

## Cover Page

**Order ID :** P5279

**Project ID :** MTA Rockaway Park

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

**Lab Sample Number**

P5279-01  
P5279-02  
P5279-03

**Client Sample Number**

ROCKAWAY-PARK  
ROCKAWAY-PARK  
ROCKAWAY-PARK

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

Signature : \_\_\_\_\_

Date: 12/21/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## 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

## APPENDIX A

### QA REVIEW GENERAL DOCUMENTATION

Project #: P5279

Completed

For thorough review, the report must have the following:

#### GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

#### COVER PAGE:

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

✓

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

✓

#### CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

#### ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: NILESH PRAJAPATI

Date: 12/21/2024

## LAB CHRONICLE

<b>OrderID:</b>	P5279	<b>OrderDate:</b>	12/13/2024 12:03:00 PM
<b>Client:</b>	Tully Construction Co., Inc.	<b>Project:</b>	MTA Rockaway Park
<b>Contact:</b>	Dean Devoe	<b>Location:</b>	L51,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5279-02	ROCKAWAY-PARK	SOIL			12/13/24 08:20			12/13/24
			Corrosivity	9045D			12/18/24 08:40	
			Ignitability	1030			12/19/24 13:10	
			Reactive Cyanide	9012B		12/19/24	12/19/24 12:10	
			Reactive Sulfide	9034		12/17/24	12/17/24 11:13	



# SAMPLE DATA

## Report of Analysis

Client:	Tully Construction Co., Inc.	Date Collected:	12/13/24 08:20
Project:	MTA Rockaway Park	Date Received:	12/13/24
Client Sample ID:	ROCKAWAY-PARK	SDG No.:	P5279
Lab Sample ID:	P5279-02	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.90	H	1	0	0	pH		12/18/24 08:40	9045D
Ignitability	NO		1	0	0	oC		12/19/24 13:10	1030
Reactive Cyanide	0.0087	U	1	0.0087	0.050	mg/Kg	12/19/24 09:00	12/19/24 12:10	9012B
Reactive Sulfide	4.74	J	1	0.19	10.0	mg/Kg	12/17/24 09:00	12/17/24 11:13	9034

Comments: pH result reported at temperature 20.4 °C

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits



# 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.:** P5279

**Project:** MTA Rockaway Park

**RunNo.:** LB133987

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: Corrosivity	ICV	pH	7.00	7	100	90-110	12/18/2024
Sample ID: Corrosivity	CCV1	pH	2.02	2.00	101	90-110	12/18/2024
Sample ID: Corrosivity	CCV2	pH	12.02	12.00	100	90-110	12/18/2024



## Initial and Continuing Calibration Verification

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

**SDG No.:** P5279

**Project:** MTA Rockaway Park

**RunNo.:** LB134015

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: <b>ICV1</b> Reactive Cyanide	mg/L	0.098	0.099	99	85-115	12/19/2024
Sample ID: <b>CCV1</b> Reactive Cyanide	mg/L	0.24	0.25	96	90-110	12/19/2024
Sample ID: <b>CCV2</b> Reactive Cyanide	mg/L	0.24	0.25	96	90-110	12/19/2024
Sample ID: <b>CCV3</b> Reactive Cyanide	mg/L	0.25	0.25	100	90-110	12/19/2024



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.:** P5279

**Project:** MTA Rockaway Park

**RunNo.:** LB134015

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	0.00099	0.005	12/19/2024
Sample ID: <b>CCB1</b> Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/19/2024
Sample ID: <b>CCB2</b> Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/19/2024
Sample ID: <b>CCB3</b> Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/19/2024

## Preparation Blank Summary

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

**SDG No.:** P5279

**Project:** MTA Rockaway Park

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>PB165671BL</b>							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.186	10	12/17/2024
Sample ID: <b>PB165742BL</b>							
Reactive Cyanide	mg/Kg	< 0.0250	0.0250	U	0.0088	0.05	12/19/2024

## Duplicate Sample Summary

<b>Client:</b>	Tully Construction Co., Inc.	<b>SDG No.:</b>	P5279
<b>Project:</b>	MTA Rockaway Park	<b>Sample ID:</b>	P5279-02
<b>Client ID:</b>	ROCKAWAY-PARKDUP	<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	4.74	J	4.74	J	1	0		12/17/2024
Corrosivity	pH	+/-20	8.90		8.91		1	0.11		12/18/2024
Ignitability	oC	+/-20	NO		NO		1	0		12/19/2024
Reactive Cyanide	mg/Kg	+/-20	0.0087	U	0.0087	U	1	0		12/19/2024



# RAW DATA

Analysis Method: 9034

Parameter: Reactive Sulfide

Run Number: LB133982

ANALYST: rubina

SUPERVISOR REVIEW BY: Iwona

Constant: 16000

Normality1: 0.025

Normality2: 0.025

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

Seq	Lab ID	True Value (mg/l)	DF	Initial Weight (g)	Final Volume (ml)	T1 (ml)	T2 Initial	T2 Final	T2 Diff. (ml)	T1 - T2 Diff (mL)	Value Corrected With Blank	Result (ppm)	Anal Date	Anal Time
1	PB165671BL		1	5.00	50	2.00	0.00	1.94	1.94	0.06	0.00	0.00	12/17/2024	11:10
2	P5279-02		1	5.06	50	2.00	0.00	1.88	1.88	0.12	0.06	4.74	12/17/2024	11:13
3	P5279-02DUP		1	5.06	50	2.00	0.00	1.88	1.88	0.12	0.06	4.74	12/17/2024	11:16

T1 = Titrant1

T2 = Titrant2

T2 Diff = T2 Final - T2 Initial

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

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

## Analytical Summary Report

Analysis Method: 9045D

Analyst By : jignesh

Parameter: Corrosivity

Supervisor Review By : Iwona

Run Number: LB133987

Slope : 98.6

BalanceID: WC SC-7

pH Meter ID : WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3107
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER, COLOR CD 475ML	W3094
buffer solution pH 7 yellow	W3071
Buffer Solution, PH2 (500ml)	W3005
Buffer Solution, PH12 (500ml)	W3072

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

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

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

Seq	LabID	DF	Matrix	Weight (gm)	Volume (ml)	Temperature (°C)	Result (pH)	Anal Date	Anal Time
1	CAL1	1	Water	NA	NA	20.2	4.01	12/18/2024	08:00
2	CAL2	1	Water	NA	NA	20.2	7.00	12/18/2024	08:01
3	CAL3	1	Water	NA	NA	20.2	10.02	12/18/2024	08:03
4	ICV	1	Water	NA	NA	20.3	7.00	12/18/2024	08:05
5	CCV1	1	Water	NA	NA	20.3	2.02	12/18/2024	08:33
6	P5279-02	1	Solid	20.02	20	20.4	8.90	12/18/2024	08:40
7	P5279-02DUP	1	Solid	20.03	20	20.5	8.91	12/18/2024	08:41
8	CCV2	1	Water	NA	NA	20.3	12.02	12/18/2024	08:45

WORKLIST(Hardcopy Internal Chain)

WorkList Name : corrosivity p5279

WorkList ID : 186418

Department : Wet-Chemistry

Date : 12-18-2024 07:42:23

VB 133987

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5279-02	ROCKAWAY-PARK	Solid	Corrosivity	Cool 4 deg C	TULL02	L51	12/13/2024	9045D

Date/Time 12-18-24 07:50

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 12-18-24

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]



# Analytical Summary Report

Analysis Method: 1030  
Parameter: Ignitability  
Run Number: LB134004

Reviewed By: rubina

Supervisor Review By: Iwona

Seq	LabID	ClientID	DF	matrix	Result Status	Burning Rate	Anal Date	Anal Time
1	P5279-02	ROCKAWAY-PARK	1	Solid	NO	0.00	12/19/2024	13:10
2	P5279-02DUP	ROCKAWAY-PARKDUP	1	Solid	NO	0.00	12/19/2024	13:18
3	P5330-01	TP-5	1	Solid	NO	0.00	12/19/2024	13:25
4	P5330-04	TP-5	1	Solid	NO	0.00	12/19/2024	13:32
5	P5341-02	STORMWATER-SOLID-COM	1	Solid	NO	0.00	12/19/2024	13:40
6	P5343-05	OILY-RAGS-274	1	Solid	NO	0.00	12/19/2024	13:48

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

# WORKLIST(Hardcopy Internal Chain)

16134004

WorkList Name : ign-12-19      WorkList ID : 186460      Department : Wet-Chemistry      Date : 12-19-2024 08:24:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5279-02	ROCKAWAY-PARK	Solid	Ignitability	Cool 4 deg C	TULL02	L51	12/13/2024	1030
P5330-01	TP-5	Solid	Ignitability	Cool 4 deg C	PSEG03	L51	12/18/2024	1030
P5330-04	TP-5	Solid	Ignitability	Cool 4 deg C	PSEG03	L51	12/18/2024	1030
P5341-02	STORMWATER-SOLID-COMP	Solid	Ignitability	Cool 4 deg C	PSEG03	N12	12/18/2024	1030
P5343-05	OILY-RAGS-274	Solid	Ignitability	Cool 4 deg C	PSEG03	N12	12/18/2024	1030

Date/Time 12/19/2024 13:00  
 Raw Sample Received by: RM CWS  
 Raw Sample Relinquished by: RM CWS

Test results

Aquakem 7.2AQ1

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

12/19/2024 12:23

Reviewed by : VF Instrument ID : Konelab

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	98.090	0.0	0.069	
ICB1	-0.042	0.0	0.002	
CCV1	244.280	0.0	0.170	
CCB1	0.072	0.0	0.002	
PB165745BL	-0.208	0.0	0.002	
P5291-13	-0.523	0.0	0.001	
P5291-13DUP	-0.432	0.0	0.001	
P5341-01	-0.246	0.0	0.002	
P5341-03	-0.337	0.0	0.002	
P5343-06	-0.445	0.0	0.001	
PB165742BL	-0.449	0.0	0.001	
P5279-02	-0.294	0.0	0.002	
P5279-02DUP	-0.189	0.0	0.002	
P5330-04	-0.321	0.0	0.002	
CCV2	244.586	0.0	0.170	
CCB2	-0.731	0.0	0.001	
P5341-02	-0.507	0.0	0.001	
P5343-05	-0.426	0.0	0.001	
CCV3	250.426	0.0	0.174	
CCB3	-0.235	0.0	0.002	

N 20  
Mean 41.603  
SD 90.9642  
CV% 218.65

Aquakem v. 7.2AQ1

Results from time period:

Thu Dec 19 11:09:52 2024

Thu Dec 19 12:16:01 2024

Sample Id	Sam/Ctr/c	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	-0.6831	µg/l	12/19/2024 11:28:11	
5.0PPBCN	A	Total CN	P	4.7232	µg/l	12/19/2024 11:28:12	
10PPBCN	A	Total CN	P	9.3738	µg/l	12/19/2024 11:28:13	
50PPBCN	A	Total CN	P	50.6342	µg/l	12/19/2024 11:28:14	
100PPBCN	A	Total CN	P	102.7678	µg/l	12/19/2024 11:28:15	
250PPBCN	A	Total CN	P	247.5715	µg/l	12/19/2024 11:28:16	
500PPBCN	A	Total CN	P	500.6126	µg/l	12/19/2024 11:28:17	
ICV1	S	Total CN	P	98.0902	µg/l	12/19/2024 12:02:40	
ICB1	S	Total CN	P	-0.0418	µg/l	12/19/2024 12:02:42	
CCV1	S	Total CN	P	244.28	µg/l	12/19/2024 12:02:44	
CCB1	S	Total CN	P	0.072	µg/l	12/19/2024 12:02:45	
PB165745BL	S	Total CN	P	-0.2085	µg/l	12/19/2024 12:02:48	
P5291-13	S	Total CN	P	-0.5231	µg/l	12/19/2024 12:02:49	
P5291-13DUP	S	Total CN	P	-0.4315	µg/l	12/19/2024 12:10:12	
P5341-01	S	Total CN	P	-0.2455	µg/l	12/19/2024 12:10:13	
P5341-03	S	Total CN	P	-0.3366	µg/l	12/19/2024 12:10:14	
P5343-06	S	Total CN	P	-0.4453	µg/l	12/19/2024 12:10:15	
PB165742BL	S	Total CN	P	-0.4492	µg/l	12/19/2024 12:10:18	
P5279-02	S	Total CN	P	-0.2939	µg/l	12/19/2024 12:10:19	
P5279-02DUP	S	Total CN	P	-0.1889	µg/l	12/19/2024 12:10:20	
P5330-04	S	Total CN	P	-0.3215	µg/l	12/19/2024 12:10:21	
CCV2	S	Total CN	P	244.5855	µg/l	12/19/2024 12:10:22	
CCB2	S	Total CN	P	-0.7307	µg/l	12/19/2024 12:15:55	
P5341-02	S	Total CN	P	-0.5072	µg/l	12/19/2024 12:15:56	
P5343-05	S	Total CN	P	-0.426	µg/l	12/19/2024 12:15:57	
CCV3	S	Total CN	P	250.4262	µg/l	12/19/2024 12:16:00	
CCB3	S	Total CN	P	-0.2348	µg/l	12/19/2024 12:16:01	

Calibration results

Aquakem 7.2AQ1

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

12/19/2024 11:28

Reviewed by : NF

Instrument ID : Konelab

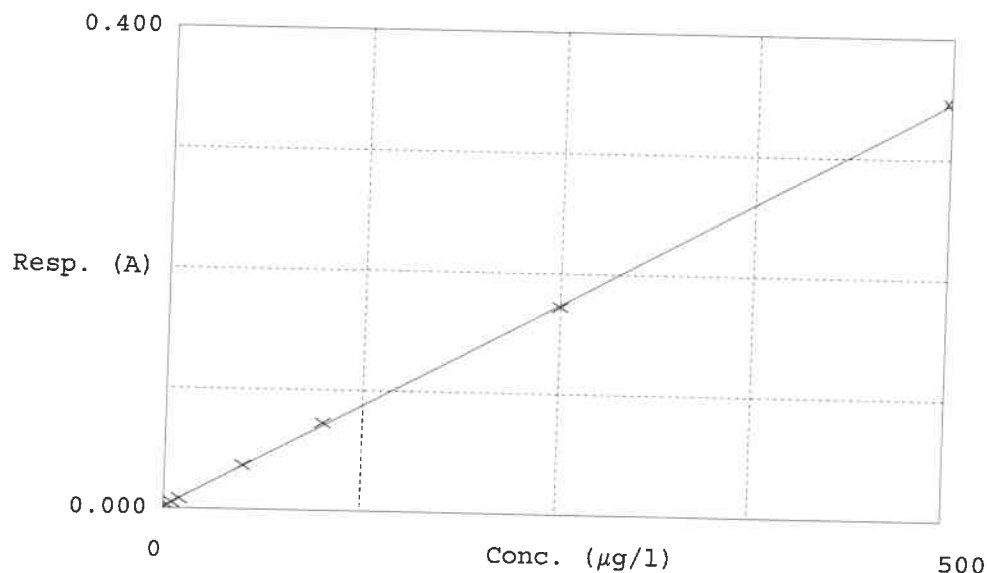
Test Total CN

Accepted 12/19/2024 11:28

Factor 1453  
Bias 0.002

Coeff. of det. 0.999926

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.0PPBCN	0.001	-0.6831	0.0000	
2	5.0PPBCN	0.005	4.7232	5.0000	-5.5
3	10PPBCN	0.008	9.3738	10.0000	-6.3
4	50PPBCN	0.037	50.6342	50.0000	1.3
5	100PPBCN	0.072	102.7678	100.0000	2.8
6	250PPBCN	0.172	247.5715	250.0000	-1.0
7	500PPBCN	0.346	500.6126	500.0000	0.1

NF  
12.19.2024

SOP ID : M9030B-Sulfide-12

SDG No : N/A

Matrix : SOIL

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#1

Block ID : MC-1

Weigh By : RM

Start Digest Date: 12/17/2024 Time : 09:00 Temp : N/A

End Digest Date: 12/17/2024 Time : 10:30 Temp : N/A

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : N/A

Prep Technician Signature: RM

Supervisor Signature: 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
N/A	N/A	N/A

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

Extraction Conformance/Non-Conformance Comments:

12/17/2024

N/A

RM

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
P5279-02	ROCKAWAY-PARK	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
P5279-02DUP	ROCKAWAY-PARKDUP	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
PB165671BL	PBS671	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : RSUL-1217

WorkList ID : 186394

Department : Distillation

Date : 12-17-2024 08:29:29

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5279-02	ROCKAWAY-PARK	Solid	Reactive Sulfide	Cool 4 deg C	TULL02	L51	12/13/2024	9034

Date/Time 12/17/2024 08:35  
Raw Sample Received by: RIM (w.c.)  
Raw Sample Relinquished by: RIM (w.c.)

Date/Time 12/17/2024 09:15  
Raw Sample Received by: RIM (w.c.)  
Raw Sample Relinquished by: RIM (w.c.)



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

SDG No : N/A

Start Digest Date: 12/19/2024 Time : 09:00 Temp : N/A

Matrix : SOIL

End Digest Date: 12/19/2024 Time : 10:30 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-2

Filter paper ID : N/A

Prep Technician Signature:

Weigh By : NF

pH Meter ID : N/A

Supervisor Signature:

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

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	N/A	WP108640
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Comment

## Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12-19-2024, 10:45	NF(WC)	NF(WC)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P5279-02	ROCKAWAY-PARK	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
P5279-02DUP	ROCKAWAY-PARKDUP	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
P5330-04	TP-5	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
P5341-02	STORMWATER-SOLID-COMP	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
P5343-05	OILY-RAGS-274	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
PB165742BL	PBS742	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : RCN S-12192024      WorkList ID : 186468      Department : Distillation      Date : 12-19-2024 08:34:15

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5279-02	ROCKAWAY-PARK	Solid	Reactive Cyanide	Cool 4 deg C	TULL02	L51	12/13/2024	9012B
P5330-04	TP-5	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	L51	12/18/2024	9012B
P5341-02	STORMWATER-SOLID-COMP	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	N12	12/18/2024	9012B
P5343-05	OILY-RAGS-274	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	N12	12/18/2024	9012B

Date/Time 12.19.2024 - 08:40  
Raw Sample Received by: nfwes  
Raw Sample Relinquished by: RM Sm

Date/Time 12.19.2024 10:00  
Raw Sample Received by: RM Sm  
Raw Sample Relinquished by: nfwes

**Instrument ID:** TITRAMETRIC

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133982**

Review By	rubina	Review On	12/17/2024 4:27:23 PM
Supervise By	Iwona	Supervise On	12/17/2024 4:30:17 PM
SubDirectory	LB133982	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	W3105,W3114,W3149		

Sr#	SampleID	ClientID	QcType	Date	Comment	Operator	Status
1	PB165671BL	PB165671BL	MB	12/17/24 11:10		rubina	OK
2	P5279-02	ROCKAWAY-PARK	SAM	12/17/24 11:13		rubina	OK
3	P5279-02DUP	ROCKAWAY-PARKDU	DUP	12/17/24 11:16		rubina	OK

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

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133987**

Review By	jignesh	Review On	12/18/2024 8:31:40 AM
Supervise By	Iwona	Supervise On	12/18/2024 10:11:38 AM
SubDirectory	LB133987	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	W3107,W3093,W3094,W3071,W3005,W3072		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	12/18/24 08:00		Jignesh	OK
2	CAL2	CAL2	CAL	12/18/24 08:01		Jignesh	OK
3	CAL3	CAL3	CAL	12/18/24 08:03		Jignesh	OK
4	ICV	ICV	ICV	12/18/24 08:05		Jignesh	OK
5	CCV1	CCV1	CCV	12/18/24 08:33		Jignesh	OK
6	P5279-02	ROCKAWAY-PARK	SAM	12/18/24 08:40		Jignesh	OK
7	P5279-02DUP	ROCKAWAY-PARKDU	DUP	12/18/24 08:41		Jignesh	OK
8	CCV2	CCV2	CCV	12/18/24 08:45		Jignesh	OK

**Instrument ID:** FLAME

**Daily Analysis Runlog For Sequence/QC Batch ID # LB134004**

Review By	rubina	Review On	12/19/2024 2:38:53 PM
Supervise By	Iwona	Supervise On	12/19/2024 3:06:50 PM
SubDirectory	LB134004	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	P5279-02	ROCKAWAY-PARK	SAM	12/19/24 13:10		rubina	OK
2	P5279-02DUP	ROCKAWAY-PARKDU	DUP	12/19/24 13:18		rubina	OK
3	P5330-01	TP-5	SAM	12/19/24 13:25		rubina	OK
4	P5330-04	TP-5	SAM	12/19/24 13:32		rubina	OK
5	P5341-02	STORMWATER-SOLI	SAM	12/19/24 13:40		rubina	OK
6	P5343-05	OILY-RAGS-274	SAM	12/19/24 13:48		rubina	OK

**Instrument ID:** KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB134015**

Review By	Niha	Review On	12/20/2024 12:39:40 PM
Supervise By		Supervise On	
SubDirectory	LB134015	Test	Reactive Cyanide
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP111150,WP111151,WP111152,WP111153,WP111154,WP111155,WP111156		
ICV Standard	WP111157		
CCV Standard	WP111151		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP111035,WP110103,WP111158		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	12/19/24 11:28		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	12/19/24 11:28		Niha	OK
3	10PPBCN	10PPBCN	CAL3	12/19/24 11:28		Niha	OK
4	50PPBCN	50PPBCN	CAL4	12/19/24 11:28		Niha	OK
5	100PPBCN	100PPBCN	CAL5	12/19/24 11:28		Niha	OK
6	250PPBCN	250PPBCN	CAL6	12/19/24 11:28		Niha	OK
7	500PPBCN	500PPBCN	CAL7	12/19/24 11:28		Niha	OK
8	ICV1	ICV1	ICV	12/19/24 12:02		Niha	OK
9	ICB1	ICB1	ICB	12/19/24 12:02		Niha	OK
10	CCV1	CCV1	CCV	12/19/24 12:02		Niha	OK
11	CCB1	CCB1	CCB	12/19/24 12:02		Niha	OK
12	PB165745BL	PB165745BL	MB	12/19/24 12:02		Niha	OK
13	P5291-13	WC-20241213	SAM	12/19/24 12:02		Niha	OK
14	P5291-13DUP	WC-20241213DUP	DUP	12/19/24 12:10		Niha	OK
15	P5341-01	STORMWATER-AQ-C	SAM	12/19/24 12:10		Niha	OK
16	P5341-03	TOTE-425	SAM	12/19/24 12:10		Niha	OK
17	P5343-06	PUMP-WATER-271	SAM	12/19/24 12:10		Niha	OK
18	PB165742BL	PB165742BL	MB	12/19/24 12:10		Niha	OK

Instrument ID: KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB134015**

Review By	Niha	Review On	12/20/2024 12:39:40 PM
Supervise By		Supervise On	
SubDirectory	LB134015	Test	Reactive Cyanide
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP111150,WP111151,WP111152,WP111153,WP111154,WP111155,WP111156		
ICV Standard	WP111157		
CCV Standard	WP111151		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP111035,WP110103,WP111158		

19	P5279-02	ROCKAWAY-PARK	SAM	12/19/24 12:10		Niha	OK
20	P5279-02DUP	ROCKAWAY-PARKDU	DUP	12/19/24 12:10		Niha	OK
21	P5330-04	TP-5	SAM	12/19/24 12:10		Niha	OK
22	CCV2	CCV2	CCV	12/19/24 12:10		Niha	OK
23	CCB2	CCB2	CCB	12/19/24 12:15		Niha	OK
24	P5341-02	STORMWATER-SOLI	SAM	12/19/24 12:15		Niha	OK
25	P5343-05	OILY-RAGS-274	SAM	12/19/24 12:15		Niha	OK
26	CCV3	CCV3	CCV	12/19/24 12:16		Niha	OK
27	CCB3	CCB3	CCB	12/19/24 12:16		Niha	OK



## Prep Standard - Chemical Standard Summary

**Order ID :** P5279

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

**Prepbatch ID :** PB165671,PB165742,

**Sequence ID/Qc Batch ID:** LB133982,LB133987,LB134004,LB134015,

**Standard ID :**

WP108640,WP109549,WP110103,WP111004,WP111035,WP111149,WP111150,WP111151,WP111152,WP111153,WP111154,WP111155,WP111156,WP111157,WP111158,

**Chemical ID :**

E3657,M6121,W2668,W2725,W2882,W2926,W3005,W3019,W3071,W3072,W3093,W3094,W3105,W3107,W3112,W3114,W3138,W3139,W3149,W3154,



<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="#">WP108640</a>	07/05/2024	01/05/2025	Rubina Mughal	WETCHEM_SCALE_4 (WC SC-4)	None	Iwona Zarych 07/08/2024
<b>FROM</b> 21.00000L of W3112 + 210.00000gram of E3657 = 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="#">WP109549</a>	09/06/2024	01/05/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 09/06/2024
<b><u>FROM</u></b> 1.00000ml of W3138 + 199.00000ml of WP108640 = Final Quantity: 200.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
539	CN BUFFER	<a href="#">WP110103</a>	10/08/2024	04/08/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych  10/08/2024
<u>FROM</u>	138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
160	0.5M ZINC ACETATE	<a href="#">WP111004</a>	12/09/2024	05/13/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC-7)	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/09/2024
<b><u>FROM</u></b> 0.88900L of W3112 + 1.00000ml of M6121 + 110.00000gram of W2926 = Final Quantity: 1000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
607	PYRIDINE-BARBITURIC ACID	<a href="#">WP111035</a>	12/09/2024	04/30/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych  12/10/2024
<b><u>FROM</u></b>	145.00000ml of W3112 + 15.00000gram of W2882 + 15.00000ml of M6121 + 75.00000ml of W3019 = Final Quantity: 250.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3456	Cyanide Intermediate Working Std, 5PPM	<a href="#">WP111149</a>	12/19/2024	12/20/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/20/2024
<b><u>FROM</u></b> 0.25000ml of W3154 + 49.75000ml of WP108640 = Final Quantity: 50.000 ml								

## Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4	Calibration standard 500 ppb	<a href="#">WP111150</a>	12/19/2024	12/20/2024	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/20/2024

**FROM** 45.00000ml of WP108640 + 5.00000ml of WP111149 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3761	Calibration-CCV CN Standard 250 ppb	<a href="#">WP111151</a>	12/19/2024	12/20/2024	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/20/2024

**FROM** 2.50000ml of WP111149 + 47.50000ml of WP108640 = Final Quantity: 50.000 ml

## Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
6	Calibration Standard 100 ppb	<a href="#">WP111152</a>	12/19/2024	12/20/2024	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/20/2024

**FROM** 1.00000ml of WP111149 + 49.00000ml of WP108640 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
7	Calibration Standard 50 ppb	<a href="#">WP111153</a>	12/19/2024	12/20/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 12/20/2024

**FROM** 0.50000ml of WP111149 + 49.50000ml of WP108640 = 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="#">WP111154</a>	12/19/2024	12/20/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 12/20/2024
<u>FROM</u>	1.00000ml of WP111150 + 49.00000ml of WP108640 = Final Quantity: 50.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
9	Calibration Standard 5 ppb	<a href="#">WP111155</a>	12/19/2024	12/20/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/20/2024
<u>FROM</u>	0.50000ml of WP111150 + 49.50000ml of WP108640 = Final Quantity: 50.000 ml							

## Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
167	0 ppb CN calibration std	<a href="#">WP111156</a>	12/19/2024	12/20/2024	Niha Farheen Shaik	None	None	Iwona Zarych 12/20/2024

**FROM** 50.00000ml of WP108640 = 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="#">WP111157</a>	12/19/2024	12/20/2024	Niha Farheen Shaik	None	None	Iwona Zarych 12/20/2024

**FROM** 1.00000ml of WP109549 + 49.00000ml of WP108640 = 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="#">WP111158</a>	12/19/2024	12/20/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 12/20/2024
<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 #
PCI Scientific Supply, Inc.	PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4	23B1556310	12/31/2025	12/04/2023 / Rajesh	12/01/2023 / Rajesh	E3657

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3818-5 / SODIUM PHOSPHATE, MONOBAS/HYD, CRYST, ACS, 2.5 KG	0000225799	12/03/2025	04/05/2021 / Alexander	02/10/2020 / apatel	W2668

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

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

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

## CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL13850-1 / Buffer Solution, PH2 (500ml)	4212E45	12/31/2024	01/31/2023 / Iwona	01/31/2023 / Iwona	W3005

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 / Iwona	04/03/2023 / Iwona	W3019

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1601-1 / PH 10.01 BUFFER,COLOR CD 475ML	4310g83	03/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3094

## CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14055-3 / PH 4 BUFFER SOLUTION	AL14055-3	02/27/2026	09/05/2024 / jignesh	05/13/2024 / jignesh	W3107

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

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

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

### CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL70850-8 / Starch Solution, 4L	4408P62	08/31/2026	10/16/2024 / Iwona	10/16/2024 / Iwona	W3149

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


W3071  
Rec 12/6/23

## Certificate of Analysis 12

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

Lot Number: 4308H30

Product Number: 1551

Manufacture Date: AUG 09, 2023

Expiration Date: JUL 2025

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

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

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

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

Test	Specification	Result
Appearance	Yellow liquid	Passed

\*Not a certified value.

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

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

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

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

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



Paul Brandon (08/09/2023)

Production Manager

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

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

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

W3019  
rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: [www.sigmaaldrich.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.







# 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)

W 3072  
REC. 12/01/23  
12

## Certificate of Analysis

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

Lot Number: 2310P21

Product Number: 1615

Manufacture Date: OCT 24, 2023

Expiration Date: APR 2025

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

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

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

Test	Specification	Result
Appearance	Colorless liquid	Passed

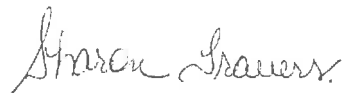
\*Not a certified value.

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

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

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

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



Sharon Travers (10/24/2023)

Operations Manager

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

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

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## Certificate of Analysis

Date of Release: 2/26/2020

Name: Formaldehyde Solution  
GR ACS  
Meets ACS Specifications

Item No: FX0410 all size codes

Lot / Batch No: 60045

Country of Origin: USA

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

Heather Sinn,

-----  
Quality Control Manager

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

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



# 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	$\leq 0.005 \%$	$< 0.005 \%$	PASS
Chloride	$\leq 0.005 \%$	0.002 %	PASS
Heavy Metals	$\leq 0.002 \%$	$< 0.002 \%$	PASS
Iron	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Magnesium	$\leq 0.002 \%$	$< 0.002 \%$	PASS
Mercury	$\leq 0.1 \text{ ppm}$	$< 0.1 \text{ ppm}$	PASS
Nickel	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Nitrogen Compounds	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Phosphate	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Potassium	$\leq 0.02 \%$	$< 0.02 \%$	PASS
Purity	$\geq 97.0 \%$	99.2 %	PASS
Sodium Carbonate	$\leq 1.0 \%$	0.5 %	PASS
Sulfate	$\leq 0.003 \%$	$< 0.003 \%$	PASS

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

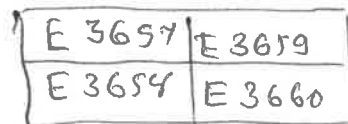
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Leona Edwardson, Quality Control Sr. Manager - Solon  
VWR Chemicals, LLC.  
28600 Fountain Parkway, Solon OH 44139 USA

### Additional Information

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

Product meets analytical specifications of the grades listed.



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

avantor™



R → 16/13/24  
Met dig

M 6121

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

## Certificate of Analysis

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

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

Avantor Performance Materials, LLC

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

Material No.: 9530-33

Batch No.: 0000275677

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

For Laboratory, Research or Manufacturing Use

Product Information (not specifications):

Appearance (clear, fuming liquid)

Meets ACS Specifications

Country of Origin: US

Packaging Site: Phillipsburg Mfg Ctr &amp; DC



Jamie Ethier  
Vice President Global Quality

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

Avantor Performance Materials, LLC

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



# Certificate of Analysis

1.00132.0000 Barbituric acid for analysis EMSURE®  
Batch N020065932

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

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

Ioannis Chartomatsidis  
Responsible laboratory manager quality control

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

(sodium dihydrogen phosphate, monohydrate)



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

## Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

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

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

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

  
Jamie Ethier  
Vice President Global Quality

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

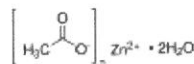


## Certificate of Analysis

Product Name:


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

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



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

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

W 3005

REC. 1/31/23

12

1490 Lammers Pike

Batesville, IN 47006

<http://www.riccachemical.com>

1-888-GO-RICCA

customerservice@riccachemical.com

# Certificate of Analysis

**Buffer, Reference Standard, pH 2.00 ± 0.01 at 25°C****Lot Number: 4212E45****Product Number: 1493****Manufacture Date: DEC 20, 2022****Expiration Date: DEC 2024**

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)	2.000	0.02	185i, 186-I-g, 186-II-g

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)
1493-1	4 L natural poly	24 months
1493-16	500 mL natural poly	24 months
1493-32	1 L natural poly	24 months
1493-5	20 L Cubitainer®	24 months

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



Paul Brandon (12/20/2022)

Production Manager

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

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

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customerservice@riccachemical.com

# Certificate of Analysis

W3093  
094121  
04/03/2024  
16

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

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

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

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

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

Test	Specification	Result
Appearance	Yellow liquid	Passed

\*Not a certified value.

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

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

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

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

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



Paul Brandon (01/08/2024)

Production Manager

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Contents of Certificates and Labels."

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

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## Certificate of Analysis

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

Lot Number: 4310G83

Product Number: 1601

Manufacture Date: OCT 09, 2023

Expiration Date: MAR 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	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

\*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	10.003	0.02	186-I-g, 186-II-g, 191d

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer C	ASTM (D 5464)
Buffer C	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)
1601-16	500 mL natural poly	18 months
1601-5	20 L Cubitainer®	18 months

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



Paul Brandon (10/09/2023)

Production Manager

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

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# Certificate of Analysis

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

**Lot Number:** 4403S13

**Product Number:** 7900

**Manufacture Date:** MAR 29, 2024

**Expiration Date:** SEP 2025

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

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

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

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

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

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

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





Paul Brandon (03/29/2024)

Production Manager

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## Certificate of Analysis

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

Lot Number: 4403F90

Product Number: 1501

Manufacture Date: MAR 09, 2024

Expiration Date: FEB 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)	4.000	0.02	185i, 186-I-g, 186-II-g

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer B	ASTM (D 5464)
Buffer B	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)
1501-2.5	10 L Cubitainer®	24 months
1501-32	1 L natural poly	24 months
1501-5	20 L Cubitainer®	24 months

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



Paul Brandon (03/09/2024)

Production Manager

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# Certificate of Analysis

**Iodine (Iodine-Iodide), 0.0250 Normal (N/40), 1 mL = 0.4008 mg S<sup>2-</sup>****Lot Number:** 2405D89**Product Number:** 3975**Manufacture Date:** MAY 10, 2024**Expiration Date:** MAY 2025

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

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

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

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

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

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

Jose Pena (05/10/2024)  
Operations Manager

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Part of TCP Analytical Group

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

## Certificate of Analysis

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

Product Code: **LC13545**

Manufacture Date: August 01, 2024

Lot Number: **44080060**

Expiration Date: January 30, 2025

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

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

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

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

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

\*The suffix of the product code may differ from what is on your product label. The suffix will designate the size and be associated with a numeric digit(s). Visit [LabChem.com](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 or g	1L or 1kg	2.5L/2.5L Coated/6x2.5L/6x2.5L Coated	4L	20L	10L	125mL	25g	100g	20x20mL	4x4L	200L	24x6mL	48x6mL

*Michael Monteleone*

Michael Monteleone  
Chemistry Supervisor - Quality Control

ISO9001:2015 Registration #0306-01

2024080113:32:16bsturges-0-0

W3139 Received on 9/9/24 by IZ

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

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

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



# Certificate of Analysis

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

Lot Number: 4408P62

Product Number: 8000

Manufacture Date: AUG 28, 2024

Expiration Date: AUG 2026

This product is Mercury-free.

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

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

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

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

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

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

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

Paul Brandon (08/28/2024)  
Production Manager

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# Certificate of Analysis

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

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

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

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

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

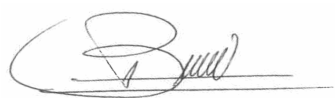
Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN <sup>-</sup> )	995-1005 ppm	1000 ppm

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)
2543-16	500 mL amber poly	6 months
2543-32	1 L amber poly	6 months
2543-4	120 mL amber poly	6 months

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

A handwritten signature in black ink, appearing to read 'L. Briceno', is written over a horizontal line.

Luis Briceno (11/22/2024)  
Operations Supervisor

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# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 12/16/2024

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:00  
In Date: 12/13/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 08:25  
Out Date: 12/14/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB133946

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
P5277-01	COMP-1A	1	1.15	8.66	9.81	8.81	88.5	
P5277-02	COMP-2A	2	1.16	8.64	9.8	7.98	78.9	
P5277-03	COMP-3A	3	1.19	8.45	9.64	8.79	89.9	
P5277-04	SB-13	4	1.14	8.61	9.75	8.89	90.0	
P5277-05	SB-14	5	1.15	8.81	9.96	9.14	90.7	
P5277-06	SB-15	6	1.18	8.74	9.92	9.08	90.4	
P5277-07	SB-16	7	1.15	8.81	9.96	8.68	85.5	
P5277-08	SB-17	8	1.12	8.86	9.98	7.98	77.4	
P5277-09	SB-18	9	1.16	8.74	9.9	8.34	82.2	
P5277-10	SB-19	10	1.14	8.83	9.97	8.42	82.4	
P5277-11	SB-20	11	1.19	8.52	9.71	8.13	81.5	
P5277-12	SB-21	12	1.17	8.72	9.89	9.05	90.4	
P5277-13	SB-22	13	1.15	8.80	9.95	9.03	89.5	
P5277-14	SB-23	14	1.14	8.61	9.75	8.51	85.6	
P5277-15	SB-24	15	1.16	8.40	9.56	8.68	89.5	
P5279-01	ROCKAWAY-PARK	16	1.18	8.47	9.65	9.11	93.6	
P5279-03	ROCKAWAY-PARK	17	1.15	8.50	9.65	9.14	94.0	
P5287-01	STONES-A	18	1.00	1.00	2.00	2.00	100.0	stone sample, 100 % solids
P5287-02	STONES-A-E2	19	1.00	1.00	2.00	2.00	100.0	stone sample, 100 % solids
P5287-03	STONES-B	20	1.00	1.00	2.00	2.00	100.0	stone sample, 100 % solids
P5287-04	STONES-B-E2	21	1.00	1.00	2.00	2.00	100.0	stone sample, 100 % solids
P5288-05	SVOC-GPC-BLANK	22	1.00	1.00	2.00	2.00	100.0	
P5288-06	PEST-GPC-BLANK	23	1.00	1.00	2.00	2.00	100.0	
P5288-07	PEST-GPC-BLANK-SPIKE	24	1.00	1.00	2.00	2.00	100.0	
P5288-08	PCB-GPC-BLANK	25	1.00	1.00	2.00	2.00	100.0	
P5288-09	PCB-GPC-BLANK-SPIKE	26	1.00	1.00	2.00	2.00	100.0	
P5288-10	SVOC-GPC2-BLANK	27	1.00	1.00	2.00	2.00	100.0	
P5288-11	PEST-GPC2-BLANK	28	1.00	1.00	2.00	2.00	100.0	



PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 12/16/2024

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:00  
In Date: 12/13/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 08:25  
Out Date: 12/14/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB133946

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
P5288-12	PEST-GPC2-BLANK-SPIKE	29	1.00	1.00	2.00	2.00	100.0	
P5288-13	PCB-GPC2-BLANK	30	1.00	1.00	2.00	2.00	100.0	
P5288-14	PCB-GPC2-BLANK-SPIKE	31	1.00	1.00	2.00	2.00	100.0	

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



# SHIPPING DOCUMENTS

# CHEMTECH

## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 • Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO. **P5279**  
QUOTE NO.  
COC Number **2041523**

### CLIENT INFORMATION

REPORT TO BE SENT TO:  
COMPANY: **Tully Construction Co.**  
ADDRESS: **112-01 beach Channel**  
CITY: **Rockaway** STATE: **NJ** ZIP:  
ATTENTION: **Dean Devoe**  
PHONE: FAX:

### CLIENT PROJECT INFORMATION

PROJECT NAME:  
PROJECT NO.: LOCATION:  
PROJECT MANAGER:  
e-mail:  
PHONE: FAX:

### CLIENT BILLING INFORMATION

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

### DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS\*  
HARDCOPY (DATA PACKAGE): DAYS\*  
EDD: DAYS\*  
\*TO BE APPROVED BY CHEMTECH  
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

### DATA DELIVERABLE INFORMATION

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

**SVOC-PAH**  
**TCLP**  
**Corrosivity**  
**PCB**  
**Mercury**  
**TPH**  
**VOC-TCLVOC-10**

### ANALYSIS

### PRESERVATIVES

### COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	Rockaway Park	90L	X		12-13-24	0820	9	X	X	X	X	X	X				PiD=0.0
2.	1	1		X	1	0822	4							X			PiD=0.0
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

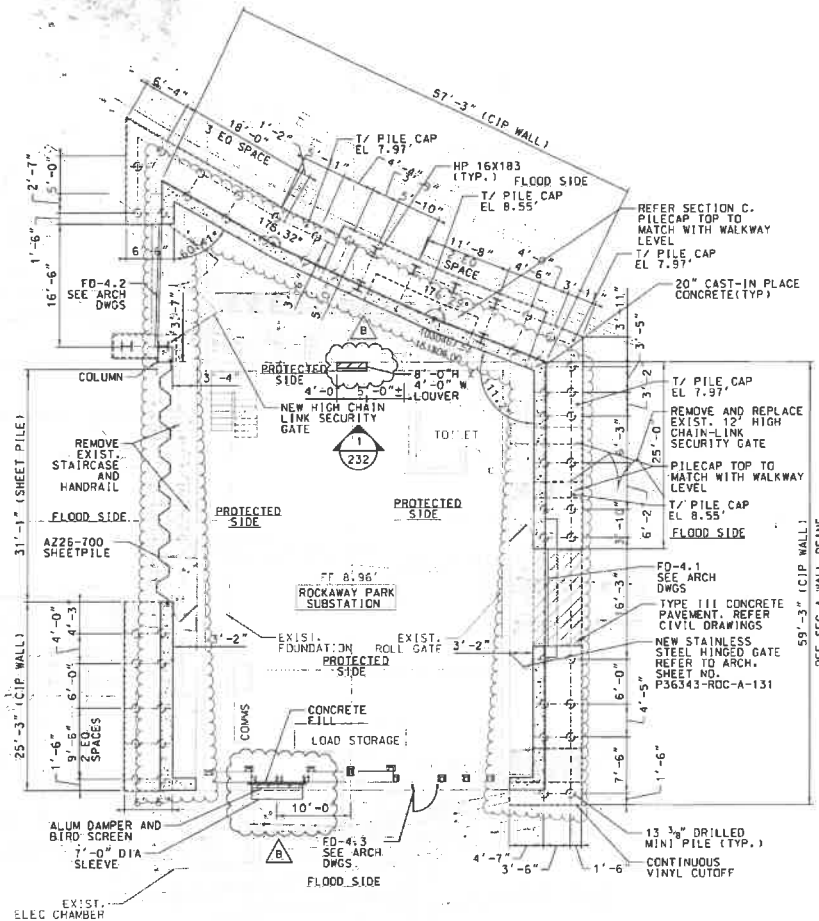
### SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <b>L. C.</b>	DATE/TIME: <b>0900</b> <b>12-13-2024</b>	RECEIVED BY: 1. <b>L. C.</b>	Conditions of bottles or coolers at receipt: <input type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <b>X</b> COOLER TEMP <b>2.9°C</b> Comments: <b>*PiD Meter Calibrated 12-13-2024</b> <b>Equal volume of soil used 5:1 composite</b>
RELINQUISHED BY SAMPLER: 2. <b>L. C.</b>	DATE/TIME:	RECEIVED BY: 2. <b>L. C.</b>	
RELINQUISHED BY SAMPLER: 3. <b>L. C.</b>	DATE/TIME: <b>12:00</b> <b>12-13-2024</b>	RECEIVED BY: 3. <b>L. C.</b>	

Page **1** of **1**

CHEMTECH: ☐ Hand Delivered ☐ Other ☐ Picked Up ☐ Field Sampling

Shipment Complete ☐ YES ☐ NO



Rockaway Park

NOTE:  
1. REFER TO P36343-A-G-701 FOR FLOOD DEVICE OPENING SCHEDULE.

FLOOD WALL LAYOUT PLAN  
SCALE: 1/8"=1'-0"

IT IS A VIOLATION OF THE PROFESSIONAL LICENSE LAW FOR ANY PERSON TO ALTER THIS DRAWING IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER/REGISTERED ARCHITECT. THE ALTERING ENGINEER/ARCHITECT SHALL AFFIX TO THE DRAWING HIS/HER SEAL AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISION	DESCRIPTION	DATE	APPROVED
B	ADDED NEW LOUVER	11/06/2024	CJ
A	REVISED PILE AND INTERNAL HARDENING LAYOUT	11/06/2024	CJ

REVISIONS



CONTRACT P-36343  
FLOOD MITIGATION AT TWENTY-SIX (26) SUBSTATIONS  
IN THE BOROUGH OF BROOKLYN, MANHATTAN AND QUEENS  
ROCKAWAY PARK SUBSTATION  
FLOOD WALL PLAN



DRAWN BY	R. NUTHAN	DATE	11/06/2024
DESIGNED BY	K. UDAY	DISCIPLINE	STRUCTURE
CHECKED BY	DINAKAR KN	PROJECT NO.	P36343-ROC-CS-131
APPROVED BY	C. J. EDRICH, PE	REVISION	

SDESIGNS\$FILE\$EXPANDED\$SPEC\$

PRINT AS OF SDATES\$OF\$PLOTTINGS

USER\$NAME

# CHEMTECH

## Environmental Laboratory

www.chemtech.net | EMAIL: [PM@chemtech.net](mailto:PM@chemtech.net)

Project Name: Rockaway Park  
Queens  
Service Order #: \_\_\_\_\_  
Work Order #: \_\_\_\_\_  
Labor WBS #: \_\_\_\_\_

Chemtech Order ID: \_\_\_\_\_  
Sampler Name: Lawrence Carter  
Client Project Coordinator & Phone: \_\_\_\_\_

Facility/Site: \_\_\_\_\_  
Site Address: 112-01 beach  
Channel, Rockaway Queens, N.Y.

Page #: 1 of 1  
Date: 12.13.2024  
Arrive Time: 0730  
Depart Time: 0900

Waste Stream (circle one): drum / roll-off / soil pile / in-situ / linear construction / frac-tank

Sample Matrices (circle all that apply): Water / ☒ Solid / ☒ NAPL / Concrete / Wipe

soil cover

Collection Depths: \_\_\_\_\_

Dimensions/CY: \_\_\_\_\_

Temp (range): \_\_\_\_\_ °C PID Readings (range): 0.0 PPM Odor: Y / ☒ N Color: Y / N

Sample Description:

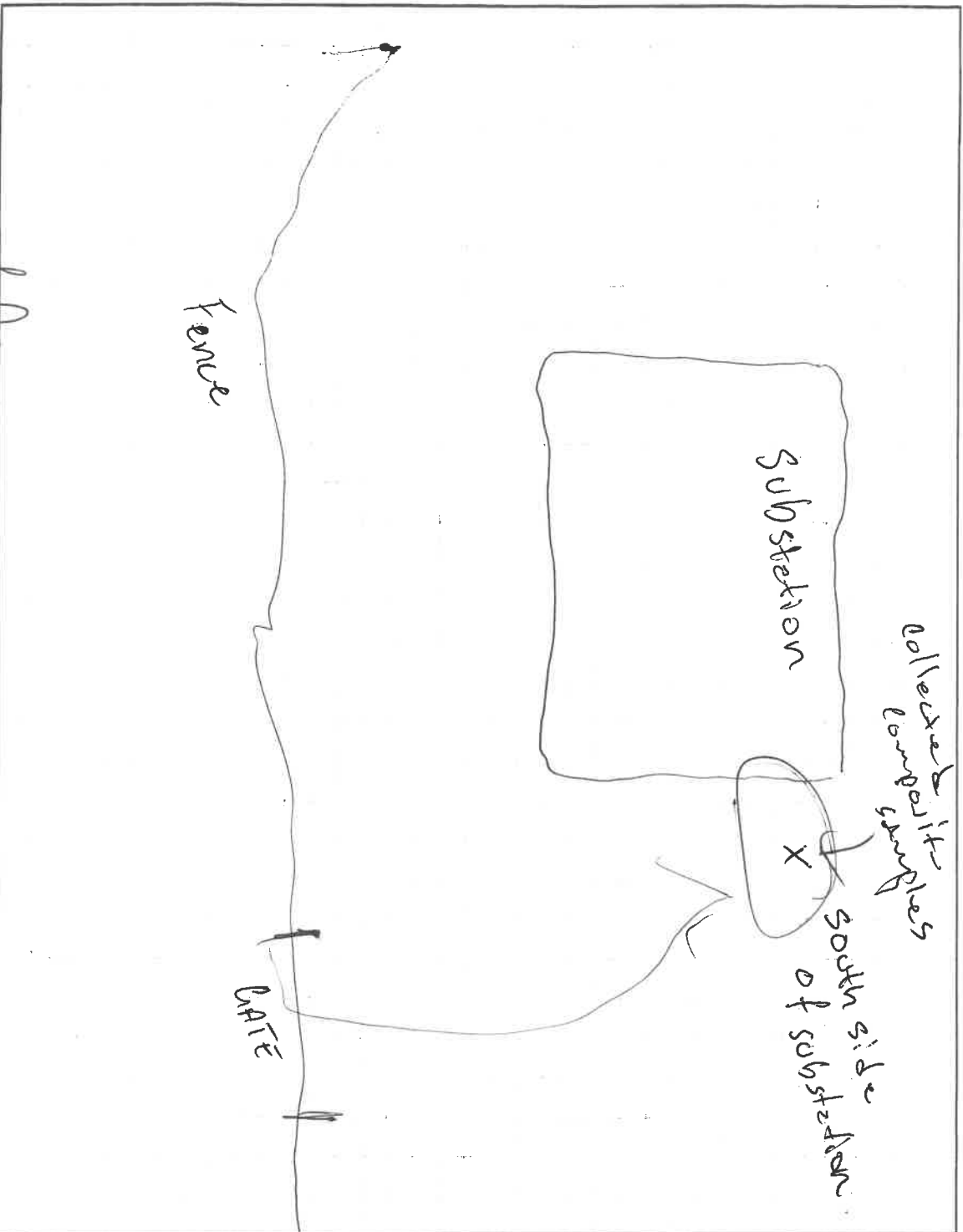
Dark GRAY soil.

Field Observations:

Sampled, Rockaway Park.

Grid/Area Composite Map:

QA Control # A3041134



Sampler Signature: \_\_\_\_\_

12.13.2024

Supervisor Review/Date: \_\_\_\_\_

Client Signature: \_\_\_\_\_

Date/Time Arrived at Lab: \_\_\_\_\_





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

### Laboratory Certification

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

**LOGIN REPORT/SAMPLE TRANSFER**

<b>Order ID :</b> P5279	<b>TULL02</b>	<b>Order Date :</b> 12/13/2024 12:03:00 PM	<b>Project Mgr :</b>
<b>Client Name :</b> Tully Construction Co., Inc.		<b>Project Name :</b> Rockaway Park	<b>Report Type :</b> Level 1
<b>Client Contact :</b> Dean Devoe		<b>Receive DateTime :</b> 12/13/2024 12:00:00 AM	<b>EDD Type :</b> Excel NYS 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
P5279-03	ROCKAWAY-PARK	Solid	12/13/2024	08:22		VOC-TCLVOA-10	8260D	5 Bus. Days

**Relinquished By :**

**Date / Time :** 12-13-2024 12:18

**Received By :**

**Date / Time :** 12-13-24 12:18

**Storage Area :** VOA Refrigerator Room