

DATA PACKAGE GENERAL CHEMISTRY

PROJECT NAME : RFP 905

**WESTON SOLUTIONS, INC.
1090 King Georges Post Road
Suite 201
Edison, NJ - 08837-3703
Phone No: 732-585-4410**

**ORDER ID : Q1421
ATTENTION : Smita Sumbaly**



Laboratory Certification ID # 20012



1) GENERAL CHEMISTRY DATA	2
2) Signature Page	3
3) Case Narrative	4
4) Qualifier Page	6
5) Conformance/Non Conformance	7
6) QA Checklist	8
7) Chronicle	9
8) Sample Data	10
8.1) P001-CLAY-CF01-01	11
8.2) P001-CLAY-CF01-01	12
8.3) P001-CLAY-CF01-02	13
8.4) P001-CLAY-CF01-02	14
8.5) P001-CLAY-CF02-01	15
8.6) P001-CLAY-CF02-01	16
9) QC Data Summary For Genchem	17
9.1) Initial and Continuing Calibration Verification	18
9.2) Initial and Continuing Calibration Blank Summary	20
9.3) Preparation Blank Summary	22
9.4) Matrix Spike Summary	23
9.5) Duplicate Sample Summary	27
9.6) Laboratory Control Sample Summary	31
10) GENCHEM RAW DATA	33
10.1) GENCHEM RAW DATA - ANALYTICAL	34
10.1.1) LB134798	34
10.1.2) LB134832	37
10.2) GENCHEM RAW DATA - PREP	40
10.2.1) PB166860	40
10.2.2) PB166908	43
11) Analytical Runlogs	46
12) Standard Prep Logs	50
13) Shipping Document	83
13.1) Chain Of Custody	84
13.2) ROC	87
13.3) Lab Certificate	89
13.4) Internal COC	90

Cover Page

Order ID : Q1421

Project ID : RFP 905

Client : Weston Solutions, Inc.

Lab Sample Number

Q1421-01
Q1421-02
Q1421-03
Q1421-04
Q1421-05
Q1421-06
Q1421-07
Q1421-08
Q1421-09
Q1421-10

Client Sample Number

P001-CLAY-CF01-01
Q1421-01MS
Q1421-01MSD
P001-CLAY-CF01-01
Q1421-04MS
Q1421-04MSD
P001-CLAY-CF01-02
P001-CLAY-CF01-02
P001-CLAY-CF02-01
P001-CLAY-CF02-01

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 : _____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 12:55 pm, Mar 12, 2025

Date: 3/11/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

CASE NARRATIVE

Weston Solutions, Inc.

Project Name: RFP 905

Project # N/A

Chemtech Project # Q1421

Test Name: Cyanide, SPLP Cyanide

A. Number of Samples and Date of Receipt:

10 Solid samples were received on 02/24/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Cyanide, EPH, Mercury, Metals ICP-TAL, METALS TAL+CN, PCB, Pesticide-TCL, SPLP BNA, SPLP Cyanide, SPLP Extraction, SPLP ICP Metals, SPLP Mercury, SPLP PCB, SPLP Pesticide, SPLP VOA, SPLP ZHE Ext, SVOC-TCL BNA -20 and VOC-TCLVOA-10. This data package contains results for Cyanide, SPLP Cyanide.

C. Analytical Techniques:

The analysis of Cyanide, SPLP Cyanide was based on method 9012B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate (P001-CLAY-CF01-01DUP) analysis met criteria for all samples except for Cyanide due to results are below reporting limit.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike 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:

Calculation for CN Soil Sample:

Conversion of Results from $\mu\text{g/L}$ or ppb to mg/kg :

$$\text{Concentration (mg/kg)} = C \times \frac{V_f}{W \times S} \times \text{DF} / 1000$$

Where,

C = Instrument response in $\mu\text{g/L}$ CN from the calibration curve.

Vf = Final prepared (absorbing solution) volume (mL)

W = Initial aliquot amount (g) (Fraction of Sample amount taken in prep)

S = % Solids / 100 (Fraction of Percent Solids)

DF = Dilution Factor



Calculation for CN Water Sample:

$$\text{Concentration or Result } (\mu\text{g/L}) = \frac{C \times V_f}{V_i} \times \text{DF}$$

Where,

C = Instrument response in $\mu\text{g/L}$ CN from the calibration curve.

Vf = Final prepared (absorbing solution) volume (mL)

Vi = Initial aliquot amount (mL) (Sample amount taken in prep)

DF = Dilution Factor

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.

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 12:55 pm, Mar 12, 2025

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

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1421

MATRIX: Solid

METHOD: 9012B

	NA	NO	YES
1. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
2. Matrix Spike Duplicate Recoveries Met Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range. The Blank Spike met requirements for all samples.			✓
3. Sample Duplicate Analysis Met QC Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range. The Duplicate (P001-CLAY-CF01-01DUP) analysis met criteria for all samples except for Cyanide due to results are below reporting limit.		✓	
4. Digestion Holding Time Met If not met, list number of days exceeded for each sample:			✓

ADDITIONAL COMMENTS:

QA REVIEW

REVIEWED

By Sohil Jodhani, QA/QC Director at 12:51 pm, Mar 12, 2025

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1421

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: SOHIL JODHANI

Date: 03/11/2025

LAB CHRONICLE

OrderID:	Q1421	OrderDate:	2/24/2025 2:56:42 PM
Client:	Weston Solutions, Inc.	Project:	RFP 905
Contact:	Smita Sumbaly	Location:	H31,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1421-01	P001-CLAY-CF01-01	SOIL			02/24/25 09:40			02/24/25
			Cyanide	9012B		02/25/25	02/25/25 13:31	
Q1421-04	P001-CLAY-CF01-01	WATER			02/24/25 09:40			02/24/25
			SPLP Cyanide	9012B		02/27/25	02/27/25 10:55	
Q1421-07	P001-CLAY-CF01-02	SOIL			02/24/25 09:50			02/24/25
			Cyanide	9012B		02/25/25	02/25/25 13:36	
Q1421-08	P001-CLAY-CF01-02	WATER			02/24/25 09:50			02/24/25
			SPLP Cyanide	9012B		02/27/25	02/27/25 11:02	
Q1421-09	P001-CLAY-CF02-01	SOIL			02/24/25 10:00			02/24/25
			Cyanide	9012B		02/25/25	02/25/25 13:36	
Q1421-10	P001-CLAY-CF02-01	WATER			02/24/25 10:00			02/24/25
			SPLP Cyanide	9012B		02/27/25	02/27/25 11:02	



SAMPLE DATA

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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	02/24/25 09:40
Project:	RFP 905	Date Received:	02/24/25
Client Sample ID:	P001-CLAY-CF01-01	SDG No.:	Q1421
Lab Sample ID:	Q1421-01	Matrix:	SOIL
		% Solid:	70.3

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.097	J	1	0.061	0.35	mg/Kg	02/25/25 09:00	02/25/25 13:31	9012B

Comments:

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

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	02/24/25 09:40
Project:	RFP 905	Date Received:	02/24/25
Client Sample ID:	P001-CLAY-CF01-01	SDG No.:	Q1421
Lab Sample ID:	Q1421-04	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.0024	U	1	0.0024	0.0050	mg/L	02/27/25 08:00	02/27/25 10:55	9012B

Comments:

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

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	02/24/25 09:50
Project:	RFP 905	Date Received:	02/24/25
Client Sample ID:	P001-CLAY-CF01-02	SDG No.:	Q1421
Lab Sample ID:	Q1421-07	Matrix:	SOIL
		% Solid:	75.2

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.13	J	1	0.057	0.32	mg/Kg	02/25/25 09:00	02/25/25 13:36	9012B

Comments: _____

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

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	02/24/25 09:50
Project:	RFP 905	Date Received:	02/24/25
Client Sample ID:	P001-CLAY-CF01-02	SDG No.:	Q1421
Lab Sample ID:	Q1421-08	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.0024	U	1	0.0024	0.0050	mg/L	02/27/25 08:00	02/27/25 11:02	9012B

Comments: _____

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

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	02/24/25 10:00
Project:	RFP 905	Date Received:	02/24/25
Client Sample ID:	P001-CLAY-CF02-01	SDG No.:	Q1421
Lab Sample ID:	Q1421-09	Matrix:	SOIL
		% Solid:	78.4

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.081	J	1	0.055	0.31	mg/Kg	02/25/25 09:00	02/25/25 13:36	9012B

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	02/24/25 10:00
Project:	RFP 905	Date Received:	02/24/25
Client Sample ID:	P001-CLAY-CF02-01	SDG No.:	Q1421
Lab Sample ID:	Q1421-10	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.0024	U	1	0.0024	0.0050	mg/L	02/27/25 08:00	02/27/25 11:02	9012B

Comments:

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

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



QC RESULT SUMMARY

- 1
- 2
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Initial and Continuing Calibration Verification

Client: Weston Solutions, Inc.

SDG No.: Q1421

Project: RFP 905

RunNo.: LB134798

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Cyanide	mg/L	0.098	0.099	99	90-110	02/25/2025
Sample ID: CCV1 Cyanide	mg/L	0.25	0.25	100	90-110	02/25/2025
Sample ID: CCV2 Cyanide	mg/L	0.25	0.25	100	90-110	02/25/2025
Sample ID: CCV3 Cyanide	mg/L	0.26	0.25	104	90-110	02/25/2025

Initial and Continuing Calibration Verification

Client: Weston Solutions, Inc.

SDG No.: Q1421

Project: RFP 905

RunNo.: LB134832

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Cyanide	mg/L	0.095	0.099	96	90-110	02/27/2025
Sample ID: CCV1 Cyanide	mg/L	0.25	0.25	100	90-110	02/27/2025
Sample ID: CCV2 Cyanide	mg/L	0.25	0.25	100	90-110	02/27/2025
Sample ID: CCV3 Cyanide	mg/L	0.26	0.25	104	90-110	02/27/2025

Initial and Continuing Calibration Blank Summary

Client: Weston Solutions, Inc.

SDG No.: Q1421

Project: RFP 905

RunNo.: LB134798

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/25/2025
Sample ID: CCB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/25/2025
Sample ID: CCB2 Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/25/2025
Sample ID: CCB3 Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/25/2025

Initial and Continuing Calibration Blank Summary

Client: Weston Solutions, Inc.

SDG No.: Q1421

Project: RFP 905

RunNo.: LB134832

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.0024	0.005	02/27/2025
Sample ID: CCB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.0024	0.005	02/27/2025
Sample ID: CCB2 Cyanide	mg/L	< 0.0025	0.0025	U	0.0024	0.005	02/27/2025
Sample ID: CCB3 Cyanide	mg/L	< 0.0025	0.0025	U	0.0024	0.005	02/27/2025

Preparation Blank Summary

Client: Weston Solutions, Inc.

SDG No.: Q1421

Project: RFP 905

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: Cyanide	PB166860BL mg/Kg	< 0.1250	0.1250	U	0.044	0.25	02/25/2025
Sample ID: Cyanide	PB166908BL mg/L	< 0.0025	0.0025	U	0.0024	0.005	02/27/2025
Sample ID: Cyanide	PB166908TB mg/L	< 0.0025	0.0025	U	0.0024	0.005	02/27/2025

Matrix Spike Summary

Client:	Weston Solutions, Inc.	SDG No.:	Q1421
Project:	RFP 905	Sample ID:	Q1421-01
Client ID:	P001-CLAY-CF01-01MS	Percent Solids for Spike Sample:	70.3

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	2.70		0.097	J	2.8	1	93		02/25/2025

Matrix Spike Summary

Client:	Weston Solutions, Inc.	SDG No.:	Q1421
Project:	RFP 905	Sample ID:	Q1421-01
Client ID:	P001-CLAY-CF01-01MSD	Percent Solids for Spike Sample:	70.3

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	2.80		0.097	J	2.8	1	97		02/25/2025

Matrix Spike Summary

Client:	Weston Solutions, Inc.	SDG No.:	Q1421
Project:	RFP 905	Sample ID:	Q1421-04
Client ID:	P001-CLAY-CF01-01MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/L	75-125	0.036		0.0024	U	0.04	1	90		02/27/2025

Matrix Spike Summary

Client:	Weston Solutions, Inc.	SDG No.:	Q1421
Project:	RFP 905	Sample ID:	Q1421-04
Client ID:	P001-CLAY-CF01-01MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/L	75-125	0.036		0.0024	U	0.04	1	90		02/27/2025

Duplicate Sample Summary

Client:	Weston Solutions, Inc.	SDG No.:	Q1421
Project:	RFP 905	Sample ID:	Q1421-01
Client ID:	P001-CLAY-CF01-01DUP	Percent Solids for Spike Sample:	70.3

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.097	J	0.077	J	1	23	*	02/25/2025

Duplicate Sample Summary

Client:	Weston Solutions, Inc.	SDG No.:	Q1421
Project:	RFP 905	Sample ID:	Q1421-01
Client ID:	P001-CLAY-CF01-01MSD	Percent Solids for Spike Sample:	70.3

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	2.70		2.80		1	4		02/25/2025

Duplicate Sample Summary

Client:	Weston Solutions, Inc.	SDG No.:	Q1421
Project:	RFP 905	Sample ID:	Q1421-04
Client ID:	P001-CLAY-CF01-01DUP	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
Cyanide	mg/L	+/-20	0.0024	U	0.0024	U	1	0		02/27/2025

Duplicate Sample Summary

Client:	Weston Solutions, Inc.	SDG No.:	Q1421
Project:	RFP 905	Sample ID:	Q1421-04
Client ID:	P001-CLAY-CF01-01MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Cyanide	mg/L	+/-20	0.036		0.036		1	0		02/27/2025

Laboratory Control Sample Summary

Client: Weston Solutions, Inc.

SDG No.: Q1421

Project: RFP 905

Run No.: LB134798

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB166860BS							
Cyanide	mg/Kg	5	4.80		96	1	85-115	02/25/2025

Laboratory Control Sample Summary

Client: Weston Solutions, Inc.

SDG No.: Q1421

Project: RFP 905

Run No.: LB134832

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB166908BS							
Cyanide	mg/L	0.1	0.096		96	1	85-115	02/27/2025



RAW DATA

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- 3
- 4
- 5
- 6
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Test results

Aquakem 7.2AQ1

Page: 1

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

2/25/2025 14:01

Reviewed by : NF

Instrument ID : Konelab

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	98.054	0.0	0.073	
ICB1	0.947	0.0	0.002	
CCV1	251.936	0.0	0.186	
CCB1	0.553	0.0	0.002	
PB166857BL	0.542	0.0	0.002	
PB166857BS	101.472	0.0	0.076	
LOWPB166857	10.505	0.0	0.009	
HIGHPB166857	495.133	0.0	0.364	
Q1409-01	2.262	0.0	0.003	
Q1409-01DUP	1.704	0.0	0.003	
Q1409-01MS	41.231	0.0	0.032	
Q1409-01MSD	39.580	0.0	0.030	
PB166860BL	0.661	0.0	0.002	
PB166860BS	96.949	0.0	0.073	
CCV2	246.769	0.0	0.182	
CCB2	0.755	0.0	0.002	
Q1421-01	1.385	0.0	0.002	
Q1421-01DUP	1.108	0.0	0.002	
Q1421-02MS	38.946	0.0	0.030	
Q1421-02MSD	39.216	0.0	0.030	
Q1421-07	2.009	0.0	0.003	
Q1421-09	1.298	0.0	0.002	
CCV3	261.054	0.0	0.193	
CCB3	0.870	0.0	0.002	

105% (90 - 110) NF
99%
02-25-2025

NF
02-25-2025

N 24
Mean 72.289
SD 123.0089
CV% 170.16

Aquakem v. 7.2AQ1

Results from time period:

Tue Feb 25 12:16:28 2025

Tue Feb 25 13:36:57 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	-1.1519	µg/l	2/25/2025 12:16:28	
5.0PPBCN	A	Total CN	P	4.3333	µg/l	2/25/2025 12:16:29	
10PPBCN	A	Total CN	P	9.7604	µg/l	2/25/2025 12:16:30	
50PPBCN	A	Total CN	P	48.4751	µg/l	2/25/2025 12:16:31	
100PPBCN	A	Total CN	P	103.9065	µg/l	2/25/2025 12:16:32	
250PPBCN	A	Total CN	P	250.5879	µg/l	2/25/2025 12:16:33	
500PPBCN	A	Total CN	P	499.0887	µg/l	2/25/2025 12:16:34	
ICV1	S	Total CN	P	98.0542	µg/l	2/25/2025 13:16:31	
ICB1	S	Total CN	P	0.9466	µg/l	2/25/2025 13:16:32	
CCV1	S	Total CN	P	251.9362	µg/l	2/25/2025 13:16:34	
CCB1	S	Total CN	P	0.5529	µg/l	2/25/2025 13:16:36	
PB166857BL	S	Total CN	P	0.5425	µg/l	2/25/2025 13:16:38	
PB166857BS	S	Total CN	P	101.4719	µg/l	2/25/2025 13:16:40	
LOWPB166857	S	Total CN	P	10.5051	µg/l	2/25/2025 13:24:06	
HIGHPB166857	S	Total CN	P	495.1333	µg/l	2/25/2025 13:24:08	
Q1409-01	S	Total CN	P	2.262	µg/l	2/25/2025 13:24:10	
Q1409-01DUP	S	Total CN	P	1.7042	µg/l	2/25/2025 13:24:11	
Q1409-01MS	S	Total CN	P	41.2307	µg/l	2/25/2025 13:24:14	
Q1409-01MSD	S	Total CN	P	39.5803	µg/l	2/25/2025 13:24:15	
PB166860BL	S	Total CN	P	0.6614	µg/l	2/25/2025 13:31:37	
PB166860BS	S	Total CN	P	96.9494	µg/l	2/25/2025 13:31:38	
CCV2	S	Total CN	P	246.7688	µg/l	2/25/2025 13:31:39	
CCB2	S	Total CN	P	0.7554	µg/l	2/25/2025 13:31:40	
Q1421-01	S	Total CN	P	1.3854	µg/l	2/25/2025 13:31:41	
Q1421-01DUP	S	Total CN	P	1.108	µg/l	2/25/2025 13:31:42	
Q1421-02MS	S	Total CN	P	38.9463	µg/l	2/25/2025 13:31:45	
Q1421-03MSD	S	Total CN	P	39.216	µg/l	2/25/2025 13:31:46	
Q1421-07	S	Total CN	P	2.0089	µg/l	2/25/2025 13:36:53	
Q1421-09	S	Total CN	P	1.2985	µg/l	2/25/2025 13:36:54	
CCV3	S	Total CN	P	261.0541	µg/l	2/25/2025 13:36:55	
CCB3	S	Total CN	P	0.87	µg/l	2/25/2025 13:36:56	

Calibration results

Aquakem 7.2AQ1

Page: 1

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

2/25/2025 12:19

Reviewed by : NF

Instrument ID : Konelab

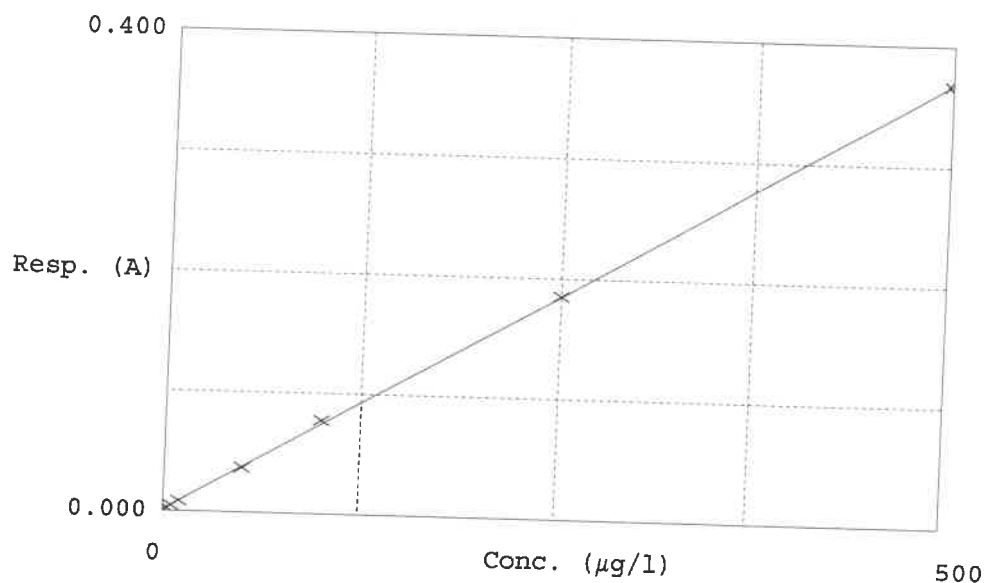
Test Total CN

Accepted 2/25/2025 12:19

Factor 1365
Bias 0.001

Coeff. of det. 0.999900

Errors



	Calibrator	Response	Calc. con.	Conc.	R _e Errors
1	0.0PPBCN	0.001	-1.1519	0.0000	
2	5.0PPBCN	0.005	4.3333	5.0000	-13.3
3	10PPBCN	0.009	9.7604	10.0000	-2.4
4	50PPBCN	0.037	48.4751	50.0000	-3.0
5	100PPBCN	0.078	103.9065	100.0000	3.9
6	250PPBCN	0.185	250.5879	250.0000	0.2
7	500PPBCN	0.367	499.0887	500.0000	-0.2

NF

02.25.2025

Test results

Aquakem 7.2AQ1

Page:

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

Reviewed by : NF Instrument ID : Konelab

2/27/2025 11:23

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	95.263	0.0	0.073	
ICB1	0.138	0.0	0.002	
CCV1	248.265	0.0	0.188	
CCB1	1.629	0.0	0.003	
PB166908BL	0.026	0.0	0.002	
PB166908BS	95.691	0.0	0.074	
PB166908TB	-0.293	0.0	0.002	
Q1421-04	0.004	0.0	0.002	
Q1421-04DUP	0.017	0.0	0.002	
Q1421-05MS	35.748	0.0	0.029	
Q1421-06MSD	36.206	0.0	0.029	
Q1421-08	0.825	0.0	0.003	
CCV2	249.347	0.0	0.189	
CCB2	1.467	0.0	0.003	
Q1421-10	1.890	0.0	0.003	
LOWPB166908	10.349	0.0	0.010	
HIGHPB166908BL	502.123	0.0	0.379	
CCV3	255.810	0.0	0.194	
CCB3	0.487	0.0	0.002	

N 19
Mean 80.789
SD 137.0933
CV% 169.69

NF 02.27.2025
103% (90-110)
100%

Aquakem v. 7.2AQ1

Results from time period:

Thu Feb 27 10:47:59 2025

Thu Feb 27 11:22:13 2025

Sample Id	Sam/Ctr/c	Test short r	Test type	Result	Result unit	Result date and time
0.0PPBCN	A	Total CN	P	-0.3624	µg/l	2/27/2025 9:24:44
5.0PPBCN	A	Total CN	P	4.4439	µg/l	2/27/2025 9:24:45
10PPBCN	A	Total CN	P	9.5345	µg/l	2/27/2025 9:24:46
50PPBCN	A	Total CN	P	48.6003	µg/l	2/27/2025 9:24:47
100PPBCN	A	Total CN	P	99.3908	µg/l	2/27/2025 9:24:48
250PPBCN	A	Total CN	P	256.2326	µg/l	2/27/2025 9:24:49
500PPBCN	A	Total CN	P	497.1604	µg/l	2/27/2025 9:24:50
ICV1	S	Total CN	P	95.2629	µg/l	2/27/2025 10:48:00
ICB1	S	Total CN	P	0.1384	µg/l	2/27/2025 10:48:01
CCV1	S	Total CN	P	248.2651	µg/l	2/27/2025 10:48:04
CCB1	S	Total CN	P	1.6295	µg/l	2/27/2025 10:48:06
PB166908BL	S	Total CN	P	0.0256	µg/l	2/27/2025 10:48:07
PB166908BS	S	Total CN	P	95.6914	µg/l	2/27/2025 10:48:09
PB166908TB	S	Total CN	P	-0.2929	µg/l	2/27/2025 10:55:32
Q1421-04	S	Total CN	P	0.004	µg/l	2/27/2025 10:55:38
Q1421-04DUP	S	Total CN	P	0.0169	µg/l	2/27/2025 10:55:39
Q1421-05MS	S	Total CN	P	35.7483	µg/l	2/27/2025 10:55:40
Q1421-06MSD	S	Total CN	P	36.2059	µg/l	2/27/2025 10:55:41
Q1421-08	S	Total CN	P	0.825	µg/l	2/27/2025 11:02:10
CCV2	S	Total CN	P	249.347	µg/l	2/27/2025 11:02:13
CCB2	S	Total CN	P	1.4673	µg/l	2/27/2025 11:02:14
Q1421-10	S	Total CN	P	1.8895	µg/l	2/27/2025 11:02:15
LOWPB166908	S	Total CN	P	10.349	µg/l	2/27/2025 11:22:08
HIGHPB166908	S	Total CN	P	502.1229	µg/l	2/27/2025 11:22:09
CCV3	S	Total CN	P	255.8102	µg/l	2/27/2025 11:22:11
CCB3	S	Total CN	P	0.4868	µg/l	2/27/2025 11:22:13

Calibration results

Aquakem 7.2AQ1

Page: 1

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

Reviewed by : NF

Instrument ID : Konelab

2/27/2025 9:27

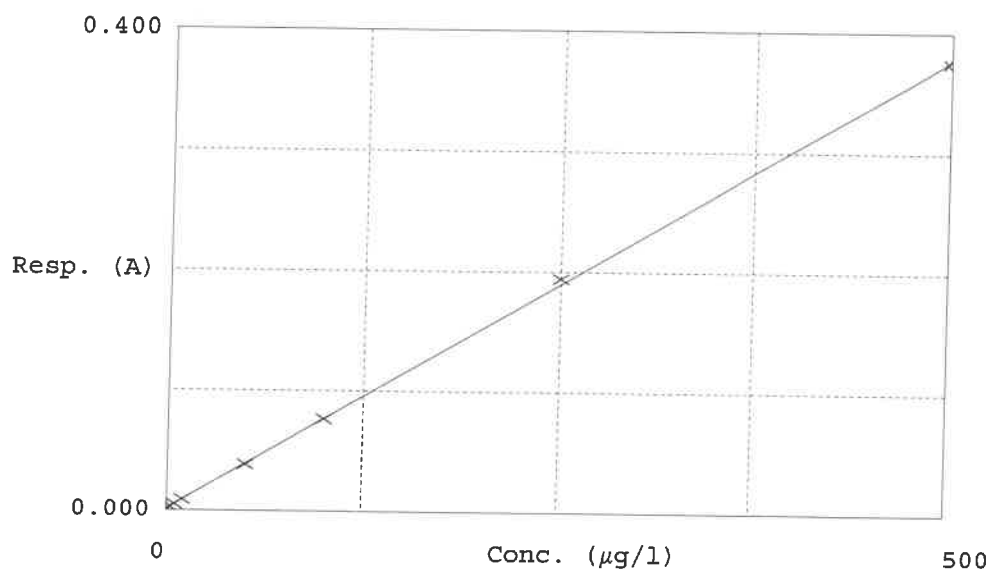
Test Total CN

Accepted 2/27/2025 9:27

Factor 1333
Bias 0.002

Coeff. of det. 0.999757

Errors



	Calibrator	Response	Calc. con.	Conc.	Re Errors
1	0.0PPBCN	0.002	-0.3624	0.0000	
2	5.0PPBCN	0.005	4.4439	5.0000	-11.1
3	10PPBCN	0.009	9.5345	10.0000	-4.7
4	50PPBCN	0.038	48.6003	50.0000	-2.6
5	100PPBCN	0.076	99.3908	100.0000	-0.6
6	250PPBCN	0.194	256.2326	250.0000	2.5
7	500PPBCN	0.375	497.1604	500.0000	-0.6

NF

02.27.2025

SOP ID : N/A

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 : JP

Start Digest Date: 02/25/2025 Time : 09:00 Temp : 124 °C

End Digest Date: 02/25/2025 Time : 10:30 Temp : 126 °C

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : WC CYANIDE

Prep Technician Signature:

Supervisor Signature:

Standardized Name	MLS USED	STD REF. # FROM LOG
LCSS	1ML	WP111296
MS/MSD SPIKE SOL.	0.40ML	WP111295
PBS003	50ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50ML	WP111294
50% v/v H2SO4	5ML	WP110391
51% w/v MgCL2	2ML	WP110390
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
S0	S0	N/A	N/A
S5.0	S5.0	N/A	N/A
S10.0	S10.0	N/A	N/A
S100.0	S100.0	N/A	N/A
S250.0	S250.0	N/A	N/A
S500.0	S500.0	N/A	N/A
ICV	ICV	0.5ML	AS PER PB166857
ICB	ICB	N/A	N/A
CCV	CCV	N/A	N/A
CCB	CCB	N/A	N/A
Midrange	Midrange	N/A	N/A
HIGHSTD	HIGHSTD	5.0ML	AS PER PB166857
LOWSTD	LOWSTD	0.1ML	AS PER PB166857

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02-25-2025 10:45	JP / WC	NF(WC)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/Nitrite	Comment	Prep Pos
PB166860BL	PBS860	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
PB166860BS	LCS860	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1421-01DUP	P001-CLAY-CF01-01DUP	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1421-01	P001-CLAY-CF01-01	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1421-02	Q1421-01MS	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1421-03	Q1421-01MSD	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1421-07	P001-CLAY-CF01-02	1.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1421-09	P001-CLAY-CF02-01	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : cn q1421

WorkList ID : 187868

Department : Distillation

Date : 02-25-2025 09:48:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1421-01	P001-CLAY-CF01-01	Solid	Cyanide	Cool 4 deg C	ROYF02	H31	02/24/2025	9012B
Q1421-02	Q1421-01MS	Solid	Cyanide	Cool 4 deg C	ROYF02	H31	02/24/2025	9012B
Q1421-03	Q1421-01MSD	Solid	Cyanide	Cool 4 deg C	ROYF02	H31	02/24/2025	9012B
Q1421-07	P001-CLAY-CF01-02	Solid	Cyanide	Cool 4 deg C	ROYF02	H31	02/24/2025	9012B
Q1421-09	P001-CLAY-CF02-01	Solid	Cyanide	Cool 4 deg C	ROYF02	H31	02/24/2025	9012B

Date/Time 02-25-2025 , 08:15
Raw Sample Received by: APL WOC
Raw Sample Relinquished by: APL SM

Date/Time 02-25-2025 , 11:00
Raw Sample Received by: APL SM
Raw Sample Relinquished by: APL WOC

SOP ID : N/A

SDG No : N/A

Matrix : WATER

Pipette ID : WC

Balance ID : N/A

Hood ID : HOOD#1

Block ID : MC-1, MC-2

Welgh By : N/A

Start Digest Date: 02/27/2025 Time : 08:00 Temp : 123 °C

End Digest Date: 02/27/2025 Time : 09:30 Temp : 126 °C

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Filter paper ID : N/A

Prep Technician Signature: JP

pH Meter ID : N/A

Supervisor Signature: 12

Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	1ML	WP111296
MS/MSD SPIKE SOL.	0.40ML	WP111295
PBW	50ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50ML	WP111294
50% v/v H2SO4	5ML	WP110391
51% w/v MgCL2	2ML	WP110390
pH Paper 0-14	N/A	W3121
Nitrate/Nitrite Strip	N/A	W3101
Lead Acetate strip	N/A	W3134
KI-starch paper	N/A	W3155
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
S0	S0	N/A	N/A
S5.0	S5.0	N/A	N/A
S10.0	S10.0	N/A	N/A
S100.0	S100.0	N/A	N/A
S250.0	S250.0	N/A	N/A
S500.0	S500.0	N/A	N/A
ICV	ICV	0.5ML	W3012
ICB	ICB	N/A	N/A
CCV	CCV	N/A	N/A
CCB	CCB	N/A	N/A
Midrange	Midrange	N/A	N/A
HIGHSTD	HIGHSTD	5.0ML	WP111295
LOWSTD	LOWSTD	0.1ML	WP111295

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02-27-2025, 09:40	<u>JP</u> / <u>WC</u>	<u>NF(WC)</u>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB166908BL	PBW908	50	50	>12	Negative	Negative	Negative	N/A	N/A
PB166908BS	LCS908	50	50	>12	Negative	Negative	Negative	N/A	N/A
PB166908TB	LEB908	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q1421-04DUP	P001-CLAY-CF01-01DUP	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q1421-04	P001-CLAY-CF01-01	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q1421-05	Q1421-04MS	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q1421-06	Q1421-04MSD	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q1421-08	P001-CLAY-CF01-02	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q1421-10	P001-CLAY-CF02-01	50	50	>12	Negative	Negative	Negative	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : SPLP CN-02272025 WorkList ID : 187939 Department : Distillation Date : 02-27-2025 07:30:49

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1421-04	P001-CLAY-CF01-01	Solid	SPLP Cyanide	Cool 4 deg C	ROYF02	H31	02/24/2025	9012B
Q1421-05	Q1421-04MS	Solid	SPLP Cyanide	Cool 4 deg C	ROYF02	H31	02/24/2025	9012B
Q1421-06	Q1421-04MSD	Solid	SPLP Cyanide	Cool 4 deg C	ROYF02	H31	02/24/2025	9012B
Q1421-08	P001-CLAY-CF01-02	Solid	SPLP Cyanide	Cool 4 deg C	ROYF02	H31	02/24/2025	9012B
Q1421-10	P001-CLAY-CF02-01	Solid	SPLP Cyanide	Cool 4 deg C	ROYF02	H31	02/24/2025	9012B

Date/Time 02.27.2025, 07:35
 Raw Sample Received by: Adwell
 Raw Sample Relinquished by: Adwell

Date/Time 02.27.2025, 12:00
 Raw Sample Received by: Adwell
 Raw Sample Relinquished by: Adwell

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134798

Review By	Niha	Review On	2/26/2025 4:37:22 PM
Supervise By	Iwona	Supervise On	2/27/2025 9:34:29 AM
SubDirectory	LB134798	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP112046,WP112047,WP112048,WP112049,WPP112050,WP112051,WP112052		
ICV Standard	W3012		
CCV Standard	WP112047		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP111035,WP110103,WP112053		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	02/25/25 12:16		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	02/25/25 12:16		Niha	OK
3	10PPBCN	10PPBCN	CAL3	02/25/25 12:16		Niha	OK
4	50PPBCN	50PPBCN	CAL4	02/25/25 12:16		Niha	OK
5	100PPBCN	100PPBCN	CAL5	02/25/25 12:16		Niha	OK
6	250PPBCN	250PPBCN	CAL6	02/25/25 12:16		Niha	OK
7	500PPBCN	500PPBCN	CAL7	02/25/25 12:16		Niha	OK
8	ICV1	ICV1	ICV	02/25/25 13:16		Niha	OK
9	ICB1	ICB1	ICB	02/25/25 13:16		Niha	OK
10	CCV1	CCV1	CCV	02/25/25 13:16		Niha	OK
11	CCB1	CCB1	CCB	02/25/25 13:16		Niha	OK
12	PB166857BL	PB166857BL	MB	02/25/25 13:16		Niha	OK
13	PB166857BS	PB166857BS	LCS	02/25/25 13:16		Niha	OK
14	LOWPB166857	LOWPB166857	SAM	02/25/25 13:24		Niha	OK
15	HIGHPB166857	HIGHPB166857	SAM	02/25/25 13:24		Niha	OK
16	Q1409-01	SURFACE-WATER-1	SAM	02/25/25 13:24		Niha	OK
17	Q1409-01DUP	SURFACE-WATER-1	DUP	02/25/25 13:24		Niha	OK
18	Q1409-01MS	SURFACE-WATER-1	MS	02/25/25 13:24		Niha	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134798

Review By	Niha	Review On	2/26/2025 4:37:22 PM
Supervise By	Iwona	Supervise On	2/27/2025 9:34:29 AM
SubDirectory	LB134798	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP112046,WP112047,WP112048,WP112049,WPP112050,WP112051,WP112052		
ICV Standard	W3012		
CCV Standard	WP112047		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP111035,WP110103,WP112053		

19	Q1409-01MSD	SURFACE-WATER-1	MSD	02/25/25 13:24		Niha	OK
20	PB166860BL	PB166860BL	MB	02/25/25 13:31		Niha	OK
21	PB166860BS	PB166860BS	LCS	02/25/25 13:31		Niha	OK
22	CCV2	CCV2	CCV	02/25/25 13:31		Niha	OK
23	CCB2	CCB2	CCB	02/25/25 13:31		Niha	OK
24	Q1421-01	P001-CLAY-CF01-01	SAM	02/25/25 13:31		Niha	OK
25	Q1421-01DUP	P001-CLAY-CF01-01	DUP	02/25/25 13:31		Niha	OK
26	Q1421-02	P001-CLAY-CF01-01	MS	02/25/25 13:31		Niha	OK
27	Q1421-03	P001-CLAY-CF01-01	MSD	02/25/25 13:31		Niha	OK
28	Q1421-07	P001-CLAY-CF01-02	SAM	02/25/25 13:36		Niha	OK
29	Q1421-09	P001-CLAY-CF02-01	SAM	02/25/25 13:36		Niha	OK
30	CCV3	CCV3	CCV	02/25/25 13:36		Niha	OK
31	CCB3	CCB3	CCB	02/25/25 13:36		Niha	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134832

Review By	Niha	Review On	2/28/2025 09:37:22 PM
Supervise By	Iwona	Supervise On	2/28/2025 09:46:20 PM
SubDirectory	LB134832	Test	SPLP Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP112081,WP112082,WP112083,WP112084,WP112085,WP112086,WP112087		
ICV Standard	W3012		
CCV Standard	WP112082		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111296		
Chk Standard	WP111035,WP110103,WP112088		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	02/27/25 09:24		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	02/27/25 09:24		Niha	OK
3	10PPBCN	10PPBCN	CAL3	02/27/25 09:24		Niha	OK
4	50PPBCN	50PPBCN	CAL4	02/27/25 09:24		Niha	OK
5	100PPBCN	100PPBCN	CAL5	02/27/25 09:24		Niha	OK
6	250PPBCN	250PPBCN	CAL6	02/27/25 09:24		Niha	OK
7	500PPBCN	500PPBCN	CAL7	02/27/25 09:24		Niha	OK
8	ICV1	ICV1	ICV	02/27/25 10:48		Niha	OK
9	ICB1	ICB1	ICB	02/27/25 10:48		Niha	OK
10	CCV1	CCV1	CCV	02/27/25 10:48		Niha	OK
11	CCB1	CCB1	CCB	02/27/25 10:48		Niha	OK
12	PB166908BL	PB166908BL	MB	02/27/25 10:48		Niha	OK
13	PB166908BS	PB166908BS	LCS	02/27/25 10:48		Niha	OK
14	PB166908TB	PB166908TB	MB	02/27/25 10:55		Niha	OK
15	Q1421-04	P001-CLAY-CF01-01	SAM	02/27/25 10:55		Niha	OK
16	Q1421-04DUP	P001-CLAY-CF01-01	DUP	02/27/25 10:55		Niha	OK
17	Q1421-05	P001-CLAY-CF01-01	MS	02/27/25 10:55		Niha	OK
18	Q1421-06	P001-CLAY-CF01-01	MSD	02/27/25 10:55		Niha	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134832

Review By	Niha	Review On	2/28/2025 09:37:22 PM
Supervise By	Iwona	Supervise On	2/28/2025 09:46:20 PM
SubDirectory	LB134832	Test	SPLP Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP112081,WP112082,WP112083,WP112084,WP112085,WP112086,WP112087		
ICV Standard	W3012		
CCV Standard	WP112082		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111296		
Chk Standard	WP111035,WP110103,WP112088		

19	Q1421-08	P001-CLAY-CF01-02	SAM	02/27/25 11:02		Niha	OK
20	CCV2	CCV2	CCV	02/27/25 11:02		Niha	OK
21	CCB2	CCB2	CCB	02/27/25 11:02		Niha	OK
22	Q1421-10	P001-CLAY-CF02-01	SAM	02/27/25 11:02		Niha	OK
23	LOWPB166908	LOWPB166908	SAM	02/27/25 11:22		Niha	OK
24	HIGHPB166908	HIGHPB166908	SAM	02/27/25 11:22		Niha	OK
25	CCV3	CCV3	CCV	02/27/25 11:22		Niha	OK
26	CCB3	CCB3	CCB	02/27/25 11:22		Niha	OK

Prep Standard - Chemical Standard Summary

Order ID : Q1421

Test : Cyanide,SPLP Cyanide

Prepbatch ID : PB166860,PB166908,

Sequence ID/Qc Batch ID: LB134798,LB134832,

Standard ID :

WP110103,WP110390,WP110391,WP111035,WP111294,WP111295,WP111296,WP112045,WP112046,WP112047,WP112048,WP112049,WP112051,WP112052,WP112053,WP112080,WP112081,WP112082,WP112083,WP112084,WP112085,WP112086,WP112087,WP112088,WPP112050,

Chemical ID :

M5673,M6121,W2668,W2882,W3001,W3012,W3019,W3101,W3112,W3113,W3121,W3138,W3139,W3154,

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>
539	CN BUFFER	WP110103	10/08/2024	04/08/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/08/2024
FROM 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>
3214	Magnesium Chloride For Cyanide 2.5M(51%W/V)	WP110390	10/24/2024	04/24/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/24/2024
FROM 500.00000ml of W3112 + 510.00000gram of W3001 = Final Quantity: 1000.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1714	Sulfuric Acid, 50% (v/v)	WP110391	10/24/2024	04/24/2025	Niha Farheen Shaik	None	None	Iwona Zarych 10/24/2024

FROM 1000.00000ml of M5673 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
607	PYRIDINE-BARBITURIC ACID	WP111035	12/09/2024	04/30/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych 12/10/2024

FROM 145.00000ml of W3112 + 15.00000gram of W2882 + 15.00000ml of M6121 + 75.00000ml of W3019 = Final Quantity: 250.000 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>
11	Sodium hydroxide absorbing solution 0.25 N	WP111294	01/07/2025	07/07/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 01/07/2025
FROM 21.00000L of W3112 + 210.00000gram of W3113 = Final Quantity: 21.000 L								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3850	Cyanide MS-MSD spiking solution, 5PPM	WP111295	01/07/2025	07/07/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 01/07/2025
FROM 1.00000ml of W3154 + 199.00000ml of WP111294 = Final Quantity: 200.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3371	Cyanide LCS Spike Solution, 5PPM	WP111296	01/07/2025	07/07/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 01/07/2025
FROM 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>
3456	Cyanide Intermediate Working Std, 5PPM	WP112045	02/25/2025	02/26/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/26/2025
FROM 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	WP112046	02/25/2025	02/26/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/26/2025
FROM 45.00000ml of WP111294 + 5.00000ml of WP112045 = 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	WP112047	02/25/2025	02/26/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/26/2025
FROM 2.50000ml of WP112045 + 47.50000ml 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>
6	Calibration Standard 100 ppb	WP112048	02/25/2025	02/26/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/26/2025
FROM 1.00000ml of WP112045 + 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	WP112049	02/25/2025	02/26/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/26/2025
FROM 0.50000ml of WP112045 + 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>
9	Calibration Standard 5 ppb	WP112051	02/25/2025	02/26/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/26/2025
FROM 0.50000ml of WP112046 + 49.50000ml of WP11294 = 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	WP112052	02/25/2025	02/26/2025	Niha Farheen Shaik	None	None	Iwona Zarych 02/26/2025
FROM 50.00000ml of WP11294 = 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>
1582	Chloramine T solution, 0.014M	WP112053	02/25/2025	02/26/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 02/26/2025
FROM 0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 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	WP112080	02/27/2025	02/28/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/28/2025
FROM 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	WP112081	02/27/2025	02/28/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/28/2025
FROM 45.00000ml of WP111294 + 5.00000ml of WP112080 = 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	WP112082	02/27/2025	02/28/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/28/2025
FROM 2.50000ml of WP112080 + 47.50000ml 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>
6	Calibration Standard 100 ppb	WP112083	02/27/2025	02/28/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/28/2025
FROM 1.00000ml of WP112080 + 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	WP112084	02/27/2025	02/28/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/28/2025
FROM 0.50000ml of WP112080 + 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>
8	Calibration Standard 10 ppb	WP112085	02/27/2025	02/28/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/28/2025
FROM 1.00000ml of WP112081 + 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	WP112086	02/27/2025	02/28/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/28/2025
FROM 0.50000ml of WP112081 + 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	WP112087	02/27/2025	02/28/2025	Niha Farheen Shaik	None	None	Iwona Zarych 02/28/2025

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>
1582	Chloramine T solution, 0.014M	WP112088	02/27/2025	02/28/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 02/28/2025

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-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	09/21/2023 / mohan	09/05/2023 / mohan	M5673

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 #
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.	EM-BX0035-3 / Barbituric Acid, 100 gms	1.00132.0100	04/30/2025	12/07/2021 / lwona	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.	01237-10KG / Magnesium Chloride Hexahydrate ACS 10KG	002251-03319	06/06/2027	01/23/2023 / lwona	06/06/2022 / lwona	W3001

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

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.	470112-662 / TEST STRIPES, NITRATE/NITRITE, PK50	402403	04/30/2026	05/02/2024 / lwona	04/10/2024 / lwona	W3101

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140444 / TEST PAPERS,PH 0-14,.5 SENSI,100PK	HC446507	07/25/2029	07/25/2024 / lwona	07/25/2024 / lwona	W3121

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 / lwona	08/28/2024 / lwona	W3138

CHEMICAL RECEIPT LOG BOOK

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 / lwona	09/09/2024 / lwona	W3139

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 / lwona	12/02/2024 / lwona	W3154

W2918
W3001
rec. 06/06/22
exp. 06/06/27

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Certificate of Analysis

Catalogue Number	01237
Product	Magnesium chloride hexahydrate
Lot Number	002251-03319 Magnesium chloride•6H ₂ O
CAS Number	7791-18-6
Molecular Formula	MgCl ₂ •6H ₂ O
Molecular Weight	203.3

Appearance	Colorless crystals, very deliquescent
Heavy Metals	< 5 ppm
Anion	Nitrate : < 0.001% Phosphate : < 5 ppm Sulfate : < 0.002%
Cation	Ammonium : < 0.002% Barium : < 0.005% Calcium : 0.0006% Iron : < 5 ppm Manganese : 1.8 ppm Potassium : 0.0006% Sodium : 0.0008% Strontium : 0.0015%
Insoluble material	0.0025%
Assay by titration	100.29%
Grade	ACS reagent
Storage	Store at RT
Country of Origin	India

Certificate of Analysis

Catalog Number: 01237

Lot Number: 002251-03319

Remarks

See material safety data sheet for additional information

For laboratory use only

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



Bala Kumar
Quality Control Manager

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:

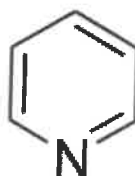
C₅H₅N

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.

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

avantor™



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

Certificate of Analysis

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

>>> Continued on page 2 >>>

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

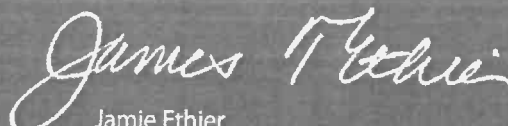


Material No.: 9673-33
Batch No.: 23D2462010

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

For Laboratory, Research, or Manufacturing Use

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


Jamie Ethier
Vice President Global Quality



QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

QATS LABORATORY INORGANIC REFERENCE MATERIAL
INITIAL CALIBRATION VERIFICATION SOLUTIONS
(ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or
Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

W2160, W2161, W2162,
W2163, W2164 Receive by
AP on 9/2/2016

(A) SAMPLE DESCRIPTION

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) BREAKAGE OR MISSING ITEMS

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) ANALYSIS OF SAMPLES

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.



Instructions for QATS Reference Material: *Inorganic ICV Solutions*

- ICV1-1014** For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.
- ICV5-0415** For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) K₂Cr₂O₇ and 5% (v/v) nitric acid.
- ICV6-0400** For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from K₃Fe(CN)₆, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

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

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

ICV1-1014		
Element	Concentration (µg/L) (after 10-fold dilution)	Concentration (µg/L) (after 50-fold dilution)
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

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

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



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

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

James Ethier
Jamie Ethier
Vice President Global Quality

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

Avantor Performance Materials, LLC

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



Certificate of Analysis

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

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	Manufacture Date:	12/14/2022
Molecular Weight:	40	Expiration Date:	12/31/2025
CAS #:	1310-73-2		
Appearance:		Storage:	Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature	Additional Information
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	Analysis may have been rounded to significant digits in specification limits. Product meets analytical specifications of the grades listed.



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
Chemistry Supervisor - Quality Control

ISO9001:2015 Registration #0306-01

W3139 Received on 9/9/24 by IZ

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

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

Order our products online thermofisher.com/chemicals

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

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



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)



SHIPPING DOCUMENTS

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Q1421

USEPA

CHAIN OF CUSTODY RECORD

No: 2-022425-130044-0031

DateShipped: 2/24/2025

Site #: 51835

RFP# NA

CarrierName:

Contact Name Josh Frizzell

Lab: Alliance Technical Group, LLC - Non
CLP

AirbillNo:

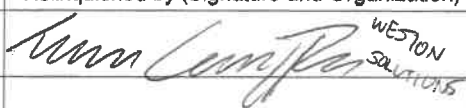
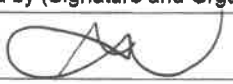
(470) 277-4600

Lab Phone: 908-728-3144

Lab #	Sample #	Location	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-Clay-CF01-01	HL_Pile	TAL VOCs	Soil	2/24/2025	09:40	9	5 gram Encore	4 C	Y
	P001-Clay-CF01-01	HL_Pile	Percent Moisture	Soil	2/24/2025	09:40	1	4 oz glass w/ septum	4 C	Y
	P001-Clay-CF01-01	HL_Pile	TAL SVOC+Pest+PCB	Soil	2/24/2025	09:40	4	8 oz glass	4 C	Y
	P001-Clay-CF01-01	HL_Pile	TAL Metals+Hg+CN	Soil	2/24/2025	09:40	4	8 oz glass	4 C	Y
	P001-Clay-CF01-01	HL_Pile	EPH	Soil	2/24/2025	09:40	2	4 oz glass	4 C	Y
	P001-Clay-CF01-01	HL_Pile	SPLP VOCs	Soil	2/24/2025	09:40	8	40 mL Amber Vial W/ Septum	4 C	Y
	P001-Clay-CF01-01	HL_Pile	SPLP SVOCs + Pesticides+PCBs	Soil	2/24/2025	09:40	4	8 oz glass	4 C	Y
	P001-Clay-CF01-01	HL_Pile	SPLP Metals + Hg&CN	Soil	2/24/2025	09:40	4	8 oz glass	4 C	Y
	P001-Clay-CF01-01	HL_Pile	SPLP EPH	Soil	2/24/2025	09:40	4	8 oz glass	4 C	Y

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT 7 days.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	 WESTON SOLUTIONS	2/24/25 1500		2-24-25 1425	4.9-C JLF new #1
					Temp BIK present
					custody seals intact

Q1421

USEPA

DateShipped: 2/24/2025

CarrierName:

AirbillNo:

CHAIN OF CUSTODY RECORD

Site #: 51835

Contact Name Josh Frizzell

(470) 277-4600

No: 2-022425-130044-0031

RFP# NA

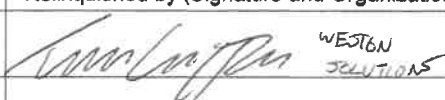
Lab: Alliance Technical Group, LLC - Non CLP

Lab Phone: 908-728-3144

Lab #	Sample #	Location	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-Clay-CF01-02	HL_Pile	TAL VOCs	Soil	2/24/2025	09:50	3	5 gram Encore	4 C	N
	P001-Clay-CF01-02	HL_Pile	Percent Moisture	Soil	2/24/2025	09:50	1	4 oz glass w/ septum	4 C	N
	P001-Clay-CF01-02	HL_Pile	TAL SVOC+Pest+PCB	Soil	2/24/2025	09:50	2	8 oz glass	4 C	N
	P001-Clay-CF01-02	HL_Pile	TAL Metals+Hg+CN	Soil	2/24/2025	09:50	2	8 oz glass	4 C	N
	P001-Clay-CF01-02	HL_Pile	EPH	Soil	2/24/2025	09:50	1	4 oz glass	4 C	N
	P001-Clay-CF01-02	HL_Pile	SPLP VOCs	Soil	2/24/2025	09:50	4	40 mL Amber Vial W/ Septum	4 C	N
	P001-Clay-CF01-02	HL_Pile	SPLP SVOCs + Pesticides+PCBs	Soil	2/24/2025	09:50	2	8 oz glass	4 C	N
	P001-Clay-CF01-02	HL_Pile	SPLP Metals + Hg&CN	Soil	2/24/2025	09:50	2	8 oz glass	4 C	N
	P001-Clay-CF01-02	HL_Pile	SPLP EPH	Soil	2/24/2025	09:50	2	8 oz glass	4 C	N

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT 7 days.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	 WESTON SOLUTIONS	2/24/25 1500		2-24-25 1425	4.9C TAL Anal. OK Temp dbk. passsent custody seals intact

Q1421

USEPA

DateShipped: 2/24/2025

CarrierName:

AirbillNo:

CHAIN OF CUSTODY RECORD

Site #: 51835

Contact Name Josh Frizzell

(470) 277-4600

No: 2-022425-130044-0031

RFP# NA

Lab: Alliance Technical Group, LLC - Non
CLP

Lab Phone: 908-728-3144

Lab #	Sample #	Location	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-Clay-CF02-01	HL_Pile	TAL VOCs	Soil	2/24/2025	10:00	3	5 gram Encore	4 C	N
	P001-Clay-CF02-01	HL_Pile	Percent Moisture	Soil	2/24/2025	10:00	1	4 oz glass w/ septum	4 C	N
	P001-Clay-CF02-01	HL_Pile	TAL SVOC+Pest+PCB	Soil	2/24/2025	10:00	2	8 oz glass	4 C	N
	P001-Clay-CF02-01	HL_Pile	TAL Metals+Hg+CN	Soil	2/24/2025	10:00	2	8 oz glass	4 C	N
	P001-Clay-CF02-01	HL_Pile	EPH	Soil	2/24/2025	10:00	1	4 oz glass	4 C	N
	P001-Clay-CF02-01	HL_Pile	SPLP VOCs	Soil	2/24/2025	10:00	4	40 mL Amber Vial W/ Septum	4 C	N
	P001-Clay-CF02-01	HL_Pile	SPLP SVOCs + Pesticides+PCBs	Soil	2/24/2025	10:00	2	8 oz glass	4 C	N
	P001-Clay-CF02-01	HL_Pile	SPLP Metals + Hg&CN	Soil	2/24/2025	10:00	2	8 oz glass	4 C	N
	P001-Clay-CF02-01	HL_Pile	SPLP EPH	Soil	2/24/2025	10:00	2	8 oz glass	4 C	N

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT 7 days.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
All SAMPLES ALL ANALYSES	 WESTON SOLUTIONS	2/24/25 1500		2-24-25 1425	4.9°C IR #1
					Temp. OK: present
					custody seals intact

From: Sumbaly, Smita <S.Sumbaly@WestonSolutions.com>
Sent: Tuesday, February 25, 2025 9:30 AM
To: Jordan@chemtech.net
Cc: yazmeen.gomez@alliancetg.com
Subject: RE: Site # 51835
Attachments: RFP#905-corrected COC.pdf

Jordan – Attached please find corrected COC with RFP# 905 and use the SW 846 Methods. Contact me with any questions.

Thanks,
Smita

From: Jordan Hedvat <Jordan@chemtech.net>
Sent: Monday, February 24, 2025 5:32 PM
To: Sumbaly, Smita <S.Sumbaly@WestonSolutions.com>
Cc: yazmeen.gomez@alliancetg.com
Subject: RE: Site # 51835

*** External Message *** -- PROBE message before clicking links or opening attachments.

Thanks, the COC did not mention specific Methods so we are running by standard SW-846. If CLP Methods required for these samples received today please let us know. COC is attached (# Q1421)

Regards,
Jordan



Jordan Hedvat
Account Executive, Environmental Laboratories
Main: 908-789-8900
Direct: 908-728-3144
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

From: Sumbaly, Smita [<mailto:S.Sumbaly@WestonSolutions.com>]
Sent: Monday, February 24, 2025 5:28 PM
To: Jordan@chemtech.net
Subject: Re: Site # 51835

Rfp#905

Sent from my iPhone

On Feb 24, 2025, at 4:36 PM, Jordan Hedvat <Jordan@chemtech.net> wrote:

*** External Message *** -- PROBE message before clicking links or opening attachments.

Good afternoon Smita,

We received project with COC titled "Site # 51835." Please confirm for which RFP # project this falls under so we may include the correct pricing provided at the time of bid? Thank you

Regards,
Jordan

<image001.png>

Jordan Hedvat

Account Executive, Environmental Laboratories

Main: 908-789-8900

Direct: 908-728-3144

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

www.alliancetg.com

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Laboratory Certification

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1421	ROYF02	Order Date : 2/24/2025 2:56:42 PM	Project Mgr :
Client Name : Weston Solutions, Inc.		Project Name : 51835 RFP 905	Report Type : Level 4
Client Contact : Smita Sumbaly		Receive DateTime : 2/24/2025 2:25:00 PM	EDD Type : EXCEL NOCLEANUP
Invoice Name : Weston Solutions, Inc.		Purchase Order :	Hard Copy Date :
Invoice Contact : Smita Sumbaly			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1421-01	P001-CLAY-CF01-01	Solid	02/24/2025	09:40	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1421-02	Q1421-01MS	Solid	02/24/2025	09:40	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1421-03	Q1421-01MSD	Solid	02/24/2025	09:40	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1421-07	P001-CLAY-CF01-02	Solid	02/24/2025	09:50	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1421-09	P001-CLAY-CF02-01	Solid	02/24/2025	10:00	VOC-TCLVOA-10		8260D	10 Bus. Days	

Relinquished By : 
Date / Time : 2-24-25 15:40

Received By : 
Date / Time : 2-24-25 15:40

Storage Area : VOA Refridgerator Room