

DATA PACKAGE GENERAL CHEMISTRY

PROJECT NAME : RAYMARK SUPERFUND SITE

NOBIS GROUP

585 Middlesex Street

Lowell, MA - 01851

Phone No: 978-683-0891

ORDER ID : Q1383

ATTENTION : Adam Roy



Laboratory Certification ID # 20012



1) GENERAL CHEMISTRY DATA	2
2) Signature Page	4
3) Case Narrative	5
4) Qualifier Page	6
5) Conformance/Non Conformance	7
6) QA Checklist	8
7) Chronicle	9
8) Sample Data	11
8.1) OU4-PCS-TC-11-021725	12
8.2) OU4-PCS-TC-12-021725	13
8.3) OU4-PCS-TC-13-021725	14
8.4) OU4-PCS-TC-14-021725	15
8.5) OU4-PCS-TC-15-021725	16
8.6) OU4-PCS-TC-16-021725	17
8.7) OU4-PCS-TC-17-021725	18
8.8) OU4-PCS-TC-18-021725	19
8.9) OU4-PCS-TC-19-021725	20
8.10) OU4-PCS-TC-20-021725	21
8.11) OU4-CF-15-021725	22
9) QC Data Summary For Genchem	23
9.1) Initial and Continuing Calibration Verification	24
9.2) Initial and Continuing Calibration Blank Summary	25
9.3) Preparation Blank Summary	26
9.4) Matrix Spike Summary	27
9.5) Duplicate Sample Summary	29
9.6) Laboratory Control Sample Summary	31
10) GENCHEM RAW DATA	32
10.1) GENCHEM RAW DATA - ANALYTICAL	33
10.1.1) LB134755	33
10.2) GENCHEM RAW DATA - PREP	38
10.2.1) PB166780	38
11) Analytical Runlogs	41
12) Standard Prep Logs	44
13) Percent Solid	72
14) Shipping Document	76

Table Of Contents for Q1383

14.1) Chain Of Custody	77
14.2) Lab Certificate	78
14.3) Internal COC	79

Cover Page

Order ID : Q1383

Project ID : Raymark Superfund Site

Client : Nobis Group

Lab Sample Number

Q1383-01
Q1383-02
Q1383-03
Q1383-04
Q1383-05
Q1383-06
Q1383-07
Q1383-08
Q1383-09
Q1383-10
Q1383-11
Q1383-12
Q1383-13
Q1383-14
Q1383-15
Q1383-16
Q1383-17
Q1383-18
Q1383-19
Q1383-20
Q1383-21
Q1383-22

Client Sample Number

OU4-PCS-TC-11-021725
OU4-PCS-TC-11-021725
OU4-PCS-TC-12-021725
OU4-PCS-TC-12-021725
OU4-PCS-TC-13-021725
OU4-PCS-TC-13-021725
OU4-PCS-TC-14-021725
OU4-PCS-TC-14-021725
OU4-PCS-TC-15-021725
OU4-PCS-TC-15-021725
OU4-PCS-TC-16-021725
OU4-PCS-TC-16-021725
OU4-PCS-TC-17-021725
OU4-PCS-TC-17-021725
OU4-PCS-TC-18-021725
OU4-PCS-TC-18-021725
OU4-PCS-TC-19-021725
OU4-PCS-TC-19-021725
OU4-PCS-TC-20-021725
OU4-PCS-TC-20-021725
OU4-CF-15-021725
OU4-CF-15-021725

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: 2/21/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

CASE NARRATIVE

Nobis Group

Project Name: Raymark Superfund Site

Project # N/A

Chemtech Project # Q1383

Test Name: Cyanide

A. Number of Samples and Date of Receipt:

22 Solid samples were received on 02/18/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SVOCMS Group3 and VOCMS Group3. This data package contains results for Cyanide.

C. Analytical Techniques:

The analysis of 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 analysis met criteria for all samples.

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:

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

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1383

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.			
4. Digestion Holding Time Met			✓
If not met, list number of days exceeded for each sample:			

ADDITIONAL COMMENTS:

QA REVIEW

Date

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1383

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: 02/21/2025

LAB CHRONICLE

OrderID:	Q1383	OrderDate:	2/18/2025 11:19:00 AM
Client:	Nobis Group	Project:	Raymark Superfund Site
Contact:	Adam Roy	Location:	H31,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1383-01	OU4-PCS-TC-11-0217 25	SOIL	Cyanide	9012B	02/17/25 09:20	02/19/25	02/19/25 13:42	02/18/25
Q1383-03	OU4-PCS-TC-12-0217 25	SOIL	Cyanide	9012B	02/17/25 09:25	02/19/25	02/19/25 13:42	02/18/25
Q1383-05	OU4-PCS-TC-13-0217 25	SOIL	Cyanide	9012B	02/17/25 09:30	02/19/25	02/19/25 13:42	02/18/25
Q1383-07	OU4-PCS-TC-14-0217 25	SOIL	Cyanide	9012B	02/17/25 09:35	02/19/25	02/19/25 13:49	02/18/25
Q1383-09	OU4-PCS-TC-15-0217 25	SOIL	Cyanide	9012B	02/17/25 09:40	02/19/25	02/19/25 13:49	02/18/25
Q1383-11	OU4-PCS-TC-16-0217 25	SOIL	Cyanide	9012B	02/17/25 09:45	02/19/25	02/19/25 13:49	02/18/25
Q1383-13	OU4-PCS-TC-17-0217 25	SOIL	Cyanide	9012B	02/17/25 09:50	02/19/25	02/19/25 13:49	02/18/25

LAB CHRONICLE

Q1383-15	OU4-PCS-TC-18-0217 25	SOIL			02/17/25 09:55			02/18/25
			Cyanide	9012B		02/19/25	02/19/25 13:49	
Q1383-17	OU4-PCS-TC-19-0217 25	SOIL			02/17/25 10:00			02/18/25
			Cyanide	9012B		02/19/25	02/19/25 13:49	
Q1383-19	OU4-PCS-TC-20-0217 25	SOIL			02/17/25 10:05			02/18/25
			Cyanide	9012B		02/19/25	02/19/25 13:55	
Q1383-21	OU4-CF-15-021725	SOIL			02/17/25 08:15			02/18/25
			Cyanide	9012B		02/19/25	02/19/25 13:49	



SAMPLE DATA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25 09:20
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-11-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-01	Matrix:	SOIL
		% Solid:	92.6

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.075	J	1	0.048	0.22	0.27	mg/Kg	02/19/25 10:15	02/19/25 13:42	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:	Nobis Group	Date Collected:	02/17/25 09:25
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-12-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-03	Matrix:	SOIL
		% Solid:	92.2

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.067	J	1	0.047	0.21	0.27	mg/Kg	02/19/25 10:15	02/19/25 13:42	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:	Nobis Group	Date Collected:	02/17/25 09:30
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-13-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-05	Matrix:	SOIL
		% Solid:	92.5

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.094	J	1	0.047	0.21	0.26	mg/Kg	02/19/25 10:15	02/19/25 13:42	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:	Nobis Group	Date Collected:	02/17/25 09:35
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-14-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-07	Matrix:	SOIL
		% Solid:	92.1

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.054	J	1	0.045	0.21	0.26	mg/Kg	02/19/25 10:15	02/19/25 13:49	9012B

Comments:

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25 09:40
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-15-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-09	Matrix:	SOIL
		% Solid:	92.5

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.082	J	1	0.047	0.21	0.27	mg/Kg	02/19/25 10:15	02/19/25 13:49	9012B

Comments: _____

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25 09:45
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-16-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-11	Matrix:	SOIL
		% Solid:	92.1

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.21	U	1	0.046	0.21	0.26	mg/Kg	02/19/25 10:15	02/19/25 13:49	9012B

Comments:

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25 09:50
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-17-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-13	Matrix:	SOIL
		% Solid:	91.4

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.091	J	1	0.047	0.21	0.27	mg/Kg	02/19/25 10:15	02/19/25 13:49	9012B

Comments:

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25 09:55
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-18-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-15	Matrix:	SOIL
		% Solid:	91.9

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.069	J	1	0.046	0.21	0.26	mg/Kg	02/19/25 10:15	02/19/25 13:49	9012B

Comments:

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25 10:00
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-19-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-17	Matrix:	SOIL
		% Solid:	92.1

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.22	U	1	0.047	0.22	0.27	mg/Kg	02/19/25 10:15	02/19/25 13:49	9012B

Comments:

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	02/17/25 10:05
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-PCS-TC-20-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-19	Matrix:	SOIL
		% Solid:	92.2

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.062	J	1	0.047	0.21	0.27	mg/Kg	02/19/25 10:15	02/19/25 13:55	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:	Nobis Group	Date Collected:	02/17/25 08:15
Project:	Raymark Superfund Site	Date Received:	02/18/25
Client Sample ID:	OU4-CF-15-021725	SDG No.:	Q1383
Lab Sample ID:	Q1383-21	Matrix:	SOIL
		% Solid:	92.5

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.21	U	1	0.047	0.21	0.26	mg/Kg	02/19/25 10:15	02/19/25 13:49	9012B

Comments:

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

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



QC RESULT SUMMARY

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Initial and Continuing Calibration Verification

Client: Nobis Group

SDG No.: Q1383

Project: Raymark Superfund Site

RunNo.: LB134755

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Cyanide	mg/L	0.096	0.099	97	90-110	02/19/2025
Sample ID: CCV1 Cyanide	mg/L	0.24	0.25	96	90-110	02/19/2025
Sample ID: CCV2 Cyanide	mg/L	0.24	0.25	96	90-110	02/19/2025
Sample ID: CCV3 Cyanide	mg/L	0.25	0.25	100	90-110	02/19/2025
Sample ID: CCV4 Cyanide	mg/L	0.24	0.25	96	90-110	02/19/2025
Sample ID: CCV5 Cyanide	mg/L	0.25	0.25	100	90-110	02/19/2025

Initial and Continuing Calibration Blank Summary

Client: Nobis Group

SDG No.: Q1383

Project: Raymark Superfund Site

RunNo.: LB134755

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	02/19/2025
Sample ID: CCB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/19/2025
Sample ID: CCB2 Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/19/2025
Sample ID: CCB3 Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/19/2025
Sample ID: CCB4 Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/19/2025
Sample ID: CCB5 Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/19/2025

Preparation Blank Summary

Client: Nobis Group

SDG No.: Q1383

Project: Raymark Superfund Site

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: Cyanide	PB166780BL mg/Kg	< 0.1250	0.1250	U	0.044	0.25	02/19/2025

Matrix Spike Summary

Client:	Nobis Group	SDG No.:	Q1383
Project:	Raymark Superfund Site	Sample ID:	Q1383-21
Client ID:	OU4-CF-15-021725MS	Percent Solids for Spike Sample:	92.5

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	2.10		0.047	U	2.1	1	100		02/19/2025

Matrix Spike Summary

Client:	Nobis Group	SDG No.:	Q1383
Project:	Raymark Superfund Site	Sample ID:	Q1383-21
Client ID:	OU4-CF-15-021725MSD	Percent Solids for Spike Sample:	92.5

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	2.00		0.047	U	2.1	1	95		02/19/2025

Duplicate Sample Summary

Client:	Nobis Group	SDG No.:	Q1383
Project:	Raymark Superfund Site	Sample ID:	Q1383-21
Client ID:	OU4-CF-15-021725DUP	Percent Solids for Spike Sample:	92.5

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.047	U	0.047	U	1	0		02/19/2025

Duplicate Sample Summary

Client:	Nobis Group	SDG No.:	Q1383
Project:	Raymark Superfund Site	Sample ID:	Q1383-21
Client ID:	OU4-CF-15-021725MSD	Percent Solids for Spike Sample:	92.5

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	2.10		2.00		1	5		02/19/2025

Laboratory Control Sample Summary

Client:	Nobis Group	SDG No.:	Q1383
Project:	Raymark Superfund Site	Run No.:	LB134755

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB166780BS							
Cyanide	mg/Kg	5	4.90		98	1	85-115	02/19/2025



RAW DATA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Test results

Aquakem 7.2AQ1

Page:

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

Reviewed by : NF

Instrument ID : Konelab

2/19/2025 15:31

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	95.824	0.0	0.074	
ICB1	0.245	0.0	0.002	
CCV1	241.420	0.0	0.183	
CCB1	0.309	0.0	0.002	
PB166756BL	0.376	0.0	0.002	
PB166756BS	94.598	0.0	0.073	
LOWPB166756	10.355	0.0	0.009	
HIGHPB166756	484.228	0.0	0.366	
Q1168-03	2.728	0.0	0.003	
Q1168-03 RE	4.176	0.0	0.004	
Q1382-01	0.307	0.0	0.002	
Q1382-03	0.365	0.0	0.002	
Q1382-05	0.589	0.0	0.002	
Q1382-07	1.775	0.0	0.003	
CCV2	240.004	0.0	0.182	
CCB2	0.561	0.0	0.002	
Q1382-09	1.096	0.0	0.002	
Q1382-11	0.670	0.0	0.002	
Q1382-13	2.419	0.0	0.003	
Q1382-15	0.478	0.0	0.002	
Q1382-17	1.330	0.0	0.002	
Q1382-19	0.487	0.0	0.002	
Q1382-19DUP	0.633	0.0	0.002	
Q1382-19MS	37.232	0.0	0.029	
Q1382-19MSD	37.177	0.0	0.029	
PB166780BL	0.425	0.0	0.002	
CCV3	246.344	0.0	0.187	
CCB3	0.670	0.0	0.002	
PB166780BS	97.399	0.0	0.075	
Q1383-01	1.396	0.0	0.002	
Q1383-03	1.262	0.0	0.002	
Q1383-05	1.770	0.0	0.003	
Q1383-07	1.051	0.0	0.002	
Q1383-09	1.523	0.0	0.002	
Q1383-11	0.367	0.0	0.002	
Q1383-13	1.698	0.0	0.003	
Q1383-15	1.310	0.0	0.002	
Q1383-17	0.628	0.0	0.002	
CCV4	237.217	0.0	0.180	
CCB4	0.974	0.0	0.002	
Q1383-21	0.422	0.0	0.002	
Q1383-21DUP	0.504	0.0	0.002	
Q1383-21MS	39.235	0.0	0.031	
Q1383-21MSD	38.039	0.0	0.030	
Q1383-19	1.168	0.0	0.002	
CCV5	249.994	0.0	0.190	
CCB5	0.670	0.0	0.002	

103% (90 - 110) NF
96%
02.19.2025

Page :

2/19/2025 15:31

Reviewed by : NF Instrument ID : Konelab

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	$\hat{\sigma}_{\mu}$
-----------	--------	----------	----------	----------------------

N	47
Mean	46.456
SD	100.2084
CV%	215.70

Aquakem v. 7.2AQ1

Results from time period:

Wed Feb 19 12:20:13 2025

Wed Feb 19 13:55:25 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	-0.4145	µg/l	2/19/2025 12:20:13	
5.0PPBCN	A	Total CN	P	5.2653	µg/l	2/19/2025 12:20:14	
10PPBCN	A	Total CN	P	10.0505	µg/l	2/19/2025 12:20:15	
50PPBCN	A	Total CN	P	49.8589	µg/l	2/19/2025 12:20:16	
100PPBCN	A	Total CN	P	98.5797	µg/l	2/19/2025 12:20:17	
250PPBCN	A	Total CN	P	252.7311	µg/l	2/19/2025 12:20:18	
500PPBCN	A	Total CN	P	498.9289	µg/l	2/19/2025 12:20:19	
ICV1	S	Total CN	P	95.8235	µg/l	2/19/2025 13:19:20	
ICB1	S	Total CN	P	0.2448	µg/l	2/19/2025 13:19:22	
CCV1	S	Total CN	P	241.4202	µg/l	2/19/2025 13:19:23	
CCB1	S	Total CN	P	0.3089	µg/l	2/19/2025 13:19:25	
PB166756BL	S	Total CN	P	0.3759	µg/l	2/19/2025 13:19:28	
PB166756BS	S	Total CN	P	94.5977	µg/l	2/19/2025 13:19:29	
LOWPB166756	S	Total CN	P	10.3546	µg/l	2/19/2025 13:26:56	
HIGHPB166756	S	Total CN	P	484.2277	µg/l	2/19/2025 13:26:57	
Q1168-03	S	Total CN	P	2.7279	µg/l	2/19/2025 13:27:00	
Q1168-03 RE	S	Total CN	P	4.1764	µg/l	2/19/2025 13:27:02	
Q1382-01	S	Total CN	P	0.3069	µg/l	2/19/2025 13:27:03	
Q1382-03	S	Total CN	P	0.3655	µg/l	2/19/2025 13:27:04	
Q1382-05	S	Total CN	P	0.5888	µg/l	2/19/2025 13:34:29	
Q1382-07	S	Total CN	P	1.775	µg/l	2/19/2025 13:34:30	
CCV2	S	Total CN	P	240.0038	µg/l	2/19/2025 13:34:31	
CCB2	S	Total CN	P	0.5607	µg/l	2/19/2025 13:34:32	
Q1382-09	S	Total CN	P	1.0963	µg/l	2/19/2025 13:34:33	
Q1382-11	S	Total CN	P	0.6696	µg/l	2/19/2025 13:34:34	
Q1382-13	S	Total CN	P	2.4193	µg/l	2/19/2025 13:34:35	
Q1382-15	S	Total CN	P	0.4778	µg/l	2/19/2025 13:34:36	
Q1382-17	S	Total CN	P	1.3298	µg/l	2/19/2025 13:34:37	
Q1382-19	S	Total CN	P	0.4866	µg/l	2/19/2025 13:34:38	
Q1382-19DUP	S	Total CN	P	0.6328	µg/l	2/19/2025 13:34:39	
Q1382-19MS	S	Total CN	P	37.2321	µg/l	2/19/2025 13:42:06	
Q1382-19MSD	S	Total CN	P	37.177	µg/l	2/19/2025 13:42:07	
PB166780BL	S	Total CN	P	0.4248	µg/l	2/19/2025 13:42:08	
CCV3	S	Total CN	P	246.3439	µg/l	2/19/2025 13:42:09	
CCB3	S	Total CN	P	0.6701	µg/l	2/19/2025 13:42:10	
PB166780BS	S	Total CN	P	97.3986	µg/l	2/19/2025 13:42:11	
Q1383-01	S	Total CN	P	1.3958	µg/l	2/19/2025 13:42:12	
Q1383-03	S	Total CN	P	1.2618	µg/l	2/19/2025 13:42:13	
Q1383-05	S	Total CN	P	1.7697	µg/l	2/19/2025 13:42:14	

Q1383-07	S	Total CN	P	1.0507 µg/l	2/19/2025 13:49:36
Q1383-09	S	Total CN	P	1.5232 µg/l	2/19/2025 13:49:37
Q1383-11	S	Total CN	P	0.3668 µg/l	2/19/2025 13:49:38
Q1383-13	S	Total CN	P	1.6978 µg/l	2/19/2025 13:49:39
Q1383-15	S	Total CN	P	1.3099 µg/l	2/19/2025 13:49:40
Q1383-17	S	Total CN	P	0.6276 µg/l	2/19/2025 13:49:41
CCV4	S	Total CN	P	237.2173 µg/l	2/19/2025 13:49:42
CCB4	S	Total CN	P	0.9744 µg/l	2/19/2025 13:49:43
Q1383-21	S	Total CN	P	0.4221 µg/l	2/19/2025 13:49:44
Q1383-21DUP	S	Total CN	P	0.5041 µg/l	2/19/2025 13:49:45
Q1383-21MS	S	Total CN	P	39.2349 µg/l	2/19/2025 13:55:20
Q1383-21MSD	S	Total CN	P	38.0387 µg/l	2/19/2025 13:55:21
Q1383-19	S	Total CN	P	1.1679 µg/l	2/19/2025 13:55:22
CCV5	S	Total CN	P	249.9942 µg/l	2/19/2025 13:55:24
CCB5	S	Total CN	P	0.67 µg/l	2/19/2025 13:55:25

1
2
3
4
5
6
7
8
9
10
11
12
13
14

=====
Calibration results Aquakem 7.2AQ1 Page: 1

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

2/19/2025 12:22 Reviewed by : NF Instrument ID : Konelab

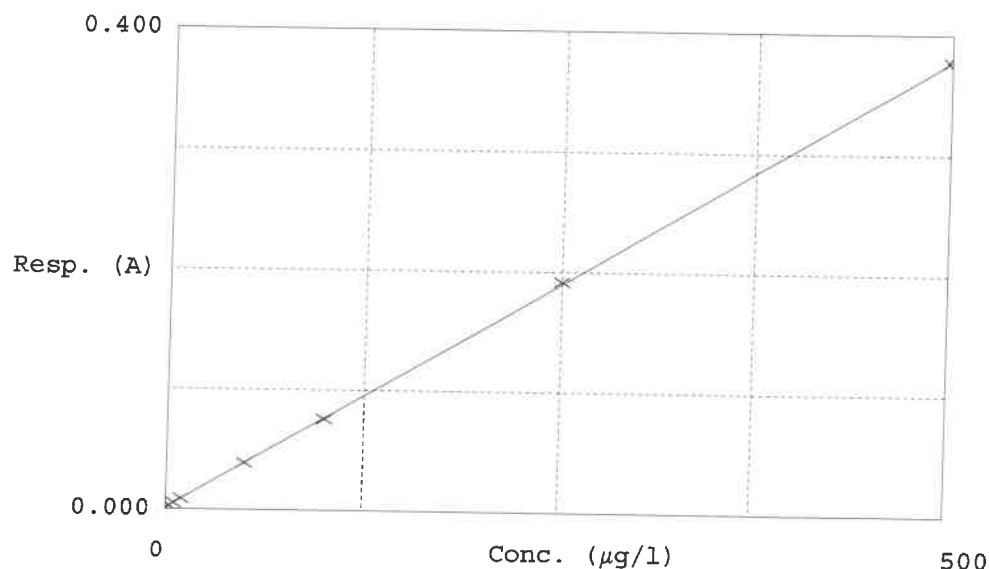
Test Total CN

Accepted 2/19/2025 12:22

Factor 1327
Bias 0.001

Coeff. of det. 0.999947

Errors



	Calibrator	Response	Calc. con.	Conc.	<i>Re</i> Errors
1	0.0PPBCN	0.001	-0.4145	0.0000	
2	5.0PPBCN	0.005	5.2653	5.0000	5.3
3	10PPBCN	0.009	10.0505	10.0000	0.5
4	50PPBCN	0.039	49.8589	50.0000	-0.3
5	100PPBCN	0.076	98.5797	100.0000	-1.4
6	250PPBCN	0.192	252.7311	250.0000	1.1
7	500PPBCN	0.377	498.9289	500.0000	-0.2

NF
02/19/2025

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: 02/19/2025 **Time :** 10:15 **Temp :** 124 °C
End Digest Date: 02/19/2025 **Time :** 11:45 **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: *JP*
Supervisor Signature: *12*

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 PB166756
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 PB166756
LOWSTD	LOWSTD	0.1ML	AS PER PB166756

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02-19-2025, 11:50	<i>JP</i> / <i>WC</i>	<i>NF (WC)</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB166780BL	PBS780	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
PB166780BS	LCS780	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-01	OU4-PCS-TC-11-021725	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-03	OU4-PCS-TC-12-021725	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-05	OU4-PCS-TC-13-021725	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-07	OU4-PCS-TC-14-021725	1.05	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-09	OU4-PCS-TC-15-021725	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-11	OU4-PCS-TC-16-021725	1.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-13	OU4-PCS-TC-17-021725	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-15	OU4-PCS-TC-18-021725	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-17	OU4-PCS-TC-19-021725	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-19	OU4-PCS-TC-20-021725	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-21	OU4-CF-15-021725	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-21DUP	OU4-CF-15-021725DUP	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-21MS	OU4-CF-15-021725MS	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1383-21MSD	OU4-CF-15-021725MSD	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : cn q1383

WorkList ID : 187754

Department : Distillation

Date : 02-18-2025 13:18:04

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1383-01	OU4-PCS-TC-11-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B
Q1383-03	OU4-PCS-TC-12-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B
Q1383-05	OU4-PCS-TC-13-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B
Q1383-07	OU4-PCS-TC-14-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B
Q1383-09	OU4-PCS-TC-15-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B
Q1383-11	OU4-PCS-TC-16-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B
Q1383-13	OU4-PCS-TC-17-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B
Q1383-15	OU4-PCS-TC-18-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B
Q1383-17	OU4-PCS-TC-19-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B
Q1383-19	OU4-PCS-TC-20-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B
Q1383-21	OU4-CF-15-021725	Solid	Cyanide	Cool 4 deg C	NOBI03	H31	02/17/2025	9012B

Date/Time 02.19.2025 07:45

Raw Sample Received by: AWG

Raw Sample Relinquished by: AWG

Date/Time 02.19.2025, 12:00

Raw Sample Received by: AWG

Raw Sample Relinquished by: AWG

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134755

Review By	Niha	Review On	2/21/2025 10:55:24 AM
Supervise By	Iwona	Supervise On	2/21/2025 11:43:52 AM
SubDirectory	LB134755	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP111978,WP111979,WP111980,WP111981,WP111982,WP111983,WP111984		
ICV Standard	W3012		
CCV Standard	WP111979		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111296		
Chk Standard	WP111035,WP1110103,WP111986		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	02/19/25 12:20		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	02/19/25 12:20		Niha	OK
3	10PPBCN	10PPBCN	CAL3	02/19/25 12:20		Niha	OK
4	50PPBCN	50PPBCN	CAL4	02/19/25 12:20		Niha	OK
5	100PPBCN	100PPBCN	CAL5	02/19/25 12:20		Niha	OK
6	250PPBCN	250PPBCN	CAL6	02/19/25 12:20		Niha	OK
7	500PPBCN	500PPBCN	CAL7	02/19/25 12:20		Niha	OK
8	ICV1	ICV1	ICV	02/19/25 13:19		Niha	OK
9	ICB1	ICB1	ICB	02/19/25 13:19		Niha	OK
10	CCV1	CCV1	CCV	02/19/25 13:19		Niha	OK
11	CCB1	CCB1	CCB	02/19/25 13:19		Niha	OK
12	PB166756BL	PB166756BL	MB	02/19/25 13:19		Niha	OK
13	PB166756BS	PB166756BS	LCS	02/19/25 13:19		Niha	OK
14	LOWPB166756	LOWPB166756	SAM	02/19/25 13:26		Niha	OK
15	HIGHPB166756	HIGHPB166756	SAM	02/19/25 13:26		Niha	OK
16	Q1168-03	MDL-SOIL-03-QT1-20	SAM	02/19/25 13:27		Niha	OK
17	Q1168-03RE	MDL-SOIL-03-QT1-20	SAM	02/19/25 13:27		Niha	OK
18	Q1382-01	OU4-PCS-TC-01-021	SAM	02/19/25 13:27		Niha	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134755

Review By	Niha	Review On	2/21/2025 10:55:24 AM
Supervise By	Iwona	Supervise On	2/21/2025 11:43:52 AM
SubDirectory	LB134755	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP111978,WP111979,WP111980,WP111981,WP111982,WP111983,WP111984		
ICV Standard	W3012		
CCV Standard	WP111979		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111296		
Chk Standard	WP111035,WP110103,WP111986		

19	Q1382-03	OU4-PCS-TC-02-021	SAM	02/19/25 13:27		Niha	OK
20	Q1382-05	OU4-PCS-TC-03-021	SAM	02/19/25 13:34		Niha	OK
21	Q1382-07	OU4-PCS-TC-04-021	SAM	02/19/25 13:34		Niha	OK
22	CCV2	CCV2	CCV	02/19/25 13:34		Niha	OK
23	CCB2	CCB2	CCB	02/19/25 13:34		Niha	OK
24	Q1382-09	OU4-PCS-TC-05-021	SAM	02/19/25 13:34		Niha	OK
25	Q1382-11	OU4-PCS-TC-06-021	SAM	02/19/25 13:34		Niha	OK
26	Q1382-13	OU4-PCS-TC-07-021	SAM	02/19/25 13:34		Niha	OK
27	Q1382-15	OU4-PCS-TC-08-021	SAM	02/19/25 13:34		Niha	OK
28	Q1382-17	OU4-PCS-TC-09-021	SAM	02/19/25 13:34		Niha	OK
29	Q1382-19	OU4-PCS-TC-10-021	SAM	02/19/25 13:34		Niha	OK
30	Q1382-19DUP	OU4-PCS-TC-10-021	DUP	02/19/25 13:34		Niha	OK
31	Q1382-19MS	OU4-PCS-TC-10-021	MS	02/19/25 13:42		Niha	OK
32	Q1382-19MSD	OU4-PCS-TC-10-021	MSD	02/19/25 13:42		Niha	OK
33	PB166780BL	PB166780BL	MB	02/19/25 13:42		Niha	OK
34	CCV3	CCV3	CCV	02/19/25 13:42		Niha	OK
35	CCB3	CCB3	CCB	02/19/25 13:42		Niha	OK
36	PB166780BS	PB166780BS	LCS	02/19/25 13:42		Niha	OK
37	Q1383-01	OU4-PCS-TC-11-021	SAM	02/19/25 13:42		Niha	OK
38	Q1383-03	OU4-PCS-TC-12-021	SAM	02/19/25 13:42		Niha	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134755

Review By	Niha	Review On	2/21/2025 10:55:24 AM
Supervise By	Iwona	Supervise On	2/21/2025 11:43:52 AM
SubDirectory	LB134755	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP111978,WP111979,WP111980,WP111981,WP111982,WP111983,WP111984		
ICV Standard	W3012		
CCV Standard	WP111979		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111296		
Chk Standard	WP111035,WP110103,WP111986		

39	Q1383-05	OU4-PCS-TC-13-021	SAM	02/19/25 13:42		Niha	OK
40	Q1383-07	OU4-PCS-TC-14-021	SAM	02/19/25 13:49		Niha	OK
41	Q1383-09	OU4-PCS-TC-15-021	SAM	02/19/25 13:49		Niha	OK
42	Q1383-11	OU4-PCS-TC-16-021	SAM	02/19/25 13:49		Niha	OK
43	Q1383-13	OU4-PCS-TC-17-021	SAM	02/19/25 13:49		Niha	OK
44	Q1383-15	OU4-PCS-TC-18-021	SAM	02/19/25 13:49		Niha	OK
45	Q1383-17	OU4-PCS-TC-19-021	SAM	02/19/25 13:49		Niha	OK
46	CCV4	CCV4	CCV	02/19/25 13:49		Niha	OK
47	CCB4	CCB4	CCB	02/19/25 13:49		Niha	OK
48	Q1383-21	OU4-CF-15-021725	SAM	02/19/25 13:49		Niha	OK
49	Q1383-21DUP	OU4-CF-15-021725D	DUP	02/19/25 13:49		Niha	OK
50	Q1383-21MS	OU4-CF-15-021725M	MS	02/19/25 13:55		Niha	OK
51	Q1383-21MSD	OU4-CF-15-021725M	MSD	02/19/25 13:55		Niha	OK
52	Q1383-19	OU4-PCS-TC-20-021	SAM	02/19/25 13:55		Niha	OK
53	CCV5	CCV5	CCV	02/19/25 13:55		Niha	OK
54	CCB5	CCB5	CCB	02/19/25 13:55		Niha	OK

Prep Standard - Chemical Standard Summary

Order ID : Q1383
Test : Cyanide,Percent Solids
Prepbatch ID : PB166780,
Sequence ID/Qc Batch ID: LB134755,

Standard ID :
WP110103,WP110390,WP110391,WP111035,WP111294,WP111295,WP111296,WP111977,WP111978,WP111979,WP111980,WP111981,WP111982,WP111983,WP111984,WP111986,

Chemical ID :
M5673,M6121,W2668,W2882,W3001,W3012,W3019,W3112,W3113,W3138,W3139,W3154,

1
2
3
4
5
6
7
8
9
10
11
12
13
14

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-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	WP111977	02/19/2025	02/20/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/21/2025
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	WP111978	02/19/2025	02/20/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/21/2025

FROM 45.00000ml of WP111294 + 5.00000ml of WP111977 = 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	WP111979	02/19/2025	02/20/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 02/21/2025

FROM 2.50000ml of WP111977 + 47.50000ml of WP111294 = Final Quantity: 50.000 ml

Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
6	Calibration Standard 100 ppb	WP111980	02/19/2025	02/20/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/21/2025
FROM 1.00000ml of WP111977 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml								

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
7	Calibration Standard 50 ppb	WP111981	02/19/2025	02/20/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/21/2025
FROM 0.50000ml of WP111977 + 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	WP111982	02/19/2025	02/20/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/21/2025
FROM 1.00000ml of WP111978 + 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	WP111983	02/19/2025	02/20/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/21/2025
FROM 0.50000ml of WP111978 + 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	WP111984	02/19/2025	02/20/2025	Niha Farheen Shaik	None	None	Iwona Zarych
								02/21/2025

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	WP111986	02/19/2025	02/20/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych
								02/21/2025

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 / apatel	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 #
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.	LC135457 / Cyanide Standard, 1000 PPM, Second Source	44080060	01/30/2025	09/06/2024 / lwona	08/28/2024 / lwona	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 / 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

Chem-Impex International, Inc.

Tel: (630) 766-2112
E-mail: sales@chemimpex.com
Shipping and Correspondence:
935 Dillon Drive
Wood Dale, IL 60191

Fax: (630) 766-2218
Web site: www.chemimpex.com
Manufacturing site:
825 Dillon Drive
Wood Dale, IL 60191

Certificate of Analysis

Catalogue Number	01237
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:

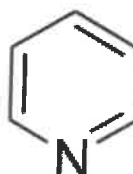
C₅H₅N

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.



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

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

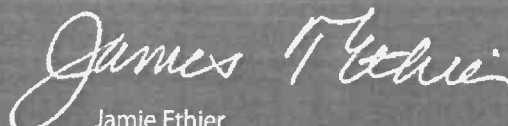


Material No.: 9673-33
Batch No.: 23D2462010

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

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	≤ 0.01 %	< 0.01
Chloride (Cl)	≤ 5 ppm	< 5
ACS – Sulfate (SO_4)	≤ 0.003 %	< 0.003
Calcium (Ca)	≤ 0.005 %	< 0.005
Potassium (K)	≤ 0.01 %	< 0.01
Heavy Metals (as Pb)	≤ 0.001 %	< 0.001
Trace Impurities – Iron (Fe)	≤ 0.001 %	< 0.001

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

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


Jamie Ethier
Vice President Global Quality

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

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: Pellets
Manufacture Date: 12/14/2022
Expiration Date: 12/31/2025
Storage: Room Temperature

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)

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 2/19/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 16:40
In Date: 02/18/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 02/19/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB134739

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
Q1380-06	BP-VPB-192-GW-725-727	1	1.15	8.48	9.63	1.78	7.4	SLUDGE SAMPLE
Q1380-07	Q1380-06MS	2	1.15	8.48	9.63	1.78	7.4	SLUDGE SAMPLE
Q1380-08	Q1380-06MSD	3	1.15	8.48	9.63	1.78	7.4	SLUDGE SAMPLE
Q1382-01	OU4-PCS-TC-01-021725	4	1.15	8.56	9.71	9.02	91.9	
Q1382-03	OU4-PCS-TC-02-021725	5	1.15	8.59	9.74	9.03	91.7	
Q1382-05	OU4-PCS-TC-03-021725	6	1.15	8.56	9.71	9.06	92.4	
Q1382-07	OU4-PCS-TC-04-021725	7	1.16	8.80	9.96	9.3	92.5	
Q1382-09	OU4-PCS-TC-05-021725	8	1.16	8.65	9.81	9.12	92.0	
Q1382-11	OU4-PCS-TC-06-021725	9	1.12	8.76	9.88	9.2	92.2	
Q1382-13	OU4-PCS-TC-07-021725	10	1.11	8.67	9.78	9.1	92.2	
Q1382-15	OU4-PCS-TC-08-021725	11	1.19	8.61	9.8	9.16	92.6	
Q1382-17	OU4-PCS-TC-09-021725	12	1.14	8.66	9.8	9.16	92.6	
Q1382-19	OU4-PCS-TC-10-021725	13	1.14	8.84	9.98	9.4	93.4	
Q1383-01	OU4-PCS-TC-11-021725	14	1.17	8.74	9.91	9.26	92.6	
Q1383-03	OU4-PCS-TC-12-021725	15	1.15	8.73	9.88	9.2	92.2	
Q1383-05	OU4-PCS-TC-13-021725	16	1.12	8.76	9.88	9.22	92.5	
Q1383-07	OU4-PCS-TC-14-021725	17	1.18	8.58	9.76	9.08	92.1	
Q1383-09	OU4-PCS-TC-15-021725	18	1.13	8.77	9.9	9.24	92.5	
Q1383-11	OU4-PCS-TC-16-021725	19	1.16	8.61	9.77	9.09	92.1	
Q1383-13	OU4-PCS-TC-17-021725	20	1.19	8.58	9.77	9.03	91.4	
Q1383-15	OU4-PCS-TC-18-021725	21	1.15	8.60	9.75	9.05	91.9	
Q1383-17	OU4-PCS-TC-19-021725	22	1.15	8.84	9.99	9.29	92.1	
Q1383-19	OU4-PCS-TC-20-021725	23	1.13	8.67	9.8	9.12	92.2	
Q1383-21	OU4-CF-15-021725	24	1.16	8.50	9.66	9.02	92.5	
Q1384-01	OR-03-021823025	25	1.15	8.81	9.96	8.96	88.6	
Q1384-02	OR-03-021823025-E2	26	1.17	8.82	9.99	9.04	89.2	
Q1385-01	ST-1	27	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1385-02	ST-1-E2	28	1.00	1.00	2.00	2.00	100.0	CONCRETE sample

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-021825

WorkList ID : 187742

Department : Wet-Chemistry

Date : 02-18-2025 08:35:18

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1380-06	BP-VPB-192-GW-725-727	Solid	Percent Solids	Cool 4 deg C	TETR06	H31	02/10/2025	Chemtech -SO
Q1380-07	Q1380-06MS	Solid	Percent Solids	Cool 4 deg C	TETR06	H31	02/10/2025	Chemtech -SO
Q1380-08	Q1380-06MSD	Solid	Percent Solids	Cool 4 deg C	TETR06	H31	02/10/2025	Chemtech -SO
Q1382-01	OU4-PCS-TC-01-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1382-03	OU4-PCS-TC-02-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1382-05	OU4-PCS-TC-03-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1382-07	OU4-PCS-TC-04-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1382-09	OU4-PCS-TC-05-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1382-11	OU4-PCS-TC-06-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1382-13	OU4-PCS-TC-07-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1382-15	OU4-PCS-TC-08-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1382-17	OU4-PCS-TC-09-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1382-19	OU4-PCS-TC-10-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1383-01	OU4-PCS-TC-11-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1383-03	OU4-PCS-TC-12-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1383-05	OU4-PCS-TC-13-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1383-07	OU4-PCS-TC-14-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1383-09	OU4-PCS-TC-15-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1383-11	OU4-PCS-TC-16-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1383-13	OU4-PCS-TC-17-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1383-15	OU4-PCS-TC-18-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO

Date/Time

02/18/25 15:00

Raw Sample Received by:

TH Weller

Raw Sample Relinquished by:

AP

Date/Time

02/18/25

Raw Sample Received by:

AP

Raw Sample Relinquished by:

S.W.C.

WORKLIST(Hardcopy Internal Chain)

5134739

WorkList Name : %1-021825 WorkList ID : 187742 Department : Wet-Chemistry Date : 02-18-2025 08:35:18

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1383-17	OU4-PCS-TC-19-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1383-19	OU4-PCS-TC-20-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1383-21	OU4-CF-15-021725	Solid	Percent Solids	Cool 4 deg C	NOBI03	H31	02/17/2025	Chemtech -SO
Q1384-01	OR-03-021823025	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	02/18/2025	Chemtech -SO
Q1384-02	OR-03-021823025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	02/18/2025	Chemtech -SO
Q1385-01	ST-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	H21	02/18/2025	Chemtech -SO
Q1385-02	ST-1-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	H21	02/18/2025	Chemtech -SO

Date/Time 02/18/25 15:00
 Raw Sample Received by: SP WWC
 Raw Sample Relinquished by: SP

Date/Time 02/18/25 17:00
 Raw Sample Received by: CP SR
 Raw Sample Relinquished by: SP WWC



SHIPPING DOCUMENTS

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chemtech

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

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
 East Longmeadow, MA 01028

Doc # 381 Rev 4_01/08/2020

ANALYSIS REQUESTED

Page 2 of 2

Q1383

Company Name: Nobis Group		Address: 55 Technology Dr Suite 101, Lowell, MA 01851		Phone: 978-703-6014		Fax: 978-703-6014		Project Name: Raymark		Project Location: Stratford, CT		Project Number: 95700		Project Manager: Adam Roy		Con-Test Quote Name/Number:		Invoice Recipient:		Sampled By:		A. Brittingham	
Requested Turnaround Time		5-Day ☐ 10-Day ☒		PFAS 10-Day (std) ☐ Rush-Approval Required ☐		Orthophosphate Samples ☐		Field Filtered ☐		Lab to Filter ☐		Field Filtered ☐		Lab to Filter ☐		PCB ONLY		SOXHLET ☒		NON SOXHLET ☐			
Format: PDF ☒ EXCEL ☒		CLP Like Data Pkg Required: ☐ No ☒		Email To: aroy@nobis-group.com		Fax To #:																	
Con-Test Work Order #	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	RCP VOCs	% Solids	PAHs	Herbicides	Pesticides	PCBs	Metals ICP + Hg - 6010	Cyanide	SPLP RCP Metals - 6020	Total Number Of: VIALS GLASS PLASTIC BACTERIA ENCORE			
	OU4-PCS-TC-11-021725	2/17/25	9:20	G	SO	3	2	1			X	X	X	X	X	X	X	X	X	Glassware in the fridge? Y / N			
	OU4-PCS-TC-12-021725	2/17/25	9:25	G	SO	3	2	1			X	X	X	X	X	X	X	X	X	Glassware in freezer? Y / N			
	OU4-PCS-TC-13-021725	2/17/25	9:30	G	SO	3	2	1			X	X	X	X	X	X	X	X	X	Prepackaged Cooler? Y / N			
	OU4-PCS-TC-14-021725	2/17/25	9:35	G	SO	3	2	1			X	X	X	X	X	X	X	X	X	*Contest is not responsible for missing samples from prepacked coolers			
	OU4-PCS-TC-15-021725	2/17/25	9:40	G	SO	3	2	1			X	X	X	X	X	X	X	X	X	1 Matrix Codes: GW = Ground Water WW = Waste Water DW = Drinking Water A = Air S = Soil SL = Sludge SOL = Solid O = Other (please define)			
	OU4-PCS-TC-16-021725	2/17/25	9:45	G	SO	3	2	1			X	X	X	X	X	X	X	X	X				
	OU4-PCS-TC-17-021725	2/17/25	9:50	G	SO	3	2	1			X	X	X	X	X	X	X	X	X				
	OU4-PCS-TC-18-021725	2/17/25	9:55	G	SO	3	2	1			X	X	X	X	X	X	X	X	X				
	OU4-PCS-TC-19-021725	2/17/25	10:00	G	SO	3	2	1			X	X	X	X	X	X	X	X	X				
	OU4-PCS-TC-20-021725	2/17/25	10:05	G	SO	3	2	1			X	X	X	X	X	X	X	X	X				
	OU4-CT-15-021725	2/17/25	8:15	G	SO	3	2	1			X	X	X	X	X	X	X	X	X				
Client Comments: 2/17/25																							
Retinquished by: (signature)		Date/Time: 2/17/25 1206																					
Received by: (signature)		Date/Time: 2-18-25 10:25																					
Retinquished by: (signature)		Date/Time:																					
Received by: (signature)		Date/Time:																					
Retinquished by: (signature)		Date/Time:																					
Received by: (signature)		Date/Time:																					
Retinquished by: (signature)		Date/Time:																					
Received by: (signature)		Date/Time:																					
Retinquished by: (signature)		Date/Time:																					
Received by: (signature)		Date/Time:																					
Lab Comments:		3.1 2/17/25 3.1																					
Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.																							

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 : Q1383	NOBI03	Order Date : 2/18/2025 11:19:00 AM	Project Mgr :
Client Name : Nobis Group		Project Name : Raymark Superfund Site	Report Type : Level 4
Client Contact : Adam Roy		Receive DateTime : 2/18/2025 10:25:00 AM	EDD Type : EQUIS
Invoice Name : Nobis Group		Purchase Order :	Hard Copy Date :
Invoice Contact : Adam Roy			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1383-01	OU4-PCS-TC-11-021725	Solid	02/17/2025	09:20					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-03	OU4-PCS-TC-12-021725	Solid	02/17/2025	09:25					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-05	OU4-PCS-TC-13-021725	Solid	02/17/2025	09:30					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-07	OU4-PCS-TC-14-021725	Solid	02/17/2025	09:35					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-09	OU4-PCS-TC-15-021725	Solid	02/17/2025	09:40					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-11	OU4-PCS-TC-16-021725	Solid	02/17/2025	09:45					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-13	OU4-PCS-TC-17-021725	Solid	02/17/2025	09:50					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-15	OU4-PCS-TC-18-021725	Solid	02/17/2025	09:55					

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1383	NOBI03	Order Date : 2/18/2025 11:19:00 AM	Project Mgr :
Client Name : Nobis Group		Project Name : Raymark Superfund Site	Report Type : Level 4
Client Contact : Adam Roy		Receive DateTime : 2/18/2025 10:25:00 AM	EDD Type : EQUIS
Invoice Name : Nobis Group		Purchase Order :	Hard Copy Date :
Invoice Contact : Adam Roy			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-17	OU4-PCS-TC-19-021725	Solid	02/17/2025	10:00					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-19	OU4-PCS-TC-20-021725	Solid	02/17/2025	10:05					
					VOCMS Group3		8260D	10 Bus. Days	
Q1383-21	OU4-PCS-TC-21-021725 OU4- EF-15	Solid	02/17/2025	08:15					
					VOCMS Group3		8260D	10 Bus. Days	

Relinquished By : af
Date / Time : 2-18-25 1245

Received By : AF
Date / Time : 02/18/25

Storage Area : VOA Refridgerator Room