

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:	Q3614	OrderDate:	11/12/2025 11:51:00 AM
Client:	Kleinfelder	Project:	Logan School
Contact:	Mark Warchol	Location:	J21,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3614-01	COMP-1	SOIL			11/11/25 10:05			11/12/25
			Ammonia	SM4500-NH3		11/17/25	11/17/25 14:34	
			Anions Group1	9056A			11/12/25 17:50	
			Hexavalent Chromium	7196A		11/13/25	11/13/25 15:40	
			Trivalent Chromium	6010D			11/13/25 15:31	
Q3614-02	COMP-2	SOIL			11/11/25 10:45			11/12/25
			Ammonia	SM4500-NH3		11/17/25	11/17/25 13:30	
			Anions Group1	9056A			11/12/25 19:38	
			Hexavalent Chromium	7196A		11/13/25	11/13/25 15:41	
			Trivalent Chromium	6010D			11/13/25 15:35	
Q3614-03	COMP-3	SOIL			11/11/25 11:30			11/12/25
			Ammonia	SM4500-NH3		11/17/25	11/17/25 13:31	
			Anions Group1	9056A			11/12/25 19:59	
			Hexavalent Chromium	7196A		11/13/25	11/13/25 15:42	
			Trivalent Chromium	6010D			11/13/25 15:39	



SAMPLE DATA

Report of Analysis

Client: Kleinfelder
Project: Logan School
Client Sample ID: COMP-1
Lab Sample ID: Q3614-01

Date Collected: 11/11/25 10:05
Date Received: 11/12/25
SDG No.: Q3614
Matrix: SOIL
% Solid: 82.3

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	3.20	J	1	2.60	6.00	mg/Kg	11/17/25 10:10	11/17/25 14:34	SM 4500-NH3 B plus G-21
Chloride	4.30	J	1	4.10	14.4	mg/Kg		11/12/25 17:50	9056A
Fluoride	7.50	J	1	2.10	9.60	mg/Kg		11/12/25 17:50	9056A
Sulfate	20.2	J	1	10.5	71.8	mg/Kg		11/12/25 17:50	9056A
Hexavalent Chromium	0.084	U	1	0.084	0.48	mg/Kg	11/13/25 12:00	11/13/25 15:40	7196A
Trivalent Chromium	24.0		1	0.61	0.61	mg/Kg		11/13/25 15:31	6010D

Comments: _____

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

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

Report of Analysis

Client: Kleinfelder
Project: Logan School
Client Sample ID: COMP-2
Lab Sample ID: Q3614-02

Date Collected: 11/11/25 10:45
Date Received: 11/12/25
SDG No.: Q3614
Matrix: SOIL
% Solid: 81.7

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	2.70	U	1	2.70	6.10	mg/Kg	11/17/25 10:10	11/17/25 13:30	SM 4500-NH3 B plus G-21
Chloride	8.10	J	1	4.20	14.6	mg/Kg		11/12/25 19:38	9056A
Fluoride	6.50	J	1	2.10	9.70	mg/Kg		11/12/25 19:38	9056A
Sulfate	21.0	J	1	10.7	73.0	mg/Kg		11/12/25 19:38	9056A
Hexavalent Chromium	0.14	J	1	0.084	0.48	mg/Kg	11/13/25 12:00	11/13/25 15:41	7196A
Trivalent Chromium	25.2		1	0.61	0.61	mg/Kg		11/13/25 15:35	6010D

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N = Spiked sample recovery not within control limits

Report of Analysis

Client: Kleinfelder
Project: Logan School
Client Sample ID: COMP-3
Lab Sample ID: Q3614-03

Date Collected: 11/11/25 11:30
Date Received: 11/12/25
SDG No.: Q3614
Matrix: SOIL
% Solid: 83.5

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	4.00	J	1	2.60	5.80	mg/Kg	11/17/25 10:10	11/17/25 13:31	SM 4500-NH3 B plus G-21
Chloride	12.6	J	1	4.10	14.3	mg/Kg		11/12/25 19:59	9056A
Fluoride	5.90	J	1	2.10	9.50	mg/Kg		11/12/25 19:59	9056A
Sulfate	17.2	J	1	10.4	71.3	mg/Kg		11/12/25 19:59	9056A
Hexavalent Chromium	0.082	U	1	0.082	0.47	mg/Kg	11/13/25 12:00	11/13/25 15:42	7196A
Trivalent Chromium	25.0		1	0.60	0.60	mg/Kg		11/13/25 15:39	6010D

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: Kleinfelder
Project: Logan School

SDG No.: Q3614
RunNo.: LB137882

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Bromide	mg/L	9.7	10	97	90-110	11/03/2025
Chloride	mg/L	2.9	3	97	90-110	11/03/2025
Fluoride	mg/L	2	2	100	90-110	11/03/2025
Nitrite	mg/L	2.9	3	97	90-110	11/03/2025
Nitrate	mg/L	2.4	2.5	96	90-110	11/03/2025
Sulfate	mg/L	14.5	15	97	90-110	11/03/2025
Orthophosphate as P	mg/L	5.2	5	104	90-110	11/03/2025
Sample ID: CCV1						
Bromide	mg/L	10.5	10	105	90-110	11/12/2025
Chloride	mg/L	3.2	3	107	90-110	11/12/2025
Fluoride	mg/L	2.1	2	105	90-110	11/12/2025
Nitrite	mg/L	3.1	3	103	90-110	11/12/2025
Nitrate	mg/L	2.6	2.5	104	90-110	11/12/2025
Sulfate	mg/L	15.4	15	103	90-110	11/12/2025
Orthophosphate as P	mg/L	4.7	5	94	90-110	11/12/2025
Sample ID: CCV2						
Bromide	mg/L	10.5	10	105	90-110	11/12/2025
Chloride	mg/L	3.2	3	107	90-110	11/12/2025
Fluoride	mg/L	2.1	2	105	90-110	11/12/2025
Nitrite	mg/L	3.1	3	103	90-110	11/12/2025
Nitrate	mg/L	2.6	2.5	104	90-110	11/12/2025
Sulfate	mg/L	15.5	15	103	90-110	11/12/2025
Orthophosphate as P	mg/L	5	5	100	90-110	11/12/2025
Sample ID: CCV3						
Bromide	mg/L	10.5	10	105	90-110	11/12/2025
Chloride	mg/L	3.2	3	107	90-110	11/12/2025
Fluoride	mg/L	2.1	2	105	90-110	11/12/2025
Nitrite	mg/L	3.1	3	103	90-110	11/12/2025
Nitrate	mg/L	2.6	2.5	104	90-110	11/12/2025
Sulfate	mg/L	15.8	15	105	90-110	11/12/2025
Orthophosphate as P	mg/L	5.5	5	110	90-110	11/12/2025

Initial and Continuing Calibration Verification

Client: Kleinfelder

SDG No.: Q3614

Project: Logan School

RunNo.: LB137886

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Hexavalent Chromium	mg/L	0.488	0.5	98	90-110	11/13/2025
Sample ID: CCV1 Hexavalent Chromium	mg/L	0.499	0.5	100	90-110	11/13/2025
Sample ID: CCV2 Hexavalent Chromium	mg/L	0.491	0.5	98	90-110	11/13/2025
Sample ID: CCV3 Hexavalent Chromium	mg/L	0.485	0.5	97	90-110	11/13/2025

Initial and Continuing Calibration Verification

Client: Kleinfelder

SDG No.: Q3614

Project: Logan School

RunNo.: LB137922

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Ammonia as N	mg/L	1	1	100	90-110	11/17/2025
Sample ID: CCV1 Ammonia as N	mg/L	0.95	1	95	90-110	11/17/2025
Sample ID: CCV2 Ammonia as N	mg/L	0.95	1	95	90-110	11/17/2025
Sample ID: CCV3 Ammonia as N	mg/L	1	1	100	90-110	11/17/2025
Sample ID: CCV4 Ammonia as N	mg/L	0.97	1	97	90-110	11/17/2025

Initial and Continuing Calibration Blank Summary

Client: Kleinfelder
Project: Logan School

SDG No.: Q3614
RunNo.: LB137882

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	11/03/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	11/03/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	11/03/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	11/03/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	11/03/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	11/03/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	11/03/2025
Sample ID: CCB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	11/12/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	11/12/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	11/12/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	11/12/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	11/12/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	11/12/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	11/12/2025
Sample ID: CCB2							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	11/12/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	11/12/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	11/12/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	11/12/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	11/12/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	11/12/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	11/12/2025
Sample ID: CCB3							
Bromide	mg/L	< 1.0000	1.0000	U	0.37	2	11/12/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.19	0.6	11/12/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.11	0.4	11/12/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.074	0.6	11/12/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.095	0.5	11/12/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.46	3	11/12/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.34	1	11/12/2025

Initial and Continuing Calibration Blank Summary

Client: Kleinfelder

SDG No.: Q3614

Project: Logan School

RunNo.: LB137886

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	11/13/2025
Sample ID: CCB1 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	11/13/2025
Sample ID: CCB2 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	11/13/2025
Sample ID: CCB3 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	11/13/2025

Initial and Continuing Calibration Blank Summary

Client: Kleinfelder

SDG No.: Q3614

Project: Logan School

RunNo.: LB137922

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	11/17/2025
Sample ID: CCB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	11/17/2025
Sample ID: CCB2 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	11/17/2025
Sample ID: CCB3 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	11/17/2025
Sample ID: CCB4 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	11/17/2025

Preparation Blank Summary

Client: Kleinfelder

SDG No.: Q3614

Project: Logan School

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB137882BLS							
Bromide	mg/Kg	< 20.0000	20.0000	U	7	40	11/12/2025
Chloride	mg/Kg	< 6.0000	6.0000	U	3.5	12	11/12/2025
Fluoride	mg/Kg	< 4.0000	4.0000	U	1.8	8	11/12/2025
Nitrite	mg/Kg	< 6.0000	6.0000	U	1.5	12	11/12/2025
Nitrate	mg/Kg	< 5.0000	5.0000	U	1.8	10	11/12/2025
Sulfate	mg/Kg	< 30.0000	30.0000	U	8.8	60	11/12/2025
Orthophosphate as P	mg/Kg	< 10.0000	10.0000	U	6.7	20	11/12/2025
Sample ID: PB170537BL							
Hexavalent Chromium	mg/Kg	0.08	0.2000	J	0.07	0.4	11/13/2025
Sample ID: PB170569BL							
Ammonia as N	mg/Kg	< 2.5000	2.5000	U	2.2	5	11/17/2025

Matrix Spike Summary

Client:	Kleinfelder	SDG No.:	Q3614
Project:	Logan School	Sample ID:	Q3609-01
Client ID:	AU-713-COMP-01MS	Percent Solids for Spike Sample:	81.6

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	1520		0.095	J	1570	40	97		11/13/2025

Matrix Spike Summary

Client:	Kleinfelder	SDG No.:	Q3614
Project:	Logan School	Sample ID:	Q3609-01
Client ID:	AU-713-COMP-01MS	Percent Solids for Spike Sample:	81.6

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	85-115	42.2		0.095	J	49.0	2	86		11/13/2025

Matrix Spike Summary

Client:	Kleinfelder	SDG No.:	Q3614
Project:	Logan School	Sample ID:	Q3609-01
Client ID:	AU-713-COMP-01MS	Percent Solids for Spike Sample:	81.6

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	40.1		0.095	J	49.0	2	82		11/13/2025

Matrix Spike Summary

Client:	Kleinfelder	SDG No.:	Q3614
Project:	Logan School	Sample ID:	Q3609-04
Client ID:	AU-713-COMP-02MS	Percent Solids for Spike Sample:	84.6

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Bromide	mg/Kg	80-120	234		8.20	U	230	1	102		11/12/2025
Chloride	mg/Kg	80-120	81.1		11.7	J	70.1	1	99		11/12/2025
Fluoride	mg/Kg	80-120	42.8		6.30	J	46.7	1	78	*	11/12/2025
Nitrite	mg/Kg	80-120	69.8		1.80	U	70.1	1	100		11/12/2025
Nitrate	mg/Kg	80-120	61.2		7.80	J	58.4	1	91		11/12/2025
Sulfate	mg/Kg	80-120	359		23.0	J	350	1	96		11/12/2025
Orthophosphate as P	mg/Kg	80-120	82.6		7.80	U	120	1	69	*	11/12/2025

Matrix Spike Summary

Client:	Kleinfelder	SDG No.:	Q3614
Project:	Logan School	Sample ID:	Q3609-04
Client ID:	AU-713-COMP-02MSD	Percent Solids for Spike Sample:	84.6

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Bromide	mg/Kg	80-120	236		8.20	U	240	1	98		11/12/2025
Chloride	mg/Kg	80-120	81.5		11.7	J	70.6	1	99		11/12/2025
Fluoride	mg/Kg	80-120	43.1		6.30	J	47.1	1	78	*	11/12/2025
Nitrite	mg/Kg	80-120	70.5		1.80	U	70.6	1	100		11/12/2025
Nitrate	mg/Kg	80-120	61.7		7.80	J	58.9	1	92		11/12/2025
Sulfate	mg/Kg	80-120	358		23.0	J	350	1	96		11/12/2025
Orthophosphate as P	mg/Kg	80-120	82.6		7.80	U	120	1	69	*	11/12/2025

Matrix Spike Summary

Client:	Kleinfelder	SDG No.:	Q3614
Project:	Logan School	Sample ID:	Q3614-01
Client ID:	COMP-1MS	Percent Solids for Spike Sample:	82.3

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/Kg	75-125	57.5		3.20	J	58.4	1	93		11/17/2025

Matrix Spike Summary

Client:	Kleinfelder	SDG No.:	Q3614
Project:	Logan School	Sample ID:	Q3614-01
Client ID:	COMP-1MSD	Percent Solids for Spike Sample:	82.3

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/Kg	75-125	56.1		3.20	J	59.6	1	89		11/17/2025

Duplicate Sample Summary

Client:	Kleinfelder	SDG No.:	Q3614
Project:	Logan School	Sample ID:	Q3609-01
Client ID:	AU-713-COMP-01DUP	Percent Solids for Spike Sample:	81.6

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.095	J	0.084	U	1	200	*	11/13/2025

Duplicate Sample Summary

Client: Kleinfelder	SDG No.: Q3614
Project: Logan School	Sample ID: Q3609-04
Client ID: AU-713-COMP-02MSD	Percent Solids for Spike Sample: 84.6

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Chloride	mg/Kg	+/-15	81.1		81.5		1	0		11/12/2025
Orthophosphate as P	mg/Kg	+/-15	82.6		82.6		1	0		11/12/2025
Sulfate	mg/Kg	+/-15	359		358		1	0		11/12/2025
Bromide	mg/Kg	+/-15	234		236		1	1		11/12/2025
Fluoride	mg/Kg	+/-15	42.8		43.1		1	1		11/12/2025
Nitrate	mg/Kg	+/-15	61.2		61.7		1	1		11/12/2025
Nitrite	mg/Kg	+/-15	69.8		70.5		1	1		11/12/2025

Duplicate Sample Summary

Client: Kleinfelder Project: Logan School Client ID: COMP-1DUP	SDG No.: Q3614 Sample ID: Q3614-01 Percent Solids for Spike Sample: 82.3
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Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/Kg	+/-20	3.20	J	2.60	U	1	200	*	11/17/2025

Duplicate Sample Summary

Client: Kleinfelder Project: Logan School Client ID: COMP-1MSD	SDG No.: Q3614 Sample ID: Q3614-01 Percent Solids for Spike Sample: 82.3
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Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/Kg	+/-20	57.5		56.1		1	2		11/17/2025

Laboratory Control Sample Summary

Client: Kleinfelder

SDG No.: Q3614

Project: Logan School

Run No.: LB137882

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB137882BSS							
Bromide	mg/Kg	200	210		105	1	90-110	11/12/2025
Chloride	mg/Kg	60	63.1		105	1	90-110	11/12/2025
Fluoride	mg/Kg	40	42.1		105	1	90-110	11/12/2025
Nitrite	mg/Kg	60	62.6		104	1	90-110	11/12/2025
Nitrate	mg/Kg	50	52.0		104	1	90-110	11/12/2025
Sulfate	mg/Kg	300	312		104	1	90-110	11/12/2025
Orthophosphate as P	mg/Kg	100	99.1		99	1	90-110	11/12/2025

Laboratory Control Sample Summary

Client: Kleinfelder
Project: Logan School

SDG No.: Q3614
Run No.: LB137886

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170537BS							
Hexavalent Chromium	mg/Kg	20	20.6		103	1	84-110	11/13/2025

Laboratory Control Sample Summary

Client: Kleinfelder
Project: Logan School

SDG No.: Q3614
Run No.: LB137922

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170569BS							
Ammonia as N	mg/Kg	50	50.3		101	1	90-110	11/17/2025



RAW DATA

Instrument IC-1		Analyst : RM		Method: 300.0 / 9056A		Method name		date time		Initial wt/Final		Analyst	
Ident	Con F-	Con CL-	Con NO2	Con BR-	Con NO3	Con HPO4	Con SO4						
STD1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/3/2025 15:58	10	RM/IZ		
STD2	0.417	0.655	0.659	2.182	0.549	0.953	3.345	IC1-110325	11/3/2025 16:22	10	RM/IZ		
STD3	0.813	1.228	1.228	4.086	1.024	2.097	6.147	IC1-110325	11/3/2025 17:04	10	RM/IZ		
STD4	1.014	1.491	1.496	4.984	1.245	2.506	7.444	IC1-110325	11/3/2025 17:47	10	RM/IZ		
STD5	1.966	2.918	2.907	9.724	2.426	5.166	14.580	IC1-110325	11/3/2025 18:08	10	RM/IZ		
STD6	3.912	5.914	5.907	19.694	4.918	9.286	29.234	IC1-110325	11/3/2025 18:30	10	RM/IZ		
STD7	5.078	7.595	7.603	25.330	6.339	12.992	37.751	IC1-110325	11/3/2025 18:51	10	RM/IZ		
ICV	1.960	2.885	2.908	9.698	2.364	5.176	14.547	IC1-110325	11/3/2025 19:13	10	RM/IZ		
ICB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/3/2025 19:34	10	RM/IZ		
CCV	2.104	3.156	3.127	10.467	2.586	4.656	15.399	IC1-110325	11/12/2025 9:29	10	RM/IZ		
CCB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/12/2025 9:51	10	RM/IZ		
LB137882BLS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/12/2025 10:12	5.00g/100mL	RM/IZ		
LB137882BSS	2.103	3.155	3.128	10.482	2.599	4.956	15.620	IC1-110325	11/12/2025 10:34	5.00g/100mL	RM/IZ		
Q3609-01	0.322	0.634	0.000	0.000	0.091	0.000	1.112	IC1-110325	11/12/2025 15:19	5.02g/100mL	RM/IZ		
Q3609-04	0.268	0.497	0.000	0.000	0.333	0.000	0.981	IC1-110325	11/12/2025 15:41	5.04g/100mL	RM/IZ		
Q3609-04MS	1.833	3.470	2.990	10.016	2.618	3.536	15.365	IC1-110325	11/12/2025 16:02	5.06g/100mL	RM/IZ		
Q3609-04MSD	1.832	3.460	2.993	10.041	2.619	3.506	15.187	IC1-110325	11/12/2025 16:24	5.02g/100mL	RM/IZ		
Q3609-07	0.000	0.507	0.000	0.000	0.093	0.000	1.333	IC1-110325	11/12/2025 16:46	5.03g/100mL	RM/IZ		
Q3609-10	0.110	5.725	0.000	0.000	0.000	0.000	1.998	IC1-110325	11/12/2025 17:07	5.05g/100mL	RM/IZ		
Q3609-13	0.195	5.672	0.000	0.000	0.104	0.000	2.450	IC1-110325	11/12/2025 17:29	5.04g/100mL	RM/IZ		
Q3614-01	0.312	0.180	0.000	0.000	0.091	0.000	0.846	IC1-110325	11/12/2025 17:50	5.08g/100mL	RM/IZ		
CCV	2.100	3.164	3.137	10.521	2.594	4.963	15.459	IC1-110325	11/12/2025 18:12	10	RM/IZ		
CCB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/12/2025 18:33	10	RM/IZ		
Q3614-02	0.267	0.334	0.000	0.000	0.088	0.000	0.863	IC1-110325	11/12/2025 19:38	5.03g/100mL	RM/IZ		
Q3614-03	0.249	0.529	0.000	0.000	0.088	0.000	0.724	IC1-110325	11/12/2025 19:59	5.04g/100mL	RM/IZ		
Q3530-03	0.221	0.342	0.355	1.208	0.311	0.595	1.866	IC1-110325	11/12/2025 20:21	5.00g/100mL	RM/IZ		
Q3530-03RE 0.25ML	0.125	0.206	0.217	0.685	0.190	0.383	1.187	IC1-110325	11/12/2025 20:42	5.00g/100mL	RM/IZ		
CCV	2.148	3.177	3.148	10.536	2.631	5.477	15.785	IC1-110325	11/12/2025 21:04	10	RM/IZ		
CCB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	IC1-110325	11/12/2025 21:25	10	RM/IZ		

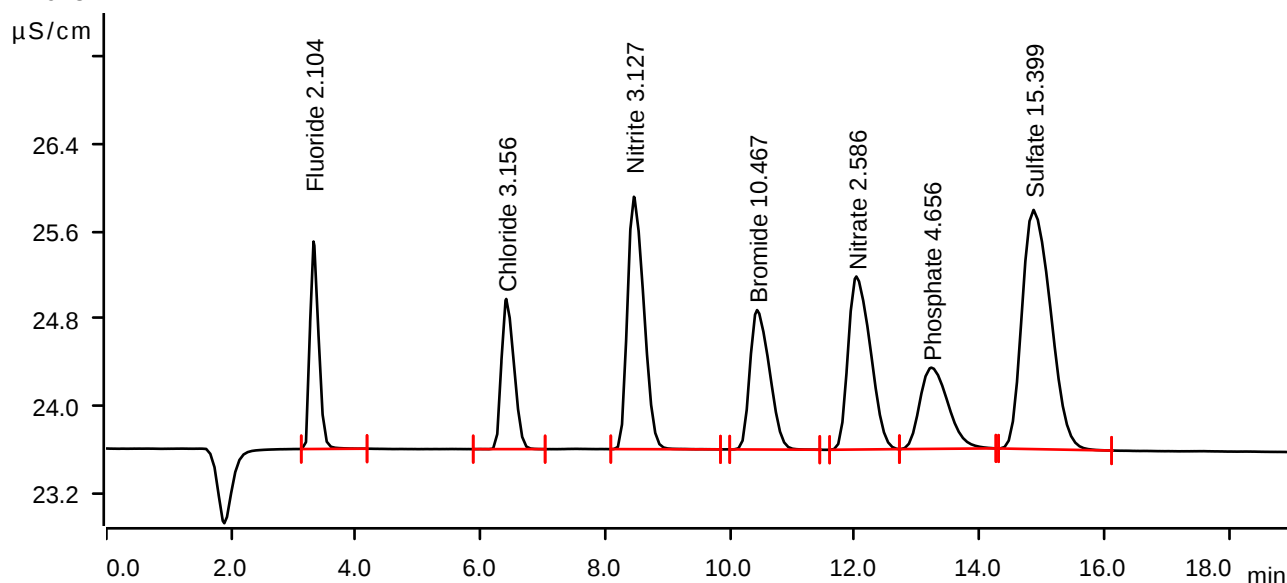
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2025-11-12 09:29:52 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.84 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



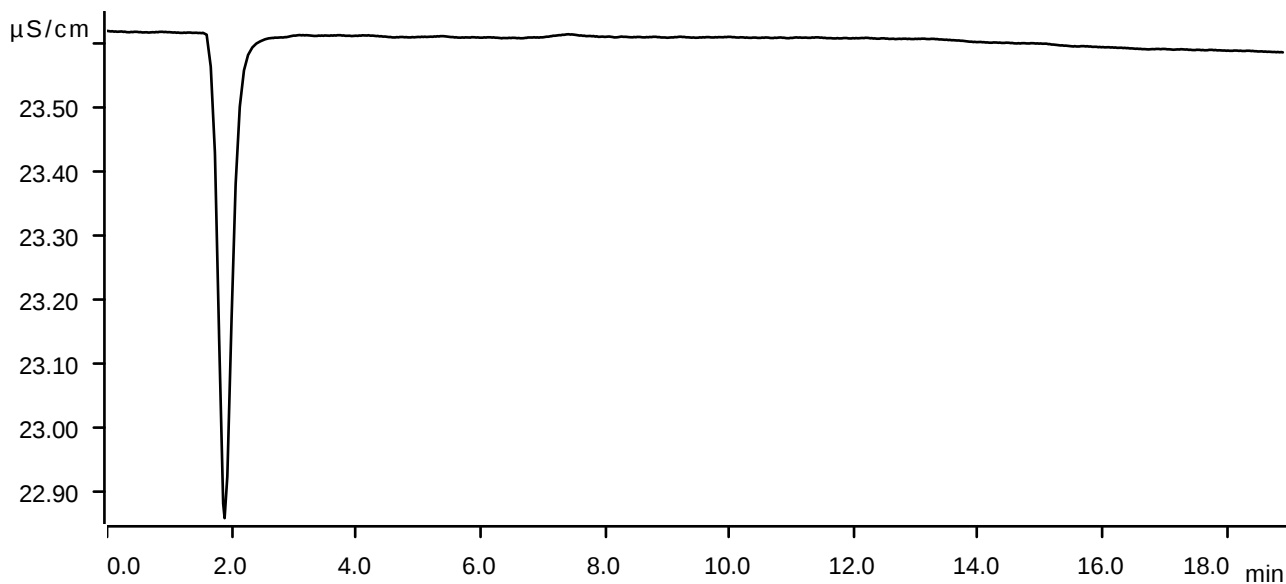
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.322	0.3048	1.903	2.104	Fluoride
2	6.412	0.3211	1.378	3.156	Chloride
3	8.458	0.7043	2.316	3.127	Nitrite
4	10.433	0.4640	1.279	10.467	Bromide
5	12.025	0.6582	1.588	2.586	Nitrate
6	13.227	0.3916	0.746	4.656	Phosphate
7	14.865	1.1717	2.194	15.399	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2025-11-12 09:51:22 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.84 MPa
Maximum pressure monitored yes
Temperature ---- °C

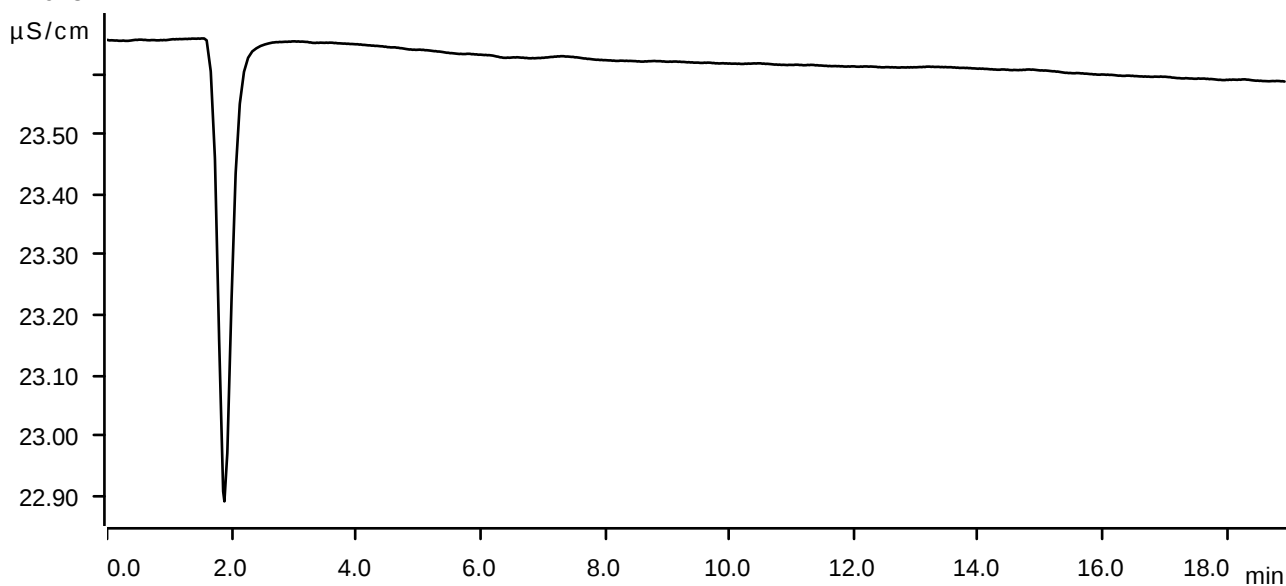
Anions

Sample data

Ident LB137882BLS
Sample type Sample
Determination start 2025-11-12 10:12:52 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.73 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

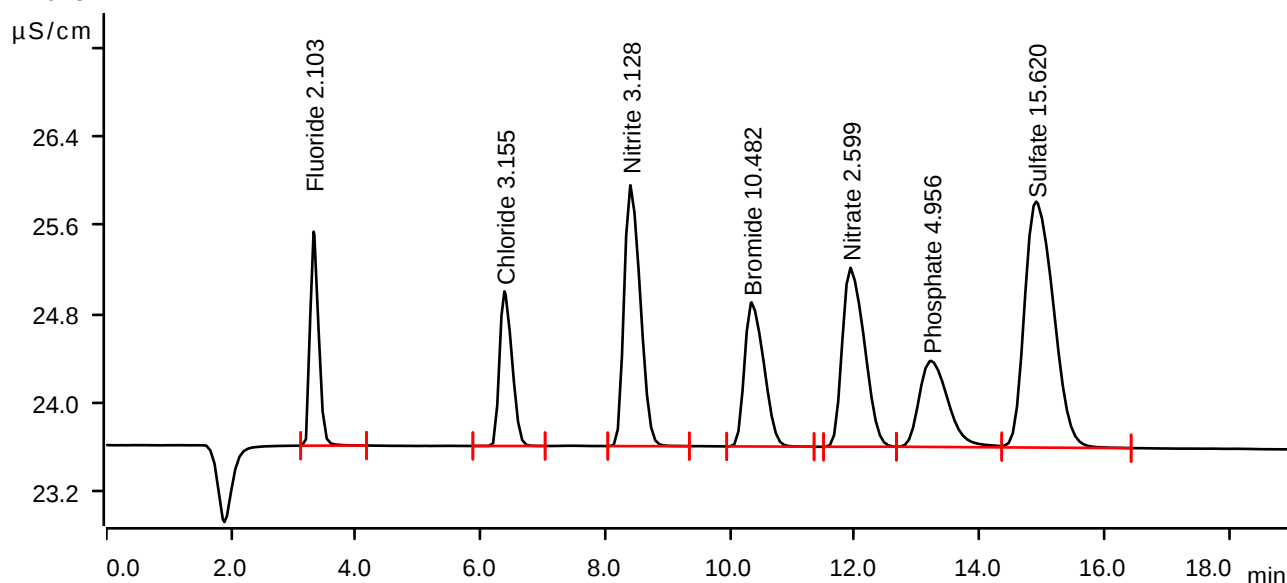
Sample data

Ident LB137882BSS
Sample type Check standard 1
Determination start 2025-11-12 10:34:23 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.56 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	3.323	0.3046	1.923	2.103	Fluoride
2	6.382	0.3211	1.388	3.155	Chloride
3	8.403	0.7047	2.342	3.128	Nitrite
4	10.345	0.4646	1.294	10.482	Bromide
5	11.930	0.6614	1.607	2.599	Nitrate
6	13.222	0.4167	0.773	4.956	Phosphate
7	14.907	1.1890	2.209	15.620	Sulfate

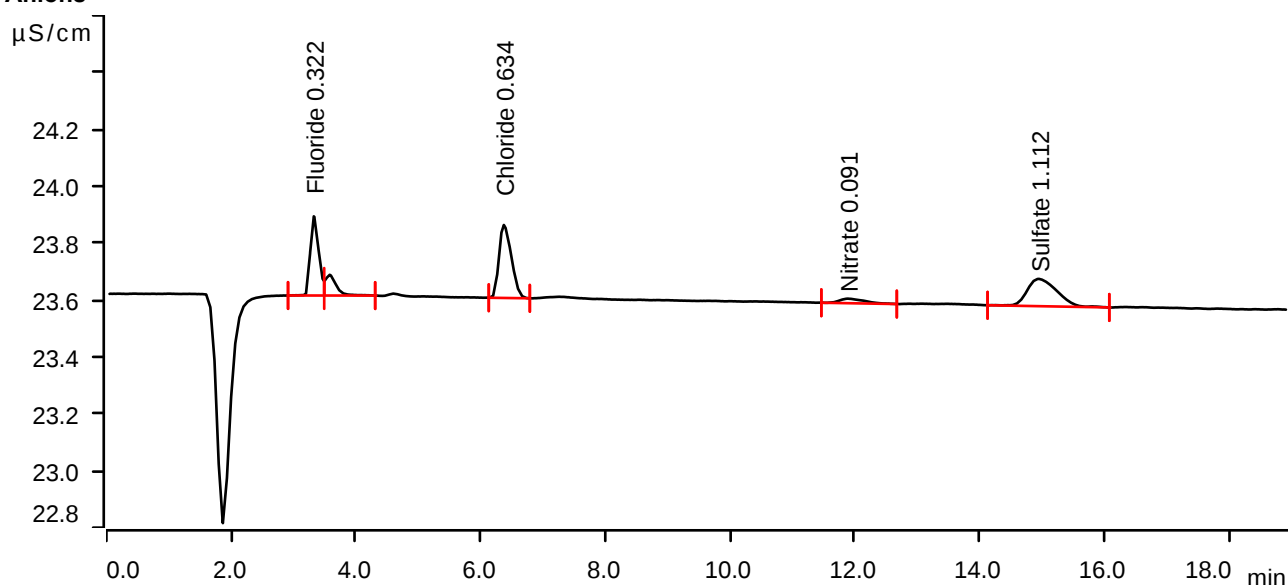
Sample data

Ident Q3609-01
Sample type Sample
Determination start 2025-11-12 15:19:43 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.39 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.327	0.0436	0.278	0.322	Fluoride
2	3.580	0.0147	0.073	invalid	
3	6.373	0.0588	0.256	0.634	Chloride
4	11.888	0.0073	0.016	0.091	Nitrate
5	14.953	0.0529	0.096	1.112	Sulfate

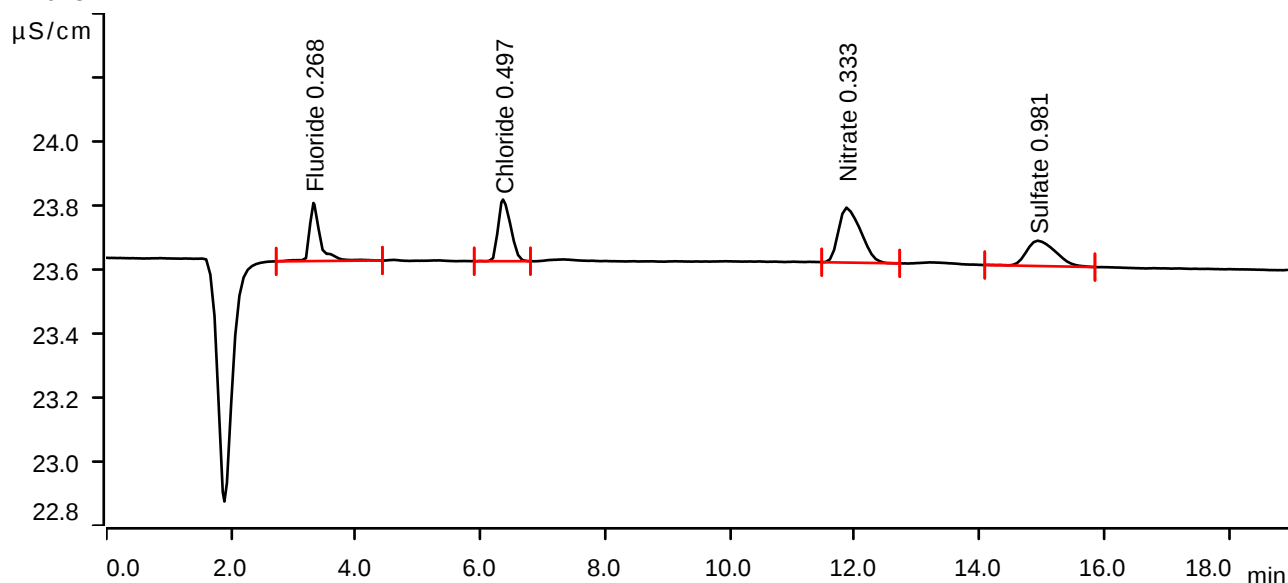
Sample data

Ident Q3609-04
Sample type Sample
Determination start 2025-11-12 15:41:21 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.50 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.320	0.0357	0.181	0.268	Fluoride
2	6.360	0.0445	0.192	0.497	Chloride
3	11.865	0.0706	0.171	0.333	Nitrate
4	14.932	0.0426	0.079	0.981	Sulfate

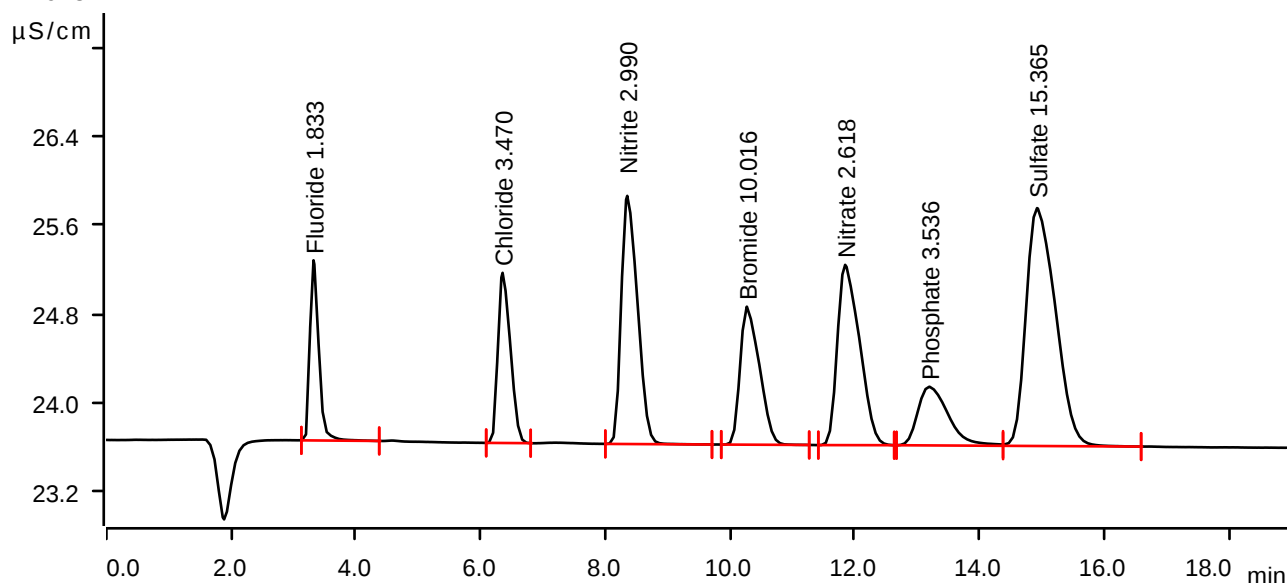
Sample data

Ident Q3609-04MS
Sample type Sample
Determination start 2025-11-12 16:02:55 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.44 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.322	0.2651	1.618	1.833	Fluoride
2	6.353	0.3538	1.528	3.470	Chloride
3	8.352	0.6728	2.229	2.990	Nitrite
4	10.270	0.4436	1.239	10.016	Bromide
5	11.845	0.6664	1.619	2.618	Nitrate
6	13.193	0.2979	0.527	3.536	Phosphate
7	14.922	1.1690	2.136	15.365	Sulfate

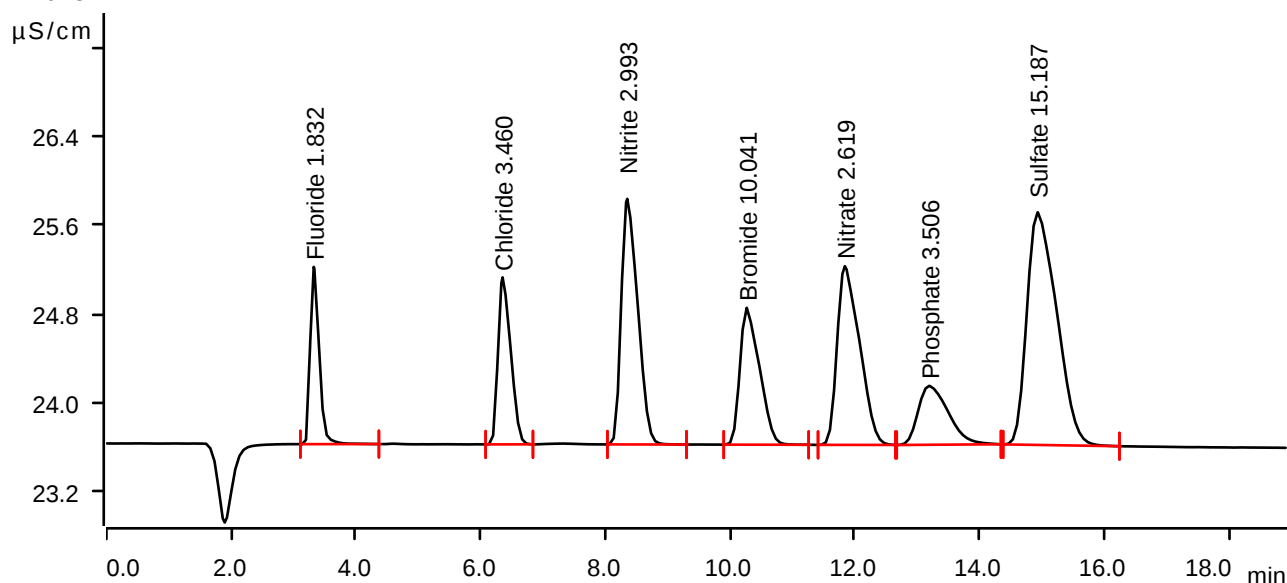
Sample data

Ident Q3609-04MSD
Sample type Sample
Determination start 2025-11-12 16:24:29 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.44 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.325	0.2649	1.592	1.832	Fluoride
2	6.353	0.3527	1.500	3.460	Chloride
3	8.352	0.6734	2.206	2.993	Nitrite
4	10.267	0.4447	1.229	10.041	Bromide
5	11.840	0.6668	1.605	2.619	Nitrate
6	13.192	0.2953	0.529	3.506	Phosphate
7	14.930	1.1551	2.089	15.187	Sulfate

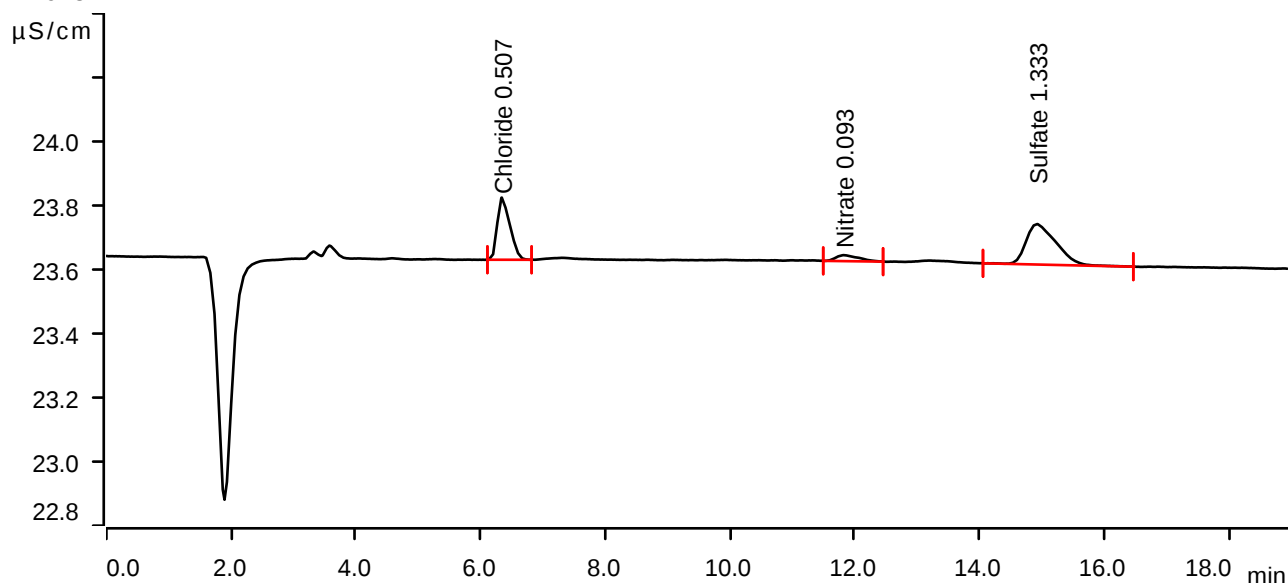
Sample data

Ident Q3609-07
Sample type Sample
Determination start 2025-11-12 16:46:03 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.39 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	6.340	0.0456	0.194	0.507	Chloride
2	11.817	0.0078	0.019	0.093	Nitrate
3	14.925	0.0702	0.126	1.333	Sulfate

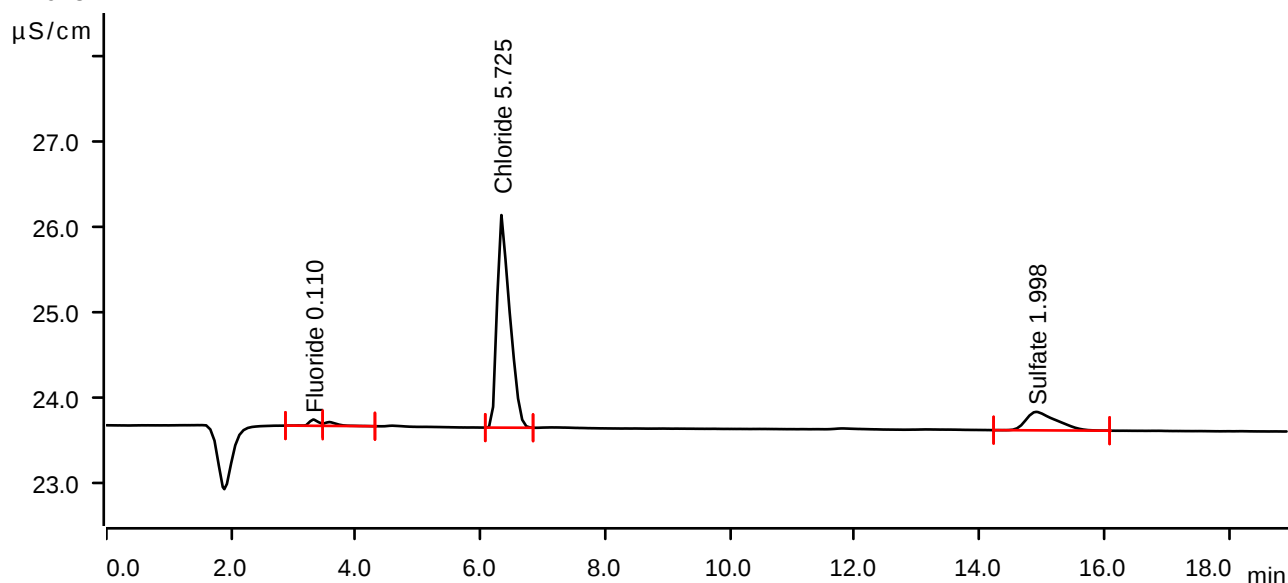
Sample data

Ident Q3609-10
Sample type Sample
Determination start 2025-11-12 17:07:38 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.39 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.317	0.0126	0.074	0.110	Fluoride
2	3.575	0.0106	0.045	invalid	
3	6.335	0.5883	2.490	5.725	Chloride
4	14.907	0.1223	0.216	1.998	Sulfate

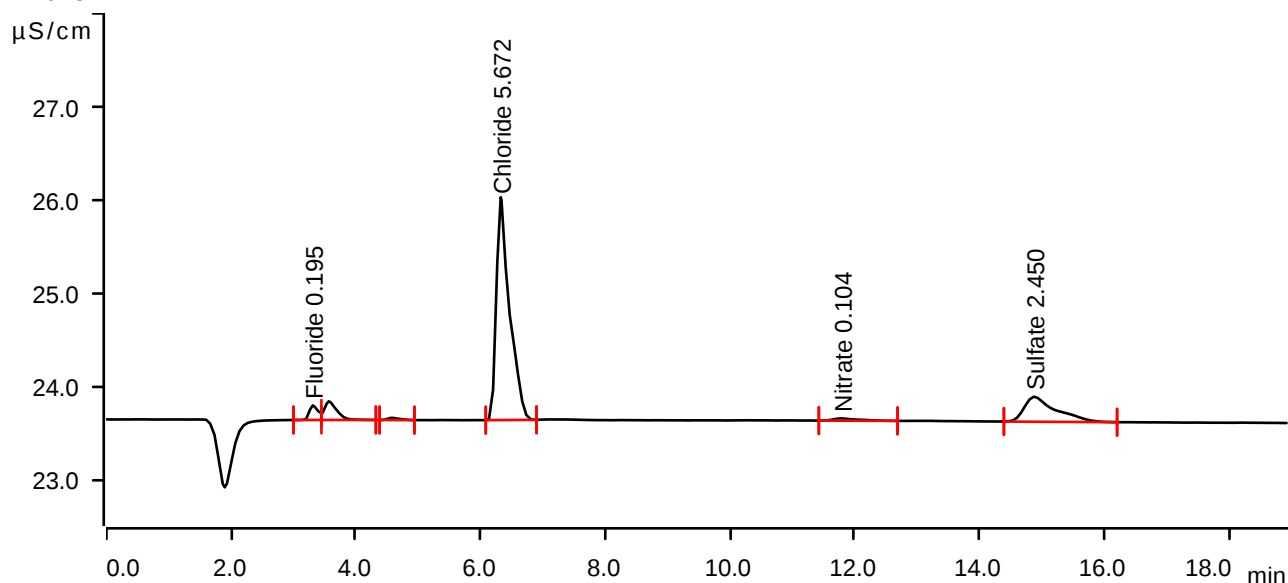
Sample data

Ident Q3609-13
Sample type Sample
Determination start 2025-11-12 17:29:03 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.39 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.310	0.0249	0.156	0.195	Fluoride
2	3.568	0.0457	0.201	invalid	
3	4.573	0.0051	0.023	invalid	
4	6.323	0.5828	2.393	5.672	Chloride
5	11.792	0.0108	0.024	0.104	Nitrate
6	14.877	0.1576	0.268	2.450	Sulfate

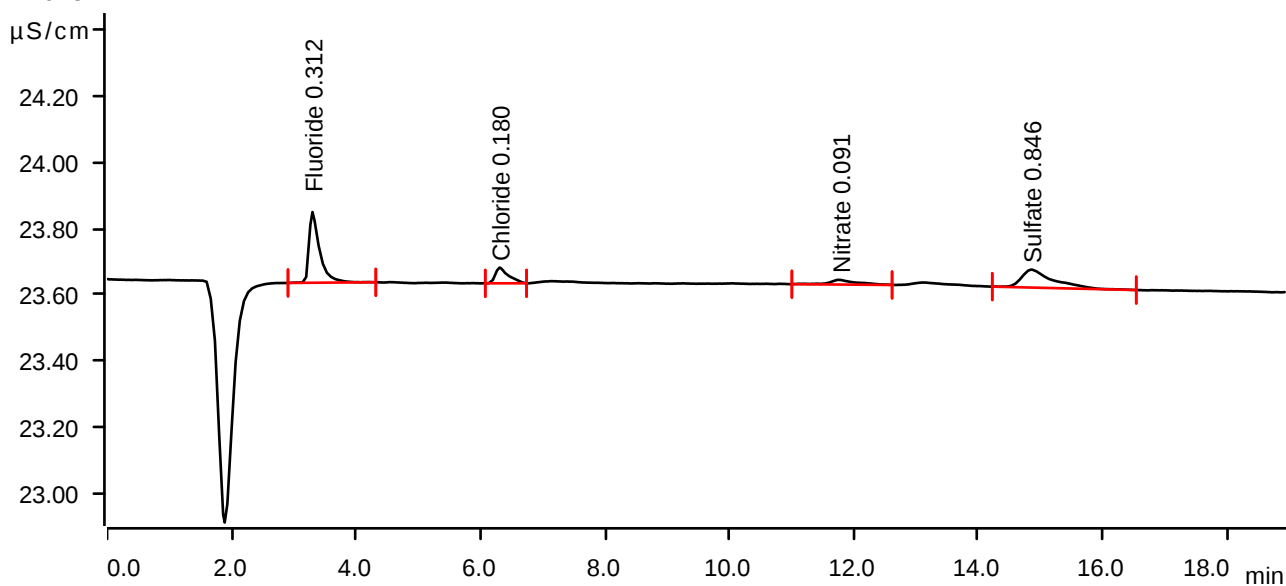
Sample data

Ident Q3614-01
Sample type Sample
Determination start 2025-11-12 17:50:36 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.33 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	3.302	0.0421	0.214	0.312	Fluoride
2	6.308	0.0115	0.048	0.180	Chloride
3	11.780	0.0072	0.014	0.091	Nitrate
4	14.852	0.0320	0.054	0.846	Sulfate

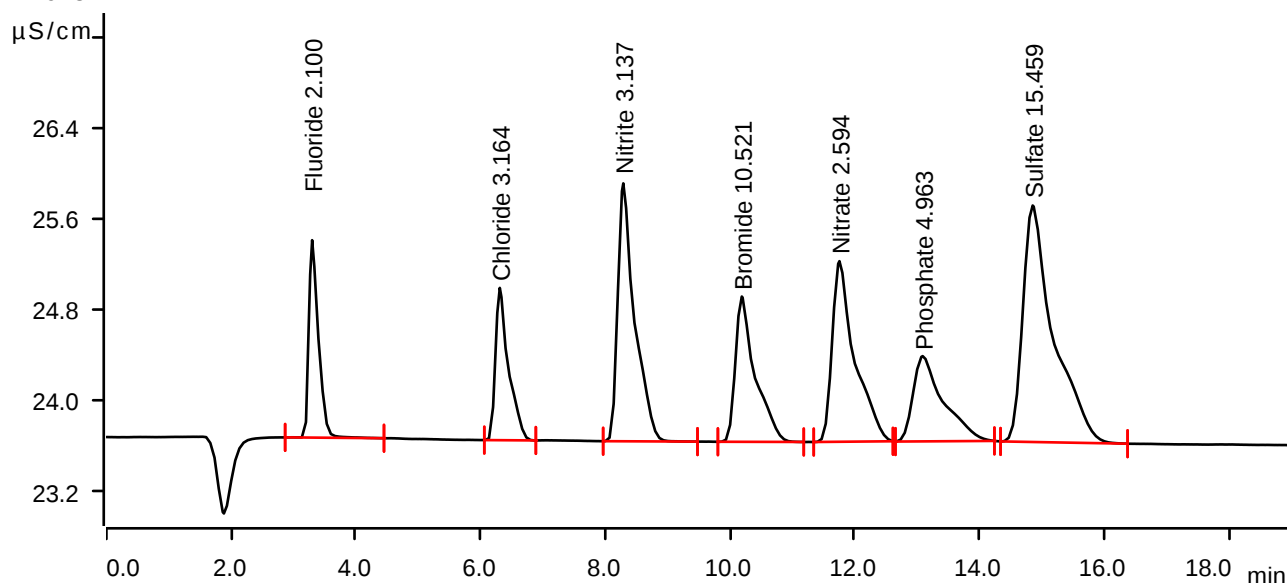
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2025-11-12 18:12:03 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.27 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



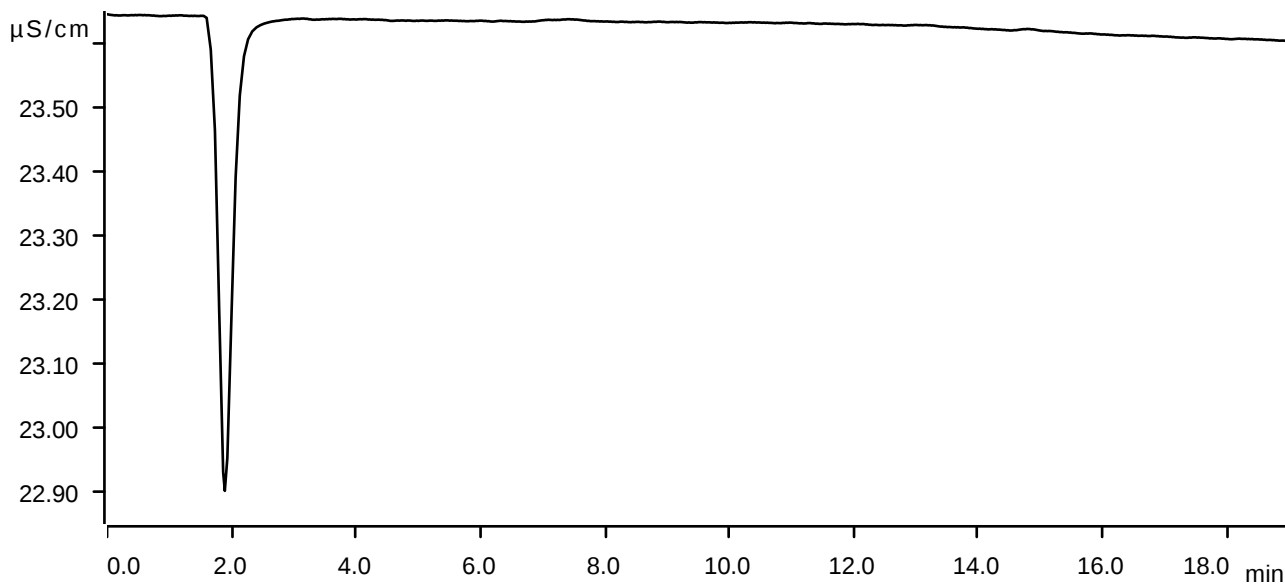
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.300	0.3043	1.730	2.100	Fluoride
2	6.308	0.3220	1.337	3.164	Chloride
3	8.288	0.7067	2.264	3.137	Nitrite
4	10.188	0.4664	1.276	10.521	Bromide
5	11.753	0.6603	1.586	2.594	Nitrate
6	13.088	0.4173	0.749	4.963	Phosphate
7	14.852	1.1763	2.078	15.459	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2025-11-12 18:33:33 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.33 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

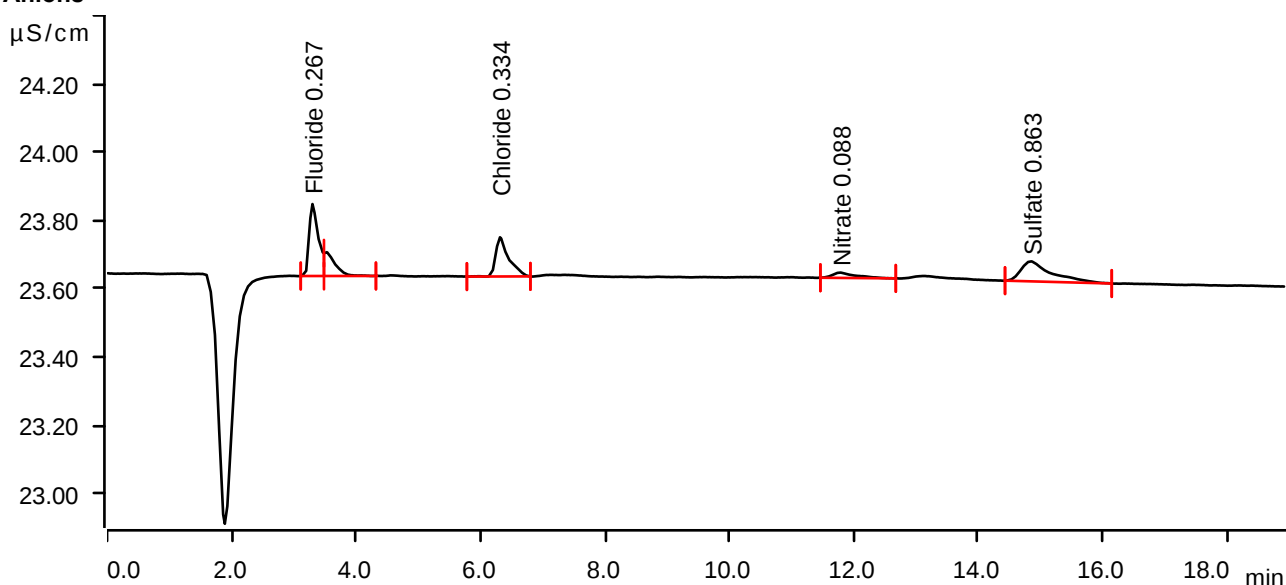
Sample data

Ident Q3614-02
Sample type Sample
Determination start 2025-11-12 19:38:05 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.33 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	3.302	0.0355	0.211	0.267	Fluoride
2	3.537	0.0142	0.070	invalid	
3	6.315	0.0276	0.115	0.334	Chloride
4	11.788	0.0066	0.015	0.088	Nitrate
5	14.853	0.0334	0.058	0.863	Sulfate

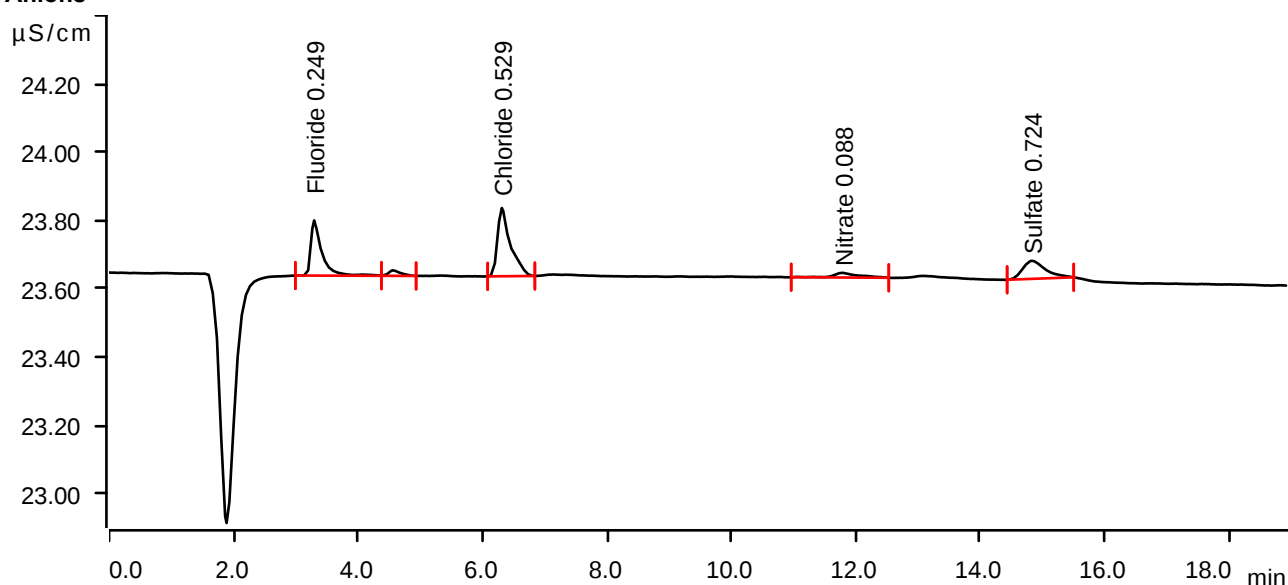
Sample data

Ident Q3614-03
Sample type Sample
Determination start 2025-11-12 19:59:37 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.44 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.297	0.0329	0.162	0.249	Fluoride
2	4.557	0.0036	0.016	invalid	
3	6.313	0.0479	0.200	0.529	Chloride
4	11.790	0.0064	0.014	0.088	Nitrate
5	14.828	0.0225	0.053	0.724	Sulfate

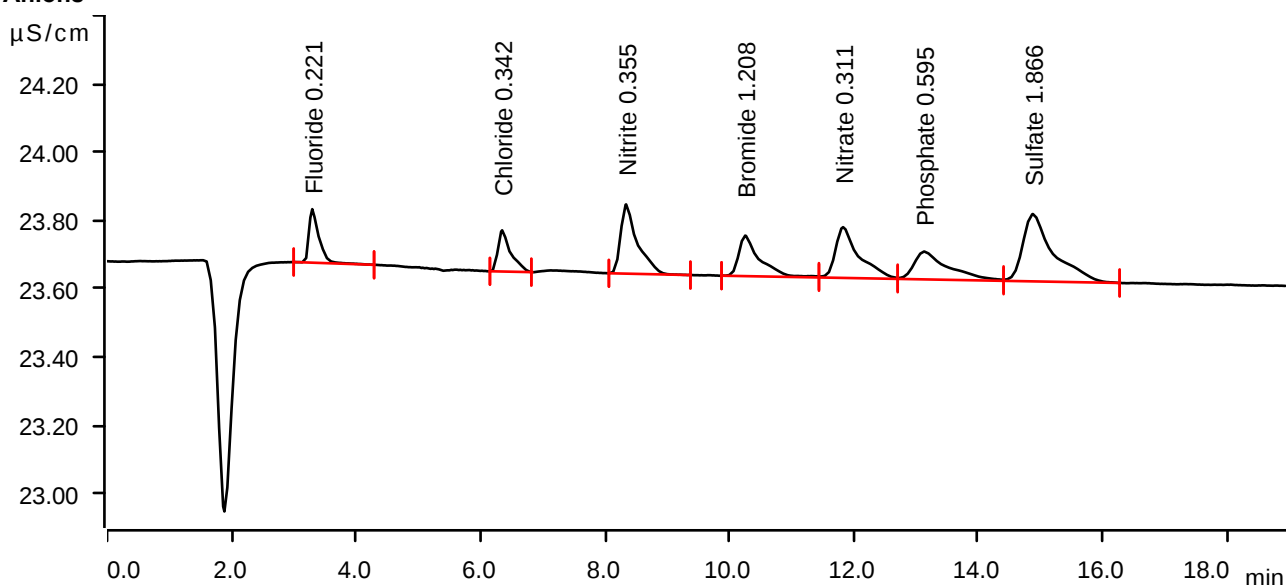
Sample data

Ident Q3530-03
Sample type Sample
Determination start 2025-11-12 20:21:08 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.33 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	3.298	0.0287	0.157	0.221	Fluoride
2	6.350	0.0284	0.121	0.342	Chloride
3	8.342	0.0632	0.203	0.355	Nitrite
4	10.255	0.0458	0.119	1.208	Bromide
5	11.828	0.0648	0.149	0.311	Nitrate
6	13.127	0.0517	0.081	0.595	Phosphate
7	14.878	0.1119	0.197	1.866	Sulfate

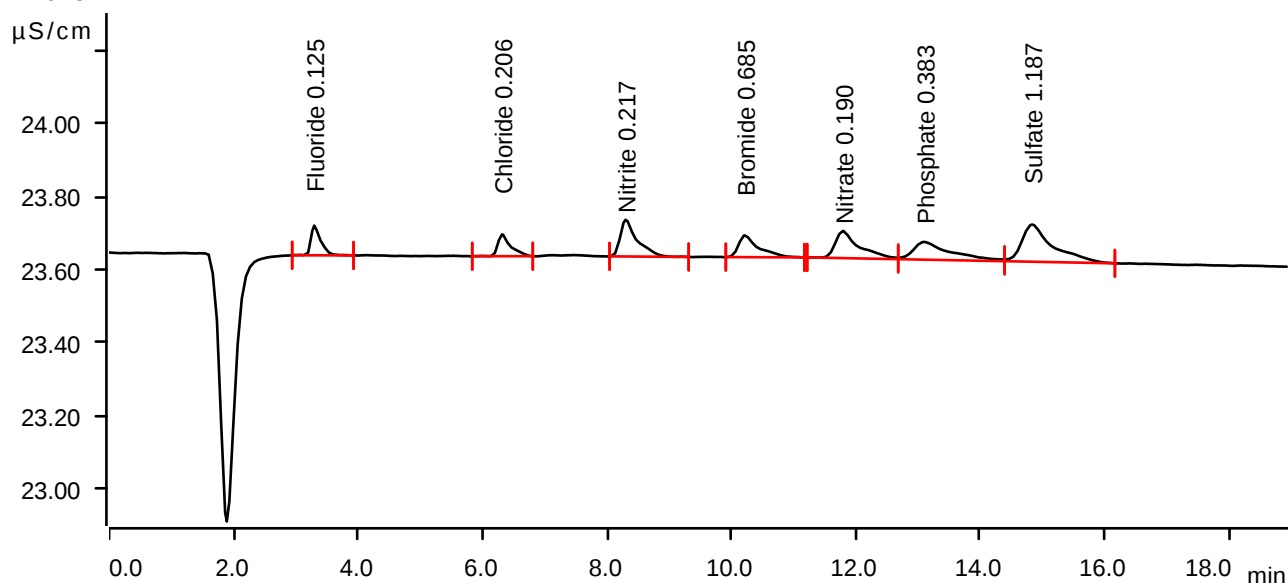
Sample data

Ident Q3530-03RE 0.25ML
Sample type Sample
Determination start 2025-11-12 20:42:39 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.39 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.298	0.0147	0.081	0.125	Fluoride
2	6.317	0.0143	0.060	0.206	Chloride
3	8.302	0.0314	0.100	0.217	Nitrite
4	10.215	0.0222	0.060	0.685	Bromide
5	11.795	0.0330	0.074	0.190	Nitrate
6	13.103	0.0340	0.049	0.383	Phosphate
7	14.832	0.0587	0.102	1.187	Sulfate

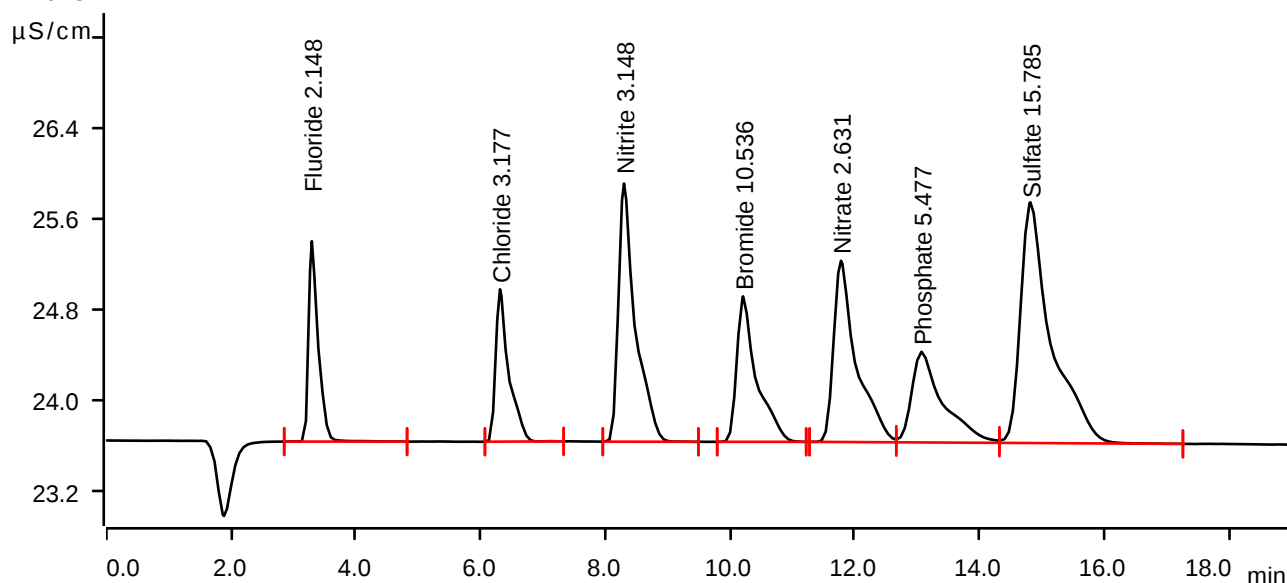
Sample data

Ident CCV
Sample type Check standard 1
Determination start 2025-11-12 21:04:09 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.44 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions



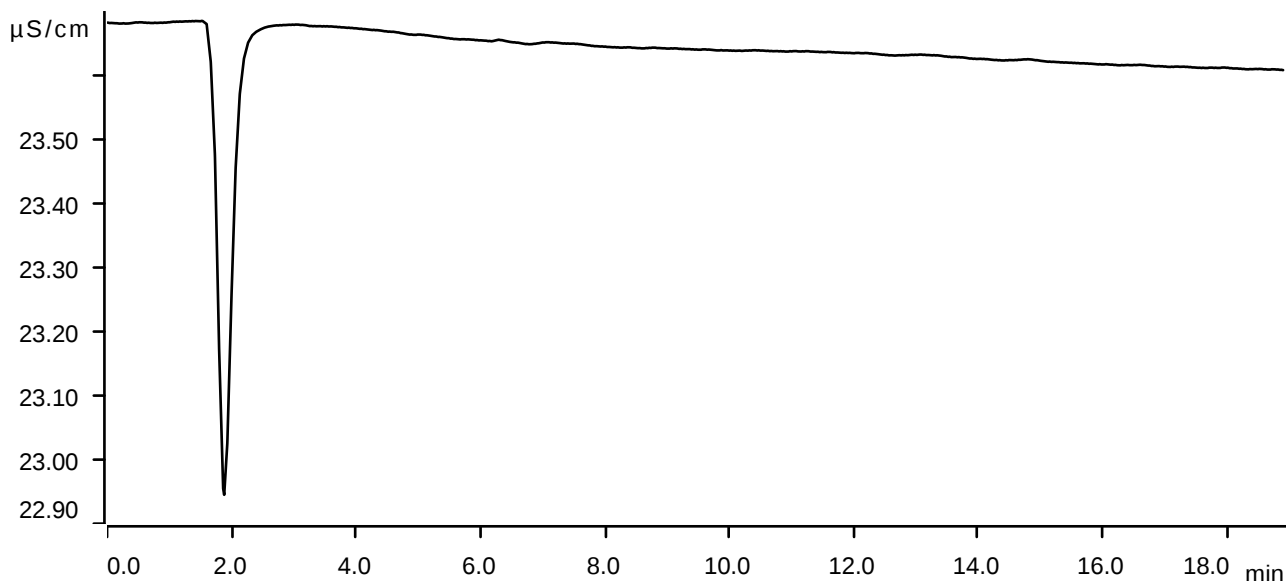
Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.295	0.3113	1.756	2.148	Fluoride
2	6.312	0.3233	1.337	3.177	Chloride
3	8.300	0.7093	2.267	3.148	Nitrite
4	10.210	0.4671	1.277	10.536	Bromide
5	11.778	0.6698	1.592	2.631	Nitrate
6	13.072	0.4603	0.796	5.477	Phosphate
7	14.815	1.2019	2.115	15.785	Sulfate

Sample data

Ident CCB
Sample type Sample
Determination start 2025-11-12 21:25:39 UTC-5
Method IC1-110325
Operator

Anions

Data source Conductivity detector 1 (Eco IC 1)
Channel Conductivity
Recording time 19.0 min
Integration Automatically
Column type Metrosep A Supp 19 - 150/4.0
Eluent composition not defined
Flow 0.700 mL/min
Maximum flow monitored yes
Pressure 12.44 MPa
Maximum pressure monitored yes
Temperature ---- °C

Anions

Analytical Summary Report

Analysis Method: 7196A

ANALYST: Iwona

Parameter: ~~Hexavalent Chromium~~

SUPERVISOR REVIEW BY: JIGNESH

Run Number: LB137886

pH Meter ID: ph Meter-1

Reagent/Standard	Lot/Log #
hexavalent chromium color reagent	WP115554
5N sulfuric acid	WP115340
HNO3 Hex-Chrome, 5M	WP115339
Hexchrome Cleaning Solution	WP114310

Intercept: -0.0004

Slope: 0.763

Regression: 0.99993

Seq	Lab ID	True Value (mg/l)	DF	Initial Vol (ml)	Final Vol (ml)	pH HNO3	pH H2SO4	Absorb.at 540nm		Absorbance Difference	Result (mg/L)	%D	Anal Date	Anal Time
								Backgrnd	Color					
1	CAL1	0	1	100	100	7.42	2.08	0.000	0.000	0.000	0.000		11/13/2025	15:15
2	CAL2	0.01	1	100	100	7.28	2.16	0.000	0.008	0.008	0.011	10	11/13/2025	15:16
3	CAL3	0.025	1	100	100	7.63	2.32	0.000	0.020	0.020	0.026	4	11/13/2025	15:17
4	CAL4	0.05	1	100	100	7.15	1.96	0.000	0.037	0.037	0.049	-2	11/13/2025	15:18
5	CAL5	0.1	1	100	100	7.85	1.82	0.000	0.078	0.078	0.102	2	11/13/2025	15:19
6	CAL6	0.5	1	100	100	7.08	2.09	0.000	0.374	0.374	0.490	-2	11/13/2025	15:20
7	CAL7	1	1	100	100	7.14	2.43	0.000	0.766	0.766	1.004	0.4	11/13/2025	15:21

Analytical Summary Report

Analysis Method: 7196A

ANALYST: Iwona

Parameter: Hexavalent Chromium

SUPERVISOR REVIEW BY: JIGNESH

Run Number: LB137886

pH Meter ID: pH Meter-1

Seq	Lab ID	True Value	DF	Initial Vol (ml/gm)	Final Vol (ml)	pH HN03	pH H2SO4	Absorb.at540nm		Absorbance Difference	Intermediate Result (mg/L)	Anal Date	Anal Time
								Backgrnd	Color				
1	ICV	0.5	1	100	100	7.27	1.88	0.000	0.372	0.372	0.488	11/13/2025	15:22
2	ICB		1	100	100	7.62	1.64	0.000	0.000	0.000	0.001	11/13/2025	15:23
3	CCV1	0.5	1	100	100	7.25	2.17	0.000	0.380	0.380	0.499	11/13/2025	15:24
4	CCB1		1	100	100	7.80	1.74	0.000	0.000	0.000	0.001	11/13/2025	15:25
5	RL Check	0.01	1	100	100	7.33	1.85	0.000	0.007	0.007	0.010	11/13/2025	15:26
6	PB170537BL		1	2.50	100	7.19	2.05	0.000	0.001	0.001	0.002	11/13/2025	15:27
7	PB170537BS	20	1	2.50	100	7.85	2.01	0.000	0.392	0.392	0.514	11/13/2025	15:28
8	Q3609-01		1	2.58	100	7.59	1.62	0.020	0.021	0.001	0.002	11/13/2025	15:29
9	Q3609-01DU		1	2.54	100	7.07	2.41	0.022	0.022	0.000	0.001	11/13/2025	15:30
10	Q3609-01MS	40	2	2.55	100	7.44	1.96	0.020	0.338	0.318	0.417	11/13/2025	15:31
11	Q3609-01MS	1284	40	2.53	100	7.36	1.68	0.000	0.598	0.598	0.784	11/13/2025	15:32
12	Q3609-01MS	40	2	2.57	100	7.38	2.24	0.020	0.357	0.337	0.442	11/13/2025	15:33
13	Q3609-04		1	2.52	100	7.42	2.38	0.019	0.020	0.001	0.002	11/13/2025	15:34
14	Q3609-07		1	2.56	100	7.44	1.84	0.015	0.016	0.001	0.002	11/13/2025	15:35
15	Q3609-10		1	2.57	100	7.58	1.66	0.017	0.019	0.002	0.003	11/13/2025	15:36
16	CCV2	0.5	1	100	100	7.19	2.42	0.000	0.374	0.374	0.491	11/13/2025	15:37
17	CCB2		1	100	100	7.24	2.06	0.000	0.001	0.001	0.002	11/13/2025	15:38
18	Q3609-13		1	2.52	100	7.33	2.22	0.009	0.010	0.001	0.002	11/13/2025	15:39
19	Q3614-01		1	2.54	100	7.85	1.98	0.025	0.025	0.000	0.001	11/13/2025	15:40
20	Q3614-02		1	2.56	100	7.61	1.65	0.023	0.025	0.002	0.003	11/13/2025	15:41
21	Q3614-03		1	2.57	100	7.06	1.58	0.028	0.028	0.000	0.001	11/13/2025	15:42
22	Q3618-01		1	2.51	100	7.26	2.08	0.024	0.025	0.001	0.002	11/13/2025	15:43
23	Q3618-02		1	2.56	100	7.81	2.27	0.017	0.019	0.002	0.003	11/13/2025	15:44
24	Q3624-01		1	2.57	100	7.46	2.36	0.020	0.022	0.002	0.003	11/13/2025	15:45
25	Q3628-01		1	2.55	100	7.52	1.85	0.004	0.004	0.000	0.001	11/13/2025	15:46
26	CCV3	0.5	1	100	100	7.66	1.67	0.000	0.370	0.370	0.485	11/13/2025	15:47
27	CCB3		1	100	100	7.27	1.80	0.000	0.000	0.000	0.001	11/13/2025	15:48

LB137

Test results Aquakem 7.2AQ1 Page:

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM Instrument ID : Konelab

11/17/2025 15:14

Test: Ammonia-N

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	1.004	0.0	0.203	
ICB1	0.014	0.0	0.017	
CCV1	0.954	0.0	0.194	
CCB1	0.015	0.0	0.017	
RL CHECK	0.101	0.0	0.033	
PB170582BL	0.015	0.0	0.017	
PB170582BS	0.995	0.0	0.201	
Q3530-09	0.090	0.0	0.031	
Q3616-05	2.930	0.0	0.566	
Q3630-01	0.730	0.0	0.151	Test limit high
Q3630-01DUP	0.713	0.0	0.148	
Q3630-01MS	1.669	0.0	0.328	
Q3630-01MSD	1.671	0.0	0.329	
Q3630-03	0.182	0.0	0.048	
CCV2	0.951	0.0	0.193	
CCB2	0.020	0.0	0.018	
Q3630-05	0.425	0.0	0.094	
PB170569BL	0.017	0.0	0.017	
PB170569BS	1.006	0.0	0.203	
Q3606-01	26.958	0.0	5.090	Init abs., Test limit hig
Q3606-05	3.521	0.0	0.677	Test limit high
Q3606-06	6.945	0.0	1.321	Test limit high
Q3614-02	0.016	0.0	0.017	
Q3614-03	0.070	0.0	0.027	
CCV3	1.007	0.0	0.204	
CCB3	0.019	0.0	0.018	
Q3606-01DLX50	0.584	0.0	0.124	
Q3606-05DLX5	0.639	0.0	0.134	
Q3606-06DLX10	0.659	0.0	0.138	
Q3530-03	0.086	0.0	0.030	
Q3614-01	0.054	0.0	0.024	
Q3614-01DUP	0.037	0.0	0.021	
Q3614-01MS	0.985	0.0	0.199	
Q3614-01MSD	0.942	0.0	0.191	
Q3616-05DLX5	0.949	0.0	0.193	
CCV4	0.971	0.0	0.197	
CCB4	0.021	0.0	0.018	
N	37			
Mean	1.567			
SD	4.4806			
CV%	286.01			

101% (50-150)

11/17/2025
RM

Aquakem v. 7.2AQ1

Results from time period:

Mon Nov 17 11:17:22 2025

Mon Nov 17 15:13:27 2025

Sample Id	Sam/Ctr/c/	Test short name	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	Ammonia-N	P	0.0147	mg/l	11/17/2025 11:17:22	
0.1PPM	A	Ammonia-N	P	0.1059	mg/l	11/17/2025 11:17:23	
0.2PPM	A	Ammonia-N	P	0.1982	mg/l	11/17/2025 11:17:24	
0.4PPM	A	Ammonia-N	P	0.3935	mg/l	11/17/2025 11:17:25	
1.0PPM	A	Ammonia-N	P	0.973	mg/l	11/17/2025 11:17:26	
1.3PPM	A	Ammonia-N	P	1.3332	mg/l	11/17/2025 11:17:27	
2.0PPM	A	Ammonia-N	P	2.0148	mg/l	11/17/2025 11:17:28	
ICV1	S	Ammonia-N	P	1.0045	mg/l	11/17/2025 12:58:42	
ICB1	S	Ammonia-N	P	0.0139	mg/l	11/17/2025 12:58:43	
CCV1	S	Ammonia-N	P	0.9541	mg/l	11/17/2025 12:58:45	
CCB1	S	Ammonia-N	P	0.0146	mg/l	11/17/2025 12:58:48	
RL CHECK	S	Ammonia-N	P	0.1007	mg/l	11/17/2025 12:58:50	
PB170582BL	S	Ammonia-N	P	0.0151	mg/l	11/17/2025 13:09:26	
PB170582BS	S	Ammonia-N	P	0.9952	mg/l	11/17/2025 13:09:28	
Q3530-09	S	Ammonia-N	P	0.0905	mg/l	11/17/2025 13:09:30	
Q3616-05	S	Ammonia-N	P	2.9303	mg/l	11/17/2025 13:09:32	
Q3630-01	S	Ammonia-N	P	0.7301	mg/l	11/17/2025 13:09:33	
Q3630-01DUP	S	Ammonia-N	P	0.7127	mg/l	11/17/2025 13:09:34	
Q3630-01MS	S	Ammonia-N	P	1.6687	mg/l	11/17/2025 13:09:35	
Q3630-01MSD	S	Ammonia-N	P	1.671	mg/l	11/17/2025 13:09:36	
Q3630-03	S	Ammonia-N	P	0.1817	mg/l	11/17/2025 13:20:10	
CCV2	S	Ammonia-N	P	0.9512	mg/l	11/17/2025 13:20:12	
CCB2	S	Ammonia-N	P	0.0197	mg/l	11/17/2025 13:20:13	
Q3630-05	S	Ammonia-N	P	0.4247	mg/l	11/17/2025 13:20:14	
PB170569BL	S	Ammonia-N	P	0.0173	mg/l	11/17/2025 13:20:15	
PB170569BS	S	Ammonia-N	P	1.0057	mg/l	11/17/2025 13:20:16	
Q3606-01	S	Ammonia-N	P	26.9578	mg/l	11/17/2025 13:20:18	
Q3606-05	S	Ammonia-N	P	3.5205	mg/l	11/17/2025 13:20:19	
Q3606-06	S	Ammonia-N	P	6.9445	mg/l	11/17/2025 13:20:20	
Q3614-02	S	Ammonia-N	P	0.016	mg/l	11/17/2025 13:30:59	
Q3614-03	S	Ammonia-N	P	0.0695	mg/l	11/17/2025 13:31:00	
CCV3	S	Ammonia-N	P	1.0069	mg/l	11/17/2025 13:36:21	
CCB3	S	Ammonia-N	P	0.0189	mg/l	11/17/2025 13:36:22	
Q3606-01DLX50	S	Ammonia-N	P	0.5839	mg/l	11/17/2025 14:05:12	
Q3606-05DLX5	S	Ammonia-N	P	0.6391	mg/l	11/17/2025 14:05:14	
Q3606-06DLX10	S	Ammonia-N	P	0.6591	mg/l	11/17/2025 14:05:16	
Q3530-03	S	Ammonia-N	P	0.086	mg/l	11/17/2025 14:34:43	
Q3614-01	S	Ammonia-N	P	0.0539	mg/l	11/17/2025 14:34:45	
Q3614-01DUP	S	Ammonia-N	P	0.0371	mg/l	11/17/2025 14:34:48	
Q3614-01MS	S	Ammonia-N	P	0.9849	mg/l	11/17/2025 14:34:52	
Q3614-01MSD	S	Ammonia-N	P	0.9418	mg/l	11/17/2025 14:45:29	
Q3616-05DLX5	S	Ammonia-N	P	0.9488	mg/l	11/17/2025 14:45:32	
CCV4	S	Ammonia-N	P	0.9712	mg/l	11/17/2025 14:45:35	
CCB4	S	Ammonia-N	P	0.021	mg/l	11/17/2025 14:50:19	

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Calibration results Aquakem 7.2AQ1 Page: 1

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

11/17/2025 11:39 Reviewed by : RM Instrument ID : Konelab

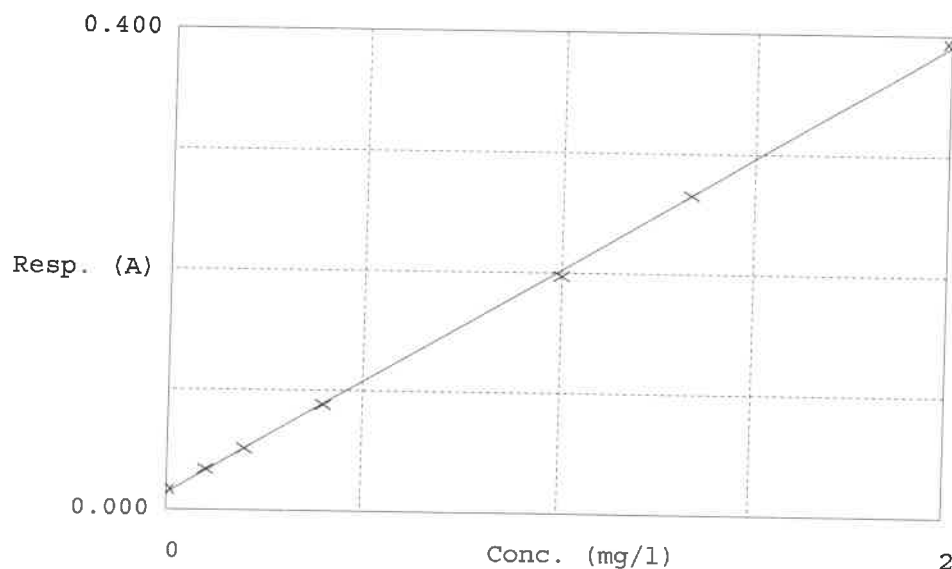
Test Ammonia-N

Accepted 11/17/2025 11:39

Factor 5.311
Bias 0.014

Coeff. of det. 0.999631

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.017	0.0147	0.0000	
2	NH3-2PPM	0.034	0.1059	0.1000	5.9
3	NH3-2PPM	0.051	0.1982	0.2000	-0.9
4	NH3-2PPM	0.088	0.3935	0.4000	-1.6
5	NH3-2PPM	0.197	0.9730	1.0000	-2.7
6	NH3-2PPM	0.265	1.3332	1.3333	2.6
7	NH3-2PPM	0.393	2.0148	2.0000	0.7

11/17/2025
RM

SOP ID : M3060A,7196A-Hex.Chromium-27

SDG No : N/A

Matrix : SOIL

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#3

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

Weigh By : RM

Start Digest Date: 11/13/2025 **Time :** 12:00 **Temp :** 90 °C

End Digest Date: 11/13/2025 **Time :** 13:00 **Temp :** 95 °C

Handwritten: 11/13/2025 13:20 90°C
 11/13/2025 14:20 95°C

Digestion tube ID : M6054

Block Thermometer ID : WC-Block#1

Filter paper ID : 400213

Prep Technician Signature: 12

pH Meter ID : WC pH meter-1

Supervisor Signature: 20

Standard Name	MLS USED	STD REF. # FROM LOG
PRE-DIGESTION SPIKE	2.0ML	WP113880
INSOLUBLE SPIKE	0.02GM	W2202
POST-DIGESTION SPIKE	2.0ML	WP113880
LCSS	1.0ML	WP113881
PBS003	50.ML	W3112

Chemical Used	ML/SAMPLE USED	Lot Number
MAGNESIUM CHLORIDE	0.4GM	W3152
PHOSPHATE BUFFER	5.0ML	WP115410
HEX. DIGESTION SOLN.	50.0ML	WP115338
5M HNO3	5-7ML	WP115339
5N H2SO4	1-3ML	WP115340
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	Vol(ml)	Comment
CAL1	CAL1	2.5ML	W3112
CAL2	CAL2	0.2ML	WP115640
CAL3	CAL3	0.5ML	WP115640
CAL4	CAL4	1ML	WP115640
CAL5	CAL5	0.2ML	WP113880
CAL6	CAL6	1ML	WP113880
CAL7	CAL7	2.0ML	WP113880
ICV	ICV	1ML	WP113881
ICB	ICB	2.5ML	W3112
CCV	CCV	1ML	WP113880
CCB	CCB	2.5ML	W3112

Extraction Conformance/Non-Conformance Comments:

N/A

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

11/13/25

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170537BL	PBS537	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
PB170537BS	LCS537	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3609-01DUP	AU-713-COMP-01DUP	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3609-01MSPre	AU-713-COMP-01MSPRE	2.55	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3609-01MS2Ins	AU-713-COMP-01MS2INS	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3609-01MS3Post	AU-713-COMP-01MS3POST	2.57	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3609-01	AU-713-COMP-01	2.58	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3609-04	AU-713-COMP-02	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3609-07	AU-713-COMP-03	2.56	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3609-10	AU-713-COMP-04	2.57	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3609-13	AU-713-COMP-05	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3614-01	COMP-1	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3614-02	COMP-2	2.56	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3614-03	COMP-3	2.57	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3618-01	EME-TOP-SOIL	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3618-02	EME-GENERAL-FILL	2.56	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3624-01	OK-02-11122025	2.57	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3628-01	TP-5	2.55	100	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : hex-111325

WorkList ID : 193103

Department : Distillation

Date : 11-13-2025 09:10:45

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3609-01	AU-713-COMP-01	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/11/2025	7196A
Q3609-04	AU-713-COMP-02	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/11/2025	7196A
Q3609-07	AU-713-COMP-03	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/11/2025	7196A
Q3609-10	AU-713-COMP-04	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/11/2025	7196A
Q3609-13	AU-713-COMP-05	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/11/2025	7196A
Q3614-01	COMP-1	Solid	Hexavalent Chromium	Cool 4 deg C	POWE02	J21	11/11/2025	7196A
Q3614-02	COMP-2	Solid	Hexavalent Chromium	Cool 4 deg C	POWE02	J21	11/11/2025	7196A
Q3614-03	COMP-3	Solid	Hexavalent Chromium	Cool 4 deg C	POWE02	J21	11/11/2025	7196A
Q3618-01	EME-TOP-SOIL	Solid	Hexavalent Chromium	Cool 4 deg C	ENTA05	D41	11/12/2025	7196A
Q3618-02	EME-GENERAL-FILL	Solid	Hexavalent Chromium	Cool 4 deg C	ENTA05	D41	11/12/2025	7196A
Q3624-01	OK-02-11122025	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	D41	11/12/2025	7196A
Q3628-01	TP-5	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/13/2025	7196A

Date/Time 11/13/25 11:30
 Raw Sample Received by: 12/50
 Raw Sample Relinquished by: 286000

Date/Time 11/13/25 13:40
 Raw Sample Received by: 286000
 Raw Sample Relinquished by: 12/50

SOP ID : MSM4500-NH3 B,G-Ammonia-18

SDG No : N/A

Matrix : SOIL

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#2

Block ID : WC-DIST-BLOCK-1

Weigh By : RM

Start Digest Date: 11/17/2025 Time : 10:10 Temp : 150 °C

End Digest Date: 11/17/2025 Time : 11:10 Temp : 160 °C

 11 batch 11/17/2025 11:40 150 °C RM
 11/17/2025 12:40 160 °C

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Filter paper ID : N/A

Prep Technician Signature: RM

pH Meter ID : N/A

Supervisor Signature: 12

Standard Name	MLS USED	STD REF. # FROM LOG
LCSS	1.0ML	WP115589
MS/MSD SPIKE SOL.	1.0ML	WP115588
RL CHECK	N/A	AS PER PB170582
PBS003	50.0ML	W3112
MDL	0.8ML	WP115596

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP113886
NAOH 6N	0.5-2.0ML	WP113887
H2SO4 0.04N	5.0ML	WP115336
pH strip-Ammonia	N/A	W3133
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

 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
11/17/2025 12:50	RM CWC	RM CWC
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170569BL	PBS569	1.00	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB170569BS	LCS569	1.00	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3530-03	MDL-SOIL-03-QT4-2025	1.00	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3606-01	DELUMPER FEED	1.01	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3606-05	MRS/NRS	1.03	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3606-06	MIX	1.01	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-01DUP	COMP-1DUP	1.02	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-01MS	COMP-1MS	1.04	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-01MSD	COMP-1MSD	1.02	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-01	COMP-1	1.02	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-02	COMP-2	1.01	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-03	COMP-3	1.03	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : AMMONIA SOIL +

WorkList ID : 193136

Department : Distillation

Date : 11-14-2025 17:11:31

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3530-03	MDL-SOIL-03-QT4-2025	Solid	Ammonia	Cool 4 deg C	ALLI03	QA Of	11/03/2025	SM4500-NH3
Q3606-01	DELUMPER FEED	Solid	Ammonia	Cool 4 deg C	ALSE01	D31	10/31/2025	SM4500-NH3
Q3606-05	MRS/NRS	Solid	Ammonia	Cool 4 deg C	ALSE01	D31	10/31/2025	SM4500-NH3
Q3606-06	MIX	Solid	Ammonia	Cool 4 deg C	ALSE01	D31	10/31/2025	SM4500-NH3
Q3614-01	COMP-1	Solid	Ammonia	Cool 4 deg C	POWE02	J21	11/11/2025	SM4500-NH3
Q3614-02	COMP-2	Solid	Ammonia	Cool 4 deg C	POWE02	J21	11/11/2025	SM4500-NH3
Q3614-03	COMP-3	Solid	Ammonia	Cool 4 deg C	POWE02	J21	11/11/2025	SM4500-NH3

Date/Time 11/17/2025 08:00
 Raw Sample Received by: Ry (w)
 Raw Sample Relinquished by: [Signature]

Date/Time 11/17/2025 12:10
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

Instrument ID: IC-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137882

Review By	rubina	Review On	11/14/2025 2:07:40 PM
Supervise By	Iwona	Supervise On	11/14/2025 2:08:49 PM
SubDirectory	LB137882	Test	Anions
STD. NAME	STD REF.#		
ICAL Standard	WP115441,WP115442,WP115443,WP115444,WP115445,WP115446,WP115447		
ICV Standard	WP115448		
CCV Standard	WP115618		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115619		
Chk Standard	WP115449,WP115450,WP115625,WP115626		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	STD1	STD1	CAL1	11/03/25 15:58	All standards, samples, and	RM/IZ	OK
2	STD2	STD2	CAL2	11/03/25 16:22	QC are filtered through	RM/IZ	OK
3	STD3	STD3	CAL3	11/03/25 17:04	0.45um, filter lot W3160	RM/IZ	OK
4	STD4	STD4	CAL4	11/03/25 17:47		RM/IZ	OK
5	STD5	STD5	CAL5	11/03/25 18:08		RM/IZ	OK
6	STD6	STD6	CAL6	11/03/25 18:30		RM/IZ	OK
7	STD7	STD7	CAL7	11/03/25 18:51		RM/IZ	OK
8	ICV1	ICV1	ICV	11/03/25 19:13		RM/IZ	OK
9	ICB1	ICB1	ICB	11/03/25 19:34		RM/IZ	OK
10	CCV1	CCV1	CCV	11/12/25 09:29		RM/IZ	OK
11	CCB1	CCB1	CCB	11/12/25 09:51		RM/IZ	OK
12	LB137882BLS	LB137882BLS	MB	11/12/25 10:12		RM/IZ	OK
13	LB137882BSS	LB137882BSS	LCS	11/12/25 10:34		RM/IZ	OK
14	Q3609-01	AU-713-COMP-01	SAM	11/12/25 15:19		RM/IZ	OK
15	Q3609-04	AU-713-COMP-02	SAM	11/12/25 15:41		RM/IZ	OK
16	Q3609-04MS	AU-713-COMP-02MS	MS	11/12/25 16:02	5ml W3096	RM/IZ	OK
17	Q3609-04MSD	AU-713-COMP-02MS	MSD	11/12/25 16:24	5ml W3096	RM/IZ	OK
18	Q3609-07	AU-713-COMP-03	SAM	11/12/25 16:46		RM/IZ	OK

Instrument ID: IC-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137882

Review By	rubina	Review On	11/14/2025 2:07:40 PM
Supervise By	Iwona	Supervise On	11/14/2025 2:08:49 PM
SubDirectory	LB137882	Test	Anions
STD. NAME	STD REF.#		
ICAL Standard	WP115441,WP115442,WP115443,WP115444,WP115445,WP115446,WP115447		
ICV Standard	WP115448		
CCV Standard	WP115618		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115619		
Chk Standard	WP115449,WP115450,WP115625,WP115626		

19	Q3609-10	AU-713-COMP-04	SAM	11/12/25 17:07		RM/IZ	OK
20	Q3609-13	AU-713-COMP-05	SAM	11/12/25 17:29		RM/IZ	OK
21	Q3614-01	COMP-1	SAM	11/12/25 17:50		RM/IZ	OK
22	CCV2	CCV2	CCV	11/12/25 18:12		RM/IZ	OK
23	CCB2	CCB2	CCB	11/12/25 18:33		RM/IZ	OK
24	Q3614-02	COMP-2	SAM	11/12/25 19:38		RM/IZ	OK
25	Q3614-03	COMP-3	SAM	11/12/25 19:59		RM/IZ	OK
26	Q3530-03	MDL-SOIL-03-QT4-20	SAM	11/12/25 20:21		RM/IZ	OK
27	Q3530-03RE	MDL-SOIL-03-QT4-20	SAM	11/12/25 20:42		RM/IZ	OK
28	CCV3	CCV3	CCV	11/12/25 21:04		RM/IZ	OK
29	CCB3	CCB3	CCB	11/12/25 21:25		RM/IZ	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137886

Review By	Iwona	Review On	11/13/2025 3:59:43 PM
Supervise By	JIGNESH	Supervise On	11/14/2025 10:50:00 AM
SubDirectory	LB137886	Test	Hexavalent Chromium
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP115554,WP115340,WP115339,WP114310		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	11/13/25 15:15		Iwona	OK
2	CAL2	CAL2	CAL	11/13/25 15:16		Iwona	OK
3	CAL3	CAL3	CAL	11/13/25 15:17		Iwona	OK
4	CAL4	CAL4	CAL	11/13/25 15:18		Iwona	OK
5	CAL5	CAL5	CAL	11/13/25 15:19		Iwona	OK
6	CAL6	CAL6	CAL	11/13/25 15:20		Iwona	OK
7	CAL7	CAL7	CAL	11/13/25 15:21		Iwona	OK
8	ICV	ICV	ICV	11/13/25 15:22		Iwona	OK
9	ICB	ICB	ICB	11/13/25 15:23		Iwona	OK
10	CCV1	CCV1	CCV	11/13/25 15:24		Iwona	OK
11	CCB1	CCB1	CCB	11/13/25 15:25		Iwona	OK
12	RL Check	RL Check	RL	11/13/25 15:26		Iwona	OK
13	PB170537BL	PB170537BL	MB	11/13/25 15:27		Iwona	OK
14	PB170537BS	PB170537BS	LCS	11/13/25 15:28		Iwona	OK
15	Q3609-01	AU-713-COMP-01	SAM	11/13/25 15:29		Iwona	OK
16	Q3609-01DUP	AU-713-COMP-01DU	DUP	11/13/25 15:30		Iwona	OK
17	Q3609-01MSPre	AU-713-COMP-01MS	MS	11/13/25 15:31		Iwona	OK
18	Q3609-01MS2Ins	AU-713-COMP-01MS	MS	11/13/25 15:32		Iwona	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137886

Review By	Iwona	Review On	11/13/2025 3:59:43 PM
Supervise By	JIGNESH	Supervise On	11/14/2025 10:50:00 AM
SubDirectory	LB137886	Test	Hexavalent Chromium
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP115554,WP115340,WP115339,WP114310		

19	Q3609-01MS3Post	AU-713-COMP-01MS	MS	11/13/25 15:33		Iwona	OK
20	Q3609-04	AU-713-COMP-02	SAM	11/13/25 15:34		Iwona	OK
21	Q3609-07	AU-713-COMP-03	SAM	11/13/25 15:35		Iwona	OK
22	Q3609-10	AU-713-COMP-04	SAM	11/13/25 15:36		Iwona	OK
23	CCV2	CCV2	CCV	11/13/25 15:37		Iwona	OK
24	CCB2	CCB2	CCB	11/13/25 15:38		Iwona	OK
25	Q3609-13	AU-713-COMP-05	SAM	11/13/25 15:39		Iwona	OK
26	Q3614-01	COMP-1	SAM	11/13/25 15:40		Iwona	OK
27	Q3614-02	COMP-2	SAM	11/13/25 15:41		Iwona	OK
28	Q3614-03	COMP-3	SAM	11/13/25 15:42		Iwona	OK
29	Q3618-01	EME-TOP-SOIL	SAM	11/13/25 15:43		Iwona	OK
30	Q3618-02	EME-GENERAL-FILL	SAM	11/13/25 15:44		Iwona	OK
31	Q3624-01	OK-02-11122025	SAM	11/13/25 15:45		Iwona	OK
32	Q3628-01	TP-5	SAM	11/13/25 15:46		Iwona	OK
33	CCV3	CCV3	CCV	11/13/25 15:47		Iwona	OK
34	CCB3	CCB3	CCB	11/13/25 15:48		Iwona	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137922

Review By	rubina	Review On	11/18/2025 1:13:40 PM
Supervise By	Iwona	Supervise On	11/18/2025 1:18:34 PM
SubDirectory	LB137922	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP115693		
ICV Standard	WP115695		
CCV Standard	WP115694		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115589		
Chk Standard	WP115290,WP114133,WP113929,WP114132,WP115696		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	11/17/25 11:17		rubina	OK
2	0.1PPM	0.1PPM	CAL2	11/17/25 11:17		rubina	OK
3	0.2PPM	0.2PPM	CAL3	11/17/25 11:17		rubina	OK
4	0.4PPM	0.4PPM	CAL4	11/17/25 11:17		rubina	OK
5	1.0PPM	1.0PPM	CAL5	11/17/25 11:17		rubina	OK
6	1.3PPM	1.3PPM	CAL6	11/17/25 11:17		rubina	OK
7	2.0PPM	2.0PPM	CAL7	11/17/25 11:17		rubina	OK
8	ICV1	ICV1	ICV	11/17/25 12:58		rubina	OK
9	ICB1	ICB1	ICB	11/17/25 12:58		rubina	OK
10	CCV1	CCV1	CCV	11/17/25 12:58		rubina	OK
11	CCB1	CCB1	CCB	11/17/25 12:58		rubina	OK
12	RL	RL	LOQ	11/17/25 12:58		rubina	OK
13	PB170582BL	PB170582BL	MB	11/17/25 13:09		rubina	OK
14	PB170582BS	PB170582BS	LCS	11/17/25 13:09		rubina	OK
15	Q3530-09	MDL-WATER-03-QT4	SAM	11/17/25 13:09		rubina	OK
16	Q3616-05	Composite	SAM	11/17/25 13:09	NH3 is high, need dilution	rubina	Dilution
17	Q3630-01	DSN002	SAM	11/17/25 13:09		rubina	OK
18	Q3630-01DUP	DSN002DUP	DUP	11/17/25 13:09		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137922

Review By	rubina	Review On	11/18/2025 1:13:40 PM
Supervise By	Iwona	Supervise On	11/18/2025 1:18:34 PM
SubDirectory	LB137922	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP115693		
ICV Standard	WP115695		
CCV Standard	WP115694		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115589		
Chk Standard	WP115290,WP114133,WP113929,WP114132,WP115696		

19	Q3630-01MS	DSN002MS	MS	11/17/25 13:09		rubina	OK
20	Q3630-01MSD	DSN002MSD	MSD	11/17/25 13:09		rubina	OK
21	Q3630-03	DSN001	SAM	11/17/25 13:20		rubina	OK
22	CCV2	CCV2	CCV	11/17/25 13:20		rubina	OK
23	CCB2	CCB2	CCB	11/17/25 13:20		rubina	OK
24	Q3630-05	DSN003	SAM	11/17/25 13:20		rubina	OK
25	PB170569BL	PB170569BL	MB	11/17/25 13:20		rubina	OK
26	PB170569BS	PB170569BS	LCS	11/17/25 13:20		rubina	OK
27	Q3606-01	DELUMPER FEED	SAM	11/17/25 13:20	NH3 is high, need dilution.	rubina	Dilution
28	Q3606-05	MRS/NRS	SAM	11/17/25 13:20	NH3 is high, need dilution.	rubina	Dilution
29	Q3606-06	MIX	SAM	11/17/25 13:20	NH3 is high, need dilution.	rubina	Dilution
30	Q3614-02	COMP-2	SAM	11/17/25 13:30		rubina	OK
31	Q3614-03	COMP-3	SAM	11/17/25 13:31		rubina	OK
32	CCV3	CCV3	CCV	11/17/25 13:36		rubina	OK
33	CCB3	CCB3	CCB	11/17/25 13:36		rubina	OK
34	Q3606-01DL	DELUMPER FEEDDL	SAM	11/17/25 14:05	50X For NH3	rubina	Confirms
35	Q3606-05DL	MRS/NRSDL	SAM	11/17/25 14:05	5X For NH3	rubina	Confirms
36	Q3606-06DL	MIXDL	SAM	11/17/25 14:05	10X For NH3	rubina	Confirms
37	Q3530-03	MDL-SOIL-03-QT4-20	SAM	11/17/25 14:34		rubina	OK
38	Q3614-01	COMP-1	SAM	11/17/25 14:34		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137922

Review By	rubina	Review On	11/18/2025 1:13:40 PM
Supervise By	Iwona	Supervise On	11/18/2025 1:18:34 PM
SubDirectory	LB137922	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP115693		
ICV Standard	WP115695		
CCV Standard	WP115694		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115589		
Chk Standard	WP115290,WP114133,WP113929,WP114132,WP115696		

39	Q3614-01DUP	COMP-1DUP	DUP	11/17/25 14:34		rubina	OK
40	Q3614-01MS	COMP-1MS	MS	11/17/25 14:34		rubina	OK
41	Q3614-01MSD	COMP-1MSD	MSD	11/17/25 14:45		rubina	OK
42	Q3616-05DL	Composite DL	SAM	11/17/25 14:45	5X For NH3	rubina	Confirms
43	CCV4	CCV4	CCV	11/17/25 14:45		rubina	OK
44	CCB4	CCB4	CCB	11/17/25 14:50		rubina	OK

Instrument ID: GRAVIMETRIC

Daily Analysis Runlog For Sequence/QC Batch ID # LB137944

Review By	rubina	Review On	11/18/2025 2:20:57 PM
Supervise By	Iwona	Supervise On	11/18/2025 2:21:19 PM
SubDirectory	LB137944	Test	Trivalent Chromium
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	Q3614-01	COMP-1	SAM	11/13/25 15:31		Ayul	OK
2	Q3614-02	COMP-2	SAM	11/13/25 15:35		Ayul	OK
3	Q3614-03	COMP-3	SAM	11/13/25 15:39		Ayul	OK

Prep Standard - Chemical Standard Summary

Order ID : Q3614

Test : Ammonia, Anions Group1, Hexavalent Chromium, Percent Solids, Trivalent Chromium

Prepbatch ID : PB170537, PB170569,

Sequence ID/Qc Batch ID: LB137882, LB137886, LB137922, LB137944,

Standard ID :

WP113880, WP113881, WP113885, WP113886, WP113887, WP113929, WP114132, WP114133, WP114310, WP115085, WP115086, WP115290, WP115336, WP115338, WP115339, WP115340, WP115344, WP115410, WP115441, WP115442, WP115443, WP115444, WP115445, WP115446, WP115447, WP115448, WP115449, WP115450, WP115554, WP115588, WP115589, WP115596, WP115618, WP115619, WP115625, WP115626, WP115693, WP115694, WP115695, WP115696,

Chemical ID :

AS PER

PB170582, E3982, M6151, M6162, M6186, M6187, W2202, W2647, W2651, W2652, W2663, W2666, W2979, W3112, W3113, W3132, W3133, W3152, W3163, W3168, W3180, W3195, W3196, W3197, W3201, W3206, W3222,



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1993	HEXAVALENTCHROMIUM STOCK STD 1, 50PPM	WP113880	07/10/2025	01/10/2026	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 07/10/2025
<u>FROM</u> 0.14140gram of W2651 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1994	HEXAVALENTCHROMIUM STOCK STD 2, 50PPM	WP113881	07/10/2025	01/10/2026	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 07/10/2025
<u>FROM</u> 0.14140gram of W2652 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1796	NaOH, 0.1N	WP113885	07/10/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 07/10/2025

FROM 4.00000gram of W3113 + 996.00000ml of W3112 = Final Quantity: 1000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1494	BORATE BUFFER	WP113886	07/10/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 07/10/2025

FROM 0.90250L of W3112 + 9.50000gram of W3201 + 88.00000ml of WP113885 = 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>
1471	NaOH Solution, 6N	WP113887	07/10/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC	None	Iwona Zarych 07/10/2025

FROM	240.00000gram of W3113 + 760.00000ml of W3112 = Final Quantity: 1000.000 ml	SC-7)
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<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	None	Iwona Zarych 07/15/2025

FROM	TO	SC-7)
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 SC-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								

<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
<u>FROM</u> 50.00000ml of W3112 + 50.00000ml of W3222 = 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>
3354	Hexchrome Cleaning Solution	WP114310	08/19/2025	11/27/2025	Rubina Mughal	None	None	Jignesh Parikh
								08/19/2025

FROM 182.00000ml of M6151 + 727.00000ml of W3112 + 91.00000ml of M6162 = Final Quantity: 1000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
153	Ammonia Stock Std. (1000 ppm)	WP115085	10/08/2025	04/08/2026	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych
								10/08/2025

FROM 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>
740	sodium nitroferricyanide for ammonia	WP115290	10/22/2025	11/22/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/24/2025
<u>FROM</u> 0.05000gram of W2666 + 99.95000ml of W3112 = Final Quantity: 100.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1597	0.04 N H2SO4	WP115336	10/27/2025	04/27/2026	Rubina Mughal	None	WETCHEM_PIPETTE_3	Jignesh Parikh
<u>FROM</u>		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>
148	hexchrome digestion fluid	WP115338	10/27/2025	11/27/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Jignesh Parikh 10/27/2025
<u>FROM</u> 120.00000gram of W3163 + 4.00000L of W3112 + 80.00000gram of W3113 = Final Quantity: 4000.000 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>
1836	HNO3 Hex-Chrome, 5M	WP115339	10/27/2025	01/28/2026	Rubina Mughal	None	None	Jignesh Parikh
								10/27/2025

FROM 320.00000ml of M6187 + 680.00000ml of W3112 = Final Quantity: 1000.000 ml

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

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



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4035	IC ELUENT CONCENTRATE FOR IC-1	WP115344	10/23/2025	04/23/2026	Iwona Zarych	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh
<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>
190	HEX CHROME PHOSPHATE BUFFER	WP115410	11/03/2025	05/03/2026	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 11/03/2025
<u>FROM</u> 0.84500L of W3112 + 68.04000gram of W3206 + 87.09000gram of W3168 = 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>
2487	Anions 300/9056 calibration standard 1	WP115441	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
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	WP115442	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
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	WP115443	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
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	WP115444	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
FROM 0.50000ml of W3180 + 9.50000ml of W3112 = Final Quantity: 10.000 ml								

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	WP115445	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
FROM 45.00000ml of W3112 + 5.00000ml of W3180 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3679	Anions 300/9056 calibration standard 6	WP115446	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
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	WP115447	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
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	WP115448	11/03/2025	11/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/07/2025
FROM 45.00000ml of W3112 + 5.00000ml of W3180 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4036	IC ELUENT FOR IC-1	WP115449	11/03/2025	12/03/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 11/07/2025

FROM 1980.00000ml of W3112 + 20.00000ml of WP115344 = Final Quantity: 2000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4037	IC H2SO4 FOR IC-1	WP115450	11/03/2025	12/03/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 11/07/2025

FROM 5.60000ml of M6186 + 994.40000ml of W3112 = Final Quantity: 1000.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
114	hexavalent chromium color reagent	WP115554	11/07/2025	11/14/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 11/10/2025
<u>FROM</u> 0.25000gram of W2979 + 50.00000ml of E3982 = 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>
1322	Ammonia Intermediate Std, 50PPM	WP115588	11/10/2025	12/10/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 11/11/2025
<u>FROM</u> 95.00000ml of W3112 + 5.00000ml of WP115085 = Final Quantity: 100.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1639	Ammonia Intermediate Std-Second source, 50PPM	WP115589	11/10/2025	12/10/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 11/11/2025
<u>FROM</u> 95.00000ml of W3112 + 5.00000ml of WP115086 = 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>
3590	TKN LOD-MDL 0.25PPM	WP115596	11/11/2025	11/18/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 11/11/2025
<u>FROM</u> 99.50000ml of W3112 + 0.50000ml of WP115588 = 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	WP115618	11/12/2025	11/13/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/13/2025
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	WP115619	11/12/2025	11/13/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/13/2025
FROM 45.00000ml of W3112 + 5.00000ml of W3197 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3912	Anions 300/9056 LOD Std	WP115625	11/12/2025	11/13/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3	Jignesh Parikh
FROM 0.50000ml of W3180 + 49.50000ml of W3112 = 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>
3983	Anions 300/9056 LOD std 0.25ml spike	WP115626	11/12/2025	11/13/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3	Jignesh Parikh
<u>FROM</u> 0.25000ml of W3180 + 49.75000ml of W3112 = 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>
275	Ammonia Calibration Std. (2 ppm)	WP115693	11/17/2025	11/18/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 11/17/2025
FROM 48.00000ml of W3112 + 2.00000ml of WP115588 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
285	Ammonia CCV Std. (1 ppm)	WP115694	11/17/2025	11/18/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 11/17/2025
FROM 49.00000ml of W3112 + 1.00000ml of WP115588 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
286	Ammonia ICV Std. (1 ppm)	WP115695	11/17/2025	11/18/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 49.00000ml of W3112 + 1.00000ml of WP115589 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3906	Ammonia MDL-LOD-LOQ spiking solution -5ppm	WP115696	11/17/2025	11/18/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u> 45.00000ml of W3112 + 5.00000ml of WP115588 = Final Quantity: 50.000 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24L1062001	10/04/2027	10/31/2025 / RUPESH	10/31/2025 / RUPESH	E3982

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-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	11/27/2025	05/27/2025 / Sagar	04/27/2025 / Sagar	M6162

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	07/12/2026	08/13/2025 / Sagar	08/06/2025 / Sagar	M6186

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	01/28/2026	08/29/2025 / Sagar	08/08/2025 / Sagar	M6187

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AA14125-36 / LEAD (II) CHROMATE, ACS, 500G	U19B018	01/23/2027	01/23/2017 / apatel	01/23/2017 / apatel	W2202

CHEMICAL RECEIPT LOG BOOK

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P1060-10 / PHENOL, ACS, 500G	2HD0179	01/27/2030	01/27/2020 / apatel	01/27/2020 / apatel	W2663

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

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

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	01237-10KG / Magnesium Chloride Hexahydrate ACS 10KG	002126-2019-201	11/25/2029	11/25/2024 / lwona	11/25/2024 / lwona	W3152

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 #
PCI Scientific Supply, Inc.	J3252-1 / POTAS PHOSPHATE, DIBASIC PWD, ACS, 500G	24H0856239	04/19/2028	01/03/2025 / lwona	01/03/2025 / lwona	W3168

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.	J3568-1 / Sodium Borate, 500 gms	BCCL9613	05/31/2029	04/16/2025 / lwona	04/16/2025 / lwona	W3201

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

Certificate of analysis

Product No. 14125
Product: Lead(II) chromate, ACS, 98%
Lot No.: U19B018

Test	Limits	Results
Assay	98.0 % min	99.3 %
Soluble matter	0.15 % max	< 0.02 %
Carbon compounds	0.01 % max	< 0.01 %

Traceable to NIST? Yes

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ThermoFisher
S C I E N T I F I C

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

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

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

(sodium hydrogen carbonate)



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

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

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

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

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

James Ethier
Jamie Ethier
Vice President Global Quality

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



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.

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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Certificate of Analysis

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

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

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

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

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

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

*Based on suggested storage condition.

Acetone

BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

 **avantors**™



Material No.: 9254-03

Batch No.: 24L1062001

Manufactured Date: 2024-10-04

Expiration Date: 2027-10-04

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.7 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.3 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.1
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.3 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

Received on 10/29/25

E3982

J. Croak

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

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

 **avantor™**



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

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

>>> Continued on page 3 >>>

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



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

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

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

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

Nitric Acid 69%
CMOS

 **avantors**TM



m-6162

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

R. Date :- 04/27/2025

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO ₄)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

 **avantorsTM**



Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantor™**



Material No.: 9606-03
Batch No.: 24H0162012

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

For Microelectronic Use

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



Jamie Croak
Director Quality Operations, Bioscience Production

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

avantor™



M6186

Reciev 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

Nitric Acid 69%
CMOS



M6187

R.D :- 08/08/25

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO ₄)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS



Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantor™**



Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
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For Microelectronic Use

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



Jamie Croak
Director Quality Operations, Bioscience Production

3050 Spruce Street, Saint Louis, MO 63103, USA

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

W 2979

Rec: 12/09/22

exp. 12/09/27

Product Name:

1,5-Diphenylcarbazide - ACS reagent

Product Number:

259225

Batch Number:

MKCR6636

Brand:

SIAL

CAS Number:

140-22-7

MDL Number:

MFCD00003013

Formula:

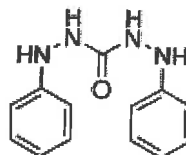
C₁₃H₁₄N₄O

Formula Weight:

242.28 g/mol

Quality Release Date:

02 JUN 2022



Certificate of Analysis

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



Larry Coers, Director
Quality Control
Milwaukee, WI US

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





Certificate of Analysis



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

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

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

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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.

Chem-Impex International, Inc.

Tel: (630) 766-2112**E-mail:** sales@chemimpex.com**Shipping and Correspondence:**

935 Dillon Drive

Wood Dale, IL 60191

Fax: (630) 766-2218**Web site:** www.chemimpex.com**Manufacturing site:**

825 Dillon Drive

Wood Dale, IL 60191

Certificate of Analysis

Catalogue Number	01237
Lot Number	002126-2019-201
Product	Magnesium chloride hexahydrate

Magnesium chloride•6H₂O

CAS Number	7791-18-6
Molecular Formula	MgCl ₂ •6H ₂ O
Molecular Weight	203.3

Appearance	White crystals
Solubility	167 g in 100 mL water
Melting Point	~ 115 °C
Heavy Metals	4.393 ppm
Anion	Nitrate (NO ₃) : < 0.001% Phosphate (PO ₄) : < 5 ppm Sulfate (SO ₄) : < 0.002%
Cation	Ammonium (NH ₄) : < 0.002% Barium (Ba) : 0.005% Calcium (Ca) : 0.01% Iron (Fe) : 4.5 ppm Manganese (Mn) : 0.624 ppm Potassium (K) : 0.004% Sodium (Na) : 0.000003% Strontium (Sr) : 0.005%
Insoluble material	0.0021%
Assay by titration	100.83%
Grade	ACS reagent
Storage	Store at RT

Certificate of Analysis

Catalog Number: 01237

Lot Number: 002126-2019-201

Remarks

See material safety data sheet for additional information

For laboratory use only

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

A handwritten signature in black ink, appearing to read 'Bala Kumar', with a stylized flourish at the end.

Bala Kumar
Quality Control Manager



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.



Material	BDH9266-500G
Material Description	BDH POTASS PHOSPHAT DBSC 500GM
Grade	ACS GRADE
Batch	24H0856239
Reassay Date	04/19/2028
CAS Number	7758-11-4
Molecular Formula	K ₂ HPO ₄
Molecular Mass	174.18
Date of Manufacture	04/19/2024
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	Fine white crystalline powder	Fine white crystalline powder
Chloride	<= 0.003 %	0.002 %
Heavy Metals (as Pb)	<= 0.0005 %	<0.0005 %
Insolubles	<= 0.01 %	<0.01 %
Iron	<= 0.001 %	<0.001 %
Loss on Drying	<= 1.0 %	<0.5 %
Nitrogen Compounds	<= 0.001 %	<0.001 %
pH (5%, Water) @25C	8.5 - 9.6	8.8
Purity	>= 98.0 %	99.1 %
Sodium	<= 0.05 %	<0.05 %
Sulfate	<= 0.005 %	<0.002 %
CUSTOMER PART # BDH9266-500G		

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.



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](https://www.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

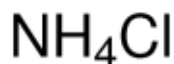
Signature	Additional Information
We certify that this batch conforms to the specifications listed above. This document has been electronically produced and is valid without a signature. Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA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

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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	

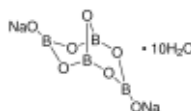
W3201 Received on 4/16/25 by IZ

Certificate of Analysis

Product Name:

Sodium tetraborate decahydrate - ACS reagent, ≥99.5%

Product Number: S9640
Batch Number: BCCL9613
Brand: SIGALD
CAS Number: 1303-96-4
Formula: B₄Na₂O₇ · 10H₂O
Formula Weight: 381,37 g/mol
Quality Release Date: 05 JUL 2024
Recommended Retest Date: MAY 2029



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Powder
Titration with NaOH	99.5 - 105.0 %	100.7 %
pH	9.15 - 9.20	9.20
0.01 m Solution at 25 Deg C		
Meets ACS Requirements	Corresponds to Requirements	Corresponds
ACS Specifications	Corresponds to Requirements	Corresponds
Insoluble Matter ≤ 0.005% / Heavy		
Metals (As Pb) ≤ 0.001%		
Calcium (Ca)	≤ 50 mg/kg	< 50 mg/kg
Iron (Fe)	≤ 5 mg/kg	< 5 mg/kg
Total Sulfur	≤ 50 mg/kg	< 50 mg/kg
as SO ₄ (ICP)		
Chloride (Cl)	≤ 10 mg/kg	< 10 mg/kg
Phosphate (PO ₄)	≤ 10 mg/kg	< 10 mg/kg

Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland CH

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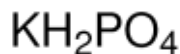


Certificate of Analysis

Product Name:

Potassium phosphate monobasic - ACS reagent, ≥99.0%

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



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



Larry Coers, Director
Quality Control
Milwaukee, WI US

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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.



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/13/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:20
In Date: 11/12/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:27
Out Date: 11/13/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137869

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3609-01	AU-713-COMP-01	1	1.15	10.53	11.68	9.74	81.6	
Q3609-02	AU-713-VOC-01	2	1.18	10.57	11.75	10.37	86.9	
Q3609-04	AU-713-COMP-02	3	1.19	10.53	11.72	10.1	84.6	
Q3609-05	AU-713-VOC-02	4	1.15	10.68	11.83	9.23	75.7	
Q3609-07	AU-713-COMP-03	5	1.19	10.33	11.52	10.00	85.3	
Q3609-08	AU-713-VOC-03	6	1.16	10.90	12.06	10.44	85.1	
Q3609-10	AU-713-COMP-04	7	1.18	10.34	11.52	9.51	80.6	
Q3609-11	AU-713-VOC-04	8	1.13	10.46	11.59	10.16	86.3	
Q3609-13	AU-713-COMP-05	9	1.14	10.49	11.63	10.05	84.9	
Q3609-14	AU-713-VOC-05	10	1.13	10.40	11.53	10.00	85.3	
Q3609-15	AU-713-COMP-05	11	1.14	10.49	11.63	10.05	84.9	
Q3610-01	AU-713-TPH-01	12	1.18	10.35	11.53	10.37	88.8	
Q3610-02	AU-713-TPH-02	13	1.19	10.50	11.69	9.48	79.0	
Q3610-03	AU-713-TPH-03	14	1.11	10.33	11.44	9.75	83.6	
Q3610-04	AU-713-TPH-04	15	1.18	10.42	11.6	9.1	76.0	
Q3610-05	AU-713-TPH-05	16	1.18	10.56	11.74	10.33	86.6	
Q3610-06	AU-713-TPH-06	17	1.19	10.37	11.56	10.03	85.2	
Q3610-07	AU-713-TPH-07	18	1.15	10.40	11.55	9.08	76.3	
Q3610-08	AU-713-TPH-08	19	1.19	10.43	11.62	10.04	84.9	
Q3610-09	AU-713-TPH-09	20	1.18	10.71	11.89	9.9	81.4	
Q3610-10	AU-713-TPH-10	21	1.16	10.24	11.4	9.96	85.9	
Q3610-11	AU-713-TPH-11	22	1.14	9.99	11.13	8.96	78.3	
Q3610-12	AU-713-TPH-12	23	1.19	10.49	11.68	9.99	83.9	
Q3610-13	AU-713-TPH-13	24	1.15	10.84	11.99	10.4	85.3	
Q3610-14	AU-713-TPH-14	25	1.18	10.50	11.68	10.44	88.2	
Q3610-15	AU-713-TPH-15	26	1.14	10.48	11.62	10.34	87.8	
Q3611-01	AU-713-01	27	1.13	10.54	11.67	9.83	82.5	
Q3611-02	AU-713-02	28	1.12	11.27	12.39	9.7	76.1	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/13/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:20
In Date: 11/12/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:27
Out Date: 11/13/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137869

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3611-03	AU-713-03	29	1.12	10.07	11.19	9.69	85.1	
Q3611-04	AU-713-04	30	1.16	10.64	11.8	9.27	76.2	
Q3611-05	AU-713-05	31	1.16	10.31	11.47	10.55	91.1	
Q3611-06	AU-713-06	32	1.18	10.70	11.88	10.14	83.7	
Q3611-07	AU-713-07	33	1.15	10.28	11.43	9.16	77.9	
Q3611-08	AU-713-08	34	1.19	10.71	11.9	10.05	82.7	
Q3611-09	AU-713-09	35	1.19	10.66	11.85	9.64	79.3	
Q3611-10	AU-713-10	36	1.17	10.13	11.3	9.79	85.1	
Q3611-11	AU-713-11	37	1.13	11.03	12.16	9.74	78.1	
Q3611-12	AU-713-12	38	1.11	10.13	11.24	9.17	79.6	
Q3611-13	AU-713-13	39	1.13	10.59	11.72	9.54	79.4	
Q3611-14	AU-713-14	40	1.16	10.23	11.39	10.02	86.6	
Q3611-15	AU-713-15	41	1.16	10.44	11.6	10.08	85.4	
Q3614-01	COMP-1	42	1.12	10.94	12.06	10.12	82.3	
Q3614-02	COMP-2	43	1.18	10.44	11.62	9.71	81.7	
Q3614-03	COMP-3	44	1.18	10.30	11.48	9.78	83.5	
Q3615-01	East Bathhouse-Concrete	45	1.00	1.00	2.00	2.00	100.0	Concreate sample
Q3618-01	EME-TOP-SOIL	46	1.18	10.33	11.51	8.44	70.3	
Q3618-02	EME-GENERAL-FILL	47	1.19	10.38	11.57	10.34	88.2	
Q3621-01	VNJ-231	48	1.16	10.38	11.54	11.06	95.4	
Q3621-02	VNJ-231	49	1.19	10.21	11.4	10.7	93.1	
Q3622-01	RT3071-SOLID	50	1.15	10.44	11.59	8.75	72.8	
Q3623-01	RBR200007-SOIL	51	1.13	10.84	11.97	10.5	86.4	
Q3623-02	RBR200007-SILICA	52	1.13	10.86	11.99	3.71	23.8	sludge sample
Q3624-01	OK-02-11122025	53	1.13	10.91	12.04	10.54	86.3	
Q3624-02	OK-02-11122025-E2	54	1.16	10.34	11.5	10.12	86.7	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

UP 137869

WorkList Name : %1-111225

WorkList ID : 193056

Department : Wet-Chemistry

Date : 11-12-2025 07:31:43

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3609-01	AU-713-COMP-01	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3609-02	AU-713-VOC-01	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3609-04	AU-713-COMP-02	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3609-05	AU-713-VOC-02	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3609-07	AU-713-COMP-03	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3609-08	AU-713-VOC-03	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3609-10	AU-713-COMP-04	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3609-11	AU-713-VOC-04	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3609-13	AU-713-COMP-05	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3609-14	AU-713-VOC-05	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3609-15	AU-713-COMP-05	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-01	AU-713-TPH-01	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-02	AU-713-TPH-02	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-03	AU-713-TPH-03	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-04	AU-713-TPH-04	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-05	AU-713-TPH-05	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-06	AU-713-TPH-06	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-07	AU-713-TPH-07	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-08	AU-713-TPH-08	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-09	AU-713-TPH-09	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-10	AU-713-TPH-10	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO

Date/Time 11-12-25 15:30

Raw Sample Received by: JP WCI

Raw Sample Relinquished by: CP

Date/Time 11-12-25

Raw Sample Received by: JP WCI

Raw Sample Relinquished by: JP WCI

WORKLIST(Hardcopy Internal Chain)

137869

WorkList Name : %1-111225

WorkList ID : 193056

Department : Wet-Chemistry

Date : 11-12-2025 07:31:43

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3610-11	AU-713-TPH-11	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-12	AU-713-TPH-12	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-13	AU-713-TPH-13	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-14	AU-713-TPH-14	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3610-15	AU-713-TPH-15	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/11/2025	Chemtech -SO
Q3611-01	AU-713-01	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-02	AU-713-02	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-03	AU-713-03	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-04	AU-713-04	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-05	AU-713-05	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-06	AU-713-06	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-07	AU-713-07	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-08	AU-713-08	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-09	AU-713-09	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-10	AU-713-10	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-11	AU-713-11	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-12	AU-713-12	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-13	AU-713-13	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-14	AU-713-14	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3611-15	AU-713-15	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/12/2025	Chemtech -SO
Q3614-01	COMP-1	Solid	Percent Solids	Cool 4 deg C	POWE02	J21	11/11/2025	Chemtech -SO

Date/Time 11-12-25 13:30
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

Date/Time 11-12-25 17:40
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

137869

WorkList Name : %1-111225

WorkList ID : 193056

Department : Wet-Chemistry

Date : 11-12-2025 07:31:43

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3614-02	COMP-2	Solid	Percent Solids	Cool 4 deg C	POWE02	J21	11/11/2025	Chemtech -SO
Q3614-03	COMP-3	Solid	Percent Solids	Cool 4 deg C	POWE02	J21	11/11/2025	Chemtech -SO
Q3615-01	East Bathroom- Concrete	Solid	Percent Solids	Cool 4 deg C	CORE02	J32	11/12/2025	Chemtech -SO
Q3618-01	EME-TOP-SOIL	Solid	Percent Solids	Cool 4 deg C	ENTA05	D41	11/12/2025	Chemtech -SO
Q3618-02	EME-GENERAL-FILL	Solid	Percent Solids	Cool 4 deg C	ENTA05	D41	11/12/2025	Chemtech -SO
Q3621-01	VNJ-231	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/12/2025	Chemtech -SO
Q3621-02	VNJ-231	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/12/2025	Chemtech -SO
Q3622-01	RT3071-SOLID	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/12/2025	Chemtech -SO
Q3623-01	RBR200007-SOIL	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/12/2025	Chemtech -SO
Q3623-02	RBR200007-SILICA	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/12/2025	Chemtech -SO
Q3624-01	OK-02-11122025	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	11/12/2025	Chemtech -SO
Q3624-02	OK-02-11122025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	11/12/2025	Chemtech -SO

Date/Time 11-12-25 15:30

Raw Sample Received by: SO (WC)

Raw Sample Relinquished by: [Signature]

Date/Time 11-12-25

Raw Sample Received by: CP [Signature]

Raw Sample Relinquished by: [Signature]

1740

SO (WC)



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: **Kleinfelder**
ADDRESS: **180 Sheree Blvd. Suite 3800**
CITY **Exton** STATE: **PA** ZIP: **19341**
ATTENTION: **Mark Warchol**
PHONE: **484-883-3892** FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: **Logan School**
PROJECT NO.: LOCATION: **Philadelphia, PA**
PROJECT MANAGER: **Mark Warchol**
e-mail: **mwarchol@kleinfelder.com**
PHONE: **484-883-3892** FAX:

CLIENT BILLING INFORMATION

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

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) **5** DAYS*
HARDCOPY (DATA PACKAGE): **5** DAYS*
EDD: **5** DAYS*

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

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

PADEP Historic
Clean Cell Parameters

1 2 3 4 5 6 7 8 9

PRESERVATIVES

COMMENTS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS			
			COMP	GRAB	DATE	TIME		E	1	2	3	4	5	6	7	8	9	← Specify Preservatives		
																		A-HCl	D-NaOH	
																		B-HNO3	E-ICE	
																			C-H2SO4	F-OTHER
1.	COMP-1	Soil	✓		11/1/25	10:05	6	✓												
2.	COMP-2	↓	↓		↓	10:45	↓	↓												
3.	COMP-3	↓	↓		↓	11:30	↓	↓												
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				

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

RELINQUISHED BY SAMPLER: 1. [Signature]	DATE/TIME: 11/1/25 15:00	RECEIVED BY: 1. [Signature]	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.6°C
RELINQUISHED BY SAMPLER: 2. [Signature]	DATE/TIME: 11/2/25 11:45	RECEIVED BY: 2. [Signature]	Comments: 2.6°C + 0.5 = 2.6°C
RELINQUISHED BY SAMPLER: 3. [Signature]	DATE/TIME:	RECEIVED BY: 3. [Signature]	Page 1 of 1 CLIENT: ☐ Hand Delivered ☒ Other FedEx Shipment Complete ☐ YES ☐ NO

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3614	POWE02	Order Date : 11/12/2025 11:51:00 AM	Project Mgr :
Client Name : Kleinfelder		Project Name : Logan School	Report Type : Results+QC
Client Contact : Mark Warchol		Receive DateTime : 11/12/2025 11:45:00 AM	EDD Type : EXCEL NOCLEANUP
Invoice Name : Kleinfelder		Purchase Order :	Hard Copy Date :
Invoice Contact : Mark Warchol			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3614-01	COMP-1	Solid	11/11/2025	10:05					
					VOCMS Group1		8260D	5 Bus. Days	
Q3614-02	COMP-2	Solid	11/11/2025	10:45					
					VOCMS Group1		8260D	5 Bus. Days	
Q3614-03	COMP-3	Solid	11/11/2025	11:30					
					VOCMS Group1		8260D	5 Bus. Days	

Relinquished By :

Date / Time :

OP
11/12/25 1250

Received By :

Date / Time :

[Signature]
11/12/25 1250

Storage Area : VOA Refridgerator Room