

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:	Q3462	OrderDate:	10/24/2025 1:38:00 PM
Client:	ATG-GREENVILLE AEC	Project:	AEC-2025-0013
Contact:	Daniel Maalouf	Location:	D31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3462-01	SW-1	WATER			10/18/25 12:00			10/23/25
			Anions Group1	300.0			10/24/25 15:50	
			Phosphorus-Total	365.3		10/31/25	10/31/25 13:39	
			TKN	SM4500-N Org C-11 plus NH3 B plus G-11		10/29/25	10/29/25 14:34	
			Total Nitrogen	Cal			10/29/25 14:34	
			Oil and Grease	1664A			10/27/25 10:00	
			TSS	SM2540 D			10/24/25 12:30	



SAMPLE DATA

Report of Analysis

Client: ATG-GREENVILLE AEC
Project: AEC-2025-0013
Client Sample ID: SW-1
Lab Sample ID: Q3462-01

Date Collected: 10/18/25 12:00
Date Received: 10/23/25
SDG No.: Q3462
Matrix: WATER
% Solid: 0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Nitrite	0.074	HU	1	0.074	0.60	mg/L		10/24/25 15:50	300.0
Nitrate	0.84	H	1	0.095	0.50	mg/L		10/24/25 15:50	300.0
Nitrate+Nitrite	0.84	J	1	0.17	1.10	mg/L		10/24/25 15:50	300.0
Oil and Grease	5.30		1	0.29	5.00	mg/L		10/27/25 10:00	1664A
Phosphorus, Total	0.12		1	0.0050	0.050	mg/L	10/31/25 10:00	10/31/25 13:39	365.3
TKN	1.60		1	0.11	0.50	mg/L	10/29/25 08:50	10/29/25 14:34	SM4500-N Org C-21 plus NH3 B plus G-21
Nitrogen	2.44		1	0.31	1.30	mg/L		10/29/25 14:34	SM 4500-N Org C-11 plus NH3 B plus G-11
TSS	394		1	1.00	4.00	mg/L		10/24/25 12:30	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.: Q3462

Project: AEC-2025-0013

RunNo.: LB137653

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Bromide	mg/L	9.8	10	98	90-110	10/09/2025
Chloride	mg/L	2.9	3	97	90-110	10/09/2025
Fluoride	mg/L	2	2	100	90-110	10/09/2025
Nitrite	mg/L	2.9	3	97	90-110	10/09/2025
Nitrate	mg/L	2.4	2.5	96	90-110	10/09/2025
Sulfate	mg/L	14.7	15	98	90-110	10/09/2025
Orthophosphate as P	mg/L	5	5	100	90-110	10/09/2025
Sample ID: CCV1						
Bromide	mg/L	10.5	10	105	90-110	10/24/2025
Chloride	mg/L	3.1	3	103	90-110	10/24/2025
Fluoride	mg/L	2	2	100	90-110	10/24/2025
Nitrite	mg/L	3.1	3	103	90-110	10/24/2025
Nitrate	mg/L	2.6	2.5	104	90-110	10/24/2025
Sulfate	mg/L	15.7	15	105	90-110	10/24/2025
Orthophosphate as P	mg/L	4.7	5	94	90-110	10/24/2025
Sample ID: CCV2						
Bromide	mg/L	10.6	10	106	90-110	10/24/2025
Chloride	mg/L	3.2	3	107	90-110	10/24/2025
Fluoride	mg/L	2.1	2	105	90-110	10/24/2025
Nitrite	mg/L	3.2	3	107	90-110	10/24/2025
Nitrate	mg/L	2.6	2.5	104	90-110	10/24/2025
Sulfate	mg/L	15.6	15	104	90-110	10/24/2025
Orthophosphate as P	mg/L	5	5	100	90-110	10/24/2025

Initial and Continuing Calibration Verification

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

RunNo.: LB137696

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV1						
TKN		mg/L	5	5	100	90-110	10/29/2025
Sample ID:	CCV1						
TKN		mg/L	4.9	5	98	90-110	10/29/2025
Sample ID:	CCV2						
TKN		mg/L	5	5	100	90-110	10/29/2025

Initial and Continuing Calibration Verification

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

RunNo.: LB137729

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Phosphorus, Total	mg/L	0.517	0.50	103	90-110	10/31/2025
Sample ID: CCV1 Phosphorus, Total	mg/L	0.502	0.50	100	90-110	10/31/2025
Sample ID: CCV2 Phosphorus, Total	mg/L	0.493	0.50	99	90-110	10/31/2025

Initial and Continuing Calibration Blank Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

RunNo.: LB137653

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	10/09/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	10/09/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	10/09/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	10/09/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	10/09/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	10/09/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	10/09/2025
Sample ID: CCB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	10/24/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	10/24/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	10/24/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	10/24/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	10/24/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	10/24/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	10/24/2025
Sample ID: CCB2							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	10/24/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	10/24/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	10/24/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	10/24/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	10/24/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	10/24/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	10/24/2025

Initial and Continuing Calibration Blank Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

RunNo.: LB137696

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	10/29/2025
Sample ID: CCB1 TKN	mg/L	< 0.2500	0.2500	U	0.11	0.5	10/29/2025
Sample ID: CCB2 TKN	mg/L	< 0.2500	0.2500	U	0.11	0.5	10/29/2025

Initial and Continuing Calibration Blank Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

RunNo.: LB137729

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Phosphorus, Total	mg/L	0.007	0.0250	J	0.0045	0.05	10/31/2025
Sample ID: CCB1 Phosphorus, Total	mg/L	0.010	0.0250	J	0.0045	0.05	10/31/2025
Sample ID: CCB2 Phosphorus, Total	mg/L	0.007	0.0250	J	0.0045	0.05	10/31/2025

Preparation Blank Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB137648BL							
TSS	mg/L	1	2.0000	J	1	4	10/24/2025
Sample ID: LB137653BLW							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	10/24/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	10/24/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	10/24/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	10/24/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	10/24/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	10/24/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	10/24/2025
Sample ID: LB137655BL							
Oil and Grease	mg/L	< 2.5000	2.5000	U	0.29	5.0	10/27/2025
Sample ID: PB170300BL							
TKN	mg/L	< 0.2500	0.2500	U	0.11	0.5	10/29/2025
Sample ID: PB170350BL							
Phosphorus, Total	mg/L	0.01	0.0250	J	0.005	0.05	10/31/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3462
Project:	AEC-2025-0013	Sample ID:	Q3442-01
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	10.4		0.37	U	10	1	104		10/24/2025
Phosphorus, Total	mg/L	90-110	0.50		0.025	J	0.5	1	94		10/31/2025
Chloride	mg/L	80-120	3.50		0.41	J	3	1	103		10/24/2025
Fluoride	mg/L	80-120	2.10		0.11	U	2	1	105		10/24/2025
TKN	mg/L	75-125	4.70		0.22	J	5	1	90		10/29/2025
Nitrite	mg/L	80-120	3.10		0.074	U	3	1	103		10/24/2025
Nitrate	mg/L	80-120	2.60		0.095	U	2.5	1	104		10/24/2025
Sulfate	mg/L	80-120	18.8		3.80		15	1	100		10/24/2025
Orthophosphate as P	mg/L	80-120	5.40		0.34	U	5	1	108		10/24/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3462
Project:	AEC-2025-0013	Sample ID:	Q3442-01
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	9.80		0.37	U	10	1	98		10/24/2025
Phosphorus, Total	mg/L	90-110	0.50		0.025	J	0.5	1	96		10/31/2025
Chloride	mg/L	80-120	3.30		0.41	J	3	1	96		10/24/2025
Fluoride	mg/L	80-120	1.90		0.11	U	2	1	95		10/24/2025
TKN	mg/L	75-125	4.70		0.22	J	5	1	90		10/29/2025
Nitrite	mg/L	80-120	2.90		0.074	U	3	1	97		10/24/2025
Nitrate	mg/L	80-120	2.40		0.095	U	2.5	1	96		10/24/2025
Sulfate	mg/L	80-120	18.0		3.80		15	1	95		10/24/2025
Orthophosphate as P	mg/L	80-120	4.90		0.34	U	5	1	98		10/24/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3462
Project:	AEC-2025-0013	Sample ID:	Q3448-03
Client ID:	DSN001MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	22.4		2.30	J	20.0	1	101		10/27/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3462
Project:	AEC-2025-0013	Sample ID:	Q3448-03
Client ID:	DSN001MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	22.6		2.30	J	20.0	1	102		10/27/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3462
Project:	AEC-2025-0013	Sample ID:	Q3455-01
Client ID:	Q3455 -01MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	287		267		20.0	1	101		10/27/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3462
Project:	AEC-2025-0013	Sample ID:	Q3455-01
Client ID:	Q3455 -01MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	287		267		20.0	1	102		10/27/2025

Duplicate Sample Summary

Client: ATG-GREENVILLE AEC	SDG No.: Q3462
Project: AEC-2025-0013	Sample ID: Q3442-01
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	0.22	J	0.22	J	1	0		10/29/2025
Phosphorus, Total	mg/L	+/-20	0.025	J	0.024	J	1	4.08		10/31/2025

Duplicate Sample Summary

Client: ATG-GREENVILLE AEC	SDG No.: Q3462
Project: AEC-2025-0013	Sample ID: Q3442-01
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		1.90		1	10		10/24/2025
Orthophosphate as P	mg/L	+/-20	5.40		4.90		1	10		10/24/2025
Sulfate	mg/L	+/-20	18.8		18.0		1	4		10/24/2025
Bromide	mg/L	+/-20	10.4		9.80		1	6		10/24/2025
Chloride	mg/L	+/-20	3.50		3.30		1	6		10/24/2025
Nitrite	mg/L	+/-20	3.10		2.90		1	7		10/24/2025
Nitrate	mg/L	+/-20	2.60		2.40		1	8		10/24/2025
TKN	mg/L	+/-20	4.70		4.70		1	0		10/29/2025
Phosphorus, Total	mg/L	+/-20	0.50		0.50		1	1.2		10/31/2025

Duplicate Sample Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3462
Project:	AEC-2025-0013	Sample ID:	Q3448-01
Client ID:	DSN001DUP	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	27.5		27.1		1	1.47		10/24/2025

Duplicate Sample Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3462
Project:	AEC-2025-0013	Sample ID:	Q3448-03
Client ID:	DSN001MSD	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	22.4		22.6		1	0.89		10/27/2025

Duplicate Sample Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3462
Project:	AEC-2025-0013	Sample ID:	Q3455-01
Client ID:	Q3455 -01MSD	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	287		287		1	0.03		10/27/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

Run No.: LB137648

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB137648BS							
TSS	mg/L	550	531		96	1	90-110	10/24/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

Run No.: LB137653

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB137653BSW							
Bromide	mg/L	10	10.6		106	1	90-110	10/24/2025
Chloride	mg/L	3	3.20		107	1	90-110	10/24/2025
Fluoride	mg/L	2	2.10		105	1	90-110	10/24/2025
Nitrite	mg/L	3	3.10		103	1	90-110	10/24/2025
Nitrate	mg/L	2.5	2.60		104	1	90-110	10/24/2025
Sulfate	mg/L	15	15.6		104	1	90-110	10/24/2025
Orthophosphate as P	mg/L	5	4.70		94	1	90-110	10/24/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

Run No.: LB137655

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB137655BS							
Oil and Grease	mg/L	20.0	16.7		84	1	78-114	10/27/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

Run No.: LB137696

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170300BS							
TKN	mg/L	5	5.10		102	1	90-110	10/29/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3462

Project: AEC-2025-0013

Run No.: LB137729

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170350BS							
Phosphorus, Total	mg/L	0.50	0.52		103	1	90-110	10/31/2025



RAW DATA

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 10/23/2025

Run Number: LB137648

BalanceID: WC SC-5

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 104 °C 10/23/2025 15:00 **TEMP1 OUT:** 103 °C 10/23/2025 16:00
TEMP2 IN: 104 °C 10/23/2025 16:30 **TEMP2 OUT:** 103 °C 10/23/2025 17:30
TEMP3 IN: 104 °C 10/24/2025 12:30 **TEMP3 OUT:** 103 °C 10/24/2025 14:20
TEMP4 IN: 104 °C 10/24/2025 15:00 **TEMP4 OUT:** 103 °C 10/24/2025 16:30

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	LB137648BL	LB137648BL	1.5893	1.5893	100	1.5894	1.5894	1.5894	0.0001	1
2	LB137648BS	LB137648BS	1.6931	1.6932	100	1.7463	1.7463	1.7463	0.0531	531
3	Q3420-05	COMPOSITE	1.4910	1.4911	1000	1.5052	1.5052	1.5052	0.0141	14.1
4	Q3428-02	Comp	1.4962	1.4962	500	1.6724	1.6724	1.6724	0.1762	352.4
5	Q3432-01	OUTFALL-001	1.4849	1.4849	100	1.5343	1.5343	1.5343	0.0494	494
6	Q3442-01	SW-1	1.4795	1.4795	500	1.5041	1.5041	1.5041	0.0246	49.2
7	Q3443-01	SW-1	1.4727	1.4727	500	1.5093	1.5093	1.5093	0.0366	73.2
8	Q3448-01	DSN001	1.4921	1.4922	1000	1.5197	1.5197	1.5197	0.0275	27.5
9	Q3448-01DUP	DSN001DUP	1.4919	1.4920	1000	1.5191	1.5191	1.5191	0.0271	27.1
10	Q3462-01	SW-1	1.5002	1.5002	200	1.5789	1.5789	1.5789	0.0787	393.5

A = Sample Volume (ml)

B = Final Empty Dish Weight (g)

C = Final Empty Dish + Sample weight after 1.5 hr drying @105°C(g)

D = Weight (g)

Weight (g) = C - B

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

WB 137648

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TSS Q3442 WorkList ID : 192654 Department : Wet-Chemistry Date : 10-24-2025 08:10:24

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3420-05 A	COMPOSITE	Water	TSS	Cool 4 deg C	DALT01	J22	10/21/2025	SM2540 D
Q3428-02 B	Comp	Water	TSS	Cool 4 deg C	ARAM01	J13	10/22/2025	SM2540 D
Q3432-01 A	OUTFALL-001	Water	TSS	Cool 4 deg C	ATGG01	D51	10/20/2025	SM2540 D
Q3442-01 D	SW-1	Water	TSS	Cool 4 deg C	ATGG01	D41	10/18/2025	SM2540 D
Q3443-01 A	SW-1	Water	TSS	Cool 4 deg C	ATGG01	D41	10/23/2025	SM2540 D
Q3448-01 C, D	DSN001	Water	TSS	Cool 4 deg C	PSEG04	D41	10/23/2025	SM2540 D
Q3462-01 A	SW-1	Water	TSS	Cool 4 deg C	ATGG01	D31	10/18/2025	SM2540 D

Date/Time 10/24/25 09:30
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

Date/Time 10/24/25 17:00
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

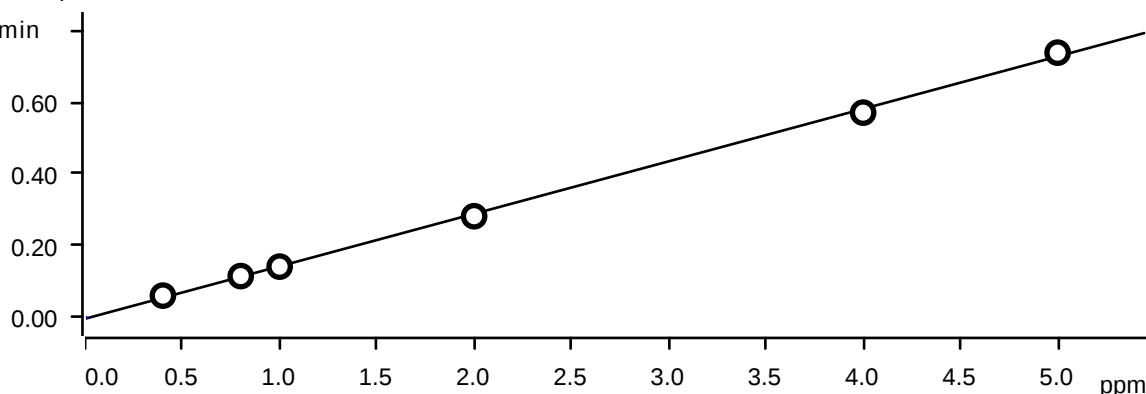
Instrument IC-1		Analyst: RM		Method: 300.0 / 9056A		Initial wt/ Analyst				
Ident	Con F-	Con CL-	Con NO2	Con BR-	Con NO3	Con HPO4	Con SO4	Method name	date time	
STD1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-100925	10/9/2025 10:46	10 RM/IZ
STD2	0.440	0.646	0.652	2.141	0.541	1.118	3.299	IC1-100925	10/9/2025 11:08	10 RM/IZ
STD3	0.813	1.225	1.222	4.073	1.019	1.947	6.091	IC1-100925	10/9/2025 11:29	10 RM/IZ
STD4	0.993	1.497	1.496	4.994	1.249	2.669	7.507	IC1-100925	10/9/2025 11:51	10 RM/IZ
STD5	1.954	2.923	2.922	9.773	2.435	4.828	14.557	IC1-100925	10/9/2025 12:12	10 RM/IZ
STD6	3.928	5.923	5.920	19.752	4.934	9.517	29.510	IC1-100925	10/9/2025 12:34	10 RM/IZ
STD7	5.072	7.585	7.589	25.268	6.323	12.920	37.537	IC1-100925	10/9/2025 12:55	10 RM/IZ
ICV	1.970	2.918	2.942	9.842	2.398	5.003	14.702	IC1-100925	10/9/2025 13:16	10 RM/IZ
ICB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-100925	10/9/2025 13:38	10 RM/IZ
CCV	2.011	3.145	3.126	10.533	2.620	4.708	15.658	IC1-100925	10/24/2025 10:26	10 RM/IZ
CCB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-100925	10/24/2025 10:47	10 RM/IZ
LB137653BLW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-100925	10/24/2025 11:09	10 RM/IZ
LB137653BSW	2.057	3.167	3.143	10.585	2.634	4.743	15.604	IC1-100925	10/24/2025 11:30	10 RM/IZ
Q3442-01	0.000	0.413	0.000	0.000	0.069	0.000	3.759	IC1-100925	10/24/2025 14:24	10 RM/IZ
Q3442-01MS	2.087	3.508	3.109	10.438	2.573	5.402	18.808	IC1-100925	10/24/2025 14:45	10 RM/IZ
Q3442-01MSD	1.949	3.293	2.906	9.761	2.405	4.855	17.959	IC1-100925	10/24/2025 15:07	10 RM/IZ
Q3443-01	0.000	12.517	0.000	0.000	19.797	0.415	2267.456	IC1-100925	10/24/2025 15:28	10 RM/IZ
Q3462-01	1.243	13.764	0.000	0.000	0.839	0.378	2299.943	IC1-100925	10/24/2025 15:50	10 RM/IZ
Q3443-01DLX10	0.043	1.258	0.000	0.000	1.768	0.000	187.156	IC1-100925	10/24/2025 16:12	10 RM/IZ
CCV	2.064	3.162	3.150	10.584	2.639	4.988	15.638	IC1-100925	10/24/2025 16:33	10 RM/IZ
CCB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-100925	10/24/2025 16:54	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	0.0000 IC1-100925	10/9/2025 10:46	10	RM/IZ
STD2	0.4400	0.6460	0.6520	2.1410	0.5410	1.1180	3.2990	IC1-100925	10/9/2025 11:08	10	RM/IZ
STD3	0.8130	1.2250	1.2220	4.0730	1.0190	1.9470	6.0910	IC1-100925	10/9/2025 11:29	10	RM/IZ
STD4	0.9930	1.4970	1.4960	4.9940	1.2490	2.6690	7.5070	IC1-100925	10/9/2025 11:51	10	RM/IZ
STD5	1.9540	2.9230	2.9220	9.7730	2.4350	4.8280	14.5570	IC1-100925	10/9/2025 12:12	10	RM/IZ
STD6	3.9280	5.9230	5.9200	19.7520	4.9340	9.5170	29.5100	IC1-100925	10/9/2025 12:34	10	RM/IZ
STD7	5.0720	7.5850	7.5890	25.2680	6.3230	12.9200	37.5370	IC1-100925	10/9/2025 12:55	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	10.0000	7.6667	8.6667	7.0500	8.2000	11.8000	9.9667				
STD2	1.6250	2.0833	1.8333	1.8250	1.9000	-2.6500	1.5167				
STD3	-0.7000	-0.2000	-0.2667	-0.1200	-0.0800	6.7600	0.0933				
STD4	-2.3000	-2.5667	-2.6000	-2.2700	-2.6000	-3.4400	-2.9533				
STD5	-1.8000	-1.2833	-1.3333	-1.2400	-1.3200	-4.8300	-1.6333				
STD6	1.4400	1.1333	1.1867	1.0720	1.1680	3.3600	1.4514				

Fluoride (Anions)

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



Function: $A = -3.86859E-3 + 0.0146255 \times Q$

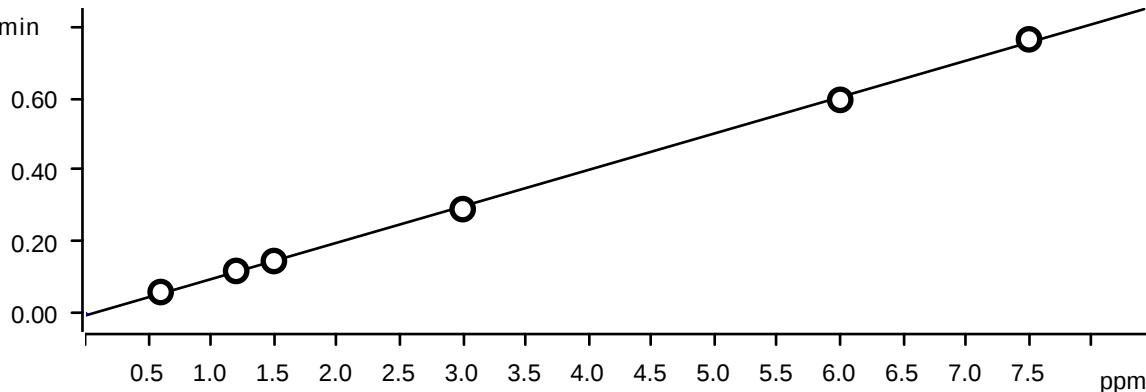
Relative standard deviation 2.744994 %

Correlation coefficient 0.999599

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	2025-10-09 10:46:54 UTC-4	used
Standard 2	1	0.400	10.0	1.0	1.0	0.061	STD2	2025-10-09 11:08:18 UTC-4	used
Standard 3	1	0.800	10.0	1.0	1.0	0.115	STD3	2025-10-09 11:29:42 UTC-4	used
Standard 4	1	1.000	10.0	1.0	1.0	0.141	STD4	2025-10-09 11:51:08 UTC-4	used
Standard 5	1	2.000	10.0	1.0	1.0	0.282	STD5	2025-10-09 12:12:34 UTC-4	used
Standard 6	1	4.000	10.0	1.0	1.0	0.571	STD6	2025-10-09 12:34:00 UTC-4	used
Standard 7	1	5.000	10.0	1.0	1.0	0.738	STD7	2025-10-09 12:55:27 UTC-4	used

Chloride (Anions)

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

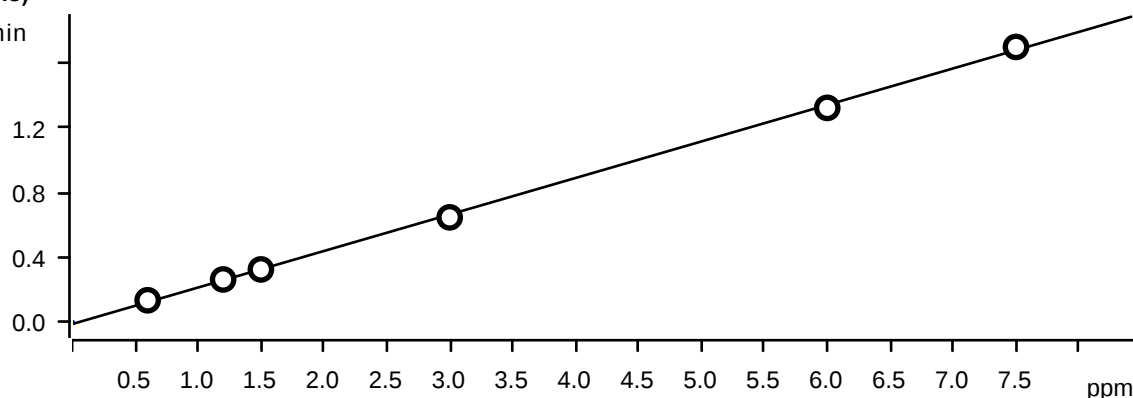


Function: $A = -5.87555E-3 + 0.0101528 \times Q$

Relative standard deviation 2.276543 %

Correlation coefficient 0.999727

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	2025-10-09 10:46:54 UTC-4	used
Standard 2	1	0.600	10.0	1.0	1.0	0.060	STD2	2025-10-09 11:08:18 UTC-4	used
Standard 3	1	1.200	10.0	1.0	1.0	0.119	STD3	2025-10-09 11:29:42 UTC-4	used
Standard 4	1	1.500	10.0	1.0	1.0	0.146	STD4	2025-10-09 11:51:08 UTC-4	used
Standard 5	1	3.000	10.0	1.0	1.0	0.291	STD5	2025-10-09 12:12:34 UTC-4	used
Standard 6	1	6.000	10.0	1.0	1.0	0.596	STD6	2025-10-09 12:34:00 UTC-4	used
Standard 7	1	7.500	10.0	1.0	1.0	0.764	STD7	2025-10-09 12:55:27 UTC-4	used

Nitrite (Anions) $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -0.0165604 + 0.0226258 \times Q$

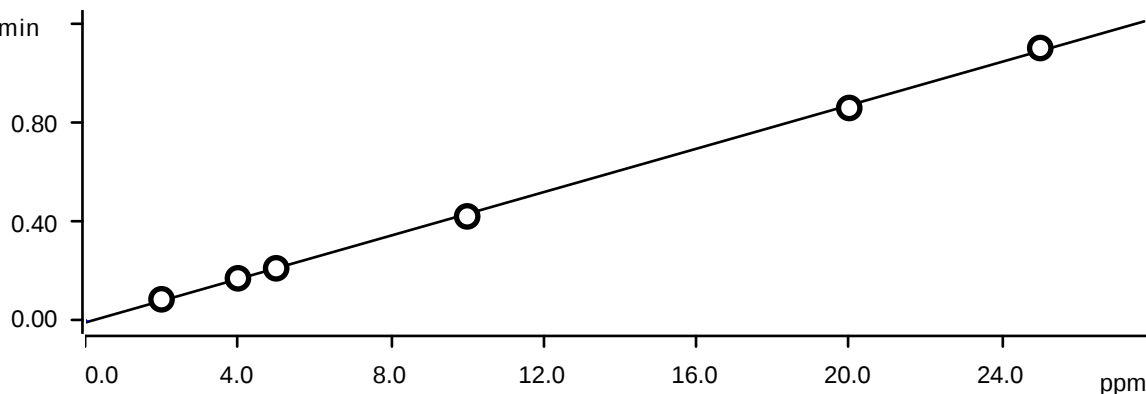
Relative standard deviation 2.379226 %

Correlation coefficient 0.999705

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	2025-10-09 10:46:54 UTC-4	used
Standard 2	1	0.600	10.0	1.0	1.0	0.131	STD2	2025-10-09 11:08:18 UTC-4	used
Standard 3	1	1.200	10.0	1.0	1.0	0.260	STD3	2025-10-09 11:29:42 UTC-4	used
Standard 4	1	1.500	10.0	1.0	1.0	0.322	STD4	2025-10-09 11:51:08 UTC-4	used
Standard 5	1	3.000	10.0	1.0	1.0	0.645	STD5	2025-10-09 12:12:34 UTC-4	used
Standard 6	1	6.000	10.0	1.0	1.0	1.323	STD6	2025-10-09 12:34:00 UTC-4	used
Standard 7	1	7.500	10.0	1.0	1.0	1.700	STD7	2025-10-09 12:55:27 UTC-4	used

Bromide (Anions)

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



Function: $A = -6.89623E-3 + 4.37562E-3 \times Q$

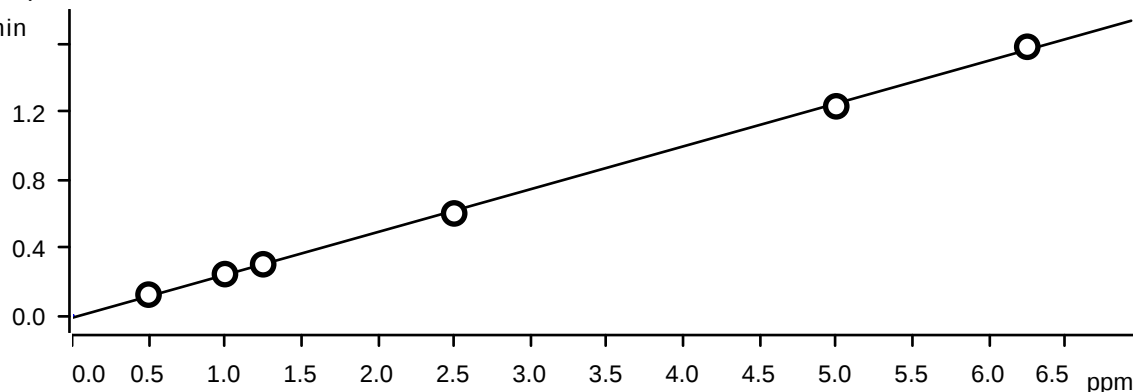
Relative standard deviation: 2.114692 %

Correlation coefficient: 0.999763

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	2025-10-09 10:46:54 UTC-4	used
Standard 2	1	2.000	10.0	1.0	1.0	0.087	STD2	2025-10-09 11:08:18 UTC-4	used
Standard 3	1	4.000	10.0	1.0	1.0	0.171	STD3	2025-10-09 11:29:42 UTC-4	used
Standard 4	1	5.000	10.0	1.0	1.0	0.212	STD4	2025-10-09 11:51:08 UTC-4	used
Standard 5	1	10.000	10.0	1.0	1.0	0.421	STD5	2025-10-09 12:12:34 UTC-4	used
Standard 6	1	20.000	10.0	1.0	1.0	0.857	STD6	2025-10-09 12:34:00 UTC-4	used
Standard 7	1	25.000	10.0	1.0	1.0	1.099	STD7	2025-10-09 12:55:27 UTC-4	used

Nitrate (Anions)

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

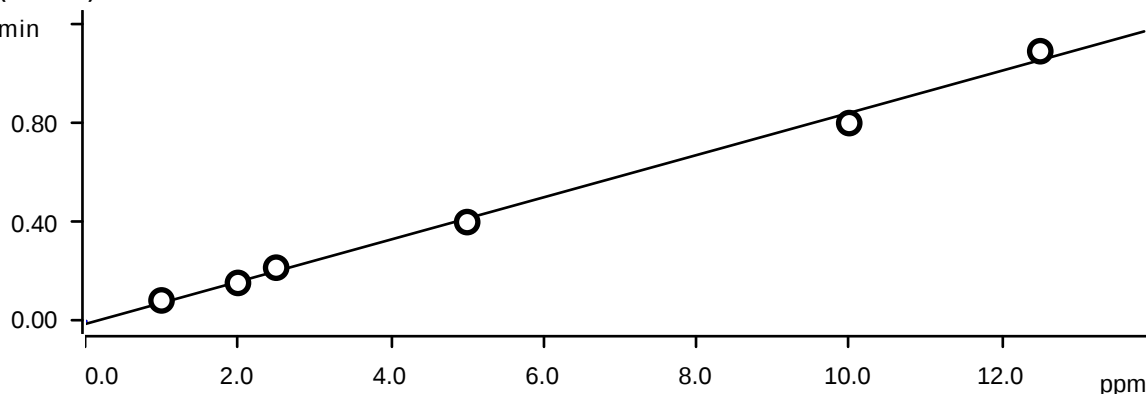


Function: $A = -0.0141807 + 0.0252306 \times Q$

Relative standard deviation: 2.346972 %

Correlation coefficient 0.999712

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	2025-10-09 10:46:54 UTC-4	used
Standard 2	1	0.500	10.0	1.0	1.0	0.122	STD2	2025-10-09 11:08:18 UTC-4	used
Standard 3	1	1.000	10.0	1.0	1.0	0.243	STD3	2025-10-09 11:29:42 UTC-4	used
Standard 4	1	1.250	10.0	1.0	1.0	0.301	STD4	2025-10-09 11:51:08 UTC-4	used
Standard 5	1	2.500	10.0	1.0	1.0	0.600	STD5	2025-10-09 12:12:34 UTC-4	used
Standard 6	1	5.000	10.0	1.0	1.0	1.231	STD6	2025-10-09 12:34:00 UTC-4	used
Standard 7	1	6.250	10.0	1.0	1.0	1.581	STD7	2025-10-09 12:55:27 UTC-4	used

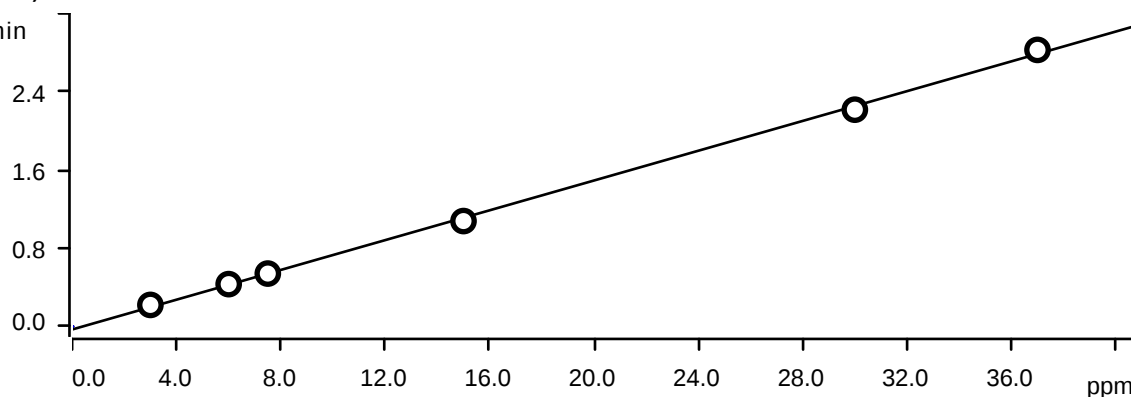
Phosphate (Anions) $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -0.0117521 + 8.50315E-3 \times Q$

Relative standard deviation 6.489714 %

Correlation coefficient 0.997825

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	2025-10-09 10:46:54 UTC-4	used
Standard 2	1	1.000	10.0	1.0	1.0	0.083	STD2	2025-10-09 11:08:18 UTC-4	used
Standard 3	1	2.000	10.0	1.0	1.0	0.154	STD3	2025-10-09 11:29:42 UTC-4	used
Standard 4	1	2.500	10.0	1.0	1.0	0.215	STD4	2025-10-09 11:51:08 UTC-4	used
Standard 5	1	5.000	10.0	1.0	1.0	0.399	STD5	2025-10-09 12:12:34 UTC-4	used
Standard 6	1	10.000	10.0	1.0	1.0	0.798	STD6	2025-10-09 12:34:00 UTC-4	used
Standard 7	1	12.500	10.0	1.0	1.0	1.087	STD7	2025-10-09 12:55:27 UTC-4	used

Sulfate (Anions)

 $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: $A = -0.0307148 + 7.61403E-3 \times Q$

Relative standard deviation 2.830893 %

Correlation coefficient 0.999580

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	2025-10-09 10:46:54 UTC-4	used
Standard 2	1	3.000	10.0	1.0	1.0	0.220	STD2	2025-10-09 11:08:18 UTC-4	used
Standard 3	1	6.000	10.0	1.0	1.0	0.433	STD3	2025-10-09 11:29:42 UTC-4	used
Standard 4	1	7.500	10.0	1.0	1.0	0.541	STD4	2025-10-09 11:51:08 UTC-4	used
Standard 5	1	15.000	10.0	1.0	1.0	1.078	STD5	2025-10-09 12:12:34 UTC-4	used
Standard 6	1	30.000	10.0	1.0	1.0	2.216	STD6	2025-10-09 12:34:00 UTC-4	used
Standard 7	1	37.000	10.0	1.0	1.0	2.827	STD7	2025-10-09 12:55:27 UTC-4	used

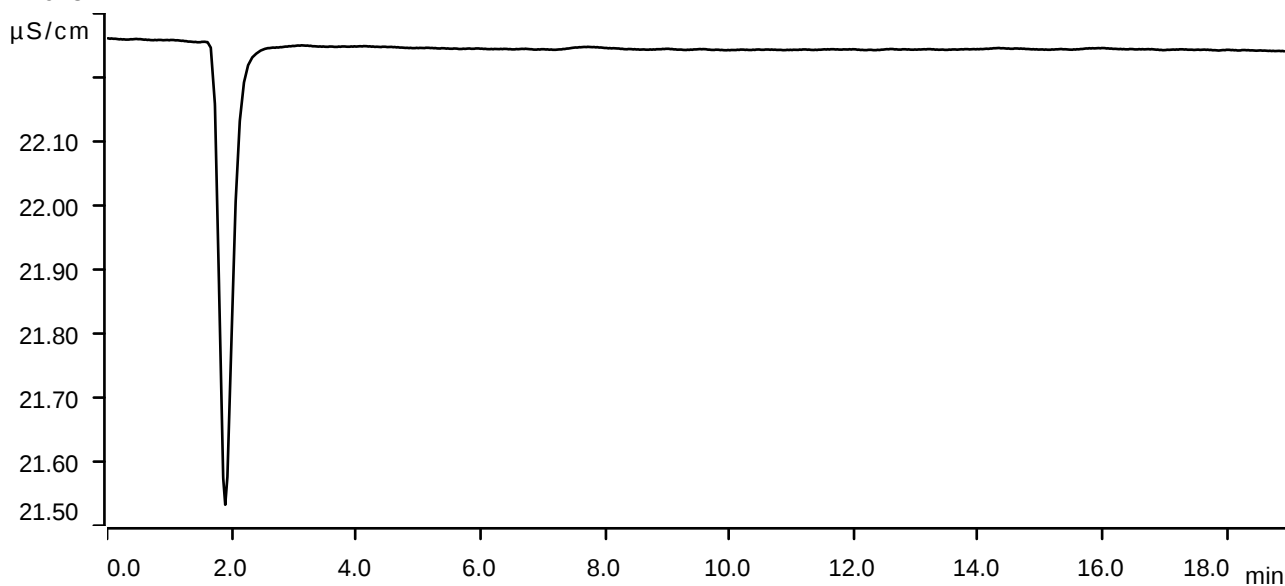
Sample data

Ident STD1
Sample type Standard 1
Determination start 2025-10-09 10:46:54 UTC-4
Method IC1-100925
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 13.57 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



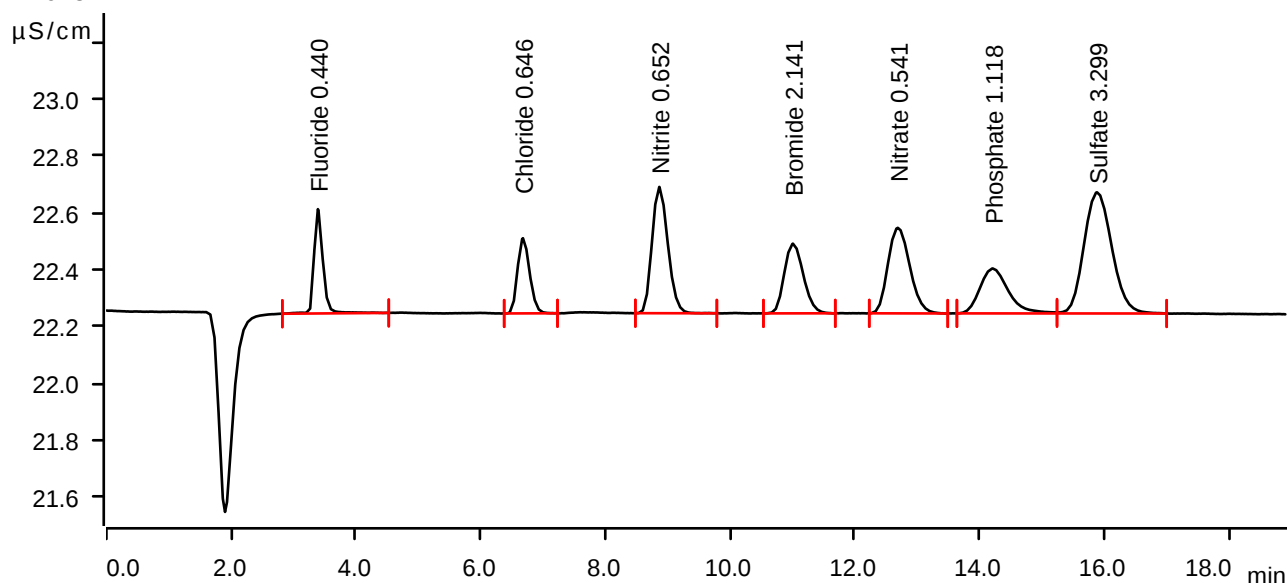
Sample data

Ident STD2
Sample type Standard 2
Determination start 2025-10-09 11:08:18 UTC-4
Method IC1-100925
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 13.34 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	3.392	0.0605	0.366	0.440	Fluoride
2	6.680	0.0597	0.264	0.646	Chloride
3	8.865	0.1310	0.444	0.652	Nitrite
4	11.008	0.0868	0.245	2.141	Bromide
5	12.692	0.1222	0.301	0.541	Nitrate
6	14.212	0.0833	0.158	1.118	Phosphate
7	15.883	0.2204	0.426	3.299	Sulfate

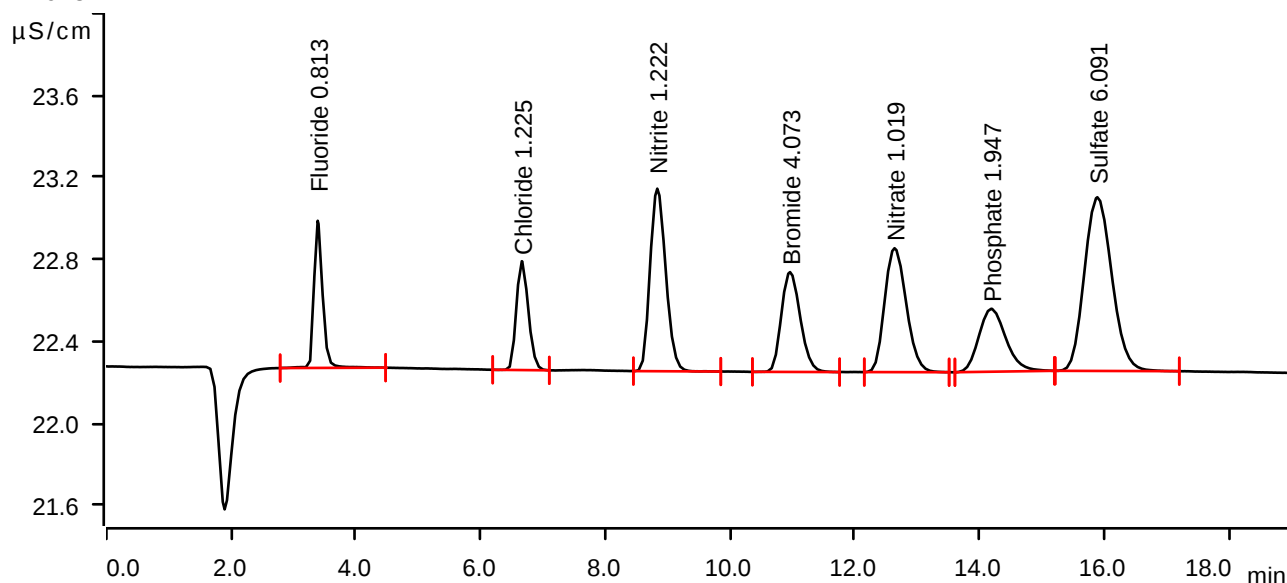
Sample data

Ident STD3
Sample type Standard 3
Determination start 2025-10-09 11:29:42 UTC-4
Method IC1-100925
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 13.63 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	3.388	0.1150	0.718	0.813	Fluoride
2	6.662	0.1185	0.531	1.225	Chloride
3	8.833	0.2598	0.891	1.222	Nitrite
4	10.962	0.1713	0.487	4.073	Bromide
5	12.637	0.2429	0.605	1.019	Nitrate
6	14.187	0.1538	0.307	1.947	Phosphate
7	15.888	0.4330	0.848	6.091	Sulfate

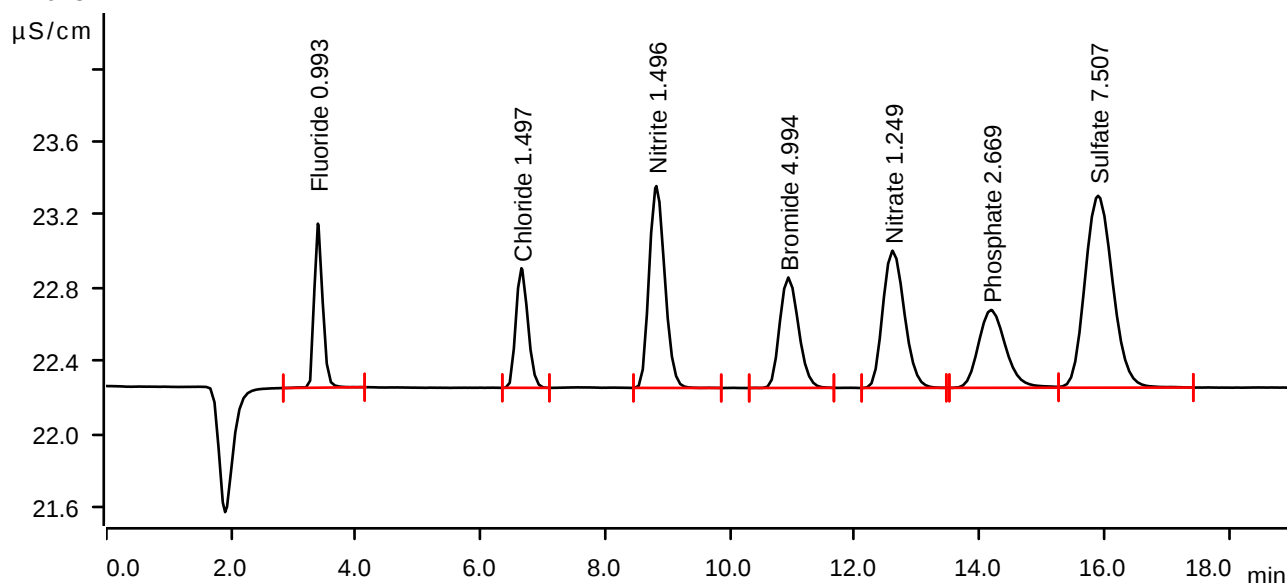
Sample data

Ident STD4
Sample type Standard 4
Determination start 2025-10-09 11:51:08 UTC-4
Method IC1-100925
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 13.34 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	3.392	0.1414	0.897	0.993	Fluoride
2	6.655	0.1461	0.654	1.497	Chloride
3	8.818	0.3220	1.103	1.496	Nitrite
4	10.933	0.2116	0.604	4.994	Bromide
5	12.607	0.3009	0.750	1.249	Nitrate
6	14.185	0.2152	0.426	2.669	Phosphate
7	15.900	0.5409	1.049	7.507	Sulfate

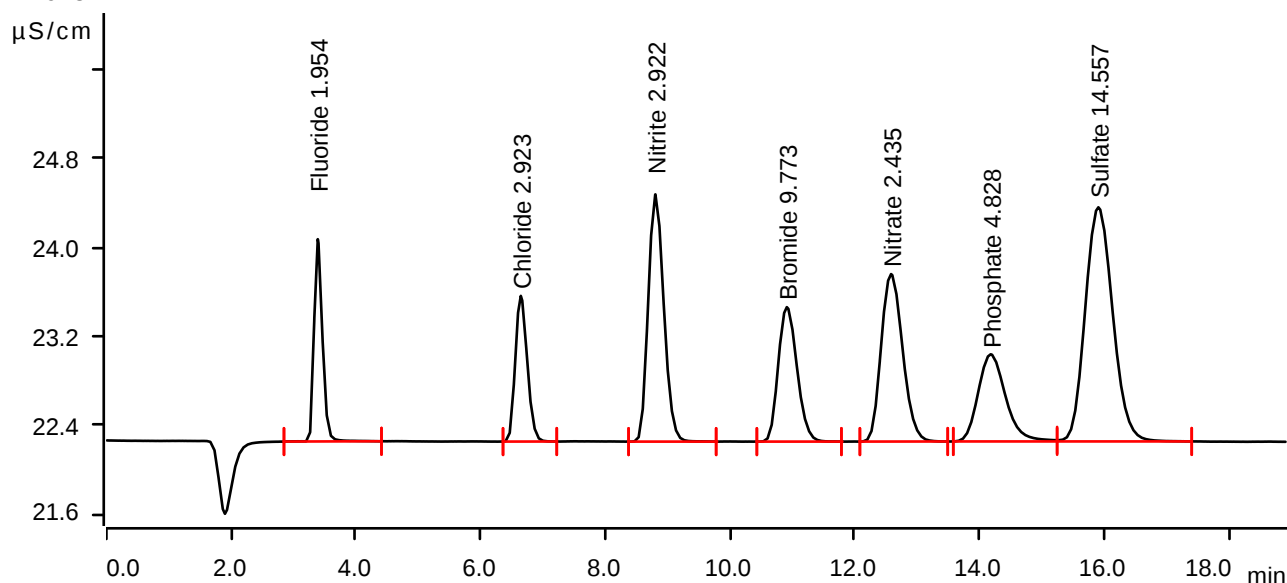
Sample data

Ident STD5
Sample type Standard 5
Determination start 2025-10-09 12:12:34 UTC-4
Method IC1-100925
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 13.06 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	3.390	0.2819	1.816	1.954	Fluoride
2	6.645	0.2909	1.308	2.923	Chloride
3	8.803	0.6446	2.221	2.922	Nitrite
4	10.910	0.4207	1.208	9.773	Bromide
5	12.582	0.6001	1.504	2.435	Nitrate
6	14.178	0.3988	0.783	4.828	Phosphate
7	15.905	1.0776	2.103	14.557	Sulfate

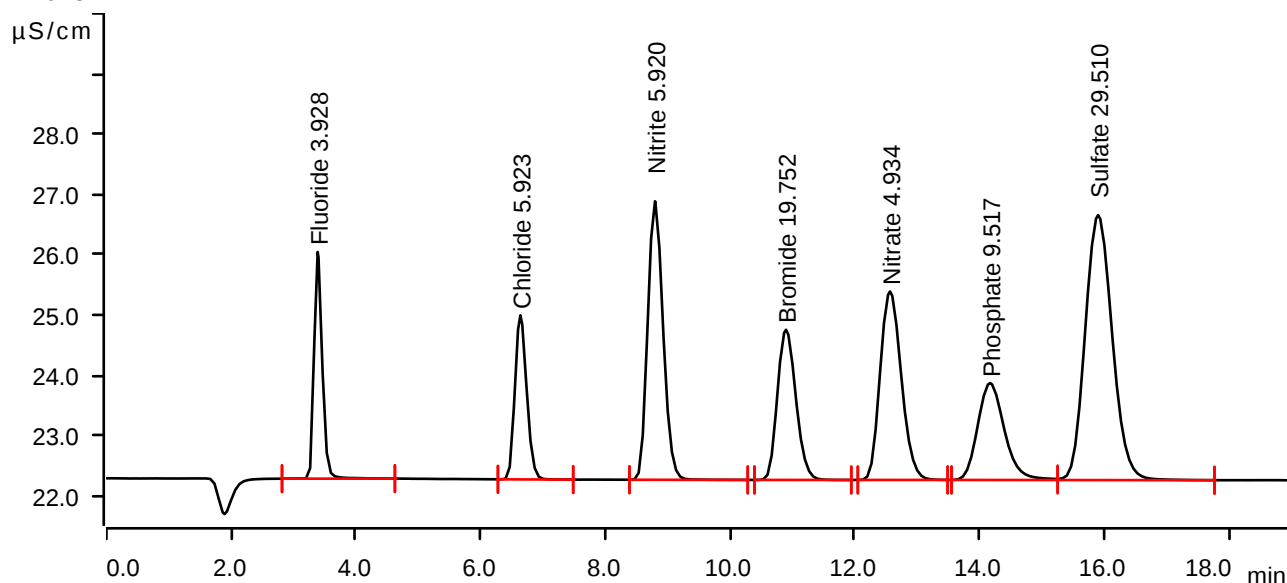
Sample data

Ident STD6
Sample type Standard 6
Determination start 2025-10-09 12:34:00 UTC-4
Method IC1-100925
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 13.06 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	3.388	0.5707	3.761	3.928	Fluoride
2	6.638	0.5955	2.722	5.923	Chloride
3	8.797	1.3228	4.622	5.920	Nitrite
4	10.897	0.8574	2.493	19.752	Bromide
5	12.565	1.2307	3.128	4.934	Nitrate
6	14.170	0.7975	1.608	9.517	Phosphate
7	15.900	2.2162	4.397	29.510	Sulfate

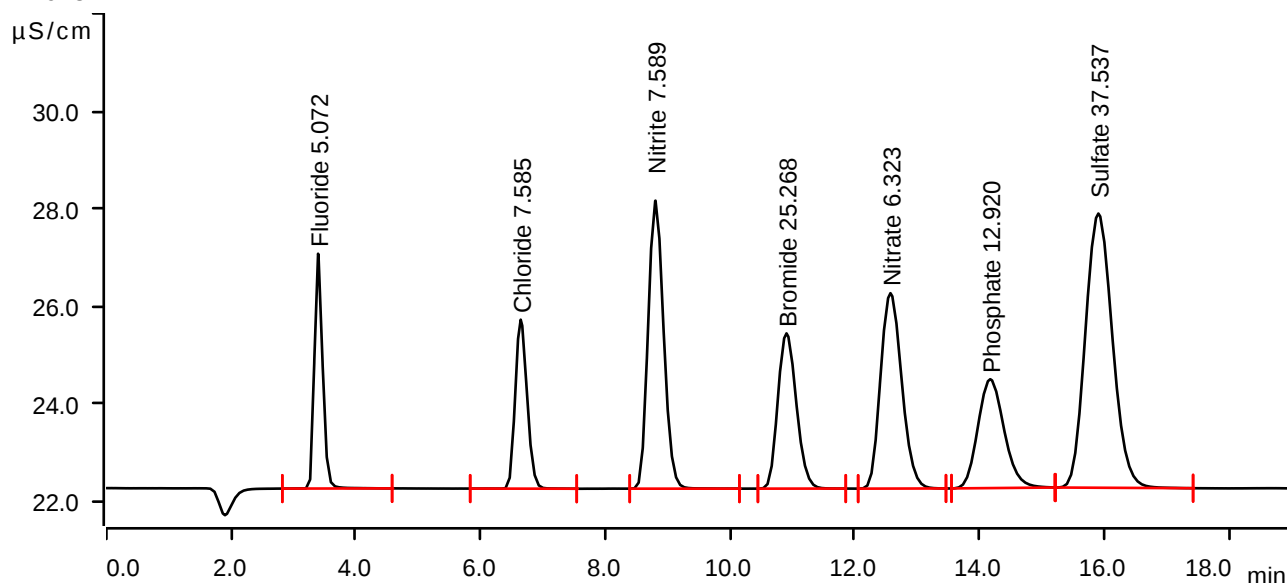
Sample data

Ident STD7
Sample type Standard 7
Determination start 2025-10-09 12:55:27 UTC-4
Method IC1-100925
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 13.01 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	3.395	0.7379	4.813	5.072	Fluoride
2	6.643	0.7642	3.464	7.585	Chloride
3	8.805	1.7004	5.904	7.589	Nitrite
4	10.905	1.0987	3.182	25.268	Bromide
5	12.572	1.5811	4.005	6.323	Nitrate
6	14.172	1.0869	2.232	12.920	Phosphate
7	15.905	2.8273	5.621	37.537	Sulfate

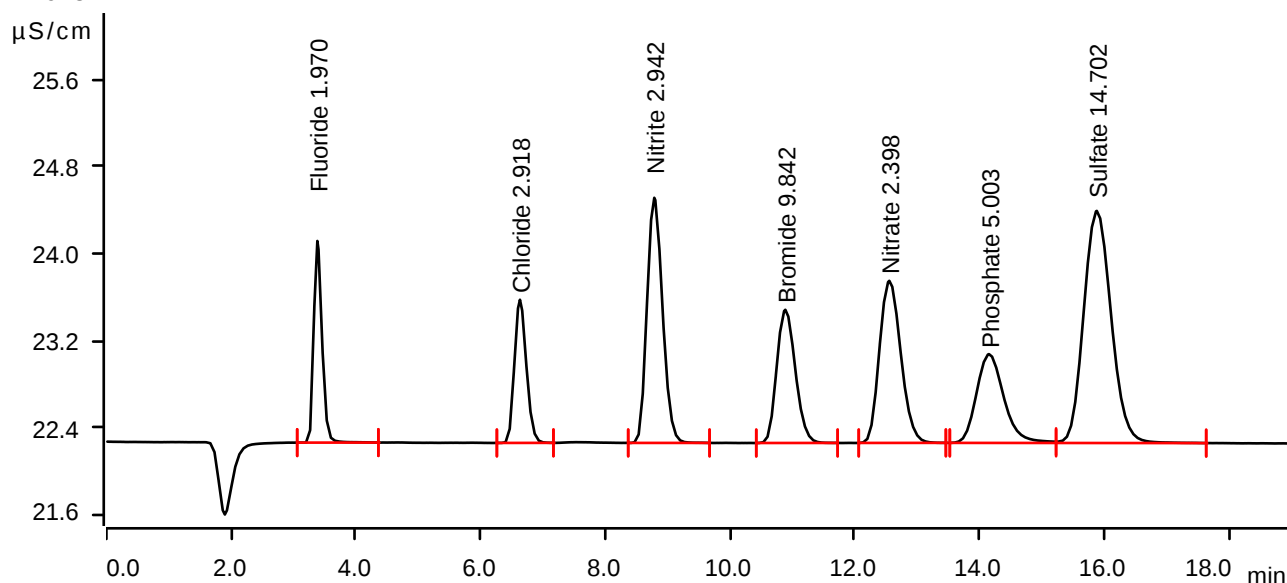
Sample data

Ident ICV
Sample type Check standard 1
Determination start 2025-10-09 13:16:55 UTC-4
Method IC1-100925
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 13.23 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



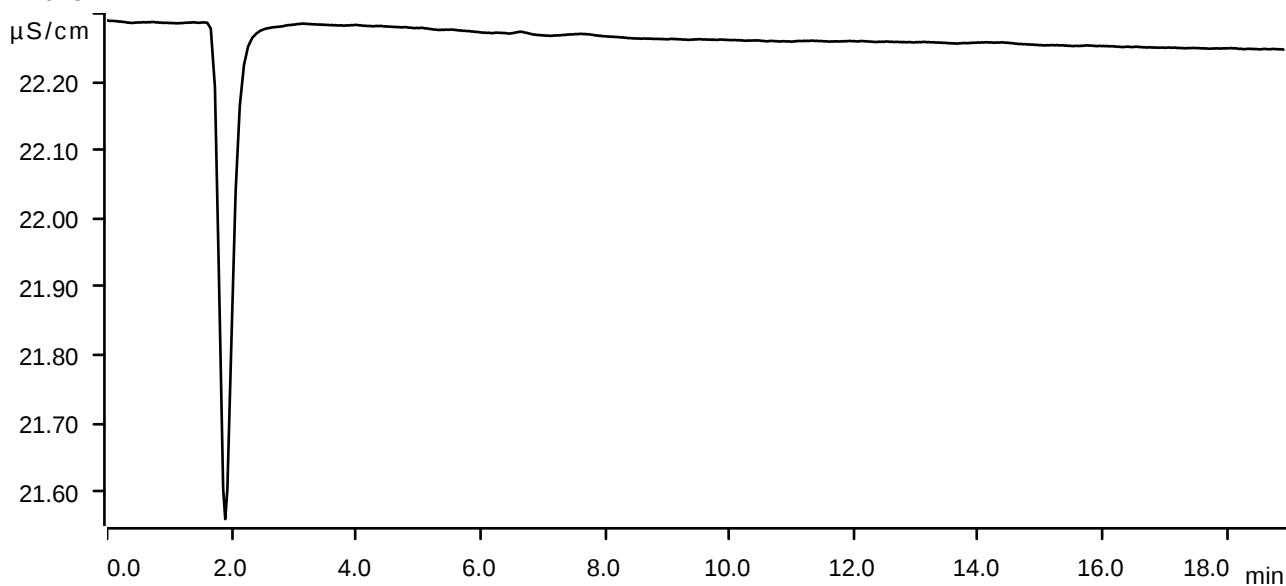
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.383	0.2843	1.850	1.970	Fluoride
2	6.632	0.2904	1.314	2.918	Chloride
3	8.785	0.6491	2.249	2.942	Nitrite
4	10.887	0.4238	1.222	9.842	Bromide
5	12.553	0.5909	1.487	2.398	Nitrate
6	14.152	0.4137	0.815	5.003	Phosphate
7	15.880	1.0887	2.130	14.702	Sulfate

Sample data

Ident ICB
Sample type Sample
Determination start 2025-10-09 13:38:24 UTC-4
Method IC1-100925
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 13.12 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

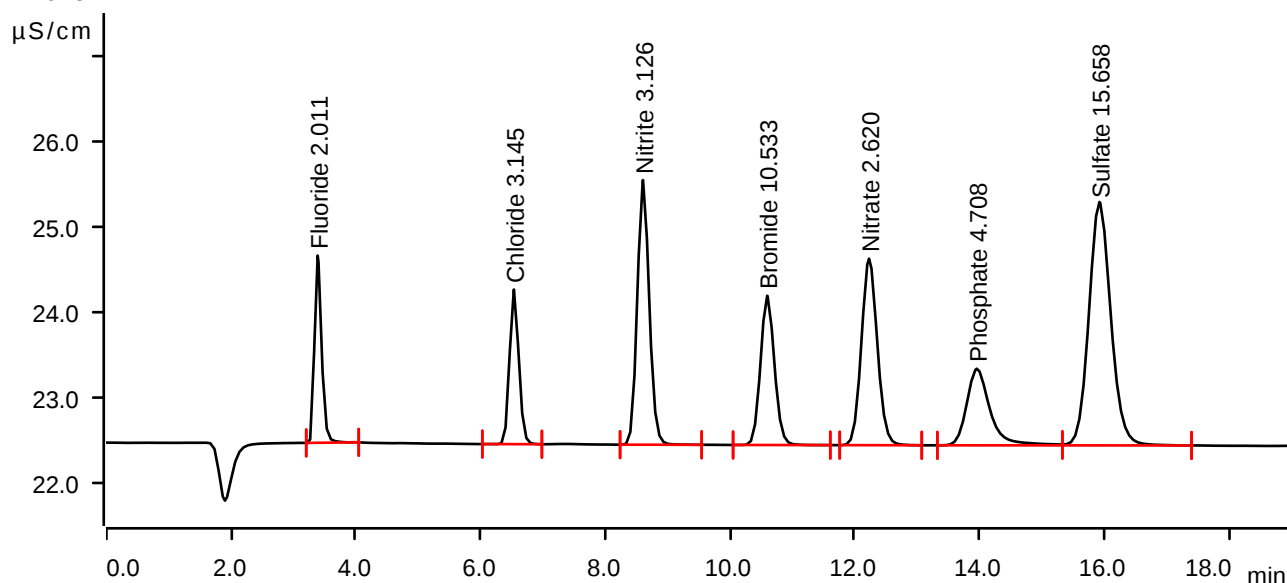
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2025-10-24 10:26:27 UTC-4
Method IC1-100925
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 12.16 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



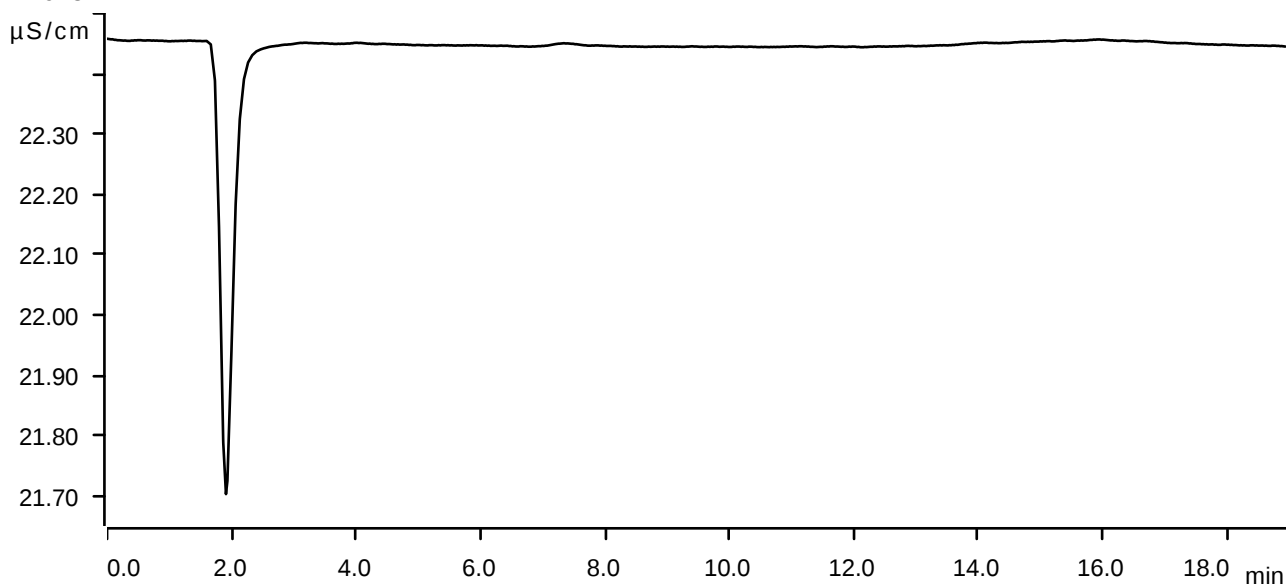
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.388	0.2902	2.193	2.011	Fluoride
2	6.535	0.3134	1.811	3.145	Chloride
3	8.605	0.6908	3.100	3.126	Nitrite
4	10.595	0.4540	1.748	10.533	Bromide
5	12.228	0.6469	2.185	2.620	Nitrate
6	13.957	0.3886	0.897	4.708	Phosphate
7	15.922	1.1615	2.851	15.658	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2025-10-24 10:47:57 UTC-4
Method IC1-100925
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 12.16 MPa
Maximum pressure monitored yes
Temperature ---- °C

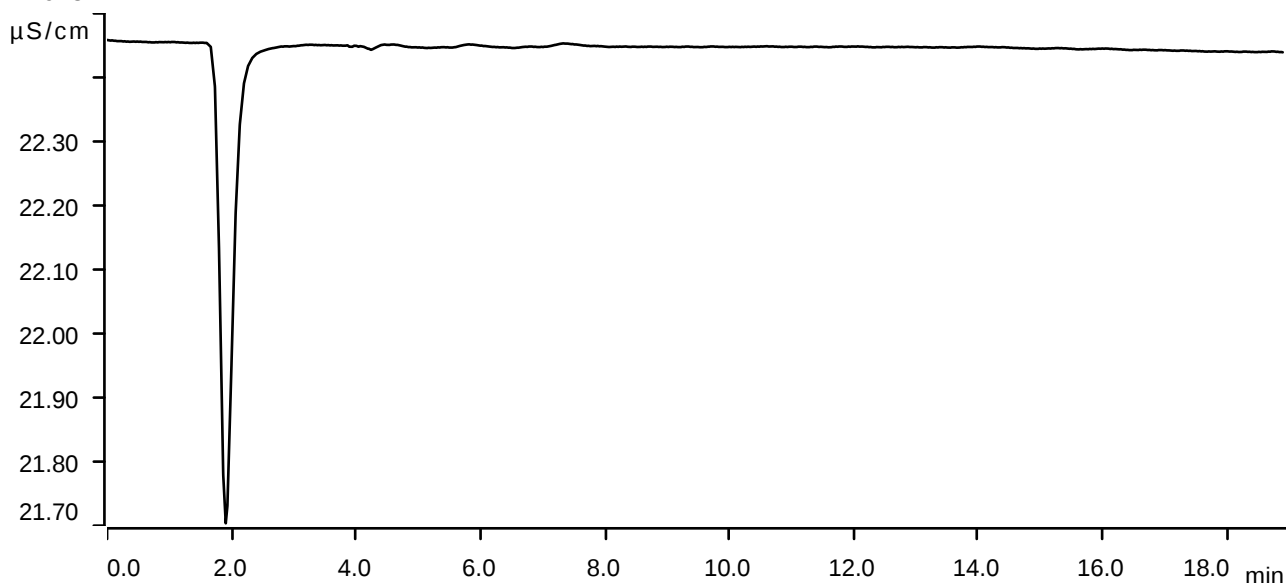
Anions

Sample data

Ident LB137653BLW
Sample type Sample
Determination start 2025-10-24 11:09:27 UTC-4
Method IC1-100925
Operator

Anions

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

Anions

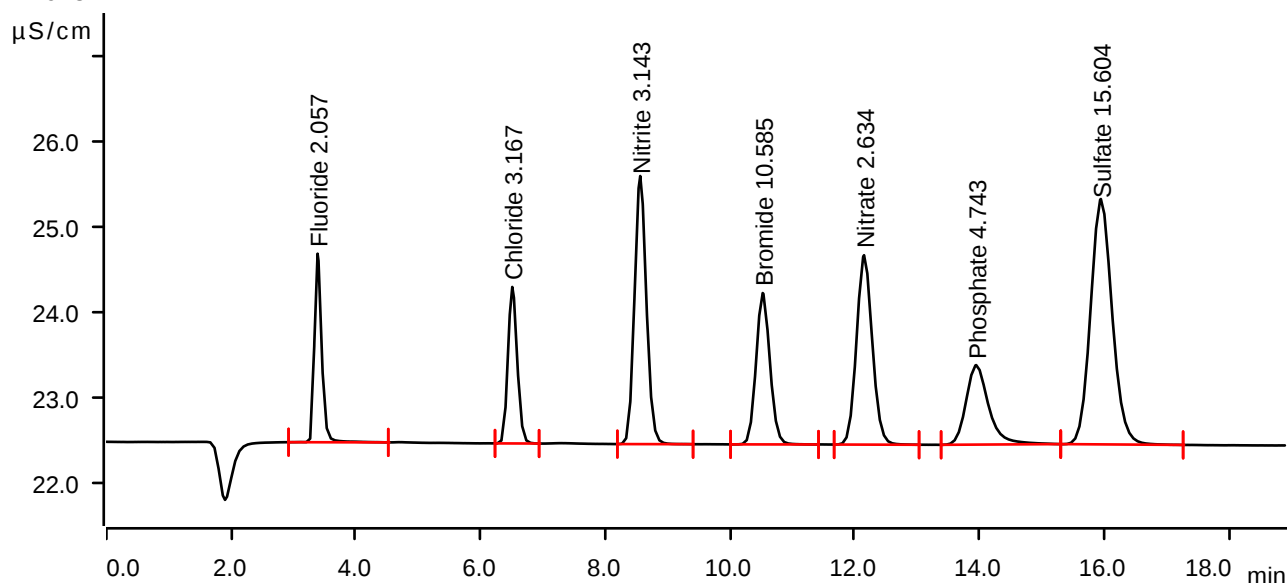
Sample data

Ident LB137653BSW
Sample type Check standard 1
Determination start 2025-10-24 11:30:58 UTC-4
Method IC1-100925
Operator

Anions

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

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.387	0.2970	2.208	2.057	Fluoride
2	6.508	0.3157	1.833	3.167	Chloride
3	8.560	0.6947	3.141	3.143	Nitrite
4	10.523	0.4563	1.773	10.585	Bromide
5	12.148	0.6505	2.219	2.634	Nitrate
6	13.947	0.3916	0.931	4.743	Phosphate
7	15.945	1.1574	2.874	15.604	Sulfate

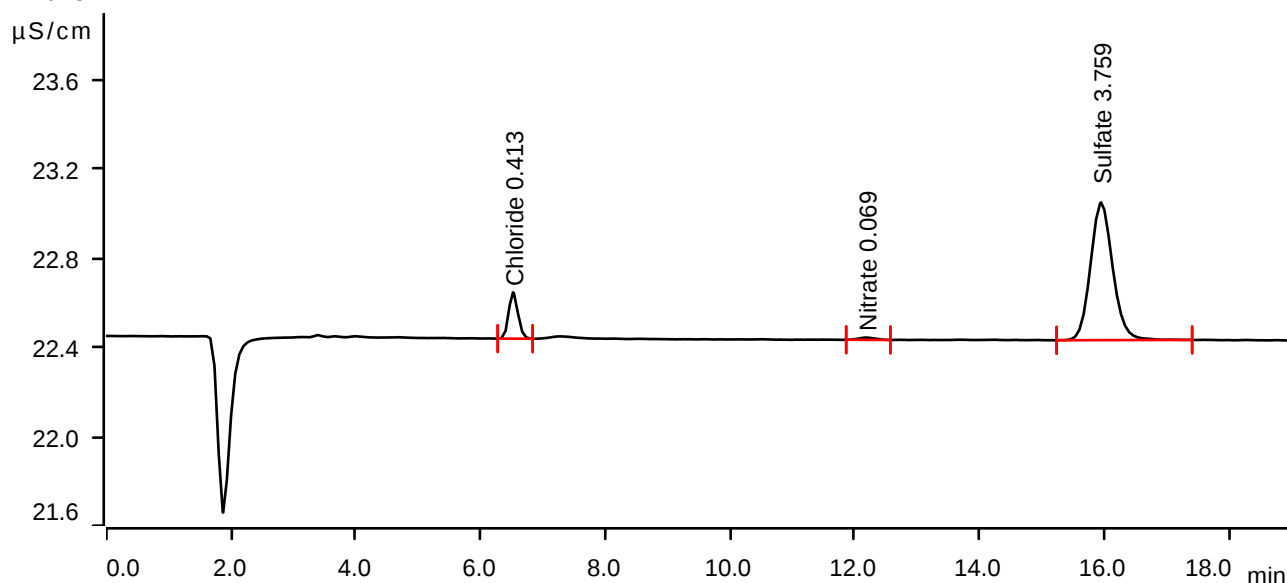
Sample data

Ident Q3442-01
Sample type Sample
Determination start 2025-10-24 14:24:07 UTC-4
Method IC1-100925
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 12.05 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	6.520	0.0361	0.208	0.413	Chloride
2	12.187	0.0032	0.010	0.069	Nitrate
3	15.948	0.2555	0.618	3.759	Sulfate

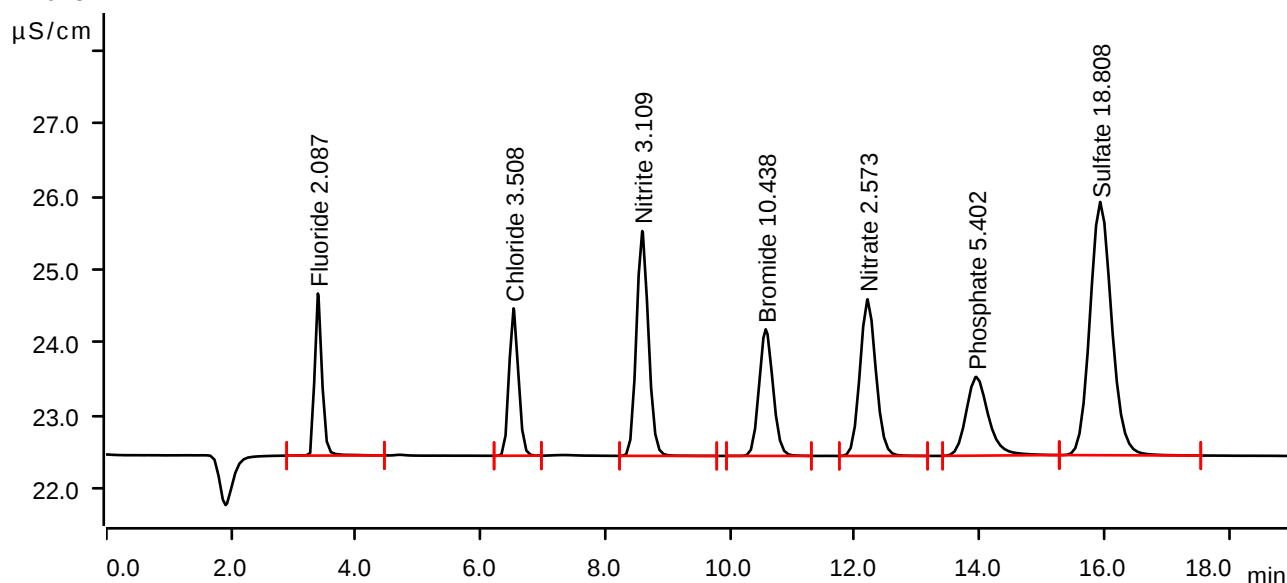
Sample data

Ident Q3442-01MS
Sample type Sample
Determination start 2025-10-24 14:45:45 UTC-4
Method IC1-100925
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 12.05 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	3.392	0.3014	2.215	2.087	Fluoride
2	6.528	0.3503	2.014	3.508	Chloride
3	8.592	0.6869	3.073	3.109	Nitrite
4	10.572	0.4498	1.731	10.438	Bromide
5	12.205	0.6349	2.140	2.573	Nitrate
6	13.947	0.4476	1.077	5.402	Phosphate
7	15.935	1.4014	3.461	18.808	Sulfate

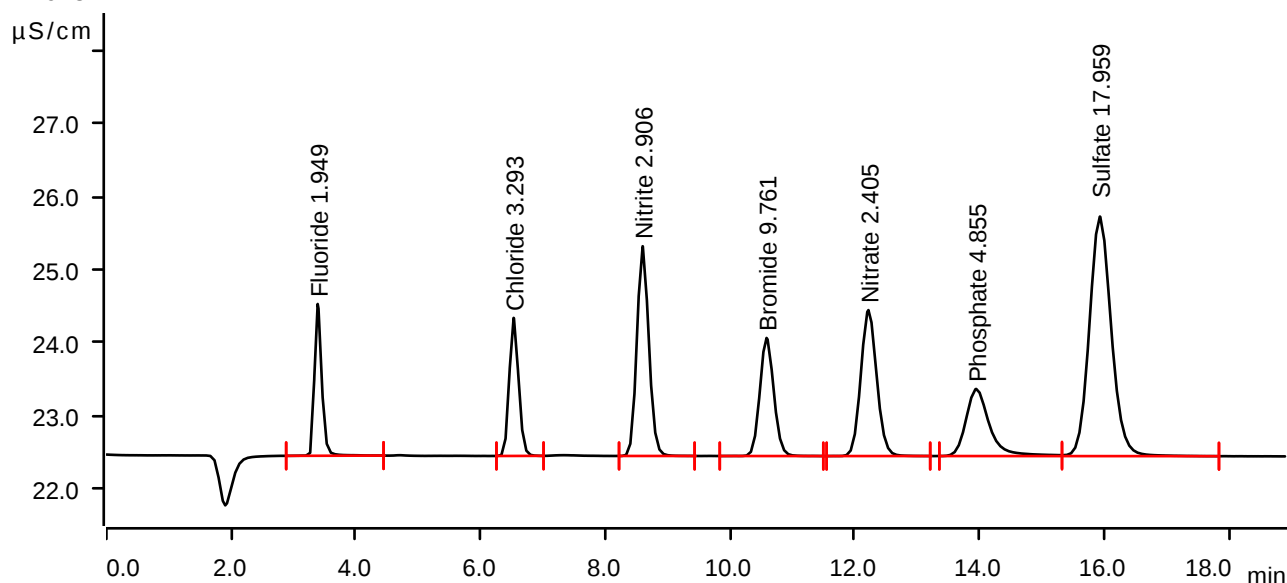
Sample data

Ident Q3442-01MSD
Sample type Sample
Determination start 2025-10-24 15:07:17 UTC-4
Method IC1-100925
Operator

Anions

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

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.388	0.2812	2.074	1.949	Fluoride
2	6.530	0.3285	1.887	3.293	Chloride
3	8.598	0.6408	2.866	2.906	Nitrite
4	10.585	0.4202	1.614	9.761	Bromide
5	12.218	0.5926	1.995	2.405	Nitrate
6	13.947	0.4011	0.917	4.855	Phosphate
7	15.928	1.3367	3.274	17.959	Sulfate

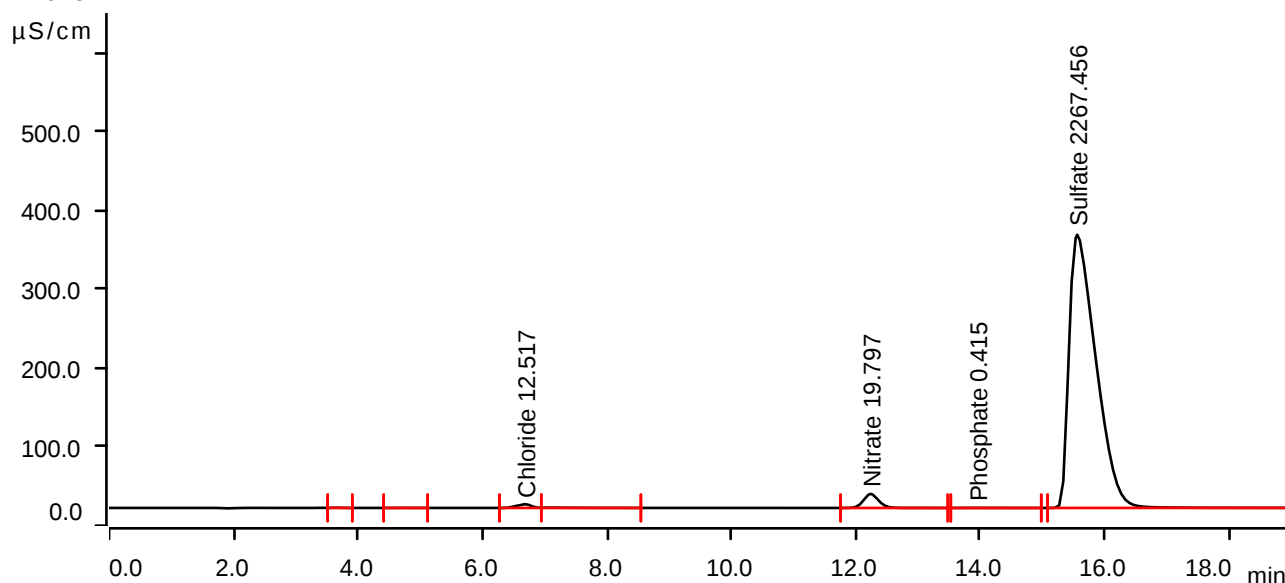
Sample data

Ident Q3443-01
Sample type Sample
Determination start 2025-10-24 15:28:51 UTC-4
Method IC1-100925
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 12.22 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	3.652	0.0270	0.185	invalid	
2	4.735	0.0068	0.027	invalid	
3	6.688	1.2650	4.687	12.517	Chloride
4	7.097	0.1959	0.331	invalid	
5	12.238	4.9806	17.817	19.797	Nitrate
6	13.952	0.0236	0.048	0.415	Phosphate
7	15.558	172.6140	346.726	2267.456	Sulfate

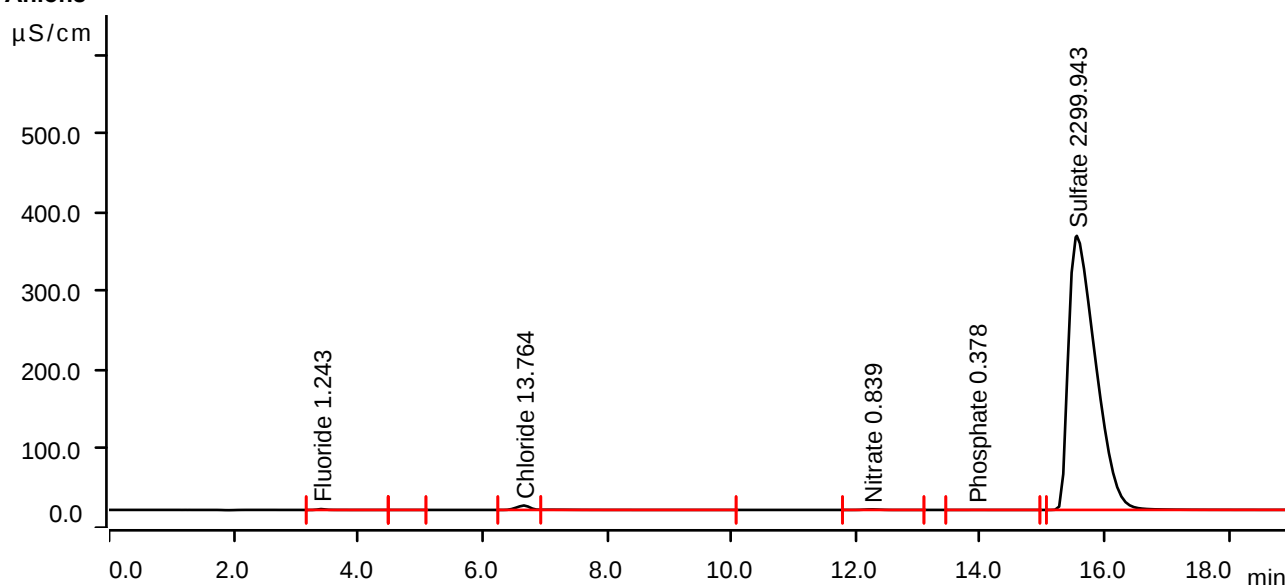
Sample data

Ident Q3462-01
Sample type Sample
Determination start 2025-10-24 15:50:26 UTC-4
Method IC1-100925
Operator

Anions

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

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.408	0.1779	1.087	1.243	Fluoride
2	4.710	0.0026	0.013	invalid	
3	6.668	1.3916	5.616	13.764	Chloride
4	7.100	0.2143	0.316	invalid	
5	12.257	0.1976	0.670	0.839	Nitrate
6	13.940	0.0204	0.043	0.378	Phosphate
7	15.552	175.0876	347.815	2299.943	Sulfate

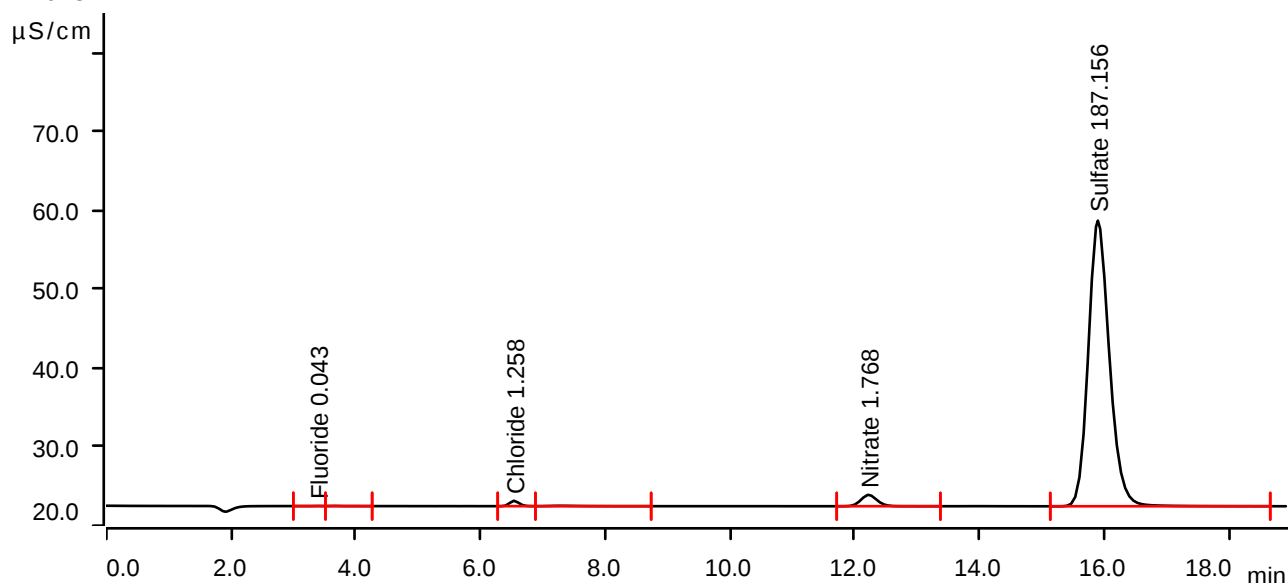
Sample data

Ident Q3443-01DLX10
Sample type Sample
Determination start 2025-10-24 16:12:00 UTC-4
Method IC1-100925
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 12.22 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	3.392	0.0025	0.015	0.043	Fluoride
2	3.658	0.0046	0.023	invalid	
3	6.537	0.1218	0.684	1.258	Chloride
4	7.297	0.0275	0.050	invalid	
5	12.220	0.4320	1.436	1.768	Nitrate
6	15.897	14.2194	36.248	187.156	Sulfate

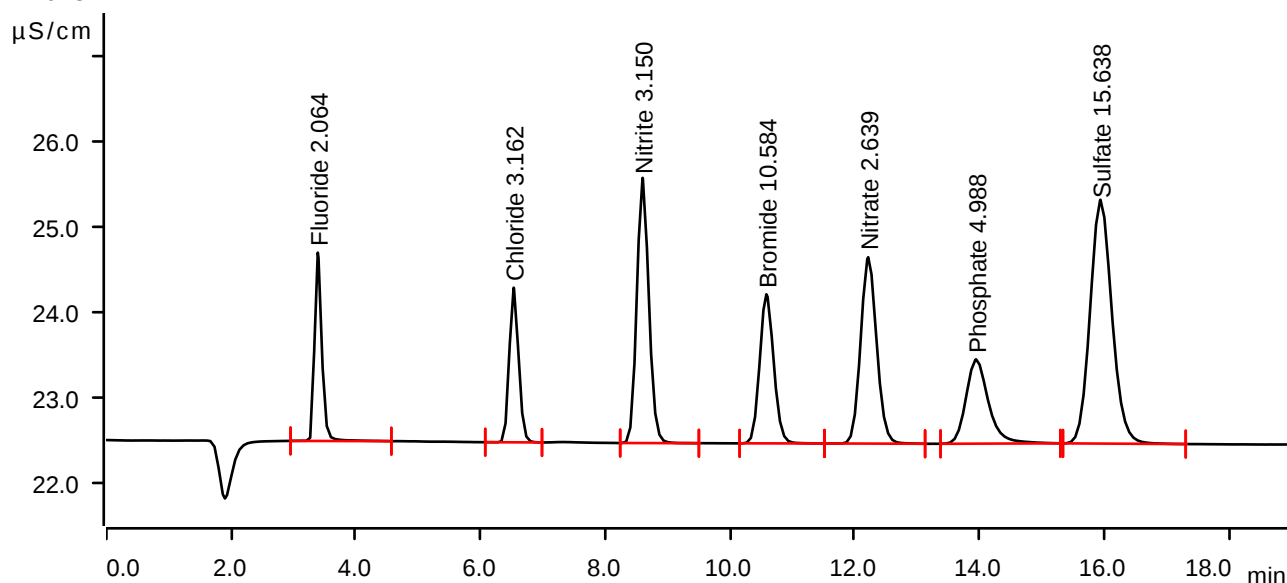
Sample data

Ident CCV
 Sample type Check standard 1
 Determination start 2025-10-24 16:33:25 UTC-4
 Method IC1-100925
 Operator

Anions

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

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.390	0.2981	2.206	2.064	Fluoride
2	6.530	0.3152	1.812	3.162	Chloride
3	8.597	0.6961	3.107	3.150	Nitrite
4	10.582	0.4562	1.746	10.584	Bromide
5	12.215	0.6515	2.183	2.639	Nitrate
6	13.945	0.4124	0.987	4.988	Phosphate
7	15.938	1.1600	2.857	15.638	Sulfate

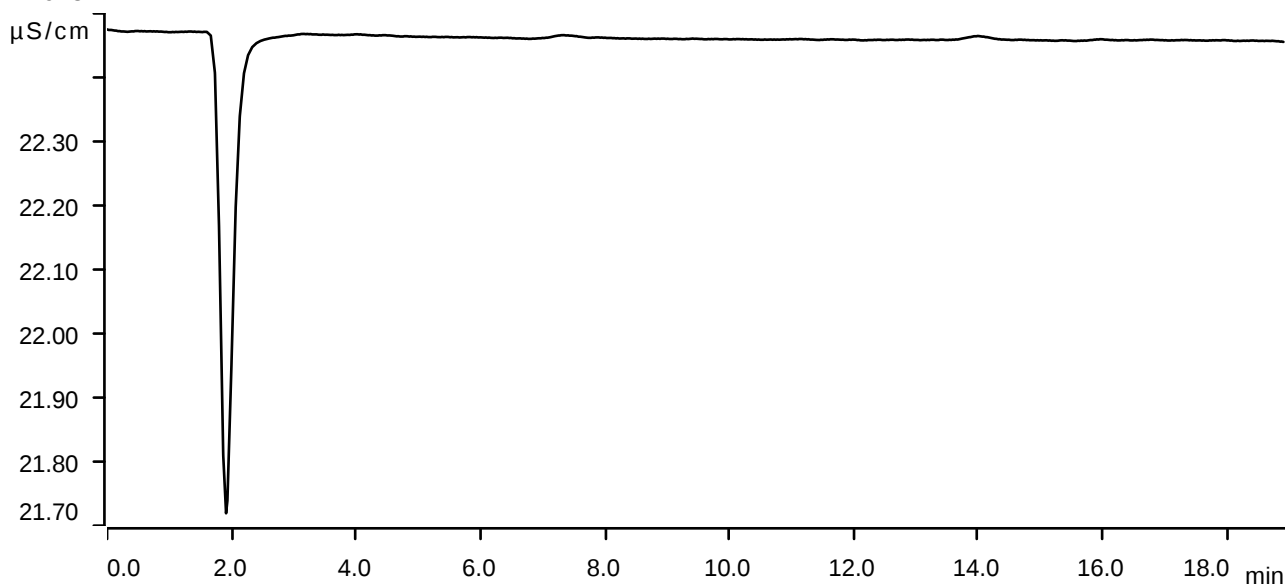
Sample data

Ident CCB
Sample type Sample
Determination start 2025-10-24 16:54:55 UTC-4
Method IC1-100925
Operator

Anions

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

Anions



Extraction and Analytical Summary Report

Analysis Method: 1664A

Test: Oil and Grease

Run Number: LB137655

Analysis Date: 10/27/2025

BalanceID: WC SC-5

OvenID: EXT OVEN-3

ANALYST: jignesh

REVIEWED BY: Iwona

Extraction Date: 10/27/2025

Extraction IN Time: 08:15

Extraction OUT Time: 08:50

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	LB137655BL	LB137655BL	WATER	1.3	1000	100	2.8563	2.8563	0	2.8564	2.8564	0.0001	0.1
2	LB137655BS	LB137655BS	WATER	1.3	1000	100	3.1474	3.1474	0	3.1641	3.1641	0.0167	16.7
3	Q3420-01	Oil and Grease #1	WATER	1.3	1000	100	3.0918	3.0918	0	3.0950	3.0950	0.0032	3.2
4	Q3420-02	Oil and Grease #2	WATER	1.3	1000	100	3.0632	3.0632	0	3.0672	3.0672	0.0040	4
5	Q3420-03	Oil and Grease #3	WATER	1.3	1000	100	3.0686	3.0686	0	3.0698	3.0698	0.0012	1.2
6	Q3441-01	001 Willets Pt Blvd (C	WATER	1.3	1000	100	3.0363	3.0363	0	3.0385	3.0385	0.0022	2.2
7	Q3441-02	002 35th Ave (Oct)	WATER	1.3	1000	100	3.0489	3.0489	0	3.0506	3.0506	0.0017	1.7
8	Q3448-03	DSN001	WATER	1.3	1000	100	3.0649	3.0649	0	3.0672	3.0672	0.0023	2.3
9	Q3448-05	Q3448-03MS	WATER	1.3	1000	100	2.7449	2.7449	0	2.7673	2.7673	0.0224	22.4
10	Q3448-06	Q3448-03MSD	WATER	1.3	1000	100	2.8903	2.8903	0	2.9129	2.9129	0.0226	22.6
11	Q3455-01	MH-10242025	WATER	1.6	1000	100	3.0228	3.0228	0	3.2893	3.2893	0.2665	266.5
12	Q3455-02	Q3455 -1MS	WATER	1.6	1000	100	2.4563	2.4563	0	2.7430	2.7430	0.2867	286.7
13	Q3455-03	Q3455 -1MSD	WATER	1.6	1000	100	2.9633	2.9633	0	3.2501	3.2501	0.2868	286.8
14	Q3462-01	SW-1	WATER	1.6	1000	100	3.0504	3.0504	0	3.0557	3.0557	0.0053	5.3

QC Batch# LB137655

Test: Oil and Grease

Analysis Date: 10/27/2025

Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3240
pH Paper 0-14	M6069
Sodium Sulfate	EP2655
1:1 HCL	WP115016
Silica Gel	W3246
Sand	N/A

Standards Used:

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

BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

Before Analysis

0.0020 gram Balance: 0.0018 (0.0018-0.0022) In OVEN TEMP1 : 70 °C Dessicator Time In1 : 10:46

1.0000 gram Balance: 1.0004 (0.9950-1.0050) In Time1: 10:00

Bal Check Time: 08:20 Out OVEN TEMP1: 70 °C Dessicator Time Out1: 11:25

Out Time1: 10:45

After Analysis

0.0020 gram Balance: 0.0019 (0.0018-0.0022) In OVEN TEMP2 : 71 °C Dessicator Time In2 : 12:31

1.0000 gram Balance: 1.0005 (0.9950-1.0050) In Time2: 12:00

Bal Check Time: 13:15 Out OVEN TEMP2: 71 °C Dessicator Time Out2: 13:10

Out Time2: 12:30

LB137696

Test results

Aquakem 7.2AQ1

Page:

Alliance Technical Group

284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

10/29/2025 14:38

Test: TKN-NH3

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	5.011	0.0	1.050	
ICB1	0.077	0.0	0.024	
CCV1	4.925	0.0	1.032	
CCB1	0.069	0.0	0.022	
RL CHECK	0.484	0.0	0.108	
PB170300BL	0.074	0.0	0.023	
PB170300BS	5.076	0.0	1.063	
Q3442-01	0.222	0.0	0.054	
Q3442-01DUP	0.221	0.0	0.053	
Q3442-01MS	4.688	0.0	0.983	
Q3442-01MSD	4.729	0.0	0.991	
Q3443-01	2.980	0.0	0.627	
Q3462-01	1.630	0.0	0.347	
Q3477-03	0.255	0.0	0.060	
CCV2	4.961	0.0	1.040	
CCB2	0.077	0.0	0.024	

97% (50-150)
10/29/2025
RM

N 16
Mean 2.217
SD 2.2710
CV% 102.42

Aquakem v. 7.2AQ1

Results from time period:

Wed Oct 29 12:58:19 2025

Wed Oct 29 14:34:28 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	0.0847	mg/l	10/29/2025 12:58:19	
0.5PPM	A	TKN-NH3	P	0.5181	mg/l	10/29/2025 12:58:20	
1.0PPM	A	TKN-NH3	P	0.9798	mg/l	10/29/2025 12:58:21	
2.5PPM	A	TKN-NH3	P	2.4497	mg/l	10/29/2025 12:58:22	
5.0PPM	A	TKN-NH3	P	4.9028	mg/l	10/29/2025 12:58:23	
6.7PPM	A	TKN-NH3	P	6.6743	mg/l	10/29/2025 12:58:24	
10.0PPM	A	TKN-NH3	P	10.0572	mg/l	10/29/2025 12:58:25	
ICV1	S	TKN-NH3	P	5.0105	mg/l	10/29/2025 14:15:17	
ICB1	S	TKN-NH3	P	0.0774	mg/l	10/29/2025 14:15:19	
CCV1	S	TKN-NH3	P	4.9247	mg/l	10/29/2025 14:15:20	
CCB1	S	TKN-NH3	P	0.0689	mg/l	10/29/2025 14:15:23	
RL CHECK	S	TKN-NH3	P	0.4842	mg/l	10/29/2025 14:15:26	
PB170300BL	S	TKN-NH3	P	0.0742	mg/l	10/29/2025 14:25:57	
PB170300BS	S	TKN-NH3	P	5.0758	mg/l	10/29/2025 14:26:00	
Q3442-01	S	TKN-NH3	P	0.2223	mg/l	10/29/2025 14:26:01	
Q3442-01DUP	S	TKN-NH3	P	0.2209	mg/l	10/29/2025 14:26:03	
Q3442-01MS	S	TKN-NH3	P	4.6878	mg/l	10/29/2025 14:26:05	
Q3442-01MSD	S	TKN-NH3	P	4.7293	mg/l	10/29/2025 14:26:06	
Q3443-01	S	TKN-NH3	P	2.9797	mg/l	10/29/2025 14:34:21	
Q3462-01	S	TKN-NH3	P	1.6297	mg/l	10/29/2025 14:34:22	
Q3477-03	S	TKN-NH3	P	0.2546	mg/l	10/29/2025 14:34:23	
CCV2	S	TKN-NH3	P	4.961	mg/l	10/29/2025 14:34:24	
CCB2	S	TKN-NH3	P	0.077	mg/l	10/29/2025 14:34:26	

Calibration results

Aquakem 7.2AQ1

Page:

Alliance Technical Group

284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

10/29/2025 13:16

Test TKN-NH3

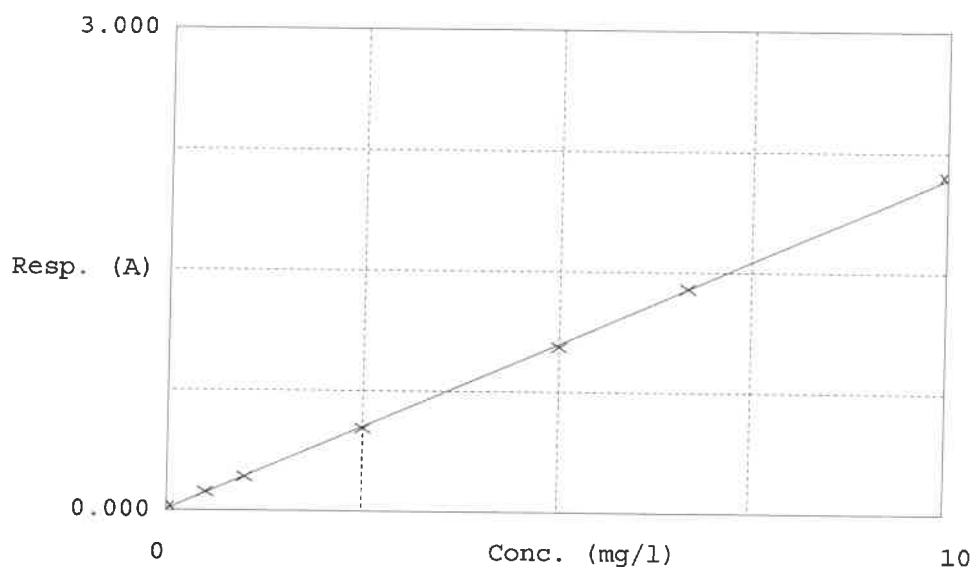
Accepted 10/29/2025 13:15

Factor 4.807

Bias 0.008

Coeff. of det. 0.999720

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.025	0.0847	0.0000	-
2	TKN-10	0.115	0.5181	0.5000	3.6
3	TKN-10	0.211	0.9798	1.0000	-2.0
4	TKN-10	0.517	2.4497	2.5000	-2.0
5	TKN-10	1.027	4.9028	5.0000	-1.9
6	TKN-10	1.396	6.6743	6.6667	-0.4
7	TKN-10	2.100	10.0572	10.0000	0.6

10/29/2025
RM

Analytical Summary Report

Analysis Method: 365.3
Parameter: Phosphorus-Total
Run Number: LB137729

ANALYST: Iwona
SUPERVISOR REVIEW BY: jignesh

Reagent/Standard	Lot/Log #
calibration std. phosphate 1 ppm	WP115403
calibration std. phosphate 0.5 ppm	WP115402
calibration std. phosphate 0.3 ppm	WP115401
calibration std. phosphate 0.1 ppm	WP115400
calibration std. phosphate 0.05 ppm	WP115399
calibration std. 0 ppm	WP115398
phosphate CCV std.	WP115405
5N sulfuric acid	WP115340
Combined reagent	WP115408
Phenolphthalein indicator	WP113378
Sodium hydroxide, 1N	WP113878
Phosphate ICV-LCS Std	WP115404

Intercept: -0.0027 Slope: 0.657 Regression: 0.999783

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	0.004		10/31/2025	13:30
2	CAL2	0.05	1	50	50	0.033	0.054	8	10/31/2025	13:30
3	CAL3	0.10	1	50	50	0.065	0.103	3	10/31/2025	13:31
4	CAL4	0.30	1	50	50	0.184	0.284	-5.3	10/31/2025	13:31
5	CAL5	0.50	1	50	50	0.326	0.5	0	10/31/2025	13:32
6	CAL6	1.00	1	50	50	0.657	1.004	0.4	10/31/2025	13:32

Analytical Summary Report

Analysis Method: 365.3

ANALYST: Iwona

Parameter: Phosphorus-Total

SUPERVISOR REVIEW BY: jignesh

Run Number: LB137729

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	0.337	0.517	10/31/2025	13:33
2	ICB		1	50	50	0.002	0.007	10/31/2025	13:33
3	CCV1	0.50	1	50	50	0.327	0.502	10/31/2025	13:34
4	CCB1		1	50	50	0.004	0.010	10/31/2025	13:34
5	RL Check	0.05	1	50	50	0.027	0.045	10/31/2025	13:35
6	PB170350BL		1	50	50	0.004	0.010	10/31/2025	13:35
7	PB170350BS	0.50	1	50	50	0.337	0.517	10/31/2025	13:36
8	Q3420-05		1	50	50	0.118	0.184	10/31/2025	13:36
9	Q3442-01		1	50	50	0.014	0.025	10/31/2025	13:37
10	Q3442-01DUP		1	50	50	0.013	0.024	10/31/2025	13:37
11	Q3442-01MS	0.50	1	50	50	0.324	0.497	10/31/2025	13:38
12	Q3442-01MSD	0.50	1	50	50	0.328	0.503	10/31/2025	13:38
13	Q3443-01		1	50	50	0.416	0.637	10/31/2025	13:39
14	Q3462-01		1	50	50	0.078	0.123	10/31/2025	13:39
15	CCV2	0.50	1	50	50	0.321	0.493	10/31/2025	13:40
16	CCB2		1	50	50	0.002	0.007	10/31/2025	13:40

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

SDG No : N/A

Start Digest Date: 10/29/2025 Time : 08:50 Temp : 380 °C

Matrix : WATER

End Digest Date: 10/29/2025 Time : 10:20 Temp : 385 °C

Pipette ID : WC

Start Distillation Date: 10/29/2025 Time : 10:50 Temp : 150 °C

Balance ID : N/A

End Distillation Date: 10/29/2025 Time : 11:50 Temp : 159 °C

Hood ID : HOOD#283

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	WP115372
TKN CCV STD	50.0ML	WP115373
TKN ICV STD	50.0ML	WP115374
TKN LCS STD	50.0ML	WP115375
MS/MSD SPIKE SOL.	0.25ML	WP115085

Chemical Used	ML/SAMPLE USED	Lot Number
TKN DIGESTION FLUID	10.0ML	WP113135
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 WP115373 ,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
10/29/2025 12:05	RM CWC	RM CWC
10/29/2025 13:35	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170300BL	PBW300	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
PB170300BS	LCS300	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3442-01DUP	SW-1DUP	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3442-01MS	SW-1MS	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3442-01MSD	SW-1MSD	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3442-01	SW-1	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3443-01	SW-1	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3462-01	SW-1	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q3477-03	SOUTH-MAHWAH-WATER	50	50	<2	N/A	N/A	N/A	PH AFTER ADDING DIST BUFFER>11	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TKN-10-24.

WorkList ID : 192681

Department : Distillation

Date : 10-24-2025 16:57:07

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3442-01	SW-1	Water	TKN	Conc H2SO4 to pH < 2	ATGG01	D41	10/18/2025	SM4500 N Org
Q3443-01	SW-1	Water	TKN	Conc H2SO4 to pH < 2	ATGG01	D41	10/23/2025	SM4500 N Org
Q3462-01	SW-1	Water	TKN	Conc H2SO4 to pH < 2	ATGG01	D31	10/18/2025	SM4500 N Org
Q3477-03	SOUTH-MAHWAH-WATER	Water	TKN	Conc H2SO4 to pH < 2	PSEG03	D41	10/28/2025	SM4500 N Org

Date/Time 10/29/2025 08:20
 Raw Sample Received by: RM CWG
 Raw Sample Relinquished by: RM CWG

Date/Time 10/29/2025 11:10
 Raw Sample Received by: JPC
 Raw Sample Relinquished by: RM CWG

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

SDG No : N/A

Start Digest Date: 10/31/2025 Time : 10:00 Temp : 94 °C

Matrix : WATER

End Digest Date: 10/31/2025 Time : 11:00 Temp : 96 °C

Pippete ID : WC

Balance ID : N/A

Hood ID : HOOD#3

Digestion tube ID : M5595

Block Thermometer ID : WC-BLOCK#1

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

Filter paper ID : 400213

 Prep Technician Signature: 12

Weigh By : N/A

pH Meter ID : N/A

 Supervisor Signature: JP

Standardized Name	MLS USED	STD REF. # FROM LOG
LCSW	0.5ML	WP112914
MS/MSD SPIKE SOL.	0.5ML	WP112913
PBW	50.ML	W3112
RL CHECK	50.0ML	WP115406
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	WP115398
CAL2	CAL2	50.0ML	WP115399
CAL3	CAL3	50.0ML	WP115400
CAL4	CAL4	50.0ML	WP115401
CAL5	CAL5	50.0ML	WP115402
CAL6	CAL6	50.0ML	WP115403
ICV	ICV	50.0ML	WP115404
ICB	ICB	50.0ML	W3112
CCV	CCV	50.0ML	WP115405
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
 10/31/25

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170350BL	PBW350	50	50	<2	N/A	N/A	N/A	N/A	N/A
PB170350BS	LCS350	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3420-05	COMPOSITE	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3442-01	SW-1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3442-01MS	SW-1MS	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3442-01MSD	SW-1MSD	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3442-01DUP	SW-1DUP	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3443-01	SW-1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3462-01	SW-1	50	50	<2	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : totalphos-1031 WorkList ID : 192817 Department : Distillation Date : 10-31-2025 08:31:01

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3420-05	COMPOSITE	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	DALT01	J22	10/21/2025	365.3
Q3442-01	SW-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	D41	10/18/2025	365.3
Q3443-01	SW-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	D41	10/23/2025	365.3
Q3462-01	SW-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	D31	10/18/2025	365.3

Date/Time 10/31/25 09:10
 Raw Sample Received by: 1265CJ
 Raw Sample Relinquished by: 286C09

Date/Time 10/31/25 10:25
 Raw Sample Received by: 286C09
 Raw Sample Relinquished by: 1265CJ

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB137648

Review By	jignesh	Review On	10/27/2025 11:53:44 AM
Supervise By	Iwona	Supervise On	10/27/2025 12:08:52 PM
SubDirectory	LB137648	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	LB137648BL	LB137648BL	MB	10/24/25 12:30		jignesh	OK
2	LB137648BS	LB137648BS	LCS	10/24/25 12:30	55 mg w3186 + 100ml w3112	jignesh	OK
3	Q3420-05	COMPOSITE	SAM	10/24/25 12:30		jignesh	OK
4	Q3428-02	Comp	SAM	10/24/25 12:30		jignesh	OK
5	Q3432-01	OUTFALL-001	SAM	10/24/25 12:30		jignesh	OK
6	Q3442-01	SW-1	SAM	10/24/25 12:30		jignesh	OK
7	Q3443-01	SW-1	SAM	10/24/25 12:30		jignesh	OK
8	Q3448-01	DSN001	SAM	10/24/25 12:30		jignesh	OK
9	Q3448-01DUP	DSN001DUP	DUP	10/24/25 12:30		jignesh	OK
10	Q3462-01	SW-1	SAM	10/24/25 12:30		jignesh	OK

Instrument ID: IC-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137653

Review By	rubina	Review On	10/29/2025 11:46:12 AM
Supervise By	Iwona	Supervise On	10/29/2025 11:51:50 AM
SubDirectory	LB137653	Test	Anions
STD. NAME	STD REF.#		
ICAL Standard	WP115135,WP115136,WP115137,WP115138,WP115139,WP115140,WP115141		
ICV Standard	WP115142		
CCV Standard	WP115318		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115319		
Chk Standard	WP115144,WP115345		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	STD1	STD1	CAL1	10/09/25 10:46	All standards, samples, and	RM/IZ	OK
2	STD2	STD2	CAL2	10/09/25 11:08	QC are filtered through	RM/IZ	OK
3	STD3	STD3	CAL3	10/09/25 11:29	0.45um, filter lot W3160	RM/IZ	OK
4	STD4	STD4	CAL4	10/09/25 11:51		RM/IZ	OK
5	STD5	STD5	CAL5	10/09/25 12:12		RM/IZ	OK
6	STD6	STD6	CAL6	10/09/25 12:34		RM/IZ	OK
7	STD7	STD7	CAL7	10/09/25 12:55		RM/IZ	OK
8	ICV1	ICV1	ICV	10/09/25 13:16		RM/IZ	OK
9	ICB1	ICB1	ICB	10/09/25 13:38		RM/IZ	OK
10	CCV1	CCV1	CCV	10/24/25 10:26		RM/IZ	OK
11	CCB1	CCB1	CCB	10/24/25 10:47		RM/IZ	OK
12	LB137653BLW	LB137653BLW	MB	10/24/25 11:09		RM/IZ	OK
13	LB137653BSW	LB137653BSW	LCS	10/24/25 11:30		RM/IZ	OK
14	Q3442-01	SW-1	SAM	10/24/25 14:24		RM/IZ	OK
15	Q3442-01MS	SW-1MS	MS	10/24/25 14:45	9.5ml of sample, 0.5mL W3096	RM/IZ	OK
16	Q3442-01MSD	SW-1MSD	MSD	10/24/25 15:07	9.5ml of sample, 0.5mL W3096	RM/IZ	OK
17	Q3443-01	SW-1	SAM	10/24/25 15:28		RM/IZ	OK
18	Q3462-01	SW-1	SAM	10/24/25 15:50		RM/IZ	OK

Instrument ID: IC-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137653

Review By	rubina	Review On	10/29/2025 11:46:12 AM
Supervise By	Iwona	Supervise On	10/29/2025 11:51:50 AM
SubDirectory	LB137653	Test	Anions
STD. NAME	STD REF.#		
ICAL Standard	WP115135,WP115136,WP115137,WP115138,WP115139,WP115140,WP115141		
ICV Standard	WP115142		
CCV Standard	WP115318		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115319		
Chk Standard	WP115144,WP115345		

19	Q3443-01DL	SW-1DL	SAM	10/24/25 16:12		RM/IZ	OK
20	CCV2	CCV2	CCV	10/24/25 16:33		RM/IZ	OK
21	CCB2	CCB2	CCB	10/24/25 16:54		RM/IZ	OK

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB137655

Review By	jignesh	Review On	10/27/2025 11:57:24 AM
Supervise By	Iwona	Supervise On	10/27/2025 12:08:12 PM
SubDirectory	LB137655	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,EP2655,WP115016,W3246,N/A,WP115017,N/A,WP115018		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB137655BL	LB137655BL	MB	10/27/25 10:00		jignesh	OK
2	LB137655BS	LB137655BS	LCS	10/27/25 10:00		jignesh	OK
3	Q3420-01	Oil and Grease #1	SAM	10/27/25 10:00		jignesh	OK
4	Q3420-02	Oil and Grease #2	SAM	10/27/25 10:00		jignesh	OK
5	Q3420-03	Oil and Grease #3	SAM	10/27/25 10:00		jignesh	OK
6	Q3441-01	001 Willets Pt Blvd (O	SAM	10/27/25 10:00		jignesh	OK
7	Q3441-02	002 35th Ave (Oct)	SAM	10/27/25 10:00		jignesh	OK
8	Q3448-03	DSN001	SAM	10/27/25 10:00		jignesh	OK
9	Q3448-05	Q3448-03MS	MS	10/27/25 10:00		jignesh	OK
10	Q3448-06	Q3448-03MSD	MSD	10/27/25 10:00		jignesh	OK
11	Q3455-01	MH-10242025	SAM	10/27/25 10:00		jignesh	OK
12	Q3455-02	Q3455 -01MS	MS	10/27/25 10:00		jignesh	OK
13	Q3455-03	Q3455 -01MSD	MSD	10/27/25 10:00		jignesh	OK
14	Q3462-01	SW-1	SAM	10/27/25 10:00		jignesh	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137696

Review By	rubina	Review On	10/30/2025 9:03:30 AM
Supervise By	Iwona	Supervise On	10/30/2025 10:00:07 AM
SubDirectory	LB137696	Test	TKN
STD. NAME	STD REF.#		
ICAL Standard	WP115372		
ICV Standard	WP115374		
CCV Standard	WP115373		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115375		
Chk Standard	WP115290,WP114133,WP113929,WP114132		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	10/29/25 12:58		rubina	OK
2	0.5PPM	0.5PPM	CAL2	10/29/25 12:58		rubina	OK
3	1.0PPM	1.0PPM	CAL3	10/29/25 12:58		rubina	OK
4	2.5PPM	2.5PPM	CAL4	10/29/25 12:58		rubina	OK
5	5.0PPM	5.0PPM	CAL5	10/29/25 12:58		rubina	OK
6	6.7PPM	6.7PPM	CAL6	10/29/25 12:58		rubina	OK
7	10.0PPM	10.0PPM	CAL7	10/29/25 12:58		rubina	OK
8	ICV1	ICV1	ICV	10/29/25 14:15		rubina	OK
9	ICB1	ICB1	ICB	10/29/25 14:15		rubina	OK
10	CCV1	CCV1	CCV	10/29/25 14:15		rubina	OK
11	CCB1	CCB1	CCB	10/29/25 14:15		rubina	OK
12	RL	RL	LOQ	10/29/25 14:15		rubina	OK
13	PB170300BL	PB170300BL	MB	10/29/25 14:25		rubina	OK
14	PB170300BS	PB170300BS	LCS	10/29/25 14:26		rubina	OK
15	Q3442-01	SW-1	SAM	10/29/25 14:26		rubina	OK
16	Q3442-01DUP	SW-1DUP	DUP	10/29/25 14:26		rubina	OK
17	Q3442-01MS	SW-1MS	MS	10/29/25 14:26		rubina	OK
18	Q3442-01MSD	SW-1MSD	MSD	10/29/25 14:26		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137696

Review By	rubina	Review On	10/30/2025 9:03:30 AM
Supervise By	Iwona	Supervise On	10/30/2025 10:00:07 AM
SubDirectory	LB137696	Test	TKN
STD. NAME	STD REF.#		
ICAL Standard	WP115372		
ICV Standard	WP115374		
CCV Standard	WP115373		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115375		
Chk Standard	WP115290,WP114133,WP113929,WP114132		

19	Q3443-01	SW-1	SAM	10/29/25 14:34		rubina	OK
20	Q3462-01	SW-1	SAM	10/29/25 14:34		rubina	OK
21	Q3477-03	SOUTH-MAHWAH-W	SAM	10/29/25 14:34		rubina	OK
22	CCV2	CCV2	CCV	10/29/25 14:34		rubina	OK
23	CCB2	CCB2	CCB	10/29/25 14:34		rubina	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137729

Review By	Iwona	Review On	10/31/2025 3:56:24 PM
Supervise By	jignesh	Supervise On	10/31/2025 3:57:50 PM
SubDirectory	LB137729	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	WP115403,WP115402,WP115401,WP115400,WP115399,WP115398,WP115405,WP115340,WP115408,WP113378,V		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	10/31/25 13:30		rubina	OK
2	CAL2	CAL2	CAL	10/31/25 13:30		rubina	OK
3	CAL3	CAL3	CAL	10/31/25 13:31		rubina	OK
4	CAL4	CAL4	CAL	10/31/25 13:31		rubina	OK
5	CAL5	CAL5	CAL	10/31/25 13:32		rubina	OK
6	CAL6	CAL6	CAL	10/31/25 13:32		rubina	OK
7	ICV	ICV	ICV	10/31/25 13:33		rubina	OK
8	ICB	ICB	ICB	10/31/25 13:33		rubina	OK
9	CCV1	CCV1	CCV	10/31/25 13:34		rubina	OK
10	CCB1	CCB1	CCB	10/31/25 13:34		rubina	OK
11	RL Check	RL Check	RL	10/31/25 13:35		rubina	OK
12	PB170350BL	PB170350BL	MB	10/31/25 13:35		rubina	OK
13	PB170350BS	PB170350BS	LCS	10/31/25 13:36		rubina	OK
14	Q3420-05	COMPOSITE	SAM	10/31/25 13:36		rubina	OK
15	Q3442-01	SW-1	SAM	10/31/25 13:37		rubina	OK
16	Q3442-01DUP	SW-1DUP	DUP	10/31/25 13:37		rubina	OK
17	Q3442-01MS	SW-1MS	MS	10/31/25 13:38		rubina	OK
18	Q3442-01MSD	SW-1MSD	MSD	10/31/25 13:38		rubina	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137729

Review By	Iwona	Review On	10/31/2025 3:56:24 PM
Supervise By	jignesh	Supervise On	10/31/2025 3:57:50 PM
SubDirectory	LB137729	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	WP115403,WP115402,WP115401,WP115400,WP115399,WP115398,WP115405,WP115340,WP115408,WP113378,V		

19	Q3443-01	SW-1	SAM	10/31/25 13:39		rubina	OK
20	Q3462-01	SW-1	SAM	10/31/25 13:39		rubina	OK
21	CCV2	CCV2	CCV	10/31/25 13:40		rubina	OK
22	CCB2	CCB2	CCB	10/31/25 13:40		rubina	OK



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

Instrument ID:

Daily Analysis Runlog For Sequence/QC Batch ID #

Review By	Review On
Supervise By	Supervise On

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

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status

Prep Standard - Chemical Standard Summary

Order ID : Q3462

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

Prepbatch ID : PB170300,PB170350,

Sequence ID/Qc Batch ID: LB137648,LB137653,LB137655,LB137696,LB137729,LB137735,

Standard ID :

EP2655,WP112913,WP112914,WP113112,WP113113,WP113135,WP113378,WP113878,WP113929,WP114132,WP114133,WP114445,WP115016,WP115017,WP115018,WP115085,WP115086,WP115089,WP115135,WP115136,WP115137,WP115138,WP115139,WP115140,WP115141,WP115142,WP115144,WP115290,WP115318,WP115319,WP115336,WP115340,WP115344,WP115345,WP115372,WP115373,WP115374,WP115375,WP115398,WP115399,WP115400,WP115401,WP115402,WP115403,WP115404,WP115405,WP115406,WP115407,WP115408,

Chemical ID :

E3875,E3972,M6041,M6069,M6151,M6186,W2306,W2647,W2650,W2663,W2664,W2666,W2788,W2817,W2871,W2983,W3009,W3035,W3082,W3112,W3113,W3132,W3148,W3163,W3180,W3195,W3196,W3197,W3198,W3199,W3206,W3222,W3240,W3241,W3243,W3246,



<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	EP2655	10/24/2025	01/28/2026	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 10/24/2025
<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>
115	Phosphate Stock Std. (50 ppm)	WP112913	05/01/2025	11/01/2025	Iwona Zarych	WETCHEM_SCALE_5 (WC SC-5)	None	Jignesh Parikh 05/06/2025
<u>FROM</u> 0.11000gram of W3198 + 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	WP112914	05/01/2025	11/01/2025	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 05/06/2025
<u>FROM</u>	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>
648	Ammonium molybdate solution	WP113112	05/16/2025	11/16/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh 05/16/2025
<u>FROM</u>	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	WP113113	05/16/2025	11/16/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh 05/16/2025
<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	WP113135	05/20/2025	11/20/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 05/20/2025
<u>FROM</u> 134.00000gram of W2983 + 134.00000ml of M6041 + 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>
1213	Phenolphthalein indicator	WP113378	06/04/2025	12/04/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCS)	None	Jignesh Parikh
<u>FROM</u> 0.10000gram of W2650 + 50.00000ml of W2788 + 50.00000ml 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>
1571	Sodium hydroxide, 1N	WP113878	07/09/2025	12/31/2025	Iwona Zarych	WETCHEM_SCALE_7 (WCS-6)	None	Jignesh Parikh
<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_SCALE_7 (WCS-6)	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_SCALE_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>
2487	Anions 300/9056 calibration standard 1	WP115135	10/09/2025	10/10/2025	Iwona Zarych	None	None	Jignesh Parikh
								10/27/2025

FROM 10.00000ml of W3112 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
24	Anions 300/9056 calibration standard 2	WP115136	10/09/2025	10/10/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3	Jignesh Parikh
							(WC)	10/27/2025

FROM 0.20000ml of W3180 + 9.80000ml 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>
25	Anions 300/9056 calibration standard 3	WP115137	10/09/2025	10/10/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 10/27/2025
FROM 0.40000ml of W3180 + 9.60000ml of W3112 = Final Quantity: 10.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
26	Anions 300/9056 calibration standard 4	WP115138	10/09/2025	10/10/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 10/27/2025
FROM 0.50000ml of W3180 + 9.50000ml of W3112 = Final Quantity: 10.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3680	Anions 300/9056 calibration standard 5-CCV	WP115139	10/09/2025	10/10/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 10/27/2025
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	WP115140	10/09/2025	10/10/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 10/27/2025
FROM 2.00000ml of W3180 + 8.00000ml of W3112 = Final Quantity: 10.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3681	Anions 300/9056 calibration standard 7	WP115141	10/09/2025	10/10/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 10/27/2025
FROM 2.50000ml of W3180 + 7.50000ml of W3112 = Final Quantity: 10.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3233	Anions 300/9056 ICV-LCS std	WP115142	10/09/2025	10/10/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 10/27/2025
FROM 45.00000ml of W3112 + 5.00000ml of W3197 = 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>
4037	IC H2SO4 FOR IC-1	WP115144	10/09/2025	11/09/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 10/27/2025

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>
740	sodium nitroferrocyanide for ammonia	WP115290	10/22/2025	11/22/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/24/2025

FROM 0.05000gram of W2666 + 99.95000ml of W3112 = Final Quantity: 100.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3680	Anions 300/9056 calibration standard 5-CCV	WP115318	10/24/2025	10/25/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 10/27/2025
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>
3233	Anions 300/9056 ICV-LCS std	WP115319	10/24/2025	10/25/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 10/27/2025
FROM 45.00000ml of W3112 + 5.00000ml of W3197 = 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>
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_S CALE_5 (WC SC-5)	None	Jignesh Parikh 10/28/2025
<u>FROM</u>	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>
4036	IC ELUENT FOR IC-1	WP115345	10/23/2025	11/23/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 10/28/2025
<u>FROM</u> 1980.00000ml of W3112 + 20.00000ml of WP115344 = Final Quantity: 2000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
295	TKN Calibration Std (10 ppm)	WP115372	10/29/2025	11/05/2025	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	WP115373	10/29/2025	11/05/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 10/29/2025
<u>FROM</u> 49.75000ml of W3112 + 0.25000ml of WP115085 = 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>
296	TKN ICV STD 5 ppm	WP115374	10/29/2025	11/05/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 10/29/2025
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>
298	TKN LCS STD 5 ppm	WP115375	10/29/2025	11/05/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 10/29/2025
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>
122	calibration std. 0 ppm	WP115398	10/31/2025	11/07/2025	Rubina Mughal	None	None	Iwona Zarych
								11/03/2025

FROM 100.00000ml of W3112 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
121	calibration std. phosphate 0.05 ppm	WP115399	10/31/2025	11/01/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3	Iwona Zarych
							(WC)	11/03/2025

FROM 99.90000ml of W3112 + 0.10000ml of WP112913 = 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>
120	calibration std. phosphate 0.1 ppm	WP115400	10/31/2025	11/01/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 11/03/2025
FROM 99.80000ml of W3112 + 0.20000ml of WP112913 = 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	WP115401	10/31/2025	11/01/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 11/03/2025
FROM 99.40000ml of W3112 + 0.60000ml of WP112913 = 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>
118	calibration std. phosphate 0.5 ppm	WP115402	10/31/2025	11/01/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 11/03/2025
FROM 99.00000ml of W3112 + 1.00000ml of WP112913 = 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>
117	calibration std. phosphate 1 ppm	WP115403	10/31/2025	11/01/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 11/03/2025
FROM 98.00000ml of W3112 + 2.00000ml of WP112913 = 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>
3805	Phosphate ICV-LCS Std	WP115404	10/31/2025	11/01/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u>		99.00000ml of W3112 + 1.00000ml of WP112914 = 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.	WP115405	10/31/2025	11/01/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC)								
<u>FROM</u>	99.00000ml of W3112 + 1.00000ml of WP112913 = 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>
4212	Phosphate RL CHECK	WP115406	10/31/2025	11/01/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 11/03/2025

FROM 99.80000ml of W3112 + 0.20000ml of WP112913 = 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	WP115407	10/31/2025	11/01/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 11/03/2025

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	WP115408	10/31/2025	11/01/2025	Rubina Mughal	None	Glass Pipette-A	Iwona Zarych 11/03/2025
<u>FROM</u> 15.00000ml of WP113112 + 30.00000ml of WP115407 + 5.00000ml of WP113113 + 50.00000ml of WP115340 = 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	01/28/2026	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 #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140440 / TEST PAPERS,PH,0-2.5,.2SENSI, 100PK	80A0441	02/29/2028	09/03/2024 / jignesh	08/19/2024 / Jaswal	M6069

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	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

CHEMICAL RECEIPT LOG BOOK

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

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.	J2870-1 / PHENOLPHTHALEIN, INDICATOR F/TITRATION, 500G	0000235350	06/04/2025	01/31/2020 / AMANDEEP	01/20/2020 / apatel	W2650

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC16721-3 / Isopropanol, 99%	C20F23007	06/30/2025	12/30/2020 / apatel	12/30/2020 / apatel	W2788

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

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

CHEMICAL RECEIPT LOG BOOK

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

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

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	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

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.	J3246-1 / POTAS PHOSPHATE, MONO, CRYST, ACS, 500G	MKCW6723	10/31/2028	04/11/2025 / lwona	04/11/2025 / lwona	W3198

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

CHEMICAL RECEIPT LOG BOOK

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, CRYST, 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.	J9416-1 / Sodium Hypochlorite 500 ml	2506M51	12/31/2025	07/02/2025 / lwona	07/02/2025 / lwona	W3222

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 SENS,100PK	10BDH15251	04/30/2029	10/02/2025 / lwona	10/02/2025 / lwona	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 / lwona	10/03/2025 / lwona	W3243

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	04667-2.5 / Silica Gel (60-200 mesh), 2.5 KG	072154301	10/03/2030	10/03/2025 / lwona	10/03/2025 / lwona	W3246



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

Phenolphthalein, Powder
BAKER ANALYZED® A.C.S. Reagent



Material No.: 2870-01
Batch No.: 0000235350
Manufactured Date: 2018/06/06
Retest Date: 2025/06/04
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
ACS – Clarity of Solution	Passes Test	PT
Visual Transition Interval – pH...8.0 (Colorless)	Passes Test	PT
Visual Transition Interval – pH...10.0 (Red)	Passes Test	PT

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
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

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

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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.



CERTIFICATE OF ANALYSIS

Product Name ISOPROPYL ALCOHOL, 99%
Grade Meets ACS/USP/NF Monographs
Catalog # 231000099, zp231000099
Lot # C20F23007
Date of Manufacture: 06/23/20 **W2788 Received on 12/30/2020 by AP**
Recommended Retest Date: Five Years from Date of Manufacture

TEST	MONO GRAPH	SPECIFICATION	RESULT
Assay (corrected for water)	USP	99.0% min	99.92%
Assay (corrected for water)	ACS	99.5% min	
Solubility in water	ACS ⁺	To Pass Test	Pass
Appearance	ACS ⁺	Clear, colorless liquid	Pass
Color, APHA	ACS	10 max	1
Limit of Nonvolatile Residue	USP ⁺	NMT 2.5 mg (0.005%)	0.1 mg
Residue after Evaporation	ACS ⁺	0.001% max	< 0.001%
Specific Gravity	USP	0.783 - 0.787 @25°C	0.783
Identification A - Infrared Absorption	USP	To Pass Test	Pass
Identification B	USP	To Pass Test	Pass
Refractive Index @ 20°C	USP	1.376-1.378	1.377
Acidity	USP ⁺	NMT 0.70 ml of 0.020N NaOH is required	0.30 mL
Titration Acid or Base	ACS ⁺	0.0001 meq/g max	0.0001 meq/g
Carbonyl Compounds	ACS	Propionaldehyde 0.002% max	< 0.002%
		Acetone 0.002% max	None Detected
Limit of Volatile Impurities	USP	Diethyl Ether NMT 0.1%	< 0.1%
		Acetone NMT 0.1%	None Detected
		Diisopropyl Ether NMT 0.1%	< 0.1%
		n-Propyl Alcohol NMT 0.1%	< 0.1%
		2-Butanol NMT 0.1%	< 0.1%
		Total NMT 1.0%	< 0.1%
Water, wt%	ACS	NMT 0.2%	0.05%
Water Determination	USP	NMT 0.5%	

⁺This test is performed quarterly

Certification and Compliance Statements

This lot of Isopropyl Alcohol complies with all of the current requirements listed in the United States Pharmacopeia, American Chemical Society monographs and the National Formulary.

No chemicals whatsoever are used as solvents at any point in the manufacture, processing or packaging of Isopropyl Alcohol. Only Class 2 and Class 3 residual solvents may appear as impurities / related substances / low level contaminants in IPA. Concentration of Class 2 Option 1 and Class 3 residual solvents is below limits in the current USP/NF General Chapter <467>.

This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.

This product is for further commercial manufacturing, laboratory or research use, and may be used as an excipient or a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user.

Approved by: D. Simoncelli, Quality Control Chemist

Date of Approval: 06/23/2020



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

Certificate of Analysis

Product Name:

Potassium sulfate - ReagentPlus®, ≥99.0%

Product Number:

P0772

Batch Number:

SLCM9788

Brand:

SIGALD

CAS Number:

7778-80-5

MDL Number:

MFCD00011388

Formula:

K₂O₄S

Formula Weight:

174.26 g/mol

Quality Release Date:

03 MAR 2022

K₂SO₄

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



Brian Dulle, Supervisor

Quality Assurance

St. Louis, Missouri US

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



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.



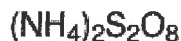
W 3035
rec. 6/6/23 12

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

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MONTERREY, N.L. MÉXICO
CP 64070
TEL +52 81 13 52 67 67
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

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

avantor™



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

Certificate of Analysis

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

>>> Continued on page 2 >>>

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

 **avantor™**

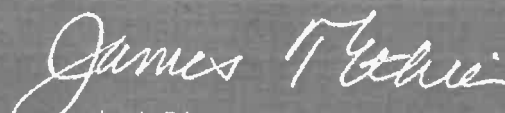


Material No.: 9673-33
Batch No.: 23D2462010

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

For Laboratory, Research, or Manufacturing Use

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


Jamie Ethier
Vice President Global Quality



Certificate of Analysis

Product information

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

Confirmation

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

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



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

 **avantor™**



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

 **avantor**™

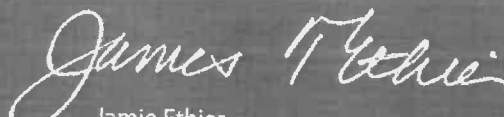


Material No.: 9530-33
Batch No.: 22G2862015

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


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 %

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

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ThermoFisher
S C I E N T I F I C



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

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

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.

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

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

Certificate of Analysis Results Entered By:

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

Certificate of Analysis Results Approved By:

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

Spectrum Chemical Mfg Corp
755 Jersey Avenue
New Brunswick 08901 NJ



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

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

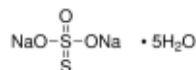
The Elemental Impurities standards implemented by USP and other Pharmaceutical Compendia reflect a growing understanding of the toxicology of trace levels of elemental impurities that can remain in drug substances originating from either raw materials or manufacturing processes. Identifying and quantifying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

Certificate of Analysis

Product Name:

Sodium thiosulfate pentahydrate - ACS reagent, ≥99.5%

Product Number: 217247
Batch Number: 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, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

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

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

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

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

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

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

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

X_a = mean of Assay Method A with

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

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

5.0 CHROMATOGRAM

N/A

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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



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

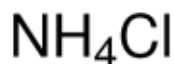
Signature	Additional Information
We certify that this batch conforms to the specifications listed above. This document has been electronically produced and is valid without a signature. Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA	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	

W3198 Received on 4/11/2025 by IZ

3050 Spruce Street, Saint Louis, MO 63103, USA

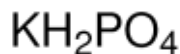
Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

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.





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: CuSO4.5H2O
 Molecular Mass: 249.68

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

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

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

CUSTOMER PART# BDH9312-2.5KG

Internal ID #: 793

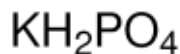
Signature	Additional Information
We certify that this batch conforms to the specifications listed above. This document has been electronically produced and is valid without a signature. Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA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

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

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

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
Op4tel. 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

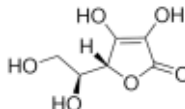
Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

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

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 information

Product: Silica 60, 0.063 - 0.200 mm
REF: 815330.25
LOT: 072154301

Technical data

Material: Synthetic amorphous silica (irregular shaped)
Description: White powder

Parameter	Specifications	Result
Specific surface (m ² /g, N2 adsorption) :	450 - 550	537
Particle size distribution (screen analysis) :	< 63 µm max. 5 %	0.3
	> 200 µm max. 5 %	0.1
pH value :	6.0 - 7.5	7
Water content (%) :	< 7	3.6
Pore volume (mL/g, N2 adsorption) :	0.65 - 0.85	0.82
Mean pore size (Å, N2 adsorption) :	50 - 70	62

Expiry

This product has no stated expiration date or shelf life.

We recommend to use the product within a time period of 5 years after date of QC release.

This time period is valid only if the product is stored under dry and frost-free conditions.

After 5 years we recommend retesting the adsorbent to make sure that the expected performance is still given.

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.

Date of measurement: 16.02.2023 22:00



SHIPPING DOCUMENTS



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

Alliance Project Number: AEC-2025-0013

Q3462

CHAIN OF CUSTODY RECORD

COC Number:

CLIENT INFORMATION			PROJECT INFORMATION				BILLING INFORMATION													
COMPANY: Durham School Services			PROJECT NAME: CSC 6702 Wattsburg				BILL TO: dede.golding@alliancetg.com					PO#								
ADDRESS:			PROJECT #: AEC-2025-0013 LOCATION: PA				ADDRESS:													
CITY: Wattsburg STATE: PA ZIP:			PROJECT MANAGER:				CITY:					STATE: ZIP:								
ATTENTION: staci.bruce@alliancetg.com			E-MAIL:				ATTENTION:					PHONE:								
PHONE:			PHONE:				FAX:													
FAX:			FAX:																	
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION				ANALYSIS													
FAX: _____ DAYS*			☐ RESULTS ONLY ☐ USEPA CLP				Oil & Grease	TSS	Total Phosphorus	Total Nitrogen										
HARD COPY: _____ DAYS*			☐ RESULTS + QC ☐ New York State ASP "B"																	
EDD _____ DAYS*			☐ New Jersey REDUCED ☐ New York State ASP "A"																	
* TO BE APPROVED BY ALLIANCE			☐ New Jersey CLP ☐ Other _____																	
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS			☐ EDD Format																	
CHEMTECH SAMPLE ID			PROJECT SAMPLE IDENTIFICATION		SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles	PRESERVATIVES									COMMENTS
						COMP GRAB		DATE TIME			1 2 3 4 5 6 7 8 9									← Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
1.			SW-1		SW	X					1 1 1 1									
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY																				
RELINQUISHED BY SAMPLER			DATE/TIME		RECEIVED BY		Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 14.5°C MeOH extraction requires an additional 4oz. Jar for percent solid Comments:													
1.					1															
RELINQUISHED BY			DATE/TIME		RECEIVED BY															
2.					2															
RELINQUISHED BY			DATE/TIME		RECEIVED FOR LAB BY															
3.					3.															
Page _____ of _____							SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight ALLIANCE: ☐ Picked Up ☐ Overnight							Shipment Complete ☐ YES ☐ NO						
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