

**Scout Energy - Rangely, CO**

Sample Delivery Group: L1925601  
Samples Received: 12/08/2025  
Project Number:  
Description: Emerald 51

Report To: Cody Christian  
100 Chevron Road  
Rangely, CO 81648

Entire Report Reviewed By:



Chris Ward  
Project Manager

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**Pace Analytical National**

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# SAMPLE SUMMARY

EM51-POR (6') L1925601-01

Collected by: SCOUT  
 Collected date/time: 12/01/25 12:00  
 Received date/time: 12/08/25 16:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2655265	1	12/10/25 08:22	12/10/25 08:22	MAP	Mt. Juliet, TN
Total Solids by Method 2540 G-2011	WG2655373	1	12/10/25 09:41	12/10/25 09:52	MT	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2655514	1	12/12/25 15:59	12/13/25 15:48	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2655496	1	12/10/25 08:00	12/10/25 11:18	SGG	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2655523	1	12/10/25 13:28	12/10/25 14:01	ARD	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2655272	1	12/10/25 10:51	12/10/25 14:07	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2655464	1	12/10/25 17:27	12/19/25 17:43	TMT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D	WG2655636	25	12/09/25 21:11	12/10/25 17:42	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2655589	1	12/09/25 21:11	12/10/25 11:45	AEB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2655405	1	12/11/25 05:14	12/11/25 15:05	KDB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2655439	1	12/10/25 16:09	12/10/25 23:31	MGP	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

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. 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.



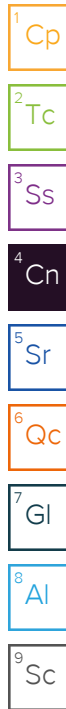
Chris Ward  
Project Manager

## Sample Delivery Group (SDG) Narrative

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**Samples for VOC analysis were received in bulk containers. Preservation for method 5035 was not performed within 48 hours of collection.**

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L1925601-01</a>	<a href="#">EM51-POR (6)</a>	8260D, 8015D



## Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	6.92		1	12/10/2025 08:22	WG2655265

## Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.5		1	12/10/2025 09:52	<a href="#">WG2655373</a>

## Wet Chemistry by Method 7199

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.216	1	12/13/2025 15:48	<a href="#">WG2655514</a>

## Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.13		1	12/10/2025 11:18	<a href="#">WG2655496</a>

## Sample Narrative:

L1925601-01 WG2655496: 8.13 at 19C

## Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	6340	umhos/cm		10.0	1	12/10/2025 14:01	<a href="#">WG2655523</a>

## Sample Narrative:

L1925601-01 WG2655523: at 25C

## Metals (ICP) by Method 6010D (S-7.10)

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.211		0.100	1	12/10/2025 14:07	<a href="#">WG2655272</a>

## Metals (ICPMS) by Method 6020B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	8.55		0.108	1	12/19/2025 17:43	<a href="#">WG2655464</a>
Barium	176		10.8	1	12/19/2025 17:43	<a href="#">WG2655464</a>
Cadmium	0.357		0.108	1	12/19/2025 17:43	<a href="#">WG2655464</a>
Copper	16.5		10.8	1	12/19/2025 17:43	<a href="#">WG2655464</a>
Lead	21.1		10.8	1	12/19/2025 17:43	<a href="#">WG2655464</a>
Nickel	22.2		10.8	1	12/19/2025 17:43	<a href="#">WG2655464</a>
Selenium	2.11		0.108	1	12/19/2025 17:43	<a href="#">WG2655464</a>
Silver	ND		0.541	1	12/19/2025 17:43	<a href="#">WG2655464</a>
Zinc	91.2		54.1	1	12/19/2025 17:43	<a href="#">WG2655464</a>

## Volatile Organic Compounds (GC) by Method 8015D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		2.91	25	12/10/2025 17:42	<a href="#">WG2655636</a>
(S) a, a, a-Trifluorotoluene(FID)	103		77.0-120		12/10/2025 17:42	<a href="#">WG2655636</a>

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) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00116	1	12/10/2025 11:45	<a href="#">WG2655589</a>
Ethylbenzene	ND		0.0116	1	12/10/2025 11:45	<a href="#">WG2655589</a>
Toluene	ND		0.0116	1	12/10/2025 11:45	<a href="#">WG2655589</a>
1,2,4-Trimethylbenzene	ND		0.00582	1	12/10/2025 11:45	<a href="#">WG2655589</a>
1,3,5-Trimethylbenzene	ND		0.00582	1	12/10/2025 11:45	<a href="#">WG2655589</a>
Xylenes, Total	ND		0.116	1	12/10/2025 11:45	<a href="#">WG2655589</a>
(S) Toluene-d8	96.4		75.0-131		12/10/2025 11:45	<a href="#">WG2655589</a>
(S) 4-Bromofluorobenzene	111		67.0-138		12/10/2025 11:45	<a href="#">WG2655589</a>
(S) 1,2-Dichloroethane-d4	94.7		70.0-130		12/10/2025 11:45	<a href="#">WG2655589</a>

## Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	14.0	<u>B</u>	4.33	1	12/11/2025 15:05	<a href="#">WG2655405</a>
C28-C36 Motor Oil Range	39.8		4.33	1	12/11/2025 15:05	<a href="#">WG2655405</a>
(S) o-Terphenyl	90.7		18.0-148		12/11/2025 15:05	<a href="#">WG2655405</a>

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Acenaphthene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Acenaphthylene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Benzo(a)anthracene	ND		0.00649	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Benzo(a)pyrene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Benzo(b)fluoranthene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Benzo(g,h,i)perylene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Benzo(k)fluoranthene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Chrysene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Dibenz(a,h)anthracene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Fluoranthene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Fluorene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Indeno(1,2,3-cd)pyrene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Naphthalene	ND		0.00324	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Phenanthrene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
Pyrene	ND		0.0357	1	12/10/2025 23:31	<a href="#">WG2655439</a>
1-Methylnaphthalene	ND		0.00324	1	12/10/2025 23:31	<a href="#">WG2655439</a>
2-Methylnaphthalene	ND		0.0130	1	12/10/2025 23:31	<a href="#">WG2655439</a>
(S) p-Terphenyl-d14	87.1		23.0-120		12/10/2025 23:31	<a href="#">WG2655439</a>
(S) 2-Fluorobiphenyl	89.9		34.0-125		12/10/2025 23:31	<a href="#">WG2655439</a>
(S) 2-Methylnaphthalene-d10	94.1		50.0-150		12/10/2025 23:31	<a href="#">WG2655439</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4312492-1 12/10/25 09:52

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

1 Cp

2 Tc

3 Ss

L1925753-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1925753-01 12/10/25 09:52 • (DUP) R4312492-3 12/10/25 09:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	92.3	93.0	1	0.780		10

4 Cn

5 Sr

Laboratory Control Sample (LCS)

(LCS) R4312492-2 12/10/25 09:52

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

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4314170-1 12/13/25 10:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Hexavalent Chromium	U		0.200	0.200

<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

L1924911-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1924911-05 12/13/25 11:31 • (DUP) R4314170-7 12/13/25 11:43

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	ND	ND	1	0.000		20

L1924911-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1924911-14 12/13/25 13:23 • (DUP) R4314170-8 12/13/25 13:35

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4314170-2 12/13/25 10:11

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Hexavalent Chromium	10.0	8.90	89.0	80.0-120	

L1924911-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1924911-04 12/13/25 10:34 • (MS) R4314170-3 12/13/25 10:45 • (MSD) R4314170-4 12/13/25 10:57

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
Hexavalent Chromium	22.0	ND	18.6	20.1	84.7	91.5	1	75.0-125			7.78	20

L1924911-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1924911-04 12/13/25 10:34 • (MS) R4314170-5 12/13/25 11:08

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium	706	ND	631	89.3	50	75.0-125	

<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

L1925601-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1925601-01 12/10/25 11:18 • (DUP) R4312187-2 12/10/25 11:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
pH	8.13	8.14	1	0.123		1

Sample Narrative:

OS: 8.13 at 19C

DUP: 8.14 at 19C

Laboratory Control Sample (LCS)

(LCS) R4312187-1 12/10/25 11:18

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 18.7C

<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

Method Blank (MB)

(MB) R4312305-1 12/10/25 14:01

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:

BLANK: at 25C

L1925601-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1925601-01 12/10/25 14:01 • (DUP) R4312305-3 12/10/25 14:01

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Specific Conductance	6340	6280	1	0.951		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4312305-2 12/10/25 14:01

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	483	456	94.4	90.0-110	

Sample Narrative:

LCS: at 25C

<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

Method Blank (MB)

(MB) R4312278-1 12/10/25 13:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	U		0.0199	0.100

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

(LCS) R4312278-2 12/10/25 13:48 • (LCSD) R4312278-3 12/10/25 13:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.11	1.09	111	109	80.0-120			1.43	20

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

Method Blank (MB)

(MB) R4316805-1 12/19/25 16:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	0.100
Barium	U		10.0	10.0
Cadmium	U		0.100	0.100
Copper	U		10.0	10.0
Lead	U		10.0	10.0
Nickel	U		10.0	10.0
Selenium	U		0.100	0.100
Silver	U		0.500	0.500
Zinc	U		50.0	50.0

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

Laboratory Control Sample (LCS)

(LCS) R4316805-2 12/19/25 17:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	104	104	80.0-120	
Barium	100	98.8	98.8	80.0-120	
Cadmium	100	108	108	80.0-120	
Copper	100	103	103	80.0-120	
Lead	100	104	104	80.0-120	
Nickel	100	108	108	80.0-120	
Selenium	100	106	106	80.0-120	
Silver	20.0	20.5	103	80.0-120	
Zinc	100	103	103	80.0-120	

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1925603-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1925603-01 12/19/25 17:05 • (MS) R4316805-5 12/19/25 17:14 • (MSD) R4316805-6 12/19/25 17:17

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	115	7.22	122	123	99.9	101	1	75.0-125			0.923	20
Barium	115	184	266	273	71.4	77.5	1	75.0-125	J6		2.64	20
Cadmium	115	0.258	118	118	102	102	1	75.0-125			0.0119	20
Copper	115	12.4	123	124	96.2	96.5	1	75.0-125			0.293	20
Lead	115	15.7	129	132	98.6	101	1	75.0-125			2.51	20
Nickel	115	17.7	132	135	99.6	102	1	75.0-125			2.13	20
Selenium	115	1.41	120	119	103	102	1	75.0-125			0.604	20
Silver	23.0	ND	22.8	22.9	99.1	99.6	1	75.0-125			0.520	20

L1925603-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1925603-01 12/19/25 17:05 • (MS) R4316805-5 12/19/25 17:14 • (MSD) R4316805-6 12/19/25 17:17

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Zinc	115	68.5	179	183	95.6	99.8	1	75.0-125			2.66	20

<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

Method Blank (MB)

(MB) R4312558-3 12/10/25 11:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		2.00	2.50
<sup>(S)</sup> a,a,a-Trifluorotoluene(FID)	103			77.0-120

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

(LCS) R4312558-1 12/10/25 09:47 • (LCSD) R4312558-2 12/10/25 10:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.00	5.74	5.79	115	116	72.0-127			0.867	20
<sup>(S)</sup> a,a,a-Trifluorotoluene(FID)				106	108	77.0-120				

<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

Method Blank (MB)

(MB) R4312481-3 12/10/25 10:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/kg		ug/kg	ug/kg
Benzene	U		0.711	1.00
Ethylbenzene	U		0.987	10.0
Toluene	U		2.89	10.0
1,2,4-Trimethylbenzene	U		2.38	5.00
1,3,5-Trimethylbenzene	U		2.28	5.00
Xylenes, Total	U		2.80	100
(S) Toluene-d8	98.8			75.0-131
(S) 4-Bromofluorobenzene	108			67.0-138
(S) 1,2-Dichloroethane-d4	93.6			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) R4312481-1 12/10/25 08:34 • (LCSD) R4312481-2 12/10/25 08:53

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	%	%	%			%	%
Benzene	250	231	229	92.4	91.6	70.0-123			0.870	20
Ethylbenzene	250	212	206	84.8	82.4	74.0-126			2.87	20
Toluene	250	216	208	86.4	83.2	75.0-121			3.77	20
1,2,4-Trimethylbenzene	250	212	209	84.8	83.6	70.0-126			1.43	20
1,3,5-Trimethylbenzene	250	207	203	82.8	81.2	73.0-127			1.95	20
Xylenes, Total	750	672	658	89.6	87.7	72.0-127			2.11	20
(S) Toluene-d8				96.6	95.7	75.0-131				
(S) 4-Bromofluorobenzene				108	106	67.0-138				
(S) 1,2-Dichloroethane-d4				94.3	95.9	70.0-130				

L1925593-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1925593-01 12/10/25 10:28 • (MS) R4312481-4 12/10/25 16:50 • (MSD) R4312481-5 12/10/25 17:09

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	%	%		%			%	%
Benzene	283	ND	315	319	111	113	1	10.0-149			1.43	37
Ethylbenzene	283	ND	291	291	103	103	1	10.0-160			0.000	38
Toluene	283	ND	283	284	100	100	1	10.0-156			0.399	38
1,2,4-Trimethylbenzene	283	ND	275	282	97.2	99.6	1	10.0-160			2.44	36
1,3,5-Trimethylbenzene	283	ND	264	271	93.2	95.6	1	10.0-160			2.54	38
Xylenes, Total	849	ND	917	916	108	108	1	10.0-160			0.124	38
(S) Toluene-d8					94.7	95.0		75.0-131				
(S) 4-Bromofluorobenzene					111	110		67.0-138				

L1925593-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1925593-01 12/10/25 10:28 • (MS) R4312481-4 12/10/25 16:50 • (MSD) R4312481-5 12/10/25 17:09

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) 1,2-Dichloroethane-d4					96.6	97.9		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) R4313044-1 12/11/25 13:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	2.09	<u>J</u>	1.61	4.00
C28-C36 Motor Oil Range	1.10	<u>J</u>	0.274	4.00
(S) o-Terphenyl	101			18.0-148

Laboratory Control Sample (LCS)

(LCS) R4313044-2 12/11/25 14:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	44.8	89.6	50.0-150	
(S) o-Terphenyl			106	18.0-148	

L1925452-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1925452-03 12/11/25 15:55 • (MS) R4313044-3 12/11/25 16:08 • (MSD) R4313044-4 12/11/25 16:20

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	49.0	ND	ND	ND	314	949	500	50.0-150	<u>V</u>	<u>J3 V</u>	26.4	20
(S) o-Terphenyl					0.000	0.000		18.0-148	<u>J7</u>	<u>J7</u>		

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4312756-2 12/10/25 20:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00163	0.0330
Acenaphthene	U		0.00162	0.0330
Acenaphthylene	U		0.00159	0.0330
Benzo(a)anthracene	U		0.00200	0.00600
Benzo(a)pyrene	U		0.00163	0.0330
Benzo(b)fluoranthene	U		0.00275	0.0330
Benzo(g,h,i)perylene	U		0.00193	0.0330
Benzo(k)fluoranthene	U		0.00213	0.0330
Chrysene	U		0.00206	0.0330
Dibenz(a,h)anthracene	U		0.00201	0.0330
Fluoranthene	U		0.00239	0.0330
Fluorene	U		0.00180	0.0330
Indeno(1,2,3-cd)pyrene	U		0.00234	0.0330
Naphthalene	U		0.00300	0.00300
Phenanthrene	U		0.00305	0.0330
Pyrene	U		0.00205	0.0330
1-Methylnaphthalene	U		0.00219	0.00300
2-Methylnaphthalene	U		0.00571	0.0120
(S) p-Terphenyl-d14	110			23.0-120
(S) 2-Fluorobiphenyl	106			34.0-125
(S) 2-Methylnaphthalene-d10	115			50.0-150

<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

Laboratory Control Sample (LCS)

(LCS) R4312756-1 12/10/25 20:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0823	103	50.0-126	
Acenaphthene	0.0800	0.0719	89.9	50.0-120	
Acenaphthylene	0.0800	0.0848	106	50.0-120	
Benzo(a)anthracene	0.0800	0.0823	103	45.0-120	
Benzo(a)pyrene	0.0800	0.0533	66.6	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0703	87.9	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0624	78.0	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0605	75.6	49.0-125	
Chrysene	0.0800	0.0739	92.4	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0699	87.4	47.0-125	
Fluoranthene	0.0800	0.0828	104	49.0-129	
Fluorene	0.0800	0.0793	99.1	49.0-120	

Laboratory Control Sample (LCS)

(LCS) R4312756-1 12/10/25 20:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Indeno(1,2,3-cd)pyrene	0.0800	0.0682	85.3	46.0-125	
Naphthalene	0.0800	0.0799	99.9	50.0-120	
Phenanthrene	0.0800	0.0745	93.1	47.0-120	
Pyrene	0.0800	0.0706	88.3	43.0-123	
1-Methylnaphthalene	0.0800	0.0773	96.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0764	95.5	50.0-120	
<i>(S) p-Terphenyl-d14</i>			105	23.0-120	
<i>(S) 2-Fluorobiphenyl</i>			110	34.0-125	
<i>(S) 2-Methylnaphthalene-d10</i>			111	50.0-150	

L1925587-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1925587-01 12/10/25 21:12 • (MS) R4312756-3 12/10/25 21:32 • (MSD) R4312756-4 12/10/25 21:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0898	ND	0.0743	0.0806	82.7	89.7	1	10.0-145			8.18	30
Acenaphthene	0.0898	ND	0.0653	0.0722	72.7	80.4	1	14.0-127			10.1	27
Acenaphthylene	0.0898	ND	0.0798	0.0864	88.8	96.2	1	21.0-124			7.90	25
Benzo(a)anthracene	0.0898	ND	0.0734	0.0851	81.7	94.7	1	10.0-139			14.8	30
Benzo(a)pyrene	0.0898	ND	0.0592	0.0691	65.9	76.9	1	10.0-141			15.4	31
Benzo(b)fluoranthene	0.0898	ND	0.0586	0.0685	65.3	76.3	1	10.0-140			15.6	36
Benzo(g,h,i)perylene	0.0898	ND	0.0530	0.0614	59.0	68.3	1	10.0-140			14.7	33
Benzo(k)fluoranthene	0.0898	ND	0.0521	0.0607	57.9	67.6	1	10.0-137			15.3	31
Chrysene	0.0898	ND	0.0652	0.0745	72.6	82.9	1	10.0-145			13.4	30
Dibenz(a,h)anthracene	0.0898	ND	0.0617	0.0701	68.7	78.1	1	10.0-132			12.8	31
Fluoranthene	0.0898	ND	0.0723	0.0840	80.5	93.5	1	10.0-153			14.9	33
Fluorene	0.0898	ND	0.0749	0.0813	83.3	90.5	1	11.0-130			8.26	29
Indeno(1,2,3-cd)pyrene	0.0898	ND	0.0574	0.0673	63.8	74.9	1	10.0-137			15.9	32
Naphthalene	0.0898	ND	0.0767	0.0806	85.4	89.7	1	10.0-135			4.98	27
Phenanthrene	0.0898	ND	0.0707	0.0780	78.7	86.8	1	10.0-144			9.76	31
Pyrene	0.0898	ND	0.0625	0.0706	69.6	78.6	1	10.0-148			12.1	35
1-Methylnaphthalene	0.0898	ND	0.0735	0.0791	81.8	88.1	1	10.0-142			7.40	28
2-Methylnaphthalene	0.0898	ND	0.0741	0.0787	82.4	87.6	1	10.0-137			6.03	28
<i>(S) p-Terphenyl-d14</i>					82.4	92.7		23.0-120				
<i>(S) 2-Fluorobiphenyl</i>					86.8	94.7		34.0-125				
<i>(S) 2-Methylnaphthalene-d10</i>					94.0	102		50.0-150				

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.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
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
B	The same analyte is found in the associated blank.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 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.

