3180

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	24L0356561	08/31/2027	03/19/2025 / lwona	03/19/2025 / lwona	W3195

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	MKCV1009	09/30/2026	03/19/2025 / lwona	03/19/2025 / lwona	W3196

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	300-CAL-A-500ML / 300.0 Calibration Standard, 500 ml	040525	04/05/2027	04/08/2025 / lwona	04/08/2025 / lwona	W3197

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	0330-500G / Cupric Sulfate Pentahydrate	24H0956271	05/31/2027	04/11/2025 / lwona	04/11/2025 / lwona	W3199

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3246-1 / POTAS PHOSPHATE, MONO, CRY, ACS, 500G	MKCW6723	10/31/2028	04/16/2025 / lwona	04/16/2025 / lwona	W3202

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3246-1 / POTAS PHOSPHATE, MONO, CRY, ACS, 500G	MKCX1379	01/31/2029	04/29/2025 / lwona	04/29/2025 / lwona	W3206

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC16721-3 / Isopropanol, 99%	25C1161072	03/04/2029	06/26/2025 / lwona	06/26/2025 / lwona	W3218

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	2506M51	12/31/2025	07/02/2025 / lwona	07/02/2025 / lwona	W3222

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)	25C0362006	04/30/2026	09/15/2025 / JIGNESH	09/12/2025 / JIGNESH	W3240

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	10BDH15251	04/30/2029	10/02/2025 / Iwona	10/02/2025 / Iwona	W3241

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0938-7 / Ascorbic Acid, 500 gms	MKCX1143	01/31/2028	10/03/2025 / Iwona	10/03/2025 / Iwona	W3243



CERTIFICATE OF ANALYSIS

Printed: 12/8/2017

Page 1 of 1

Customer No : 30017
Order Number : 3008126
Catalog : A1561

Customer : PCI SCIENTIFIC
Delivery # : 58495347
Potassium Antimony Tartrate Trihydrate,
Reagent, ACS

Customer PO : 6035343

Lot : 2GH0057

Chemical Formula : $C_8H_4K_2O_{12}Sb_2 \cdot 3H_2O$
CAS# : 28300-74-5

Formula Weight : 667.87

W2306
received
12/11/17
AB

Test

Limit
Min. Max.

Results

ASSAY ($C_8H_4K_2O_{12}Sb_2 \cdot 3HO$)	99.0 - 103.0 %	101.0 %
TITRATABLE ACID OR BASE	-- 0.020 meq/g	<0.020 meq/g
LOSS ON DRYING	-- 2.7 %	<2.7 %
ARSENIC (As)	-- 0.015 %	<0.015 %
APPEARANCE		WHITE POWDER
DATE OF MANUFACTURE		29-DEC-2015

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

Read and understand label and MSDS/SDS before handling any chemical. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. The customer must ensure to provide its users adequate hazardous material training and appropriate protective gears before handling our chemicals.

Certificate of Analysis Results Certified By:

Ammonium Molybdate, 4-Hydrate, Crystal
BAKER ANALYZED® A.C.S. Reagent

(ammonium heptamolybdate, tetrahydrate)



Material No.: 0716-01
Batch No.: 0000234410
Manufactured Date: 2019/02/13
Retest Date: 2026/02/11
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay (as MoO ₃)	81.0 – 83.0 %	81.4
ACS – Insoluble Matter	<= 0.005 %	< 0.001
Chloride (Cl)	<= 0.002 %	< 0.002
Nitrate (NO ₃)	Passes Test	PT
Arsenate, Phosphate and Silicate (as SiO ₂)	<= 0.001 %	< 0.001
ACS – Phosphate (PO ₄)	<= 5 ppm	< 5
Sulfate (SO ₄)	<= 0.02 %	< 0.02
Heavy Metals (as Pb)	<= 0.001 %	< 0.001
Magnesium (Mg)	<= 0.005 %	< 0.001
Potassium (K)	<= 0.01 %	< 0.01
Sodium (Na)	<= 0.01 %	<0.001

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

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

(sodium hydrogen carbonate)



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

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

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

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

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


Jamie Ethier
Vice President Global Quality

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



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.

Hexadecane, 99.0%



Material No.: H223-57
Batch No.: 0000266903
Manufactured Date: 2020/05/05
Retest Date: 2027/05/04
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay ($\text{CH}_3(\text{CH}_2)_{14}\text{CH}_3$) (by GC)	$\geq 99.0 \%$	99.3
Infrared Spectrum	Passes Test	PT

For Laboratory, Research or Manufacturing Use

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


Jamie Ethier
Vice President Global Quality

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

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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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.

Product Name: Stearic acid, 98%, Thermo Scientific Chemicals
Catalog Number: A12244.14

CAS Number: 57-11-4
Molecular Formula: C₁₈H₃₆O₂
Molecular Weight: 284.48
InChI Key: QIQXTHQIDYTRH-UHFFFAOYSA-N
SMILES: CCCCCCCCCCCCCCCC(O)=O
Synonym: stearic acid acide stearique hydrofol acid 1855 hydrofol acid 1655 industrene 5016
stearic acid, ion(1-) (8Cl) glycon TP glycon DP acidum stearinicum hydrofol acid 150

Product Specification

Appearance (Color): White
Form: Crystals or powder or crystalline powder or flakes or waxy solid
Assay (Silylated GC): ≥97.5%
Melting Point (clear melt): 67.0-74.0°C

Date Of Print: 11/30/2023

Product Specifications are subject to amendment and may change over time. Data contained is accurate as of the date printed.

3050 Spruce Street, Saint Louis, MO 63103, USA

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

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

Product Name:

Certificate of Analysis**Potassium sulfate - ReagentPlus® , ≥99.0%**

Product Number: P0772
Batch Number: SLCM9788
Brand: SIGALD
CAS Number: 7778-80-5
MDL Number: MFCD00011388
Formula: K₂O₄S
Formula Weight: 174.26 g/mol
Quality Release Date: 03 MAR 2022



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



Brian Dulle, Supervisor
Quality Assurance
St. Louis, Missouri US

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



W3009
rec. 2/27/2023 12

Product Name:

Hexadecane - ReagentPlus®, 99%

Certificate of Analysis

Product Number:

H6703

Batch Number:

SHBP8192

 $\text{CH}_3(\text{CH}_2)_{14}\text{CH}_3$

Brand:

SIAL

CAS Number:

544-76-3

MDL Number:

MFCD00008998

Formula:

C16H34

Formula Weight:

226.44 g/mol

Quality Release Date:

04 AUG 2022

Test	Specification	Result
Appearance (Color)	Colorless or White	Colorless
Appearance (Form)	Liquid or Solid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Refractive index at 20 ° C	1.432 - 1.436	1.435
Purity (GC)	≥ 98.5 %	99.3 %
Color Test	≤ 20 APHA	< 5 APHA


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.



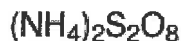
W 3035
rec. 6/6/23 12

Product Name:

Certificate of Analysis

Ammonium persulfate - ACS reagent, $\geq 98.0\%$

Product Number: 248614
Batch Number: MKCR9319
Brand: SIGALD
CAS Number: 7727-54-0
MDL Number: MFCD00003390
Formula Weight: 228.20 g/mol
Quality Release Date: 13 OCT 2022



Test	Specification	Result
Appearance (Color)	White to Off White	White
Appearance (Form)	Powder or Crystals or Granules or Chunks	Crystals
ICP Major Analysis	Confirmed	Confirmed
Confirms Sulfur Component		
Titration by KMNO ₄	$\geq 98.0 \%$	100.0 %
Residue on ignition (Ash)	$\leq 0.05 \%$	$< 0.05 \%$
Insoluble Matter	$\leq 0.005 \%$	0.002 %
c = 10 %; In Water		
Chloride and Chlorate (as Cl)	$\leq 0.001 \%$	$< 0.001 \%$
Iron (Fe)	$\leq 0.001 \%$	$< 0.001 \%$
Heavy Metal	$\leq 0.005 \%$	$< 0.001 \%$
as Lead		
Manganese (Mn)	$\leq 0.5 \text{ ppm}$	$< 0.1 \text{ ppm}$
Titrateable Acid (meq/g)	≤ 0.04	< 0.04
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.





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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:	MAY/23/2024
LOT NUMBER :	417203		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.8 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.2
Insoluble matter	Max. 0.01%	0.001 %
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%	0.001 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.001 %
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%	0.2 %
Retained on US Standard No. 60 sieve	Min. 94%	96.2 %
Through US Standard No. 60 sieve	Max. 5%	3.5 %
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.

RE-02-01, Ed. 3

E 3875

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H1462005

Manufactured Date: 2024-05-24

Expiration Date: 2027-05-24

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

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

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E3972

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials LLC



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™**



M6151

R → 11/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid–base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl ₂)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO ₄)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO ₃)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH ₄)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

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

 **avantorsm**



Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

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



Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
------	---------------	--------

For Laboratory, Research, or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

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

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

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

avantor™



M6186

Recieve Date :- 08/06/25

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

Certificate of Analysis

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

>>> Continued on page 2 >>>

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



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

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

For Laboratory, Research, or Manufacturing Use

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

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

Certificate of analysis

W3082 Received on 2/26/2026 by IZ

Product No.: A12244
Product: Stearic acid, 98%
Lot No.: U23E020

Appearance White flakes
Assay 98.7 %

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S C I E N T I F I C



Certificate of Analysis



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Calcium	<= 0.005 %	<0.005 %	PASS
Chloride	<= 0.005 %	0.002 %	PASS
Heavy Metals	<= 0.002 %	<0.002 %	PASS
Iron	<= 0.001 %	<0.001 %	PASS
Magnesium	<= 0.002 %	<0.002 %	PASS
Mercury	<= 0.1 ppm	<0.1 ppm	PASS
Nickel	<= 0.001 %	<0.001 %	PASS
Nitrogen Compounds	<= 0.001 %	<0.001 %	PASS
Phosphate	<= 0.001 %	<0.001 %	PASS
Potassium	<= 0.02 %	<0.02 %	PASS
Purity	>= 97.0 %	99.2 %	PASS
Sodium Carbonate	<= 1.0 %	0.5 %	PASS
Sulfate	<= 0.003 %	<0.003 %	PASS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.

Item Number	ED150	Lot Number	2ND0156
Item	Edetate Disodium, Dihydrate, USP	CAS Number	6381-92-6
Molecular Formula	C ₁₀ H ₁₄ N ₂ Na ₂ O ₈ •2H ₂ O	Molecular Weight	372.24

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

Certificate of Analysis Results Entered By:

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

Certificate of Analysis Results Approved By:

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

Spectrum Chemical Mfg Corp
755 Jersey Avenue
New Brunswick 08901 NJ



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

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

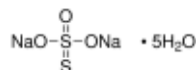
The Elemental Impurities standards implemented by USP and other Pharmaceutical Compendia reflect a growing understanding of the toxicology of trace levels of elemental impurities that can remain in drug substances originating from either raw materials or manufacturing processes. Identifying and quantifying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

Certificate of Analysis

Product Name:

Sodium thiosulfate pentahydrate - ACS reagent, ≥99.5%

Product Number: 217247
Batch Number: MKCW3077
Brand: SIGALD
CAS Number: 10102-17-7
MDL Number: MFCD00149186
Formula: Na₂O₃S₂ · 5H₂O
Formula Weight: 248.18 g/mol
Quality Release Date: 12 JUL 2024
Recommended Retest Date: JUL 2029



Test	Specification	Result
Appearance (Color)	Colorless or White	White
Appearance (Form)	Powder or Crystals or Pellets	Crystals
ICP Major Analysis	Confirmed	Confirmed
Confirms Sodium and Sulfur Components		
Titration by Iodine	99.5 - 101.0 %	100.2 %
pH	6.0 - 8.4	6.1
c = 5%; Water; At 25 Deg C		
Insoluble Matter	≤ 0.005 %	< 0.001 %
c = 10%; Water		
Nitrogen Compounds	≤ 0.002 %	< 0.002 %
Sulfate & Sulfite (as SO ₄)	≤ 0.1 %	< 0.1 %
Sulfide	Pass	Pass
Meets ACS Requirements	Current ACS Specification	Conforms
Recommended Retest Period	-----	-----
5 Years		



Larry Coers, Director
Quality Control
Milwaukee, WI US

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





W3163 Rec. on 12/10/24 by IZ

Certificate of Analysis



Material BDH9284-2.5KG
Material Description BDH SODIUM CARB ANHYD ACS 2.5KG
Grade U S P REAGENT (ACS GRADE)

Batch 24E3156178
Reassay Date 09/30/2027
CAS Number 497-19-8
Molecular Formula Na₂CO₃
Molecular Mass 105.99

Date of Manufacture 09/01/2023
Storage Room Temperature
Material is hygroscopic. Protect from Moisture.
Additional Product Description:

Characteristics	Specifications	Measured Values
Appearance	Fine white granular powder	Fine white granular powder
Calcium	<= 0.03 %	0.003 %
Chloride	<= 0.001 %	0.0003 %
Heavy Metals (as Pb)	<= 0.0005 %	0.0001 %
Insolubles	<= 0.01 %	0.001 %
Iron	<= 0.0005 %	0.0001 %
Loss on Heating	<= 1.0 %	0.03 %
Magnesium	<= 0.005 %	0.001 %
Phosphate	<= 0.001 %	0.001 %
Potassium	<= 0.005 %	0.003 %
Purity	>= 99.5 %	100.0 %
Silica	<= 0.005 %	0.001 %
Sulfur Compounds	<= 0.003 %	0.002 %
Extra Description:	Meets Reagent Specifications for testing USP/NF monographs	

Internal ID #: 710

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.



Refine your results. Redefine your industry.

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

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: V2-MEB742616
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	30.01 ± 0.13 µg/mL
Fluoride, F-	20.00 ± 0.07 µg/mL	Nitrate as N, NNO ₃ -	25.00 ± 0.10 µg/mL
Nitrite as N, NNO ₂ -	30.00 ± 0.10 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	08228TH-H2
NNO2-	Calculated	40h	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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

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

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

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

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

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

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

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

X_a = mean of Assay Method A with

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

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

5.0 CHROMATOGRAM

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; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 02, 2024

- 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

- **April 02, 2029**

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

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

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Thomas Kozikowski
Stock VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





W3195 Received on 03/19/2025 by IZ

Certificate of Analysis



Material	BDH9208-500G
Material Description	BDH AMMONIUM CHLORIDE ACS 500G
Grade	U S P REAGENT (ACS GRADE)
Batch	24L0356561
Reassay Date	08/31/2027
CAS Number	12125-02-9
Molecular Formula	NH ₄ Cl
Molecular Mass	53.49
Date of Manufacture	08/01/2024
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	White granular powder	White granular powder
Calcium	<= 0.001 %	0.001 %
Heavy Metals (as Pb)	<= 0.0005 %	<0.0002 %
Insolubles	<= 0.005 %	0.001 %
Iron	<= 0.0002 %	<0.0002 %
Magnesium	<= 0.0005 %	0.0001 %
pH (5%, Water) @25C	4.5 - 5.5	4.8
Phosphate	<= 0.0002 %	<0.0002 %
Purity	>= 99.5 %	99.8 %
Residue on Ignition	<= 0.01 %	0.003 %
Sulfate	<= 0.002 %	<0.002 %
Extra Description:	Meets Reagent Specifications for testing USP/NF monographs	

Internal ID #: 710

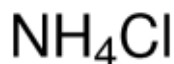
Signature	Additional Information
We certify that this batch conforms to the specifications listed above. This document has been electronically produced and is valid without a signature. Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA	Analysis may have been rounded to significant digits in specification limits Product meets analytical specifications of the grades listed.

W3196 Received on 03/19/2025 by IZ

Certificate of Analysis

Product Name:

Ammonium chloride - ACS reagent, ≥99.5%



Product Number: 213330
Batch Number: MKCV1009
Brand: SIGALD
CAS Number: 12125-02-9
MDL Number: MFCD00011420
Formula: H4ClN
Formula Weight: 53.49 g/mol
Quality Release Date: 23 OCT 2023
Recommended Retest Date: SEP 2026

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals or Chunk(s)	Crystals
Titration by AgNO ₃	≥ 99.5 %	100.2 %
pH	4.5 - 5.5	4.9
@ 25 Deg c (5% Solution)		
Insoluble Matter	≤ 0.005 %	0.001 %
10%, H ₂ O		
Residue on ignition (Ash)	≤ 0.01 %	< 0.01 %
Calcium (Ca)	≤ 0.001 %	< 0.001 %
Magnesium (Mg)	≤ 5 ppm	1 ppm
Heavy Metals	≤ 5 ppm	< 1 ppm
by ICP		
Iron (Fe)	≤ 2 ppm	< 1 ppm
Phosphate (PO ₄)	≤ 2 ppm	< 2 ppm
Sulfate (SO ₄)	≤ 0.002 %	< 0.002 %
Meets ACS Requirements	Current ACS Specification	Conforms
Recommended Retest Period	-----	-----
3 Years		



Larry Coers, Director

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

Product Number: 213330
Batch Number: MKCV1009

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.



Ident	Instrument IC-1				Analyst: NF		Method: 300.0 / 9056A		Initial Analyst		
	Con F-	Con CL-	Con NO2	Con BR-	Con NO3	Con HPO4	Con SO4				
STD1	0	0	0	0	0	0	0	0	IC1-032125	3/21/2025 10:45	10 NF/IZ
STD2	0.421	0.619	0.631	2.075	0.523	1.052	3.247	IC1-032125	3/21/2025 11:07	10 NF/IZ	
STD3	0.795	1.199	1.203	3.994	1.001	1.993	5.998	IC1-032125	3/21/2025 11:28	10 NF/IZ	
STD4	0.977	1.475	1.468	4.904	1.226	2.407	7.216	IC1-032125	3/21/2025 11:50	10 NF/IZ	
STD5	1.993	3.009	2.995	10.03	2.493	4.968	14.842	IC1-032125	3/21/2025 12:11	10 NF/IZ	
STD6	4.034	5.988	5.986	19.975	5.011	10.256	30.502	IC1-032125	3/21/2025 12:32	10 NF/IZ	
STD7	4.979	7.51	7.517	25.022	6.247	12.323	36.695	IC1-032125	3/21/2025 12:54	10 NF/IZ	
ICV	2.031	3.038	3.08	10.364	2.568	5.199	15.269	IC1-032125	3/21/2025 13:37	10 NF/IZ	
ICB	0	0.122	0.08	0	0	0	0	IC1-032125	3/21/2025 13:58	10 NF/IZ	
CCV	2.034	3.119	3.093	10.383	2.559	5.188	15.179	IC1-032125	4/3/2025 9:38	10 NF/IZ	
CCB	0	0	0	0	0	0	0	IC1-032125	4/3/2025 9:59	10 NF/IZ	
LB135296BSW	2.028	3.121	3.103	10.387	2.561	5.226	15.185	IC1-032125	4/3/2025 10:43	10 NF/IZ	
LB135296BLW	0	0	0	0	0	0	0	IC1-032125	4/3/2025 11:04	10 NF/IZ	
Q1711-01	0.332	26.59	0	0.215	0	2.108	10.666	IC1-032125	4/3/2025 12:29	10 NF/IZ	
Q1711-02MS	2.301	28.881	3.076	10.43	2.571	2.367	24.892	IC1-032125	4/3/2025 12:50	10 NF/IZ	
Q1711-03MSD	2.172	28.857	2.983	10.101	2.479	1.573	24.485	IC1-032125	4/3/2025 13:12	10 NF/IZ	
Q1711-04	0.275	20.1	0	0.221	0	0	4.529	IC1-032125	4/3/2025 13:55	10 NF/IZ	
Q1711-08	0	0.047	0	0	0	0	0	IC1-032125	4/3/2025 14:16	10 NF/IZ	
Q1716-01	0.433	427.687	0	0.63	0.296	0	54.697	IC1-032125	4/3/2025 14:38	10 NF/IZ	
Q1711-01DLX10	0.054	2.364	0	0	0	0	1.413	IC1-032125	4/3/2025 14:59	10 NF/IZ	
Q1711-04DLX5	0.071	3.687	0	0	0	0	1.238	IC1-032125	4/3/2025 15:21	10 NF/IZ	
CCV	2.072	3.107	3.112	10.418	2.589	5.237	15.386	IC1-032125	4/3/2025 15:43	10 NF/IZ	
CCB	0	0	0	0	0	0	0	IC1-032125	4/3/2025 17:16	10 NF/IZ	



Material: BDH9312-2.5KG
 Material Description: COPPER SULFATE CRYST 2500GM
 Grade: U S P REAGENT (ACS GRADE)

Batch: 24H0956271
 Reassay Date: 05/31/2027
 CAS Number: 7758-99-8
 Molecular Formula: $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
 Molecular Mass: 249.68

Date of Manufacture: 05/01/2024
 Storage: Room Temperature

Characteristics	Specifications	Measured Values
Appearance	Blue crystals	Blue crystals
Calcium	$\leq 0.005 \%$	0.003 %
Chloride	$\leq 0.001 \%$	0.0001 %
Insolubles	$\leq 0.005 \%$	0.001 %
Iron	$\leq 0.003 \%$	0.001 %
Nickel	$\leq 0.005 \%$	0.003 %
Nitrogen Compounds (as N)	$\leq 0.002 \%$	0.001 %
Potassium	$\leq 0.01 \%$	0.0004 %
Purity	98.0 - 102.0 %	99.7 %
Sodium	$\leq 0.02 \%$	0.003 %

Extra Description: Meets Reagent Specifications for testing USP/NF monographs

CUSTOMER PART# BDH9312-2.5KG

Internal ID #: 793

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.

W3202 Received on 4/16/25 by IZ

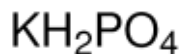
Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Potassium phosphate monobasic - ACS reagent, ≥99.0%

Product Number: P0662
Batch Number: MKCW6723
Brand: SIGALD
CAS Number: 7778-77-0
MDL Number: MFCD00011401
Formula: H₂KO₄P
Formula Weight: 136.09 g/mol
Quality Release Date: 16 OCT 2024
Recommended Retest Date: OCT 2028



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Crystals
Assay	≥ 99.0 %	99.8 %
Insoluble Matter	≤ 0.01 %	< 0.01 %
Loss on Drying	≤ 0.2 %	< 0.1 %
At 105°C		
pH	4.1 - 4.5	4.5
(c = 5%, 25 deg C)		
Chloride Content	≤ 0.001 %	< 0.001 %
Sulfate (SO ₄)	≤ 0.003 %	< 0.003 %
Heavy Metals	≤ 0.001 %	< 0.001 %
by ICP		
Iron (Fe)	≤ 0.002 %	< 0.001 %
Sodium (Na)	≤ 0.005 %	< 0.001 %
Recommended Retest Period	-----	-----
4 Years		



Larry Coers, Director
Quality Control
Milwaukee, WI US

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

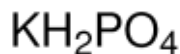


Certificate of Analysis

Product Name:

Potassium phosphate monobasic - ACS reagent, ≥99.0%

Product Number: P0662
Batch Number: MKCX1379
Brand: SIGALD
CAS Number: 7778-77-0
MDL Number: MFCD00011401
Formula: H₂KO₄P
Formula Weight: 136.09 g/mol
Quality Release Date: 27 JAN 2025
Recommended Retest Date: JAN 2029



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Crystals
Assay	≥ 99.0 %	99.9 %
Insoluble Matter	≤ 0.01 %	< 0.01 %
Loss on Drying	≤ 0.2 %	< 0.1 %
At 105°C		
pH	4.1 - 4.5	4.5
(c = 5%, 25 deg C)		
Chloride Content	≤ 0.001 %	< 0.001 %
Sulfate (SO ₄)	≤ 0.003 %	< 0.003 %
Heavy Metals	≤ 0.001 %	< 0.001 %
by ICP		
Iron (Fe)	≤ 0.002 %	< 0.001 %
Sodium (Na)	≤ 0.005 %	< 0.001 %
Recommended Retest Period	-----	-----
4 Years		



Larry Coers, Director
Quality Control
Milwaukee, WI US

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Material	BDH1133-4LP
Material Description	Isopropyl Alcohol
Lot	25C1161072
Expires end of	2029-Mar-04
CAS Number	67-63-0
Molecular formula	(CH ₃) ₂ CHOH
Molecular mass	0
Last Quality Control	2025-Mar-24
Date of manufacture	2025-Mar-05
Made in	United States
Manufacturer Source Batch	US20TK1770

Additional information

Characteristics	Specifications	Measured values
ACS - Assay (CH ₃ CHOHCH ₃)	>= 99.5 %	100.0 %
ACS - Color (APHA)	<= 10	<5
ACS - Residue after Evaporation	<= 0.001 %	<0.001 %
ACS - Solubility in H ₂ O	Passes Test	Passes Test
ACS - Titrable Acid or Base (meq/g)	<= 0.0001	<0.0001
ACS - Water (H ₂ O)(by Karl Fischer titrn)	<= 0.2 %	<0.1 %
Appearance (Clear, colorless liquid)	Passes Test	Passes Test
Carbonyl Compounds - Acetone	<= 0.002 %	<0.001 %
Carbonyl Compounds - Propionaldehyde	<= 0.002 %	<0.001 %

Signature

We certify that this batch conforms to the specifications listed above.

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

Michelle Bales - Sr. Manager Quality Assurance
Avantor Performance Materials, LLC

For Professional use in Laboratory or Manufacturing. Not for use as an Active Pharmaceutical Ingredient or Food or Animal Feed. Suitability and intended use of the product remains the responsibility of the user.

VWR International LLC, Radnor Corporate Center, Building One, Suite 200, 100 Matsonford Road, Radnor, PA 19087, USA.

VWR International bv, Haasrode Research Park Zone 2020, Geldenaaksebaan 464, 3001 Leuven, Belgium

BDH1133- 25C1161072 Page 1 / 1

Certificate of Analysis

Sodium Hypochlorite Solution, 5% available Chlorine

Lot Number: 2506M51**Product Number:** 7495.5**Manufacture Date:** JUN 18, 2025**Expiration Date:** DEC 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

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

Jose Pena (06/18/2025)
Operations Manager

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

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

 **avantorsTM**



W3240
JP
07/15/2025
07/15/2025

Material No.: 9262-03
Batch No.: 25C0362006
Manufactured Date: 2025-01-29
Expiration Date: 2026-04-30
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	6
ECD-Sensitive Impurities (as EthyleneDibromide) - Single Impurity Peak (ng/mL)	≤ 5	4
Assay (Total Saturated C ₆ Isomers) (by GC, corrected for water)	$\geq 99.5 \%$	100.0 %
Assay (as n-Hexane) (by GC, corrected for water)	$\geq 95 \%$	100 %
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.2 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: United States
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials LLC

W3243 Received on 10/3/25 by IZ

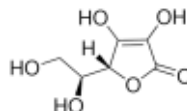
Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

L-Ascorbic acid - ACS reagent, ≥99%

Product Number: 255564
Batch Number: MKCX1143
Brand: SIAL
CAS Number: 50-81-7
MDL Number: MFCD00064328
Formula: C₆H₈O₆
Formula Weight: 176.12 g/mol
Quality Release Date: 17 JAN 2025
Recommended Retest Date: JAN 2028



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals or Granules or Chunks	Powder
Infrared Spectrum	Conforms to Structure	Conforms
Optical Rotation (+); c = 10%; Water	20.5 - 21.5 deg	21.0 deg
Titration by Iodine	≥ 99.0 %	100.0 %
Residue on Ignition	≤ 0.10 %	0.02 %
Iron (Fe)	≤ 0.001 %	< 0.001 %
Heavy Metals by ICP-OES	≤ 0.002 %	0.001 %
Recommended Retest Period 3 Years	-----	-----
Meets ACS Requirements	Current ACS Specification	Conforms



Larry Coers, Director
Quality Control
Milwaukee, WI US

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SHIPPING DOCUMENTS



284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax: (908) 788-9222
www.chemtech.net

CHAIN OF CUSTODY RECORD

Alliance Project Number: AEC-2025-0013

COC Number:

Q 3734

CLIENT INFORMATION

PROJECT INFORMATION

BILLING INFORMATION

COMPANY: Durham School Services

PROJECT NAME: CSC 6601 Castle Shannon

BILL TO: dede.golding@alliancetg.com

PO#

ADDRESS: 1 John C Dean Memorial Boulevard

PROJECT #: AEC-2025-0013

LOCATION: PA

ADDRESS:

CITY: Castle Shannon STATE: PA ZIP:

PROJECT MANAGER:

CITY:

STATE: ZIP:

ATTENTION: staci.bruce@alliancetg.com

E-MAIL:

ATTENTION:

PHONE:

PHONE:

FAX:

PHONE:

FAX:

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX: _____ DAYS*
HARD COPY: _____ DAYS*
EDD _____ DAYS*
* TO BE APPROVED BY ALLIANCE
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

- ☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____
☐ EDD Format _____

ANALYSIS

Oil & Grease	TSS	Total Phosphorus	Nitrogen						
1	2	3	4	5	6	7	8	9	

PRESERVATIVES

COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles										← Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	SW-1	SW		X	11/25	9:45		1	1	1	1						
2.	SW-2	SW		X	11/25	10:00		1	1	1	1						
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	RECEIVED BY	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 3.2°C MeOH extraction requires an additional 4oz. Jar for percent solid Comments:	SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight ALLIANCE: ☐ Picked Up ☐ Overnight	Shipment Complete ☐ YES ☐ NO
1. <u>FedEx</u>	<u>11-26-25</u>	1. <u>[Signature]</u>			
RELINQUISHED BY	DATE/TIME	RECEIVED BY			
2.		2.			
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY			
3.		3.			

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT

YELLOW - ALLIANCE COPY

PINK - SAMPLER COPY

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312