

CTEH - ER

Sample Delivery Group: L1857553
Samples Received: 05/10/2025
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

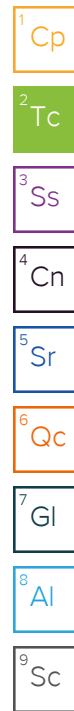
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Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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SAMPLE SUMMARY

GACO0509T017S001 L1857553-01

Collected by: Kaitlin Wykoff
 Collected date/time: 05/09/25 13:15
 Received date/time: 05/10/25 11:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2512150	1	05/10/25 17:18	05/12/25 11:45	KMB	Mt. Juliet, TN
Total Solids by Method 2540 G-2011	WG2512122	1	05/10/25 15:39	05/10/25 15:49	CMB	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2512304	1	05/12/25 00:21	05/12/25 01:45	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500NOrg D-2021	WG2512302	5	05/11/25 20:34	05/12/25 11:45	KMB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2512150	1.03	05/10/25 17:18	05/11/25 01:03	AJC	Mt. Juliet, TN
Wet Chemistry by Method WALKLEY-BLACK	WG2512163	6	05/13/25 09:00	05/13/25 17:10	PAN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2512143	1	05/10/25 16:01	05/10/25 22:21	BAG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2512079	1	05/10/25 14:01	05/10/25 19:12	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2512029	2	05/10/25 17:58	05/11/25 07:44	LS	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 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



Wet Chemistry by Method 4500NOrg D-2021

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

Batch	Lab Sample ID	Analytes
WG2512302	(MS) R4213296-10	Kjeldahl Nitrogen, TKN

Metals (ICP) by Method 6010D

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

Batch	Lab Sample ID	Analytes
WG2512143	(MS) R4212889-5	Aluminum

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

Batch	Lab Sample ID	Analytes
WG2512143	(MS) R4212889-5, (MSD) R4212889-6	Aluminum, Antimony and Manganese

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

Batch	Lab Sample ID	Analytes
WG2512143	(MS) R4212889-5, (MSD) R4212889-6	Iron

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2512143	(MSD) R4212889-6	Aluminum and Iron

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.

Batch	Lab Sample ID	Analytes
WG2512029	L1857553-01	2,2-Oxybis(1-Chloropropane), 2,4-Dimethylphenol and Bis(2-chloroethyl)ether

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

Batch	Lab Sample ID	Analytes
WG2512029	(MS) R4212988-3, (MSD) R4212988-4	Hexachlorocyclopentadiene

Calculated Results

Analyte	Result (dry) ug/kg	Qualifier	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Total Nitrogen	2450000		24900	1	05/12/2025 11:45	WG2512150

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
Total Solids	82.8			1	05/10/2025 15:49	WG2512122

Wet Chemistry by Method 350.1

Analyte	Result (dry) ug/kg	Qualifier	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	ND		12100	1	05/12/2025 01:45	WG2512304

Wet Chemistry by Method 4500NOrg D-2021

Analyte	Result (dry) ug/kg	Qualifier	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	2420000		121000	5	05/12/2025 11:45	WG2512302

Wet Chemistry by Method 9056A

Analyte	Result (dry) ug/kg	Qualifier	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	28600		24900	1.03	05/11/2025 01:03	WG2512150

Wet Chemistry by Method WALKLEY-BLACK

Analyte	Result ug/kg	Qualifier	RDL ug/kg	Dilution	Analysis date / time	Batch
TOC By Walkley Black	33600000		600000	6	05/13/2025 17:10	WG2512163

Metals (ICP) by Method 6010D

Analyte	Result (dry) ug/kg	Qualifier	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Aluminum	3000000		24100	1	05/10/2025 22:21	WG2512143
Antimony	ND		2410	1	05/10/2025 22:21	WG2512143
Beryllium	412		241	1	05/10/2025 22:21	WG2512143
Calcium	11300000		121000	1	05/10/2025 22:21	WG2512143
Cobalt	3650		1210	1	05/10/2025 22:21	WG2512143
Iron	5090000		12100	1	05/10/2025 22:21	WG2512143
Magnesium	1810000		121000	1	05/10/2025 22:21	WG2512143
Manganese	211000		1210	1	05/10/2025 22:21	WG2512143
Potassium	1880000		121000	1	05/10/2025 22:21	WG2512143
Sodium	ND		121000	1	05/10/2025 22:21	WG2512143
Thallium	ND		2410	1	05/10/2025 22:21	WG2512143
Vanadium	10100		2410	1	05/10/2025 22:21	WG2512143

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) ug/kg	Qualifier	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acetone	ND		70.8	1	05/10/2025 19:12	WG2512079
Acrylonitrile	ND		17.7	1	05/10/2025 19:12	WG2512079
Bromobenzene	ND		17.7	1	05/10/2025 19:12	WG2512079
Bromodichloromethane	ND		3.54	1	05/10/2025 19:12	WG2512079
Bromoform	ND		35.4	1	05/10/2025 19:12	WG2512079
Bromomethane	ND		17.7	1	05/10/2025 19:12	WG2512079

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) ug/kg	Qualifier	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
n-Butylbenzene	ND		17.7	1	05/10/2025 19:12	WG2512079
sec-Butylbenzene	ND		17.7	1	05/10/2025 19:12	WG2512079
tert-Butylbenzene	ND		7.08	1	05/10/2025 19:12	WG2512079
Carbon tetrachloride	ND		7.08	1	05/10/2025 19:12	WG2512079
Chlorobenzene	ND		3.54	1	05/10/2025 19:12	WG2512079
Chlorodibromomethane	ND		3.54	1	05/10/2025 19:12	WG2512079
Chloroethane	ND		7.08	1	05/10/2025 19:12	WG2512079
Chloroform	ND		3.54	1	05/10/2025 19:12	WG2512079
Chloromethane	ND		17.7	1	05/10/2025 19:12	WG2512079
2-Chlorotoluene	ND		3.54	1	05/10/2025 19:12	WG2512079
4-Chlorotoluene	ND		7.08	1	05/10/2025 19:12	WG2512079
1,2-Dibromo-3-Chloropropane	ND		35.4	1	05/10/2025 19:12	WG2512079
1,2-Dibromoethane	ND		3.54	1	05/10/2025 19:12	WG2512079
Dibromomethane	ND		7.08	1	05/10/2025 19:12	WG2512079
1,2-Dichlorobenzene	ND		7.08	1	05/10/2025 19:12	WG2512079
1,3-Dichlorobenzene	ND		7.08	1	05/10/2025 19:12	WG2512079
1,4-Dichlorobenzene	ND		7.08	1	05/10/2025 19:12	WG2512079
Dichlorodifluoromethane	ND		7.08	1	05/10/2025 19:12	WG2512079
1,1-Dichloroethane	ND		3.54	1	05/10/2025 19:12	WG2512079
1,2-Dichloroethane	ND		3.54	1	05/10/2025 19:12	WG2512079
1,1-Dichloroethene	ND		3.54	1	05/10/2025 19:12	WG2512079
cis-1,2-Dichloroethene	ND		3.54	1	05/10/2025 19:12	WG2512079
trans-1,2-Dichloroethene	ND		7.08	1	05/10/2025 19:12	WG2512079
1,2-Dichloropropane	ND		7.08	1	05/10/2025 19:12	WG2512079
1,1-Dichloropropene	ND		3.54	1	05/10/2025 19:12	WG2512079
1,3-Dichloropropane	ND		7.08	1	05/10/2025 19:12	WG2512079
cis-1,3-Dichloropropene	ND		3.54	1	05/10/2025 19:12	WG2512079
trans-1,3-Dichloropropene	ND		7.08	1	05/10/2025 19:12	WG2512079
2,2-Dichloropropane	ND		3.54	1	05/10/2025 19:12	WG2512079
Di-isopropyl ether	ND		1.42	1	05/10/2025 19:12	WG2512079
Hexachloro-1,3-butadiene	ND		35.4	1	05/10/2025 19:12	WG2512079
Isopropylbenzene	ND		3.54	1	05/10/2025 19:12	WG2512079
p-Isopropyltoluene	ND		7.08	1	05/10/2025 19:12	WG2512079
2-Butanone (MEK)	ND		142	1	05/10/2025 19:12	WG2512079
Methylene Chloride	ND		35.4	1	05/10/2025 19:12	WG2512079
4-Methyl-2-pentanone (MIBK)	ND		35.4	1	05/10/2025 19:12	WG2512079
Methyl tert-butyl ether	ND		1.42	1	05/10/2025 19:12	WG2512079
n-Propylbenzene	ND		7.08	1	05/10/2025 19:12	WG2512079
Styrene	ND		17.7	1	05/10/2025 19:12	WG2512079
1,1,1,2-Tetrachloroethane	ND		3.54	1	05/10/2025 19:12	WG2512079
1,1,2,2-Tetrachloroethane	ND		3.54	1	05/10/2025 19:12	WG2512079
1,1,2-Trichlorotrifluoroethane	ND		3.54	1	05/10/2025 19:12	WG2512079
Tetrachloroethene	ND		3.54	1	05/10/2025 19:12	WG2512079
1,2,3-Trichlorobenzene	ND		17.7	1	05/10/2025 19:12	WG2512079
1,2,4-Trichlorobenzene	ND		17.7	1	05/10/2025 19:12	WG2512079
1,1,1-Trichloroethane	ND		3.54	1	05/10/2025 19:12	WG2512079
1,1,2-Trichloroethane	ND		3.54	1	05/10/2025 19:12	WG2512079
Trichloroethene	ND		1.42	1	05/10/2025 19:12	WG2512079
Trichlorofluoromethane	ND		3.54	1	05/10/2025 19:12	WG2512079
1,2,3-Trichloropropane	ND		17.7	1	05/10/2025 19:12	WG2512079
1,2,3-Trimethylbenzene	ND		7.08	1	05/10/2025 19:12	WG2512079
Vinyl chloride	ND		3.54	1	05/10/2025 19:12	WG2512079
(S) Toluene-d8	109		75.0-131		05/10/2025 19:12	WG2512079
(S) 4-Bromofluorobenzene	94.8		67.0-138		05/10/2025 19:12	WG2512079
(S) 1,2-Dichloroethane-d4	96.1		70.0-130		05/10/2025 19:12	WG2512079

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	Result (dry) ug/kg	Qualifier	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acenaphthylene	ND		80.4	2	05/11/2025 07:44	WG2512029
Benzdine	ND		4030	2	05/11/2025 07:44	WG2512029
Benzo(g,h,i)perylene	ND		80.4	2	05/11/2025 07:44	WG2512029
Bis(2-chloroethoxy)methane	ND		804	2	05/11/2025 07:44	WG2512029
Bis(2-chloroethyl)ether	ND	C3	804	2	05/11/2025 07:44	WG2512029
2,2-Oxybis(1-Chloropropane)	ND	C3	804	2	05/11/2025 07:44	WG2512029
4-Bromophenyl-phenylether	ND		804	2	05/11/2025 07:44	WG2512029
2-Chloronaphthalene	ND		80.4	2	05/11/2025 07:44	WG2512029
4-Chlorophenyl-phenylether	ND		804	2	05/11/2025 07:44	WG2512029
1,2-Dichlorobenzene	ND		804	2	05/11/2025 07:44	WG2512029
1,3-Dichlorobenzene	ND		804	2	05/11/2025 07:44	WG2512029
1,4-Dichlorobenzene	ND		804	2	05/11/2025 07:44	WG2512029
3,3-Dichlorobenzidine	ND		804	2	05/11/2025 07:44	WG2512029
2,4-Dinitrotoluene	ND		804	2	05/11/2025 07:44	WG2512029
2,6-Dinitrotoluene	ND		804	2	05/11/2025 07:44	WG2512029
Hexachlorobenzene	ND		804	2	05/11/2025 07:44	WG2512029
Hexachloro-1,3-butadiene	ND		804	2	05/11/2025 07:44	WG2512029
Hexachlorocyclopentadiene	ND		804	2	05/11/2025 07:44	WG2512029
Hexachloroethane	ND		804	2	05/11/2025 07:44	WG2512029
Isophorone	ND		804	2	05/11/2025 07:44	WG2512029
Nitrobenzene	ND		804	2	05/11/2025 07:44	WG2512029
n-Nitrosodimethylamine	ND		804	2	05/11/2025 07:44	WG2512029
n-Nitrosodiphenylamine	ND		804	2	05/11/2025 07:44	WG2512029
n-Nitrosodi-n-propylamine	ND		804	2	05/11/2025 07:44	WG2512029
Phenanthrene	ND		80.4	2	05/11/2025 07:44	WG2512029
Benzylbutyl phthalate	ND		804	2	05/11/2025 07:44	WG2512029
Bis(2-ethylhexyl)phthalate	ND		804	2	05/11/2025 07:44	WG2512029
Di-n-butyl phthalate	ND		804	2	05/11/2025 07:44	WG2512029
Diethyl phthalate	ND		804	2	05/11/2025 07:44	WG2512029
Dimethyl phthalate	ND		804	2	05/11/2025 07:44	WG2512029
Di-n-octyl phthalate	ND		804	2	05/11/2025 07:44	WG2512029
1,2,4-Trichlorobenzene	ND		804	2	05/11/2025 07:44	WG2512029
4-Chloro-3-methylphenol	ND		804	2	05/11/2025 07:44	WG2512029
2-Chlorophenol	ND		804	2	05/11/2025 07:44	WG2512029
2,4-Dichlorophenol	ND		804	2	05/11/2025 07:44	WG2512029
2,4-Dimethylphenol	ND	C3	804	2	05/11/2025 07:44	WG2512029
4,6-Dinitro-2-methylphenol	ND		804	2	05/11/2025 07:44	WG2512029
2,4-Dinitrophenol	ND		804	2	05/11/2025 07:44	WG2512029
2-Nitrophenol	ND		804	2	05/11/2025 07:44	WG2512029
4-Nitrophenol	ND		804	2	05/11/2025 07:44	WG2512029
Pentachlorophenol	ND		804	2	05/11/2025 07:44	WG2512029
Phenol	ND		804	2	05/11/2025 07:44	WG2512029
2,4,6-Trichlorophenol	ND		804	2	05/11/2025 07:44	WG2512029
(S) 2-Fluorophenol	73.9		12.0-120		05/11/2025 07:44	WG2512029
(S) Phenol-d5	64.1		10.0-120		05/11/2025 07:44	WG2512029
(S) Nitrobenzene-d5	61.2		10.0-122		05/11/2025 07:44	WG2512029
(S) 2-Fluorobiphenyl	64.5		15.0-120		05/11/2025 07:44	WG2512029
(S) 2,4,6-Tribromophenol	86.7		10.0-127		05/11/2025 07:44	WG2512029
(S) p-Terphenyl-d14	70.0		10.0-120		05/11/2025 07:44	WG2512029

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1857553-01 WG2512029: Dilution due to matrix impact during extract concentration procedure

Method Blank (MB)

(MB) R4213009-1 05/10/25 15:49

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.00100			

¹Cp

²Tc

³Ss

L1857498-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1857498-01 05/10/25 15:49 • (DUP) R4213009-3 05/10/25 15:49

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	83.2	84.3	1	1.38		10

⁴Cn

⁵Sr

Laboratory Control Sample (LCS)

(LCS) R4213009-2 05/10/25 15:49

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
	%	%	%	%	
Total Solids	50.0	50.0	100	90.0-110	

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4213142-1 05/12/25 01:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ammonia Nitrogen	U		7190	10000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1857512-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1857512-10 05/12/25 01:16 • (DUP) R4213142-3 05/12/25 01:18

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ammonia Nitrogen	ND	ND	1	0.000		20

L1857512-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1857512-18 05/12/25 01:27 • (DUP) R4213142-4 05/12/25 01:33

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ammonia Nitrogen	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4213142-2 05/12/25 01:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Ammonia Nitrogen	250000	241000	96.2	90.0-110	

L1857695-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1857695-05 05/12/25 01:57 • (MS) R4213142-5 05/12/25 01:58 • (MSD) R4213142-6 05/12/25 02:00

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Ammonia Nitrogen	289000	ND	282000	283000	97.6	97.9	1	90.0-110			0.260	20

Method Blank (MB)

(MB) R4213296-1 05/12/25 10:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Kjeldahl Nitrogen, TKN	U		15200	20000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1857512-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1857512-18 05/12/25 11:34 • (DUP) R4213296-12 05/12/25 11:35

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Kjeldahl Nitrogen, TKN	2100000	1930000	5	8.62		20

L1857512-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1857512-22 05/12/25 11:38 • (DUP) R4213296-14 05/12/25 11:42

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Kjeldahl Nitrogen, TKN	2060000	2130000	5	3.25		20

Laboratory Control Sample (LCS)

(LCS) R4213296-3 05/12/25 10:52

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Kjeldahl Nitrogen, TKN	480000	464000	96.6	81.7-124	

L1857512-10 Original Sample (OS) • Matrix Spike (MS)

(OS) L1857512-10 05/12/25 11:24 • (MS) R4213296-10 05/12/25 11:25

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Kjeldahl Nitrogen, TKN	490000	2460000	2610000	31.1	5	81.7-124	√

L1857695-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1857695-05 05/12/25 11:51 • (MS) R4213296-16 05/12/25 11:52 • (MSD) R4213296-18 05/12/25 11:53

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Kjeldahl Nitrogen, TKN	462000	1910000	2400000	2330000	106	90.6	5	81.7-124			2.94	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R4212955-1 05/10/25 19:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Nitrate-Nitrite	U		606	20000

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R4212955-2 05/10/25 19:53

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Nitrate-Nitrite	40000	37500	93.8	80.0-120	

4 Cn

5 Sr

L1857486-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1857486-01 05/10/25 21:00 • (MS) R4212955-3 05/10/25 21:14 • (MSD) R4212955-4 05/10/25 21:27

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Nitrate-Nitrite	47900	ND	54400	60000	98.4	110	1	80.0-120			9.72	15

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4214144-1 05/13/25 16:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC By Walkley Black	U		25500	100000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1857483-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1857483-01 05/13/25 16:51 • (DUP) R4214144-3 05/13/25 16:53

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC By Walkley Black	21300000	21500000	9	1.05		20

L1857503-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1857503-01 05/13/25 16:54 • (DUP) R4214144-4 05/13/25 16:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC By Walkley Black	28600000	29100000	10	1.79		20

Laboratory Control Sample (LCS)

(LCS) R4214144-2 05/13/25 16:49

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC By Walkley Black	3230000	4040000	125	75.0-144	

L1857503-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1857503-09 05/13/25 17:05 • (MS) R4214144-5 05/13/25 17:07 • (MSD) R4214144-6 05/13/25 17:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC By Walkley Black	20000000	24200000	46900000	46900000	113	114	5	80.0-120			0.156	20

Method Blank (MB)

(MB) R4212889-1 05/10/25 21:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/kg		ug/kg	ug/kg
Aluminum	U		6080	20000
Antimony	U		691	2000
Beryllium	U		47.7	200
Calcium	U		19000	100000
Cobalt	U		177	1000
Iron	U		2240	10000
Magnesium	U		19900	100000
Manganese	U		173	1000
Potassium	U		20900	100000
Sodium	U		41200	100000
Thallium	U		518	2000
Vanadium	U		383	2000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R4212889-2 05/10/25 21:35

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/kg	ug/kg	%	%	
Aluminum	1000000	893000	89.3	80.0-120	
Antimony	100000	89800	89.8	80.0-120	
Beryllium	100000	93300	93.3	80.0-120	
Calcium	1000000	913000	91.3	80.0-120	
Cobalt	100000	89200	89.2	80.0-120	
Iron	1000000	928000	92.8	80.0-120	
Magnesium	1000000	855000	85.5	80.0-120	
Manganese	100000	97200	97.2	80.0-120	
Potassium	1000000	922000	92.2	80.0-120	
Sodium	1000000	950000	95.0	80.0-120	
Thallium	100000	94600	94.6	80.0-120	
Vanadium	100000	90500	90.5	80.0-120	

L1857483-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1857483-02 05/10/25 21:37 • (MS) R4212889-5 05/10/25 21:43 • (MSD) R4212889-6 05/10/25 21:44

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/kg	ug/kg	ug/kg	ug/kg	%	%		%			%	%
Aluminum	1140000	2970000	5020000	3760000	180	69.5	1	75.0-125	J5	J3 J6	28.7	20
Antimony	114000	ND	83300	83200	73.2	73.1	1	75.0-125	J6	J6	0.0973	20

L1857483-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1857483-02 05/10/25 21:37 • (MS) R4212889-5 05/10/25 21:43 • (MSD) R4212889-6 05/10/25 21:44

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	114000	444	105000	103000	91.5	89.8	1	75.0-125			1.83	20
Calcium	1140000	2480000	3820000	3550000	118	93.7	1	75.0-125			7.40	20
Cobalt	114000	2900	105000	103000	89.9	88.0	1	75.0-125			2.09	20
Iron	1140000	6850000	6620000	4520000	0.000	0.000	1	75.0-125	V	J3 V	37.8	20
Magnesium	1140000	1290000	2480000	2210000	104	80.9	1	75.0-125			11.2	20
Manganese	114000	237000	296000	291000	51.5	47.9	1	75.0-125	J6	J6	1.39	20
Potassium	1140000	1240000	2490000	2260000	110	88.8	1	75.0-125			9.95	20
Sodium	1140000	ND	1210000	1080000	101	90.1	1	75.0-125			11.3	20
Thallium	114000	ND	104000	103000	91.0	90.1	1	75.0-125			0.961	20
Vanadium	114000	12500	108000	105000	84.0	81.5	1	75.0-125			2.72	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4212899-3 05/10/25 12:07

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/kg		ug/kg	ug/kg
Acetone	U		36.5	50.0
Acrylonitrile	U		3.61	12.5
Bromobenzene	U		0.900	12.5
Bromodichloromethane	U		0.725	2.50
Bromoform	U		1.17	25.0
Bromomethane	2.40	U	1.97	12.5
n-Butylbenzene	U		5.25	12.5
sec-Butylbenzene	U		2.88	12.5
tert-Butylbenzene	U		1.95	5.00
Carbon tetrachloride	U		0.898	5.00
Chlorobenzene	U		0.210	2.50
Chlorodibromomethane	U		0.612	2.50
Chloroethane	U		1.70	5.00
Chloroform	U		1.03	2.50
Chloromethane	U		4.35	12.5
2-Chlorotoluene	U		0.865	2.50
4-Chlorotoluene	U		0.450	5.00
1,2-Dibromo-3-Chloropropane	U		3.90	25.0
1,2-Dibromoethane	U		0.648	2.50
Dibromomethane	U		0.750	5.00
1,2-Dichlorobenzene	U		0.425	5.00
1,3-Dichlorobenzene	U		0.600	5.00
1,4-Dichlorobenzene	U		0.700	5.00
Dichlorodifluoromethane	U		1.61	5.00
1,1-Dichloroethane	U		0.491	2.50
1,2-Dichloroethane	U		0.649	2.50
1,1-Dichloroethene	U		0.606	2.50
cis-1,2-Dichloroethene	U		0.734	2.50
trans-1,2-Dichloroethene	U		1.04	5.00
1,2-Dichloropropane	U		1.42	5.00
1,1-Dichloropropene	U		0.809	2.50
1,3-Dichloropropane	U		0.501	5.00
cis-1,3-Dichloropropene	U		0.757	2.50
trans-1,3-Dichloropropene	U		1.14	5.00
2,2-Dichloropropane	U		1.38	2.50
Di-isopropyl ether	U		0.410	1.00
Hexachloro-1,3-butadiene	U		6.00	25.0
Isopropylbenzene	U		0.425	2.50
p-Isopropyltoluene	U		2.55	5.00
2-Butanone (MEK)	U		63.5	100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R4212899-3 05/10/25 12:07

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/kg		ug/kg	ug/kg
Methylene Chloride	U		6.64	25.0
4-Methyl-2-pentanone (MIBK)	U		2.28	25.0
Methyl tert-butyl ether	U		0.350	1.00
n-Propylbenzene	U		0.950	5.00
Styrene	U		0.229	12.5
1,1,1,2-Tetrachloroethane	U		0.948	2.50
1,1,2,2-Tetrachloroethane	U		0.695	2.50
1,1,2-Trichlorotrifluoroethane	U		0.754	2.50
Tetrachloroethene	U		0.896	2.50
1,2,3-Trichlorobenzene	U		7.33	12.5
1,2,4-Trichlorobenzene	U		4.40	12.5
1,1,1-Trichloroethane	U		0.923	2.50
1,1,2-Trichloroethane	U		0.597	2.50
Trichloroethene	U		0.584	1.00
Trichlorofluoromethane	U		0.827	2.50
1,2,3-Trichloropropane	U		1.62	12.5
1,2,3-Trimethylbenzene	U		1.58	5.00
Vinyl chloride	U		1.16	2.50
(S) Toluene-d8	109			75.0-131
(S) 4-Bromofluorobenzene	96.1			67.0-138
(S) 1,2-Dichloroethane-d4	94.8			70.0-130

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4212899-1 05/10/25 10:28 • (LCSD) R4212899-2 05/10/25 10:48

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/kg	ug/kg	ug/kg	%	%	%			%	%
Acetone	625	641	639	103	102	10.0-160			0.312	31
Acrylonitrile	625	662	659	106	105	45.0-153			0.454	22
Bromobenzene	125	142	136	114	109	73.0-121			4.32	20
Bromodichloromethane	125	121	118	96.8	94.4	73.0-121			2.51	20
Bromoform	125	132	133	106	106	64.0-132			0.755	20
Bromomethane	125	117	112	93.6	89.6	56.0-147			4.37	20
n-Butylbenzene	125	141	137	113	110	68.0-135			2.88	20
sec-Butylbenzene	125	149	141	119	113	74.0-130			5.52	20
tert-Butylbenzene	125	141	136	113	109	75.0-127			3.61	20
Carbon tetrachloride	125	110	111	88.0	88.8	66.0-128			0.905	20
Chlorobenzene	125	134	134	107	107	76.0-128			0.000	20
Chlorodibromomethane	125	131	130	105	104	74.0-127			0.766	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4212899-1 05/10/25 10:28 • (LCSD) R4212899-2 05/10/25 10:48

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Chloroethane	125	108	105	86.4	84.0	61.0-134			2.82	20
Chloroform	125	120	116	96.0	92.8	72.0-123			3.39	20
Chloromethane	125	109	105	87.2	84.0	51.0-138			3.74	20
2-Chlorotoluene	125	141	132	113	106	75.0-124			6.59	20
4-Chlorotoluene	125	141	135	113	108	75.0-124			4.35	20
1,2-Dibromo-3-Chloropropane	125	134	134	107	107	59.0-130			0.000	20
1,2-Dibromoethane	125	134	138	107	110	74.0-128			2.94	20
Dibromomethane	125	121	121	96.8	96.8	75.0-122			0.000	20
1,2-Dichlorobenzene	125	136	130	109	104	76.0-124			4.51	20
1,3-Dichlorobenzene	125	137	134	110	107	76.0-125			2.21	20
1,4-Dichlorobenzene	125	135	132	108	106	77.0-121			2.25	20
Dichlorodifluoromethane	125	101	99.1	80.8	79.3	43.0-156			1.90	20
1,1-Dichloroethane	125	114	116	91.2	92.8	70.0-127			1.74	20
1,2-Dichloroethane	125	117	122	93.6	97.6	65.0-131			4.18	20
1,1-Dichloroethene	125	111	108	88.8	86.4	65.0-131			2.74	20
cis-1,2-Dichloroethene	125	113	112	90.4	89.6	73.0-125			0.889	20
trans-1,2-Dichloroethene	125	112	114	89.6	91.2	71.0-125			1.77	20
1,2-Dichloropropane	125	119	113	95.2	90.4	74.0-125			5.17	20
1,1-Dichloropropene	125	111	111	88.8	88.8	73.0-125			0.000	20
1,3-Dichloropropane	125	135	131	108	105	80.0-125			3.01	20
cis-1,3-Dichloropropene	125	115	116	92.0	92.8	76.0-127			0.866	20
trans-1,3-Dichloropropene	125	134	139	107	111	73.0-127			3.66	20
2,2-Dichloropropane	125	115	112	92.0	89.6	59.0-135			2.64	20
Di-isopropyl ether	125	114	113	91.2	90.4	60.0-136			0.881	20
Hexachloro-1,3-butadiene	125	131	121	105	96.8	57.0-150			7.94	20
Isopropylbenzene	125	138	135	110	108	72.0-127			2.20	20
p-Isopropyltoluene	125	144	143	115	114	72.0-133			0.697	20
2-Butanone (MEK)	625	611	621	97.8	99.4	30.0-160			1.62	24
Methylene Chloride	125	119	119	95.2	95.2	68.0-123			0.000	20
4-Methyl-2-pentanone (MIBK)	625	692	682	111	109	56.0-143			1.46	20
Methyl tert-butyl ether	125	111	112	88.8	89.6	66.0-132			0.897	20
n-Propylbenzene	125	142	135	114	108	74.0-126			5.05	20
Styrene	125	137	136	110	109	72.0-127			0.733	20
1,1,1,2-Tetrachloroethane	125	134	132	107	106	74.0-129			1.50	20
1,1,2,2-Tetrachloroethane	125	139	130	111	104	68.0-128			6.69	20
1,1,2-Trichlorotrifluoroethane	125	116	113	92.8	90.4	61.0-139			2.62	20
Tetrachloroethene	125	132	133	106	106	70.0-136			0.755	20
1,2,3-Trichlorobenzene	125	105	120	84.0	96.0	59.0-139			13.3	20
1,2,4-Trichlorobenzene	125	126	133	101	106	62.0-137			5.41	20
1,1,1-Trichloroethane	125	113	110	90.4	88.0	69.0-126			2.69	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4212899-1 05/10/25 10:28 • (LCSD) R4212899-2 05/10/25 10:48

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
1,1,2-Trichloroethane	125	138	137	110	110	78.0-123			0.727	20
Trichloroethene	125	112	115	89.6	92.0	76.0-126			2.64	20
Trichlorofluoromethane	125	107	108	85.6	86.4	61.0-142			0.930	20
1,2,3-Trichloropropane	125	145	145	116	116	67.0-129			0.000	20
1,2,3-Trimethylbenzene	125	143	137	114	110	74.0-124			4.29	20
Vinyl chloride	125	106	107	84.8	85.6	63.0-134			0.939	20
(S) Toluene-d8				107	109	75.0-131				
(S) 4-Bromofluorobenzene				98.6	97.6	67.0-138				
(S) 1,2-Dichloroethane-d4				95.6	97.1	70.0-130				

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Method Blank (MB)

(MB) R4212988-2 05/11/25 01:30

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg
Acenaphthylene	U		4.69	33.3
Benzidine	U		62.6	1670
Benzo(g,h,i)perylene	U		6.09	33.3
Bis(2-chlorethoxy)methane	U		10.0	333
Bis(2-chloroethyl)ether	U		11.0	333
2,2-Oxybis(1-Chloropropane)	U		14.4	333
4-Bromophenyl-phenylether	U		11.7	333
2-Chloronaphthalene	U		5.85	33.3
4-Chlorophenyl-phenylether	U		11.6	333
1,2-Dichlorobenzene	U		9.87	333
1,3-Dichlorobenzene	U		10.1	333
1,4-Dichlorobenzene	U		9.91	333
3,3-Dichlorobenzidine	U		12.3	333
2,4-Dinitrotoluene	U		9.55	333
2,6-Dinitrotoluene	U		10.9	333
Hexachlorobenzene	U		11.8	333
Hexachloro-1,3-butadiene	U		11.2	333
Hexachlorocyclopentadiene	U		17.5	333
Hexachloroethane	U		13.1	333
Isophorone	U		10.2	333
Nitrobenzene	U		11.6	333
n-Nitrosodimethylamine	U		49.4	333
n-Nitrosodiphenylamine	U		25.2	333
n-Nitrosodi-n-propylamine	U		11.1	333
Phenanthrene	U		6.61	33.3
Benzylbutyl phthalate	U		10.4	333
Bis(2-ethylhexyl)phthalate	U		42.2	333
Di-n-butyl phthalate	U		11.4	333
Diethyl phthalate	U		11.0	333
Dimethyl phthalate	U		70.6	333
Di-n-octyl phthalate	U		22.5	333
1,2,4-Trichlorobenzene	U		10.4	333
4-Chloro-3-methylphenol	U		10.8	333
2-Chlorophenol	U		11.0	333
2,4-Dichlorophenol	U		9.70	333
2,4-Dimethylphenol	U		8.70	333
4,6-Dinitro-2-methylphenol	U		75.5	333
2,4-Dinitrophenol	U		77.9	333
2-Nitrophenol	U		11.9	333
4-Nitrophenol	U		10.4	333

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4212988-2 05/11/25 01:30

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/kg		ug/kg	ug/kg
Pentachlorophenol	U		8.96	333
Phenol	U		13.4	333
2,4,6-Trichlorophenol	U		10.7	333
(S) 2-Fluorophenol	72.2			12.0-120
(S) Phenol-d5	61.3			10.0-120
(S) Nitrobenzene-d5	52.9			10.0-122
(S) 2-Fluorobiphenyl	63.1			15.0-120
(S) 2,4,6-Tribromophenol	73.4			10.0-127
(S) p-Terphenyl-d14	77.2			10.0-120

Laboratory Control Sample (LCS)

(LCS) R4212988-1 05/11/25 01:09

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/kg	ug/kg	%	%	
Acenaphthylene	666	505	75.8	40.0-120	
Benzidine	1330	629	47.3	10.0-120	
Benzo(g,h,i)perylene	666	430	64.6	43.0-120	
Bis(2-chlorethoxy)methane	666	291	43.7	20.0-120	
Bis(2-chloroethyl)ether	666	347	52.1	16.0-120	
2,2-Oxybis(1-Chloropropane)	666	285	42.8	23.0-120	
4-Bromophenyl-phenylether	666	552	82.9	40.0-120	
2-Chloronaphthalene	666	433	65.0	35.0-120	
4-Chlorophenyl-phenylether	666	497	74.6	40.0-120	
1,2-Dichlorobenzene	666	378	56.8	32.0-120	
1,3-Dichlorobenzene	666	396	59.5	30.0-120	
1,4-Dichlorobenzene	666	402	60.4	31.0-120	
3,3-Dichlorobenzidine	1330	1130	85.0	28.0-120	
2,4-Dinitrotoluene	666	491	73.7	45.0-120	
2,6-Dinitrotoluene	666	492	73.9	42.0-120	
Hexachlorobenzene	666	478	71.8	39.0-120	
Hexachloro-1,3-butadiene	666	353	53.0	15.0-120	
Hexachlorocyclopentadiene	666	255	38.3	15.0-120	
Hexachloroethane	666	377	56.6	17.0-120	
Isophorone	666	318	47.7	23.0-120	
Nitrobenzene	666	307	46.1	17.0-120	
n-Nitrosodimethylamine	666	339	50.9	10.0-125	
n-Nitrosodiphenylamine	666	478	71.8	40.0-120	
n-Nitrosodi-n-propylamine	666	363	54.5	26.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R4212988-1 05/11/25 01:09

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Phenanthrene	666	451	67.7	42.0-120	
Benzylbutyl phthalate	666	530	79.6	40.0-120	
Bis(2-ethylhexyl)phthalate	666	514	77.2	41.0-120	
Di-n-butyl phthalate	666	488	73.3	43.0-120	
Diethyl phthalate	666	513	77.0	43.0-120	
Dimethyl phthalate	666	512	76.9	43.0-120	
Di-n-octyl phthalate	666	536	80.5	40.0-120	
1,2,4-Trichlorobenzene	666	377	56.6	17.0-120	
4-Chloro-3-methylphenol	666	397	59.6	28.0-120	
2-Chlorophenol	666	398	59.8	28.0-120	
2,4-Dichlorophenol	666	403	60.5	25.0-120	
2,4-Dimethylphenol	666	354	53.2	15.0-120	
4,6-Dinitro-2-methylphenol	666	476	71.5	16.0-120	
2,4-Dinitrophenol	666	403	60.5	10.0-120	
2-Nitrophenol	666	389	58.4	20.0-120	
4-Nitrophenol	666	443	66.5	27.0-120	
Pentachlorophenol	666	434	65.2	29.0-120	
Phenol	666	388	58.3	28.0-120	
2,4,6-Trichlorophenol	666	491	73.7	37.0-120	
(S) 2-Fluorophenol			71.3	12.0-120	
(S) Phenol-d5			62.8	10.0-120	
(S) Nitrobenzene-d5			48.0	10.0-122	
(S) 2-Fluorobiphenyl			69.1	15.0-120	
(S) 2,4,6-Tribromophenol			77.2	10.0-127	
(S) p-Terphenyl-d14			78.1	10.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1857558-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1857558-01 05/11/25 04:58 • (MS) R4212988-3 05/11/25 05:18 • (MSD) R4212988-4 05/11/25 05:39

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Acenaphthylene	820	ND	630	645	76.8	78.4	2	25.0-120			2.35	32
Benzidine	1640	ND	ND	ND	22.1	21.8	2	10.0-120			0.692	40
Benzo(g,h,i)perylene	820	ND	558	530	68.1	64.4	2	10.0-120			5.28	33
Bis(2-chlorethoxy)methane	820	ND	ND	ND	50.2	50.8	2	10.0-120			1.51	34
Bis(2-chloroethyl)ether	820	ND	ND	ND	54.6	56.5	2	10.0-120			3.84	40
2,2-Oxybis(1-Chloropropane)	820	ND	ND	ND	45.9	44.4	2	10.0-120			3.04	40
4-Bromophenyl-phenylether	820	ND	ND	ND	76.8	88.6	2	27.0-120			14.5	30
2-Chloronaphthalene	820	ND	501	547	61.1	66.6	2	20.0-120			8.82	32

L1857558-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1857558-01 05/11/25 04:58 • (MS) R4212988-3 05/11/25 05:18 • (MSD) R4212988-4 05/11/25 05:39

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Chlorophenyl-phenylether	820	ND	ND	ND	71.5	74.5	2	24.0-120			4.38	29
1,2-Dichlorobenzene	820	ND	ND	ND	58.1	58.2	2	10.0-120			0.524	38
1,3-Dichlorobenzene	820	ND	ND	ND	55.8	55.6	2	10.0-120			0.000	40
1,4-Dichlorobenzene	820	ND	ND	ND	57.0	59.1	2	10.0-120			3.93	39
3,3-Dichlorobenzidine	1640	ND	1160	1140	70.6	69.3	2	10.0-120			1.09	34
2,4-Dinitrotoluene	820	ND	ND	ND	72.0	76.6	2	30.0-120			6.56	31
2,6-Dinitrotoluene	820	ND	ND	ND	70.6	76.9	2	25.0-120			8.88	31
Hexachlorobenzene	820	ND	ND	ND	71.0	73.4	2	27.0-120			3.58	28
Hexachloro-1,3-butadiene	820	ND	ND	ND	56.7	60.3	2	10.0-120			6.50	38
Hexachlorocyclopentadiene	820	ND	ND	ND	9.34	7.25	2	10.0-120	J6	J6	25.0	40
Hexachloroethane	820	ND	ND	ND	43.3	45.6	2	10.0-120			5.48	40
Isophorone	820	ND	ND	ND	53.5	55.3	2	13.0-120			3.64	34
Nitrobenzene	820	ND	ND	ND	50.5	53.3	2	10.0-120			5.87	36
n-Nitrosodimethylamine	820	ND	ND	ND	47.7	55.9	2	10.0-127			16.2	40
n-Nitrosodiphenylamine	820	ND	ND	ND	68.6	72.2	2	17.0-120			5.41	29
n-Nitrosodi-n-propylamine	820	ND	ND	ND	51.7	53.0	2	10.0-120			2.91	37
Phenanthrene	820	ND	542	581	66.2	70.7	2	17.0-120			6.90	31
Benzylbutyl phthalate	820	ND	ND	ND	76.1	76.3	2	23.0-120			0.599	30
Bis(2-ethylhexyl)phthalate	820	ND	ND	ND	75.9	71.4	2	17.0-126			5.79	30
Di-n-butyl phthalate	820	ND	ND	ND	70.1	73.1	2	30.0-120			4.46	29
Diethyl phthalate	820	ND	ND	ND	78.8	77.7	2	26.0-120			1.17	28
Dimethyl phthalate	820	ND	ND	ND	75.3	78.1	2	25.0-120			3.97	29
Di-n-octyl phthalate	820	ND	ND	ND	91.2	89.1	2	21.0-123			2.03	29
1,2,4-Trichlorobenzene	820	ND	ND	ND	59.1	63.8	2	12.0-120			7.92	37
4-Chloro-3-methylphenol	820	ND	ND	ND	65.5	64.9	2	15.0-120			0.700	30
2-Chlorophenol	820	ND	ND	ND	55.6	59.7	2	15.0-120			7.39	37
2,4-Dichlorophenol	820	ND	ND	ND	69.7	71.9	2	20.0-120			3.44	31
2,4-Dimethylphenol	820	ND	ND	ND	58.2	56.7	2	10.0-120			2.38	33
4,6-Dinitro-2-methylphenol	820	ND	ND	ND	62.2	69.0	2	10.0-120			10.7	39
2,4-Dinitrophenol	820	ND	ND	ND	71.2	74.3	2	10.0-121			4.60	40
2-Nitrophenol	820	ND	ND	ND	63.7	66.6	2	12.0-120			4.67	39
4-Nitrophenol	820	ND	ND	ND	69.7	73.4	2	10.0-137			5.53	32
Pentachlorophenol	820	ND	ND	ND	75.5	78.6	2	10.0-160			4.35	31
Phenol	820	ND	ND	ND	55.0	57.6	2	12.0-120			4.86	38
2,4,6-Trichlorophenol	820	ND	ND	ND	69.8	75.8	2	19.0-120			8.57	32
(S) 2-Fluorophenol					69.4	67.9		12.0-120				
(S) Phenol-d5					61.5	60.3		10.0-120				
(S) Nitrobenzene-d5					46.6	55.3		10.0-122				
(S) 2-Fluorobiphenyl					64.9	68.1		15.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1857558-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1857558-01 05/11/25 04:58 • (MS) R4212988-3 05/11/25 05:18 • (MSD) R4212988-4 05/11/25 05:39

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 2,4,6-Tribromophenol					78.4	79.5		10.0-127				
(S) p-Terphenyl-d14					70.1	72.0		10.0-120				

Sample Narrative:

OS: Dilution due to matrix impact during extract concentration procedure

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

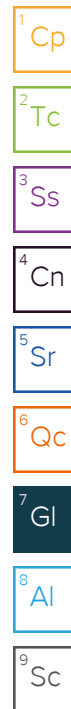
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
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
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
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.
V	The sample concentration is too high to evaluate accurate spike recoveries.



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 ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	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 ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	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 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ 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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

