

DATA PACKAGE GENERAL CHEMISTRY

PROJECT NAME : FT MEADE TIPTON AIRFIELD PARCEL RI - PO 0111169

WESTON SOLUTIONS

1400 Weston Way

PO Box 2653

West Chester, PA - 19380

Phone No: 610-701-7400

ORDER ID : P5213

ATTENTION : Nathan Fretz



Laboratory Certification ID # 20012



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Cover Page

Order ID : P5213

Project ID : Ft Meade Tipton Airfield Parcel RI - PO 0111169

Client : Weston Solutions

Lab Sample Number

P5213-01

Client Sample Number

TAPIAL3-SB03I-15-120624-00-T1

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

Signature :

APPROVED

By Sohil Jodhani, QA/QC Director at 10:52 am, Dec 23, 2024

Date: 12/18/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

CASE NARRATIVE

Weston Solutions

Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Project # N/A

Chemtech Project # P5213

Test Name: pH,TOC

A. Number of Samples and Date of Receipt:

1 Solid sample was received on 12/07/2024.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-TAL, METALS-TAL, pH and TOC. This data package contains results for pH,TOC.

C. Analytical Techniques:

The analysis of pH was based on method 9045D and The analysis of TOC was based on method 9060A.

D. QA/ QC Samples:

The Holding Times were met for all samples except for TAPIAL3-SB03I-15-120624-00-T1 of pH as sample Receive out of holding time.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

E. Additional Comments:

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

Signature _____

APPROVED

By Sohil Jodhani, QA/QC Director at 10:52 am, Dec 23, 2024

DATA REPORTING QUALIFIERS- INORGANIC

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

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers “P” for ICP instrument “PM” for ICP when Microwave Digestion is used “CV” for Manual Cold Vapor AA “AV” for automated Cold Vapor AA “CA” for MIDI-Distillation Spectrophotometric “AS” for Semi -Automated Spectrophotometric “C” for Manual Spectrophotometric “T” for Titrimetric “NR” for analyte not required to be analyzed
OR	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P5213

MATRIX: Solid

METHOD: 9045D,9060A

	NA	NO	YES
1. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
2. Matrix Spike Duplicate Recoveries Met Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range. The Blank Spike met requirements for all samples.			✓
3. Sample Duplicate Analysis Met QC Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓
4. Digestion Holding Time Met If not met, list number of days exceeded for each sample: The Holding Times were met for all samples except for TAPIAL3-SB03I-15-120624-00-T1 of pH as sample Receive out of holding time.		✓	

ADDITIONAL COMMENTS:

QA REVIEW

APPROVED

By *Sohil Jodhani, QA/QC Director* at 10:52 am, Dec 23, 2024

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P5213

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: SOHIL JODHANI

Date: 12/18/2024

LAB CHRONICLE

OrderID:	P5213	OrderDate:	12/9/2024 9:51:00 AM
Client:	Weston Solutions	Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169
Contact:	Nathan Fretz	Location:	L51

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5213-01	TAPIAL3-SB03I-15-12 0624-00-T1	SOIL			12/06/24 11:40			12/07/24
			pH	9045D			12/10/24 08:15	
			TOC	9060A			12/17/24 12:42	



SAMPLE DATA

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Report of Analysis

Client:	Weston Solutions	Date Collected:	12/06/24 11:40
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	12/07/24
Client Sample ID:	TAPIAL3-SB03I-15-120624-00-T1	SDG No.:	P5213
Lab Sample ID:	P5213-01	Matrix:	SOIL
		% Solid:	89.6

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
pH	5.00	H	1	0	0	0	pH		12/10/24 08:15	9045D
TOC	753		1	19.8	50.0	250	mg/Kg		12/17/24 12:42	9060A

Comments: pH result reported at temperature 23.1 °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

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Initial and Continuing Calibration Verification

Client: Weston Solutions

SDG No.: P5213

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169

RunNo.: LB133854

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV pH	pH	7.00	7	100	90-110	12/10/2024
Sample ID: CCV1 pH	pH	2.01	2.00	101	90-110	12/10/2024
Sample ID: CCV2 pH	pH	12.02	12.00	100	90-110	12/10/2024

Initial and Continuing Calibration Verification

Client: Weston Solutions

SDG No.: P5213

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169

RunNo.: LB133969

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 TOC	mg/L	934	1000	93	90-110	11/12/2024
Sample ID: CCV1 TOC	mg/L	986	1000	99	90-110	12/17/2024
Sample ID: CCV2 TOC	mg/L	1060	1000	106	90-110	12/17/2024

Initial and Continuing Calibration Blank Summary

Client:	Weston Solutions	SDG No.:	P5213
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	RunNo.:	LB133969

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 TOC	mg/L	< 125.0000	125.0000	U	22.3	250	11/12/2024
Sample ID: CCB1 TOC	mg/L	< 125.0000	125.0000	U	22.3	250	12/17/2024
Sample ID: CCB2 TOC	mg/L	< 125.0000	125.0000	U	22.3	250	12/17/2024

Preparation Blank Summary

Client: Weston Solutions

SDG No.: P5213

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	LB133969BLS						
TOC	mg/Kg	28.9	125.0000	J	19.8	250	12/17/2024

Matrix Spike Summary

Client: Weston Solutions

SDG No.: P5213

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Sample ID: P5236-01

Client ID: TAPIAL3-SB03D-3-120724-00-T01MS

Percent Solids for Spike Sample: 85.2

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
TOC	mg/Kg	75-125	1910		899		1000	1	101		12/17/2024

Matrix Spike Summary

Client:	Weston Solutions	SDG No.:	P5213
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Sample ID:	P5236-01
Client ID:	TAPIAL3-SB03D-3-120724-00-T01MSD	Percent Solids for Spike Sample:	85.2

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
TOC	mg/Kg	75-125	1910		899		1000	1	101		12/17/2024

Duplicate Sample Summary

Client:	Weston Solutions	SDG No.:	P5213
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Sample ID:	P5220-01
Client ID:	GAS-AUD-1562DUP	Percent Solids for Spike Sample:	100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
pH	pH	+/-20	5.72		5.73		1	0.17		12/10/2024

Duplicate Sample Summary

Client:	Weston Solutions	SDG No.:	P5213
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Sample ID:	P5236-01
Client ID:	TAPIAL3-SB03D-3-120724-00-T01MSD	Percent Solids for Spike Sample:	85.2

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
TOC	mg/Kg	+/-20	1910		1910		1	0		12/17/2024

Laboratory Control Sample Summary

Client:	Weston Solutions	SDG No.:	P5213
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Run No.:	LB133969

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133969BSS							
TOC	mg/Kg	1000	987		99	1	90-110	12/17/2024



RAW DATA

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Analytical Summary Report

Analysis Method: 9045D

Analyst By : jignesh

Parameter: pH

Supervisor Review By : Iwona

Run Number: LB133854

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	12/10/2024	08:00
2	CAL2	1	Water	NA	NA	20.2	7.00	12/10/2024	08:02
3	CAL3	1	Water	NA	NA	20.2	10.02	12/10/2024	08:03
4	ICV	1	Water	NA	NA	20.3	7.00	12/10/2024	08:05
5	CCV1	1	Water	NA	NA	20.3	2.01	12/10/2024	08:10
6	P5213-01	1	Solid	20.02	20	23.1	5.00	12/10/2024	08:15
7	P5220-01	1	Solid	20.03	20	23.6	5.72	12/10/2024	08:22
8	P5220-01DUP	1	Solid	20.04	20	23.7	5.73	12/10/2024	08:23
9	CCV2	1	Water	NA	NA	20.3	12.02	12/10/2024	08:25

WORKLIST(Hardcopy Internal Chain)

WorkList Name : ph s p5213

WorkList ID : 186158

Department : Wet-Chemistry

Date : 12-10-2024 07:46:51

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5213-01	TAPIAL3-SB031-15-120624-00-	Solid	pH	Cool 4 deg C	WEST04	L51	12/06/2024	9045D
P5220-01	GAS-AUD-1562	Solid	pH	Cool 4 deg C	PSEG03	L41	12/09/2024	9045D
P5222-01	TRE-1113	Solid	pH	Cool 4 deg C	PSEG03	L51	12/09/2024	9045D

78

12/10/2024
78

133854

12-10-24 07:50

Date/Time

Raw Sample Received by:

78 (signature)

Raw Sample Relinquished by:

78 (signature)

Date/Time

12-10-24

12:00

Raw Sample Received by:

78 (signature)

Raw Sample Relinquished by:

78 (signature)

Sample ID	Result	Std. Dev.	RSD	Mode	ALT
CCV1	959.7178			TOC	
CCV1	1002.6511			TOC	
CCV1	985.7007			TOC	
CCV1.....	995.7219...	..	...	TOC	..
CCB1	10.6666			TOC	
CCB1	5.6038			TOC	
CCB1.....	16.8834...	..	...	TOC	..
CCB1	43.6216			TOC	
LB133969BLS	48.3414			TOC	
LB133969BLS.....	35.5057...	..	...	TOC	..
LB133969BLS	25.9183			TOC	
LB133969BLS	5.9078			TOC	
LB133969BSS.....	967.2823...	..	...	TOC	..
LB133969BSS	991.9278			TOC	
LB133969BSS	1008.9327			TOC	
LB133969BSS.....	980.2024...	..	...	TOC	..
P5213-01	678.0180			TOC	
P5213-01	635.1856			TOC	
P5213-01.....	824.3036...	..	...	TOC	..
P5213-01	873.2565			TOC	
P5236-01	660.1881			TOC	
P5236-01.....	986.8517...	..	...	TOC	..
P5236-01	995.6967			TOC	
P5236-01	951.9937			TOC	
P5236-01MS.....	1972.4069...	..	...	TOC	..
P5236-01MS	1912.6613			TOC	
P5236-01MS	1906.7271			TOC	
P5236-01MS.....	1835.7175...	..	...	TOC	..
P5236-01MSD	1571.4155			TOC	
P5236-01MSD	1849.5063			TOC	
P5236-01MSD.....	2320.4209...	..	...	TOC	..
P5236-01MSD	1915.8322			TOC	
CCV2	1227.4524			TOC	
CCV2.....	1006.6916...	..	...	TOC	..
CCV2	988.4306			TOC	
CCV2	1001.8237			TOC	
CCB2.....	17.3641...	..	...	TOC	..
CCB2	32.4318			TOC	
CCB2	10.8882			TOC	
CCB2.....	5.5372...	..	...	TOC	..

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Method ID	Sample Type	Vial	Timestamp	Message
Boat Sampler	Sample		2024/12/17 10:29	
Boat Sampler	Sample		2024/12/17 10:32	
Boat Sampler	Sample		2024/12/17 10:35	
Boat Sampler	...Sample	..	..2024/12/17 10:38	..
Boat Sampler	Sample		2024/12/17 10:45	
Boat Sampler	Sample		2024/12/17 10:54	Low Sample Detected
Boat Sampler	...Sample	..	..2024/12/17 11:11	..
Boat Sampler	Sample		2024/12/17 11:20	
Boat Sampler	Sample		2024/12/17 11:31	
Boat Sampler	...Sample	..	..2024/12/17 11:36	..
Boat Sampler	Sample		2024/12/17 11:38	
Boat Sampler	Sample		2024/12/17 11:42	Low Sample Detected
Boat Sampler	...Sample	..	..2024/12/17 11:45	..
Boat Sampler	Sample		2024/12/17 11:49	
Boat Sampler	Sample		2024/12/17 11:54	
Boat Sampler	...Sample	..	..2024/12/17 11:58	..
Boat Sampler	Sample		2024/12/17 12:23	
Boat Sampler	Sample		2024/12/17 12:31	
Boat Sampler	...Sample	..	..2024/12/17 12:35	..
Boat Sampler	Sample		2024/12/17 12:42	
Boat Sampler	Sample		2024/12/17 12:57	
Boat Sampler	...Sample	..	..2024/12/17 13:00	..
Boat Sampler	Sample		2024/12/17 13:12	
Boat Sampler	Sample		2024/12/17 13:16	
Boat Sampler	...Sample	..	..2024/12/17 13:20	..
Boat Sampler	Sample		2024/12/17 13:23	
Boat Sampler	Sample		2024/12/17 13:29	
Boat Sampler	...Sample	..	..2024/12/17 13:33	..
Boat Sampler	Sample		2024/12/17 13:36	
Boat Sampler	Sample		2024/12/17 13:40	
Boat Sampler	...Sample	..	..2024/12/17 13:44	..
Boat Sampler	Sample		2024/12/17 13:48	
Boat Sampler	Sample		2024/12/17 14:11	
Boat Sampler	...Sample	..	..2024/12/17 14:15	..
Boat Sampler	Sample		2024/12/17 14:18	
Boat Sampler	Sample		2024/12/17 14:21	
Boat Sampler	...Sample	..	..2024/12/17 14:24	..
Boat Sampler	Sample		2024/12/17 14:27	
Boat Sampler	Sample		2024/12/17 14:28	
Boat Sampler	...Sample	..	..2024/12/17 14:31	..Low Sample Detected

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Sample ID: CCB1 Mode: TOC
Method: Boat Sampler Filename: 12171110
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 11:11
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16.8834	0.6753	47822	-2.031	-1.035	36

Sample ID: CCB1 Mode: TOC
Method: Boat Sampler Filename: 12171119
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 11:20
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	43.6216	1.7449	123556	-0.921	0.056	32

Sample ID: LB133969BLS Mode: TOC
Method: Boat Sampler Filename: 12171129
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 11:31
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	48.3414	1.9337	136925	-1.948	-0.952	47

Sample ID: LB133969BLS Mode: TOC
Method: Boat Sampler Filename: 12171135
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 11:36
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	35.5057	1.4202	100568	-2.024	-1.040	30

Sample ID: LB133969BLS Mode: TOC
Method: Boat Sampler Filename: 12171137
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 11:38
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25.9183	1.0367	73413	-1.498	-0.507	31

Sample ID: LB133969BLS Mode: TOC
Method: Boat Sampler Filename: 12171139
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 11:42
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.9078	0.2363	16734	-2.086	-2.338	120

Last Message: Low Sample Detected

Sample ID: LB133969BSS Mode: TOC
Method: Boat Sampler Filename: 12171143
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 11:45
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	967.2823	38.6913	2739784	-2.324	-1.328	71

Sample ID: LB133969BSS Mode: TOC
Method: Boat Sampler Filename: 12171148
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 11:49
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	991.9278	39.6771	2809592	-1.835	-0.846	72

Sample ID: LB133969BSS Mode: TOC
Method: Boat Sampler Filename: 12171152
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 11:54
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1008.9327	40.3573	2857757	-2.141	-1.144	73

Sample ID: LB133969BSS Mode: TOC
Method: Boat Sampler Filename: 12171156
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 11:58
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	980.2024	39.2081	2776380	-2.269	-1.269	73

Sample ID: P5213-01 Mode: TOC
Method: Boat Sampler F
Filename: 12171221
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 12:23
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	678.0180	4.4749	316875	-2.189	-1.190	42

Sample ID: P5213-01 Mode: TOC
Method: Boat Sampler Filename: 12171230
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 12:31
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	635.1856	3.8111	269870	-2.092	-1.094	47

Sample ID: P5213-01 Mode: TOC
Method: Boat Sampler Filename: 12171233
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 12:35
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	824.3036	4.8634	344384	-2.065	-1.072	48

Sample ID: P5213-01 Mode: TOC
Method: Boat Sampler Filename: 12171240
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 12:42
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	873.2565	6.2874	445223	-2.106	-1.107	54

Sample ID: P5236-01 Mode: TOC
Method: Boat Sampler Filename: 12171256
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 12:57
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	660.1881	3.6310	257119	-1.998	-1.004	47

Sample ID: P5236-01 Mode: TOC
Method: Boat Sampler Filename: 12171259
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 13:00
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	986.8517	5.6251	398318	-1.977	-0.983	52

Sample ID: P5236-01 Mode: TOC
Method: Boat Sampler Filename: 12171310
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 13:12
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	995.6967	6.0737	430091	-2.017	-1.022	52

Sample ID: P5236-01 Mode: TOC
Method: Boat Sampler Filename: 12171314
Cal. Curve: TOC SOIL Timestamp: 2024/12/17 13:16
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	951.9937	5.5216	390990	-2.001	-1.007	51

Sample ID: P5236-01MS
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 12171318
Timestamp: 2024/12/17 13:20
Sample Type: Sample

Reviewed By:Iwona
On:12/18/2024
11:31:13 AM
Inst Id :Appolo-9000
LB :LB133969

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1972.4069	11.0455	782146	-1.957	-0.958	60

Sample ID: P5236-01MS
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 12171322
Timestamp: 2024/12/17 13:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1912.6613	10.3284	731366	-1.908	-0.910	58

Sample ID: P5236-01MS
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 12171327
Timestamp: 2024/12/17 13:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1906.7271	10.4870	742599	-2.001	-1.003	70

Sample ID: P5236-01MS
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 12171331
Timestamp: 2024/12/17 13:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1835.7175	9.7293	688946	-1.947	-0.951	59

Sample ID: P5236-01MSD
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 12171334
Timestamp: 2024/12/17 13:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1571.4155	8.9571	634263	-1.946	-0.947	56

Sample ID: P5236-01MSD
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 12171338
Timestamp: 2024/12/17 13:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1849.5063	10.5422	746507	-1.956	-0.960	61

Sample ID: P5236-01MSD
Method: Boat Sampler

Mode: TOC
Filename: 12171343

Cal. Curve: TOC S0IL
Operator ID: NF IZ

Timestamp: 2024/12/17 13:44
Sample Type: Sample

Reviewed By:Iwona
On:12/18/2024
11:31:13 AM
Inst Id :Appolo-9000
LB :LB133969

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2320.4209	13.6905	969442	-1.973	-0.976	63

Sample ID: P5236-01MSD
Method: Boat Sampler
Cal. Curve: TOC S0IL
Operator ID: NF IZ

Mode: TOC
Filename: 12171346
Timestamp: 2024/12/17 13:48
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1915.8322	10.3455	732579	-1.988	-0.989	60

Sample ID: CCV2
Method: Boat Sampler
Cal. Curve: TOC S0IL
Operator ID: NF IZ

Mode: TOC
Filename: 12171409
Timestamp: 2024/12/17 14:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1227.4524	49.0981	3476705	-2.003	-1.008	85

Sample ID: CC
V2
Method: Boat Sampler
Cal. Curve: TOC S0IL
Operator ID: NF IZ

Mode: TOC
Filename: 12171413
Timestamp: 2024/12/17 14:15
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1006.6916	40.2677	2851410	-1.817	-0.819	77

Sample ID: CCV2
Method: Boat Sampler
Cal. Curve: TOC S0IL
Operator ID: NF IZ

Mode: TOC
Filename: 12171416
Timestamp: 2024/12/17 14:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	988.4306	39.5372	2799686	-1.799	-0.803	71

Sample ID: CCV2
Method: Boat Sampler
Cal. Curve: TOC S0IL
Operator ID: NF IZ

Mode: TOC
Filename: 12171419
Timestamp: 2024/12/17 14:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1001.8237	40.0729	2837622	-1.806	-0.811	94

Sample ID: CCB2
Method: Boat Sampler
Cal. Curve: TOC S0IL

Mode: TOC
Filename: 12171423
Timestamp: 2024/12/17 14:24

Operator ID: NF IZ

Sample Type: Sample

Reviewed By:Iwona
On:12/18/2024
11:31:13 AM
Inst Id :Appolo-9000
LB :LB133969

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17.3641	0.6946	49183	-1.854	-0.864	36

Sample ID: CCB2
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 12171425
Timestamp: 2024/12/17 14:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32.4318	1.2973	91862	-1.883	-0.887	38

Sample ID: CCB2
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 12171427
Timestamp: 2024/12/17 14:28
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.8882	0.4355	30840	-1.718	-0.728	31

Sample ID: CCB2
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 12171429
Timestamp: 2024/12/17 14:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.5372	0.2215	15684	-1.922	-2.010	120

Last Message: Low Sample Detected

Sample ID	Result	Std. Dev.	RSD	Mode	ALT
BLANK	9263	5695	61.48	TOC	
250mg/l	813930	31881	3.92	TOC	
500mg/l	1580916	138813	8.78	TOC	
1000mg/l.....	2797885...	74757..	2.67...	TOC	..
2000mg/l	5752648	21216	0.37	TOC	
ICV	943.9813			TOC	
ICV.....	919.2893...	..	...	TOC	..
ICV	940.0988			TOC	
ICV	933.3373			TOC	
ICB.....	4.4514...	..	...	TOC	..
ICB	9.3085			TOC	
ICB	6.7305			TOC	
ICB.....	7.5078...	..	...	TOC	..

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Method ID	Sample Type	Vial Timestamp		Message
Boat Sampler	TOC Standard	2024/11/12	11:01	Low Sample Detected
Boat Sampler	TOC Standard	2024/11/12	11:15	
Boat Sampler	TOC Standard	2024/11/12	11:27	
Boat Sampler	...TOC Standard	..	..2024/11/12 11:36	..
Boat Sampler	TOC Standard	2024/11/12	12:05	
Boat Sampler	Sample	2024/11/12	12:12	
Boat Sampler	...Sample	..	..2024/11/12 12:14	..
Boat Sampler	Sample	2024/11/12	12:16	
Boat Sampler	Sample	2024/11/12	12:18	
Boat Sampler	...Sample	..	..2024/11/12 12:23	..Low Sample Detected
Boat Sampler	Sample	2024/11/12	12:26	Low Sample Detected
Boat Sampler	Sample	2024/11/12	12:29	Low Sample Detected
Boat Sampler	...Sample	..	..2024/11/12 12:32	..Low Sample Detected

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Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5772363	-2.492	-1.493	116
2			5763448	-2.138	-1.139	91
3			5723617	-0.015	0.979	57
4			5751163	-0.355	0.644	62

<<<Statistics>>> Mean: 5752648 Std Dev: 21216 RSD: 0.37

Sample ID: ICV
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 11121210
Timestamp: 2024/11/12 12:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	943.9813	37.7593	2673786	-2.569	-1.574	83

Sample ID: ICV
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 11121212
Timestamp: 2024/11/12 12:14
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	919.2893	36.7716	2603846	-2.379	-1.380	64

Sample ID: ICV
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 11121214
Timestamp: 2024/11/12 12:16
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	940.0988	37.6040	2662788	-2.346	-1.346	61

Sample ID: ICV
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 11121217
Timestamp: 2024/11/12 12:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	933.3373	37.3335	2643637	-2.443	-1.445	63

Sample ID: ICB
Method: Boat Sampler
Cal. Curve: TOC SOIL
Operator ID: NF IZ

Mode: TOC
Filename: 11121220
Timestamp: 2024/11/12 12:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.4514	0.1781	12608	-2.598	-2.685	120

Last Message: Low Sample Detected
=====

Sample ID: ICB Mode: TOC
Method: Boat Sampler Filename: 11121223
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:26
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9.3085	0.3723	26366	-2.661	-2.693	120

Last Message: Low Sample Detected
=====

Sample ID: ICB Mode: TOC
Method: Boat Sampler Filename: 11121226
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:29
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6.7305	0.2692	19064	-2.649	-2.682	120

Last Message: Low Sample Detected
=====

Sample ID: ICB Mode: TOC
Method: Boat Sampler Filename: 11121230
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:32
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7.5078	0.3003	2			
1266	-2.657	-2.679	120			

Last Message: Low Sample Detected
=====

Calibration Report Print Date/Time: 2024/11/12 12:05:31

Cal. Curve ID: TOC SOIL
Created: 2024/11/12 12:05
Calibration Factor (m): 7.081e+04
Y Intercept (b): 66586
r-squared: 0.99875

Standard ID	Y		X Expected	Measured	Message	Date & Time
	Raw Data	ug C				
BLANK	9263	0.000		-0.810		2024/11/12 11:01
250mg/l	813930	10.000		10.554	5.5	2024/11/12 11:15
500mg/l	1580917	20.000		21.385	6.9	2024/11/12 11:27
1000mg/l	2797884	40.000		38.571	-3.6	2024/11/12 11:36
2000mg/l	5752648	80.000		80.299	0.4	2024/11/12 12:05

12
11/12/24

WORKLIST(Hardcopy Internal Chain)

LB 133969

WorkList Name : TOC S-12162024

WorkList ID : 186379

Department : Wet-Chemistry

Date : 12-16-2024 15:44:49

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5213-01	TAPIAL3-SB03I-15-120624-00-	Solid	TOC	Cool 4 deg C	WEST04	L51	12/06/2024	9060A
P5236-01	TAPIAL3-SB03D-3-120724-00-1	Solid	TOC	Cool 4 deg C	WEST04	L51	12/07/2024	9060A

Date/Time 12.17.2024, 08:45
Raw Sample Received by: NF(wc)
Raw Sample Relinquished by: CP SW

Date/Time 12.17.2024, 11:00
Raw Sample Received by: OP SW
Raw Sample Relinquished by: NF(wc)

Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133854

Review By	jignesh	Review On	12/10/2024 10:13:02 AM
Supervise By	Iwona	Supervise On	12/10/2024 10:21:46 AM
SubDirectory	LB133854	Test	pH
STD. NAME	STD REF.#		
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	12/10/24 08:00		Jignesh	OK
2	CAL2	CAL2	CAL	12/10/24 08:02		Jignesh	OK
3	CAL3	CAL3	CAL	12/10/24 08:03		Jignesh	OK
4	ICV	ICV	ICV	12/10/24 08:05		Jignesh	OK
5	CCV1	CCV1	CCV	12/10/24 08:10		Jignesh	OK
6	P5213-01	TAPIAL3-SB03I-15-12	SAM	12/10/24 08:15		Jignesh	OK
7	P5220-01	GAS-AUD-1562	SAM	12/10/24 08:22		Jignesh	OK
8	P5220-01DUP	GAS-AUD-1562DUP	DUP	12/10/24 08:23		Jignesh	OK
9	CCV2	CCV2	CCV	12/10/24 08:25		Jignesh	OK

Instrument ID: TOC

Daily Analysis Runlog For Sequence/QC Batch ID # LB133969

Review By	Niha	Review On	12/18/2024 10:53:34 AM
Supervise By	Iwona	Supervise On	12/18/2024 11:31:13 AM
SubDirectory	LB133969	Test	TOC
STD. NAME	STD REF.#		
ICAL Standard	WP110667,WP110662,WP110663,WP110664,WP110665		
ICV Standard	WP110666		
CCV Standard	111111		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	111112		
Chk Standard	WP109225		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	BLANK	BLANK	CAL1	11/12/24 11:01		NF IZ	OK
2	250mg/l	250mg/l	CAL2	11/12/24 11:15		NF IZ	OK
3	500mg/l	500mg/l	CAL3	11/12/24 11:27		NF IZ	OK
4	1000mg/l	1000mg/l	CAL4	11/12/24 11:36		NF IZ	OK
5	2000mg/l	2000mg/l	CAL5	11/12/24 12:05		NF IZ	OK
6	ICV1	ICV1	ICV	11/12/24 12:18		NF IZ	OK
7	ICB1	ICB1	ICB	11/12/24 12:32		NF IZ	OK
8	CCV1	CCV1	CCV	12/17/24 10:38		NF IZ	OK
9	CCB1	CCB1	CCB	12/17/24 11:20		NF IZ	OK
10	LB133969BLS	LB133969BLS	MB	12/17/24 11:42		NF IZ	OK
11	LB133969BSS	LB133969BSS	LCS	12/17/24 11:58		NF IZ	OK
12	P5213-01	TAPIAL3-SB03I-15-12	SAM	12/17/24 12:42		NF IZ	OK
13	P5236-01	TAPIAL3-SB03D-3-12	SAM	12/17/24 13:16		NF IZ	OK
14	P5236-01MS	TAPIAL3-SB03D-3-12	MS	12/17/24 13:33	sample + 40ul of 111111	NF IZ	OK
15	P5236-01MSD	TAPIAL3-SB03D-3-12	MSD	12/17/24 13:48	sample + 40ul of 111111	NF IZ	OK
16	CCV2	CCV2	CCV	12/17/24 14:21		NF IZ	OK
17	CCB2	CCB2	CCB	12/17/24 14:31		NF IZ	OK

Prep Standard - Chemical Standard Summary

Order ID : P5213

Test : Percent Solids,pH,TOC

Prepbatch ID :

Sequence ID/Qc Batch ID: LB133854, LB133969,

Standard ID :

WP109217, WP109218, WP109225, WP110662, WP110663, WP110664, WP110665, WP110666, WP110667,

Chemical ID :

111111, 111112, W2784, W2860, W3005, W3071, W3072, W3093, W3094, W3107, W3111, W3112,

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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>
2050	TOC STOCK STD, 4000PPM	WP109217	08/07/2024	01/18/2025	Iwona Zarych	WETCHEM_SCALE_5 (WC)	WETCHEM_FIPETTE_3 (WC)	Mohan Bera 08/16/2024
FROM 5.00000ml of W2860 + 8.51200gram of W3111 + 990.00000ml 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>
2051	TOC STOCK STD-SS, 4000PPM	WP109218	08/07/2024	02/07/2025	Iwona Zarych	WETCHEM_SCALE_5 (WC)	WETCHEM_FIPETTE_3 (WC)	Mohan Bera 08/16/2024
FROM 5.00000ml of W2860 + 8.51200gram of W2784 + 990.00000ml of W3112 = Final Quantity: 1000.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2435	1:1 PHOSPHORIC ACID FOR TOC SOILS	WP109225	08/07/2024	02/07/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3 (WC)	Mohan Bera 08/16/2024
FROM 50.00000ml of W2860 + 50.00000ml of W3112 = Final Quantity: 100.000 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>
712	TOC SOIL cal 250ppm	WP110662	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/14/2024
FROM 15.00000ml of W3112 + 1.00000ml of WP109217 = Final Quantity: 16.000 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>
710	TOC SOIL cal 500ppm	WP110663	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								11/14/2024

FROM 14.00000ml of W3112 + 2.00000ml of WP109217 = Final Quantity: 16.000 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>
3544	TOC SOIL Cal- CCV 1000PPM	WP110664	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								11/14/2024

FROM 15.00000ml of W3112 + 5.00000ml of WP109217 = Final Quantity: 20.000 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>
713	TOC SOIL cal 2000ppm	WP110665	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								11/14/2024

FROM 5.00000ml of W3112 + 5.00000ml of WP109217 = Final Quantity: 10.000 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>
2819	TOC ICV-LCSS, 1000PPM	WP110666	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								11/14/2024

FROM 15.00000ml of W3112 + 5.00000ml of WP109218 = Final Quantity: 20.000 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>
304	TOC CAL 0.00ppm	WP110667	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/14/2024
FROM 100.00000ml of W3112 = Final Quantity: 100.000 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.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	201089	06/30/2025	12/23/2020 / apatel	12/16/2020 / apatel	W2784

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0260-3 / Phosphoric Acid, 2.5 L	0000278313	01/31/2026	07/12/2021 / apatel	07/12/2021 / apatel	W2860

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 / lwona	01/31/2023 / lwona	W3005

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 / lwona	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 / lwona	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

CHEMICAL RECEIPT LOG BOOK

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

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 #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	24A1956910	01/18/2025	06/26/2024 / lwona	06/26/2024 / lwona	W3111

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

Phosphoric Acid
BAKER ANALYZED® A.C.S. Reagent

(orthophosphoric acid)



Material No.: 0260-03
Batch No.: 0000278313
Manufactured Date: 2021/02/01
Retest Date: 2026/01/31
Revision No: 2

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay (H ₃ PO ₄) (by acidimetry)	85.0 – 87.0 %	85.8
Calcium (Ca)	<= 0.002 %	< 0.001
Color (APHA)	<= 10	5
Insoluble Matter	<= 0.001 %	< 0.001
ACS – Magnesium (Mg)	<= 0.002 %	<0.002
Sulfate (SO ₄)	<= 12 ppm	< 4
Volatile Acids (as CH ₃ COOH)	<= 0.001 %	0.001
Reducing Substances	Passes Test	PT
Chloride (Cl)	<= 3 ppm	< 1
Nitrate (NO ₃)	<= 5 ppm	< 2
Trace Impurities – Antimony (Sb)	<= 20.000 ppm	0.007
Trace Impurities – Arsenic (As)	<= 0.500 ppm	< 0.001
Trace Impurities – Iron (Fe)	<= 10.000 ppm	< 1.000
Heavy Metals (as Pb)	<= 8 ppm	< 3
Trace Impurities – Manganese (Mn)	<= 0.500 ppm	0.005
Trace Impurities – Potassium (K)	<= 40.000 ppm	< 0.001
Trace Impurities – Sodium (Na)	<= 200.000 ppm	0.082

For Laboratory, Research or Manufacturing Use

Exceeds A.C.S. Specifications

Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US

Packaging Site: Phillipsburg 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

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

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RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
<http://www.riccachemical.com>
1-888-GO-RICCA
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

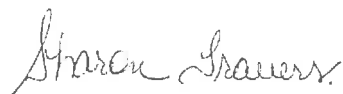
*Not a certified value.

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

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Certificate of Analysis

ThermoFisher
SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 faxThermo Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P243	Quality Test / Release Date	06/19/2020
Lot Number	201089		
Description	POTASSIUM HYDROGEN PHTHALATE, ACIDIMETRIC STANDARD, A.C.S.		
Country of Origin	Spain	Suggested Retest Date	Jun/2025
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	WHITE CRYSTALS
ASSAY POTASSIUM HYDROGEN PHTHALATE	%	Inclusive Between 99.95 - 100.05	100.03
CHLORINE COMPOUNDS	%	<= 0.003	<0.003
HEAVY METALS (as Pb)	ppm	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5
PH OF 0.05M SOLUTION		Inclusive Between 4.00 - 4.02	4.00
SODIUM (Na)	%	<= 0.005	<0.005
SULFUR COMPOUNDS	%	<= 0.002	<0.002%
TRACEABLE TO NIST	SOD CARBONATE	= LOT 351a	351a
TRACEABLE TO NIST KHP STD	POT. ACID PHTHALATE	= LOT 84L	84L



Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.

*Based on suggested storage condition.



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

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This product was tested in an ISO 17025 Accredited Laboratory

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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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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

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 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

Production Manager

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This product was tested in an ISO 17025 Accredited Laboratory

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POTASSIUM HYDROGEN PHTHALATE

Material: N983
Grade: ACS GRADE
Batch Number: 24A1956910

Chemical Formula: HOCC6H4COOK
Molecular Weight: 204.22
CAS #: 877-24-7
Appearance:

Manufacture Date: 01/19/2022
Reassay Date: 01/18/2025

Storage: Room Temperature

White crystals.

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Assay (dried basis)	99.95 - 100.05 %	99.97 %	PASS
Chlorine Compounds	<= 0.003 %	<0.003 %	PASS
Heavy Metals (as Pb)	<= 5 ppm	<5 ppm	PASS
Insoluble Matter	<= 0.005 %	0.003 %	PASS
Iron	<= 5 ppm	<5 ppm	PASS
pH (0.05M, Water) @25C	4.00 - 4.02	4.00	PASS
Sodium	<= 0.005 %	<0.005 %	PASS
Sulfur Compounds	<= 0.002 %	<0.002 %	PASS

Spec Set: N983ACS

Internal ID #: 710

Signature	Additional Information
We certify that this batch conforms to the specifications listed. This document has been electronically produced and is valid without a signature. Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA	Analysis may have been rounded to significant digits in specification limits. Product meets analytical specifications of the grades listed.

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/10/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:45
In Date: 12/09/2024
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: 12/10/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB133836

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
P5171-01	JNLH1	1	1.14	8.69	9.83	7.65	74.9	
P5171-02	JNLH2	2	1.15	8.65	9.8	8.96	90.3	
P5213-01	TAPIAL3-SB03I-15-12062 4-00-T1	3	1.15	8.83	9.98	9.06	89.6	
P5216-01	BP-G-6	4	1.15	8.82	9.97	9.07	89.8	
P5216-02	BP-G-6-EPH	5	1.14	8.54	9.68	8.43	85.4	
P5216-03	BP-G-6-VOC	6	1.12	8.41	9.53	8.34	85.9	
P5216-05	MH-743	7	1.18	8.44	9.62	8.79	90.2	
P5216-06	MH-743-EPH	8	1.15	8.55	9.7	8.84	89.9	
P5216-07	MH-743-VOC	9	1.12	8.75	9.87	9.00	90.1	
P5216-09	MH-744	10	1.15	8.63	9.78	8.22	81.9	
P5216-10	MH-744-EPH	11	1.18	8.44	9.62	8.33	84.7	
P5216-11	MH-744-VOC	12	1.17	8.53	9.7	8.43	85.1	
P5216-13	TP-12	13	1.17	8.40	9.57	8.2	83.7	
P5216-14	TP-12-EPH	14	1.15	8.40	9.55	8.13	83.1	
P5216-15	TP-12-VOC	15	1.19	8.43	9.62	8.46	86.2	
P5217-01	MIXED-DEMO	16	1.16	8.44	9.6	9.57	99.6	
P5219-01	MR-CAM-09-MR-CAM-010	17	1.00	1.00	2.00	2.00	100.0	stone sample, 100 % solids
P5219-02	MR-CAM-011	18	1.00	1.00	2.00	2.00	100.0	stone sample, 100 % solids
P5219-03	MR-CAM-012	19	1.16	8.48	9.64	6.74	65.8	
P5219-04	MR-CAM-013	20	1.15	8.44	9.59	9.51	99.1	
P5220-01	GAS-AUD-1562	21	1.18	8.77	9.95	6.42	59.7	
P5221-02	GAS-BUR-1326	22	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
P5222-01	TRE-1113	23	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
P5223-01	TR-05-120924	24	1.15	8.84	9.99	9.39	93.2	
P5223-02	TR-05-120924-E2	25	1.12	8.55	9.67	8.83	90.2	

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

WORKLIST(Hardcopy Internal Chain)

18123836

WorkList Name : %1-120924

WorkList ID : 186111

Department : Wet-Chemistry

Date : 12-09-2024 08:19:41

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5171-01	JNLH1	Solid	Percent Solids	Cool 4 deg C	USEP04	Q32	12/03/2024	Chemtech -SO
P5171-02	JNLH2	Solid	Percent Solids	Cool 4 deg C	USEP04	Q32	12/04/2024	Chemtech -SO
P5213-01	TAPIAL3-SB03I-15-120624-00-	Solid	Percent Solids	Cool 4 deg C	WEST04	L51	12/06/2024	Chemtech -SO
P5216-01	BP-G-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-02	BP-G-6-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-03	BP-G-6-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-05	MH-743	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-06	MH-743-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-07	MH-743-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-09	MH-744	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-10	MH-744-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-11	MH-744-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-13	TP-12	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-14	TP-12-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5216-15	TP-12-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5217-01	MIXED-DEMO	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/07/2024	Chemtech -SO
P5219-01	MR-CAM-09-MR-CAM-010	Solid	Percent Solids	Cool 4 deg C	EART12	M11	12/09/2024	Chemtech -SO
P5219-02	MR-CAM-011	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	12/09/2024	Chemtech -SO
P5219-03	MR-CAM-012	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	12/09/2024	Chemtech -SO
P5219-04	MR-CAM-013	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	12/09/2024	Chemtech -SO
P5220-01	GAS-AUD-1562	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	12/09/2024	Chemtech -SO

Date/Time 12/09/24 16:45
 Raw Sample Received by: JB WOC
 Raw Sample Relinquished by: JWA(SM)

Date/Time 12/09/24

Raw Sample Received by: JB WOC

WORKLIST(Hardcopy Internal Chain)

183836

WorkList Name : %1-120924 WorkList ID : 186111 Department : Wet-Chemistry Date : 12-09-2024 08:19:41

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5221-02	GAS-BUR-1326	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	12/09/2024	Chemtech -SO
P5222-01	TRE-1113	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	12/09/2024	Chemtech -SO
P5223-01	TR-05-120924	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	12/09/2024	Chemtech -SO
P5223-02	TR-05-120924-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	12/09/2024	Chemtech -SO

Date/Time 12/09/24 16:45
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

Date/Time 12/09/24 18:00
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]



SHIPPING DOCUMENTS

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

Weston COC ID
Weston_20241206_1614

Chain of Custody Record/Lab Work Request

Page 1 of 1

Client:	Weston Solutions, Inc.		
Project Manager:	David Sembrot		
Street Address:	1400 Weston Way	City:	West Chester
Phone:	610-314-5456	ST, ZIP:	PA, 19038
e-mail:	david.sembrot@westonsolutions.com		
Sampled By:	Cheyenne Harrington		

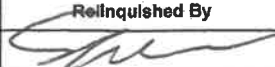
Project Name:	Fort Meade RI	Project POC:	Nathan Fretz
PO Number	0111169	Phone:	484-524-5665
W.O. #:		POC e-mail:	nathan.fretz@westonsolutions.com
Lab:	CHEMTECH	Lab POC:	Jordan Hedvat
TAT (days):	21	Lab Phone:	908-728-3144
Lab Address:	284 Sheffield Street Mountainside, NJ 07092		

Matrix Codes
SB- Soil
SE - Sediment
SO - Solid
SL - Sludge
GW - Groundwater
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab Use Only		
Temperature of cooler when received (°C)		
COC Tape was present and unbroken on outer package?	Y	N
Samples received in good condition?	Y	N
Labels indicate properly preserved?	Y	N
Received within holding times?	Y	N
Discrepancies between sample labels and COC record?	Y	N

Analyses Requested:	pH by EPA 9045D	TAL Metals by EPA 6020B/7471B	TOC by 9060A															
	Container Type:	Glass	Glass	Glass														
	Container Size:	8 oz	8 oz	8 oz														
	Preservative:	Ice to 0-6	Ice to 0-6	Ice to 0-6														

#	Sample ID	G/C	Matrix	# Cont	MS/MSD	Date Collected	Time Collected												Special Instructions/Comments
1	TAPIAL3-SB03I-15-120624-00-T1	g	SB	2	no	12/6/2024	11:40	X	X	X									
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Shipping Airbill Number(s):					Cooler Number: 1 of 1				
	Relinquished By	Date	Time	Received By	Date	Time	Additional Comments		
1.)		12/6/24	18W	Dem	12/7/24	9:55	QSM 6.0 Compliant		
2.)						2:30	Deliverable Requirements: DoD Level IV report, EnviroData EDD, and ERIS-compatible EDD		
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