

CTEH - ER

Sample Delivery Group: L1852754
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:

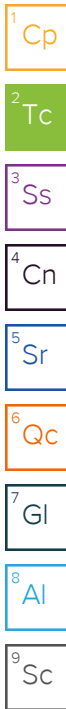


Jared Starkey
Project Manager

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SAMPLE SUMMARY

GACO0428T160-1S001 L1852754-01 Solid

Collected by: Matthew Bech
 Collected date/time: 04/28/25 10:05
 Received date/time: 04/29/25 11:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2502659	1	04/29/25 13:39	04/30/25 13:48	JDW	Mt. Juliet, TN
Total Solids by Method 2540 G-2011	WG2502552	1	04/29/25 12:39	04/29/25 12:48	KDW	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2502670	1	04/29/25 23:54	04/30/25 01:19	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500NOrg D-2021	WG2502686	10	04/29/25 23:50	04/30/25 13:48	JDW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2502659	5	04/29/25 13:39	04/29/25 16:05	MDM	Mt. Juliet, TN
Wet Chemistry by Method WALKLEY-BLACK	WG2502853	5	04/29/25 14:00	04/30/25 14:31	ARV	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2502675	1	04/29/25 13:49	04/29/25 17:12	RLS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2502691	1	04/29/25 12:34	04/29/25 15:26	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2502661	2	04/29/25 13:29	04/29/25 19:01	NJK	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
WG2502686	(MS) R4207844-13, (MSD) R4207844-15	Kjeldahl Nitrogen, TKN

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

Batch	Lab Sample ID	Analytes
WG2502686	(MS) R4207844-19, (MSD) R4207844-21	Kjeldahl Nitrogen, TKN

Wet Chemistry by Method WALKLEY-BLACK

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
WG2502853	(MS) R4207666-5	TOC By Walkley Black
WG2502853	(MSD) R4207666-6	TOC By Walkley Black

Metals (ICP) by Method 6010D

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

Batch	Lab Sample ID	Analytes
WG2502675	(MS) R4207323-5, (MSD) R4207323-6	Aluminum, Calcium, Iron and Magnesium

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

Batch	Lab Sample ID	Analytes
WG2502675	(MS) R4207323-5, (MSD) R4207323-6	Antimony, Manganese, Potassium, Sodium, Thallium and Vanadium

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

The associated batch QC was above the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG2502691	(LCS) R4207096-2, L1852754-01	Bromomethane, Chloromethane, Dichlorodifluoromethane and Vinyl chloride

CASE NARRATIVE

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
WG2502661	L1852754-01	Bis(2-chloroethyl)ether and Pentachlorophenol

The initial calibration verification standard (SSCV) associated with this data responded high.

Batch	Lab Sample ID	Analytes
WG2502661	L1852754-01	Hexachlorocyclopentadiene

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

Batch	Lab Sample ID	Analytes
WG2502661	(MS) R4207245-3, (MSD) R4207245-4	3,3-Dichlorobenzidine, Benzidine and Hexachlorocyclopentadiene

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Total Nitrogen	1700000		3320	110000	1	04/30/2025 13:48	WG2502659

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.2		1	04/29/2025 12:48	WG2502552

Wet Chemistry by Method 350.1

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	U		7880	11000	1	04/30/2025 01:19	WG2502670

Wet Chemistry by Method 4500NOrg D-2021

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	1550000		167000	219000	10	04/30/2025 13:48	WG2502686

Wet Chemistry by Method 9056A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	154000		3320	110000	5	04/29/2025 16:05	WG2502659

Wet Chemistry by Method WALKLEY-BLACK

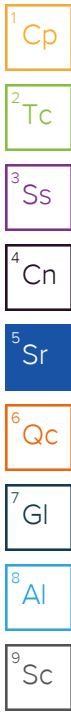
Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
TOC By Walkley Black	24300000		128000	500000	5	04/30/2025 14:31	WG2502853

Metals (ICP) by Method 6010D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Aluminum	6690000		6670	21900	1	04/29/2025 17:12	WG2502675
Antimony	U		758	2190	1	04/29/2025 17:12	WG2502675
Beryllium	732		52.3	219	1	04/29/2025 17:12	WG2502675
Calcium	13700000		20800	110000	1	04/29/2025 17:12	WG2502675
Cobalt	6450		194	1100	1	04/29/2025 17:12	WG2502675
Iron	14800000		2460	11000	1	04/29/2025 17:12	WG2502675
Magnesium	3770000		21800	110000	1	04/29/2025 17:12	WG2502675
Manganese	263000		190	1100	1	04/29/2025 17:12	WG2502675
Potassium	2400000		22900	110000	1	04/29/2025 17:12	WG2502675
Sodium	195000		45200	110000	1	04/29/2025 17:12	WG2502675
Thallium	U		568	2190	1	04/29/2025 17:12	WG2502675
Vanadium	17000		420	2190	1	04/29/2025 17:12	WG2502675

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

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acetone	U		43.5	59.6	1	04/29/2025 15:26	WG2502691
Acrylonitrile	U		4.31	14.9	1	04/29/2025 15:26	WG2502691
Bromobenzene	U		1.07	14.9	1	04/29/2025 15:26	WG2502691
Bromodichloromethane	U		0.865	2.98	1	04/29/2025 15:26	WG2502691
Bromoform	U		1.40	29.8	1	04/29/2025 15:26	WG2502691
Bromomethane	U	J4	2.35	14.9	1	04/29/2025 15:26	WG2502691



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

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
n-Butylbenzene	U		6.26	14.9	1	04/29/2025 15:26	WG2502691
sec-Butylbenzene	U		3.43	14.9	1	04/29/2025 15:26	WG2502691
tert-Butylbenzene	U		2.33	5.96	1	04/29/2025 15:26	WG2502691
Carbon tetrachloride	U		1.07	5.96	1	04/29/2025 15:26	WG2502691
Chlorobenzene	U		0.250	2.98	1	04/29/2025 15:26	WG2502691
Chlorodibromomethane	U		0.730	2.98	1	04/29/2025 15:26	WG2502691
Chloroethane	U		2.03	5.96	1	04/29/2025 15:26	WG2502691
Chloroform	U		1.23	2.98	1	04/29/2025 15:26	WG2502691
Chloromethane	U	J4	5.19	14.9	1	04/29/2025 15:26	WG2502691
2-Chlorotoluene	U		1.03	2.98	1	04/29/2025 15:26	WG2502691
4-Chlorotoluene	U		0.537	5.96	1	04/29/2025 15:26	WG2502691
1,2-Dibromo-3-Chloropropane	U		4.65	29.8	1	04/29/2025 15:26	WG2502691
1,2-Dibromoethane	U		0.773	2.98	1	04/29/2025 15:26	WG2502691
Dibromomethane	U		0.894	5.96	1	04/29/2025 15:26	WG2502691
1,2-Dichlorobenzene	U		0.507	5.96	1	04/29/2025 15:26	WG2502691
1,3-Dichlorobenzene	U		0.716	5.96	1	04/29/2025 15:26	WG2502691
1,4-Dichlorobenzene	U		0.835	5.96	1	04/29/2025 15:26	WG2502691
Dichlorodifluoromethane	U	J4	1.92	5.96	1	04/29/2025 15:26	WG2502691
1,1-Dichloroethane	U		0.586	2.98	1	04/29/2025 15:26	WG2502691
1,2-Dichloroethane	U		0.774	2.98	1	04/29/2025 15:26	WG2502691
1,1-Dichloroethene	U		0.723	2.98	1	04/29/2025 15:26	WG2502691
cis-1,2-Dichloroethene	U		0.875	2.98	1	04/29/2025 15:26	WG2502691
trans-1,2-Dichloroethene	U		1.24	5.96	1	04/29/2025 15:26	WG2502691
1,2-Dichloropropane	U		1.69	5.96	1	04/29/2025 15:26	WG2502691
1,1-Dichloropropene	U		0.965	2.98	1	04/29/2025 15:26	WG2502691
1,3-Dichloropropane	U		0.598	5.96	1	04/29/2025 15:26	WG2502691
cis-1,3-Dichloropropene	U		0.903	2.98	1	04/29/2025 15:26	WG2502691
trans-1,3-Dichloropropene	U		1.36	5.96	1	04/29/2025 15:26	WG2502691
2,2-Dichloropropane	U		1.65	2.98	1	04/29/2025 15:26	WG2502691
Di-isopropyl ether	U		0.489	1.19	1	04/29/2025 15:26	WG2502691
Hexachloro-1,3-butadiene	U		7.16	29.8	1	04/29/2025 15:26	WG2502691
Isopropylbenzene	U		0.507	2.98	1	04/29/2025 15:26	WG2502691
p-Isopropyltoluene	U		3.04	5.96	1	04/29/2025 15:26	WG2502691
2-Butanone (MEK)	U		75.7	119	1	04/29/2025 15:26	WG2502691
Methylene Chloride	U		7.92	29.8	1	04/29/2025 15:26	WG2502691
4-Methyl-2-pentanone (MIBK)	U		2.72	29.8	1	04/29/2025 15:26	WG2502691
Methyl tert-butyl ether	U		0.417	1.19	1	04/29/2025 15:26	WG2502691
n-Propylbenzene	U		1.13	5.96	1	04/29/2025 15:26	WG2502691
Styrene	U		0.273	14.9	1	04/29/2025 15:26	WG2502691
1,1,1,2-Tetrachloroethane	U		1.13	2.98	1	04/29/2025 15:26	WG2502691
1,1,2,2-Tetrachloroethane	U		0.829	2.98	1	04/29/2025 15:26	WG2502691
1,1,2-Trichlorotrifluoroethane	U		0.899	2.98	1	04/29/2025 15:26	WG2502691
Tetrachloroethene	U		1.07	2.98	1	04/29/2025 15:26	WG2502691
1,2,3-Trichlorobenzene	U		8.74	14.9	1	04/29/2025 15:26	WG2502691
1,2,4-Trichlorobenzene	U		5.25	14.9	1	04/29/2025 15:26	WG2502691
1,1,1-Trichloroethane	U		1.10	2.98	1	04/29/2025 15:26	WG2502691
1,1,2-Trichloroethane	U		0.712	2.98	1	04/29/2025 15:26	WG2502691
Trichloroethene	U		0.697	1.19	1	04/29/2025 15:26	WG2502691
Trichlorofluoromethane	U		0.986	2.98	1	04/29/2025 15:26	WG2502691
1,2,3-Trichloropropane	U		1.93	14.9	1	04/29/2025 15:26	WG2502691
1,2,3-Trimethylbenzene	U		1.88	5.96	1	04/29/2025 15:26	WG2502691
Vinyl chloride	U	J4	1.38	2.98	1	04/29/2025 15:26	WG2502691
(S) Toluene-d8	95.0			75.0-131		04/29/2025 15:26	WG2502691
(S) 4-Bromofluorobenzene	102			67.0-138		04/29/2025 15:26	WG2502691
(S) 1,2-Dichloroethane-d4	99.9			70.0-130		04/29/2025 15:26	WG2502691

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	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acenaphthylene	U		10.3	73.0	2	04/29/2025 19:01	WG2502661
Benzidine	U		137	3660	2	04/29/2025 19:01	WG2502661
Benzo(g,h,i)perylene	U		13.4	73.0	2	04/29/2025 19:01	WG2502661
Bis(2-chloroethoxy)methane	U		21.9	730	2	04/29/2025 19:01	WG2502661
Bis(2-chloroethyl)ether	U	C3	24.1	730	2	04/29/2025 19:01	WG2502661
2,2-Oxybis(1-Chloropropane)	U		31.6	730	2	04/29/2025 19:01	WG2502661
4-Bromophenyl-phenylether	U		25.7	730	2	04/29/2025 19:01	WG2502661
2-Chloronaphthalene	U		12.8	73.0	2	04/29/2025 19:01	WG2502661
4-Chlorophenyl-phenylether	U		25.4	730	2	04/29/2025 19:01	WG2502661
1,2-Dichlorobenzene	U		21.6	730	2	04/29/2025 19:01	WG2502661
1,3-Dichlorobenzene	U		22.1	730	2	04/29/2025 19:01	WG2502661
1,4-Dichlorobenzene	U		21.7	730	2	04/29/2025 19:01	WG2502661
3,3-Dichlorobenzidine	U		27.0	730	2	04/29/2025 19:01	WG2502661
2,4-Dinitrotoluene	U		20.9	730	2	04/29/2025 19:01	WG2502661
2,6-Dinitrotoluene	U		23.9	730	2	04/29/2025 19:01	WG2502661
Hexachlorobenzene	U		25.9	730	2	04/29/2025 19:01	WG2502661
Hexachloro-1,3-butadiene	U		24.6	730	2	04/29/2025 19:01	WG2502661
Hexachlorocyclopentadiene	U	C7	38.4	730	2	04/29/2025 19:01	WG2502661
Hexachloroethane	U		28.7	730	2	04/29/2025 19:01	WG2502661
Isophorone	U		22.4	730	2	04/29/2025 19:01	WG2502661
Nitrobenzene	U		25.4	730	2	04/29/2025 19:01	WG2502661
n-Nitrosodimethylamine	U		108	730	2	04/29/2025 19:01	WG2502661
n-Nitrosodiphenylamine	U		55.3	730	2	04/29/2025 19:01	WG2502661
n-Nitrosodi-n-propylamine	U		24.3	730	2	04/29/2025 19:01	WG2502661
Phenanthrene	U		14.5	73.0	2	04/29/2025 19:01	WG2502661
Benzylbutyl phthalate	U		22.8	730	2	04/29/2025 19:01	WG2502661
Bis(2-ethylhexyl)phthalate	U		92.5	730	2	04/29/2025 19:01	WG2502661
Di-n-butyl phthalate	U		25.0	730	2	04/29/2025 19:01	WG2502661
Diethyl phthalate	U		24.1	730	2	04/29/2025 19:01	WG2502661
Dimethyl phthalate	U		155	730	2	04/29/2025 19:01	WG2502661
Di-n-octyl phthalate	U		49.3	730	2	04/29/2025 19:01	WG2502661
1,2,4-Trichlorobenzene	U		22.8	730	2	04/29/2025 19:01	WG2502661
4-Chloro-3-methylphenol	U		23.7	730	2	04/29/2025 19:01	WG2502661
2-Chlorophenol	U		24.1	730	2	04/29/2025 19:01	WG2502661
2,4-Dichlorophenol	U		21.3	730	2	04/29/2025 19:01	WG2502661
2,4-Dimethylphenol	U		19.1	730	2	04/29/2025 19:01	WG2502661
4,6-Dinitro-2-methylphenol	U		166	730	2	04/29/2025 19:01	WG2502661
2,4-Dinitrophenol	U		171	730	2	04/29/2025 19:01	WG2502661
2-Nitrophenol	U		26.1	730	2	04/29/2025 19:01	WG2502661
4-Nitrophenol	U		22.8	730	2	04/29/2025 19:01	WG2502661
Pentachlorophenol	U	C3	19.6	730	2	04/29/2025 19:01	WG2502661
Phenol	U		29.4	730	2	04/29/2025 19:01	WG2502661
2,4,6-Trichlorophenol	U		23.5	730	2	04/29/2025 19:01	WG2502661
(S) 2-Fluorophenol	49.3			12.0-120		04/29/2025 19:01	WG2502661
(S) Phenol-d5	48.7			10.0-120		04/29/2025 19:01	WG2502661
(S) Nitrobenzene-d5	45.1			10.0-122		04/29/2025 19:01	WG2502661
(S) 2-Fluorobiphenyl	43.6			15.0-120		04/29/2025 19:01	WG2502661
(S) 2,4,6-Tribromophenol	47.6			10.0-127		04/29/2025 19:01	WG2502661
(S) p-Terphenyl-d14	48.2			10.0-120		04/29/2025 19:01	WG2502661

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Sample Narrative:

L1852754-01 WG2502661: Dilution due to matrix impact during extract concentration procedure.

Method Blank (MB)

(MB) R4207332-1 04/29/25 12:48

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

¹Cp

²Tc

³Ss

L1852744-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852744-01 04/29/25 12:48 • (DUP) R4207332-3 04/29/25 12:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	94.7	95.0	1	0.314		10

⁴Cn

⁵Sr

Laboratory Control Sample (LCS)

(LCS) R4207332-2 04/29/25 12:48

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) R4207311-1 04/30/25 00:49

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1850886-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1850886-05 04/30/25 00:52 • (DUP) R4207311-3 04/30/25 00:54

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

L1850886-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1850886-06 04/30/25 00:55 • (DUP) R4207311-4 04/30/25 00:57

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

Laboratory Control Sample (LCS)

(LCS) R4207311-2 04/30/25 00:51

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Ammonia Nitrogen	250000	264000	105	90.0-110	

L1852776-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852776-02 04/30/25 01:31 • (MS) R4207311-5 04/30/25 01:33 • (MSD) R4207311-6 04/30/25 01:34

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	323000	U	316000	317000	97.8	98.3	1	90.0-110			0.447	20

Method Blank (MB)

(MB) R4207844-1 04/30/25 13:36

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1852744-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852744-01 04/30/25 13:43 • (DUP) R4207844-11 04/30/25 13:44

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Kjeldahl Nitrogen, TKN	1060000	1040000	10	2.41		20

L1848603-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1848603-01 04/30/25 14:00 • (DUP) R4207844-17 04/30/25 14:01

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Kjeldahl Nitrogen, TKN	58200000	53800000	10	7.86		20

Laboratory Control Sample (LCS)

(LCS) R4207844-3 04/30/25 13:37

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Kjeldahl Nitrogen, TKN	480000	488000	102	81.7-124	

L1852776-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852776-02 04/30/25 13:56 • (MS) R4207844-13 04/30/25 13:57 • (MSD) R4207844-15 04/30/25 13:57

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
Kjeldahl Nitrogen, TKN	517000	4530000	4320000	4500000	0.000	0.000	10	81.7-124	V	V	4.05	20

L1848603-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1848603-01 04/30/25 14:00 • (MS) R4207844-19 04/30/25 14:02 • (MSD) R4207844-21 04/30/25 14:04

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	20100000	58200000	67100000	61800000	44.4	17.8	10	81.7-124	<u>J6</u>	<u>J6</u>	8.28	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R4207246-1 04/29/25 14:31

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) R4207246-2 04/29/25 14:44

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Nitrate-Nitrite	40000	39600	99.1	80.0-120	

4 Cn

5 Sr

L1852776-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852776-02 04/29/25 17:39 • (MS) R4207246-3 04/29/25 17:52 • (MSD) R4207246-4 04/29/25 18:06

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	51700	11200	62700	62800	99.6	99.8	1	80.0-120			0.162	15

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4207666-1 04/30/25 14:26

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

L1852744-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852744-01 04/30/25 14:28 • (DUP) R4207666-3 04/30/25 14:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC By Walkley Black	15100000	13400000	5	11.5		20

L1852776-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1852776-02 04/30/25 14:34 • (DUP) R4207666-4 04/30/25 14:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC By Walkley Black	72100000	72300000	10	0.181		20

Laboratory Control Sample (LCS)

(LCS) R4207666-2 04/30/25 14:27

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC By Walkley Black	32300000	37800000	117	75.0-144	

L1852776-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852776-02 04/30/25 14:34 • (MS) R4207666-5 04/30/25 14:36 • (MSD) R4207666-6 04/30/25 14:38

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	40000000	72100000	110000000	113000000	94.4	102	10	80.0-120	E	E	2.58	20

Method Blank (MB)

(MB) R4207323-1 04/29/25 16:37

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	25300	<u>J</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) R4207323-2 04/29/25 16:39

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/kg	ug/kg	%	%	
Aluminum	1000000	985000	98.5	80.0-120	
Antimony	100000	98600	98.6	80.0-120	
Beryllium	100000	98100	98.1	80.0-120	
Calcium	1000000	989000	98.9	80.0-120	
Cobalt	100000	95300	95.3	80.0-120	
Iron	1000000	977000	97.7	80.0-120	
Magnesium	1000000	930000	93.0	80.0-120	
Manganese	100000	106000	106	80.0-120	
Potassium	1000000	904000	90.4	80.0-120	
Sodium	1000000	998000	99.8	80.0-120	
Thallium	100000	104000	104	80.0-120	
Vanadium	100000	97000	97.0	80.0-120	

L1852776-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852776-02 04/29/25 16:42 • (MS) R4207323-5 04/29/25 16:50 • (MSD) R4207323-6 04/29/25 16:53

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	1290000	6430000	6430000	7070000	0.000	50.0	1	75.0-125	<u>V</u>	<u>V</u>	9.59	20
Antimony	129000	U	69900	66700	54.1	51.7	1	75.0-125	<u>J6</u>	<u>J6</u>	4.68	20

L1852776-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852776-02 04/29/25 16:42 • (MS) R4207323-5 04/29/25 16:50 • (MSD) R4207323-6 04/29/25 16:53

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 %
Beryllium	129000	678	99500	101000	76.5	77.4	1	75.0-125			1.17	20
Calcium	1290000	18100000	18300000	17800000	15.0	0.000	1	75.0-125	V	V	2.53	20
Cobalt	129000	5200	103000	105000	75.9	77.0	1	75.0-125			1.38	20
Iron	1290000	10100000	9120000	9660000	0.000	0.000	1	75.0-125	V	V	5.74	20
Magnesium	1290000	5730000	6090000	6380000	27.7	50.6	1	75.0-125	V	V	4.74	20
Manganese	129000	409000	439000	418000	23.4	7.02	1	75.0-125	J6	J6	4.92	20
Potassium	1290000	3390000	3800000	4050000	32.2	51.0	1	75.0-125	J6	J6	6.18	20
Sodium	1290000	702000	1740000	1670000	80.5	74.8	1	75.0-125		J6	4.29	20
Thallium	129000	U	94300	93400	73.0	72.3	1	75.0-125	J6	J6	0.988	20
Vanadium	129000	16100	109000	111000	72.0	73.4	1	75.0-125	J6	J6	1.56	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4207096-1 04/29/25 10:44

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	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	1.20	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) R4207096-1 04/29/25 10:44

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL 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	92.3			75.0-131
(S) 4-Bromofluorobenzene	102			67.0-138
(S) 1,2-Dichloroethane-d4	96.4			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4207096-2 04/29/25 11:52

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	625	614	98.2	10.0-160	
Acrylonitrile	625	691	111	45.0-153	
Bromobenzene	125	112	89.6	73.0-121	
Bromodichloromethane	125	133	106	73.0-121	
Bromoform	125	104	83.2	64.0-132	
Bromomethane	125	211	169	56.0-147	<u>J4</u>
n-Butylbenzene	125	112	89.6	68.0-135	
sec-Butylbenzene	125	111	88.8	74.0-130	
tert-Butylbenzene	125	107	85.6	75.0-127	
Carbon tetrachloride	125	130	104	66.0-128	
Chlorobenzene	125	120	96.0	76.0-128	
Chlorodibromomethane	125	111	88.8	74.0-127	

Laboratory Control Sample (LCS)

(LCS) R4207096-2 04/29/25 11:52

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloroethane	125	150	120	61.0-134	
Chloroform	125	131	105	72.0-123	
Chloromethane	125	179	143	51.0-138	J4
2-Chlorotoluene	125	111	88.8	75.0-124	
4-Chlorotoluene	125	111	88.8	75.0-124	
1,2-Dibromo-3-Chloropropane	125	115	92.0	59.0-130	
1,2-Dibromoethane	125	118	94.4	74.0-128	
Dibromomethane	125	128	102	75.0-122	
1,2-Dichlorobenzene	125	119	95.2	76.0-124	
1,3-Dichlorobenzene	125	114	91.2	76.0-125	
1,4-Dichlorobenzene	125	113	90.4	77.0-121	
Dichlorodifluoromethane	125	197	158	43.0-156	J4
1,1-Dichloroethane	125	142	114	70.0-127	
1,2-Dichloroethane	125	146	117	65.0-131	
1,1-Dichloroethene	125	124	99.2	65.0-131	
cis-1,2-Dichloroethene	125	127	102	73.0-125	
trans-1,2-Dichloroethene	125	123	98.4	71.0-125	
1,2-Dichloropropane	125	136	109	74.0-125	
1,1-Dichloropropene	125	132	106	73.0-125	
1,3-Dichloropropane	125	120	96.0	80.0-125	
cis-1,3-Dichloropropene	125	140	112	76.0-127	
trans-1,3-Dichloropropene	125	127	102	73.0-127	
2,2-Dichloropropane	125	153	122	59.0-135	
Di-isopropyl ether	125	127	102	60.0-136	
Hexachloro-1,3-butadiene	125	112	89.6	57.0-150	
Isopropylbenzene	125	121	96.8	72.0-127	
p-Isopropyltoluene	125	111	88.8	72.0-133	
2-Butanone (MEK)	625	615	98.4	30.0-160	
Methylene Chloride	125	123	98.4	68.0-123	
4-Methyl-2-pentanone (MIBK)	625	658	105	56.0-143	
Methyl tert-butyl ether	125	140	112	66.0-132	
n-Propylbenzene	125	113	90.4	74.0-126	
Styrene	125	122	97.6	72.0-127	
1,1,1,2-Tetrachloroethane	125	114	91.2	74.0-129	
1,1,2,2-Tetrachloroethane	125	116	92.8	68.0-128	
1,1,2-Trichlorotrifluoroethane	125	119	95.2	61.0-139	
Tetrachloroethene	125	111	88.8	70.0-136	
1,2,3-Trichlorobenzene	125	138	110	59.0-139	
1,2,4-Trichlorobenzene	125	131	105	62.0-137	
1,1,1-Trichloroethane	125	129	103	69.0-126	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R4207096-2 04/29/25 11:52

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,1,2-Trichloroethane	125	126	101	78.0-123	
Trichloroethene	125	127	102	76.0-126	
Trichlorofluoromethane	125	143	114	61.0-142	
1,2,3-Trichloropropane	125	117	93.6	67.0-129	
1,2,3-Trimethylbenzene	125	123	98.4	74.0-124	
Vinyl chloride	125	175	140	63.0-134	<u>J4</u>
(S) Toluene-d8			95.2	75.0-131	
(S) 4-Bromofluorobenzene			103	67.0-138	
(S) 1,2-Dichloroethane-d4			102	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) R4207245-2 04/29/25 17:08

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4207245-2 04/29/25 17:08

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	62.3			12.0-120
(S) Phenol-d5	59.6			10.0-120
(S) Nitrobenzene-d5	55.9			10.0-122
(S) 2-Fluorobiphenyl	53.2			15.0-120
(S) 2,4,6-Tribromophenol	50.9			10.0-127
(S) p-Terphenyl-d14	61.0			10.0-120

Laboratory Control Sample (LCS)

(LCS) R4207245-1 04/29/25 16:46

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/kg	ug/kg	%	%	
Acenaphthylene	666	412	61.9	40.0-120	
Benzidine	1330	524	39.4	10.0-120	J
Benzo(g,h,i)perylene	666	350	52.6	43.0-120	
Bis(2-chlorethoxy)methane	666	304	45.6	20.0-120	J
Bis(2-chloroethyl)ether	666	326	48.9	16.0-120	J
2,2-Oxybis(1-Chloropropane)	666	386	58.0	23.0-120	
4-Bromophenyl-phenylether	666	381	57.2	40.0-120	
2-Chloronaphthalene	666	351	52.7	35.0-120	
4-Chlorophenyl-phenylether	666	373	56.0	40.0-120	
1,2-Dichlorobenzene	666	332	49.8	32.0-120	J
1,3-Dichlorobenzene	666	327	49.1	30.0-120	J
1,4-Dichlorobenzene	666	338	50.8	31.0-120	
3,3-Dichlorobenzidine	1330	757	56.9	28.0-120	
2,4-Dinitrotoluene	666	391	58.7	45.0-120	
2,6-Dinitrotoluene	666	360	54.1	42.0-120	
Hexachlorobenzene	666	342	51.4	39.0-120	
Hexachloro-1,3-butadiene	666	278	41.7	15.0-120	J
Hexachlorocyclopentadiene	666	341	51.2	15.0-120	
Hexachloroethane	666	330	49.5	17.0-120	J
Isophorone	666	325	48.8	23.0-120	J
Nitrobenzene	666	307	46.1	17.0-120	J
n-Nitrosodimethylamine	666	368	55.3	10.0-125	
n-Nitrosodiphenylamine	666	375	56.3	40.0-120	
n-Nitrosodi-n-propylamine	666	385	57.8	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) R4207245-1 04/29/25 16:46

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phenanthrene	666	356	53.5	42.0-120	
Benzylbutyl phthalate	666	402	60.4	40.0-120	
Bis(2-ethylhexyl)phthalate	666	419	62.9	41.0-120	
Di-n-butyl phthalate	666	420	63.1	43.0-120	
Diethyl phthalate	666	400	60.1	43.0-120	
Dimethyl phthalate	666	385	57.8	43.0-120	
Di-n-octyl phthalate	666	399	59.9	40.0-120	
1,2,4-Trichlorobenzene	666	301	45.2	17.0-120	U
4-Chloro-3-methylphenol	666	359	53.9	28.0-120	
2-Chlorophenol	666	335	50.3	28.0-120	
2,4-Dichlorophenol	666	324	48.6	25.0-120	U
2,4-Dimethylphenol	666	315	47.3	15.0-120	U
4,6-Dinitro-2-methylphenol	666	382	57.4	16.0-120	
2,4-Dinitrophenol	666	353	53.0	10.0-120	
2-Nitrophenol	666	357	53.6	20.0-120	
4-Nitrophenol	666	407	61.1	27.0-120	
Pentachlorophenol	666	250	37.5	29.0-120	U
Phenol	666	366	55.0	28.0-120	
2,4,6-Trichlorophenol	666	378	56.8	37.0-120	
(S) 2-Fluorophenol			63.4	12.0-120	
(S) Phenol-d5			61.6	10.0-120	
(S) Nitrobenzene-d5			48.0	10.0-122	
(S) 2-Fluorobiphenyl			54.7	15.0-120	
(S) 2,4,6-Tribromophenol			57.1	10.0-127	
(S) p-Terphenyl-d14			56.8	10.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1852776-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852776-02 04/29/25 20:52 • (MS) R4207245-3 04/29/25 21:14 • (MSD) R4207245-4 04/29/25 21:37

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 %
Acenaphthylene	824	U	386	333	46.9	40.6	2	25.0-120			14.7	32
Benzidine	1650	U	U	U	0.000	0.000	2	10.0-120	J6	J6	0.000	40
Benzo(g,h,i)perylene	824	U	262	225	31.8	27.4	2	10.0-120			15.4	33
Bis(2-chlorethoxy)methane	824	U	292	256	35.4	31.1	2	10.0-120	U	U	13.2	34
Bis(2-chloroethyl)ether	824	U	284	244	34.5	29.7	2	10.0-120	U	U	15.2	40
2,2-Oxybis(1-Chloropropane)	824	U	331	298	40.1	36.3	2	10.0-120	U	U	10.3	40
4-Bromophenyl-phenylether	824	U	353	307	42.8	37.4	2	27.0-120	U	U	13.7	30
2-Chloronaphthalene	824	U	312	279	37.9	34.0	2	20.0-120			11.4	32

L1852776-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852776-02 04/29/25 20:52 • (MS) R4207245-3 04/29/25 21:14 • (MSD) R4207245-4 04/29/25 21:37

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	824	U	355	293	43.1	35.7	2	24.0-120	J	J	19.1	29
1,2-Dichlorobenzene	824	U	253	232	30.7	28.3	2	10.0-120	J	J	8.51	38
1,3-Dichlorobenzene	824	U	244	222	29.6	27.0	2	10.0-120	J	J	9.42	40
1,4-Dichlorobenzene	824	U	249	229	30.3	27.8	2	10.0-120	J	J	8.65	39
3,3-Dichlorobenzidine	1650	U	111	148	6.73	9.06	2	10.0-120	J J6	J J6	28.6	34
2,4-Dinitrotoluene	824	U	359	292	43.6	35.5	2	30.0-120	J	J	20.6	31
2,6-Dinitrotoluene	824	U	336	281	40.8	34.3	2	25.0-120	J	J	17.6	31
Hexachlorobenzene	824	U	318	274	38.6	33.3	2	27.0-120	J	J	14.8	28
Hexachloro-1,3-butadiene	824	U	238	227	28.8	27.7	2	10.0-120	J	J	4.44	38
Hexachlorocyclopentadiene	824	U	U	U	0.000	0.000	2	10.0-120	J6	J6	0.000	40
Hexachloroethane	824	U	119	101	14.4	12.3	2	10.0-120	J	J	16.2	40
Isophorone	824	U	328	284	39.8	34.6	2	13.0-120	J	J	14.3	34
Nitrobenzene	824	U	275	257	33.4	31.3	2	10.0-120	J	J	6.80	36
n-Nitrosodimethylamine	824	U	227	230	27.6	28.0	2	10.0-127	J	J	1.13	40
n-Nitrosodiphenylamine	824	U	360	298	43.7	36.3	2	17.0-120	J	J	18.8	29
n-Nitrosodi-n-propylamine	824	U	354	310	42.9	37.7	2	10.0-120	J	J	13.2	37
Phenanthrene	824	U	345	284	41.8	34.6	2	17.0-120	J	J	19.3	31
Benzylbutyl phthalate	824	U	439	374	53.3	45.6	2	23.0-120	J	J	15.9	30
Bis(2-ethylhexyl)phthalate	824	U	442	382	53.6	46.5	2	17.0-126	J	J	14.4	30
Di-n-butyl phthalate	824	U	421	345	51.1	42.0	2	30.0-120	J	J	19.9	29
Diethyl phthalate	824	U	396	329	48.1	40.1	2	26.0-120	J	J	18.5	28
Dimethyl phthalate	824	U	368	315	44.7	38.4	2	25.0-120	J	J	15.5	29
Di-n-octyl phthalate	824	U	445	374	54.1	45.6	2	21.0-123	J	J	17.3	29
1,2,4-Trichlorobenzene	824	U	266	245	32.3	29.9	2	12.0-120	J	J	8.08	37
4-Chloro-3-methylphenol	824	U	389	341	47.2	41.5	2	15.0-120	J	J	13.1	30
2-Chlorophenol	824	U	309	270	37.5	32.9	2	15.0-120	J	J	13.4	37
2,4-Dichlorophenol	824	U	347	289	42.2	35.2	2	20.0-120	J	J	18.3	31
2,4-Dimethylphenol	824	U	324	276	39.3	33.6	2	10.0-120	J	J	15.9	33
4,6-Dinitro-2-methylphenol	824	U	355	318	43.1	38.7	2	10.0-120	J	J	11.1	39
2,4-Dinitrophenol	824	U	447	424	54.2	51.6	2	10.0-121	J	J	5.34	40
2-Nitrophenol	824	U	345	298	41.8	36.3	2	12.0-120	J	J	14.5	39
4-Nitrophenol	824	U	436	354	53.0	43.1	2	10.0-137	J	J	20.9	32
Pentachlorophenol	824	U	284	216	34.5	26.3	2	10.0-160	J	J	27.4	31
Phenol	824	U	340	300	41.2	36.5	2	12.0-120	J	J	12.5	38
2,4,6-Trichlorophenol	824	U	381	311	46.2	37.9	2	19.0-120	J	J	20.1	32
(S) 2-Fluorophenol					44.9	40.4		12.0-120				
(S) Phenol-d5					45.7	39.5		10.0-120				
(S) Nitrobenzene-d5					38.9	34.6		10.0-122				
(S) 2-Fluorobiphenyl					40.1	34.0		15.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1852776-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852776-02 04/29/25 20:52 • (MS) R4207245-3 04/29/25 21:14 • (MSD) R4207245-4 04/29/25 21:37

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					44.0	36.5		10.0-127				
(S) p-Terphenyl-d14					43.3	36.8		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

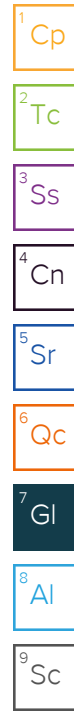
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.
MDL (dry)	Method Detection Limit.
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.
C7	The initial calibration verification standard (SSCV) associated with this data responded high.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
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

