

## 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

**OrderID:** Q2646  
**Client:** Environmental Restoration, LLC  
**Contact:** Steve Motta

**OrderDate:** 7/18/2025 11:47:00 AM  
**Project:** North Arlington, NJ  
**Location:** O11,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2646-01	FRAC TANK	Water			07/18/25 09:30			07/18/25
			Flash Point	1010B			07/21/25 14:10	
			pH	9040C			07/21/25 09:44	
			TSS	SM2540 D			07/23/25 09:30	



# SAMPLE DATA

## Report of Analysis

Client:	Environmental Restoration, LLC	Date Collected:	07/18/25 09:30
Project:	North Arlington, NJ	Date Received:	07/18/25
Client Sample ID:	FRAC TANK	SDG No.:	Q2646
Lab Sample ID:	Q2646-01	Matrix:	Water
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Flash Point	>212		1	0	0	o F		07/21/25 14:10	1010B
pH	4.66	H	1	0	0	pH		07/21/25 09:44	9040C
TSS	562		1	1.00	4.00	mg/L		07/23/25 09:30	SM 2540 D-20

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

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits



# QC RESULT SUMMARY



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

### Initial and Continuing Calibration Verification

**Client:** Environmental Restoration, LLC

**SDG No.:** Q2646

**Project:** North Arlington, NJ

**RunNo.:** LB136549

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
pH		pH	7.01	7	100	90-110	07/21/2025
Sample ID:	CCV1						
pH		pH	2.01	2.00	101	90-110	07/21/2025
Sample ID:	CCV2						
pH		pH	12.02	12.00	100	90-110	07/21/2025

## Initial and Continuing Calibration Verification

**Client:** Environmental Restoration, LLC

**SDG No.:** Q2646

**Project:** North Arlington, NJ

**RunNo.:** LB136561

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: <b>ICV</b>						
Flash Point	o F	82.4	81	102	78-84	07/21/2025

### Preparation Blank Summary

**Client:** Environmental Restoration, LLC

**SDG No.:** Q2646

**Project:** North Arlington, NJ

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	<b>LB136573BL</b>						
TSS	mg/L	1	2.0000	J	1	4	07/23/2025



## Duplicate Sample Summary

<b>Client:</b> Environmental Restoration, LLC	<b>SDG No.:</b> Q2646
<b>Project:</b> North Arlington, NJ	<b>Sample ID:</b> Q2640-01
<b>Client ID:</b> ELMORA-WATERDUP	<b>Percent Solids for Spike Sample:</b> 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
pH	pH	+/-20	8.83		8.84		1	0.11		07/21/2025
Flash Point	o F	+/-2	>212.0		>212.0		1	0		07/21/2025

### Duplicate Sample Summary

<b>Client:</b>	Environmental Restoration, LLC	<b>SDG No.:</b>	Q2646
<b>Project:</b>	North Arlington, NJ	<b>Sample ID:</b>	Q2646-01
<b>Client ID:</b>	FRAC TANKDUP	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TSS	mg/L	+/-5	562		559		1	0.54		07/23/2025

### Laboratory Control Sample Summary

**Client:** Environmental Restoration, LLC

**SDG No.:** Q2646

**Project:** North Arlington, NJ

**Run No.:** LB136573

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB136573BS							
TSS	mg/L	550	533		97	1	90-110	07/23/2025



# RAW DATA

## Analytical Summary Report

Analysis Method: 9040C

Analyst By : jignesh

Parameter: pH

Supervisor Review By : Iwona

Run Number: LB136549

Slope : 98.6

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	07/21/2025	09:05
2	CAL2	1	Water	NA	NA	20.2	7.00	07/21/2025	09:06
3	CAL3	1	Water	NA	NA	20.3	10.02	07/21/2025	09:10
4	ICV	1	Water	NA	NA	20.2	7.01	07/21/2025	09:11
5	CCV1	1	Water	NA	NA	20.2	2.01	07/21/2025	09:15
6	Q2640-01	1	Water	NA	NA	22.1	8.83	07/21/2025	09:30
7	Q2640-01DUP	1	Water	NA	NA	22.2	8.84	07/21/2025	09:33
8	Q2646-01	1	Water	NA	NA	20.7	4.66	07/21/2025	09:44
9	CCV2	1	Water	NA	NA	20.2	12.02	07/21/2025	09:45

# WORKLIST(Hardcopy Internal Chain)

136549

WorkList Name : PH Q2640      WorkList ID : 190841      Department : Wet-Chemistry      Date : 07-21-2025 08:46:52

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2640-01	ELMORA-WATER	Water	pH	Cool 4 deg C	PSEG03	D41	07/18/2025	9040C
Q2646-01	FRAC TANK	Water	pH	Cool 4 deg C	ENV160	O11	07/18/2025	9040C

Date/Time 07/21/25 09:00  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]

Date/Time 07/21/25 13:00  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]

# Analytical Summary Report

Analysis Method: 1010B

Reviewed By: rubina

Parameter: Flash Point

Supervisor Review By: Iwona

Run Number: LB136561

Ambient Barometric Pressure (mmHg): 760.00

Thermometer ID: Flash Point

Barometric Scale ID: 0511064

Reagent/Standard	Lot/Log #
p-xylene (ICV)	W3194

Seq	LabID	True Value °F	DL	Initial Sample °C	Celsius °C	Result °F	Final Result °F	Anal Date	Anal Time
1	ICV	81	1	8	28.00	82.4	82.4	07/21/2025	12:40
2	Q2640-01		1	14	100.00	>212.0	>212.0	07/21/2025	13:10
3	Q2640-01DUP		1	14	100.00	>212.0	>212.0	07/21/2025	13:40
4	Q2646-01		1	16	100.00	>212.0	>212.0	07/21/2025	14:10

Result = (Celsius \* 1.8) + 32

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

# WORKLIST(Hardcopy Internal Chain)

6136561

WorkList Name : fp-7-21

WorkList ID : 190844

Department : Wet-Chemistry

Date : 07-21-2025 09:07:03

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2640-01	ELMORA-WATER	Water	Flash Point	Cool 4 deg C	PSEG03	D41	07/18/2025	1010B
Q2646-01	FRAC TANK	Water	Flash Point	Cool 4 deg C	ENV160	O11	07/18/2025	1010B

Date/Time 07/21/2025 12.30  
 Raw Sample Received by: RM Lwey  
 Raw Sample Relinquished by: JOLCOJ

Date/Time 07/21/2025 14.55  
 Raw Sample Received by: JOLCOJ  
 Raw Sample Relinquished by: RM Lwey



# TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 07/22/2025

Run Number: LB136573

BalanceID: WC SC-6

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 103 °C 07/22/2025 15:00 TEMP1 OUT: 103 °C 07/22/2025 16:00  
 TEMP2 IN: 104 °C 07/22/2025 16:30 TEMP2 OUT: 103 °C 07/22/2025 17:30  
 TEMP3 IN: 104 °C 07/23/2025 09:30 TEMP3 OUT: 103 °C 07/23/2025 11:15  
 TEMP4 IN: 103 °C 07/23/2025 12:00 TEMP4 OUT: 104 °C 07/23/2025 13:35

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
1	LB136573BL	LB136573BL	1.3562	1.3562	100	1.3563	1.3563	1.3563	0.0001	1
2	LB136573BS	LB136573BS	1.4877	1.4877	100	1.5410	1.5410	1.5410	0.0533	533
3	Q2644-01	RW8-SP100-20250717	1.4851	1.4851	450	1.4854	1.4854	1.4854	0.0003	0.7
4	Q2644-02	RW8-SP303-20250717	1.4803	1.4803	350	1.4806	1.4806	1.4806	0.0003	0.9
5	Q2646-01	FRAC TANK	1.4848	1.4848	100	1.5410	1.5410	1.5410	0.0562	562
6	Q2646-01DUP	FRAC TANKDUP	1.4670	1.4670	100	1.5229	1.5229	1.5229	0.0559	559
7	Q2669-01	001 WILLETS PT BLVD (JUNE)	1.4894	1.4894	300	1.5140	1.5140	1.5140	0.0246	82
8	Q2669-02	002 35th Ave (JUNE)	1.4695	1.4695	300	1.4955	1.4955	1.4955	0.0260	86.7

A = Sample Volume (ml)  
 B = Final Empty Dish Weight (g)  
 C = Final Empty Dish + Sample weight after 1.5 hr drying @105°C(g)  
 D = Weight (g)

Weight (g) = C - B

Result mg/L =  $\frac{D}{A} \times 1000 \times 1000$

# WORKLIST(Hardcopy Internal Chain)

136573

WorkList Name : tss q2669

WorkList ID : 190886

Department : Wet-Chemistry

Date : 07-23-2025 07:41:52

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2644-01 B <sub>1</sub> A	RW8-SP100-20250717	Water	TSS	Cool 4 deg C	TETR06	O33	07/17/2025	SM2540 D
Q2644-02 B <sub>1</sub> A	RW8-SP303-20250717	Water	TSS	Cool 4 deg C	TETR06	O33	07/17/2025	SM2540 D
Q2646-01 H	FRAC TANK	Water	TSS	Cool 4 deg C	ENVI60	O11	07/18/2025	SM2540 D
Q2669-01 D	001 WILLETS PT BLVD (JUNE)	Water	TSS	Cool 4 deg C	TULL01	O33	07/21/2025	SM2540 D
Q2669-02 D	002 35th Ave (JUNE)	Water	TSS	Cool 4 deg C	TULL01	O33	07/21/2025	SM2540 D

Date/Time

07/23/25 08:00

Raw Sample Received by:

sf wocj

Raw Sample Relinquished by:

cp sm

Date/Time

07/23/25

Raw Sample Received by:

cp sm

Raw Sample Relinquished by:

sf wocj

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

**Daily Analysis Runlog For Sequence/QC Batch ID # LB136549**

Review By	jignesh	Review On	7/21/2025 9:59:03 AM
Supervise By	Iwona	Supervise On	7/21/2025 11:07:54 AM
SubDirectory	LB136549	Test	pH
<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	07/21/25 09:05		jignesh	OK
2	CAL2	CAL2	CAL	07/21/25 09:06		jignesh	OK
3	CAL3	CAL3	CAL	07/21/25 09:10		jignesh	OK
4	ICV	ICV	ICV	07/21/25 09:11		jignesh	OK
5	CCV1	CCV1	CCV	07/21/25 09:15		jignesh	OK
6	Q2640-01	ELMORA-WATER	SAM	07/21/25 09:30		jignesh	OK
7	Q2640-01DUP	ELMORA-WATERDUP	DUP	07/21/25 09:33		jignesh	OK
8	Q2646-01	FRAC TANK	SAM	07/21/25 09:44		jignesh	OK
9	CCV2	CCV2	CCV	07/21/25 09:45		jignesh	OK

**Instrument ID:** IGN-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB136561**

Review By	rubina	Review On	7/21/2025 3:15:40 PM
Supervise By	Iwona	Supervise On	7/21/2025 3:15:56 PM
SubDirectory	LB136561	Test	Flash Point
<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	W3194		

Sr#	SampleID	ClientID	QcType	Date	Comment	Operator	Status
1	ICV	ICV	ICV	07/21/25 12:40		rubina	OK
2	Q2640-01	ELMORA-WATER	SAM	07/21/25 13:10		rubina	OK
3	Q2640-01DUP	ELMORA-WATERDUP	DUP	07/21/25 13:40		rubina	OK
4	Q2646-01	FRAC TANK	SAM	07/21/25 14:10		rubina	OK

**Instrument ID:** WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB136573**

Review By	jignesh	Review On	7/23/2025 10:17:52 AM
Supervise By	Iwona	Supervise On	7/23/2025 11:03:13 AM
SubDirectory	LB136573	Test	TSS
<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	LB136573BL	LB136573BL	MB	07/23/25 09:30		jignesh	OK
2	LB136573BS	LB136573BS	LCS	07/23/25 09:30	55 MG W3186 + 100 ML W3112	jignesh	OK
3	Q2644-01	RW8-SP100-2025071	SAM	07/23/25 09:30		jignesh	OK
4	Q2644-02	RW8-SP303-2025071	SAM	07/23/25 09:30		jignesh	OK
5	Q2646-01	FRAC TANK	SAM	07/23/25 09:30		jignesh	OK
6	Q2646-01DUP	FRAC TANKDUP	DUP	07/23/25 09:30		jignesh	OK
7	Q2669-01	001 WILLETS PT BLV	SAM	07/23/25 09:30		jignesh	OK
8	Q2669-02	002 35th Ave (JUNE)	SAM	07/23/25 09:30		jignesh	OK

## Prep Standard - Chemical Standard Summary

**Order ID :** Q2646

**Test :** Flash Point,pH,TSS

**Prepbatch ID :**

**Sequence ID/Qc Batch ID:** LB136549, LB136561, LB136573,

**Standard ID :**

**Chemical ID :**

W3093, W3161, W3178, W3191, W3194, W3200, W3217,

## CHEMICAL RECEIPT LOG BOOK

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.	AL13850-1 / Buffer Solution, PH2 (500ml)	2411E26	10/31/2026	12/09/2024 / lwona	12/09/2024 / lwona	W3161

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	TCX0014-500ML / p-xylene	C6PEN	03/19/2029	06/30/2025 / rubina	03/19/2025 / lwona	W3194

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.	AL14455-3 / buffer solution pH 7 yellow	2504D34	03/31/2027	07/02/2025 / jignesh	06/26/2025 / lwona	W3217





## Certificate of Analysis

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

**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

031758 58

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

Lot Number: 2411A93

Product Number: 1501

Manufacture Date: NOV 04, 2024

Expiration Date: OCT 2026

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

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

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

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

Test	Specification	Result
Appearance	Red liquid	Passed

\*Not a certified value.

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

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

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

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

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



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Certificate of Analysis

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

Lot Number: 2410F80

Product Number: 1601

Manufacture Date: OCT 09, 2024

Expiration Date: MAR 2026

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

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

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

Test	Specification	Result
Appearance	Blue liquid	Passed

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

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

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

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

Version: 1.3

Lot Number: 2410F80

Product Number: 1601

Page 1 of 2



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

## Certificate of Analysis

03/19/2025(JST)

TOKYO CHEMICAL INDUSTRY CO.,LTD.

T-PLUS Nihonbashi-Kodemmacho

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

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

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

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

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

### Customer Service:

TCI AMERICA

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

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

E-mail: Sales-US@TCIchemicals.com

Takuya Nishioka  
Quality Assurance Department Manager



# Certificate of Analysis

**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**

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# 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.



# SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: ENVIRONMENTAL RESTORATION

ADDRESS: 627 COURT ST

CITY BINGHAMTON STATE NY ZIP 13901

ATTENTION: STEVE MOTTA

PHONE: 3146037026

FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: GREENTOPIA

PROJECT NO. 4217 LOCATION: N. ARLINGTON

PROJECT MANAGER: STEVE MOTTA

e-mail: S.MOTTA@ERLLC.COM

PHONE:

FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#: 62217

ADDRESS: 627 COURT ST

CITY BINGHAMTON STATE NY ZIP: 13901

ATTENTION: STEVE PHONE: 3146037026

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS\*

HARDCOPY (DATA PACKAGE): DAYS\*

EDD: DAYS\*

\*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)

☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP

☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B

+ Raw Data ☐ Other

☐ EDD FORMAT

TOX  
TALP, HERB, PEST BUD  
BTU  
FLASHPOINT  
PCB  
PH/TSS/EXT  
VOC-TALPUDA  
TALPUDA  
METALS/MERC

PRESERVATIVES

COMMENTS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1. 1	FRACTANK	LIQ		X	7/18	0930	1	✓									H2SO4
2. 2	FRACTANK			X			2		✓								
3. 3	FRACTANK			X			1			✓							
4. 4	FRACTANK			X			1				✓						
5. 5	FRACTANK			X			1					✓					
6. 6	FRACTANK			X			1						✓				
7. 8	FRACTANK			X			2							✓			HCL
8. 9	FRACTANK			X			2								✓		
9. 10	FRACTANK			X			1									✓	
10.				X													

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

RELINQUISHED BY SAMPLER:	DATE/TIME: 7/18/18	RECEIVED BY: [Signature]	Conditions of bottles or coolers at receipt: <input type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input type="checkbox"/> COOLER TEMP 3.7 °C
1. STEVE MOTTA	7/18	7-18-25	Comments:
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
2.			
RELINQUISHED BY SAMPLER:	DATE/TIME: 7-18-25	RECEIVED BY:	
3.			

### 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> Q2646	ENVI60	<b>Order Date :</b> 7/18/2025 11:47:00 AM	<b>Project Mgr :</b>
<b>Client Name :</b> Environmental Restoration,		<b>Project Name :</b> North Arlington, NJ	<b>Report Type :</b> NJ Reduced
<b>Client Contact :</b> Steve Motta		<b>Receive DateTime :</b> 7/18/2025 2:00:00 PM	<b>EDD Type :</b> Excel NJ
<b>Invoice Name :</b> Environmental Restoration,		<b>Purchase Order :</b>	<b>Hard Copy Date :</b>
<b>Invoice Contact :</b> Steve Motta			<b>Date Signoff :</b>

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2646-01	FRAC TANK	Water	07/18/2025	09:30	VOC-TCLVOA-10		8260D		10 Bus. Days

Relinquished By :

Date / Time :

*[Signature]*  
7-18-25 1300

Received By :

Date / Time :

*[Signature]*  
07/18/25 13:00 Pg # 5

Storage Area : VOA Refridgerator Room