

Cover Page

Order ID : Q1913

Project ID : Meeker Ave Plumes Superfund Site RI FS

Client : AECOM

Lab Sample Number

Q1913-01
Q1913-02
Q1913-03
Q1913-04

Client Sample Number

WC-12-S-202504
WC-12-A-202504
WC-13-S-202504
WC-13-A-202504

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 5/6/2025



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

CASE NARRATIVE

AECOM

Project Name: Meeker Ave Plumes Superfund Site RI FS

Project # N/A

Chemtech Project # Q1913

Test Name: pH,Flash Point,Reactive Cyanide,Reactive Sulfide

A. Number of Samples and Date of Receipt:

2 Solid samples were received on 04/29/2025.

2 Water samples were received on 04/29/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Flash Point, Paint Filter, PCB, pH, Reactive Cyanide, Reactive Sulfide, TCLP BNA, TCLP Extraction, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP Pesticide, TCLP VOA and TCLP ZHE Extraction. This data package contains results for pH,Flash Point,Reactive Cyanide,Reactive Sulfide.

C. Analytical Techniques:

The analysis of Flash Point was based on method 1010B, The analysis of Reactive Cyanide was based on method 9012B, The analysis of Reactive Sulfide was based on method 9034 and The analysis of pH was based on method 9040C.

D. QA/ QC Samples:

The Holding Times were met for all samples except for WC-12-A-202504 of pH, for WC-13-A-202504 of pH as samples were receive out of holding time.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers “P” for ICP instrument “PM” for ICP when Microwave Digestion is used “CV” for Manual Cold Vapor AA “AV” for automated Cold Vapor AA “CA” for MIDI-Distillation Spectrophotometric “AS” for Semi -Automated Spectrophotometric “C” for Manual Spectrophotometric “T” for Titrimetric “NR” for analyte not required to be analyzed
OR	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1913

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: MAHESH PATEL

Date: 05/06/2025

LAB CHRONICLE

OrderID:	Q1913	OrderDate:	4/29/2025 2:15:00 PM
Client:	AECOM	Project:	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	Location:	L21

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1913-01	WC-12-S-202504	SOIL			04/29/25 07:00			04/29/25
			Corrosivity	9045D			05/02/25 16:30	
			Ignitability	1030			05/05/25 09:35	
			Paint Filter	9095B			05/02/25 16:00	
			Reactive Cyanide	9012B		05/02/25	05/02/25 15:23	
			Reactive Sulfide	9034		05/02/25	05/02/25 15:36	
Q1913-02	WC-12-A-202504	Water			04/29/25 07:00			04/29/25
			Flash Point	1010B			05/01/25 10:15	
			pH	9040C			04/30/25 11:48	
			Reactive Cyanide	9012B		04/30/25	04/30/25 12:01	
			Reactive Sulfide	9034		05/01/25	05/01/25 11:38	
Q1913-03	WC-13-S-202504	SOIL			04/29/25 07:30			04/29/25
			Corrosivity	9045D			05/02/25 16:35	
			Ignitability	1030			05/05/25 09:50	
			Paint Filter	9095B			05/02/25 16:07	

LAB CHRONICLE

Q1913-04	WC-13-A-202504	Water	Reactive Cyanide	9012B	05/02/25	05/02/25 15:23	04/29/25 07:30	04/29/25
			Reactive Sulfide	9034	05/02/25	05/02/25 15:40		
			Flash Point	1010B		05/01/25 11:15		
			pH	9040C		04/30/25 12:00		
			Reactive Cyanide	9012B	04/30/25	04/30/25 12:01		
			Reactive Sulfide	9034	05/01/25	05/01/25 11:44		



SAMPLE DATA

Report of Analysis

Client:	AECOM	Date Collected:	04/29/25 07:00
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	04/29/25
Client Sample ID:	WC-12-S-202504	SDG No.:	Q1913
Lab Sample ID:	Q1913-01	Matrix:	SOIL
		% Solid:	80.5

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.22	H	1	0	0	pH		05/02/25 16:30	9045D
Ignitability	NO		1	0	0	oC		05/05/25 09:35	1030
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		05/02/25 16:00	9095B
Reactive Cyanide	0.010	J	1	0.0083	0.049	mg/Kg	05/02/25 13:20	05/02/25 15:23	9012B
Reactive Sulfide	3.16	J	1	0.20	10.0	mg/Kg	05/02/25 13:20	05/02/25 15:36	9034

Comments: pH result reported at temperature 22.1 °C

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:	AECOM	Date Collected:	04/29/25 07:00
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	04/29/25
Client Sample ID:	WC-12-A-202504	SDG No.:	Q1913
Lab Sample ID:	Q1913-02	Matrix:	Water
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Flash Point	>212		1	0	0	o F		05/01/25 10:15	1010B
pH	11.9	H	1	0	0	pH		04/30/25 11:48	9040C
Reactive Cyanide	0.00096	U	1	0.00096	0.0050	mg/L	04/30/25 08:50	04/30/25 12:01	9012B
Reactive Sulfide	0.43	U	1	0.43	1.00	mg/L	05/01/25 08:50	05/01/25 11:38	9034

Comments: Other method reference for flash point : Pensky-Martens Closed Cup Flash Point ASTM D 93 - IP 34, pH result reported at temperature

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:	AECOM	Date Collected:	04/29/25 07:30
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	04/29/25
Client Sample ID:	WC-13-S-202504	SDG No.:	Q1913
Lab Sample ID:	Q1913-03	Matrix:	SOIL
		% Solid:	83.3

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.05	H	1	0	0	pH		05/02/25 16:35	9045D
Ignitability	NO		1	0	0	oC		05/05/25 09:50	1030
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		05/02/25 16:07	9095B
Reactive Cyanide	0.011	J	1	0.0083	0.050	mg/Kg	05/02/25 13:20	05/02/25 15:23	9012B
Reactive Sulfide	1.59	J	1	0.20	10.0	mg/Kg	05/02/25 13:20	05/02/25 15:40	9034

Comments: pH result reported at temperature 22.4 °C

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:	AECOM	Date Collected:	04/29/25 07:30
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	04/29/25
Client Sample ID:	WC-13-A-202504	SDG No.:	Q1913
Lab Sample ID:	Q1913-04	Matrix:	Water
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Flash Point	>212		1	0	0	o F		05/01/25 11:15	1010B
pH	12.2	H	1	0	0	pH		04/30/25 12:00	9040C
Reactive Cyanide	0.00096	U	1	0.00096	0.0050	mg/L	04/30/25 08:50	04/30/25 12:01	9012B
Reactive Sulfide	0.48	J	1	0.43	1.00	mg/L	05/01/25 08:50	05/01/25 11:44	9034

Comments: Other method reference for flash point : Pensky-Martens Closed Cup Flash Point ASTM D 93 - IP 34, pH result reported at temperature

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



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

Initial and Continuing Calibration Verification

Client: AECOM

SDG No.: Q1913

Project: Meeker Ave Plumes Superfund Site RI FS

RunNo.: LB135606

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
pH		pH	7.01	7	100	90-110	04/30/2025
Sample ID:	CCV1						
pH		pH	2.01	2.00	101	90-110	04/30/2025
Sample ID:	CCV2						
pH		pH	12.02	12.00	100	90-110	04/30/2025

Initial and Continuing Calibration Verification

Client: AECOM

SDG No.: Q1913

Project: Meeker Ave Plumes Superfund Site RI FS

RunNo.: LB135608

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Reactive Cyanide	mg/L	0.092	0.099	93	85-115	04/30/2025
Sample ID: CCV1 Reactive Cyanide	mg/L	0.25	0.25	100	90-110	04/30/2025
Sample ID: CCV2 Reactive Cyanide	mg/L	0.23	0.25	92	90-110	04/30/2025
Sample ID: CCV3 Reactive Cyanide	mg/L	0.25	0.25	100	90-110	04/30/2025

Initial and Continuing Calibration Verification

Client: AECOM

SDG No.: Q1913

Project: Meeker Ave Plumes Superfund Site RI FS

RunNo.: LB135628

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Flash Point	o F	82.1	81	101	78-84	05/01/2025

Initial and Continuing Calibration Verification

Client: AECOM

SDG No.: Q1913

Project: Meeker Ave Plumes Superfund Site RI FS

RunNo.: LB135649

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
Corrosivity		pH	7.01	7	100	90-110	05/02/2025
Sample ID:	CCV1						
Corrosivity		pH	2.02	2.00	101	90-110	05/02/2025
Sample ID:	CCV2						
Corrosivity		pH	12.02	12.00	100	90-110	05/02/2025

Initial and Continuing Calibration Verification

Client: AECOM

SDG No.: Q1913

Project: Meeker Ave Plumes Superfund Site RI FS

RunNo.: LB135650

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Reactive Cyanide	mg/L	0.095	0.099	96	85-115	05/02/2025
Sample ID: CCV1 Reactive Cyanide	mg/L	0.24	0.25	96	90-110	05/02/2025
Sample ID: CCV2 Reactive Cyanide	mg/L	0.24	0.25	96	90-110	05/02/2025

Initial and Continuing Calibration Blank Summary

Client: AECOM

SDG No.: Q1913

Project: Meeker Ave Plumes Superfund Site RI FS

RunNo.: LB135608

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	04/30/2025
Sample ID: CCB1 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	04/30/2025
Sample ID: CCB2 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	04/30/2025
Sample ID: CCB3 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	04/30/2025

Initial and Continuing Calibration Blank Summary

Client: AECOM

SDG No.: Q1913

Project: Meeker Ave Plumes Superfund Site RI FS

RunNo.: LB135650

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Reactive Cyanide	mg/L	0.0016	0.0025	J	0.00096	0.005	05/02/2025
Sample ID: CCB1 Reactive Cyanide	mg/L	0.0013	0.0025	J	0.00096	0.005	05/02/2025
Sample ID: CCB2 Reactive Cyanide	mg/L	0.00098	0.0025	J	0.00096	0.005	05/02/2025

Preparation Blank Summary

Client: AECOM

SDG No.: Q1913

Project: Meeker Ave Plumes Superfund Site RI FS

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB167802BL Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	04/30/2025
Sample ID: PB167824BL Reactive Sulfide	mg/L	< 0.5000	0.5000	U	0.43	1	05/01/2025
Sample ID: PB167843BL Reactive Cyanide	mg/Kg	0.011	0.0250	J	0.0084	0.05	05/02/2025
Sample ID: PB167850BL Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.201	10	05/02/2025

Duplicate Sample Summary

Client: AECOM	SDG No.: Q1913
Project: Meeker Ave Plumes Superfund Site RI FS	Sample ID: Q1913-01
Client ID: WC-12-S-202504DUP	Percent Solids for Spike Sample: 80.5

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Ignitability	oC	+/-20	NO		NO		1	0		05/05/2025
Reactive Cyanide	mg/Kg	+/-20	0.010	J	0.011	J	1	10		05/02/2025
Reactive Sulfide	mg/Kg	+/-20	3.16	J	3.16	J	1	0		05/02/2025

Duplicate Sample Summary

Client: AECOM Project: Meeker Ave Plumes Superfund Site RI FS Client ID: WC-12-A-202504DUP	SDG No.: Q1913 Sample ID: Q1913-02 Percent Solids for Spike Sample: 0
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Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Reactive Cyanide	mg/L	+/-20	0.00096	U	0.00096	U	1	0		04/30/2025
Flash Point	o F	+/-2	>212.0		>212.0		1	0		05/01/2025
Reactive Sulfide	mg/L	+/-20	0.43	U	0.43	U	1	0		05/01/2025

Duplicate Sample Summary

Client: AECOM	SDG No.: Q1913
Project: Meeker Ave Plumes Superfund Site RI FS	Sample ID: Q1913-04
Client ID: WC-13-A-202504DUP	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
pH	pH	+/-20	12.2		12.2		1	0.08		04/30/2025

Duplicate Sample Summary

Client: AECOM	SDG No.: Q1913
Project: Meeker Ave Plumes Superfund Site RI FS	Sample ID: Q1952-01
Client ID: CLEAN-FILLDUP	Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Paint Filter	ml/100gm	+/-20	1.00	U	1.00	U	1	0		05/02/2025

Duplicate Sample Summary

Client: AECOM Project: Meeker Ave Plumes Superfund Site RI FS Client ID: LAW-25-0066DUP	SDG No.: Q1913 Sample ID: Q1955-01 Percent Solids for Spike Sample: 100
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Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Corrosivity	pH	+/-20	5.75		5.76		1	0.17		05/02/2025



Client: AECOM

SDG No.: Q1913

Project:

Run No.:

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID								



RAW DATA

Analytical Summary Report

Analysis Method: 9040C

Analyst By : jignesh

Parameter: pH

Supervisor Review By : Iwona

Run Number: LB135606

Slope : 98.4

pH Meter ID : WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3178
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER,COLOR CD 475ML	W3191
buffer solution pH 7 yellow	W3071
Buffer Solution, PH2 (500ml)	W3161
Buffer Solution, PH12 (500ml)	W3072

True Value of ICV = 7.00 Control Limits[+/- 0.1].

True Value of CCV1 = 2.00 Control Limits[+/- 0.1].

True Value of CCV2 = 12.00 Control Limits[+/- 0.1].

Seq	LabID	DF	Matrix	Weight (gm)	Volume (ml)	Temperature (°C)	Result (pH)	Anal Date	Anal Time
1	CAL1	1	Water	NA	NA	20.2	4.01	04/30/2025	11:25
2	CAL2	1	Water	NA	NA	20.2	6.99	04/30/2025	11:26
3	CAL3	1	Water	NA	NA	20.3	10.02	04/30/2025	11:28
4	ICV	1	Water	NA	NA	20.2	7.01	04/30/2025	11:30
5	CCV1	1	Water	NA	NA	20.3	2.01	04/30/2025	11:32
6	Q1913-02	1	Water	NA	NA	20.4	11.91	04/30/2025	11:48
7	Q1913-04	1	Water	NA	NA	20.1	12.19	04/30/2025	12:00
8	Q1913-04DUP	1	Water	NA	NA	20.2	12.20	04/30/2025	12:01
9	CCV2	1	Water	NA	NA	20.2	12.02	04/30/2025	12:05

WORKLIST(Hardcopy Internal Chain)

135606

WorkList Name : PH Q1913 W WorkList ID : 189232 Department : Wet-Chemistry Date : 04-30-2025 11:04:06

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-02	WC-12-A-202504	Water	pH	Cool 4 deg C	AECO02	L21	04/29/2025	9040C
Q1913-04	WC-13-A-202504	Water	pH	Cool 4 deg C	AECO02	L21	04/29/2025	9040C

Date/Time 04/30/25 11:15
 Raw Sample Received by: SB (wpc)
 Raw Sample Relinquished by: JDCSM

Date/Time 04/30/25 -13130
 Raw Sample Received by: JDCSM
 Raw Sample Relinquished by: SB (wpc)

Analytical Summary Report

Analysis Method: 1010B
Parameter: Flash Point
Run Number: LB135628
Thermometer ID: Flashpoint

Reviewed By: Iwona
Supervisor Review By: jignesh
Ambient Barometric Pressure (mmHg): 765.00
Barometric Scale ID: 0511064

Reagent/Standard	Lot/Log #
p-xylene (ICV)	W3193

Seq	LabID	True Value °F	DL	Initial Sample °C	Celsius °C	Result °F	Final Result °F	Anal Date	Anal Time
1	ICV	81	1	8	28.00	82.4	82.1	05/01/2025	09:45
2	Q1913-02		1	12	100.00	>212.0	>212.0	05/01/2025	10:15
3	Q1913-02DUP		1	13	100.00	>212.0	>212.0	05/01/2025	10:45
4	Q1913-04		1	14	100.00	>212.0	>212.0	05/01/2025	11:15
5	Q1919-05		1	12	100.00	>212.0	>212.0	05/01/2025	11:45
6	Q1919-08		1	13	100.00	>212.0	>212.0	05/01/2025	12:15
7	Q1925-04		1	12	100.00	>212.0	>212.0	05/01/2025	12:45
8	Q1925-05		1	13	100.00	>212.0	>212.0	05/01/2025	13:15
9	Q1926-01		1	12	100.00	>212.0	>212.0	05/01/2025	13:45

Result = (Celsius * 1.8) + 32

Final Result = Result + (760 - Ambient Barometric Pressure) * 0.06

15135628

WORKLIST(Hardcopy Internal Chain)

WorkList Name : fp 5-1

WorkList ID : 189265

Department : Wet-Chemistry

Date : 05-01-2025 09:18:12

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-02	WC-12-A-202504	Water	Flash Point	Cool 4 deg C	AECO02	L21	04/29/2025	1010B
Q1913-04	WC-13-A-202504	Water	Flash Point	Cool 4 deg C	AECO02	L21	04/29/2025	1010B
Q1919-05	0423	Water	Flash Point	Cool 4 deg C	PSEG03	L41	04/30/2025	1010B
Q1919-08	0428	Water	Flash Point	Cool 4 deg C	PSEG03	L41	04/30/2025	1010B
Q1925-04	AUD-25-0072	Water	Flash Point	Cool 4 deg C	PSEG03	L31	04/30/2025	1010B
Q1925-05	AUD-25-0073	Water	Flash Point	Cool 4 deg C	PSEG03	L31	04/30/2025	1010B
Q1926-01	TRE-1104	Water	Flash Point	Cool 4 deg C	PSEG03	L31	04/30/2025	1010B

Date/Time

Raw Sample Received by:

Raw Sample Relinquished by:

Date/Time

Raw Sample Received by:

Raw Sample Relinquished by:

Analysis Method: 9034

Parameter: Reactive Sulfide

Run Number: LB135630

ANALYST: rubina

SUPERVISOR REVIEW BY: Iwona

Constant: 16000

Normality1: 0.025

Normality2: 0.025

Reagent/Standard	Lot/Log #
SODIUM THIOSULFATE, 0.025N, 4LITRE	W3105
IODINE SOLUTION .025N 1L	W3114
Starch Solution, 4L	W3149

Seq	Lab ID	True Value (mg/l)	DF	Initial Volume (mL)	Final Volume (ml)	T1 (ml)	T2 Initial	T2 Final	T2 Diff. (ml)	T1 - T2 Diff (mL)	Value Corrected With Blank	Result (ppm)	Anal Date	Anal Time
1	PB167824BL		1	50	50	2.00	0.00	1.92	1.92	0.08	0.00	0.00	05/01/2025	11:35
2	Q1913-02		1	50	50	2.00	0.00	1.90	1.90	0.10	0.02	0.16	05/01/2025	11:38
3	Q1913-02DUP		1	50	50	2.00	0.00	1.90	1.90	0.10	0.02	0.16	05/01/2025	11:41
4	Q1913-04		1	50	50	2.00	0.00	1.86	1.86	0.14	0.06	0.48	05/01/2025	11:44

T1 = Titrant1

T2 = Titrant2

T2 Diff = T2 Final - T2 Initial

Value Corrected With Blank = ((T1 - T2 Diff) - Blank Correction(BL))

Result = ((T1 * Normality1) - ((T1 - Value Corrected With Blank) * Normality2)) * Constant / Initial Volume

Analytical Summary Report

Analysis Method: 1030
Parameter: Ignitability
Run Number: LB135641

Reviewed By: Iwona

Supervisor Review By: jignesh

Seq	LabID	ClientID	DF	matrix	Result Status	Burning Rate	Anal Date	Anal Time
1	Q1913-01	WC-12-S-202504	1	Solid	NO	0.00	05/05/2025	09:35
2	Q1913-01DUP	WC-12-S-202504DUP	1	Solid	NO	0.00	05/05/2025	09:42
3	Q1913-03	WC-13-S-202504	1	Solid	NO	0.00	05/05/2025	09:50
4	Q1928-01	MH-Q	1	Solid	NO	0.00	05/05/2025	09:58
5	Q1928-04	MH-Q	1	Solid	NO	0.00	05/05/2025	10:05
6	Q1929-03	WC-A4-02-C	1	Solid	NO	0.00	05/05/2025	10:13
7	Q1929-07	WC-A1-03-C	1	Solid	NO	0.00	05/05/2025	10:20
8	Q1929-11	WC-A1-04-C	1	Solid	NO	0.00	05/05/2025	10:27
9	Q1932-01	COMP-4	1	Solid	NO	0.00	05/05/2025	10:35
10	Q1932-02	COMP-4	1	Solid	NO	0.00	05/05/2025	10:42
11	Q1932-03	COMP-5	1	Solid	NO	0.00	05/05/2025	10:50
12	Q1932-04	COMP-5	1	Solid	NO	0.00	05/05/2025	10:58
13	Q1932-05	COMP-6	1	Solid	NO	0.00	05/05/2025	11:05
14	Q1932-06	COMP-6	1	Solid	NO	0.00	05/05/2025	11:12
15	Q1932-07	COMP-7	1	Solid	NO	0.00	05/05/2025	11:20
16	Q1932-08	COMP-7	1	Solid	NO	0.00	05/05/2025	11:28
17	Q1935-01	MH-NN	1	Solid	NO	0.00	05/05/2025	11:35
18	Q1935-04	MH-NN	1	Solid	NO	0.00	05/05/2025	11:42
19	Q1935-05	MH-MM	1	Solid	NO	0.00	05/05/2025	11:50
20	Q1935-08	MH-MM	1	Solid	NO	0.00	05/05/2025	11:57

$$\text{Burning Rate} = \frac{\text{Length (mm)}}{\text{Total Time (sec)}}$$

WORKLIST(Hardcopy Internal Chain)

WorkList Name : ign5-2

WorkList ID : 189277

Department : Wet-Chemistry

Date : 05-02-2025 09:22:23

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-01	WC-12-S-202504	Solid	Ignitability	Cool 4 deg C	AECO02	L21	04/29/2025	1030
Q1913-03	WC-13-S-202504	Solid	Ignitability	Cool 4 deg C	AECO02	L21	04/29/2025	1030
Q1928-01	MH-Q	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1928-04	MH-Q	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1929-03	WC-A4-02-C	Solid	Ignitability	Cool 4 deg C	ENTA05	L41	04/29/2025	1030
Q1929-07	WC-A4-03-C	Solid	Ignitability	Cool 4 deg C	ENTA05	L41	04/30/2025	1030
Q1929-11	WC-A4-04-C	Solid	Ignitability	Cool 4 deg C	ENTA05	L41	04/30/2025	1030
Q1932-01	COMP-4	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1932-02	COMP-4	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1932-03	COMP-5	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1932-04	COMP-5	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1932-05	COMP-6	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1932-06	COMP-6	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1932-07	COMP-7	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1932-08	COMP-7	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1935-01	MH-NN	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1935-04	MH-NN	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1935-05	MH-MM	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030
Q1935-08	MH-MM	Solid	Ignitability	Cool 4 deg C	PSEG03	L41	05/01/2025	1030

Date/Time 05/05/25 09:25
 Raw Sample Received by: 12(5C)
 Raw Sample Relinquished by: 12(5C)

Date/Time 05/05/28 12:10
 Raw Sample Received by: 12(5C)
 Raw Sample Relinquished by: 12(5C)

Analytical Summary Report

Analysis Method: 9045D

Analyst By : jignesh

Parameter: Corrosivity

Supervisor Review By : Iwona

Run Number: LB135649

Slope : 99.2

BalanceID: WC SC-7

pH Meter ID : WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3178
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER, COLOR CD 475ML	W3191
buffer solution pH 7 yellow	W3071
Buffer Solution, PH2 (500ml)	W3161
Buffer Solution, PH12 (500ml)	W3072

True Value of ICV = 7.00 Control Limits[+/- 0.1].

True Value of CCV1 = 2.00 Control Limits[+/- 0.1].

True Value of CCV2 = 12.00 Control Limits[+/- 0.1].

Seq	LabID	DF	Matrix	Weight (gm)	Volume (ml)	Temperature (°C)	Result (pH)	Anal Date	Anal Time
1	CAL1	1	Water	NA	NA	20.2	4.01	05/02/2025	15:26
2	CAL2	1	Water	NA	NA	20.2	7.00	05/02/2025	15:26
3	CAL3	1	Water	NA	NA	20.2	10.02	05/02/2025	15:30
4	ICV	1	Water	NA	NA	20.3	7.01	05/02/2025	15:35
5	CCV1	1	Water	NA	NA	20.2	2.02	05/02/2025	16:25
6	Q1913-01	1	Solid	20.02	20	22.1	8.22	05/02/2025	16:30
7	Q1913-03	1	Solid	20.03	20	22.4	8.05	05/02/2025	16:35
8	Q1947-04	1	Solid	20.02	20	24.1	5.35	05/02/2025	16:40
9	Q1947-08	1	Solid	20.03	20	24.3	6.11	05/02/2025	16:45
10	Q1951-04	1	Solid	20.02	20	24.2	5.92	05/02/2025	16:55
11	Q1955-01	1	Solid	20.03	20	24.7	5.75	05/02/2025	17:00
12	Q1955-01DUP	1	Solid	20.04	20	24.8	5.76	05/02/2025	17:02
13	CCV2	1	Water	NA	NA	20.3	12.02	05/02/2025	17:05

WP 135649

WORKLIST(Hardcopy Internal Chain)

WorkList Name : corrsivity q1955 WorkList ID : 189290 Department : Wet-Chemistry Date : 05-02-2025 15:14:22

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-01	WC-12-S-202504	Solid	Corrosivity	Cool 4 deg C	AECO02	L21	04/29/2025	9045D
Q1913-03	WC-13-S-202504	Solid	Corrosivity	Cool 4 deg C	AECO02	L21	04/29/2025	9045D
Q1947-04	MH-P	Solid	Corrosivity	Cool 4 deg C	PSEG03	L41	05/02/2025	9045D
Q1947-08	MH-O	Solid	Corrosivity	Cool 4 deg C	PSEG03	L41	05/02/2025	9045D
Q1951-04	MH-KK	Solid	Corrosivity	Cool 4 deg C	PSEG03	L31	05/02/2025	9045D
Q1955-01	LAW-25-0066	Solid	Corrosivity	Cool 4 deg C	PSEG03	L41	05/02/2025	9045D

Date/Time 05/02/25 15:00
Raw Sample Received by: Seully
Raw Sample Relinquished by: gab.mct.dig

Date/Time 05/02/25 17:30
Raw Sample Received by: Sids.mct.dig
Raw Sample Relinquished by: Jed aca

Lb1356

Test results

Aquakem 7.2AQ1

Page: 1

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

Reviewed by : RM

Instrument ID : Konelab

5/2/2025 15:40

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	95.296	0.0	0.063	
ICB1	1.603	0.0	0.002	
CCV1	237.603	0.0	0.156	
CCB1	1.315	0.0	0.001	
PB167843BL	1.135	0.0	0.001	
Q1613-01	1.034	0.0	0.001	
Q1913-01DUP	1.085	0.0	0.001	
Q1913-03	1.093	0.0	0.001	
Q1947-04	0.952	0.0	0.001	
Q1947-08	1.389	0.0	0.001	
Q1951-04	1.030	0.0	0.001	
CCV2	242.232	0.0	0.159	
CCB2	0.978	0.0	0.001	

N	13
Mean	45.134
SD	90.2517
CV%	199.96

Aquakem v. 7.2AQ1

Results from time period:

Fri May 02 15:15:44 2025

Fri May 02 15:29:37 2025

Sample Id	Sam/Ctr/c	Test short r	Test type	Result	Result unit	Result date and time Stat
0.0PPBCN	A	Total CN	P	0.4379	µg/l	5/2/2025 8:59:08
5.0PPBCN	A	Total CN	P	4.7665	µg/l	5/2/2025 8:59:09
10PPBCN	A	Total CN	P	9.562	µg/l	5/2/2025 8:59:10
50PPBCN	A	Total CN	P	48.7974	µg/l	5/2/2025 8:59:11
100PPBCN	A	Total CN	P	103.275	µg/l	5/2/2025 8:59:12
250PPBCN	A	Total CN	P	247.3698	µg/l	5/2/2025 8:59:13
500PPBCN	A	Total CN	P	500.7915	µg/l	5/2/2025 8:59:14
ICV1	S	Total CN	P	95.2957	µg/l	5/2/2025 15:15:44
ICB1	S	Total CN	P	1.6027	µg/l	5/2/2025 15:15:46
CCV1	S	Total CN	P	237.6033	µg/l	5/2/2025 15:15:49
CCB1	S	Total CN	P	1.3147	µg/l	5/2/2025 15:15:51
PB167843BL	S	Total CN	P	1.1351	µg/l	5/2/2025 15:15:52
Q1613-01	S	Total CN	P	1.0343	µg/l	5/2/2025 15:23:21
Q1913-01DUP	S	Total CN	P	1.0848	µg/l	5/2/2025 15:23:22
Q1913-03	S	Total CN	P	1.0925	µg/l	5/2/2025 15:23:24
Q1947-04	S	Total CN	P	0.9519	µg/l	5/2/2025 15:23:25
Q1947-08	S	Total CN	P	1.3891	µg/l	5/2/2025 15:23:26
Q1951-04	S	Total CN	P	1.03	µg/l	5/2/2025 15:23:27
CCV2	S	Total CN	P	242.2315	µg/l	5/2/2025 15:29:35
CCB2	S	Total CN	P	0.9776	µg/l	5/2/2025 15:29:37

Calibration results

Aquakem 7.2AQ1

Page: 1

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

Reviewed by : RM

Instrument ID : Konelab

5/2/2025 9:00

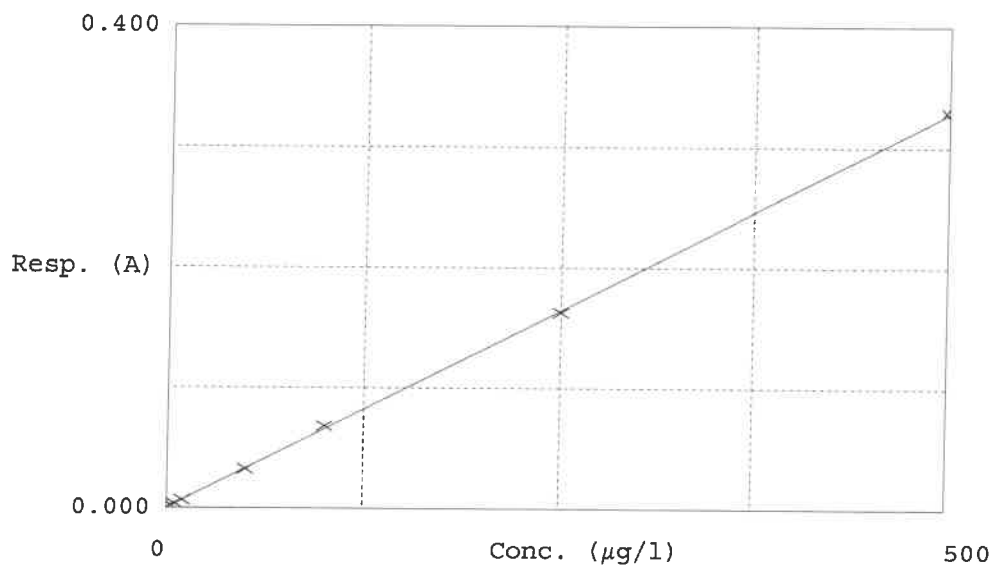
Test Total CN

Accepted 5/2/2025 9:00

Factor 1524
Bias 0

Coeff. of det. 0.999902

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.0PPBCN	0.001	0.4379	0.0000	-4.7
2	5.0PPBCN	0.004	4.7665	5.0000	-4.4
3	10PPBCN	0.007	9.5620	10.0000	-2.4
4	50PPBCN	0.033	48.7974	50.0000	3.3
5	100PPBCN	0.068	103.2750	100.0000	-1.1
6	250PPBCN	0.163	247.3698	250.0000	0.2
7	500PPBCN	0.329	500.7915	500.0000	

05/02/2025
RM

Analysis Method: 9034

Parameter: Reactive Sulfide

Run Number: LB135656

ANALYST: rubina

SUPERVISOR REVIEW BY: Iwona

Constant: 16000

Normality1: 0.025

Normality2: 0.025

Reagent/Standard	Lot/Log #
SODIUM THIOSULFATE, 0.025N, 4LITRE	W3105
IODINE SOLUTION .025N 1L	W3114
Starch Solution, 4L	W3149

Seq	Lab ID	True Value (mg/l)	DF	Initial Weight (g)	Final Volume (ml)	T1 (ml)	T2 Initial	T2 Final	T2 Diff. (ml)	T1 - T2 Diff (mL)	Value Corrected With Blank	Result (ppm)	Anal Date	Anal Time
1	PB167850BL		1	5.00	50	2.00	0.00	1.92	1.92	0.08	0.00	0.00	05/02/2025	15:33
2	Q1913-01		1	5.07	50	2.00	0.00	1.88	1.88	0.12	0.04	3.16	05/02/2025	15:36
3	Q1913-01DUP		1	5.07	50	2.00	0.00	1.88	1.88	0.12	0.04	3.16	05/02/2025	15:38
4	Q1913-03		1	5.03	50	2.00	0.00	1.90	1.90	0.10	0.02	1.59	05/02/2025	15:40
5	Q1947-04		1	5.01	50	2.00	0.00	1.90	1.90	0.10	0.02	1.60	05/02/2025	15:43
6	Q1947-08		1	5.04	50	2.00	0.00	1.90	1.90	0.10	0.02	1.59	05/02/2025	15:45
7	Q1951-04		1	5.01	50	2.00	0.00	1.86	1.86	0.14	0.06	4.79	05/02/2025	15:48

T1 = Titrant1

T2 = Titrant2

T2 Diff = T2 Final - T2 Initial

Value Corrected With Blank = ((T1 - T2 Diff) - Blank Correction(BL))

Result = ((T1 * Normality1) - ((T1 - Value Corrected With Blank) * Normality2)) * Constant / Initial Volume

Analytical Summary Report

Analysis Method: 9095B
Parameter: Paint Filter
Run Number: LB135659

Reviewed By: rubina
Supervisor Review By: Iwona
BalanceID: WC SC-7

Seq	LabID	ClientID	Dilution	Weight (g)	Inst. Conc (ml/100g)	Anal Date	Anal Time
1	Q1913-01	WC-12-S-202504	1	100.02	0.00	05/02/2025	16:00
2	Q1913-03	WC-13-S-202504	1	100.05	0.00	05/02/2025	16:07
3	Q1946-01	BB-CONCRETE	1	100.03	0.00	05/02/2025	16:15
4	Q1947-01	MH-P	1	100.07	0.00	05/02/2025	16:22
5	Q1947-05	MH-O	1	100.02	0.00	05/02/2025	16:30
6	Q1951-01	MH-KK	1	100.04	0.00	05/02/2025	16:38
7	Q1952-01	CLEAN-FILL	1	100.04	0.00	05/02/2025	16:45
8	Q1952-01DUP	CLEAN-FILLDUP	1	100.04	0.00	05/02/2025	16:52

WORKLIST(Hardcopy Internal Chain)

66135659

WorkList Name : 5-02

WorkList ID : 189307

Department : Wet-Chemistry

Date : 05-02-2025 14:43:12

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-01	WC-12-S-202504	Solid	Paint Filter	Cool 4 deg C	AECO02	L21	04/29/2025	9095B
Q1913-03	WC-13-S-202504	Solid	Paint Filter	Cool 4 deg C	AECO02	L21	04/29/2025	9095B
Q1946-01	BB-CONCRETE	Solid	Paint Filter	Cool 4 deg C	PSEG03	L41	05/02/2025	9095B
Q1947-01	MH-P	Solid	Paint Filter	Cool 4 deg C	PSEG03	L41	05/02/2025	9095B
Q1947-05	MH-O	Solid	Paint Filter	Cool 4 deg C	PSEG03	L41	05/02/2025	9095B
Q1951-01	MH-KK	Solid	Paint Filter	Cool 4 deg C	PSEG03	L31	05/02/2025	9095B
Q1952-01	CLEAN-FILL	Solid	Paint Filter	Cool 4 deg C	PSEG03	L21	05/02/2025	9095B

Date/Time 05/02/2025 15:50
 Raw Sample Received by: Rm CWG
 Raw Sample Relinquished by: JALCOG

Date/Time 05/02/2025 17:10
 Raw Sample Received by: JALCOG
 Raw Sample Relinquished by: Rm CWG

SOP ID : M9010C-Total, Amenable and Reactive Cyanide-19

SDG No : N/A

Start Digest Date: 04/30/2025 Time : 08:50 Temp : N/A

Matrix : WATER

End Digest Date: 04/30/2025 Time : 10:20 Temp : N/A

Pipette ID : N/A

Balance ID : N/A

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : N/A

Block ID : MC-1, MC-2

Filter paper ID : N/A

Prep Technician Signature: RM

Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature: Z

Standardized Name	MLS USED	STD REF. # FROM LOG
PBW	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50.0ML	WP111294
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
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Comment

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
04/30/2025 10:35	RM (wc)	RM (wc)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB167802BL	PBW802	50	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-02DUP	WC-12-A-202504DUP	50	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-02	WC-12-A-202504	50	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-04	WC-13-A-202504	50	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : rcn w-4-30

WorkList ID : 189230

Department : Distillation

Date : 04-30-2025 08:14:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-02	WC-12-A-202504	Water	Reactive Cyanide	Cool 4 deg C	AECO02	L21	04/29/2025	9012B
Q1913-04	WC-13-A-202504	Water	Reactive Cyanide	Cool 4 deg C	AECO02	L21	04/29/2025	9012B

Date/Time 04/30/2025 08:20
 Raw Sample Received by: RMW
 Raw Sample Relinquished by: RMW

Date/Time 04/30/2025 10:49
 Raw Sample Received by: SPC
 Raw Sample Relinquished by: RMW

SOP ID : M9030B-Sulfide-12

SDG No : N/A

Matrix : WATER

Pippete ID : WC

Balance ID : N/A

Hood ID : HOOD#1

Block ID : MC-1,MC-2

Weigh By : N/A

Start Digest Date: 05/01/2025 Time : 08:50 Temp : N/A

End Digest Date: 05/01/2025 Time : 10:20 Temp : N/A

Digestion tube ID : M5595

Block Thermometer ID : N/A

Filter paper ID : N/A

Prep Technician Signature: RM

pH Meter ID : N/A

Supervisor Signature:

Standardized Name	MLS USED	STD REF. # FROM LOG
PBW	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.5M ZINC ACETATE	5.0ML	WP111004
FORMALDEHYDE	2.0ML	W2725
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

N/A

05/01/2025 RM

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

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB167824BL	PBW824	50	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-02DUP	WC-12-A-202504DUP	50	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-02	WC-12-A-202504	50	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-04	WC-13-A-202504	50	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : RSUL-W 5-01

WorkList ID : 189256

Department : Distillation

Date : 05-01-2025 08:16:38

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-02	WC-12-A-202504	Water	Reactive Sulfide	Cool 4 deg C	AECO02	L21	04/29/2025	9034
Q1913-04	WC-13-A-202504	Water	Reactive Sulfide	Cool 4 deg C	AECO02	L21	04/29/2025	9034

Date/Time 05/01/2025 08:30
 Raw Sample Received by: RM CWL
 Raw Sample Relinquished by: RM CWL

Date/Time 05/01/2025 10:10
 Raw Sample Received by: RM CWL
 Raw Sample Relinquished by: RM CWL

SOP ID : M9012B-Total, Amenable and Reactive Cyanide-20

SDG No : N/A

Start Digest Date: 05/02/2025 **Time :** 13:20 **Temp :** N/A

Matrix : SOIL

End Digest Date: 05/02/2025 **Time :** 14:50 **Temp :** N/A

Pippete ID : N/A

Balance ID : WC SC-7

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : N/A

Block ID : MC-1, MC-2

Filter paper ID : N/A

Prep Technician Signature: *RM*

Weigh By : RM

pH Meter ID : N/A

Supervisor Signature: *JP*

Standardized Name	MLS USED	STD REF. # FROM LOG
PBS003	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50.0ML	WP111294
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
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Comment

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
05/02/2025 15:00	RM awc	RM awc
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/Nitrite	Comment	Prep Pos
PB167843BL	PBS843	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-01DUP	WC-12-S-202504DUP	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-01	WC-12-S-202504	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-03	WC-13-S-202504	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1947-04	MH-P	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1947-08	MH-O	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1951-04	MH-KK	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A

2

WORKLIST(Hardcopy Internal Chain)

WorkList Name : RCN-05-02

WorkList ID : 189288

Department : Distillation

Date : 05-02-2025 12:50:16

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-01	WC-12-S-202504	Solid	Reactive Cyanide	Cool 4 deg C	AECO02	L21	04/29/2025	9012B
Q1913-03	WC-13-S-202504	Solid	Reactive Cyanide	Cool 4 deg C	AECO02	L21	04/29/2025	9012B
Q1947-04	MH-P	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	L41	05/02/2025	9012B
Q1947-08	MH-O	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	L41	05/02/2025	9012B
Q1951-04	MH-KK	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	L31	05/02/2025	9012B

Date/Time 05/02/2025 13:00
 Raw Sample Received by: RM CWY
 Raw Sample Relinquished by: RM CWY

Date/Time 05/02/2025 13:40
 Raw Sample Received by: RM CWY
 Raw Sample Relinquished by: RM CWY

SOP ID : M9030B-Sulfide-12

SDG No : N/A

Matrix : SOIL

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#1

Block ID : MC-1, MC-2

Weigh By : RM

Start Digest Date: 05/02/2025 Time : 13:20 Temp : N/A

End Digest Date: 05/02/2025 Time : 14:50 Temp : N/A

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : N/A

Prep Technician Signature: *RM*

Supervisor Signature: *SR*

Standard Name	MLS USED	STD REF. # FROM LOG
PBS003	50.0ML	W3112
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

Chemical Used	ML/SAMPLE USED	Lot Number
0.5M ZINC ACETATE	5.0ML	WP111004
FORMALDEHYDE	2.0ML	W2725
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
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

05/02/2025 *RM*

N/A

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

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB167850BL	PBS850	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-01DUP	WC-12-S-202504DUP	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-01	WC-12-S-202504	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1913-03	WC-13-S-202504	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1947-04	MH-P	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1947-08	MH-O	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1951-04	MH-KK	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : rsul-05-02

WorkList ID : 189296

Department : Distillation

Date : 05-02-2025 12:52:14

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-01	WC-12-S-202504	Solid	Reactive Sulfide	Cool 4 deg C	AECO02	L21	04/29/2025	9034
Q1913-03	WC-13-S-202504	Solid	Reactive Sulfide	Cool 4 deg C	AECO02	L21	04/29/2025	9034
Q1947-04	MH-P	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	L41	05/02/2025	9034
Q1947-08	MH-O	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	L41	05/02/2025	9034
Q1951-04	MH-KK	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	L31	05/02/2025	9034

Date/Time 05/02/2025 13:40
 Raw Sample Received by: RM CWC
 Raw Sample Relinquished by: Muelly

Date/Time 05/02/2025 13:40
 Raw Sample Received by: RM CWC
 Raw Sample Relinquished by: RM CWC

Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB135606

Review By	jignesh	Review On	4/30/2025 11:44:14 AM
Supervise By	Iwona	Supervise On	4/30/2025 1:24:48 PM
SubDirectory	LB135606	Test	pH
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	W3178,W3093,W3191,W3071,W3161,W3072		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	04/30/25 11:25		jignesh	OK
2	CAL2	CAL2	CAL	04/30/25 11:26		jignesh	OK
3	CAL3	CAL3	CAL	04/30/25 11:28		jignesh	OK
4	ICV	ICV	ICV	04/30/25 11:30		jignesh	OK
5	CCV1	CCV1	CCV	04/30/25 11:32		jignesh	OK
6	Q1913-02	WC-12-A-202504	SAM	04/30/25 11:48		jignesh	OK
7	Q1913-04	WC-13-A-202504	SAM	04/30/25 12:00		jignesh	OK
8	Q1913-04DUP	WC-13-A-202504DUP	DUP	04/30/25 12:01		jignesh	OK
9	CCV2	CCV2	CCV	04/30/25 12:05		jignesh	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB135608

Review By	rubina	Review On	5/1/2025 9:02:04 AM
Supervise By	Iwona	Supervise On	5/1/2025 12:51:40 PM
SubDirectory	LB135608	Test	Reactive Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP112882,WP112883,WP112884,WP112885,WP112886,WP112887,WP112888		
ICV Standard	WP112889		
CCV Standard	WP112883		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP112643,WP111035,WP112890		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	04/30/25 09:44		rubina	OK
2	5.0PPBCN	5.0PPBCN	CAL2	04/30/25 09:44		rubina	OK
3	10PPBCN	10PPBCN	CAL3	04/30/25 09:44		rubina	OK
4	50PPBCN	50PPBCN	CAL4	04/30/25 09:44		rubina	OK
5	100PPBCN	100PPBCN	CAL5	04/30/25 09:44		rubina	OK
6	250PPBCN	250PPBCN	CAL6	04/30/25 09:44		rubina	OK
7	500PPBCN	500PPBCN	CAL7	04/30/25 09:44		rubina	OK
8	ICV1	ICV1	ICV	04/30/25 11:39		rubina	OK
9	ICB1	ICB1	ICB	04/30/25 11:39		rubina	OK
10	CCV1	CCV1	CCV	04/30/25 11:39		rubina	OK
11	CCB1	CCB1	CCB	04/30/25 11:39		rubina	OK
12	PB167792BL	PB167792BL	MB	04/30/25 11:39		rubina	OK
13	Q1904-02	VNJ-210	SAM	04/30/25 11:46		rubina	OK
14	Q1905-04	MH-G	SAM	04/30/25 11:46		rubina	OK
15	Q1905-04DUP	MH-GDUP	DUP	04/30/25 11:46		rubina	OK
16	Q1905-08	MH-H	SAM	04/30/25 11:46		rubina	OK
17	Q1906-04	WC-4	SAM	04/30/25 11:46		rubina	OK
18	Q1906-08	WC-5	SAM	04/30/25 11:46		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB135608

Review By	rubina	Review On	5/1/2025 9:02:04 AM
Supervise By	Iwona	Supervise On	5/1/2025 12:51:40 PM
SubDirectory	LB135608	Test	Reactive Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP112882,WP112883,WP112884,WP112885,WP112886,WP112887,WP112888		
ICV Standard	WP112889		
CCV Standard	WP112883		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP112643,WP111035,WP112890		

19	Q1906-12	WC-6	SAM	04/30/25 11:46		rubina	OK
20	Q1906-16	WC-7	SAM	04/30/25 11:46		rubina	OK
21	Q1907-02	CO-8R-WC	SAM	04/30/25 11:46		rubina	OK
22	CCV2	CCV2	CCV	04/30/25 11:54		rubina	OK
23	CCB2	CCB2	CCB	04/30/25 11:54		rubina	OK
24	Q1912-04	MH-E	SAM	04/30/25 11:54		rubina	OK
25	Q1912-08	MH-F	SAM	04/30/25 11:54		rubina	OK
26	Q1915-01	WC-04282025	SAM	04/30/25 11:54		rubina	OK
27	PB167802BL	PB167802BL	MB	04/30/25 12:01		rubina	OK
28	Q1913-02	WC-12-A-202504	SAM	04/30/25 12:01		rubina	OK
29	Q1913-02DUP	WC-12-A-202504DUP	DUP	04/30/25 12:01		rubina	OK
30	Q1913-04	WC-13-A-202504	SAM	04/30/25 12:01		rubina	OK
31	CCV3	CCV3	CCV	04/30/25 12:05		rubina	OK
32	CCB3	CCB3	CCB	04/30/25 12:05		rubina	OK

Instrument ID: IGN-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB135628

Review By	Iwona	Review On	5/1/2025 2:49:02 PM
Supervise By	jignesh	Supervise On	5/1/2025 3:24:23 PM
SubDirectory	LB135628	Test	Flash Point
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	W3193		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	ICV	ICV	ICV	05/01/25 09:45		Iwona	OK
2	Q1913-02	WC-12-A-202504	SAM	05/01/25 10:15		Iwona	OK
3	Q1913-02DUP	WC-12-A-202504DUP	DUP	05/01/25 10:45		Iwona	OK
4	Q1913-04	WC-13-A-202504	SAM	05/01/25 11:15		Iwona	OK
5	Q1919-05	0423	SAM	05/01/25 11:45		Iwona	OK
6	Q1919-08	0428	SAM	05/01/25 12:15		Iwona	OK
7	Q1925-04	AUD-25-0072	SAM	05/01/25 12:45		Iwona	OK
8	Q1925-05	AUD-25-0073	SAM	05/01/25 13:15		Iwona	OK
9	Q1926-01	TRE-1104	SAM	05/01/25 13:45		Iwona	OK

Instrument ID: TITRAMETRIC

Daily Analysis Runlog For Sequence/QC Batch ID # LB135630

Review By	rubina	Review On	5/1/2025 2:49:18 PM
Supervise By	Iwona	Supervise On	5/1/2025 3:16:16 PM
SubDirectory	LB135630	Test	Reactive Sulfide
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	W3105,W3114,W3149		

Sr#	SampleID	ClientID	QcType	Date	Comment	Operator	Status
1	PB167824BL	PB167824BL	MB	05/01/25 11:35		rubina	OK
2	Q1913-02	WC-12-A-202504	SAM	05/01/25 11:38		rubina	OK
3	Q1913-02DUP	WC-12-A-202504DUP	DUP	05/01/25 11:41		rubina	OK
4	Q1913-04	WC-13-A-202504	SAM	05/01/25 11:44		rubina	OK

Instrument ID: FLAME

Daily Analysis Runlog For Sequence/QC Batch ID # LB135641

Review By	Iwona	Review On	5/5/2025 1:14:42 PM
Supervise By	jignesh	Supervise On	5/5/2025 1:15:21 PM
SubDirectory	LB135641	Test	Ignitability
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	Q1913-01	WC-12-S-202504	SAM	05/05/25 09:35		Iwona	OK
2	Q1913-01DUP	WC-12-S-202504DUP	DUP	05/05/25 09:42		Iwona	OK
3	Q1913-03	WC-13-S-202504	SAM	05/05/25 09:50		Iwona	OK
4	Q1928-01	MH-Q	SAM	05/05/25 09:58		Iwona	OK
5	Q1928-04	MH-Q	SAM	05/05/25 10:05		Iwona	OK
6	Q1929-03	WC-A4-02-C	SAM	05/05/25 10:13		Iwona	OK
7	Q1929-07	WC-A1-03-C	SAM	05/05/25 10:20		Iwona	OK
8	Q1929-11	WC-A1-04-C	SAM	05/05/25 10:27		Iwona	OK
9	Q1932-01	COMP-4	SAM	05/05/25 10:35		Iwona	OK
10	Q1932-02	COMP-4	SAM	05/05/25 10:42		Iwona	OK
11	Q1932-03	COMP-5	SAM	05/05/25 10:50		Iwona	OK
12	Q1932-04	COMP-5	SAM	05/05/25 10:58		Iwona	OK
13	Q1932-05	COMP-6	SAM	05/05/25 11:05		Iwona	OK
14	Q1932-06	COMP-6	SAM	05/05/25 11:12		Iwona	OK
15	Q1932-07	COMP-7	SAM	05/05/25 11:20		Iwona	OK
16	Q1932-08	COMP-7	SAM	05/05/25 11:28		Iwona	OK
17	Q1935-01	MH-NN	SAM	05/05/25 11:35		Iwona	OK
18	Q1935-04	MH-NN	SAM	05/05/25 11:42		Iwona	OK

Instrument ID: FLAME

Daily Analysis Runlog For Sequence/QC Batch ID # LB135641

Review By	Iwona	Review On	5/5/2025 1:14:42 PM
Supervise By	jignesh	Supervise On	5/5/2025 1:15:21 PM
SubDirectory	LB135641	Test	Ignitability
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		

19	Q1935-05	MH-MM	SAM	05/05/25 11:50		Iwona	OK
20	Q1935-08	MH-MM	SAM	05/05/25 11:57		Iwona	OK

Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB135649

Review By	jignesh	Review On	5/2/2025 4:36:25 PM
Supervise By	Iwona	Supervise On	5/5/2025 9:33:09 AM
SubDirectory	LB135649	Test	Corrosivity
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	W3178,W3093,W3191,W3071,W3161,W3072		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	05/02/25 15:26		Jignesh	OK
2	CAL2	CAL2	CAL	05/02/25 15:26		Jignesh	OK
3	CAL3	CAL3	CAL	05/02/25 15:30		Jignesh	OK
4	ICV	ICV	ICV	05/02/25 15:35		Jignesh	OK
5	CCV1	CCV1	CCV	05/02/25 16:25		Jignesh	OK
6	Q1913-01	WC-12-S-202504	SAM	05/02/25 16:30		Jignesh	OK
7	Q1913-03	WC-13-S-202504	SAM	05/02/25 16:35		Jignesh	OK
8	Q1947-04	MH-P	SAM	05/02/25 16:40		Jignesh	OK
9	Q1947-08	MH-O	SAM	05/02/25 16:45		Jignesh	OK
10	Q1951-04	MH-KK	SAM	05/02/25 16:55		Jignesh	OK
11	Q1955-01	LAW-25-0066	SAM	05/02/25 17:00		Jignesh	OK
12	Q1955-01DUP	LAW-25-0066DUP	DUP	05/02/25 17:02		Jignesh	OK
13	CCV2	CCV2	CCV	05/02/25 17:05		Jignesh	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB135650

Review By	rubina	Review On	5/5/2025 9:15:23 AM
Supervise By	Iwona	Supervise On	5/5/2025 9:31:34 AM
SubDirectory	LB135650	Test	Reactive Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP112933,WP112934,WP112935,WP112936,WP112937,WP112938,WP112939		
ICV Standard	WP112940		
CCV Standard	WP112934		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP112643,WP112900,WP112941		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	05/02/25 08:59		rubina	OK
2	5.0PPBCN	5.0PPBCN	CAL2	05/02/25 08:59		rubina	OK
3	10PPBCN	10PPBCN	CAL3	05/02/25 08:59		rubina	OK
4	50PPBCN	50PPBCN	CAL4	05/02/25 08:59		rubina	OK
5	100PPBCN	100PPBCN	CAL5	05/02/25 08:59		rubina	OK
6	250PPBCN	250PPBCN	CAL6	05/02/25 08:59		rubina	OK
7	500PPBCN	500PPBCN	CAL7	05/02/25 08:59		rubina	OK
8	ICV1	ICV1	ICV	05/02/25 15:15		rubina	OK
9	ICB1	ICB1	ICB	05/02/25 15:15		rubina	OK
10	CCV1	CCV1	CCV	05/02/25 15:15		rubina	OK
11	CCB1	CCB1	CCB	05/02/25 15:15		rubina	OK
12	PB167843BL	PB167843BL	MB	05/02/25 15:15		rubina	OK
13	Q1913-01	WC-12-S-202504	SAM	05/02/25 15:23		rubina	OK
14	Q1913-01DUP	WC-12-S-202504DUP	DUP	05/02/25 15:23		rubina	OK
15	Q1913-03	WC-13-S-202504	SAM	05/02/25 15:23		rubina	OK
16	Q1947-04	MH-P	SAM	05/02/25 15:23		rubina	OK
17	Q1947-08	MH-O	SAM	05/02/25 15:23		rubina	OK
18	Q1951-04	MH-KK	SAM	05/02/25 15:23		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB135650

Review By	rubina	Review On	5/5/2025 9:15:23 AM
Supervise By	Iwona	Supervise On	5/5/2025 9:31:34 AM
SubDirectory	LB135650	Test	Reactive Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP112933,WP112934,WP112935,WP112936,WP112937,WP112938,WP112939		
ICV Standard	WP112940		
CCV Standard	WP112934		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP112643,WP112900,WP112941		

19	CCV2	CCV2	CCV	05/02/25 15:29		rubina	OK
20	CCB2	CCB2	CCB	05/02/25 15:29		rubina	OK

Instrument ID: TITRAMETRIC

Daily Analysis Runlog For Sequence/QC Batch ID # LB135656

Review By	rubina	Review On	5/5/2025 8:46:19 AM
Supervise By	Iwona	Supervise On	5/5/2025 9:35:17 AM
SubDirectory	LB135656	Test	Reactive Sulfide
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	W3105,W3114,W3149		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	PB167850BL	PB167850BL	MB	05/02/25 15:33		rubina	OK
2	Q1913-01	WC-12-S-202504	SAM	05/02/25 15:36		rubina	OK
3	Q1913-01DUP	WC-12-S-202504DUP	DUP	05/02/25 15:38		rubina	OK
4	Q1913-03	WC-13-S-202504	SAM	05/02/25 15:40		rubina	OK
5	Q1947-04	MH-P	SAM	05/02/25 15:43		rubina	OK
6	Q1947-08	MH-O	SAM	05/02/25 15:45		rubina	OK
7	Q1951-04	MH-KK	SAM	05/02/25 15:48		rubina	OK

Instrument ID: FILTER/GRAVIMETRIC

Daily Analysis Runlog For Sequence/QC Batch ID # LB135659

Review By	rubina	Review On	5/5/2025 10:30:22 AM
Supervise By	Iwona	Supervise On	5/5/2025 3:45:35 PM
SubDirectory	LB135659	Test	Paint Filter
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	Q1913-01	WC-12-S-202504	SAM	05/02/25 16:00		rubina	OK
2	Q1913-03	WC-13-S-202504	SAM	05/02/25 16:07		rubina	OK
3	Q1946-01	BB-CONCRETE	SAM	05/02/25 16:15		rubina	OK
4	Q1947-01	MH-P	SAM	05/02/25 16:22		rubina	OK
5	Q1947-05	MH-O	SAM	05/02/25 16:30		rubina	OK
6	Q1951-01	MH-KK	SAM	05/02/25 16:38		rubina	OK
7	Q1952-01	CLEAN-FILL	SAM	05/02/25 16:45		rubina	OK
8	Q1952-01DUP	CLEAN-FILLDUP	DUP	05/02/25 16:52		rubina	OK

Prep Standard - Chemical Standard Summary

Order ID : Q1913

Test : Corrosivity,Flash Point,Ignitability,Paint Filter,Percent Solids,pH,Reactive Cyanide,Reactive Sulfide

Prepbatch ID : PB167802,PB167824,PB167843,PB167850,

Sequence ID/Qc Batch ID: LB135606,LB135608,LB135628,LB135630,LB135641,LB135649,LB135650,LB135656,LB135659,

Standard ID :

WP111004,WP111035,WP111294,WP111296,WP112643,WP112881,WP112882,WP112883,WP112884,WP112885,WP112886,WP112887,WP112888,WP112889,WP112890,WP112900,WP112932,WP112933,WP112934,WP112935,WP112936,WP112937,WP112938,WP112939,WP112940,WP112941,

Chemical ID :

M6121,M6151,W2668,W2725,W2882,W2926,W3019,W3071,W3072,W3093,W3105,W3112,W3113,W3114,W3138,W3139,W3149,W3154,W3161,W3178,W3191,W3193,W3203,

<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>
160	0.5M ZINC ACETATE	WP111004	12/09/2024	05/13/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC-7)	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/09/2024
<u>FROM</u>	0.88900L of W3112 + 1.00000ml of M6121 + 110.00000gram of W2926 = 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	WP111035	12/09/2024	04/30/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCS-5)	Glass Pipette-A	Iwona Zarych 12/10/2024
<u>FROM</u>	145.00000ml of W3112 + 15.00000gram of W2882 + 15.00000ml of M6121 + 75.00000ml of W3019 = Final Quantity: 250.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
11	Sodium hydroxide absorbing solution 0.25 N	WP111294	01/07/2025	07/07/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 01/07/2025
<u>FROM</u>	21.00000L of W3112 + 210.00000gram of W3113 = Final Quantity: 21.000 L							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3371	Cyanide LCS Spike Solution, 5PPM	WP111296	01/07/2025	07/07/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/07/2025
<u>FROM</u> 1.00000ml of W3138 + 199.00000ml of WP111294 = Final Quantity: 200.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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>
3456	Cyanide Intermediate Working Std, 5PPM	WP112881	04/30/2025	05/01/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 04/30/2025
<u>FROM</u> 0.25000ml of W3154 + 49.75000ml of WP111294 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4	Calibration standard 500 ppb	WP112882	04/30/2025	05/01/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 04/30/2025
FROM 45.00000ml of WP111294 + 5.00000ml of WP112881 = 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	WP112883	04/30/2025	05/01/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 04/30/2025
FROM 2.50000ml of WP112881 + 47.50000ml of WP111294 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
6	Calibration Standard 100 ppb	WP112884	04/30/2025	05/01/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 04/30/2025
FROM 1.00000ml of WP112881 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
7	Calibration Standard 50 ppb	WP112885	04/30/2025	05/01/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 04/30/2025
FROM 0.50000ml of WP112881 + 49.50000ml of WP111294 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
8	Calibration Standard 10 ppb	WP112886	04/30/2025	05/01/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 04/30/2025
FROM 1.00000ml of WP112882 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
9	Calibration Standard 5 ppb	WP112887	04/30/2025	05/01/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 04/30/2025
FROM 0.50000ml of WP112882 + 49.50000ml of WP111294 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
167	0 ppb CN calibration std	WP112888	04/30/2025	05/01/2025	Rubina Mughal	None	None	Iwona Zarych
								04/30/2025

FROM 50.00000ml of WP111294 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2168	RCN ICV STD, 100 PPB	WP112889	04/30/2025	05/01/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3	Iwona Zarych
							(WC)	04/30/2025

FROM 1.00000ml of WP111296 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1582	Chloramine T solution, 0.014M	WP112890	04/30/2025	05/01/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych 04/30/2025
<u>FROM</u>	0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 ml							

[illegible]



<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	WP112932	05/02/2025	05/03/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych 05/05/2025
<u>FROM</u> 0.25000ml of W3154 + 49.75000ml of WP111294 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4	Calibration standard 500 ppb	WP112933	05/02/2025	05/03/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 45.00000ml of WP111294 + 5.00000ml of WP112932 = 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	WP112934	05/02/2025	05/03/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 2.50000ml of WP112932 + 47.50000ml of WP111294 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
6	Calibration Standard 100 ppb	WP112935	05/02/2025	05/03/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 1.00000ml of WP112932 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
7	Calibration Standard 50 ppb	WP112936	05/02/2025	05/03/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC)								
<u>FROM</u>	0.50000ml of WP112932 + 49.50000ml of WP111294 = Final Quantity: 50.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
8	Calibration Standard 10 ppb	WP112937	05/02/2025	05/03/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 05/05/2025
<u>FROM</u>	1.00000ml of WP112933 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
9	Calibration Standard 5 ppb	WP112938	05/02/2025	05/03/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 0.50000ml of WP112933 + 49.50000ml of WP111294 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
167	0 ppb CN calibration std	WP112939	05/02/2025	05/03/2025	Rubina Mughal	None	None	Iwona Zarych 05/05/2025
<u>FROM</u> 50.00000ml of WP111294 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2168	RCN ICV STD, 100 PPB	WP112940	05/02/2025	05/03/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 05/05/2025

FROM 1.00000ml of WP111296 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1582	Chloramine T solution, 0.014M	WP112941	05/02/2025	05/03/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych 05/05/2025

FROM 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-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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 #
PCI Scientific Supply, Inc.	EMD-FX0410-5 / FORMALDEHYDE SOLUTION 450ML	60045	06/22/2025	08/19/2024 / lwona	06/22/2020 / apatel	W2725

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-BX0035-3 / Barbituric Acid, 100 gms	1.00132.0100	04/30/2025	12/07/2021 /	11/30/2021 / apatel	W2882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J4296-1 / ZINC ACETATE, DIHYD, CRYST, ACS, 500G	383058	07/05/2027	07/05/2022 / ketankumar	07/05/2022 / ketankumar	W2926

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14455-3 / buffer solution pH 7 yellow	4308H30	07/31/2025	01/02/2024 / JIGNESH	12/06/2023 / lwona	W3071

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14940-1 / Buffer Solution, PH12 (500ml)	2310P21	04/30/2025	01/02/2024 / JIGNESH	12/07/2023 / lwona	W3072

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	566002 / BUFFER PH 7.00 GREEN 1PINT PK6	44001f99	12/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3093

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL69870-8 / SODIUM THIOSULFATE,0.025N,4LIT RE	4403S13	09/30/2025	04/22/2024 / lwona	04/22/2024 / lwona	W3105

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.	AL35830-4 / IODINE SOLUTION .025N 1L	2405D89	05/31/2025	07/10/2024 / Iwona	07/10/2024 / Iwona	W3114

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	JTE494-6 / CHLORAMINE-T BAKER 250GM	10239484	09/09/2029	09/09/2024 / 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.	AL70850-8 / Starch Solution, 4L	4408P62	08/31/2026	10/16/2024 / Iwona	10/16/2024 / Iwona	W3149

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	RC2543-4 / CYANIDE STD 1000PPM 4OZ	1411J58	05/31/2025	12/02/2024 / Iwona	12/02/2024 / Iwona	W3154

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL13850-1 / Buffer Solution, PH2 (500ml)	2411E26	10/31/2026	12/09/2024 / lwona	12/09/2024 / lwona	W3161

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14055-3 / PH 4 BUFFER SOLUTION	2411A93	10/30/2026	04/01/2025 / JIGNESH	01/27/2025 / jignesh	W3178

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1601-1 / PH 10.01 BUFFER,COLOR CD 475ML	2410F80	03/31/2026	04/01/2025 / JIGNESH	03/13/2025 / jignesh	W3191

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	TCX0014-500ML / p-xylene	C6PEN	03/19/2029	03/21/2025 / rubina	03/19/2025 / lwona	W3193

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	WXBF3271V	05/16/2029	04/21/2025 / lwona	04/21/2025 / lwona	W3203

W3071
Rec 12/6/23

Certificate of Analysis 12

Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)

Lot Number: 4308H30

Product Number: 1551

Manufacture Date: AUG 09, 2023

Expiration Date: JUL 2025

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

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

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

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

Test	Specification	Result
Appearance	Yellow liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	7.002	0.02	186-I-g, 186-II-g, 191d

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

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

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

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



Paul Brandon (08/09/2023)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

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

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:

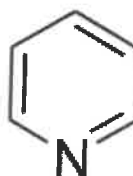
C₅H₅N

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.





RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
<http://www.riccachemical.com>
1-888-GO-RICCA
customerservice@riccachemical.com

W 3072
REC. 12/01/23
12

Certificate of Analysis

Buffer, Reference Standard, pH 12.00 ± 0.01 at 25°C

Lot Number: 2310P21

Product Number: 1615

Manufacture Date: OCT 24, 2023

Expiration Date: APR 2025

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

°C	15	20	25	30	35	40
pH	12.35	12.17	11.99	11.78	11.62	11.46

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Chloride	7447-40-7	ACS
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result
Appearance	Colorless liquid	Passed

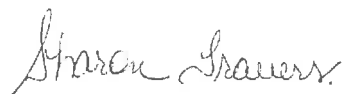
*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	12.005	0.02	186-I-g, 186-II-g, 191d

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1615-1	4 L natural poly	18 months
1615-16	500 mL clear PET-G	18 months
1615-32	1 L natural poly	18 months
1615-5	20 L Cubitainer®	18 months

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



Sharon Travers (10/24/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

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



Certificate of Analysis

Date of Release: 2/26/2020

Name: Formaldehyde Solution
GR ACS
Meets ACS Specifications

Item No: FX0410 all size codes

Lot / Batch No: 60045

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Assay	36.5	38.0	36.71	%
Chloride (Cl)		5	<5	ppm
Color (APHA)		10	<10	
Form			Passes test	
Heavy metals (as Pb)		5	<5	ppm
Iron (Fe)		5	0.6	ppm
Residue after ignition		0.005	<0.0050	%
Sulfate (SO ₄)		0.002	<0.0020	%
Titrate acid		0.006	<0.0060	meq/g

Heather Sinn,

Quality Control Manager

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

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
290 Concord Road
Billerica, MA 01821
U.S.A

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

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

avantor™



R → 16/13/24
Met dig

M 6121

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

Certificate of Analysis

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

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

Avantor Performance Materials, LLC

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

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

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

For Laboratory, Research or Manufacturing Use

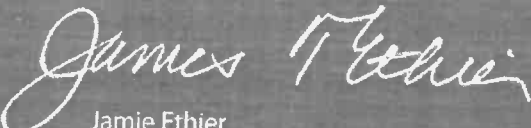
Product Information (not specifications):

Appearance (clear, fuming liquid)

Meets ACS Specifications

Country of Origin: US

Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier

Vice President Global Quality

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

Avantor Performance Materials, LLC

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

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

 **avantor™**



M6151

R → 11/15/25

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

Certificate of Analysis

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

>>> Continued on page 2 >>>

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

 **avantorsm**



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

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

>>> Continued on page 3 >>>

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

 **avantor**™

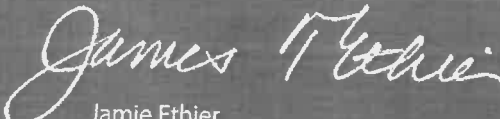


Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
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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


Jamie Ethier
Vice President Global Quality



Certificate of Analysis

1.00132.0000 Barbituric acid for analysis EMSURE®
Batch N020065932

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

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

Ioannis Chartomatsidis
Responsible laboratory manager quality control

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

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

(sodium dihydrogen phosphate, monohydrate)



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

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

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

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

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


Jamie Ethier
Vice President Global Quality

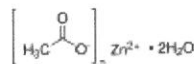
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Certificate of Analysis

Product Name:

Zinc acetate dihydrate - ACS reagent, $\geq 98\%$

Product Number: 383058
Batch Number: MKCQ9159
Brand: SIGALD
CAS Number: 5970-45-6
MDL Number: MFCD00066961
Formula: $C_4H_6O_4Zn \cdot 2H_2O$
Formula Weight: 219.51 g/mol
Quality Release Date: 06 JAN 2022



W2926
Open 7/5/22
received
on
7/5/22

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystal or Chunk(s)	Powder
Infrared Spectrum	Conforms to Structure	Conforms
Insoluble Matter	$\leq 0.005 \%$	0.003 %
Calcium (Ca)	$\leq 0.005 \%$	0.003 %
Chloride (Cl)	$\leq 5 \text{ ppm}$	$< 5 \text{ ppm}$
Iron (Fe)	$\leq 5 \text{ ppm}$	$< 5 \text{ ppm}$
Potassium (K)	$\leq 0.01 \%$	0.00 %
Magnesium (Mg)	$\leq 0.005 \%$	0.003 %
Sodium (Na)	$\leq 0.05 \%$	0.03 %
Lead (Pb)	$\leq 0.002 \%$	$< 0.001 \%$
pH	6.0 - 7.0	6.1
Sulfate (SO ₄)	$\leq 0.005 \%$	$< 0.005 \%$
Complexometric EDTA	98.0 - 101.0 %	100.3 %
Meets ACS Requirements	Meets Requirements	Meets Requirements


Larry Coers, Director
Quality Control
Milwaukee, WI US

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



**RICCA CHEMICAL COMPANY®**

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Batesville, IN 47006

<http://www.riccachemical.com>

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customerservice@riccachemical.com

Certificate of Analysis

W3093
094121
04/03/2024
16

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

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

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

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

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

Test	Specification	Result
Appearance	Yellow liquid	Passed

*Not a certified value.

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

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

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

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

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



Paul Brandon (01/08/2024)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

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Certificate of Analysis

Sodium Thiosulfate, 0.0250 Normal (N/40)

Lot Number: 4403S13

Product Number: 7900

Manufacture Date: MAR 29, 2024

Expiration Date: SEP 2025

This product is specially formulated to increase its stability. A preservative is added to prevent bacterial contamination. However, all Sodium Thiosulfate solutions are subject to slow chemical deterioration and should be restandardized periodically.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Thiosulfate Pentahydrate	10102-17-7	ACS
Organic Preservative	Proprietary	
Sodium Carbonate	497-19-8	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Iodate/Starch)	0.02499-0.02501 N at 20°C	0.02501 N at 20°C	136

Specification	Reference
Standard Sodium Thiosulfate Solution, 0.0250 N	APHA (4500-S2- F)
Standard Sodium Thiosulfate Titrant	APHA (4500-O D)
Standard Sodium Thiosulfate Titrant	APHA (4500-O E)
Standard Sodium Thiosulfate Titrant	APHA (4500-O F)
Standard Sodium Thiosulfate Titrant, 0.025 N	APHA (4500-CI B)
Standard Sodium Thiosulfate Titrant	APHA (4500-O C)
Standard Sodium Thiosulfate Titrant, 0.025 M	APHA (5530 C)
Standard Sodium Thiosulfate Solution (0.025 N)	EPA (SW-846) (9031)
Standard Sodium Thiosulfate solution (0.025 N)	EPA (SW-846) (9034)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
7900-1	4 L natural poly	18 months
7900-16	500 mL natural poly	18 months
7900-1CT	4 L Cubitainer®	18 months
7900-32	1 L natural poly	18 months

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



Paul Brandon (03/29/2024)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

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Certificate of Analysis



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

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

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.

Certificate of Analysis

Iodine (Iodine-Iodide), 0.0250 Normal (N/40), 1 mL = 0.4008 mg S²⁻**Lot Number:** 2405D89**Product Number:** 3975**Manufacture Date:** MAY 10, 2024**Expiration Date:** MAY 2025

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Iodide	7681-11-0	ACS
Iodine	7553-56-2	ACS

Test	Specification	Result	NIST SRM#
Appearance	Dark brown liquid	Passed	
Assay (vs. Sodium Thiosulfate/Starch)	0.02498-0.02502 N at 20°C	0.02502 N at 20°C	136

Specification	Reference
Standard Iodine Solution, 0.0250 N	APHA (4500-S2- F)
Iodine Solution (approximately 0.025 N)	EPA (SW-846) (9031)
Standard Iodine Solution, 0.0250 N	EPA (376.1)
Iodine Solution (approximately 0.025 N)	EPA (SW-846) (9034)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3975-1	4 L amber glass	12 months
3975-16	500 mL amber glass	12 months
3975-32	1 L amber glass	12 months

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

Jose Pena (05/10/2024)
Operations Manager

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Part of TCP Analytical Group

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

Certificate of Analysis

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

Product Code: **LC13545**

Manufacture Date: August 01, 2024

Lot Number: **44080060**

Expiration Date: January 30, 2025

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

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

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

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

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

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

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

Michael Monteleone

Michael Monteleone
Chemistry Supervisor - Quality Control

ISO9001:2015 Registration #0306-01

2024080113:32:16bsturges-0-0

W3139 Received on 9/9/24 by IZ

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

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

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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.



Certificate of Analysis

Starch Indicator, 0.5% (w/v), Mercury Free, for Iodometric Titrations

Lot Number: 4408P62

Product Number: 8000

Manufacture Date: AUG 28, 2024

Expiration Date: AUG 2026

This product is Mercury-free.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Starch, soluble	9005-84-9	ACS
Salicylic Acid	69-72-7	ACS

Test	Specification	Result
Appearance	White translucent liquid	Passed
Suitability for Use	Colorless (Iodine absent) - Blue (Iodine present)	Passed

Specification	Reference
Starch Solution	APHA (4500-S2- F)
Starch Indicator Solution	APHA (4500-CI B)
Starch Indicator	APHA (4500-SO32- B)
Starch indicator solution	APHA (2350 B)
Starch indicator solution	APHA (2350 E)
Starch Solution	APHA (510 B)
Starch Solution	APHA (5530 C)
Starch Indicator	APHA (4500-CI C)
Starch Indicator	EPA (345.1)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
8000-1	4 L natural poly	24 months
8000-16	500 mL natural poly	24 months
8000-32	1 L natural poly	24 months

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

A handwritten signature in blue ink that reads "Paul Brandon". The signature is fluid and cursive, with the first name "Paul" and last name "Brandon" clearly distinguishable.

Paul Brandon (08/28/2024)
Production Manager

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Certificate of Analysis

Cyanide Standard, 1000 ppm CN⁻

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

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

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

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

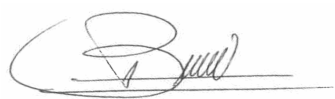
Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN ⁻)	995-1005 ppm	1000 ppm

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

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

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

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

A handwritten signature in black ink, appearing to read 'L. Briceno', with a horizontal line underneath.

Luis Briceno (11/22/2024)
Operations Supervisor

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Certificate of Analysis

Buffer, Reference Standard, pH 2.00 ± 0.01 at 25°C**Lot Number:** 2411E26**Product Number:** 1493**Manufacture Date:** NOV 11, 2024**Expiration Date:** OCT 2026

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

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

°C	10	15	20	25	30	35	40	45	50
pH	1.93	1.98	1.98	2.00	2.01	2.03	2.03	2.04	2.04

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Chloride	7447-40-7	ACS
Hydrochloric Acid	7647-01-0	ACS

Test	Specification	Result
Appearance	Colorless liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	1.994	0.02	185i, 186-I-g, 186-II-g

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1493-1	4 L natural poly	24 months
1493-16	500 mL natural poly	24 months
1493-1CT	4 L Cubitainer®	24 months
1493-2.5	10 L Cubitainer®	24 months
1493-32	1 L natural poly	24 months

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



Jose Pena (11/11/2024)
Operations Manager

This product was tested in an ISO 17025 Accredited Laboratory

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Certificate of Analysis

031758 58

Buffer, Reference Standard, pH 4.00 ± 0.01 at 25°C (Color Coded Red)

Lot Number: 2411A93

Product Number: 1501

Manufacture Date: NOV 04, 2024

Expiration Date: OCT 2026

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

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

°C	0	5	10	15	20	25	30	35	40	45	50
pH	4.00	4.00	4.00	4.00	4.00	4.00	4.01	4.02	4.03	4.04	4.06

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	Buffer
Preservative	Proprietary	Commercial
Red Dye	Proprietary	Purified

Test	Specification	Result
Appearance	Red liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	4.008	0.02	185i, 186-I-g, 186-II-g

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

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1501-16	500 mL natural poly	24 months
1501-2.5	10 L Cubitainer®	24 months
1501-5	20 L Cubitainer®	24 months

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



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Certificate of Analysis

Buffer, Reference Standard, pH 10.00 ± 0.01 at 25°C (Color Coded Blue)

Lot Number: 2410F80

Product Number: 1601

Manufacture Date: OCT 09, 2024

Expiration Date: MAR 2026

The certified value for this product is confirmed in independent testing by a second qualified chemist.
The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	0	5	10	15	20	25	30	35	40	50
pH	10.31	10.23	10.17	10.11	10.05	10.00	9.95	9.91	9.87	9.81

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Carbonate	497-19-8	ACS
Sodium Bicarbonate	144-55-8	ACS
Sodium Hydroxide	1310-73-2	Reagent
Preservative	Proprietary	
Blue Dye	Proprietary	

Test	Specification	Result
Appearance	Blue liquid	Passed

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	10.009	0.02	186-I-g, 186-II-g, 191d

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

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1601-1	4 L natural poly	18 months
1601-16	500 mL natural poly	18 months
1601-1CT	4 L Cubitainer®	18 months
1601-2.5	10 L Cubitainer®	18 months
1601-32	1 L natural poly	18 months
1601-5	20 L Cubitainer®	18 months

Version: 1.3

Lot Number: 2410F80

Product Number: 1601

Page 1 of 2



W3193, W3194 Received on 03/19/2025 by IZ

Certificate of Analysis

03/19/2025(JST)

TOKYO CHEMICAL INDUSTRY CO.,LTD.

T-PLUS Nihonbashi-Kodemmacho

16-12 Nihonbashi-kodemmacho, Chuo-ku, Tokyo 103-0001, Japan

Chemical Name: p-Xylene		
Product Number: X0014 CAS RN: 106-42-3	Lot: C6PEN	

Tests	Results	Specifications
Appearance	Colorless clear liquid	Colorless to Almost colorless clear liquid
Purity(GC)	99.7 %	min. 99.0 %

TCI Lot numbers are 4-5 characters in length. Characters listed after the first 4-5 characters are control numbers for internal purpose only.

The contents of the specifications are subject to change without advance notice. The specification values displayed here are the most up to date values. There may be cases where the product labels display a different specification, however, the product quality still meets the latest specification.

Customer Service:

TCI AMERICA

Tel: +1-800-423-8616 / +1-503-283-1681

Fax: +1-888-520-1075 / +1-503-283-1987

E-mail: Sales-US@TCIchemicals.com

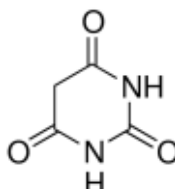
Takuya Nishioka
Quality Assurance Department Manager

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.



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/5/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 05/02/2025
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: 05/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135646

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
Q1913-01	WC-12-S-202504	1	1.18	10.32	11.5	9.49	80.5	
Q1913-03	WC-13-S-202504	2	1.19	10.37	11.56	9.83	83.3	
Q1936-01	SMALL-PILE-A	33	1.15	9.94	11.09	10.18	90.8	
Q1936-02	SMALL-PILE-A	34	1.17	9.94	11.11	10.22	91.0	
Q1936-03	SMALL-PILE-B	35	1.18	10.39	11.57	10.93	93.8	
Q1936-04	SMALL-PILE-B	36	1.18	9.88	11.06	10.44	93.7	
Q1936-05	SMALL-PILE-C	37	1.15	10.03	11.18	10.9	97.2	
Q1936-06	SMALL-PILE-C	38	1.15	10.25	11.4	11.01	96.2	
Q1936-07	SMALL-PILE-D	39	1.16	10.41	11.57	10.97	94.2	
Q1936-08	SMALL-PILE-D	40	1.18	9.96	11.14	10.55	94.1	
Q1937-01	LARGE-PILE-A	41	1.15	10.13	11.28	10.7	94.3	
Q1937-02	LARGE-PILE-A	42	1.18	9.58	10.76	10.2	94.2	
Q1937-03	LARGE-PILE-B	43	1.15	10.03	11.18	10.82	96.4	
Q1937-04	LARGE-PILE-B	44	1.17	10.04	11.21	10.72	95.1	
Q1937-05	LARGE-PILE-C	45	1.16	10.19	11.35	10.83	94.9	
Q1937-06	LARGE-PILE-C	46	1.19	10.06	11.25	10.63	93.8	
Q1937-07	LARGE-PILE-D	47	1.18	10.33	11.51	10.95	94.6	
Q1937-08	LARGE-PILE-D	48	1.17	9.75	10.92	10.33	93.9	
Q1937-09	LARGE-PILE-E	49	1.16	10.14	11.3	10.52	92.3	
Q1937-10	LARGE-PILE-E	50	1.18	10.30	11.48	10.76	93.0	
Q1937-11	LARGE-PILE-F	51	1.18	10.48	11.66	10.58	89.7	
Q1937-12	LARGE-PILE-F	52	1.18	10.25	11.43	10.44	90.3	
Q1938-01	LOWER-WALL-PILE-A	53	1.15	10.33	11.48	10.77	93.1	
Q1938-02	LOWER-WALL-PILE-A	54	1.17	10.50	11.67	10.71	90.9	
Q1938-03	LOWER-WALL-PILE-B	55	1.14	10.15	11.29	10.94	96.6	
Q1938-04	LOWER-WALL-PILE-B	56	1.18	9.90	11.08	10.68	96.0	
Q1938-05	LOWER-WALL-PILE-C	57	1.17	10.23	11.4	11.07	96.8	
Q1938-06	LOWER-WALL-PILE-C	58	1.12	9.82	10.94	10.7	97.6	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/5/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 05/02/2025
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: 05/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135646

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
Q1938-07	LOWER-WALL-PILE-D	59	1.19	10.01	11.2	10.7	95.0	
Q1938-08	LOWER-WALL-PILE-D	60	1.17	10.23	11.4	10.86	94.7	
Q1942-05	SVOC-GPC-BLANK	3	1.00	1.00	2.00	2.00	100.0	
Q1942-06	PEST-GPC-BLANK	4	1.00	1.00	2.00	2.00	100.0	
Q1942-07	PEST-GPC-BLANK-SPIKE	5	1.00	1.00	2.00	2.00	100.0	
Q1942-08	PCB-GPC-BLANK	6	1.00	1.00	2.00	2.00	100.0	
Q1942-09	PCB-GPC-BLANK-SPIKE	7	1.00	1.00	2.00	2.00	100.0	
Q1942-10	SVOC-GPC2-BLANK	8	1.00	1.00	2.00	2.00	100.0	
Q1942-11	PEST-GPC2-BLANK	9	1.00	1.00	2.00	2.00	100.0	
Q1942-12	PEST-GPC2-BLANK-SPIKE	10	1.00	1.00	2.00	2.00	100.0	
Q1942-13	PCB-GPC2-BLANK	11	1.00	1.00	2.00	2.00	100.0	
Q1942-14	PCB-GCP2-BLANK-SPIKE	12	1.00	1.00	2.00	2.00	100.0	
Q1944-01	MELTED-RUBBER-SAMPLE	13	1.00	1.00	2.00	2.00	100.0	MELTED-RUBBER-SAMPLE
Q1946-01	BB-CONCRETE	14	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1946-02	BB-CONCRETE	15	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1947-01	MH-P	16	1.18	10.19	11.37	9.28	79.5	
Q1947-02	MH-P-EPH	17	1.15	10.84	11.99	10.64	87.5	
Q1947-03	MH-P-VOC	18	1.16	10.71	11.87	10.5	87.2	
Q1947-05	MH-O	19	1.14	10.59	11.73	10.52	88.6	
Q1947-06	MH-O-EPH	20	1.12	10.00	11.12	9.91	87.9	
Q1947-07	MH-O-VOC	21	1.17	10.00	11.17	9.95	87.8	
Q1951-01	MH-KK	22	1.18	10.40	11.58	10.01	84.9	
Q1951-02	MH-KK-EPH	23	1.16	10.29	11.45	9.91	85.0	
Q1951-03	MH-KK-VOC	24	1.17	10.25	11.42	9.86	84.8	
Q1952-01	CLEAN-FILL	25	1.18	10.49	11.67	8.98	74.4	
Q1952-02	CLEAN-FILL-E2	26	1.13	10.10	11.23	8.47	72.7	
Q1953-01	AUD-25-0075	27	1.00	1.00	2.00	2.00	100.0	pile
Q1953-02	AUD-25-0076	28	1.00	1.00	2.00	2.00	100.0	pile



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/5/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 05/02/2025
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: 05/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135646

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
Q1953-03	AUD-25-0077	29	1.00	1.00	2.00	2.00	100.0	oilc
Q1954-01	BC260874-1-1	30	1.00	1.00	2.00	2.00	100.0	oilc
Q1954-02	BC260874-1-2	31	1.00	1.00	2.00	2.00	100.0	oilc
Q1955-01	LAW-25-0066	32	1.00	1.00	2.00	2.00	100.0	stone sample, 100 % solids

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

WORKLIST(Hardcopy Internal Chain)

173546

WorkList Name : %1-050225

WorkList ID : 189289

Department : Wet-Chemistry

Date : 05-02-2025 14:36:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-01	WC-12-S-202504	Solid	Percent Solids	Cool 4 deg C	AECO02	L21	04/29/2025	Chemtech -SO
Q1913-03	WC-13-S-202504	Solid	Percent Solids	Cool 4 deg C	AECO02	L21	04/29/2025	Chemtech -SO
Q1936-01	SMALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-02	SMALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-03	SMALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-04	SMALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-05	SMALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-06	SMALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-07	SMALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-08	SMALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1937-01	LARGE-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-02	LARGE-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-03	LARGE-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-04	LARGE-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-05	LARGE-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-06	LARGE-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-07	LARGE-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-08	LARGE-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-09	LARGE-PILE-E	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-10	LARGE-PILE-E	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-11	LARGE-PILE-F	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO

Date/Time 05/02/25 15:10

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 05/02/25 17:10

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

172546

WorkList Name : %1-050225

WorkList ID : 189289

Department : Wet-Chemistry

Date : 05-02-2025 14:36:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1937-12	LARGE-PILE-F	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-01	LOWER-WALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-02	LOWER-WALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-03	LOWER-WALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-04	LOWER-WALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-05	LOWER-WALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-06	LOWER-WALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-07	LOWER-WALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-08	LOWER-WALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1942-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	05/01/2025	Chemtech -SO
Q1942-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-08	PCB-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-09	PCB-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-10	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-11	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-12	PEST-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-13	PCB-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-14	PCB-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1944-01	MELTED-RUBBER-SAMPLE	Solid	Percent Solids	Cool 4 deg C	METE01	L41	05/02/2025	Chemtech -SO
Q1946-01	BB-CONCRETE	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO

Date/Time 05/02/25 15:10

Raw Sample Received by: *Se Lee*

Raw Sample Relinquished by: *Se Lee*

Date/Time 05/02/25

Raw Sample Received by: *Se Lee*

Raw Sample Relinquished by: *Se Lee*

WORKLIST(Hardcopy Internal Chain)

8/23/25

WorkList Name : %1-050225

WorkList ID : 189289

Department : Wet-Chemistry

Date : 05-02-2025 14:36:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1946-02	BB-CONCRETE	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-01	MH-P	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-02	MH-P-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-03	MH-P-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-05	MH-O	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-06	MH-O-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-07	MH-O-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1951-01	MH-KK	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/02/2025	Chemtech -SO
Q1951-02	MH-KK-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/02/2025	Chemtech -SO
Q1951-03	MH-KK-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/02/2025	Chemtech -SO
Q1952-01	CLEAN-FILL	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	05/02/2025	Chemtech -SO
Q1952-02	CLEAN-FILL-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	05/02/2025	Chemtech -SO
Q1953-01	AUD-25-0075	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1953-02	AUD-25-0076	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1953-03	AUD-25-0077	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1954-01	BC260874-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1954-02	BC260874-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1955-01	LAW-25-0066	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO

Date/Time 05/02/25 15:10

Raw Sample Received by: 88 WOC,

Raw Sample Relinquished by: 88 WOC,

Date/Time 05/02/25

Raw Sample Received by: 88 WOC,

Raw Sample Relinquished by: 88 WOC,



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: AECOM
ADDRESS: 605 3rd Ave
CITY NEW YORK STATE: NY ZIP: 10158
ATTENTION: Amit Haryani
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Meeker Ave Superfund
PROJECT NO.: 60705866 LOCATION: Brooklyn
PROJECT MANAGER: Amit Haryani
e-mail: amit.haryani@aecom.com
PHONE: FAX:

CLIENT BILLING INFORMATION

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

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) 3 days 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. TCLP VOA
2. TCLP BBA
3. TCLP
4. Paint Filter
5. Metals Mercury
6. Reactive organics
7. Reactive sulfide
8. pH
9. PCBs Pesticides
PCB+Fluoride

PRESERVATIVES

COMMENTS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										COMMENTS
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	WC-12-A-202504	WATER	X		4/29/25	7:00	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2.	WC-12-S-202504	SOIL	X		4/29/25	7:00	7	✓	✓								
3.	WC-13-A-202504	WATER	X		4/29/25	7:50	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	
4.	WC-13-S-202504	SOIL	X		4/29/25	7:50	7	✓	✓								
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER: 1. Ewa Pencyliviz	DATE/TIME: 1215 4/29/25	RECEIVED BY: 1. [Signature] 4-29-25	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.2°C
RELINQUISHED BY SAMPLER: 2.	DATE/TIME:	RECEIVED BY: 2.	Comments: Temp 2.2°C (Adjustment factor #1) IR Gun #1
RELINQUISHED BY SAMPLER: 3. [Signature]	DATE/TIME: 1650 4-29-25	RECEIVED BY: 3.	Page ____ of CLIENT: ☐ Hand Delivered ☐ Other Shipment Complete ☐ YES ☐ NO

From: Poncyliusz, Ewa <Ewa.Poncyliusz@aecom.com>
Sent: Thursday, May 01, 2025 8:04 PM
To: Yazmeen Gomez
Cc: Fairbanks, Peter; Haryani, Amit; Tan, Paul
Subject: RE: Chemtech/Alliance - Samples - 11/14

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Dear Yazmeen,

I believe that I missed parameter (corrosivity) for samples picked up on Tuesday. Below is a table with parameters for each sample. I believe that this is standard analysis but just want to make sure that everything is correct.

Sample Identifier/location	CLP Sample ID	Matrix	Analyses	Sample Type	Sample Date	Date Shipped
Alliance Technical Group Company						
WC-12-S-202504	NA	IDW - SOLID	Paint Filter 9095B Flashpoint 1010 PCB 8082A TCLP BNA 8270E TCLP Pesticide 8081B Corrosivity 9045C Reactive Cyanide 9014 Reactive Sulfide 9034 TCLP Extraction 1311 TCLP ICP Metals 6010D TCLP VOAS 8260 TCLP MERCURY – 7470A	IDW Sample	4/29/25	4/29/25

WC-12-A-202504	NA	IDW - AQUEOUS	TCLP BNA - 8270E pH-9040C FLASH POINT- 1010A PCB- 8082A TCLP PESTICIDES- 8081B REACTIVE CYANIDE - 9012B REACTIVE SULFIDE- 9034 PAINT FILTER-9095B TCLP VOAS- 8260D TCLP ICP METAL - 6010B TCLP MERCURY – 7470A	IDW Sample	4/29/25	4/29/25
WC-13-S-202504	NA	IDW - SOLID	Paint Filter 9095B Flashpoint 1010 PCB 8082A TCLP BNA 8270E TCLP Pesticide 8081B Corrosivity 9045C Reactive Cyanide 9014 Reactive Sulfide 9034 TCLP Extraction 1311 TCLP ICP Metals 6010D TCLP VOAS 8260 TCLP MERCURY – 7470A	IDW Sample	4/29/25	4/29/25
WC-13-A-202504	NA	IDW - AQUEOUS	TCLP BNA - 8270E pH-9040C FLASH POINT- 1010A PCB- 8082A TCLP PESTICIDES- 8081B REACTIVE CYANIDE - 9012B REACTIVE SULFIDE- 9034 PAINT FILTER-9095B TCLP VOAS- 8260D TCLP ICP METAL - 6010B TCLP MERCURY – 7470A	IDW Sample	4/29/25	4/29/25

I apologize for any inconvenience.

Ewa

From: Yazmeen Gomez <Yazmeen.Gomez@alliancetg.com>

Sent: Tuesday, April 29, 2025 9:59 AM

To: Poncyliusz, Ewa <Ewa.Poncyliusz@aecom.com>

Cc: Haryani, Amit <Amit.Haryani@aecom.com>; Tan, Paul <Paul.Tan@aecom.com>; Goldstein, Charlotte <charlotte.goldstein@aecom.com>

Subject: RE: Chemtech/Alliance - Samples - 11/14

Good morning,

5 days if you need results in a week or 10 days if you need standard TAT.

Best Regards,



Yazmeen Gomez
Sr. Project Manager
An Alliance Technical Group Company
Main: 908-789-8900
Direct: 908-728-3147
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com    

From: Poncyliusz, Ewa <Ewa.Poncyliusz@aecom.com>
Sent: Tuesday, April 29, 2025 5:53 AM
To: Yazmeen Gomez <Yazmeen.Gomez@alliancetg.com>
Cc: Haryani, Amit <Amit.Haryani@aecom.com>; Tan, Paul <Paul.Tan@aecom.com>; Goldstein, Charlotte <charlotte.goldstein@aecom.com>
Subject: Re: Chemtech/Alliance - Samples - 11/14

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good morning,

Can you please kindly help me and let me know what type of way turnaround I have to place on COC in order to receive the result in one week?

I appreciate your help.

Ewa

Get [Outlook for iOS](#)

From: Yazmeen Gomez <Yazmeen.Gomez@alliancetg.com>
Sent: Monday, April 28, 2025 3:21:51 PM
To: Poncyliusz, Ewa <Ewa.Poncyliusz@aecom.com>
Cc: Haryani, Amit <Amit.Haryani@aecom.com>; Tan, Paul <Paul.Tan@aecom.com>; Goldstein, Charlotte <charlotte.goldstein@aecom.com>
Subject: RE: Chemtech/Alliance - Samples - 11/14

Good afternoon,

No problem, Pick up confirmed for tomorrow afternoon.

Best Regards,



Yazmeen Gomez
Sr. Project Manager
An Alliance Technical Group Company

Main: 908-789-8900

Direct: 908-728-3147

Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092

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From: Poncyliusz, Ewa <Ewa.Poncyliusz@aecom.com>

Sent: Monday, April 28, 2025 2:24 PM

To: Yazmeen Gomez <Yazmeen.Gomez@alliancetg.com>

Cc: Haryani, Amit <Amit.Haryani@aecom.com>; Tan, Paul <Paul.Tan@aecom.com>; Goldstein, Charlotte <charlotte.goldstein@aecom.com>

Subject: Re: Chemtech/Alliance - Samples - 11/14

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good afternoon,

Is there any chance we can have samples pick up tmrr afternoon? Adres is 3660 Meeker Ave, however I may not be in the storage so please let the courier know to call me prior his arrival. I will let him know where to meet me.

If tomorrow doesn't work let me know if Thursday works for you.

I appreciate your help.

Ewa

Get [Outlook for iOS](#)

From: Yazmeen Gomez <Yazmeen.Gomez@alliancetg.com>

Sent: Tuesday, April 15, 2025 9:37:20 AM

To: Poncyliusz, Ewa <Ewa.Poncyliusz@aecom.com>

Cc: Haryani, Amit <Amit.Haryani@aecom.com>; Tan, Paul <Paul.Tan@aecom.com>; Goldstein, Charlotte <charlotte.goldstein@aecom.com>

Subject: RE: Chemtech/Alliance - Samples - 11/14

Good morning,

Bottle order delivery confirmed – the courier will give you a call with an ETA.

Best Regards,



Yazmeen Gomez
Sr. Project Manager
An Alliance Technical Group Company
Main: 908-789-8900
Direct: 908-728-3147
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com   

From: "Poncyliusz, Ewa" <Ewa.Poncyliusz@aecom.com>
Date: April 15, 2025 at 7:08:41 AM EDT
To: Kiran Saleem <kiran.saleem@alliancetg.com>, "Haryani, Amit" <Amit.Haryani@aecom.com>
Cc: "Tan, Paul" <Paul.Tan@aecom.com>, "Goldstein, Charlotte" <charlotte.goldstein@aecom.com>
Subject: RE: Chemtech/Alliance - Samples - 11/14

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good morning,

Can we please have deliver 2 sets on aqueous waste characterization bottlewares for our Meeker Ave Superfund project? Delivery address is 3066 Review Ave. Please make sure that your courier will call me prior arrival because most likely I will be at the field nearby.

Thank you

Ewa

From: Kiran Saleem <Kiran.Saleem@alliancetg.com>
Sent: Tuesday, March 4, 2025 1:06 PM
To: Haryani, Amit <Amit.Haryani@aecom.com>
Cc: Poncyliusz, Ewa <Ewa.Poncyliusz@aecom.com>
Subject: Re: Chemtech/Alliance - Samples - 11/14

Hello Amit and Ewa,

Hoping you are doing well. I am reaching out to check with you if you have any current or future projects with which we can help you with. Please let me know.

Thank you!

NOTE: Chemtech is now an Alliance Technical Group company. Please add AllianceTG.com to your safe senders list to ensure receipt of important emails.

Regards,



Kiran Saleem
Project Manager
Alliance Technical Group
Main: 908-789-8900
Direct: 908-728-3148
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

From: Kiran Saleem <Kiran.Saleem@alliancetg.com>
Sent: Friday, November 15, 2024 4:17 PM
To: Haryani, Amit <Amit.Haryani@aecom.com>
Cc: Poncyliusz, Ewa <Ewa.Poncyliusz@aecom.com>
Subject: Re: Chemtech/Alliance - Samples - 11/14

Amit,

Thankyou.

NOTE: Chemtech is now an Alliance Technical Group company. Please add AllianceTG.com to your safe senders list to ensure receipt of important emails.

Regards,

<image001.png>

Kiran Saleem
Project Manager
Alliance Technical Group
Main: 908-789-8900
Direct: 908-728-3148
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

From: Haryani, Amit <Amit.Haryani@aecom.com>
Sent: Friday, November 15, 2024 1:44 PM
To: Kiran Saleem <Kiran.Saleem@alliancetg.com>
Cc: Poncyliusz, Ewa <Ewa.Poncyliusz@aecom.com>
Subject: RE: Chemtech/Alliance - Samples - 11/14

Dear Kiran

Please proceed as detailed below in your email.

Regards
Amit

From: Kiran Saleem <Kiran.Saleem@alliancetg.com>
Sent: Friday, November 15, 2024 10:04 AM
To: Haryani, Amit <Amit.Haryani@aecom.com>
Subject: Chemtech/Alliance - Samples - 11/14

Good Morning Amit,

I hope this message finds you well. I wanted to inform you that the samples WC-10-A-202411 and WC-11-A-202411, which we received on 11/14, have been scheduled for cyanide analysis. As part of our standard protocol, we will be preserving a small volume of each sample for cyanide testing prior to conducting the analysis.

We are notifying you in advance as part of our procedure to keep you informed before proceeding with this step.

Thanks.

NOTE: Chemtech is now an Alliance Technical Group company. Please add AllianceTG.com to your safe senders list to ensure receipt of important emails.

Regards,

<image001.png>

Kiran Saleem
Project Manager
Alliance Technical Group
Main: 908-789-8900
Direct: 908-728-3148
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

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