

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

LAB CHRONICLE

OrderID:	P5404	OrderDate:	12/31/2024 10:16:00 AM
Client:	Summit Environmental Technologies, LLC	Project:	24120422
Contact:	Jennifer Woolf	Location:	L11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5404-01	244661	WATER	TOC	SM5310B	04/26/24 11:15		01/03/25 12:46	12/31/24
P5404-02	244662	WATER	TOC	SM5310B	04/26/24 11:15		01/03/25 14:32	12/31/24
P5404-03	244663	WATER	TOC	SM5310B	04/29/24 15:52		01/03/25 15:00	12/31/24
P5404-04	244664	WATER	TOC	SM5310B	04/29/24 16:22		01/03/25 15:29	12/31/24
P5404-05	244665	WATER	TOC	SM5310B	05/03/24 08:57		01/03/25 18:53	12/31/24
P5404-06	244666	WATER	TOC	SM5310B	05/03/24 09:07		01/03/25 19:23	12/31/24
P5404-07	244667	WATER	TOC	SM5310B	05/08/24 14:18		01/03/25 19:52	12/31/24

LAB CHRONICLE

P5404-08	244668	WATER			05/08/24 14:37		12/31/24
			TOC	SM5310B		01/03/25 20:22	
P5404-09	244669	WATER			06/07/24 10:55		12/31/24
			TOC	SM5310B		01/08/25 12:11	
P5404-10	244670	WATER			06/07/24 11:15		12/31/24
			TOC	SM5310B		01/08/25 12:36	
P5404-11	244671	WATER			07/03/24 09:35		12/31/24
			TOC	SM5310B		01/08/25 13:01	
P5404-12	244672	WATER			07/03/24 10:04		12/31/24
			TOC	SM5310B		01/08/25 13:27	
P5404-13	244673	WATER			07/06/24 06:58		12/31/24
			TOC	SM5310B		01/08/25 13:53	
P5404-14	244674	WATER			07/06/24 07:29		12/31/24
			TOC	SM5310B		01/04/25 04:44	
P5404-15	244675	WATER			07/08/24 12:57		12/31/24
			TOC	SM5310B		01/04/25 05:11	
P5404-17	244677	WATER			08/16/24 10:11		12/31/24

LAB CHRONICLE

P5404-20	244680	WATER	TOC	SM5310B		01/04/25 05:35	12/31/24
					11/05/24 06:17		
			TOC	SM5310B		01/04/25 06:02	



SAMPLE DATA

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	04/26/24 11:15
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244661	SDG No.:	P5404
Lab Sample ID:	P5404-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	8.60	H	1	0.19	1.00	mg/L		01/03/25 12:46	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	04/26/24 11:15
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244662	SDG No.:	P5404
Lab Sample ID:	P5404-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	4.90	H	1	0.19	1.00	mg/L		01/03/25 14:32	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	04/29/24 15:52
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244663	SDG No.:	P5404
Lab Sample ID:	P5404-03	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	14.7	H	1	0.19	1.00	mg/L		01/03/25 15:00	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	04/29/24 16:22
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244664	SDG No.:	P5404
Lab Sample ID:	P5404-04	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	15.9	H	1	0.19	1.00	mg/L		01/03/25 15:29	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	05/03/24 08:57
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244665	SDG No.:	P5404
Lab Sample ID:	P5404-05	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	12.6	H	1	0.19	1.00	mg/L		01/03/25 18:53	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N = Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	05/03/24 09:07
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244666	SDG No.:	P5404
Lab Sample ID:	P5404-06	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	15.9	H	1	0.19	1.00	mg/L		01/03/25 19:23	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	05/08/24 14:18
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244667	SDG No.:	P5404
Lab Sample ID:	P5404-07	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	13.3	H	1	0.19	1.00	mg/L		01/03/25 19:52	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	05/08/24 14:37
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244668	SDG No.:	P5404
Lab Sample ID:	P5404-08	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	15.5	H	1	0.19	1.00	mg/L		01/03/25 20:22	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N = Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	06/07/24 10:55
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244669	SDG No.:	P5404
Lab Sample ID:	P5404-09	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	16.9	H	1	0.19	1.00	mg/L		01/08/25 12:11	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	06/07/24 11:15
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244670	SDG No.:	P5404
Lab Sample ID:	P5404-10	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	10.5	H	1	0.19	1.00	mg/L		01/08/25 12:36	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	07/03/24 09:35
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244671	SDG No.:	P5404
Lab Sample ID:	P5404-11	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	9.90	H	1	0.19	1.00	mg/L		01/08/25 13:01	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	07/03/24 10:04
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244672	SDG No.:	P5404
Lab Sample ID:	P5404-12	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	10.1	H	1	0.19	1.00	mg/L		01/08/25 13:27	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N = Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	07/06/24 06:58
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244673	SDG No.:	P5404
Lab Sample ID:	P5404-13	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	7.40	H	1	0.19	1.00	mg/L		01/08/25 13:53	SM 5310 B-14

Comments:

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

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

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	07/06/24 07:29
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244674	SDG No.:	P5404
Lab Sample ID:	P5404-14	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	6.40	H	1	0.19	1.00	mg/L		01/04/25 04:44	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	07/08/24 12:57
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244675	SDG No.:	P5404
Lab Sample ID:	P5404-15	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	11.1	H	1	0.19	1.00	mg/L		01/04/25 05:11	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N = Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	08/16/24 10:11
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244677	SDG No.:	P5404
Lab Sample ID:	P5404-17	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	4.80	H	1	0.19	1.00	mg/L		01/04/25 05:35	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Summit Environmental Technologies, LLC	Date Collected:	11/05/24 06:17
Project:	24120422	Date Received:	12/31/24
Client Sample ID:	244680	SDG No.:	P5404
Lab Sample ID:	P5404-20	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	9.70	H	1	0.19	1.00	mg/L		01/04/25 06:02	SM 5310 B-14

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N = Spiked sample recovery not within control limits



QC RESULT SUMMARY

Initial and Continuing Calibration Verification

Client: Summit Environmental Technologies, LLC

SDG No.: P5404

Project: 24120422

RunNo.: LB134141

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	CCV1						
TOC		mg/L	1.5	1	150	50-150	01/03/2025
Sample ID:	CCV2						
TOC		mg/L	10.7	10	107	90-110	01/03/2025
Sample ID:	CCV3						
TOC		mg/L	19.7	20	99	90-110	01/04/2025
Sample ID:	CCV4						
TOC		mg/L	0.98	1	98	50-150	01/04/2025
Sample ID:	CCV5						
TOC		mg/L	10.8	10	108	90-110	01/08/2025
Sample ID:	CCV6						
TOC		mg/L	21.6	20	108	90-110	01/08/2025
Sample ID:	ICV1						
TOC		mg/L	10.2	10	102	90-110	12/27/2024

Initial and Continuing Calibration Blank Summary

Client: Summit Environmental Technologies, LLC

SDG No.: P5404

Project: 24120422

RunNo.: LB134141

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: CCB1 TOC	mg/L	0.28	0.5000	J	0.19	1	01/03/2025
Sample ID: CCB2 TOC	mg/L	0.4	0.5000	J	0.19	1	01/03/2025
Sample ID: CCB3 TOC	mg/L	0.35	0.5000	J	0.19	1	01/04/2025
Sample ID: CCB4 TOC	mg/L	0.28	0.5000	J	0.19	1	01/04/2025
Sample ID: CCB5 TOC	mg/L	0.31	0.5000	J	0.19	1	01/08/2025
Sample ID: CCB6 TOC	mg/L	0.35	0.5000	J	0.19	1	01/08/2025
Sample ID: ICB1 TOC	mg/L	< 0.5000	0.5000	U	0.19	1	12/27/2024

Preparation Blank Summary

Client: Summit Environmental Technologies, LLC

SDG No.: P5404

Project: 24120422

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB134141BLW TOC	mg/L	0.26	0.5000	J	0.19	1	01/03/2025
Sample ID: LB134141BLW2 TOC	mg/L	0.35	0.5000	J	0.19	1	01/08/2025

Matrix Spike Summary

Client:	Summit Environmental Technologies, LLC	SDG No.:	P5404
Project:	24120422	Sample ID:	P5404-01
Client ID:	244661MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
TOC	mg/L	85-115	18.6		8.60		10	1	100		01/03/2025

Matrix Spike Summary

Client:	Summit Environmental Technologies, LLC	SDG No.:	P5404
Project:	24120422	Sample ID:	P5404-01
Client ID:	244661MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
TOC	mg/L	85-115	19.6		8.60		10	1	110		01/03/2025

Duplicate Sample Summary

Client: Summit Environmental Technologies, LLC	SDG No.: P5404
Project: 24120422	Sample ID: P5404-01
Client ID: 244661MSD	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TOC	mg/L	+/-15	18.6		19.6		1	5		01/03/2025

Laboratory Control Sample Summary

Client:	Summit Environmental Technologies, LLC	SDG No.:	P5404
Project:	24120422	Run No.:	LB134141

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134141BSW							
TOC	mg/L	10	9.10		91	1	90-110	01/03/2025

Laboratory Control Sample Summary

Client: Summit Environmental Technologies, LLC

SDG No.: P5404

Project: 24120422

Run No.: LB134141

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB134141BSW2							
TOC	mg/L	10	10.4		104	1	90-110	01/08/2025



RAW DATA

Sample ID	Result	Std. Dev.	RSD	Mode	ALT
CCV1	1.4867	0.0784	5.27	TOC	
CCB1	0.2829	0.0133	4.69	TOC	
LB134141BLW	0.2630	0.0561	21.34	TOC	
LB134141BSW.....	9.0911...	0.3422..	3.76...	TOC	..
P5404-01	8.5600	0.4427	5.17	TOC	
P5404-01MS	18.5691	1.1930	6.42	TOC	
P5404-01MSD.....	19.5604...	1.0531..	5.38...	TOC	..
P5404-02	4.9309	0.3777	7.66	TOC	
P5404-03	14.6971	1.2977	8.83	TOC	
P5404-04.....	15.8792...	0.3461..	2.18...	TOC	..
CCV2	10.6674	0.4037	3.78	TOC	
CCB2	0.3965	0.0547	13.79	TOC	
P5404-05.....	12.6223...	0.5059..	4.01...	TOC	..
P5404-06	15.9012	1.2761	8.03	TOC	
P5404-07	13.3455	0.8648	6.48	TOC	
P5404-08.....	15.4510...	0.8406..	5.44...	TOC	..
CCV3	19.7407	0.5179	2.62	TOC	
CCB3	0.3484	0.0646	18.55	TOC	
P5404-14.....	6.3584...	0.2621..	4.12...	TOC	..
P5404-15	11.0943	0.7762	7.00	TOC	
P5404-17	4.8470	0.1560	3.22	TOC	
P5404-20.....	9.6783...	0.5517..	5.70...	TOC	..
P5405-01	5.8678	0.2505	4.27	TOC	
P5408-01	2.0976	0.4463	21.28	TOC	
CCV4.....	0.9768...	0.0354..	3.62...	TOC	..
CCB4	0.2838	0.0581	20.48	TOC	
CCV5	10.8352	0.6805	6.28	TOC	
CCB5.....	0.3081...	0.0512..	16.63...	TOC	..
P5404-09	16.9310	0.2830	1.67	TOC	
P5404-10	10.5406	0.2491	2.36	TOC	
P5404-11.....	9.9406...	0.2898..	2.92...	TOC	..
P5404-12	10.1449	0.1732	1.71	TOC	
P5404-13	7.4285	0.1228	1.65	TOC	
LB134141BLW2.....	0.3528...	0.0479..	13.59...	TOC	..
LB134141BSW2	10.4434	0.1250	1.20	TOC	
CCV6	21.5642	1.8769	8.70	TOC	
CCB6.....	0.3488...	0.1055..	30.24...	TOC	..

Method ID		Sample Type	Vial		Timestamp	Message
TOC 0 - 20 ppmC		Sample	10	2025/01/03	10:53	
TOC 0 - 20 ppmC		Sample	12	2025/01/03	11:15	Low Sample Detected
TOC 0 - 20 ppmC		Sample	13	2025/01/03	11:39	Low Sample Detected
TOC 0 - 20 ppmC	...	Sample	.. 14..	2025/01/03	12:20	..
TOC 0 - 20 ppmC		Sample	15	2025/01/03	12:46	
TOC 0 - 20 ppmC		Sample	16	2025/01/03	13:13	
TOC 0 - 20 ppmC	...	Sample	.. 35..	2025/01/03	14:07	..
TOC 0 - 20 ppmC		Sample	17	2025/01/03	14:32	
TOC 0 - 20 ppmC		Sample	18	2025/01/03	15:00	
TOC 0 - 20 ppmC	...	Sample	.. 19..	2025/01/03	15:29	..
TOC 0 - 20 ppmC		Sample	11	2025/01/03	17:16	
TOC 0 - 20 ppmC		Sample	12	2025/01/03	18:02	
TOC 0 - 20 ppmC	...	Sample	.. 15..	2025/01/03	18:53	..
TOC 0 - 20 ppmC		Sample	16	2025/01/03	19:23	
TOC 0 - 20 ppmC		Sample	17	2025/01/03	19:52	
TOC 0 - 20 ppmC	...	Sample	.. 18..	2025/01/03	20:22	..
TOC 0 - 20 ppmC		Sample	26	2025/01/04	01:28	
TOC 0 - 20 ppmC		Sample	13	2025/01/04	02:13	
TOC 0 - 20 ppmC	...	Sample	.. 29..	2025/01/04	04:44	..
TOC 0 - 20 ppmC		Sample	30	2025/01/04	05:11	
TOC 0 - 20 ppmC		Sample	31	2025/01/04	05:35	
TOC 0 - 20 ppmC	...	Sample	.. 32..	2025/01/04	06:02	..
TOC 0 - 20 ppmC		Sample	33	2025/01/04	06:27	
TOC 0 - 20 ppmC		Sample	34	2025/01/04	06:51	
TOC 0 - 20 ppmC	...	Sample	.. 9..	2025/01/04	07:14	..
TOC 0 - 20 ppmC		Sample	8	2025/01/04	08:23	
TOC 0 - 20 ppmC		Sample	11	2025/01/08	10:41	
TOC 0 - 20 ppmC	...	Sample	.. 12..	2025/01/08	11:44	..Low Sample Detected
TOC 0 - 20 ppmC		Sample	15	2025/01/08	12:11	
TOC 0 - 20 ppmC		Sample	16	2025/01/08	12:36	
TOC 0 - 20 ppmC	...	Sample	.. 17..	2025/01/08	13:01	..
TOC 0 - 20 ppmC		Sample	17	2025/01/08	13:27	
TOC 0 - 20 ppmC		Sample	18	2025/01/08	13:53	
TOC 0 - 20 ppmC	...	Sample	.. 13..	2025/01/08	14:16	..Low Sample Detected
TOC 0 - 20 ppmC		Sample	16	2025/01/08	14:42	
TOC 0 - 20 ppmC		Sample	19	2025/01/08	15:09	
TOC 0 - 20 ppmC	...	Sample	.. 13..	2025/01/08	15:32	..Low Sample Detected

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.4433	0.7217	50521	-2.894	-2.696	127
2	1.5046	0.7523	52665	-2.891	-2.692	124
3	1.5886	0.7943	55604	-2.914	-2.715	126
4	1.4102	0.7051	49361	-2.927	-2.727	118

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.2879	0.1439	10076	-2.893	-2.869	120
2	0.2673	0.1337	9357	-2.918	-2.718	97
3	0.2781	0.1391	9736	-2.885	-2.882	120
4	0.2983	0.1492	10443	-2.920	-2.722	96

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.2151	0.1075	7528	-2.945	-2.931	120
2	0.2668	0.1334	9340	-2.926	-2.908	120
3	0.2294	0.1147	8028	-2.929	-2.923	120
4	0.3405	0.1702	11917	-2.959	-2.761	97

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8.6457	4.3228	302622	-2.756	-2.558	160
2	9.0345	4.5173	316232	-2.703	-2.504	166
3	9.4508	4.7254	330804	-2.692	-2.493	163
4	9.2334	4.6167	323194	-2.658	-2.461	161

```
<<<Statistics>>>      Mean:      9.0911      Std Dev:      0.3422      RSD: 3.76
```

Sample ID: P5404-01 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/03 12:46
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8.6978	4.3489	304446	-2.735	-2.540	146
2	8.9727	4.4863	314068	-2.713	-2.514	153
3	8.6363	4.3181	302292	-2.727	-2.528	152
4	7.9333	3.9666	277686	-2.715	-2.515	145

<<<Statistics>>> Mean: 8.5600 Std Dev: 0.4427 RSD: 5.17

Sample ID: P5404-01MS Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/03 13:13
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17.4810	8.7405	611881	-2.754	-2.555	168
2	17.6279	8.8140	617024	-2.701	-2.501	171
3	19.8493	9.9246	694778	-2.686	-2.491	177
4	19.3182	9.6591	676189	-2.663	-2.464	180

<<<Statistics>>> Mean: 18.5691 Std Dev: 1.1930 RSD: 6.42

Sample ID: P5404-01MSD Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/03 14:07
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21.0531	10.5265	736914	-2.617	-2.420	202
2	18.9528	9.4764	663400	-2.567	-2.368	180
3	18.7069	9.3535	654793	-2.549	-2.350	181
4	19.5288	9.7644	683560	-2.538	-2.338	199

<<<Statistics>>> Mean: 19.5604 Std Dev: 1.0531 RSD: 5.38

Sample ID: P5404-02 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/03 14:32
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.4440	2.7220	190556	-2.626	-2.427	160
2	4.5530	2.2765	159366	-2.620	-2.420	146
3	4.7832	2.3916	167424	-2.602	-2.403	146
4	4.9432	2.4716	173024	-2.626	-2.426	155

<<<Statistics>>> Mean: 4.9309 Std Dev: 0.3777 RSD: 7.66

Sample ID: P5404-03 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/03 15:00

Operator ID: NF IZ

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16.6065	8.3033	581273	-2.561	-2.364	198
2	13.7633	6.8817	481753	-2.534	-2.334	179
3	14.0387	7.0194	491393	-2.524	-2.324	170
4	14.3797	7.1899	503329	-2.503	-2.303	183

<<<Statistics>>> Mean: 14.6971 Std Dev: 1.2977 RSD: 8.83

Sample ID: P5404-04

Mode: TOC

Method: TOC 0 - 20 ppmC

Filename: 01031155

Cal. Curve: TOC WATER 0-20PPM

Timestamp: 2025/01/03 15:29

Operator ID: NF IZ

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15.8574	7.9287	555051	-2.518	-2.318	194
2	15.4238	7.7119	539873	-2.502	-2.303	197
3	16.2549	8.1274	568965	-2.466	-2.267	195
4	15.9805	7.9903	559362	-2.466	-2.269	196

<<<Statistics>>> Mean: 15.8792 Std Dev: 0.3461 RSD: 2.18

Sample ID: CCV2

Mode: TOC

Method: TOC 0 - 20 ppmC

Filename: 01031155

Cal. Curve: TOC WA

TER 0-20PPM

Timestamp: 2025/01/03 17:16

Operator ID: NF IZ

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.5641	5.2821	369772	-2.436	-2.237	160
2	11.2618	5.6309	394192	-2.410	-2.211	180
3	10.4683	5.2342	366419	-2.383	-2.186	173
4	10.3754	5.1877	363167	-2.368	-2.169	171

<<<Statistics>>> Mean: 10.6674 Std Dev: 0.4037 RSD: 3.78

Sample ID: CCB2

Mode: TOC

Method: TOC 0 - 20 ppmC

Filename: 01031155

Cal. Curve: TOC WATER 0-20PPM

Timestamp: 2025/01/03 18:02

Operator ID: NF IZ

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.3278	0.1639	11475	-2.349	-2.151	104
2	0.3819	0.1909	13367	-2.369	-2.171	106
3	0.4214	0.2107	14751	-2.369	-2.170	106
4	0.4549	0.2274	15922	-2.368	-2.168	106

<<<Statistics>>> Mean: 0.3965 Std Dev: 0.0547 RSD: 13.79

Sample ID: P5404-05

Mode: TOC

Method: TOC 0 - 20 ppmC

Filename: 01031155

Cal. Curve: TOC WATER 0-20PPM

Timestamp: 2025/01/03 18:53

Operator ID: NF IZ

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration
-------	-------	------	----------	-----------	--------	-------------

				Baseline	Baseline	Time
1	11.9868	5.9934	419571	-2.346	-2.146	193
2	12.9825	6.4913	454423	-2.312	-2.114	194
3	13.0733	6.5366	457600	-2.301	-2.101	186
4	12.4465	6.2233	435661	-2.315	-2.116	183

<<<Statistics>>> Mean: 12.6223 Std Dev: 0.5059 RSD: 4.01

Sample ID: P5404-06 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/03 19:23
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16.1431	8.0716	565053	-2.297	-2.101	216
2	16.7454	8.3727	586135	-2.333	-2.133	223
3	14.0307	7.0153	491111	-2.334	-2.135	207
4	16.6857	8.3429	584046	-2.348	-2.148	223

<<<Statistics>>> Mean: 15.9012 Std Dev: 1.2761 RSD: 8.03

Sample ID: P5404-07 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/03 19:52
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	14.6170	7.3085	511633	-2.366	-2.168	211
2	12.7024	6.3512	444618	-2.356	-2.158	193
3	12.9417	6.4709	452994	-2.396	-2.196	201
4	13.1207	6.5603	459258	-2.405	-2.206	195

<<<Statistics>>> Mean: 13.3455 Std Dev: 0.8648 RSD: 6.48

Sample ID: P5404-08 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/03 20:22
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16.3826	8.1913	573436	-2.436	-2.237	226
2	15.5758	7.7879	545194	-2.417	-2.219	219
3	15.5053	7.7527	542728	-2.407	-2.207	205
4	14.3403	7.1702	501949	-2.426	-2.230	184

<<<Statistics>>> Mean: 15.4510 Std Dev: 0.8406 RSD: 5.44

Sample ID: CCV3 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/04 01:28
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19.5394	9.7697	683930	-2.872	-2.674	182
2	19.1009	9.5505	668583	-2.835	-2.638	190
3	20.1868	10.0934	706593	-2.840	-2.641	193

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.3956	0.1978	13846	-2.987	-2.787	107
2	0.3395	0.1697	11883	-2.962	-2.763	104
3	0.2604	0.1302	9114	-2.972	-2.773	103
4	0.3982	0.1991	13939	-2.962	-2.763	111
<<<Statistics>>>		Mean:	0.3484	Std Dev:	0.0646	RSD: 18.55

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6.0522	3.0261	211844	-3.033	-2.836	164
2	6.2288	3.1144	218024	-3.006	-2.808	143
3	6.5921	3.2960	230740	-3.022	-2.824	167
4	6.5606	3.2803	229638	-3.009	-2.811	153
<<<Statistics>>>		Mean:	6.3584	Std Dev:	0.2621	RSD: 4.12

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.1216	5.0608	354282	-2.994	-2.795	164
2	10.8188	5.4094	378687	-3.006	-2.806	160
3	11.7745	5.8873	412141	-3.017	-2.817	175
4	11.6623	5.8312	408213	-3.000	-2.801	153
<<<Statistics>>>		Mean:	11.0943	Std Dev:	0.7762	RSD: 7.00

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.7322	2.3661	165639	-3.101	-2.902	132
2	4.7480	2				
3	4.73740	166191	-3.063	-2.864	130	
3	4.8373	2.4186	169318	-3.058	-2.859	130
4	5.0704	2.5352	177476	-3.057	-2.861	130

<<<Statistics>>>		Mean:	4.8470	Std Dev:	0.1560	RSD: 3.22

Sample ID: P5404-20 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/04 06:02
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9.0486	4.5243	316725	-3.144	-2.947	160
2	9.6042	4.8021	336173	-3.095	-2.897	168
3	9.6671	4.8335	338373	-3.082	-2.883	159
4	10.3932	5.1966	363789	-3.070	-2.873	161

<<<Statistics>>> Mean: 9.6783 Std Dev: 0.5517 RSD: 5.70

Sample ID: P5405-01 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/04 06:27
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.5176	2.7588	193132	-3.124	-2.925	137
2	5.8574	2.9287	205026	-3.095	-2.896	143
3	6.0337	3.0169	211196	-3.102	-2.904	144
4	6.0625	3.0312	212203	-3.076	-2.879	143

<<<Statistics>>> Mean: 5.8678 Std Dev: 0.2505 RSD: 4.27

Sample ID: P5408-01 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/04 06:51
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2.7620	1.3810	96676	-3.157	-2.957	129
2	1.8225	0.9113	63793	-3.165	-2.966	124
3	1.8543	0.9271	64904	-3.141	-2.943	124
4	1.9516	0.9758	68312	-3.153	-2.956	128

<<<Statistics>>> Mean: 2.0976 Std Dev: 0.4463 RSD: 21.28

Sample ID: CCV4 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01031155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/04 07:14
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.9962	0.4981	34869	-3.158	-2.959	117
2	0.9268	0.4634	32442	-3.115	-2.915	113
3	1.0064	0.5032	35226	-3.123	-2.924	118
4	0.9779	0.4889	34227	-3.136	-2.937	116

<<<Statistics>>> Mean: 0.9768 Std Dev: 0.0354 RSD: 3.62

Sample ID: CCB4 Mode: TOC

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.2316	0.1158	8108	-3.178	-2.978	100
2	0.2411	0.1205	8437	-3.175	-2.975	102
3	0.3078	0.1539	10774	-3.172	-2.974	104
4	0.3546	0.1773	12412	-3.192	-2.995	104

=====
<<<Statistics>>> Mean: 0.2838 Std Dev: 0.0581 RSD: 20.48
=====

Sample ID: CCV5
Method: TOC 0 - 20 ppmC
Cal. Curve: TOC WATER 0-20PPM
Operator ID: NF IZ

Mode: TOC
Filename: 01080906
Timestamp: 2025/01/08 10:41
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11.7911	5.8956	412720	-2.606	-2.407	159
2	10.1912	5.0956	356721	-2.565	-2.367	151
3	10.6009	5.3004	371059	-2.570	-2.373	159
4	10.7575	5.3788	376542	-2.588	-2.389	158

=====
<<<Statistics>>> Mean: 10.8352 Std Dev: 0.6805 RSD: 6.28
=====

Sample ID: CCB5
Method: TOC 0 - 20 ppmC
Cal. Curve: TOC WATER 0-20PPM
Operator ID: NF IZ

Mode: TOC
Filename: 01081057
Timestamp: 2025/01/08 11:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.3050	0.1525	10677	-2.704	-2.615	120
2	0.3790	0.1895	13266	-2.726	-2.605	120
3	0.2908	0.1454	10178	-2.701	-2.578	120
4	0.2577	0.1288	9019	-2.711	-2.596	120

Last Message: Low Sample Detected
=====
<<<Statistics>>> Mean: 0.3081 Std Dev: 0.0512 RSD: 16.63
=====

Sample ID: P5404-09
Method: TOC 0 - 20 ppmC
Cal. Curve: TOC WATER 0-20PPM
Operator ID: NF IZ

Mode: TOC
Filename: 01081057
Timestamp: 2025/01/08 12:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16.5474	8.2737	579204	-2.650	-2.451	160
2	16.9496	8.4748	593281	-2.647	-2.450	160
3	16.9991	8.4996	595016	-2.611	-2.413	164
4	17.2279	8.6139	603022	-2.625	-2.426	164

=====
<<<Statistics>>> Mean: 16.9310 Std Dev: 0.2830 RSD: 1.67
=====

Sample ID: P5404-10
Method: TOC 0 - 20 ppmC
Cal. Curve: TOC WATER 0-20PPM
Operator ID: NF IZ

Mode: TOC
Filename: 01081057
Timestamp: 2025/01/08 12:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.2581	5.1290	359061	-2.680	-2.481	146
2	10.6567	5.3283	373012	-2.635	-2.436	153
3	10.4250	5.2125	364904	-2.619	-2.419	144
4	10.8226	5.4113	378820	-2.620	-2.421	153

<<<Statistics>>> Mean: 10.5406 Std Dev: 0.2491 RSD: 2.36

Sample ID: P5404-11 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01081057
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/08 13:01
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9.6026	4.8013	336115	-2.588	-2.388	137
2	9.9782	4.9891	349262	-2.555	-2.357	145
3	9.8774	4.9387	345736	-2.561	-2.362	143
4	10.3044	5.1522	360683	-2.572	-2.374	150

<<<Statistics>>> Mean: 9.9406 Std Dev: 0.2898 RSD: 2.92

Sample ID: P5404-12 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01081057
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/08 13:27
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9.9079	4.9539	346802	-2.647	-2.448	150
2	10.2260	5.1130	357938	-2.581	-2.383	155
3	10.1362	5.0681	354794	-2.582	-2.384	153
4	10.3097	5.1549	360868	-2.623	-2.423	153

<<<Statistics>>> Mean: 10.1449 Std Dev: 0.1732 RSD: 1.71

Sample ID: P5404-13 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01081057
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/08 13:53
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7.3785	3.6892	258267	-2.626	-2.427	145
2	7.2901	3.6451	255175	-2.618	-2.422	142
3	7.5767	3.7884	265206	-2.611	-2.413	152
4	7.4687	3.7344	261425	-2.612	-2.412	144

<<<Statistics>>> Mean: 7.4285 Std Dev: 0.1228 RSD: 1.65

Sample ID: LB134141BLW2 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01081057
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/08 14:16
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
-------	-------	------	----------	-----------------------	--------------------	---------------------

1	0.2903	0.1451	10160	-2.581	-2.479	120
2	0.4071	0.2035	14249	-2.598	-2.500	120
3	0.3583	0.1791	12540	-2.632	-2.449	120
4	0.3557	0.1779	12452	-2.622	-2.463	120

Sample ID:	LB134141BSW2	Mode:	TOC
Method:	TOC 0 - 20 ppmC	Filename:	01081057
Cal. Curve:	TOC WATER 0-20PPM	Timestamp:	2025/01/08 14:42
Operator ID:	NF IZ	Sample Type:	Sample

Sample ID:	CCV6	Mode:	TOC
Method:	TOC 0 - 20 ppmC	Filename:	01081057
Cal. Curve:	TOC WATER 0-20PPM	Timestamp:	2025/01/08 15:09
Operator ID:	NF IZ	Sample Type:	Sample

Sample ID:	CGB6	Mode:	TOC
Method:	TOC 0 - 20 ppmC	Filename:	01081057
Cal. Curve:	TOC WATER 0-20PPM	Timestamp:	2025/01/08 15:32
Operator ID:	NF IZ	Sample Type:	Sample

<<<Statistics>>> Mean: 0.3488 Std Dev: 0.1055 RSD: 30.24

Cal. Curve ID: TOC WATER 0-20PPM
Created: 2024/12/27 17:00
Calibration Factor (m): 7.001e+04
Y Intercept (b): 10155
r-squared: 0.99928

Standard ID	Y	X Expected	Measured	Message	Date & Time
	Raw Data	ug C	ug C		
0.0PPM	6237	0.000	-0.056	Low Sample De	2024/12/27 12:55
0.5PPM	29723	0.250	0.280		2024/12/27 13:20
1.0PPM	51322	0.500	0.588		2024/12/27 14:34
2.0PPM	81698	1.000	1.022		2024/12/27 15:29
5.0PPM	187097	2.500	2.528		2024/12/27 15:58
10.0PPM	346619	5.000	4.806		2024/12/27 16:28
20.0PPM	715994	10.000	10.083		2024/12/27 16:59

Instrument ID: TOC

Daily Analysis Runlog For Sequence/QC Batch ID # LB134141

Review By	Niha	Review On	1/10/2025 10:26:36 AM
Supervise By	Iwona	Supervise On	1/10/2025 10:32:45 AM
SubDirectory	LB134141	Test	TOC
STD. NAME	STD REF.#		
ICAL Standard	WP111255,WP111256,WP111257,WP111258,WP111259,WP111260		
ICV Standard	WP111262		
CCV Standard	WP111313		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111314		
Chk Standard	WP109953,WP111267,WP111268		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	12/27/24 12:55		NF IZ	OK
2	0.5PPM	0.5PPM	CAL2	12/27/24 13:20		NF IZ	OK
3	1.0PPM	1.0PPM	CAL3	12/27/24 14:34		NF IZ	OK
4	2.0PPM	2.0PPM	CAL4	12/27/24 15:01		NF IZ	OK
5	5.0PPM	5.0PPM	CAL5	12/27/24 15:58		NF IZ	OK
6	10.0PPM	10.0PPM	CAL6	12/27/24 16:28		NF IZ	OK
7	20.0PPM	20.0PPM	CAL7	12/27/24 16:59		NF IZ	OK
8	ICV1	ICV1	ICV	12/27/24 17:29		NF IZ	OK
9	ICB1	ICB1	ICB	12/27/24 17:53		NF IZ	OK
10	IC-20	IC-20	SAM	12/27/24 18:40		NF IZ	OK
11	IC-R	IC-R	SAM	12/27/24 19:04		NF IZ	OK
12	CCV1	CCV1	CCV	01/03/25 10:53		NF IZ	OK
13	CCB1	CCB1	CCB	01/03/25 11:15		NF IZ	OK
14	LB134141BLW	LB134141BLW	MB	01/03/25 11:39		NF IZ	OK
15	LB134141BSW	LB134141BSW	LCS	01/03/25 12:20		NF IZ	OK
16	P5404-01	244661	SAM	01/03/25 12:46		NF IZ	OK
17	P5404-01MS	244661MS	MS	01/03/25 13:13	2.0ml WP111311+38.0ml Sample	NF IZ	OK
18	P5404-01MSD	244661MSD	MSD	01/03/25 14:07	2.0ml WP111311+38.0ml Sample	NF IZ	OK

Instrument ID: TOC

Daily Analysis Runlog For Sequence/QC Batch ID # LB134141

Review By	Niha	Review On	1/10/2025 10:26:36 AM
Supervise By	Iwona	Supervise On	1/10/2025 10:32:45 AM
SubDirectory	LB134141	Test	TOC
STD. NAME	STD REF.#		
ICAL Standard	WP111255,WP111256,WP111257,WP111258,WP111259,WP111260		
ICV Standard	WP111262		
CCV Standard	WP111313		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111314		
Chk Standard	WP109953,WP111267,WP111268		

19	P5404-02	244662	SAM	01/03/25 14:32		NF IZ	OK
20	P5404-03	244663	SAM	01/03/25 15:00		NF IZ	OK
21	P5404-04	244664	SAM	01/03/25 15:29		NF IZ	OK
22	CCV2	CCV2	CCV	01/03/25 17:16		NF IZ	OK
23	CCB2	CCB2	CCB	01/03/25 18:02		NF IZ	OK
24	P5404-05	244665	SAM	01/03/25 18:53		NF IZ	OK
25	P5404-06	244666	SAM	01/03/25 19:23		NF IZ	OK
26	P5404-07	244667	SAM	01/03/25 19:52		NF IZ	OK
27	P5404-08	244668	SAM	01/03/25 20:22		NF IZ	OK
28	CCV3	CCV3	CCV	01/04/25 01:28		NF IZ	OK
29	CCB3	CCB3	CCB	01/04/25 02:13		NF IZ	OK
30	P5404-14	244674	SAM	01/04/25 04:44		NF IZ	OK
31	P5404-15	244675	SAM	01/04/25 05:11		NF IZ	OK
32	P5404-17	244677	SAM	01/04/25 05:35		NF IZ	OK
33	P5404-20	244680	SAM	01/04/25 06:02		NF IZ	OK
34	P5405-01	002-OUTFALL	SAM	01/04/25 06:27		NF IZ	OK
35	P5408-01	OUTFALL-001	SAM	01/04/25 06:51		NF IZ	OK
36	CCV4	CCV4	CCV	01/04/25 07:14		NF IZ	OK
37	CCB4	CCB4	CCB	01/04/25 08:23		NF IZ	OK
38	CCV5	CCV5	CCV	01/08/25 10:41		NF IZ	OK

Instrument ID: TOC

Daily Analysis Runlog For Sequence/QCBatch ID # LB134141

Review By	Niha	Review On	1/10/2025 10:26:36 AM
Supervise By	Iwona	Supervise On	1/10/2025 10:32:45 AM
SubDirectory	LB134141	Test	TOC
STD. NAME	STD REF.#		
ICAL Standard	WP111255,WP111256,WP111257,WP111258,WP111259,WP111260		
ICV Standard	WP111262		
CCV Standard	WP111313		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP111314		
Chk Standard	WP109953,WP111267,WP111268		

39	CCB5	CCB5	CCB	01/08/25 11:44		NF IZ	OK
40	P5404-09	244669	SAM	01/08/25 12:11		NF IZ	OK
41	P5404-10	244670	SAM	01/08/25 12:36		NF IZ	OK
42	P5404-11	244671	SAM	01/08/25 13:01		NF IZ	OK
43	P5404-12	244672	SAM	01/08/25 13:27		NF IZ	OK
44	P5404-13	244673	SAM	01/08/25 13:53		NF IZ	OK
45	LB134141BLW2	LB134141BLW2	MB	01/08/25 14:16		NF IZ	OK
46	LB134141BSW2	LB134141BSW2	LCS	01/08/25 14:42		NF IZ	OK
47	CCV6	CCV6	CCV	01/08/25 15:09		NF IZ	OK
48	CCB6	CCB6	CCB	01/08/25 15:32		NF IZ	OK

Prep Standard - Chemical Standard Summary

Order ID : P5404

Test : TOC

Prepbatch ID :

Sequence ID/Qc Batch ID: LB134141,

Standard ID :

WP109217,WP109218,WP109953,WP110767,WP111253,WP111254,WP111255,WP111256,WP111257,WP111258,WP111259,WP111260,WP111262,WP111263,WP111264,WP111265,WP111266,WP111267,WP111268,WP111311,WP111312,WP111313,WP111314,

Chemical ID :

M5501,M6041,W1993,W2647,W2784,W2800,W2860,W3016,W3017,W3018,W3020,W3022,W3058,W3111,W3112,



<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-5)	WETCHEM_PIPETTE_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-5)	WETCHEM_PIPETTE_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>
613	Phosphoric acid reagent	WP109953	09/25/2024	03/25/2025	Niha Farheen Shaik	None	None	Iwona Zarych
								09/27/2024

FROM 150.00000ml of W3112 + 50.00000ml of W2860 = Final Quantity: 200.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3886	Inorganic carbon stock solution, 1000ppm	WP110767	11/20/2024	05/20/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Mohan Bera
								11/21/2024

FROM 3.49700gram of W2647 + 4.41220gram of W3058 + 993.00000ml 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>
3888	TOC Water Intermediate std-200ppm	WP111253	12/27/2024	01/03/2025	Niha Farheen Shaik	None	None	Iwona Zarych
								01/02/2025

FROM 95.00000ml of W3112 + 5.00000ml of WP109217 = 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>
3889	TOC Water Intermediate std SS-200ppm	WP111254	12/27/2024	01/03/2025	Niha Farheen Shaik	None	None	Iwona Zarych
								01/02/2025

FROM 95.00000ml of W3112 + 5.00000ml of WP109218 = Final Quantity: 100.000 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	WP111255	12/27/2024	01/03/2025	Niha Farheen Shaik	None	None	Iwona Zarych
								01/02/2025

FROM 100.00000ml 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>
305	TOC CAL 0.5ppm	WP111256	12/27/2024	01/03/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3	Iwona Zarych
							(WC)	01/02/2025

FROM 99.75000ml of W3112 + 0.25000ml of WP111253 = 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>
306	TOC CAL 1.0PPM	WP111257	12/27/2024	01/03/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/02/2025
<u>FROM</u> 99.50000ml of W3112 + 0.50000ml of WP111253 = 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>
307	TOC CAL 2.0PPM	WP111258	12/27/2024	01/03/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/02/2025
<u>FROM</u> 99.00000ml of W3112 + 1.00000ml of WP111253 = 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>
308	TOC CAL 5.0PPM	WP111259	12/27/2024	01/03/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/02/2025
<u>FROM</u> 97.50000ml of W3112 + 2.50000ml of WP111253 = 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>
310	TOC CAL 20.0PPM	WP111260	12/27/2024	01/03/2025	Niha Farheen Shaik	None	None	Iwona Zarych 01/02/2025
<u>FROM</u> 90.00000ml of W3112 + 10.00000ml of WP111253 = Final Quantity: 100.000 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>
1650	TOC ICV/LCS STD. 10PPM	WP111262	12/27/2024	01/03/2025	Niha Farheen Shaik	None	None	Iwona Zarych
								01/02/2025

FROM 190.00000ml of W3112 + 10.00000ml of WP111254 = Final Quantity: 200.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4003	Solution A	WP111263	12/27/2024	12/31/2024	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych
								01/02/2025

FROM 1000.00000ml of W3112 + 2.56500gram of W3018 = 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>
4004	Solution B	WP111264	12/27/2024	01/03/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 01/02/2025
<u>FROM</u>	0.24800gram of W3020 + 0.28100gram of M5501 + 0.28300gram of W2800 + 0.59400gram of W1993 + 1000.00000ml of W3112 + 2.05000gram of W3017 = 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>
4005	Solution C	WP111265	12/27/2024	01/03/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 01/02/2025
<u>FROM</u> 0.70500gram of W3016 + 1000.00000ml of W3112 + 2.80600gram of W2647 = 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>
4006	Solution D	WP111266	12/27/2024	01/03/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 01/02/2025
<u>FROM</u> 1.86200gram of W3022 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml								

[illegible]



<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>
3887	Inorganic carbon solution, 20ppm	WP111268	12/27/2024	01/03/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/02/2025
FROM 49.00000ml of W3112 + 1.00000ml of WP110767 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3888	TOC Water Intermediate std-200ppm	WP111311	01/03/2025	01/10/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/09/2025
<u>FROM</u> 95.00000ml of W3112 + 5.00000ml of WP109217 = Final Quantity: 100.000 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>
3889	TOC Water Intermediate std SS-200ppm	WP111312	01/03/2025	01/10/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/09/2025

FROM 95.00000ml of W3112 + 5.00000ml of WP109218 = 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>
3331	TOC CAL-CCV std, 10PPM	WP111313	01/03/2025	01/10/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/09/2025

FROM 190.00000ml of W3112 + 10.00000ml of WP111311 = Final Quantity: 200.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1650	TOC ICV/LCS STD. 10PPM	WP111314	01/03/2025	01/10/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych
								01/09/2025

FROM 190.00000ml of W3112 + 10.00000ml of WP111312 = Final Quantity: 200.000 ml

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	07/24/2023 / mohan	04/14/2023 / mohan	M5501

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	XE09B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1993

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3506-5 / SODIUM BICARBONATE, PWD, ACS, 2.5KG	0000240594	06/03/2026	02/24/2020 / AMANDEEP	01/20/2020 / apatel	W2647

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.	J3040-1 / POTASSIUM CHLORIDE, CRYST, ACS, 500G	198947	09/30/2025	03/08/2021 / apatel	03/08/2021 / apatel	W2800

CHEMICAL RECEIPT LOG BOOK

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 #
SIGMA ALDRICH	S9390-100G / Sodium phosphate dibasic heptahydrate	SLCP6576	11/30/2025	04/03/2023 / lwona	04/03/2023 / lwona	W3016

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
SIGMA ALDRICH	C7902-500G / Calcium chloride dihydrate - 500G	SLCP4280	08/31/2025	04/03/2023 / lwona	04/03/2023 / lwona	W3017

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J2500-1 / MAGNESIUM SULFATE 7-HYDRATE CRYSTALS 500G	SLCN3621	12/31/2024	04/03/2023 / lwona	04/03/2023 / lwona	W3018

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Thermo Fisher Scientific	012364.36 / Calcium nitrate tetrahydrate, ACS, 99.0-103.0%	MKCS4612	09/30/2025	04/03/2023 / lwona	04/03/2023 / lwona	W3020

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
SIGMA ALDRICH	S4392-250G / Sodium metasilicate nonahydrate	SLCM8472	03/31/2025	04/05/2023 / lwona	04/05/2023 / lwona	W3022

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-SX0395-3 / SODIUM CARBONATE ANHYDR 2.5KG	2023012653	10/19/2028	09/03/2024 / jignesh	10/19/2023 / lwona	W3058

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

Certificate of Analysis



Date of Release: 5/12/2014

Product: Ammonium Chloride GR ACS

Catalog No.: AX1270 all
size codes

Grade: Meets ACS Specifications

CAS #: 12125-02-9

Country of Origin: India

FW: 53.49

Lot No.: XE09B



Characteristic	Requirement		Results	UOM
	Minimum	Maximum		
Assay (argentometric)	99.5		99.8	%
Calcium (Ca)		0.001	0.0001	%
Form	White crystals		White crystals	
Heavy metals (as Pb)		5	5	ppm
Identification	To pass test		Passes	
Insoluble matter		0.005	0.002	%
Iron (Fe)		2	2	ppm
Loss on drying (105 C)		0.5	0.22	%
Magnesium (Mg)		5	0.7	ppm
pH of a 5% solution at 25 C	4.5	5.5	4.95	
Phosphate (PO4)		2	2	ppm
Residue after ignition		0.01	0.002	%
Sulfate (SO4)		0.002	0.002	%

Joe Schoellkopf

Quality Control Manager

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

Sodium Bicarbonate, Powder
BAKER ANALYZED® A.C.S. Reagent

(sodium hydrogen carbonate)



Material No.: 3506-05
Batch No.: 0000240594
Manufactured Date: 2019/06/05
Retest Date: 2026/06/03
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay (NaHCO ₃) (dried basis)	99.7 – 100.3 %	100.1
Insoluble Matter	<= 0.015 %	< 0.002
Chloride (Cl)	<= 0.003 %	0.003
Phosphate (PO ₄)	<= 0.001 %	0.001
Sulfur Compounds (as SO ₄)	<= 0.003 %	0.003
Calcium (Ca)	<= 0.02 %	0.02
Trace Impurities – Iron (Fe)	<= 0.001 %	0.001
Magnesium (Mg)	<= 0.005 %	0.005
Potassium (K)	<= 0.005 %	0.005
Ammonium (NH ₄)	<= 5 ppm	5
Trace Impurities – ACS – Heavy Metals (as Pb)	<= 5 ppm	5

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

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


Jamie Ethier
Vice President Global Quality

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

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

W 3016
Rec 04/03/23 12

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Sodium phosphate dibasic heptahydrate - ACS reagent, 98.0-102.0%

Product Number: S9390
Batch Number: SLCP6576
Brand: SIGALD
CAS Number: 7782-85-6
MDL Number: MFCD00149180
Formula: $\text{HNa}_2\text{O}_4\text{P} \cdot 7\text{H}_2\text{O}$
Formula Weight: 268.07 g/mol
Quality Release Date: 02 NOV 2022
Recommended Retest Date: NOV 2025

 $\text{Na}_2\text{HPO}_4 \cdot 7\text{H}_2\text{O}$

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Assay	98.0 - 102.0 %	99.8 %
Insoluble Matter	≤ 0.005 %	0.003 %
Chloride (Cl)	Pass	Pass
< or = 0.001%		
Sulfate	Pass	Pass
< or = 0.005%		
Iron (Fe)	Pass	Pass
< or = 0.001%		
Heavy Metals	< = 0.001%	< 0.001%
by ICP		
pH	8.7 - 9.3	9.2
of 5% solution at 25 deg C		
Note		
ACS Tests		



Brian Dulle, Supervisor
Quality Assurance
St. Louis, Missouri US

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



W 3017
Rec 4/3/23 12

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Calcium chloride dihydrate - BioReagent, suitable for cell culture, suitable for insect cell culture, suitable for plant cell culture, $\geq 99.0\%$

Product Number: C7902

Batch Number: SLCP4280

 $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$

Brand: SIGMA

CAS Number: 10035-04-8

MDL Number: MFCD00149613

Formula: $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$

Formula Weight: 147.01 g/mol

Quality Release Date: 14 NOV 2022

Recommended Retest Date: AUG 2025

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity)	Clear	Clear
294 mg/mL, H ₂ O		
Titration with EDTA	99.0 - 105.0 %	103.3 %
Cell Culture Test	Pass	Pass
Insect Cell Test	Pass	Pass
Plant Cell Culture Test	Pass	Pass



Brian Dulle, Supervisor
Quality Assurance
St. Louis, Missouri US

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



W3018
Rec. 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Magnesium sulfate heptahydrate - ReagentPlus®, ≥99.0%

Product Number:

M1880

MgSO₄ · 7H₂O

Batch Number:

SLCN3621

Brand:

SIGALD

CAS Number:

10034-99-8

MDL Number:

MFCD00149785

Formula:

MgO4S · 7H2O

Formula Weight:

246.47 g/mol

Quality Release Date:

04 MAY 2022

Recommended Retest Date:

DEC 2024

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Crystals
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity)	Clear	Clear
100 mg/mL, H ₂ O		
Titration with EDTA	≥ 99.0 %	100.6 %



Brian Dulle, Supervisor

Quality Assurance

St. Louis, Missouri US

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



W 3020
Rec. 4/3/23

12

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Product Name:

Certificate of Analysis**Calcium nitrate tetrahydrate - ACS reagent, 99%**

Product Number: 237124
Batch Number: MKCS4612
Brand: SIGALD
CAS Number: 13477-34-4
MDL Number: MFCD00149604
Formula: $\text{CaN}_2\text{O}_6 \cdot 4\text{H}_2\text{O}$
Formula Weight: 236.15 g/mol
Quality Release Date: 27 FEB 2023
Recommended Retest Date: SEP 2025

 $\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Conforms to Requirements	Crystals
Granular Powder or Crystals or Flakes		
Complexometric EDTA	99.0 - 103.0 %	99.6 %
X-Ray Diffraction	Conforms to Structure	Conforms
pH	5.0 - 7.0	5.4
c = 5%, Water, 25 Deg C		
Insoluble Matter	$\leq 0.005 \%$	$< 0.001 \%$
c = 10%, Water		
Chloride Content	$\leq 0.005 \%$	$< 0.005 \%$
Nitrite (NO_2)	$\leq 0.001 \%$	$< 0.001 \%$
Sulfate (SO_4)	$\leq 0.002 \%$	$< 0.002 \%$
Barium	$\leq 0.005 \%$	$< 0.001 \%$
Heavy Metals	$\leq 5.0 \text{ ppm}$	$< 1.0 \text{ ppm}$
by ICP-OES		
Iron (Fe)	$\leq 5.0 \text{ ppm}$	$< 1.0 \text{ ppm}$
Magnesium (Mg)	$\leq 0.05 \%$	$< 0.01 \%$
Potassium (K)	$\leq 0.005 \%$	$< 0.001 \%$
Sodium (Na)	$\leq 0.01 \%$	$< 0.01 \%$
Strontium (Sr)	$\leq 0.05 \%$	$< 0.01 \%$
Meets ACS Requirements	Current ACS Specification	Conforms

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



W3020

Sigma-Aldrich

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 237124
Batch Number: MKCS4612

Test	Specification	Result
Recommended Retest Period 3 Years		



Larry Coers, Director
Quality Control
Milwaukee, WI US

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



W 3022

Rec. 4/5/23 12

3050 Spruce Street, Saint Louis, MO 63103, USA

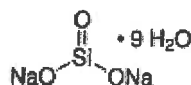
Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Sodium metasilicate nonahydrate - $\geq 98\%$

Product Number: S4392
Batch Number: SLCM8472
Brand: ALDRICH
CAS Number: 13517-24-3
MDL Number: MFCD00149175
Formula: $\text{Na}_2\text{O}_3\text{Si} \cdot 9\text{H}_2\text{O}$
Formula Weight: 284.20 g/mol
Quality Release Date: 14 MAR 2022
Recommended Retest Date: MAR 2025



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity)	Clear	Clear
50 mg/ml, H ₂ O		
Titration with HCl	$\geq 98\%$	100 %



Brian Dulle, Supervisor
Quality Assurance
St. Louis, Missouri US

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



Certificate Of Analysis



W 3058

Re. 10/19/23 12

Date of Release: 1/27/2023

Name: **Sodium Carbonate, Anhydrous**

Powder, ACS

Item No: **SX0395 All Sizes**

Lot / Batch No: **2023012653**

Country of Origin: **India**

Item	Specifications	Analysis
Assay (calculated on dried substance)	99.5% min.	100.2%
Calcium (Ca)	0.03% max.	0.004%
Chloride (Cl)	0.001% max.	<0.001%
Color	White	Passes Test
Form	Powder	Passes Test
Heavy metals (by ICP-OES)	5 ppm max.	<5 ppm
Insoluble Matter	0.01% max.	0.003%
Iron (Fe)	5 ppm max.	<5 ppm
Loss on heating at 285C	1.0% max.	0.1%
Magnesium (Mg)	0.005% max.	0.0008%
Phosphate (PO ₄)	0.001% max.	<0.001%
Potassium (K)	0.005% max.	0.003%
Silica (SiO ₂)	0.005% max.	<0.005%
Sulfur compounds (as SO ₄)	0.003% max.	<0.003%

Joe Schoellkopf

Quality Control Manager

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

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany

EMD Millipore Corporation

400 Summit Drive
Burlington, MA 01803
U.S.A.

Form number: 00005624CA, Rev. 2.0

Certificate of Analysis

1 Reagent Lane
 Fair Lawn, NJ 07410
 201.796.7100 tel
 201.796.1329 fax

Thermo 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	P217	Quality Test / Release Date	09/03/2020
Lot Number	198947		
Description	POTASSIUM CHLORIDE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Sep/2025
Chemical Origin	Inorganic-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	%	Inclusive Between 99.0 - 100.5	99.7
BARIUM (Ba)	PASS/FAIL	= P.T. (ABOUT 0.001%)	P.T. (ABOUT 0.001%)
BROMIDE	%	<= 0.01	<0.01
CALCIUM	%	<= 0.002	<0.002
CHLORATE & NITRATE	%	<= 0.003	<0.001
HEAVY METALS (as Pb)	ppm	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IODIDE	%	<= 0.002	<0.002
IRON (Fe)	ppm	<= 2	<1
MAGNESIUM	%	<= 0.001	<0.0005
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.4 - 8.6	6.0
PHOSPHATE (PO4)	ppm	<= 5	<5
SODIUM (Na)	%	<= 0.005	<0.005
SULFATE (SO4)	%	<= 0.001	<0.001



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.

Certificate of Analysis

ThermoFisher
SCIENTIFIC

Certificate of Analysis

1 Reagent Lane

Fair Lawn, NJ 07410

201.796.7100 tel

201.796.1329 fax

Thermo 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.

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent



M5497 - M5408
And on 4/14/23
063

Material No.: 3624-01

Batch No.: 0000281938

Manufactured Date: 2021-06-07

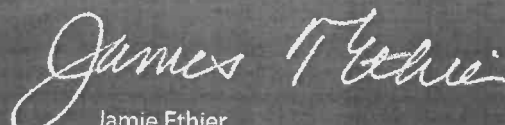
Retest Date: 2026-06-07

Revision No.: 2

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO ₃)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO ₄)	≤ 5 ppm	< 5 ppm
Sulfate (SO ₄)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory, Research, or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

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

Avantor Performance Materials, LLC

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

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™



Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H ₂ SO ₄)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO ₂)	≤ 2 ppm	< 2 ppm
Ammonium (NH ₄)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO ₃)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO ₄)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

 **avantor™**

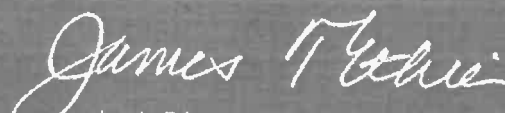


Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities – Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities – Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory, Research, or Manufacturing Use

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


Jamie Ethier
Vice President Global Quality



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

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.



SHIPPING DOCUMENTS



CHAIN OF CUSTODY RECORD

Omega CODID 3828

PAGE: 1 OF 2

ADDRESS
Summit Environmental
Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
FAX: (330) 253-4489
Website: <http://www.settek.com>

P5404

SUB CONTRACTOR: **Chemtech NJ** COMPANY: **Chemtech**

ADDRESS: **284 Sheffield St., Ste 1**

CITY, STATE, ZIP: **Mountainside, NJ 07092**

PHONE: **(908) 789-8900** FAX: EMAIL:

ACCOUNT #:

SPECIAL INSTRUCTIONS / COMMENTS:
Report to Holly Florea hlflorea@settek.com
PO: 24120422

EMAIL:

FAX:

PHONE:

ACCOUNT #:

ANALYTICAL PARAMETERS

TOC (SM5310)

NUMBER OF
CONTAINERS

DATE COLLECTED

MATRIX

Bottle Type

Client Sample ID

SAMPLE ID

ITEM #

COMMENTS
Methanol Preserved Weights
H01 Sample Notation
Additional Sample Description,
etc.

Composite 4 containers

Composite 4 containers

Relinquished By: **C. O.** Date: **12/30/24** Time: **10:40**

Relinquished By: Date: Time:

Relinquished By: Date: Time:

Received By: **CR** Date: **12-31-24** Time: **9:44**

Received By: Date: Time:

Received By: Date: Time:

TAT: Standard RUSH Next BD ☐ 2nd BD 3rd BD

Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED:

☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY

Temp of samples **19** °C Attempt to Cool?

Comments:

CHAIN OF CUSTODY RECORD

Omega COCID 3828

PAGE: 2 OF: 2

ADDRESS

**Summit Environmental
Technologies, Inc.**
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211
FAX: (330) 253-4489
Website: <http://www.settek.com>

P5404

SUB CONTRACTOR: **Chemtech NJ**
ADDRESS: **284 Sheffield St., Ste 1**
CITY, STATE, ZIP: **Mountainside, NJ 07092**
PHONE: **(908) 789-8900**
FAX: _____
EMAIL: _____
ACCOUNT #: _____

SPECIAL INSTRUCTIONS / COMMENTS:
Report to Holly Florea (hflorea@settek.com)
PO: 24120422

PHONE: (908) 789-8900		FAX:	EMAIL:			
ACCOUNT #:						
ITEM #	SAMPLE ID	Client Sample ID	Bottle Type	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS
13	24120422-01	244673	40ML-AMB-	Non-Potabl	7/6/2024 6:58:00 AM	1
14	24120422-01	244674	40ML-AMB-	Non-Potabl	7/6/2024 7:29:00 AM	1
15	24120422-01	244675	40ML-AMB-	Non-Potabl	7/8/2024 12:57:00 PM	1
16	24120422-01	244676	40ML-AMB-	Non-Potabl	7/8/2024 12:43:00 PM	1
17	24120422-01	244677	40ML-AMB-	Non-Potabl	7/16/2024 10:11:00 AM	1
18	24120422-01	244678	40ML-AMB-	Non-Potabl	8/16/2024 9:55:00 AM	1
19	24120422-01	244679	40ML-AMB-	Non-Potabl	7/24/2024 11:55:00 AM	1
20	24120422-02	244680	40ML-AMB-	Non-Potabl	11/5/2024 6:17:00 AM	1

COMMENTS
Methanol Preserved Weights
HOT Sample Notation
Additional Sample Description,
etc.

Relinquished By: 	Date: 12/31/24	Time: 10:40	Received By: 	Date: 12-31-24	Time: 9:46
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAT: ☐ Standard ☒ RUSH

Next BD ☐ 2nd BD ☐ 3rd BD

Note: RUSH requests will incur surcharge!



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

Laboratory Certification

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