

June 05, 2025

Revised Report

## CTEH - ER

Sample Delivery Group: L1852811  
Samples Received: 04/29/2025  
Project Number: PROJ-054017  
Description: Bishop Loss of Containment Incident

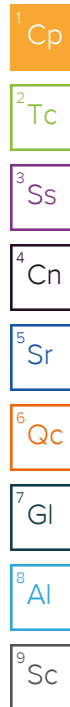
Report To: CTEH  
5120 North Shore Drive  
North Little Rock, AR 72118

Entire Report Reviewed By:



Jared Starkey  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



**Pace Analytical National**

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<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

# SAMPLE SUMMARY

GACO0428W005 L1852811-01

Collected by  
Jadelin Morrow

Collected date/time  
04/28/25 07:34

Received date/time  
04/29/25 11:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2509294	1	05/09/25 15:53	05/09/25 15:53	KMB	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2503173	1	04/30/25 12:53	04/30/25 14:54	MDD	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 D-2020	WG2502360	1	04/29/25 15:04	04/29/25 17:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 130.1	WG2506065	5	05/05/25 11:30	05/06/25 15:34	CAT	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2504056	1	04/30/25 20:50	04/30/25 20:50	BJM	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2502340	5	04/30/25 00:19	04/30/25 00:19	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2502340	50	04/30/25 03:40	04/30/25 03:40	DLH	Mt. Juliet, TN
Wet Chemistry by Method 351.2	WG2509294	1	05/07/25 14:44	05/09/25 15:53	KMB	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG2508417	1	05/06/25 07:49	05/08/25 14:01	AEC	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2014	WG2502293	1	04/30/25 01:22	04/30/25 01:22	ASH	Mt. Juliet, TN
Wet Chemistry by Method 5540 C-2011	WG2502774	1	04/29/25 15:12	04/29/25 22:41	JEG	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2502688	1	04/30/25 02:54	04/30/25 02:54	VSS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506585	1	05/05/25 13:57	05/05/25 21:15	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2507721	1	05/06/25 23:41	05/07/25 03:46	JDB	Mt. Juliet, TN

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jared Starkey  
Project Manager

## Report Revision History

Level II Report - Version 1: 05/13/25 16:49

## Project Comments

Removed -02

## Wet Chemistry by Method 130.1

The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

Batch	Lab Sample ID	Analytes
WG2506065	(MS) R4210553-3	Hardness (colorimetric) as CaCO <sub>3</sub>
WG2506065	(MSD) R4210553-4	Hardness (colorimetric) as CaCO <sub>3</sub>

## Wet Chemistry by Method 300.0

The sample matrix interfered with the ability to make any accurate determination; spike value is high.

Batch	Lab Sample ID	Analytes
WG2502340	(MS) R4207733-6, (MSD) R4207733-7	Bromide, Fluoride, Nitrite as (N) and Sulfate

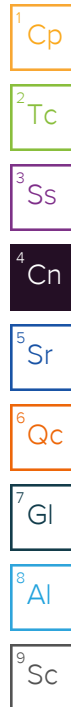
The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG2502340	(MS) R4207733-6, (MSD) R4207733-7	Chloride and Nitrate as (N)

## Wet Chemistry by Method 351.2

The sample matrix interfered with the ability to make any accurate determination; spike value is high.

Batch	Lab Sample ID	Analytes
WG2509294	(MS) R4212469-5, (MSD) R4212469-6	Kjeldahl Nitrogen, TKN



# CASE NARRATIVE

## Wet Chemistry by Method 365.4

RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Batch	Lab Sample ID	Analytes
WG2508417	(DUP) R4211768-6, L1852811-01	Phosphorus, Total

## Wet Chemistry by Method 5310 B-2014

The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG2502293	(MS) R4207356-3	TOC (Total Organic Carbon)

## Metals (ICPMS) by Method 6020B

The sample concentration is too high to evaluate accurate spike recoveries.

Batch	Lab Sample ID	Analytes
WG2507721	(MS) R4211011-4	Sodium

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Total Nitrogen	6630		250	1	05/09/2025 15:53	<a href="#">WG2509294</a>

## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	3510000		50000	1	04/30/2025 14:54	<a href="#">WG2503173</a>

## Gravimetric Analysis by Method 2540 D-2020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Suspended Solids	8500		2500	1	04/29/2025 17:11	<a href="#">WG2502360</a>

## Wet Chemistry by Method 130.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (colorimetric) as CaCO3	1690000		150000	5	05/06/2025 15:34	<a href="#">WG2506065</a>

## Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	564000		20000	1	04/30/2025 20:50	<a href="#">WG2504056</a>

## Sample Narrative:

L1852811-01 WG2504056: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Bromide	ND		5000	5	04/30/2025 00:19	<a href="#">WG2502340</a>
Chloride	141000		5000	5	04/30/2025 00:19	<a href="#">WG2502340</a>
Fluoride	1220		750	5	04/30/2025 00:19	<a href="#">WG2502340</a>
Nitrate as (N)	4300		500	5	04/30/2025 00:19	<a href="#">WG2502340</a>
Nitrite as (N)	ND		500	5	04/30/2025 00:19	<a href="#">WG2502340</a>
Sulfate	1610000		250000	50	04/30/2025 03:40	<a href="#">WG2502340</a>

## Sample Narrative:

L1852811-01 WG2502340: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 351.2

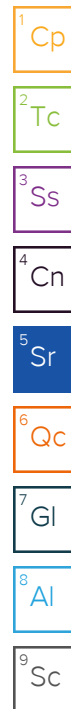
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	2330		250	1	05/09/2025 15:53	<a href="#">WG2509294</a>

## Wet Chemistry by Method 365.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Phosphorus, Total	268	<a href="#">P1</a>	100	1	05/08/2025 14:01	<a href="#">WG2508417</a>

## Wet Chemistry by Method 5310 B-2014

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	22600		1000	1	04/30/2025 01:22	<a href="#">WG2502293</a>



## Wet Chemistry by Method 5540 C-2011

Analyte	Result ug/l	<u>Qualifier</u>	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
MBAS	177		100	1	04/29/2025 22:41	<a href="#">WG2502774</a>

## Wet Chemistry by Method 7199

Analyte	Result ug/l	<u>Qualifier</u>	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Hexavalent Chromium	ND		5.00	1	04/30/2025 02:54	<a href="#">WG2502688</a>

## Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	<u>Qualifier</u>	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Cadmium,Dissolved	ND		1.00	1	05/05/2025 21:15	<a href="#">WG2506585</a>
Calcium	347000		1000	1	05/07/2025 03:46	<a href="#">WG2507721</a>
Iron	140		100	1	05/07/2025 03:46	<a href="#">WG2507721</a>
Lead,Dissolved	ND		2.00	1	05/05/2025 21:15	<a href="#">WG2506585</a>
Magnesium	198000		1000	1	05/07/2025 03:46	<a href="#">WG2507721</a>
Manganese	1620		5.00	1	05/07/2025 03:46	<a href="#">WG2507721</a>
Manganese,Dissolved	1460		5.00	1	05/05/2025 21:15	<a href="#">WG2506585</a>
Nickel,Dissolved	8.17		2.00	1	05/05/2025 21:15	<a href="#">WG2506585</a>
Potassium	14900		2000	1	05/07/2025 03:46	<a href="#">WG2507721</a>
Sodium	349000		2000	1	05/07/2025 03:46	<a href="#">WG2507721</a>
Zinc,Dissolved	ND		25.0	1	05/05/2025 21:15	<a href="#">WG2506585</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4209207-1 04/30/25 14:54

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Dissolved Solids	U		10000	10000

L1852805-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852805-01 04/30/25 14:54 • (DUP) R4209207-3 04/30/25 14:54

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	3300000	3300000	1	0.000		10

L1853073-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1853073-04 04/30/25 14:54 • (DUP) R4209207-4 04/30/25 14:54

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	176000	180000	1	2.25		10

Laboratory Control Sample (LCS)

(LCS) R4209207-2 04/30/25 14:54

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8620000	98.0	90.0-110	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R4207669-1 04/29/25 17:11

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Suspended Solids	U		283	2500

L1852717-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852717-01 04/29/25 17:11 • (DUP) R4207669-3 04/29/25 17:11

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Suspended Solids	58000	53200	1	8.63		10

L1852717-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1852717-02 04/29/25 17:11 • (DUP) R4207669-4 04/29/25 17:11

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Suspended Solids	36000	36400	1	1.10		10

Laboratory Control Sample (LCS)

(LCS) R4207669-2 04/29/25 17:11

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Suspended Solids	773000	798000	103	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4210553-1 05/06/25 14:58

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hardness (colorimetric) as CaCO3	U		10600	30000

Laboratory Control Sample (LCS)

(LCS) R4210553-2 05/06/25 15:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hardness (colorimetric) as CaCO3	200000	198000	99.0	85.0-115	

L1852547-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852547-01 05/06/25 15:18 • (MS) R4210553-3 05/06/25 15:19 • (MSD) R4210553-4 05/06/25 15:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hardness (colorimetric) as CaCO3	1000000	1470000	2410000	2420000	93.5	95.0	5	80.0-120	E	E	0.622	20

1

Cp

2

Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

Method Blank (MB)

(MB) R4207915-2 04/30/25 19:50

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Alkalinity	U		4750	20000

Sample Narrative:  
BLANK: Endpoint pH 4.5

L1852805-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1852805-02 04/30/25 20:35 • (DUP) R4207915-3 04/30/25 20:39

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Alkalinity	358000	357000	1	0.357		20

Sample Narrative:  
OS: Endpoint pH 4.5 Headspace  
DUP: Endpoint pH 4.5 Headspace

Laboratory Control Sample (LCS)

(LCS) R4207915-1 04/30/25 19:44

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Alkalinity	100000	101000	101	90.0-110	

Sample Narrative:  
LCS: Endpoint pH 4.5

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4207733-1 04/29/25 18:59

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Bromide	U		680	1000
Chloride	U		547	1000
Fluoride	U		76.1	150
Nitrate as (N)	U		88.4	100
Nitrite as (N)	U		79.4	100
Sulfate	U		637	5000

L1852621-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852621-01 04/29/25 19:26 • (DUP) R4207733-3 04/29/25 19:40

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	ND	ND	1	0.000		15
Chloride	17600	17800	1	1.08		15
Fluoride	706	741	1	4.84		15
Nitrate as (N)	ND	ND	1	0.000		15
Nitrite as (N)	ND	ND	1	0.000		15
Sulfate	10600	10700	1	1.30		15

L1852734-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1852734-02 04/29/25 20:33 • (DUP) R4207733-5 04/29/25 20:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	ND	ND	100	0.000		15
Chloride	ND	ND	100	0.000		15
Fluoride	ND	ND	100	0.000		15
Nitrate as (N)	ND	ND	100	0.000		15
Nitrite as (N)	ND	ND	100	0.000		15
Sulfate	ND	ND	100	0.000		15

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R4207733-2 04/29/25 19:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromide	40000	39500	98.8	90.0-110	
Chloride	40000	39000	97.5	90.0-110	
Fluoride	8000	8130	102	90.0-110	
Nitrate as (N)	8000	8080	101	90.0-110	
Nitrite as (N)	8000	8110	101	90.0-110	
Sulfate	40000	39800	99.4	90.0-110	

L1852621-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1852621-01 04/29/25 19:26 • (MS) R4207733-4 04/29/25 19:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Bromide	40000	ND	38500	96.2	1	90.0-110	
Chloride	40000	17600	53600	90.0	1	90.0-110	
Fluoride	8000	706	9140	105	1	90.0-110	
Nitrate as (N)	8000	ND	8170	102	1	90.0-110	
Nitrite as (N)	8000	ND	8320	104	1	90.0-110	
Sulfate	40000	10600	49000	96.2	1	90.0-110	

L1852734-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852734-02 04/29/25 20:33 • (MS) R4207733-6 04/29/25 21:03 • (MSD) R4207733-7 04/29/25 21:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Bromide	40000	ND	ND	ND	175	176	100	90.0-110	J5	J5	0.769	15
Chloride	40000	ND	ND	ND	0.000	0.000	100	90.0-110	J6	J6	0.000	15
Fluoride	8000	ND	ND	ND	118	122	100	90.0-110	J5	J5	3.11	15
Nitrate as (N)	8000	ND	ND	ND	0.000	0.000	100	90.0-110	J6	J6	0.000	15
Nitrite as (N)	8000	ND	10100	10100	126	126	100	90.0-110	J5	J5	0.0736	15
Sulfate	40000	ND	ND	ND	197	203	100	90.0-110	J5	J5	2.71	15

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Method Blank (MB)

(MB) R4212469-1 05/09/25 15:44

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Kjeldahl Nitrogen, TKN	U		131	250

L1855776-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1855776-01 05/09/25 16:03 • (DUP) R4212469-7 05/09/25 16:04

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Kjeldahl Nitrogen, TKN	1620	1680	1	3.23		20

L1855776-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1855776-05 05/09/25 16:05 • (DUP) R4212469-8 05/09/25 16:07

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Kjeldahl Nitrogen, TKN	1640	1930	1	16.2		20

Laboratory Control Sample (LCS)

(LCS) R4212469-2 05/09/25 15:45

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Kjeldahl Nitrogen, TKN	4000	3960	99.1	90.0-110	

L1852805-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1852805-02 05/09/25 15:50 • (MS) R4212469-3 05/09/25 15:51

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Kjeldahl Nitrogen, TKN	5000	1600	6530	98.7	1	90.0-110	

L1855732-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855732-01 05/09/25 15:55 • (MS) R4212469-5 05/09/25 15:56 • (MSD) R4212469-6 05/09/25 15:57

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Kjeldahl Nitrogen, TKN	5000	ND	5780	5600	116	112	1	90.0-110	J5	J5	3.15	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4211768-1 05/08/25 13:50

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Phosphorus,Total	U		64.2	100

L1852805-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1852805-02 05/08/25 13:58 • (DUP) R4211768-5 05/08/25 13:59

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Phosphorus,Total	151	124	1	19.6		20

L1852811-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852811-01 05/08/25 14:01 • (DUP) R4211768-6 05/08/25 14:02

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Phosphorus,Total	268	188	1	35.1	P1	20

Laboratory Control Sample (LCS)

(LCS) R4211768-2 05/08/25 13:52

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Phosphorus,Total	2540	2460	96.9	85.0-115	

L1852805-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852805-01 05/08/25 13:54 • (MS) R4211768-3 05/08/25 13:56 • (MSD) R4211768-4 05/08/25 13:57

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Phosphorus,Total	2500	127	2560	2670	97.3	102	1	90.0-110			4.21	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4207356-2 04/29/25 11:50

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
TOC (Total Organic Carbon)	U		495	1000

L1851683-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1851683-01 04/29/25 17:36 • (DUP) R4207356-5 04/29/25 17:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOC (Total Organic Carbon)	4920	4830	1	1.89		20

L1852621-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1852621-02 04/29/25 22:54 • (DUP) R4207356-8 04/29/25 23:17

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOC (Total Organic Carbon)	9890	9890	1	0.0404		20

Laboratory Control Sample (LCS)

(LCS) R4207356-1 04/29/25 11:32

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
TOC (Total Organic Carbon)	25000	24100	96.2	80.0-120	

L1850405-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1850405-01 04/29/25 16:29 • (MS) R4207356-3 04/29/25 16:52 • (MSD) R4207356-4 04/29/25 17:16

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
TOC (Total Organic Carbon)	25000	11300	26600	32000	61.4	82.8	1	75.0-125	J6		18.3	20

L1852621-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852621-01 04/29/25 21:43 • (MS) R4207356-6 04/29/25 22:07 • (MSD) R4207356-7 04/29/25 22:31

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
TOC (Total Organic Carbon)	25000	3800	28500	28500	98.9	98.7	1	75.0-125			0.211	20





Method Blank (MB)

(MB) R4207252-1 04/29/25 22:35

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
MBAS	U		19.0	100

L1852805-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1852805-02 04/29/25 22:40 • (DUP) R4207252-3 04/29/25 22:41

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
MBAS	141	142	1	0.707		20

L1852817-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1852817-02 04/29/25 22:46 • (DUP) R4207252-6 04/29/25 22:47

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
MBAS	ND	ND	1	1.20		20

Laboratory Control Sample (LCS)

(LCS) R4207252-2 04/29/25 22:36

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
MBAS	1000	1040	104	85.0-115	

L1852814-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852814-02 04/29/25 22:42 • (MS) R4207252-4 04/29/25 22:44 • (MSD) R4207252-5 04/29/25 22:45

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
MBAS	1000	ND	931	927	93.1	92.7	1	85.0-115			0.431	20

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Method Blank (MB)

(MB) R4207336-1 04/29/25 23:59

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Hexavalent Chromium	U		0.100	5.00

L1852685-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852685-01 04/30/25 00:33 • (DUP) R4207336-3 04/30/25 00:42

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Hexavalent Chromium	ND	ND	1	0.000		20

L1852938-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852938-01 04/30/25 05:01 • (DUP) R4207336-7 04/30/25 05:11

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Hexavalent Chromium	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4207336-2 04/30/25 00:22

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Hexavalent Chromium	2.00	2.01	101	90.0-110	

L1852685-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852685-03 04/30/25 01:02 • (MS) R4207336-4 04/30/25 01:12 • (MSD) R4207336-5 04/30/25 01:21

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Hexavalent Chromium	50.0	ND	49.3	49.1	98.5	98.1	1	90.0-110			0.403	20

L1852685-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1852685-05 04/30/25 01:41 • (MS) R4207336-6 04/30/25 02:15

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Hexavalent Chromium	50.0	ND	49.3	98.6	1	90.0-110	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4210087-1 05/05/25 19:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Cadmium,Dissolved	U		0.120	1.00
Lead,Dissolved	U		0.500	2.00
Manganese,Dissolved	U		0.700	5.00
Nickel,Dissolved	U		0.500	2.00
Zinc,Dissolved	U		4.00	25.0

Laboratory Control Sample (LCS)

(LCS) R4210087-2 05/05/25 19:46

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cadmium,Dissolved	50.0	49.8	99.5	80.0-120	
Lead,Dissolved	50.0	48.5	97.1	80.0-120	
Manganese,Dissolved	50.0	50.4	101	80.0-120	
Nickel,Dissolved	50.0	50.8	102	80.0-120	
Zinc,Dissolved	50.0	53.6	107	80.0-120	

L1852547-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852547-01 05/05/25 19:50 • (MS) R4210087-4 05/05/25 19:56 • (MSD) R4210087-5 05/05/25 20:00

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cadmium,Dissolved	50.0	ND	50.3	50.1	101	100	1	75.0-125			0.421	20
Lead,Dissolved	50.0	ND	50.5	51.9	101	104	1	75.0-125			2.82	20
Manganese,Dissolved	50.0	764	803	807	77.2	86.6	1	75.0-125			0.586	20
Nickel,Dissolved	50.0	4.14	53.9	54.0	99.4	99.8	1	75.0-125			0.301	20
Zinc,Dissolved	50.0	ND	57.3	55.3	115	111	1	75.0-125			3.53	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R4211011-1 05/07/25 03:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Calcium	U		92.5	1000
Iron	U		22.6	100
Magnesium	U		82.7	1000
Manganese	U		0.700	5.00
Potassium	U		96.5	2000
Sodium	U		142	2000

1Cp

2Tc

3Ss

4Cn

5Sr

Laboratory Control Sample (LCS)

(LCS) R4211011-2 05/07/25 03:21

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Calcium	5000	4930	98.5	80.0-120	
Iron	1000	961	96.1	80.0-120	
Magnesium	5000	4780	95.6	80.0-120	
Manganese	50.0	49.3	98.6	80.0-120	
Potassium	5000	4760	95.2	80.0-120	
Sodium	5000	4940	98.9	80.0-120	

6Qc

7Gl

8Al

9Sc

L1852734-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852734-10 05/07/25 03:24 • (MS) R4211011-4 05/07/25 03:30 • (MSD) R4211011-5 05/07/25 03:33

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Calcium	5000	61200	66500	65200	106	80.5	1	75.0-125			1.93	20
Iron	1000	ND	958	958	95.8	95.8	1	75.0-125			0.0257	20
Magnesium	5000	39700	45300	44100	112	88.5	1	75.0-125			2.60	20
Manganese	50.0	ND	49.9	49.2	98.4	96.9	1	75.0-125			1.48	20
Potassium	5000	2700	7500	7430	96.0	94.6	1	75.0-125			0.948	20
Sodium	5000	27800	34600	32600	137	97.2	1	75.0-125	V		5.92	20

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

## Qualifier Description

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

# ACCREDITATIONS & LOCATIONS

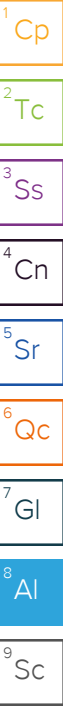
## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122


Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1 6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1 4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: <b>CTEH - ER</b>  5120 North Shore Drive North Little Rock, AR 72118			Billing Information: <b>Accounts Payable</b> 10700 Prarie Lakes Drive Eden Prairie, MN 55344			Pres Chk	Analysis / Container / Preservative										Chain of Custody Page 1 of 1		
Report to: <b>CTEH 501-801-8500</b>			Email To: labresults@cteh.com; kylelawrence@cteh.com; ecatlin@cteh.com; ahenault@cteh.com; tmcnullin@cteh.com; mklinkerman@cteh.com														 PEOPLE ADVANCING SCIENCE <b>MT JULIET, TN</b> 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <a href="https://info.pacelabs.com/hubfs/pas-standard-terms.pdf">https://info.pacelabs.com/hubfs/pas-standard-terms.pdf</a>		
Project Description: <b>Bishop Loss of Containment Incident</b>			City/State Collected: <b>Galeton, CO</b>		Please Circle: PT MT CT ET														
Regulatory Program (COC,RCRA,DW,etc):		Client Project # <b>PROJ-054017</b>		Lab Project # <b>CTEHER-054017</b>															
Collected by (print): <i>Jadein Morrow</i>		Site/Facility ID #		P.O. #															
Collected by (signature): <i>Jadein Morrow</i>		Rush? (Lab MUST Be Notified) Same Day <input checked="" type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day <input type="checkbox"/> STD TaT <input type="checkbox"/>		Quote #															
Immediately																			
Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>																			
Sample ID		Comp/Grab	Matrix*	Depth	Date	Time	Cntrs	* Anions / Alkalinity 250ml HDPE-NoPres	CR6ICFP 50mlTube/plungerPres	Cations / Hardness 250ml HDPE-HNO3	Diss. Metals 200.8 250ml HDPE-HNO3	MBAS 500ml HDPE-NoPres	PT,TKN 250ml HDPE-H2SO4	RA-226, RA-228, KPA-U 1L-HDPE-Add-HNO3	TDS 1L-HDPE NoPres	TOC 250ml Amb-HCI	TSS 1L-HDPE NoPres	Acctnum: <b>CTEHER</b> Template: <b>T271979</b> Prelogin: <b>P1144451</b> PM: <b>546 - Jared Starkey</b> PB:	
GACO0428W005		G	SW	-	4/28/2025	0734	9	X	X	X	X	X	X	-	X	X	X	Remarks	
GACO0428W005MS		G	SW	-	4/28/2025	0734	9	X	X	X	X	X	X	-	X	X	X	Sample # (lab only)	
			</																