

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:	Q2651	OrderDate:	7/18/2025 2:29:11 PM
Client:	Earth Engineering Inc.	Project:	Leon Avenue
Contact:	Frank Dougherty, LSRP	Location:	O22

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2651-01	MH 2-1	SOIL			07/17/25 09:20			07/18/25
			Cyanide	9012B		07/18/25	07/21/25 10:48	
Q2651-02	MH 6-5	SOIL			07/17/25 09:55			07/18/25
			Cyanide	9012B		07/18/25	07/21/25 10:49	
Q2651-03	MH 7-6	SOIL			07/17/25 10:30			07/18/25
			Cyanide	9012B		07/18/25	07/21/25 10:49	
Q2651-04	MH 8-7	SOIL			07/17/25 10:50			07/18/25
			Cyanide	9012B		07/18/25	07/21/25 10:49	
Q2651-05	MH 9-8	SOIL			07/17/25 11:30			07/18/25
			Cyanide	9012B		07/18/25	07/21/25 10:49	



SAMPLE DATA

Report of Analysis

Client:	Earth Engineering Inc.	Date Collected:	07/17/25 09:20
Project:	Leon Avenue	Date Received:	07/18/25
Client Sample ID:	MH 2-1	SDG No.:	Q2651
Lab Sample ID:	Q2651-01	Matrix:	SOIL
		% Solid:	94.5

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.044	U	1	0.044	0.26	mg/Kg	07/18/25 15:00	07/21/25 10:48	9012B

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:	Earth Engineering Inc.	Date Collected:	07/17/25 09:55
Project:	Leon Avenue	Date Received:	07/18/25
Client Sample ID:	MH 6-5	SDG No.:	Q2651
Lab Sample ID:	Q2651-02	Matrix:	SOIL
		% Solid:	93.8

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.043	U	1	0.043	0.26	mg/Kg	07/18/25 15:00	07/21/25 10:49	9012B

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:	Earth Engineering Inc.	Date Collected:	07/17/25 10:30
Project:	Leon Avenue	Date Received:	07/18/25
Client Sample ID:	MH 7-6	SDG No.:	Q2651
Lab Sample ID:	Q2651-03	Matrix:	SOIL
		% Solid:	93.9

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.044	U	1	0.044	0.26	mg/Kg	07/18/25 15:00	07/21/25 10:49	9012B

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:	Earth Engineering Inc.	Date Collected:	07/17/25 10:50
Project:	Leon Avenue	Date Received:	07/18/25
Client Sample ID:	MH 8-7	SDG No.:	Q2651
Lab Sample ID:	Q2651-04	Matrix:	SOIL
		% Solid:	94.6

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.043	U	1	0.043	0.25	mg/Kg	07/18/25 15:00	07/21/25 10:49	9012B

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:	Earth Engineering Inc.	Date Collected:	07/17/25 11:30
Project:	Leon Avenue	Date Received:	07/18/25
Client Sample ID:	MH 9-8	SDG No.:	Q2651
Lab Sample ID:	Q2651-05	Matrix:	SOIL
		% Solid:	92.9

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.044	U	1	0.044	0.26	mg/Kg	07/18/25 15:00	07/21/25 10:49	9012B

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: Earth Engineering Inc.

SDG No.: Q2651

Project: Leon Avenue

RunNo.: LB136552

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: Cyanide	ICV1	mg/L	0.093	0.099	94	90-110	07/21/2025
Sample ID: Cyanide	CCV1	mg/L	0.25	0.25	100	90-110	07/21/2025
Sample ID: Cyanide	CCV2	mg/L	0.24	0.25	96	90-110	07/21/2025
Sample ID: Cyanide	CCV3	mg/L	0.24	0.25	96	90-110	07/21/2025
Sample ID: Cyanide	CCV4	mg/L	0.25	0.25	100	90-110	07/21/2025

Initial and Continuing Calibration Blank Summary

Client: Earth Engineering Inc.

SDG No.: Q2651

Project: Leon Avenue

RunNo.: LB136552

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	07/21/2025
Sample ID: CCB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	07/21/2025
Sample ID: CCB2 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	07/21/2025
Sample ID: CCB3 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	07/21/2025
Sample ID: CCB4 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	07/21/2025

Preparation Blank Summary

Client: Earth Engineering Inc.

SDG No.: Q2651

Project: Leon Avenue

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: Cyanide	PB168925BL mg/Kg	< 0.1250	0.1250	U	0.042	0.25	07/21/2025

Matrix Spike Summary

Client:	Earth Engineering Inc.	SDG No.:	Q2651
Project:	Leon Avenue	Sample ID:	Q2639-13
Client ID:	OU4-TS-44-071725MS	Percent Solids for Spike Sample:	64.9

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	2.80		0.069	J	3	1	91		07/21/2025

Matrix Spike Summary

Client:	Earth Engineering Inc.	SDG No.:	Q2651
Project:	Leon Avenue	Sample ID:	Q2639-13
Client ID:	OU4-TS-44-071725MSD	Percent Solids for Spike Sample:	64.9

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	2.90		0.069	J	3	1	94		07/21/2025

Duplicate Sample Summary

Client:	Earth Engineering Inc.	SDG No.:	Q2651
Project:	Leon Avenue	Sample ID:	Q2639-13
Client ID:	OU4-TS-44-071725DUP	Percent Solids for Spike Sample:	64.9

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.069	J	0.080	J	1	15		07/21/2025

Duplicate Sample Summary

Client:	Earth Engineering Inc.	SDG No.:	Q2651
Project:	Leon Avenue	Sample ID:	Q2639-13
Client ID:	OU4-TS-44-071725MSD	Percent Solids for Spike Sample:	64.9

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	2.80		2.90		1	4		07/21/2025

Laboratory Control Sample Summary

Client: Earth Engineering Inc.

SDG No.: Q2651

Project: Leon Avenue

Run No.: LB136552

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB168925BS							
Cyanide	mg/Kg	5	4.70		94	1	85-115	07/21/2025



RAW DATA

LB136552

Test results

Aquakem 7.2AQ1

Page:

Alliance Technical Group
 284 Sheffield Street, Mountainside, NJ 07092

7/21/2025 10:56

Reviewed by : RM

Instrument ID : Konelab

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	93.256	0.0	0.076	
ICB1	0.200	0.0	0.001	
CCV1	247.127	0.0	0.201	
CCB1	0.007	0.0	0.001	
PB168925BL	0.101	0.0	0.001	
PB168925BS	93.888	0.0	0.077	
LOWPB168925	9.615	0.0	0.009	
Q2638-01	1.137	0.0	0.002	
Q2638-03	0.308	0.0	0.001	
Q2638-05	1.038	0.0	0.002	
Q2638-07	0.470	0.0	0.001	
Q2638-09	0.312	0.0	0.001	
Q2638-11	0.466	0.0	0.001	
CCV2	242.265	0.0	0.197	
CCB2	0.062	0.0	0.001	
Q2638-13	-0.061	0.0	0.001	
Q2639-01	1.672	0.0	0.002	
Q2639-03	0.465	0.0	0.001	
Q2639-05	-0.261	0.0	0.001	
Q2639-07	0.033	0.0	0.001	
Q2639-09	0.777	0.0	0.002	
Q2639-11	0.464	0.0	0.001	
Q2639-13	0.911	0.0	0.002	
Q2639-13DUP	1.063	0.0	0.002	
Q2639-13MS	38.415	0.0	0.032	
CCV3	243.785	0.0	0.198	
CCB3	0.283	0.0	0.001	
Q2639-13MSD	38.896	0.0	0.032	
Q2651-01	0.546	0.0	0.001	
Q2651-02	0.213	0.0	0.001	
Q2651-03	0.383	0.0	0.001	
Q2651-04	0.503	0.0	0.001	
Q2651-05	0.210	0.0	0.001	
HIGHPB168925	489.833	0.0	0.398	
CCV4	249.891	0.0	0.203	
CCB4	0.381	0.0	0.001	
N	36			
Mean	48.852			
SD	109.0566			
CV%	223.24			

96% (90-110)

07/21/2025
RM

97% (90-110)

07/21/2025
RM

Aquakem v. 7.2AQ1

Results from time period:

Mon Jul 21 08:55:01 2025

Mon Jul 21 10:55:40 2025

Sample Id	Sam/Ctr/	Test short name	Test ty	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	-0.5249	µg/l	7/21/2025 8:55:01	
5.0PPBCN	A	Total CN	P	4.3928	µg/l	7/21/2025 8:55:02	
10PPBCN	A	Total CN	P	9.6087	µg/l	7/21/2025 8:55:03	
50PPBCN	A	Total CN	P	50.1149	µg/l	7/21/2025 8:55:04	
100PPBCN	A	Total CN	P	97.9069	µg/l	7/21/2025 8:55:05	
250PPBCN	A	Total CN	P	256.1614	µg/l	7/21/2025 8:55:06	
500PPBCN	A	Total CN	P	497.3403	µg/l	7/21/2025 8:55:07	
ICV1	S	Total CN	P	93.2559	µg/l	7/21/2025 10:14:37	
ICB1	S	Total CN	P	0.1998	µg/l	7/21/2025 10:14:38	
CCV1	S	Total CN	P	247.1273	µg/l	7/21/2025 10:14:40	
CCB1	S	Total CN	P	0.0072	µg/l	7/21/2025 10:14:43	
PB168925BL	S	Total CN	P	0.1009	µg/l	7/21/2025 10:14:44	
PB168925BS	S	Total CN	P	93.8878	µg/l	7/21/2025 10:14:46	
LOWPB168925	S	Total CN	P	9.6154	µg/l	7/21/2025 10:22:15	
Q2638-01	S	Total CN	P	1.1374	µg/l	7/21/2025 10:22:19	
Q2638-03	S	Total CN	P	0.3079	µg/l	7/21/2025 10:22:20	
Q2638-05	S	Total CN	P	1.038	µg/l	7/21/2025 10:22:21	
Q2638-07	S	Total CN	P	0.4698	µg/l	7/21/2025 10:22:22	
Q2638-09	S	Total CN	P	0.3123	µg/l	7/21/2025 10:22:23	
Q2638-11	S	Total CN	P	0.4657	µg/l	7/21/2025 10:33:46	
CCV2	S	Total CN	P	242.2646	µg/l	7/21/2025 10:33:50	
CCB2	S	Total CN	P	0.0622	µg/l	7/21/2025 10:33:51	
Q2638-13	S	Total CN	P	-0.0612	µg/l	7/21/2025 10:33:53	
Q2639-01	S	Total CN	P	1.6725	µg/l	7/21/2025 10:33:54	
Q2639-03	S	Total CN	P	0.4646	µg/l	7/21/2025 10:33:55	
Q2639-05	S	Total CN	P	-0.2606	µg/l	7/21/2025 10:33:56	
Q2639-07	S	Total CN	P	0.0326	µg/l	7/21/2025 10:41:21	
Q2639-09	S	Total CN	P	0.777	µg/l	7/21/2025 10:41:22	
Q2639-11	S	Total CN	P	0.4641	µg/l	7/21/2025 10:41:23	
Q2639-13	S	Total CN	P	0.9112	µg/l	7/21/2025 10:41:24	
Q2639-13DUP	S	Total CN	P	1.0627	µg/l	7/21/2025 10:41:26	
Q2639-13MS	S	Total CN	P	38.4153	µg/l	7/21/2025 10:41:31	
CCV3	S	Total CN	P	243.7845	µg/l	7/21/2025 10:48:54	
CCB3	S	Total CN	P	0.2835	µg/l	7/21/2025 10:48:55	
Q2639-13MSD	S	Total CN	P	38.8959	µg/l	7/21/2025 10:48:58	
Q2651-01	S	Total CN	P	0.5458	µg/l	7/21/2025 10:48:59	
Q2651-02	S	Total CN	P	0.2131	µg/l	7/21/2025 10:49:00	
Q2651-03	S	Total CN	P	0.3829	µg/l	7/21/2025 10:49:01	
Q2651-04	S	Total CN	P	0.5028	µg/l	7/21/2025 10:49:02	
Q2651-05	S	Total CN	P	0.2104	µg/l	7/21/2025 10:49:03	
HIGHPB168925	S	Total CN	P	489.8334	µg/l	7/21/2025 10:55:33	
CCV4	S	Total CN	P	249.8912	µg/l	7/21/2025 10:55:36	
CCB4	S	Total CN	P	0.3811	µg/l	7/21/2025 10:55:38	

Calibration results

Aquakem 7.2AQ1

Page: 1

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

7/21/2025 9:02

Reviewed by : RM Instrument ID : Konelab

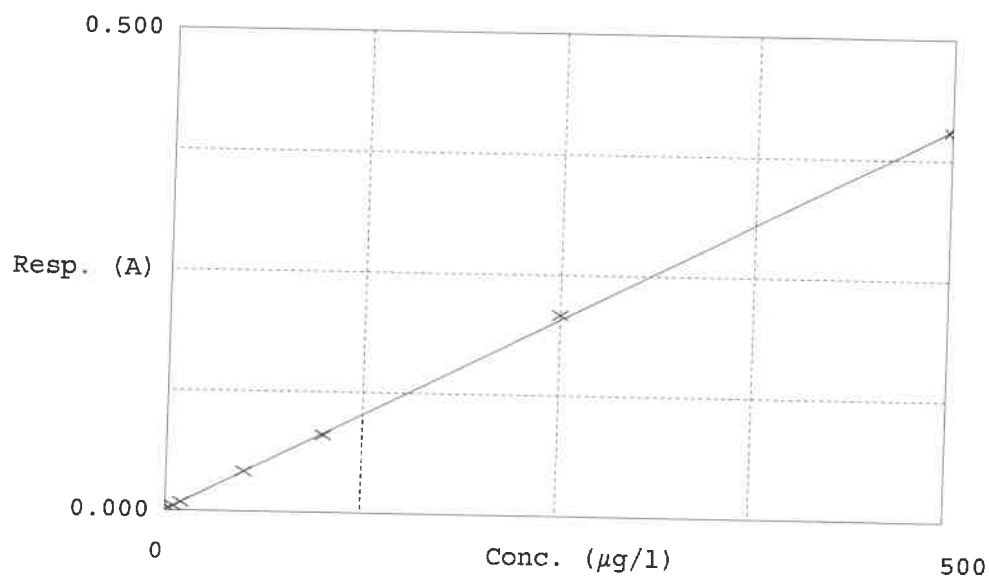
Test Total CN

Accepted 7/21/2025 9:01

Factor 1234
Bias 0.001

Coeff. of det. 0.999756

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.0PPBCN	0.000	-0.5249	0.0000	-
2	5.0PPBCN	0.004	4.3928	5.0000	-12.1
3	10PPBCN	0.009	9.6087	10.0000	-3.9
4	50PPBCN	0.041	50.1149	50.0000	0.2
5	100PPBCN	0.080	97.9069	100.0000	-2.1
6	250PPBCN	0.208	256.1614	250.0000	2.5
7	500PPBCN	0.404	497.3403	500.0000	-0.5

07/21/2025

RM

SOP ID : M9012B-Total, Amenable and Reactive Cyanide-21

SDG No : N/A

Start Digest Date: 07/18/2025 Time : 13:00 Temp : 124 °C

Matrix : SOIL

End Digest Date: 07/18/2025 Time : 14:30 Temp : 126 °C

Pipette ID : WC

fl batch 07/18/2025 15:00 123°C
07/18/2025 16:30 126°C

Balance ID : WC SC-7

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Block ID : MC-1,MC-2

Filter paper ID : N/A

Prep Technician Signature: *JP*

Weigh By : JP

pH Meter ID : N/A

Supervisor Signature: *12*

Standardized Name	MLS USED	STD REF. # FROM LOG
LCSS	1.0ML	WP113838
MS/MSD SPIKE SOL.	0.40ML	WP113837
PBS003	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50.0ML	WP113836
50% v/v H2SO4	5.0ML	WP112826
51% w/v MgCL2	2.0ML	WP112827
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
S0	S0	N/A	N/A
S5.0	S5.0	N/A	N/A
S10.0	S10.0	N/A	N/A
S100.0	S100.0	N/A	N/A
S250.0	S250.0	N/A	N/A
S500.0	S500.0	N/A	N/A
ICV	ICV	0.5ML	W3012
ICB	ICB	N/A	N/A
CCV	CCV	N/A	N/A
CCB	CCB	N/A	N/A
Midrange	Midrange	N/A	N/A
HIGHSTD	HIGHSTD	5.0ML	WP113837
LOWSTD	LOWSTD	0.1ML	WP113837

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
07/18/2025 16:40	<i>JP / WC</i>	<i>RM (LW)</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB168925BL	PB168925BL	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
PB168925BS	LCS925	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2638-01	OU4-TS-31-071725	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2638-03	OU4-TS-32-071725	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2638-05	OU4-TS-33-071725	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2638-07	OU4-TS-34-071725	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2638-09	OU4-TS-35-071725	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2638-11	OU4-TS-36-071725	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2638-13	OU4-TS-37-071725	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2639-01	OU4-TS-38-071725	1.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2639-03	OU4-TS-39-071725	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2639-05	OU4-TS-40-071725	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2639-07	OU4-TS-41-071725	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2639-09	OU4-TS-42-071725	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2639-11	OU4-TS-43-071725	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2639-13	OU4-TS-44-071725	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2639-13DUP	OU4-TS-44-071725DUP	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2639-13MS	OU4-TS-44-071725MS	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2639-13MSD	OU4-TS-44-071725MSD	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2651-01	MH 2-1	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2651-02	MH 6-5	1.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2651-03	MH 7-6	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2651-04	MH 8-7	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2651-05	MH 9-8	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : cn q2651

WorkList ID : 190832

Department : Distillation

Date : 07-18-2025 13:52:48

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2651-01	MH 2-1	Solid	Cyanide	Cool 4 deg C	EARTH03	O22	07/17/2025	9012B
Q2651-02	MH 6-5	Solid	Cyanide	Cool 4 deg C	EARTH03	O22	07/17/2025	9012B
Q2651-03	MH 7-6	Solid	Cyanide	Cool 4 deg C	EARTH03	O22	07/17/2025	9012B
Q2651-04	MH 8-7	Solid	Cyanide	Cool 4 deg C	EARTH03	O22	07/17/2025	9012B
Q2651-05	MH 9-8	Solid	Cyanide	Cool 4 deg C	EARTH03	O22	07/17/2025	9012B

Date/Time 07/18/2025 14:25
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

Date/Time 07/18/2025 15:15
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

WorkList Name : CN Q2638

WorkList ID : 190822

Department : Distillation

Date : 07-18-2025 12:02:02

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2638-01	OU4-TS-31-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O21	07/17/2025	9012B
Q2638-03	OU4-TS-32-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O21	07/17/2025	9012B
Q2638-05	OU4-TS-33-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O21	07/17/2025	9012B
Q2638-07	OU4-TS-34-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O21	07/17/2025	9012B
Q2638-09	OU4-TS-35-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O21	07/17/2025	9012B
Q2638-11	OU4-TS-36-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O21	07/17/2025	9012B
Q2638-13	OU4-TS-37-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O21	07/17/2025	9012B
Q2639-01	OU4-TS-38-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O21	07/17/2025	9012B
Q2639-03	OU4-TS-39-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O13	07/17/2025	9012B
Q2639-05	OU4-TS-40-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O13	07/17/2025	9012B
Q2639-07	OU4-TS-41-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O13	07/17/2025	9012B
Q2639-09	OU4-TS-42-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O13	07/17/2025	9012B
Q2639-11	OU4-TS-43-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O13	07/17/2025	9012B
Q2639-13	OU4-TS-44-071725	Solid	Cyanide	Cool 4 deg C	NOBI03	O13	07/17/2025	9012B

Date/Time 07/18/2025 12:10
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

Date/Time 07/18/2025 15:15
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB136552

Review By	rubina	Review On	7/21/2025 2:12:26 PM
Supervise By	Iwona	Supervise On	7/21/2025 2:21:59 PM
SubDirectory	LB136552	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP113992,WP113993,WP113998,WP113994,WP113995,WP113996,WP113997		
ICV Standard	W3012		
CCV Standard	WP113993		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP112643,WP112900,WP114000		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	07/21/25 08:55		rubina	OK
2	5.0PPBCN	5.0PPBCN	CAL2	07/21/25 08:55		rubina	OK
3	10PPBCN	10PPBCN	CAL3	07/21/25 08:55		rubina	OK
4	50PPBCN	50PPBCN	CAL4	07/21/25 08:55		rubina	OK
5	100PPBCN	100PPBCN	CAL5	07/21/25 08:55		rubina	OK
6	250PPBCN	250PPBCN	CAL6	07/21/25 08:55		rubina	OK
7	500PPBCN	500PPBCN	CAL7	07/21/25 08:55		rubina	OK
8	ICV1	ICV1	ICV	07/21/25 10:14		rubina	OK
9	ICB1	ICB1	ICB	07/21/25 10:14		rubina	OK
10	CCV1	CCV1	CCV	07/21/25 10:14		rubina	OK
11	CCB1	CCB1	CCB	07/21/25 10:14		rubina	OK
12	PB168925BL	PB168925BL	MB	07/21/25 10:14		rubina	OK
13	PB168925BS	PB168925BS	LCS	07/21/25 10:14		rubina	OK
14	LOWPB168925	LOWPB168925	SAM	07/21/25 10:22		rubina	OK
15	Q2638-01	OU4-TS-31-071725	SAM	07/21/25 10:22		rubina	OK
16	Q2638-03	OU4-TS-32-071725	SAM	07/21/25 10:22		rubina	OK
17	Q2638-05	OU4-TS-33-071725	SAM	07/21/25 10:22		rubina	OK
18	Q2638-07	OU4-TS-34-071725	SAM	07/21/25 10:22		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB136552

Review By	rubina	Review On	7/21/2025 2:12:26 PM
Supervise By	Iwona	Supervise On	7/21/2025 2:21:59 PM
SubDirectory	LB136552	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP113992,WP113993,WP113998,WP113994,WP113995,WP113996,WP113997		
ICV Standard	W3012		
CCV Standard	WP113993		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP112643,WP112900,WP114000		

19	Q2638-09	OU4-TS-35-071725	SAM	07/21/25 10:22		rubina	OK
20	Q2638-11	OU4-TS-36-071725	SAM	07/21/25 10:33		rubina	OK
21	CCV2	CCV2	CCV	07/21/25 10:33		rubina	OK
22	CCB2	CCB2	CCB	07/21/25 10:33		rubina	OK
23	Q2638-13	OU4-TS-37-071725	SAM	07/21/25 10:33		rubina	OK
24	Q2639-01	OU4-TS-38-071725	SAM	07/21/25 10:33		rubina	OK
25	Q2639-03	OU4-TS-39-071725	SAM	07/21/25 10:33		rubina	OK
26	Q2639-05	OU4-TS-40-071725	SAM	07/21/25 10:33		rubina	OK
27	Q2639-07	OU4-TS-41-071725	SAM	07/21/25 10:41		rubina	OK
28	Q2639-09	OU4-TS-42-071725	SAM	07/21/25 10:41		rubina	OK
29	Q2639-11	OU4-TS-43-071725	SAM	07/21/25 10:41		rubina	OK
30	Q2639-13	OU4-TS-44-071725	SAM	07/21/25 10:41		rubina	OK
31	Q2639-13DUP	OU4-TS-44-071725DUP	DUP	07/21/25 10:41		rubina	OK
32	Q2639-13MS	OU4-TS-44-071725MS	MS	07/21/25 10:41		rubina	OK
33	CCV3	CCV3	CCV	07/21/25 10:48		rubina	OK
34	CCB3	CCB3	CCB	07/21/25 10:48		rubina	OK
35	Q2639-13MSD	OU4-TS-44-071725MSD	MSD	07/21/25 10:48		rubina	OK
36	Q2651-01	MH 2-1	SAM	07/21/25 10:48		rubina	OK
37	Q2651-02	MH 6-5	SAM	07/21/25 10:49		rubina	OK
38	Q2651-03	MH 7-6	SAM	07/21/25 10:49		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB136552

Review By	rubina	Review On	7/21/2025 2:12:26 PM
Supervise By	Iwona	Supervise On	7/21/2025 2:21:59 PM
SubDirectory	LB136552	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP113992,WP113993,WP113998,WP113994,WP113995,WP113996,WP113997		
ICV Standard	W3012		
CCV Standard	WP113993		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP112643,WP112900,WP114000		

39	Q2651-04	MH 8-7	SAM	07/21/25 10:49		rubina	OK
40	Q2651-05	MH 9-8	SAM	07/21/25 10:49		rubina	OK
41	HIGHPB168925	HIGHPB168925	SAM	07/21/25 10:55		rubina	OK
42	CCV4	CCV4	CCV	07/21/25 10:55		rubina	OK
43	CCB4	CCB4	CCB	07/21/25 10:55		rubina	OK

Prep Standard - Chemical Standard Summary

Order ID : Q2651
Test : Cyanide,Percent Solids
Prepbatch ID : PB168925,
Sequence ID/Qc Batch ID: LB136552,

Standard ID :
WP112643,WP112826,WP112827,WP112900,WP113836,WP113837,WP113838,WP113991,WP113992,WP113993,WP113994,WP113995,WP113996,WP113997,WP113998,WP114000,

Chemical ID :
M6041,M6151,W2668,W3012,W3019,W3112,W3113,W3139,W3152,W3203,W3214,W3224,



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
539	CN BUFFER	WP112643	04/09/2025	10/09/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 04/09/2025
<u>FROM</u>	138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1714	Sulfuric Acid, 50% (v/v)	WP112826	04/25/2025	10/25/2025	Rubina Mughal	None	None	Iwona Zarych 04/25/2025
<u>FROM</u> 1000.00000ml of M6041 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3214	Magnesium Chloride For Cyanide 2.5M(51%W/V)	WP112827	04/25/2025	10/25/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 04/25/2025
<u>FROM</u> 500.00000ml of W3112 + 510.00000gram of W3152 = 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>
607	PYRIDINE-BARBITURIC ACID	WP112900	05/01/2025	08/18/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	Glass Pipette-A	Iwona Zarych 05/01/2025
<u>FROM</u>	145.00000ml of W3112 + 15.00000gram of W3203 + 15.00000ml of M6151 + 75.00000ml of W3019 = Final Quantity: 250.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
11	Sodium hydroxide absorbing solution 0.25 N	WP113836	07/08/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCS-7)	None	Iwona Zarych 07/08/2025
FROM 21.00000L of W3112 + 210.00000gram of W3113 = Final Quantity: 21.000 L								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3850	Cyanide MS-MSD spiking solution, 5PPM	WP113837	07/08/2025	11/30/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u>		(WC)						
1.00000ml of W3214 + 199.00000ml of WP113836 = Final Quantity: 200.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3371	Cyanide LCS Spike Solution, 5PPM	WP113838	07/08/2025	12/24/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3	Iwona Zarych

(WC)

FROM 1.00000ml of W3224 + 199.00000ml of WP113836 = Final Quantity: 200.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3456	Cyanide Intermediate Working Std, 5PPM	WP113991	07/21/2025	07/22/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3	Iwona Zarych

(WC)

FROM 0.25000ml of W3214 + 49.75000ml of WP113836 = Final Quantity: 50.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4	Calibration standard 500 ppb	WP113992	07/21/2025	07/22/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 45.00000ml of WP113836 + 5.00000ml of WP113991 = 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>
3761	Calibration-CCV CN Standard 250 ppb	WP113993	07/21/2025	07/22/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 2.50000ml of WP113991 + 47.50000ml of WP113836 = 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>
7	Calibration Standard 50 ppb	WP113994	07/21/2025	07/22/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
FROM 0.50000ml of WP113991 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml 								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
8	Calibration Standard 10 ppb	WP113995	07/21/2025	07/22/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/22/2025
<u>FROM</u>	1.00000ml of WP113992 + 49.00000ml of WP113836 = Final Quantity: 50.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
9	Calibration Standard 5 ppb	WP113996	07/21/2025	07/22/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 0.50000ml of WP113992 + 49.50000ml of WP113836 = 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>
167	0 ppb CN calibration std	WP113997	07/21/2025	07/22/2025	Rubina Mughal	None	None	Iwona Zarych 07/22/2025
<u>FROM</u> 50.00000ml of WP113836 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
6	Calibration Standard 100 ppb	WP113998	07/21/2025	07/22/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
FROM 1.00000ml of WP113991 + 49.00000ml of WP113836 = Final Quantity: 50.000 ml 								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1582	Chloramine T solution, 0.014M	WP114000	07/21/2025	07/22/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych 07/22/2025
<u>FROM</u> 0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	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 #
PCI Scientific Supply, Inc.	J3818-5 / SODIUM PHOSPHATE, MONOBAS/HYD, CRYST, ACS, 2.5 KG	0000225799	12/03/2025	04/05/2021 / Alexander	02/10/2020 / apatel	W2668

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / lwona	07/03/2024 / lwona	W3112

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19510-7 / Sodium Hydroxide Pellets 12 Kg	23B1556310	12/31/2025	07/08/2024 / Iwona	07/08/2024 / Iwona	W3113

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

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 / Iwona	11/25/2024 / Iwona	W3152

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-BX0035-3 / Barbituric Acid, 100 gms	WXBFB3271V	05/16/2029	04/21/2025 / Iwona	04/21/2025 / Iwona	W3203

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	RC2543-4 / CYANIDE STD 1000PPM 4OZ	1505H73	11/30/2025	05/21/2025 / Iwona	05/21/2025 / Iwona	W3214

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	LC135457 / Cyanide Standard, 1000 PPM, Second Source	45060288	12/24/2025	07/07/2025 / Iwona	07/07/2025 / Iwona	W3224

W3019
rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

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

Certificate of Analysis

Product Name:

Pyridine - anhydrous, 99.8%

Product Number:

270970

Batch Number:

SHBQ2113

Brand:

SIAL

CAS Number:

110-86-1

MDL Number:

MFCD00011732

Formula:

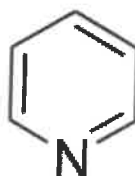
C₅H₅N

Formula Weight:

79.10 g/mol

Quality Release Date:

15 DEC 2022



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


Larry Coers, Director
Quality Control
Sheboygan Falls, WI US

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





R: 02/20/20
53

Instructions for QATS Reference Material: Inorganic ICV Solutions

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

ICV5-0415

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

ICV6-0400

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

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

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

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

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

W3011
W3012
W3013
W3014
W3015

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

avantor™



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

Certificate of Analysis

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

>>> Continued on page 2 >>>

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

 **avantor™**

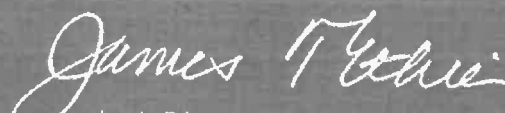


Material No.: 9673-33
Batch No.: 23D2462010

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

For Laboratory, Research, or Manufacturing Use

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


Jamie Ethier
Vice President Global Quality

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

 **avantor™**



M6151

R → 11/15/25

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

Certificate of Analysis

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

>>> Continued on page 2 >>>

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

 **avantorsm**



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

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

>>> Continued on page 3 >>>

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



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

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

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

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

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

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

(sodium dihydrogen phosphate, monohydrate)



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

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

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

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

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


Jamie Ethier
Vice President Global Quality

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



Certificate of Analysis



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

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

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.

W3139 Received on 9/9/24 by IZ

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

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

Order our products online thermofisher.com/chemicals

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

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

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.

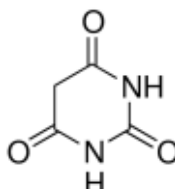
Bala Kumar
Quality Control Manager

Certificate of Analysis

Product Name:

Barbituric acid - ReagentPlus®, 99%

Product Number: 185698
Batch Number: WXBFB3271V
Brand: SIAL
CAS Number: 67-52-7
Formula: C₄H₄N₂O₃
Formula Weight: 128,09 g/mol
Quality Release Date: 16 MAY 2024



Test	Specification	Result
Appearance (Colour)	White to Off-White	White
Appearance (Form)	Powder	Powder
Infrared spectrum	Conforms to Structure	Conforms
Purity (Titration by NaOH)	98.5 - 101.5 %	100.4 %
GC (area %)	≥ 98 %	100 %
VPCT		



Kang Chen
Quality Manager
Wuxi, China CN

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

Cyanide Standard, 1000 ppm CN⁻

Lot Number: 1505H73

Product Number: 2543

Manufacture Date: MAY 08, 2025

Expiration Date: NOV 2025

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

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

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

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

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

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

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

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



Ernest Mahan (05/08/2025)
Plant Manager

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



Part of TCP Analytical Group

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

Certificate of Analysis

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

Product Code: **LC13545**

Manufacture Date: June 25, 2025

Lot Number: **45060288**

Expiration Date: December 24, 2025

Test	Specification	Result
Appearance (clarity)	clear solution	clear solution
Appearance (color)	colorless	colorless
Concentration (CN)	0.990 - 1.010mg/mL	1.000mg/mL
Concentration (CN)	990 - 1,010ppm	1,000ppm
Traceable to NIST SRM	Report	999b

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

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

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

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

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

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

Michael Monteleone

Michael Monteleone
Chemistry Supervisor - Quality Control
20250703 15:30:45ahoffman-0-0

ISO9001:2015 Registration #0306-01



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 7/21/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 07/18/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:25
Out Date: 07/19/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB136542

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
Q2637-05	SVOC-GPC-BLANK	1	1.00	1.00	2.00	2.00	100.0	
Q2637-06	PEST-GPC-BLANK	2	1.00	1.00	2.00	2.00	100.0	
Q2637-07	PEST-GPC-BLANK-SPIKE	3	1.00	1.00	2.00	2.00	100.0	
Q2637-10	SVOC-GPC2-BLANK	4	1.00	1.00	2.00	2.00	100.0	
Q2637-11	PEST-GPC2-BLANK	5	1.00	1.00	2.00	2.00	100.0	
Q2637-12	PEST-GPC2-BLANK-SPIKE	6	1.00	1.00	2.00	2.00	100.0	
Q2638-01	OU4-TS-31-071725	7	1.15	10.44	11.59	8.29	68.4	
Q2638-03	OU4-TS-32-071725	8	1.14	10.41	11.55	7.92	65.1	
Q2638-05	OU4-TS-33-071725	9	1.12	10.69	11.81	8.04	64.7	
Q2638-07	OU4-TS-34-071725	10	1.18	10.81	11.99	8.58	68.5	
Q2638-09	OU4-TS-35-071725	11	1.18	10.24	11.42	9.62	82.4	
Q2638-11	OU4-TS-36-071725	12	1.16	10.22	11.38	9.53	81.9	
Q2638-13	OU4-TS-37-071725	13	1.14	10.27	11.41	9.48	81.2	
Q2639-01	OU4-TS-38-071725	14	1.16	10.58	11.74	9.69	80.6	
Q2639-03	OU4-TS-39-071725	15	1.12	10.64	11.76	9.74	81.0	
Q2639-05	OU4-TS-40-071725	16	1.16	10.23	11.39	9.42	80.7	
Q2639-07	OU4-TS-41-071725	17	1.18	10.20	11.38	9.54	82.0	
Q2639-09	OU4-TS-42-071725	18	1.19	10.34	11.53	7.42	60.3	
Q2639-11	OU4-TS-43-071725	19	1.19	10.67	11.86	7.38	58.0	
Q2639-13	OU4-TS-44-071725	20	1.12	10.87	11.99	8.18	64.9	
Q2641-01	P001-CONCRETE001-01	21	1.00	1.00	2.00	2.00	100.0	Concreate sample
Q2645-02	RW5B-CARBON-20250716	22	1.17	10.52	11.69	8.39	68.6	
Q2648-01	A3	23	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2648-02	A4	24	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2648-03	B2	25	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2648-04	B3	26	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2648-05	B4	27	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2651-01	MH 2-1	28	1.18	10.67	11.85	11.26	94.5	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 7/21/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 07/18/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:25
Out Date: 07/19/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB136542

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
Q2651-02	MH 6-5	29	1.15	10.40	11.55	10.9	93.8	
Q2651-03	MH 7-6	30	1.12	10.20	11.32	10.7	93.9	
Q2651-04	MH 8-7	31	1.13	10.44	11.57	11.01	94.6	
Q2651-05	MH 9-8	32	1.13	10.27	11.4	10.67	92.9	

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

WORKLIST(Hardcopy Internal Chain)

W 136542

WorkList Name : %1-071825

WorkList ID : 190813

Department : Wet-Chemistry

Date : 07-18-2025 07:56:12

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2637-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	07/11/2025	Chemtech -SO
Q2637-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	07/11/2025	Chemtech -SO
Q2637-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	07/11/2025	Chemtech -SO
Q2637-10	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	07/11/2025	Chemtech -SO
Q2637-11	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	07/11/2025	Chemtech -SO
Q2637-12	PEST-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	07/11/2025	Chemtech -SO
Q2638-01	OU4-TS-31-071725	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	07/11/2025	Chemtech -SO
Q2638-03	OU4-TS-32-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O21	07/17/2025	Chemtech -SO
Q2638-05	OU4-TS-33-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O21	07/17/2025	Chemtech -SO
Q2638-07	OU4-TS-34-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O21	07/17/2025	Chemtech -SO
Q2638-09	OU4-TS-35-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O21	07/17/2025	Chemtech -SO
Q2638-11	OU4-TS-36-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O21	07/17/2025	Chemtech -SO
Q2638-13	OU4-TS-37-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O21	07/17/2025	Chemtech -SO
Q2639-01	OU4-TS-38-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O21	07/17/2025	Chemtech -SO
Q2639-03	OU4-TS-39-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O13	07/17/2025	Chemtech -SO
Q2639-05	OU4-TS-40-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O13	07/17/2025	Chemtech -SO
Q2639-07	OU4-TS-41-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O13	07/17/2025	Chemtech -SO
Q2639-09	OU4-TS-42-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O13	07/17/2025	Chemtech -SO
Q2639-11	OU4-TS-43-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O13	07/17/2025	Chemtech -SO
Q2639-13	OU4-TS-44-071725	Solid	Percent Solids	Cool 4 deg C	NOBI03	O13	07/17/2025	Chemtech -SO
Q2641-01	P001-CONCRETE001-01	Solid	Percent Solids	Cool 4 deg C	ROYF02	O22	07/16/2025	Chemtech -SO

Date/Time 07/18/25 15:00

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 07/18/25 17:35

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

VB 136542

WorkList Name : %1-071825

WorkList ID : 190813

Department : Wet-Chemistry

Date : 07-18-2025 07:56:12

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2645-02	RW5B-CARBON-20250716	Solid	Percent Solids	Cool 4 deg C	TETR06	O41	07/16/2025	Chemtech -SO
Q2648-01	A3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/18/2025	Chemtech -SO
Q2648-02	A4	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/18/2025	Chemtech -SO
Q2648-03	B2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/18/2025	Chemtech -SO
Q2648-04	B3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/18/2025	Chemtech -SO
Q2648-05	B4	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/18/2025	Chemtech -SO
Q2651-01	MH 2-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/18/2025	Chemtech -SO
Q2651-02	MH 6-5	Solid	Percent Solids	Cool 4 deg C	EARTH03	O22	07/17/2025	Chemtech -SO
Q2651-03	MH 7-6	Solid	Percent Solids	Cool 4 deg C	EARTH03	O22	07/17/2025	Chemtech -SO
Q2651-04	MH 8-7	Solid	Percent Solids	Cool 4 deg C	EARTH03	O22	07/17/2025	Chemtech -SO
Q2651-05	MH 9-8	Solid	Percent Solids	Cool 4 deg C	EARTH03	O22	07/17/2025	Chemtech -SO

Date/Time 07/18/25 15:00

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 07/18/25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]



SHIPPING DOCUMENTS

CLIENT INFORMATION

CLIENT PROJECT INFORMATION

CLIENT BILLING INFORMATION

REPORT TO BE SENT TO:

COMPANY: Earth Engineering Inc
ADDRESS: 403 Commerce Lane
CITY West Berlin STATE: NJ ZIP: 08091
ATTENTION: Frank Dougherty
PHONE: 856-768-1001 FAX:

PROJECT NAME: Leon Avenue
PROJECT NO.: 38642 LOCATION: NJ
PROJECT MANAGER: Frank Dougherty
e-mail: frankd@earthengineering.com
PHONE: FAX:

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

DATA TURNAROUND INFORMATION

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

*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

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

1. TCL+30/TAL
2. EPH
3.
4.
5.
6.
7.
8.
9.

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER	
1.	MH 2-1	So.1		X	7/17/25	9:20	2	X	X									
2.	MH 6-5			X		9:55	2	X	X									
3.	MH 7-6			X		10:30	2	X	X									
4.	MH 8-7			X		10:50	2	X	X									
5.	MH 9-8			X		11:30	2	X	X									
6.																		
7.																		
8.																		
9.																		
10.																		

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

RELINQUISHED BY SAMPLER: <u>[Signature]</u>	DATE/TIME: <u>7-18-2025</u>	RECEIVED BY: <u>[Signature]</u>	7/18/25	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☒ COOLER TEMP <u>1-8°C</u>
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:		Comments:
2.		2.		
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:		
3.		3.		

Page 1 of 1 CLIENT: ☐ Hand Delivered ☐ Other Shipment Complete ☐ YES ☐ NO

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2651 EARTH03

Order Date : 7/18/2025 2:29:11 PM

Project Mgr :

Client Name : Earth Engineering Inc.

Project Name : Leon Avenue 38648

Report Type : Level 1

Client Contact : Frank Dougherty, LSRP

Receive DateTime : 7/18/2025 1:40:00 PM

EDD Type : EXCEL NJCLEANUP

Invoice Name : Earth Engineering Inc.

Purchase Order :

Hard Copy Date :

Invoice Contact : Frank Dougherty, LSRP

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2651-01	MH 2-1	Solid	07/17/2025	09:20	VOC-TCLVOA-10	TCL+30/TAL	8260D	5 Bus. Days	
Q2651-02	MH 6-5	Solid	07/17/2025	09:55	VOC-TCLVOA-10	TCL+30/TAL	8260D	5 Bus. Days	
Q2651-03	MH 7-6	Solid	07/17/2025	10:30	VOC-TCLVOA-10	TCL+30/TAL	8260D	5 Bus. Days	
Q2651-04	MH 8-7	Solid	07/17/2025	10:50	VOC-TCLVOA-10	TCL+30/TAL	8260D	5 Bus. Days	
Q2651-05	MH 9-8	Solid	07/17/2025	11:30	VOC-TCLVOA-10	TCL+30/TAL	8260D	5 Bus. Days	

Relinquished By : 

Date / Time : 7/18/25 15:15

Received By : 

Date / Time : 07/18/25 15:15

Storage Area : VOA Refridgerator Room