

## DATA REPORTING QUALIFIERS- INORGANIC

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

<b>J</b>	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).
<b>U</b>	Indicates the analyte was analyzed for, but not detected.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>E</b>	Indicates the reported value is estimated because of the presence of interference
<b>M</b>	Indicates Duplicate injection precision not met.
<b>N</b>	Indicates the spiked sample recovery is not within control limits.
<b>S</b>	Indicates the reported value was determined by the Method of Standard Addition (MSA).
<b>*</b>	Indicates that the duplicate analysis is not within control limits.
<b>+</b>	Indicates the correlation coefficient for the MSA is less than 0.995.
<b>D</b>	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
<b>M</b>	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
<b>OR</b>	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements
<b>H</b>	Sample Analysis Out Of Hold Time

## LAB CHRONICLE

<b>OrderID:</b>	Q3790	<b>OrderDate:</b>	12/5/2025 10:01:00 AM
<b>Client:</b>	Tully Construction Co., Inc.	<b>Project:</b>	MTA 26 Stations - Pierrepont
<b>Contact:</b>	Dean Devoe	<b>Location:</b>	D31,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3790-02	304 FURMAN SOIL	SOIL			12/05/25 07:25			12/05/25
			Corrosivity	9045D			12/08/25 12:22	
			Ignitability	1030			12/08/25 09:40	
			Reactive Cyanide	9012B		12/08/25	12/08/25 11:21	
			Reactive Sulfide	9034		12/09/25	12/09/25 13:05	



# SAMPLE DATA

## Report of Analysis

Client: Tully Construction Co., Inc.  
Project: MTA 26 Stations - Pierrepont  
Client Sample ID: 304 FURMAN SOIL  
Lab Sample ID: Q3790-02

Date Collected: 12/05/25 07:25  
Date Received: 12/05/25  
SDG No.: Q3790  
Matrix: SOIL  
% Solid: 100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	7.95	H	1	0	0	pH		12/08/25 12:22	9045D
Ignitability	NO		1	0	0	oC		12/08/25 09:40	1030
Reactive Cyanide	0.0084	U	1	0.0084	0.050	mg/Kg	12/08/25 08:50	12/08/25 11:21	9012B
Reactive Sulfide	3.19	J	1	0.20	10.0	mg/Kg	12/09/25 09:15	12/09/25 13:05	9034

Comments: pH result reported at temperature 20.8 °C

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N = Spiked sample recovery not within control limits



# QC RESULT SUMMARY



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

### Initial and Continuing Calibration Verification

**Client:** Tully Construction Co., Inc.

**SDG No.:** Q3790

**Project:** MTA 26 Stations - Pierrepont

**RunNo.:** LB138145

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: <b>ICV1</b> Reactive Cyanide	mg/L	0.097	0.099	98	85-115	12/08/2025
Sample ID: <b>CCV1</b> Reactive Cyanide	mg/L	0.24	0.25	96	90-110	12/08/2025
Sample ID: <b>CCV2</b> Reactive Cyanide	mg/L	0.25	0.25	100	90-110	12/08/2025

## Initial and Continuing Calibration Verification

**Client:** Tully Construction Co., Inc.

**SDG No.:** Q3790

**Project:** MTA 26 Stations - Pierrepont

**RunNo.:** LB138148

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
Corrosivity		pH	7.01	7	100	90-110	12/08/2025
Sample ID:	CCV1						
Corrosivity		pH	2.02	2.00	101	90-110	12/08/2025
Sample ID:	CCV2						
Corrosivity		pH	12.02	12.00	100	90-110	12/08/2025



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

### Initial and Continuing Calibration Blank Summary

**Client:** Tully Construction Co., Inc.

**SDG No.:** Q3790

**Project:** MTA 26 Stations - Pierrepont

**RunNo.:** LB138145

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>ICB1</b> Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	12/08/2025
Sample ID: <b>CCB1</b> Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	12/08/2025
Sample ID: <b>CCB2</b> Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	12/08/2025



## Preparation Blank Summary

**Client:** Tully Construction Co., Inc.

**SDG No.:** Q3790

**Project:** MTA 26 Stations - Pierrepont

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>PB170846BL</b>							
Reactive Cyanide	mg/Kg	< 0.0250	0.0250	U	0.0084	0.05	12/08/2025
Sample ID: <b>PB170869BL</b>							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.201	10	12/09/2025

### Duplicate Sample Summary

<b>Client:</b>	Tully Construction Co., Inc.	<b>SDG No.:</b>	Q3790
<b>Project:</b>	MTA 26 Stations - Pierrepont	<b>Sample ID:</b>	Q3758-02
<b>Client ID:</b>	3462DUP	<b>Percent Solids for Spike Sample:</b>	100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Reactive Cyanide	mg/Kg	+/-20	0.0083	U	0.0083	U	1	0		12/08/2025

### Duplicate Sample Summary

<b>Client:</b>	Tully Construction Co., Inc.	<b>SDG No.:</b>	Q3790
<b>Project:</b>	MTA 26 Stations - Pierrepont	<b>Sample ID:</b>	Q3790-02
<b>Client ID:</b>	304 FURMAN SOILDUP	<b>Percent Solids for Spike Sample:</b>	100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ignitability	oC	+/-20	NO		NO		1	0		12/08/2025

## Duplicate Sample Summary

<b>Client:</b>	Tully Construction Co., Inc.	<b>SDG No.:</b>	Q3790
<b>Project:</b>	MTA 26 Stations - Pierrepont	<b>Sample ID:</b>	Q3795-08
<b>Client ID:</b>	RBR-200059DUP	<b>Percent Solids for Spike Sample:</b>	100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Corrosivity	pH	+/-20	7.50		7.51		1	0.13		12/08/2025

## Duplicate Sample Summary

<b>Client:</b> Tully Construction Co., Inc.	<b>SDG No.:</b> Q3790
<b>Project:</b> MTA 26 Stations - Pierrepont	<b>Sample ID:</b> Q3805-02
<b>Client ID:</b> 91725DUP	<b>Percent Solids for Spike Sample:</b> 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ignitability	oC	+/-20	NO		NO		1	0		12/08/2025

## Duplicate Sample Summary

<b>Client:</b> Tully Construction Co., Inc. <b>Project:</b> MTA 26 Stations - Pierrepont <b>Client ID:</b> REDUP	<b>SDG No.:</b> Q3790 <b>Sample ID:</b> Q3815-02 <b>Percent Solids for Spike Sample:</b> 100
--	--

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Reactive Sulfide	mg/Kg	+/-20	1.58	J	1.58	J	1	0		12/09/2025



# RAW DATA

## Analytical Summary Report

Analysis Method: 1030  
Parameter: Ignitability  
Run Number: LB138140

Reviewed By: Eman  
Supervisor Review By: Iwona

Seq	LabID	ClientID	DF	matrix	Result Status	Burning Rate	Anal Date	Anal Time
1	Q3790-02	304 FURMAN SOIL	1	Solid	NO	0.00	12/08/2025	09:40
2	Q3790-02DUP	304 FURMAN SOILDUP	1	Solid	NO	0.00	12/08/2025	09:47
3	Q3795-01	72-11966	1	Solid	NO	0.00	12/08/2025	09:54
4	Q3795-04	72-11966	1	Solid	NO	0.00	12/08/2025	10:02
5	Q3795-05	RBR 200059	1	Solid	NO	0.00	12/08/2025	10:10
6	Q3795-08	RBR-200059	1	Solid	NO	0.00	12/08/2025	10:17
7	Q3803-01	CHASE-A	1	Solid	NO	0.00	12/08/2025	10:25
8	Q3803-02	CHASE-B	1	Solid	NO	0.00	12/08/2025	10:32
9	Q3803-03	CHASE-C	1	Solid	NO	0.00	12/08/2025	10:40
10	Q3803-04	CHASE-D	1	Solid	NO	0.00	12/08/2025	10:47
11	Q3803-05	CHASE-E	1	Solid	NO	0.00	12/08/2025	10:55
12	Q3803-06	CHASE-F	1	Solid	NO	0.00	12/08/2025	11:02
13	Q3803-07	CHASE-G	1	Solid	NO	0.00	12/08/2025	11:10
14	Q3803-08	CHASE-H	1	Solid	NO	0.00	12/08/2025	11:17
15	Q3803-09	CHASE-I	1	Solid	NO	0.00	12/08/2025	11:25
16	Q3803-10	CHASE-J	1	Solid	NO	0.00	12/08/2025	11:32
17	Q3803-11	CHASE-K	1	Solid	NO	0.00	12/08/2025	11:40
18	Q3803-12	CHASE-L	1	Solid	NO	0.00	12/08/2025	11:47
19	Q3803-13	CHASE-M	1	Solid	NO	0.00	12/08/2025	11:55
20	Q3803-14	CHASE-N	1	Solid	NO	0.00	12/08/2025	12:02
21	Q3804-01	120325-A	1	Solid	NO	0.00	12/08/2025	12:10
22	Q3804-03	120325-B	1	Solid	NO	0.00	12/08/2025	12:17
23	Q3804-04	120325-C	1	Solid	NO	0.00	12/08/2025	12:25
24	Q3805-02	91725	1	Solid	NO	0.00	12/08/2025	12:32
25	Q3805-02DUP	91725DUP	1	Solid	NO	0.00	12/08/2025	12:39

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



# WORKLIST(Hardcopy Internal Chain)

16138140

WorkList Name : IGN-120825

WorkList ID : 193520

Department : Wet-Chemistry

Date : 12-08-2025 08:20:06

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3790-02	304 FURMAN SOIL	Solid	Ignitability	Cool 4 deg C	TULL02	D31	12/05/2025	1030
Q3795-01	72-11966	Solid	Ignitability	Cool 4 deg C	PSEG03	D11	12/05/2025	1030
Q3795-04	72-11966	Solid	Ignitability	Cool 4 deg C	PSEG03	D11	12/05/2025	1030
Q3795-05	RBR 200059	Solid	Ignitability	Cool 4 deg C	PSEG03	D11	12/05/2025	1030
Q3795-08	RBR-200059	Solid	Ignitability	Cool 4 deg C	PSEG03	D11	12/05/2025	1030
Q3803-01	CHASE-A	Solid	Ignitability	Cool 4 deg C	PSEG03	D11	12/05/2025	1030
Q3803-02	CHASE-B	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-03	CHASE-C	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-04	CHASE-D	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-05	CHASE-E	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-06	CHASE-F	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-07	CHASE-G	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-08	CHASE-H	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-09	CHASE-I	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-10	CHASE-J	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-11	CHASE-K	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-12	CHASE-L	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-13	CHASE-M	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3803-14	CHASE-N	Solid	Ignitability	Cool 4 deg C	PSEG03	A42	12/05/2025	1030
Q3804-01	120325-A	Solid	Ignitability	Cool 4 deg C	PSEG03	A23	12/05/2025	1030
Q3804-03	120325-B	Solid	Ignitability	Cool 4 deg C	PSEG03	A23	12/05/2025	1030

Date/Time 12/8/25 08:30  
 Raw Sample Received by: EM(WC)  
 Raw Sample Relinquished by: JG(WC)

Date/Time 12/8/25 12:50  
 Raw Sample Received by: JG(WC)  
 Raw Sample Relinquished by: EM(WC)

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : IGN-120825

WorkList ID : 193520

Department : Wet-Chemistry

Date : 12-08-2025 09:34:06

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3804-04	120325-C	Solid	Ignitability	Cool 4 deg C	PSEG03	A23	12/05/2025	1030
Q3805-02	91725	Solid	Ignitability	Cool 4 deg C	PSEG03	A31	12/05/2025	1030

Date/Time 12/8/25 08:30  
 Raw Sample Received by: EM(WC)  
 Raw Sample Relinquished by: JG WC 7

Date/Time 12/8/25 12:50  
 Raw Sample Received by: JG WC 1  
 Raw Sample Relinquished by: EM(WC)

LB138

Test results

Aquakem 7.2AQ1

Page:

Alliance Technical Group

284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

12/8/2025 11:30

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	96.674	0.0	0.082	
ICB1	-0.204	0.0	0.001	
CCV1	244.011	0.0	0.203	
CCB1	-0.201	0.0	0.001	
PB17846BL	-0.525	0.0	0.001	
Q3758-02	-0.804	0.0	0.001	
Q3758-02DUP	-0.948	0.0	0.001	
Q3770-01	-0.309	0.0	0.001	
Q3775-01	-0.367	0.0	0.001	
Q3780-01	-0.613	0.0	0.001	
Q3790-02	-0.357	0.0	0.001	
Q3795-04	-0.536	0.0	0.001	
Q3795-08	-0.540	0.0	0.001	
CCV2	251.249	0.0	0.209	
CCB2	-0.255	0.0	0.001	

N	15
Mean	39.085
SD	88.2779
CV%	225.86

Aquakem v. 7.2AQ1

Results from time period:

Mon Dec 08 09:25:08 2025

Mon Dec 08 11:29:33 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	-0.2834	µg/l	12/8/2025 10:45:03	
5.0PPBCN	A	Total CN	P	3.8071	µg/l	12/8/2025 10:45:04	
10PPBCN	A	Total CN	P	9.438	µg/l	12/8/2025 10:45:05	
50PPBCN	A	Total CN	P	49.9363	µg/l	12/8/2025 10:45:06	
100PPBCN	A	Total CN	P	100.9069	µg/l	12/8/2025 10:45:07	
250PPBCN	A	Total CN	P	252.6937	µg/l	12/8/2025 10:45:08	
500PPBCN	A	Total CN	P	498.5013	µg/l	12/8/2025 10:45:09	
ICV1	S	Total CN	P	96.6741	µg/l	12/8/2025 11:13:22	
ICB1	S	Total CN	P	-0.204	µg/l	12/8/2025 11:13:24	
CCV1	S	Total CN	P	244.0112	µg/l	12/8/2025 11:13:26	
CCB1	S	Total CN	P	-0.2013	µg/l	12/8/2025 11:13:27	
PB17846BL	S	Total CN	P	-0.5246	µg/l	12/8/2025 11:13:29	
Q3758-02	S	Total CN	P	-0.8045	µg/l	12/8/2025 11:20:53	
Q3758-02DUP	S	Total CN	P	-0.948	µg/l	12/8/2025 11:20:57	
Q3770-01	S	Total CN	P	-0.3086	µg/l	12/8/2025 11:20:58	
Q3775-01	S	Total CN	P	-0.3673	µg/l	12/8/2025 11:20:59	
Q3780-01	S	Total CN	P	-0.6127	µg/l	12/8/2025 11:21:00	
Q3790-02	S	Total CN	P	-0.3573	µg/l	12/8/2025 11:21:01	
Q3795-04	S	Total CN	P	-0.5356	µg/l	12/8/2025 11:21:02	
Q3795-08	S	Total CN	P	-0.5396	µg/l	12/8/2025 11:21:03	
CCV2	S	Total CN	P	251.2485	µg/l	12/8/2025 11:25:44	
CCB2	S	Total CN	P	-0.255	µg/l	12/8/2025 11:29:32	

Calibration results

Aquakem 7.2AQ1

Page: 1

Alliance Technical Group  
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM Instrument ID : Konelab

12/8/2025 10:48

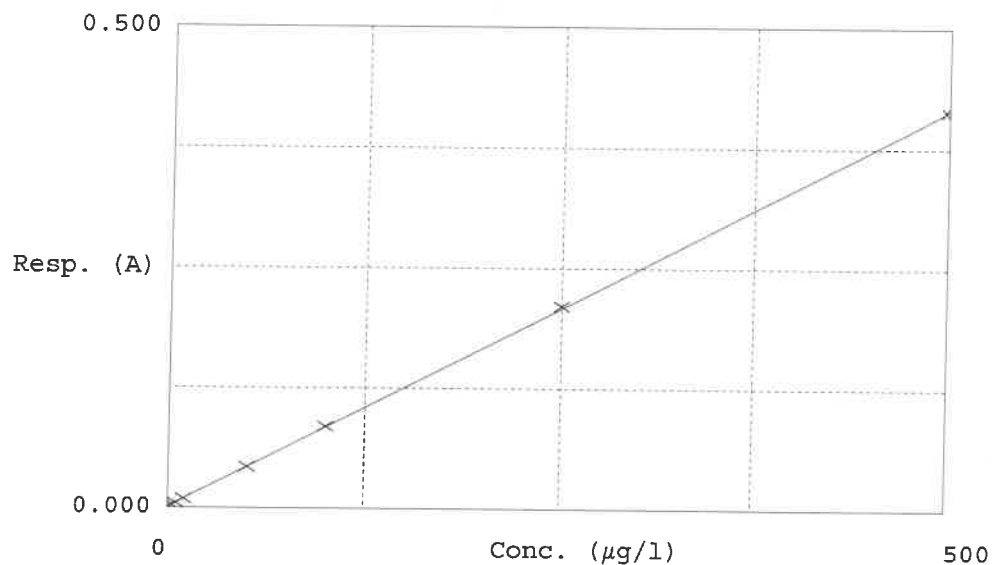
Test Total CN

Accepted 12/8/2025 10:48

Factor 1210  
Bias 0.002

Coeff. of det. 0.999941

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.0PPBCN	0.001	-0.2834	0.0000	-
2	5.0PPBCN	0.005	3.8071	5.0000	-23.9
3	10PPBCN	0.009	9.4380	10.0000	-5.6
4	50PPBCN	0.043	49.9363	50.0000	-0.1
5	100PPBCN	0.085	100.9069	100.0000	0.9
6	250PPBCN	0.210	252.6937	250.0000	1.1
7	500PPBCN	0.414	498.5013	500.0000	-0.3

12/8/2025  
RM

## Analytical Summary Report

Analysis Method: 9045D

Analyst By : jignesh

Parameter: Corrosivity

Supervisor Review By : Iwona

Run Number: LB138148

Slope : 98.6

BalanceID: MSC-3

pH Meter ID : WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3178
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER, COLOR CD 475ML	W3191
buffer solution pH 7 yellow	W3217
Buffer Solution, PH2 (500ml)	W3161
pH 12.00 Buffer	W3200

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

True Value of CCV1 = 2.00 Control Limits[+/- 0.05].

True Value of CCV2 = 12.00 Control Limits[+/- 0.05].

Seq	LabID	DF	Matrix	Weight (gm)	Volume (ml)	Temperature (°C)	Result (pH)	Anal Date	Anal Time
1	CAL1	1	Water	NA	NA	20.2	4.01	12/08/2025	11:11
2	CAL2	1	Water	NA	NA	20.2	7.00	12/08/2025	11:12
3	CAL3	1	Water	NA	NA	20.3	10.02	12/08/2025	11:13
4	ICV	1	Water	NA	NA	20.3	7.01	12/08/2025	11:15
5	CCV1	1	Water	NA	NA	20.3	2.02	12/08/2025	12:10
6	Q3780-01	1	Solid	20.02	20	20.2	5.30	12/08/2025	12:15
7	Q3790-02	1	Solid	20.03	20	20.8	7.95	12/08/2025	12:22
8	Q3795-04	1	Solid	20.03	20	20.1	7.99	12/08/2025	12:30
9	Q3795-08	1	Solid	20.05	20	20.2	7.50	12/08/2025	12:35
10	Q3795-08DUP	1	Solid	20.03	20	20.3	7.51	12/08/2025	12:37
11	CCV2	1	Water	NA	NA	20.3	12.02	12/08/2025	12:39

WORKLIST(Hardcopy Internal Chain)

138148

WorkList Name : corrosivity q3803      WorkList ID : 193525      Department : Wet-Chemistry      Date : 12-08-2025 10:51:36

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3780-01	PLASTIC SHEETING	Solid	Corrosivity	Cool 4 deg C	PSEG03	A11	12/04/2025	9045D
Q3790-02	304 FURMAN SOIL	Solid	Corrosivity	Cool 4 deg C	TULL02	D31	12/05/2025	9045D
Q3795-04	72-11966	Solid	Corrosivity	Cool 4 deg C	PSEG03	D11	12/05/2025	9045D
Q3795-08	RBR-200059	Solid	Corrosivity	Cool 4 deg C	PSEG03	D11	12/05/2025	9045D

Date/Time 12/08/25 11:10  
Raw Sample Received by: [Signature]  
Raw Sample Relinquished by: [Signature]

Date/Time 12/08/25 15:10  
Raw Sample Received by: [Signature]  
Raw Sample Relinquished by: [Signature]

Analysis Method: 9034

ANALYST: rubina

Parameter: Reactive Sulfide

SUPERVISOR REVIEW BY: Iwona

Run Number: LB138172

Constant: 16000

Normality1: 0.025

Normality2: 0.025

Reagent/Standard	Lot/Log #
SODIUM THIOSULFATE, 0.025N, 4LITRE	W3248
IODINE SOLUTION .025N 1L	W3213
Starch Solution, 4L	W3149

Seq	Lab ID	True Value (mg/l)	DF	Initial Weight (g)	Final Volume (ml)	T1 (ml)	T2 Initial	T2 Final	T2 Diff. (ml)	T1 - T2 Diff (mL)	Value Corrected With Blank	Result (ppm)	Anal Date	Anal Time
1	PB170869BL		1	5.00	50	2.00	0.00	1.92	1.92	0.08	0.00	0.00	12/09/2025	13:00
2	Q3780-01		1	5.06	50	2.00	0.00	1.88	1.88	0.12	0.04	3.16	12/09/2025	13:03
3	Q3790-02		1	5.02	50	2.00	0.00	1.88	1.88	0.12	0.04	3.19	12/09/2025	13:05
4	Q3795-04		1	5.07	50	2.00	0.00	1.90	1.90	0.10	0.02	1.58	12/09/2025	13:07
5	Q3795-08		1	5.04	50	2.00	0.00	1.86	1.86	0.14	0.06	4.76	12/09/2025	13:10
6	Q3814-02		1	5.07	50	2.00	0.00	1.90	1.90	0.10	0.02	1.58	12/09/2025	13:13
7	Q3814-04		1	5.05	50	2.00	0.00	1.86	1.86	0.14	0.06	4.75	12/09/2025	13:16
8	Q3814-06		1	5.01	50	2.00	0.00	1.86	1.86	0.14	0.06	4.79	12/09/2025	13:18
9	Q3814-08		1	5.06	50	2.00	0.00	1.86	1.86	0.14	0.06	4.74	12/09/2025	13:20
10	Q3814-10		1	5.02	50	2.00	0.00	1.90	1.90	0.10	0.02	1.59	12/09/2025	13:23
11	Q3814-12		1	5.05	50	2.00	0.00	1.90	1.90	0.10	0.02	1.58	12/09/2025	13:25
12	Q3814-14		1	5.05	50	2.00	0.00	1.90	1.90	0.10	0.02	1.58	12/09/2025	13:27

T1 = Titrant1

T2 = Titrant2

T2 Diff = T2 Final - T2 Initial

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

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



Analysis Method: 9034

Parameter: Reactive Sulfide

Run Number: LB138172

ANALYST: rubina

SUPERVISOR REVIEW BY: Iwona

Constant: 16000

Normality1: 0.025

Normality2: 0.025

Reagent/Standard	Lot/Log #
SODIUM THIOSULFATE, 0.025N, 4LITRE	W3248
IODINE SOLUTION .025N 1L	W3213
Starch Solution, 4L	W3149

Seq	Lab ID	True Value (mg/l)	DF	Initial Weight (g)	Final Volume (ml)	T1 (ml)	T2 Initial	T2 Final	T2 Diff. (ml)	T1 - T2 Diff (mL)	Value Corrected With Blank	Result (ppm)	Anal Date	Anal Time
13	Q3814-16		1	5.07	50	2.00	0.00	1.86	1.86	0.14	0.06	4.73	12/09/2025	13:30
14	Q3815-02		1	5.06	50	2.00	0.00	1.90	1.90	0.10	0.02	1.58	12/09/2025	13:33
15	Q3815-02DUP		1	5.06	50	2.00	0.00	1.90	1.90	0.10	0.02	1.58	12/09/2025	13:36

T1 = Titrant1

T2 = Titrant2

T2 Diff = T2 Final - T2 Initial

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

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

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

SDG No : N/A

Start Digest Date: 12/08/2025 Time : 08:50 Temp : N/A

Matrix : SOIL

End Digest Date: 12/08/2025 Time : 10:20 Temp : N/A

Pipette ID : N/A

Balance ID : WC SC-7

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : N/A

Block ID : MC-1

Filter paper ID : N/A

Prep Technician Signature: RM

Weigh By : RM

pH Meter ID : N/A

Supervisor Signature: i2

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

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50.0ML	WP113836
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Comment

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/10/2025 10:30	RM (WR)	RM (WR)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170846BL	PBS846	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3758-02DUP	3462DUP	5.08	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3758-02	3462	5.08	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3770-01	4207	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3775-01	NGKO	5.08	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3780-01	PLASTIC SHEETING	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3790-02	304 FURMAN SOIL	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3795-04	72-11966	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3795-08	RBR-200059	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : rcn-12-8

WorkList ID : 193507

Department : Distillation

Date : 12-08-2025 08:11:22

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3758-02	3462	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	A11	12/03/2025	9012B
Q3770-01	4207	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	A11	12/03/2025	9012B
Q3775-01	NGKO	Solid	Reactive Cyanide	Cool 4 deg C	PSEG04	A11	12/03/2025	9012B
Q3780-01	PLASTIC SHEETING	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	A11	12/04/2025	9012B
Q3790-02	304 FURMAN SOIL	Solid	Reactive Cyanide	Cool 4 deg C	TULL02	D31	12/05/2025	9012B
Q3795-04	72-11966	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	D11	12/05/2025	9012B
Q3795-08	RBR-200059	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	D11	12/05/2025	9012B

Date/Time 12/08/2025 08:25  
Raw Sample Received by: RM LWC  
Raw Sample Relinquished by: JRC

Date/Time 12/08/2025  
Raw Sample Received by: JRC  
Raw Sample Relinquished by: RM LWC

SOP ID : M9030B-Sulfide-13

SDG No : N/A

Matrix : SOIL

Pipette ID : WC

Balance ID : M SC-4

Hood ID : HOOD#2

Block ID : WC-DIST-BLOCK-1

Weigh By : RM

Start Digest Date: 12/09/2025 Time : 09:15 Temp : N/A

End Digest Date: 12/09/2025 Time : 10:45 Temp : N/A

11 batch 12/09/2025 11-15 N/A  
12/09/2025 12-45 N/A

Digestion tube ID : M5595

Block Thermometer ID : N/A

Filter paper ID : N/A

Prep Technician Signature: *RM*

pH Meter ID : N/A

Supervisor Signature: *12*

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

Chemical Used	ML/SAMPLE USED	Lot Number
0.5M ZINC ACETATE	5.0ML	WP114311
FORMALDEHYDE	2.0ML	W3220
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

12/9/2025  
RM

N/A

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

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/Nitrite	Comment	Prep Pos
PB170869BL	PBS869	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3780-01	PLASTIC SHEETING	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3790-02	304 FURMAN SOIL	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3795-04	72-11966	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3795-08	RBR-200059	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3814-02	TP-5	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3814-04	TP-6	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3814-06	TP-7	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3814-08	TP-8	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3814-10	TP-9	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3814-12	TP-12	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3814-14	TP-10	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3814-16	TP-4	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3815-02	RE	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3815-02DUP	REDUP	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : RSUL-12-09

WorkList ID : 193548

Department : Distillation

Date : 12-09-2025 08:17:25

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3780-01	PLASTIC SHEETING	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	A11	12/04/2025	9034
Q3790-02	304 FURMAN SOIL	Solid	Reactive Sulfide	Cool 4 deg C	TULL02	D31	12/05/2025	9034
Q3795-04	72-11966	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D11	12/05/2025	9034
Q3795-08	RBR-200059	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D11	12/05/2025	9034
Q3814-02	TP-5	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D41	12/08/2025	9034
Q3814-04	TP-6	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D41	12/08/2025	9034
Q3814-06	TP-7	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D41	12/08/2025	9034
Q3814-08	TP-8	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D41	12/08/2025	9034
Q3814-10	TP-9	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D41	12/08/2025	9034
Q3814-12	TP-12	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D41	12/08/2025	9034
Q3814-14	TP-10	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D41	12/08/2025	9034
Q3814-16	TP-4	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D41	12/08/2025	9034
Q3815-02	RE	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	D31	12/08/2025	9034

Date/Time 12/9/2025 08:30  
 Raw Sample Received by: RHL (w12)  
 Raw Sample Relinquished by: RHL (w12)

Date/Time 12/9/2025 12:00  
 Raw Sample Received by: RHL (w12)  
 Raw Sample Relinquished by: RHL (w12)

**Instrument ID:** FLAME

**Daily Analysis Runlog For Sequence/QC Batch ID # LB138140**

Review By	Eman	Review On	12/8/2025 2:39:57 PM
Supervise By	Iwona	Supervise On	12/8/2025 1:02:39 PM
SubDirectory	LB138140	Test	Ignitability
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	Q3790-02	304 FURMAN SOIL	SAM	12/08/25 09:40			OK
2	Q3790-02DUP	304 FURMAN SOIL	DUP	12/08/25 09:47			OK
3	Q3795-01	72-11966	SAM	12/08/25 09:54			OK
4	Q3795-04	72-11966	SAM	12/08/25 10:02			OK
5	Q3795-05	RBR 200059	SAM	12/08/25 10:10			OK
6	Q3795-08	RBR-200059	SAM	12/08/25 10:17			OK
7	Q3803-01	CHASE-A	SAM	12/08/25 10:25			OK
8	Q3803-02	CHASE-B	SAM	12/08/25 10:32			OK
9	Q3803-03	CHASE-C	SAM	12/08/25 10:40			OK
10	Q3803-04	CHASE-D	SAM	12/08/25 10:47			OK
11	Q3803-05	CHASE-E	SAM	12/08/25 10:55			OK
12	Q3803-06	CHASE-F	SAM	12/08/25 11:02			OK
13	Q3803-07	CHASE-G	SAM	12/08/25 11:10			OK
14	Q3803-08	CHASE-H	SAM	12/08/25 11:17			OK
15	Q3803-09	CHASE-I	SAM	12/08/25 11:25			OK
16	Q3803-10	CHASE-J	SAM	12/08/25 11:32			OK
17	Q3803-11	CHASE-K	SAM	12/08/25 11:40			OK
18	Q3803-12	CHASE-L	SAM	12/08/25 11:47			OK



Instrument ID: FLAME

**Daily Analysis Runlog For Sequence/QC Batch ID # LB138140**

Review By	Eman	Review On	12/8/2025 2:39:57 PM
Supervise By	Iwona	Supervise On	12/8/2025 1:02:39 PM
SubDirectory	LB138140	Test	Ignitability
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

19	Q3803-13	CHASE-M	SAM	12/08/25 11:55			OK
20	Q3803-14	CHASE-N	SAM	12/08/25 12:02			OK
21	Q3804-01	120325-A	SAM	12/08/25 12:10			OK
22	Q3804-03	120325-B	SAM	12/08/25 12:17			OK
23	Q3804-04	120325-C	SAM	12/08/25 12:25			OK
24	Q3805-02	91725	SAM	12/08/25 12:32			OK
25	Q3805-02DUP	91725DUP	DUP	12/08/25 12:39			OK

**Instrument ID:** KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB138145**

Review By	rubina	Review On	12/8/2025 2:35:53 PM
Supervise By	Iwona	Supervise On	12/8/2025 4:06:13 PM
SubDirectory	LB138145	Test	Reactive Cyanide
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP115986,WP115987,WP115988,WP115989,WP115990,WP115991,WP115992		
ICV Standard	WP115993		
CCV Standard	WP115987		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP115976,WP114324,WP115994		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	12/08/25 10:45		rubina	OK
2	5.0PPBCN	5.0PPBCN	CAL2	12/08/25 10:45		rubina	OK
3	10PPBCN	10PPBCN	CAL3	12/08/25 10:45		rubina	OK
4	50PPBCN	50PPBCN	CAL4	12/08/25 10:45		rubina	OK
5	100PPBCN	100PPBCN	CAL5	12/08/25 10:45		rubina	OK
6	250PPBCN	250PPBCN	CAL6	12/08/25 10:45		rubina	OK
7	500PPBCN	500PPBCN	CAL7	12/08/25 10:45		rubina	OK
8	ICV1	ICV1	ICV	12/08/25 11:13		rubina	OK
9	ICB1	ICB1	ICB	12/08/25 11:13		rubina	OK
10	CCV1	CCV1	CCV	12/08/25 11:13		rubina	OK
11	CCB1	CCB1	CCB	12/08/25 11:13		rubina	OK
12	PB170846BL	PB170846BL	MB	12/08/25 11:13		rubina	OK
13	Q3758-02	3462	SAM	12/08/25 11:20		rubina	OK
14	Q3758-02DUP	3462DUP	DUP	12/08/25 11:20		rubina	OK
15	Q3770-01	4207	SAM	12/08/25 11:20		rubina	OK
16	Q3775-01	NGKO	SAM	12/08/25 11:20		rubina	OK
17	Q3780-01	PLASTIC SHEETING	SAM	12/08/25 11:21		rubina	OK
18	Q3790-02	304 FURMAN SOIL	SAM	12/08/25 11:21		rubina	OK

**Instrument ID:** KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB138145**

Review By	rubina	Review On	12/8/2025 2:35:53 PM
Supervise By	Iwona	Supervise On	12/8/2025 4:06:13 PM
SubDirectory	LB138145	Test	Reactive Cyanide
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP115986,WP115987,WP115988,WP115989,WP115990,WP115991,WP115992		
ICV Standard	WP115993		
CCV Standard	WP115987		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP115976,WP114324,WP115994		

19	Q3795-04	72-11966	SAM	12/08/25 11:21		rubina	OK
20	Q3795-08	RBR-200059	SAM	12/08/25 11:21		rubina	OK
21	CCV2	CCV2	CCV	12/08/25 11:25		rubina	OK
22	CCB2	CCB2	CCB	12/08/25 11:29		rubina	OK

**Instrument ID:** WC PH METER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB138148**

Review By	jignesh	Review On	12/8/2025 12:29:27 PM
Supervise By	Iwona	Supervise On	12/8/2025 1:31:05 PM
SubDirectory	LB138148	Test	Corrosivity
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	W3178,W3093,W3191,W3217,W3161,W3200		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	12/08/25 11:11		Jignesh	OK
2	CAL2	CAL2	CAL	12/08/25 11:12		Jignesh	OK
3	CAL3	CAL3	CAL	12/08/25 11:13		Jignesh	OK
4	ICV	ICV	ICV	12/08/25 11:15		Jignesh	OK
5	CCV1	CCV1	CCV	12/08/25 12:10		Jignesh	OK
6	Q3780-01	PLASTIC SHEETING	SAM	12/08/25 12:15		Jignesh	OK
7	Q3790-02	304 FURMAN SOIL	SAM	12/08/25 12:22		Jignesh	OK
8	Q3795-04	72-11966	SAM	12/08/25 12:30		Jignesh	OK
9	Q3795-08	RBR-200059	SAM	12/08/25 12:35		Jignesh	OK
10	Q3795-08DUP	RBR-200059DUP	DUP	12/08/25 12:37		Jignesh	OK
11	CCV2	CCV2	CCV	12/08/25 12:39		Jignesh	OK

**Instrument ID:** TITRAMETRIC

**Daily Analysis Runlog For Sequence/QC Batch ID # LB138172**

Review By	rubina	Review On	12/9/2025 2:02:14 PM
Supervise By	Iwona	Supervise On	12/9/2025 2:02:30 PM
SubDirectory	LB138172	Test	Reactive Sulfide
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	W3248,W3213,W3149		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	PB170869BL	PB170869BL	MB	12/09/25 13:00		rubina	OK
2	Q3780-01	PLASTIC SHEETING	SAM	12/09/25 13:03		rubina	OK
3	Q3790-02	304 FURMAN SOIL	SAM	12/09/25 13:05		rubina	OK
4	Q3795-04	72-11966	SAM	12/09/25 13:07		rubina	OK
5	Q3795-08	RBR-200059	SAM	12/09/25 13:10		rubina	OK
6	Q3814-02	TP-5	SAM	12/09/25 13:13		rubina	OK
7	Q3814-04	TP-6	SAM	12/09/25 13:16		rubina	OK
8	Q3814-06	TP-7	SAM	12/09/25 13:18		rubina	OK
9	Q3814-08	TP-8	SAM	12/09/25 13:20		rubina	OK
10	Q3814-10	TP-9	SAM	12/09/25 13:23		rubina	OK
11	Q3814-12	TP-12	SAM	12/09/25 13:25		rubina	OK
12	Q3814-14	TP-10	SAM	12/09/25 13:27		rubina	OK
13	Q3814-16	TP-4	SAM	12/09/25 13:30		rubina	OK
14	Q3815-02	RE	SAM	12/09/25 13:33		rubina	OK
15	Q3815-02DUP	REDUP	DUP	12/09/25 13:36		rubina	OK

## Prep Standard - Chemical Standard Summary

**Order ID :** Q3790

**Test :** Corrosivity,Ignitability,Percent Solids,Reactive Cyanide,Reactive Sulfide

**Prepbatch ID :** PB170846,PB170869,

**Sequence ID/Qc Batch ID:** LB138140,LB138145,LB138148,LB138172,

**Standard ID :**

WP113836,WP113838,WP114311,WP114324,WP115976,WP115985,WP115986,WP115987,WP115988,WP115989,WP115990,WP115991,WP115992,WP115993,WP115994,

**Chemical ID :**

M6151,W2926,W3019,W3093,W3112,W3113,W3139,W3149,W3161,W3178,W3191,W3200,W3203,W3213,W3217,W3220,W3224,W3248,W3254,W3257,



<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	<a href="#">WP113836</a>	07/08/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 07/08/2025
<b><u>FROM</u></b> 21.00000L of W3112 + 210.00000gram of W3113 = Final Quantity: 21.000 L								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3371	Cyanide LCS Spike Solution, 5PPM	<a href="#">WP113838</a>	07/08/2025	12/24/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 07/08/2025
<b><u>FROM</u></b> 1.00000ml of W3224 + 199.00000ml of WP113836 = Final Quantity: 200.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
160	0.5M ZINC ACETATE	<a href="#">WP114311</a>	08/19/2025	02/17/2026	Rubina Mughal	WETCHEM_SCALE_8 (WC)	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 08/19/2025
<b><u>FROM</u></b> 0.88900L of W3112 + 1.00000ml of M6151 + 110.00000gram of W2926 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
607	PYRIDINE-BARBITURIC ACID	<a href="#">WP114324</a>	08/19/2025	02/17/2026	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	Glass Pipette-A	Jignesh Parikh 08/19/2025
<u>FROM</u>	145.00000ml of W3112 + 15.00000gram of W3203 + 15.00000ml of M6151 + 75.00000ml of W3019 = Final Quantity: 250.000 ml							





<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
539	CN BUFFER	<a href="#">WP115976</a>	12/04/2025	06/05/2026	Rubina Mughal	WETCHEM_SCALE_6 (M SC-4)	None	Jignesh Parikh 12/05/2025
<u>FROM</u>	138.00000gram of W3254 + 862.00000ml of W3112 = Final Quantity: 1000.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3456	Cyanide Intermediate Working Std, 5PPM	<a href="#">WP115985</a>	12/08/2025	12/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/08/2025
<b><u>FROM</u></b> 0.25000ml of W3257 + 49.75000ml of WP113836 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4	Calibration standard 500 ppb	<a href="#">WP115986</a>	12/08/2025	12/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<p>(WC)</p> <p><b>FROM</b> 45.00000ml of WP113836 + 5.00000ml of WP115985 = Final Quantity: 50.000 ml</p>								

<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	<a href="#">WP115987</a>	12/08/2025	12/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/08/2025
<b><u>FROM</u></b> 2.50000ml of WP115985 + 47.50000ml of WP113836 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
6	Calibration Standard 100 ppb	<a href="#">WP115988</a>	12/08/2025	12/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<b>FROM</b> 1.00000ml of WP115985 + 49.00000ml of WP113836 = Final Quantity: 50.000 ml <div></div>								

<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	<a href="#">WP115989</a>	12/08/2025	12/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC)								
<u>FROM</u>	0.50000ml of WP115985 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
8	Calibration Standard 10 ppb	<a href="#">WP115990</a>	12/08/2025	12/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<b>FROM</b> 1.00000ml of WP115986 + 49.00000ml of WP113836 = Final Quantity: 50.000 ml <div></div>								

<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	<a href="#">WP115991</a>	12/08/2025	12/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/08/2025
<b><u>FROM</u></b> 0.50000ml of WP115986 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
167	0 ppb CN calibration std	<a href="#">WP115992</a>	12/08/2025	12/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/08/2025
<b><u>FROM</u></b> 50.00000ml of WP113836 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2168	RCN ICV STD, 100 PPB	<a href="#">WP115993</a>	12/08/2025	12/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/08/2025
<b><u>FROM</u></b> 1.00000ml of WP113838 + 49.00000ml of WP113836 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1582	Chloramine T solution, 0.014M	<a href="#">WP115994</a>	12/08/2025	12/09/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych  12/08/2025
<u>FROM</u>	0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 ml							

## CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	02/17/2026	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

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

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.	566002 / BUFFER PH 7.00 GREEN 1PINT PK6	44001f99	12/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3093

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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

## 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.	AL70850-8 / Starch Solution, 4L	4408P62	08/31/2026	10/16/2024 / lwona	10/16/2024 / lwona	W3149

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
RICCA CHEMICAL COMPANY	1615-16 / pH 12.00 Buffer	2504F20	09/30/2026	04/11/2025 / lwona	04/11/2025 / lwona	W3200



## CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL35830-4 / IODINE SOLUTION .025N 1L	MK25A21527	01/20/2029	05/21/2025 / lwona	05/21/2025 / lwona	W3213

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14455-3 / buffer solution pH 7 yellow	2504D34	03/31/2027	07/02/2025 / jignesh	06/26/2025 / lwona	W3217

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EMD-FX0410-5 / FORMALDEHYDE SOLUTION 450ML	MKCW7614	12/31/2026	06/26/2025 / lwona	06/26/2025 / lwona	W3220

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL69870-8 / SODIUM THIOSULFATE,0.025N,4LITRE	250904J	02/28/2027	10/03/2025 / lwona	10/03/2025 / lwona	W3248

### CHEMICAL RECEIPT LOG BOOK

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	25E0756587	07/10/2028	12/01/2025 / lwona	11/19/2025 / lwona	W3254

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	15100125	03/31/2026	11/19/2025 / lwona	11/19/2025 / lwona	W3257

W3019  
rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: [www.sigmaaldrich.com](http://www.sigmaaldrich.com)Email USA: [techserv@sial.com](mailto:techserv@sial.com)Outside USA: [eurtechserv@sial.com](mailto: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:

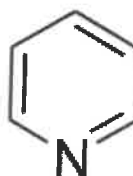
C<sub>5</sub>H<sub>5</sub>N

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](http://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.



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

 **avantor™**



M6151

R → 11/15/25

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

## Certificate of Analysis

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

>>> Continued on page 2 >>>

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

 **avantorsm**



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

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

>>> Continued on page 3 >>>

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



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

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

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

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

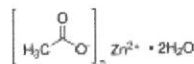
A handwritten signature in cursive script that reads 'Jamie Ethier'.  
Jamie Ethier  
Vice President Global Quality

## Certificate of Analysis

Product Name:


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

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



W2926  
open 7/5/22  
received  
on 7/5/22

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

  
Larry Coers, Director  
Quality Control  
Milwaukee, WI US

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



**RICCA CHEMICAL COMPANY®**

1490 Lammers Pike

Batesville, IN 47006

<http://www.riccachemical.com>

1-888-GO-RICCA

customerservice@riccachemical.com

# Certificate of Analysis

W3093  
004121  
04/03/2024  
16

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

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

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

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

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

Test	Specification	Result
Appearance	Yellow liquid	Passed

\*Not a certified value.

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

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

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

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

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





Paul Brandon (01/08/2024)

Production Manager

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

**This product was tested in an ISO 17025 Accredited Laboratory**

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



# Certificate of Analysis



## Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

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

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

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

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

### Additional Information

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

Product meets analytical specifications of the grades listed.



## Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

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

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

### Additional Information

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

Product meets analytical specifications of the grades listed.

W3139 Received on 9/9/24 by IZ

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

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

Order our products online [thermofisher.com/chemicals](https://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

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

Lot Number: 4408P62

Product Number: 8000

Manufacture Date: AUG 28, 2024

Expiration Date: AUG 2026

This product is Mercury-free.

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

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

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

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

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

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

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

Paul Brandon (08/28/2024)  
Production Manager

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



# Certificate of Analysis

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

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

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

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

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

Test	Specification	Result
Appearance	Colorless liquid	Passed

\*Not a certified value.

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

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

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

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



Jose Pena (11/11/2024)  
Operations Manager

**This product was tested in an ISO 17025 Accredited Laboratory**

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



**RICCA CHEMICAL COMPANY®**

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

# Certificate of Analysis

W21758 58

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

Lot Number: 2411A93

Product Number: 1501

Manufacture Date: NOV 04, 2024

Expiration Date: OCT 2026

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

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

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

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

Test	Specification	Result
Appearance	Red liquid	Passed

\*Not a certified value.

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

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

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

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

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



RICCA CHEMICAL COMPANY®

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

Certificate of Analysis

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

Lot Number: 2410F80

Product Number: 1601

Manufacture Date: OCT 09, 2024

Expiration Date: MAR 2026

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

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

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

Test	Specification	Result
Appearance	Blue liquid	Passed

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

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

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

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

Version: 1.3

Lot Number: 2410F80

Product Number: 1601

Page 1 of 2



# Certificate of Analysis

**Buffer, Reference Standard, pH 12.00 ± 0.01 at 25°C****Lot Number:** 2504F20**Product Number:** 1615**Manufacture Date:** APR 08, 2025**Expiration Date:** SEP 2026

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

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

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

Test	Specification	Result
Appearance	Colorless liquid	Passed

\*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	12.009	0.02	186-I-g, 186-II-g, 191d

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

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

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



Jose Pena (04/08/2025)  
Operations Manager

**This product was tested in an ISO 17025 Accredited Laboratory**

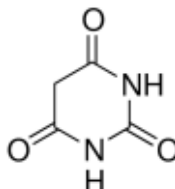
This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

## Certificate of Analysis

Product Name:

Barbituric acid - ReagentPlus®, 99%

Product Number: 185698  
Batch Number: WXBFB3271V  
Brand: SIAL  
CAS Number: 67-52-7  
Formula: C<sub>4</sub>H<sub>4</sub>N<sub>2</sub>O<sub>3</sub>  
Formula Weight: 128.09 g/mol  
Quality Release Date: 16 MAY 2024



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



Kang Chen  
Quality Manager  
Wuxi, China CN

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://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.





Material	BDHVBDH7206-1
Material Description	IODINE SOLUTION 0.025N
Lot	25A2461008
Expires end of	2029-Jan-20
Molecular mass	0
Last Quality Control	2025-Jan-24
Date of manufacture	2025-Jan-21
Made in	United States
Manufacturer Source Batch	MK25A21527

Additional information

Characteristics	Specifications	Measured values
Prepared to formulation on file	Confirmed	Confirmed
Appearance	Passes Test	Passes Test
Normality, N	0.0200 - 0.0300	0.0268

Signature

We certify that this batch conforms to the specifications listed above.

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

Michelle Bales - Sr. Manager Quality Assurance  
 Avantor Performance Materials, LLC

For Professional use in Laboratory or Manufacturing. Not for use as an Active Pharmaceutical Ingredient or Food or Animal Feed. Suitability and intended use of the product remains the responsibility of the user.

VWR International LLC, Radnor Corporate Center, Building One, Suite 200, 100 Matsonford Road, Radnor, PA 19087, USA.

VWR International bv, Haasrode Research Park Zone 2020, Geldenaaksebaan 464, 3001 Leuven, Belgium

BDHVBDH72 25A2461008 Page 1 / 1

# Certificate of Analysis

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

**Lot Number:** 2504D34

**Product Number:** 1551

**Manufacture Date:** APR 03, 2025

**Expiration Date:** MAR 2027

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

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

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

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

Test	Specification	Result
Appearance	Yellow liquid	Passed *Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	7.003	0.02	186-I-g, 186-II-g, 191d

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

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1551-2.5	10 L Cubitainer®	24 months
1551-20	20 x 20 mL pack	24 months
1551-32	1 L natural poly	24 months
1551-5	20 L Cubitainer®	24 months

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



Jose Pena (04/03/2025)  
Operations Manager

**This product was tested in an ISO 17025 Accredited Laboratory**

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



## Certificate of Analysis

Product Name:

Formaldehyde solution - ACS reagent, 37 wt. % in H<sub>2</sub>O, contains 10-15% Methanol as stabilizer (to prevent polymerization)

Product Number: 252549

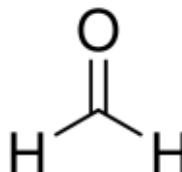
Batch Number: MKCW7614

Brand: SIAL

MDL Number: MFCD00003274

Quality Release Date: 05 DEC 2024

Recommended Retest Date: DEC 2026



Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Titration by H <sub>2</sub> SO <sub>4</sub>	36.5 - 38.0 %	36.6 %
Residue on ignition (Ash)	≤ 0.005 %	0.004 %
Color Test	≤ 10 APHA	5 APHA
Chloride (Cl)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 5 ppm	< 1 ppm
Heavy Metals	≤ 5 ppm	2 ppm
by ICP-OES		
Sulfate (SO <sub>4</sub> )	< = 0.002%	< = 0.002%
Titrateable Acid (meq/g)	≤ 0.006	< 0.006
Note	Confirmed	Conforms
Stabilized with 10% to 15% Methanol		
Meets ACS Requirements	Current ACS Specification	Conforms
Recommended Retest Period	-----	-----
2 Years		

Larry Coers, Director  
Quality Control  
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://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.





Part of TCP Analytical Group

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

## Certificate of Analysis

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

Product Code: **LC13545**

Manufacture Date: June 25, 2025

Lot Number: **45060288**

Expiration Date: December 24, 2025

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

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

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

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

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

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

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

*Michael Monteleone*

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

ISO9001:2015 Registration #0306-01

# Certificate of Analysis

**Sodium Thiosulfate, 0.0250 Normal (N/40)**

**Lot Number:** 250904J

**Product Number:** 7900

**Manufacture Date:** SEP 03, 2025

**Expiration Date:** FEB 2027

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

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

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

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

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

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

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



Jose Pena (09/03/2025)  
Operations Manager

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



## SODIUM PHOSPHATE, MONOBASIC, MONOHYDRATE

**Material:** 0823-2.5KG  
**Grade:** ACS GRADE  
**Batch Number:** 25E0756587

Chemical Formula:	NaH <sub>2</sub> PO <sub>4</sub> ·H <sub>2</sub> O	Manufacture Date:	07-10-2024
Molecular Weight:	137.99	Reassay Date:	07-10-2028
CAS#:	10049-21-5		
Appearance:	White crystalline powder	Storage:	Room Temperature

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Calcium	<=0.005 %	<0.001 %	PASS
Chloride	<=0.0005 %	0.0003 %	PASS
Heavy metals	<=0.001 %	<0.001 %	PASS
Insolubles	<=0.01 %	<0.01 %	PASS
Iron	<=0.001 %	<0.000 %	PASS
pH (5%, Water) @25C	4.1-4.5	4.3	PASS
Potassium	<=0.01 %	<0.01 %	PASS
Purity	98.0-102.0 %	99.0 %	PASS
Sulfate	<=0.003 %	<0.003 %	PASS

Spec Set: 0823-2.5KGACS

### Signature

We certify that this batch conforms to the specifications listed.

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

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

### Additional information

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

Product meets analytical specifications of the grades listed.

# Certificate of Analysis

## Cyanide Standard, 1000 ppm CN<sup>-</sup>

**Lot Number:** 15100125

**Product Number:** 2543

**Manufacture Date:** OCT 06, 2025

**Expiration Date:** MAR 2026

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
Sodium Hydroxide	1310-73-2	Reagent (from ACS)
Potassium Cyanide	151-50-8	ACS

Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN <sup>-</sup> )	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 <sup>-</sup> )	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 <sup>-</sup> )	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)
2543-4	120 mL amber poly	6 months

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



Ernest Mahan (10/06/2025)  
Plant Manager

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



PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 12/9/2025

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:10  
In Date: 12/08/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:25  
Out Date: 12/09/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID-OVEN

QC:LB138141

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
Q3789-05	SVOC-GPC-BLANK	1	1.00	1.00	2.00	2.00	100.0	
Q3789-06	PEST-GPC-BLANK	2	1.00	1.00	2.00	2.00	100.0	
Q3789-07	PEST-GPC-BLANK-SPIKE	3	1.00	1.00	2.00	2.00	100.0	
Q3789-08	SVOC-GPC2-BLANK	4	1.00	1.00	2.00	2.00	100.0	
Q3789-09	PEST-GPC2-BLANK	5	1.00	1.00	2.00	2.00	100.0	
Q3789-10	PEST -GPC2-BLANK-SPIKE	6	1.00	1.00	2.00	2.00	100.0	
Q3790-01	304 FURMAN SOIL	7	1.14	10.35	11.49	10.07	86.3	
Q3790-03	304 FURMAN SOIL	8	1.18	10.08	11.26	9.81	85.6	
Q3790-04	304 FURMAN SOIL-TPH-1	9	1.13	10.55	11.68	10.3	86.9	
Q3790-05	304 FURMAN SOIL-TPH-2	10	1.18	10.53	11.71	10.22	85.8	
Q3790-06	304 FURMAN SOIL-TPH-3	11	1.15	10.38	11.53	10.00	85.3	
Q3795-01	72-11966	12	1.12	11.09	12.21	11.15	90.4	
Q3795-02	72-11966-EPH	13	1.15	10.84	11.99	11.13	92.1	
Q3795-03	72-11966-VOC	14	1.19	10.51	11.7	10.8	91.4	
Q3795-05	RBR 200059	15	1.18	10.81	11.99	9.81	79.8	
Q3795-06	RBR-200059-EPH	16	1.16	11.00	12.16	9.61	76.8	
Q3795-07	RBR-200059-VOC	17	1.16	10.62	11.78	10.6	88.9	
Q3800-01	ETGI-288	18	1.00	1.00	2.00	2.00	100.0	Concreate sample
Q3800-02	COMP#1	19	1.00	1.00	2.00	2.00	100.0	Concreate sample
Q3800-03	CONP#2	20	1.00	1.00	2.00	2.00	100.0	Concreate sample
Q3801-01	SOIL#1	21	1.11	10.55	11.66	10.6	90.0	
Q3801-02	SOIL#1-EPH	22	1.15	10.33	11.48	10.39	89.4	
Q3801-03	SOIL-1-VOC	23	1.19	10.65	11.84	10.64	88.7	
Q3801-04	SOIL#1-EPH-1	24	1.15	10.40	11.55	10.44	89.3	
Q3801-05	SOIL#1-EPH-2	25	1.18	10.53	11.71	10.6	89.5	
Q3801-06	SOIL#2	26	1.19	10.90	12.09	11.14	91.3	
Q3801-07	SOIL#2-EPH	27	1.11	10.68	11.79	10.77	90.4	
Q3801-08	SOIL#2-VOC	28	1.14	10.50	11.64	10.14	85.7	



# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 12/9/2025

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:10  
In Date: 12/08/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:25  
Out Date: 12/09/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID-OVEN

QC:LB138141

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
Q3801-09	SOIL#2-EPH-1	29	1.19	10.50	11.69	10.47	88.4	
Q3801-10	SOIL#2-EPH-2	30	1.12	11.08	12.2	10.82	87.5	
Q3802-01	12-5-2025-A	31	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3802-02	12-5-2025-B	32	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3803-01	CHASE-A	33	1.15	10.19	11.34	11.28	99.4	
Q3803-02	CHASE-B	34	1.15	10.18	11.33	11.27	99.4	
Q3803-03	CHASE-C	35	1.19	10.70	11.89	11.84	99.5	
Q3803-04	CHASE-D	36	1.16	10.77	11.93	11.87	99.4	
Q3803-05	CHASE-E	37	1.16	10.52	11.68	11.66	99.8	
Q3803-06	CHASE-F	38	1.16	10.47	11.63	11.6	99.7	
Q3803-07	CHASE-G	39	1.11	10.84	11.95	11.92	99.7	
Q3803-08	CHASE-H	40	1.18	10.22	11.4	11.37	99.7	
Q3803-09	CHASE-I	41	1.19	10.61	11.8	11.72	99.2	
Q3803-10	CHASE-J	42	1.18	10.65	11.83	11.78	99.5	
Q3803-11	CHASE-K	43	1.11	10.12	11.23	11.21	99.8	
Q3803-12	CHASE-L	44	1.19	10.30	11.49	11.47	99.8	
Q3803-13	CHASE-M	45	1.19	10.26	11.45	11.37	99.2	
Q3803-14	CHASE-N	46	1.19	10.51	11.7	11.65	99.5	
Q3804-01	120325-A	47	1.14	10.39	11.53	10.2	87.2	
Q3804-02	120325-A	48	1.14	10.39	11.53	10.2	87.2	
Q3804-03	120325-B	49	1.19	10.23	11.42	11.12	97.1	
Q3804-04	120325-C	50	1.16	10.54	11.7	11.33	96.5	
Q3805-02	91725	51	1.00	1.00	2.00	2.00	100.0	poly-debris
Q3806-01	TR-01-12-5-2025	52	1.11	10.19	11.3	10.53	92.4	
Q3806-02	TR-01-12-5-2025	53	1.16	10.56	11.72	10.65	89.9	
Q3806-03	TR-01-12-5-2025	54	1.15	10.47	11.62	10.89	93.0	
Q3806-04	TR-05-12-5-2025	55	1.16	10.48	11.64	11.00	93.9	
Q3806-05	TR-05-12-5-2025	56	1.13	10.95	12.08	11.33	93.2	

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 12/9/2025

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:10  
In Date: 12/08/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:25  
Out Date: 12/09/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID-OVEN

QC:LB138141

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
Q3806-06	TR-05-12-5-2025	57	1.18	10.54	11.72	10.68	90.1	
Q3809-01	SW-1	58	1.15	10.52	11.67	10.7	90.8	
Q3809-02	SW-2	72	1.14	10.92	12.06	10.03	81.4	
Q3809-03	B-1	59	1.18	10.17	11.35	8.75	74.4	
Q3809-04	SW-3	60	1.19	10.70	11.89	10.89	90.7	
Q3809-05	SW-4	61	1.11	10.41	11.52	10.75	92.6	
Q3809-06	B-2	62	1.19	10.68	11.87	9.24	75.4	
Q3809-07	B-3	63	1.15	10.66	11.81	9.12	74.8	
Q3809-08	SW-5	64	1.16	10.63	11.79	9.62	79.6	
Q3809-09	SW-6	65	1.16	10.36	11.52	9.66	82.0	
Q3809-10	SW-7	66	1.13	10.50	11.63	8.77	72.8	
Q3809-11	SW-8	67	1.15	10.40	11.55	10.28	87.8	
Q3809-12	SW-9	68	1.13	10.29	11.42	9.22	78.6	
Q3809-13	SW-10	69	1.17	10.49	11.66	9.6	80.4	
Q3809-14	B-4	70	1.18	10.82	12.00	10.82	89.1	
Q3810-01	BP Dirt Sample	71	1.19	10.22	11.41	10.93	95.3	
Q3812-01	OR-02-120825	73	1.12	11.10	12.22	11.26	91.4	
Q3812-02	OR-02-120825-E2	74	1.19	10.62	11.81	10.84	90.9	

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

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-120825

WorkList ID : 193511

Department : Wet-Chemistry

Date : 12-08-2025 08:32:47

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3789-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	A11	11/28/2025	Chemtech -SO
Q3789-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	A11	11/28/2025	Chemtech -SO
Q3789-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	ALLI03	A11	11/28/2025	Chemtech -SO
Q3789-08	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	A11	11/28/2025	Chemtech -SO
Q3789-09	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	A11	11/28/2025	Chemtech -SO
Q3789-10	PEST -GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	ALLI03	A11	11/28/2025	Chemtech -SO
Q3790-01	304 FURMAN SOIL	Solid	Percent Solids	Cool 4 deg C	TULL02	D31	12/05/2025	Chemtech -SO
Q3790-03	304 FURMAN SOIL	Solid	Percent Solids	Cool 4 deg C	TULL02	D31	12/05/2025	Chemtech -SO
Q3790-04	304 FURMAN SOIL-TPH-1	Solid	Percent Solids	Cool 4 deg C	TULL02	D31	12/05/2025	Chemtech -SO
Q3790-05	304 FURMAN SOIL-TPH-2	Solid	Percent Solids	Cool 4 deg C	TULL02	D31	12/05/2025	Chemtech -SO
Q3790-06	304 FURMAN SOIL-TPH-3	Solid	Percent Solids	Cool 4 deg C	TULL02	D31	12/05/2025	Chemtech -SO
Q3795-01	72-11966	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3795-02	72-11966-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3795-03	72-11966-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3795-05	RBR 200059	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3795-06	RBR-200059-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3795-07	RBR-200059-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3800-01	ETGI-288	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3800-02	COMP#1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3800-03	CONP#2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3801-01	SOIL#1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO

Date/Time 12/08/25 13:00  
 Raw Sample Received by: SA WCI  
 Raw Sample Relinquished by: CFS

Date/Time

Raw Sample Received by:

Raw Sample Relinquished by:

# WORKLIST(Hardcopy Internal Chain)

12/28/25

WorkList Name : %1-120825

WorkList ID : 193511

Department : Wet-Chemistry

Date : 12-08-2025 08:32:47

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3801-02	SOIL#1-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3801-03	SOIL-1-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3801-04	SOIL#1-EPH-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3801-05	SOIL#1-EPH-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3801-06	SOIL#2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3801-07	SOIL#2-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3801-08	SOIL#2-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3801-09	SOIL#2-EPH-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3801-10	SOIL#2-EPH-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	12/05/2025	Chemtech -SO
Q3802-01	12-5-2025-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D61	12/05/2025	Chemtech -SO
Q3802-02	12-5-2025-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D61	12/05/2025	Chemtech -SO
Q3803-01	CHASE-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-02	CHASE-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-03	CHASE-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-04	CHASE-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-05	CHASE-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-06	CHASE-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-07	CHASE-G	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-08	CHASE-H	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-09	CHASE-I	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-10	CHASE-J	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO

Date/Time 12/08/25 15:00  
 Raw Sample Received by: SA WPC  
 Raw Sample Relinquished by: CPG

Date/Time 12/08/25  
 Raw Sample Received by: CPG  
 Raw Sample Relinquished by: SA WPC

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-120825

WorkList ID : 193511

Department : Wet-Chemistry

Date : 12-08-2025 08:32:47

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3803-11	CHASE-K	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-12	CHASE-L	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-13	CHASE-M	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3803-14	CHASE-N	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	12/05/2025	Chemtech -SO
Q3804-01	120325-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	A23	12/05/2025	Chemtech -SO
Q3804-02	120325-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	A23	12/05/2025	Chemtech -SO
Q3804-03	120325-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	A23	12/05/2025	Chemtech -SO
Q3804-04	120325-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	A23	12/05/2025	Chemtech -SO
Q3805-02	91725	Solid	Percent Solids	Cool 4 deg C	PSEG03	A31	12/05/2025	Chemtech -SO
Q3806-01	TR-01-12-5-2025	Solid	Percent Solids	Cool 4 deg C	PSEG05	D12	12/05/2025	Chemtech -SO
Q3806-02	TR-01-12-5-2025	Solid	Percent Solids	Cool 4 deg C	PSEG05	A11	12/05/2025	Chemtech -SO
Q3806-03	TR-01-12-5-2025	Solid	Percent Solids	Cool 4 deg C	PSEG05	D12	12/05/2025	Chemtech -SO
Q3806-04	TR-05-12-5-2025	Solid	Percent Solids	Cool 4 deg C	PSEG05	D12	12/05/2025	Chemtech -SO
Q3806-05	TR-05-12-5-2025	Solid	Percent Solids	Cool 4 deg C	PSEG05	A11	12/05/2025	Chemtech -SO
Q3806-06	TR-05-12-5-2025	Solid	Percent Solids	Cool 4 deg C	PSEG05	D12	12/05/2025	Chemtech -SO
Q3809-01	SW-1	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-02	SW-2	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-03	B-1	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-04	SW-3	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-05	SW-4	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-06	B-2	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO

Date/Time 240825 131000

Raw Sample Received by: SA WDC

Raw Sample Relinquished by: [Signature]

Date/Time 2108125

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-120825

WorkList ID : 193511

Department : Wet-Chemistry

Date : 12-08-2025 08:32:47

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3809-07	B-3	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-08	SW-5	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-09	SW-6	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-10	SW-7	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-11	SW-8	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-12	SW-9	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-13	SW-10	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3809-14	B-4	Solid	Percent Solids	Cool 4 deg C	TSLA01	A11	12/05/2025	Chemtech -SO
Q3810-01	BP Dirt Sample	Solid	Percent Solids	Cool 4 deg C	DALT01	D51	12/01/2025	Chemtech -SO
Q3812-01	OR-02-120825	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	12/08/2025	Chemtech -SO
Q3812-02	OR-02-120825-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	12/08/2025	Chemtech -SO

Date/Time 12/08/25 13:00  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]

Date/Time 12/08/25 17:30  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]



# SHIPPING DOCUMENTS

### Laboratory Certification


Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312




## LOGIN REPORT/SAMPLE TRANSFER

<b>Order ID :</b> Q3790	<b>TULL02</b>	<b>Order Date :</b> 12/5/2025 10:01:00 AM	<b>Project Mgr :</b>
<b>Client Name :</b> Tully Construction Co., Inc.		<b>Project Name :</b> MTA 26 Stations - Pierrepot	<b>Report Type :</b> Level 1
<b>Client Contact :</b> Dean Devoe		<b>Receive DateTime :</b> 12/5/2025 2:00:00 PM	<b>EDD Type :</b> Excel NY 375
<b>Invoice Name :</b> Tully Construction Co., Inc.		<b>Purchase Order :</b>	<b>Hard Copy Date :</b>
<b>Invoice Contact :</b> Dean Devoe			<b>Date Signoff :</b>

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3790-03	304 FURMAN SOIL	Solid	12/05/2025	07:25	VOC-TCLVOA-10		8260D	5 Bus. Days	

Relinquished By :   
Date / Time : 12/5/25 1636

Received By :   
Date / Time : 12/08/25 8:00 AM  
Storage Area : VOA Refridgerator Room  
R22