



<p>Legend</p> <ul style="list-style-type: none">● Spill Origin● Soil Sample Location— Flow Line		<p>0 120 240 Ft</p> <p>1 inch = 120 ft</p>	
Project No: 021-205	<p>Fee 40 Lateral Spill Site Diagram Scout Energy Partners NWSE, Section 28, T2N R102W, 6th PM Rio Blanco County, Colorado</p>		330 Grand Avenue, Unit C Grand Junction, CO 81501 970-549-1015
Map By: NDB			Figure
Date: 8/8/2023			100 Chevron Road Rangely, CO 81648 970-501-5157

Table 1
Fee 40 Lateral Spill
Soil Data Summary

SAMPLE SUMMARY	
Location Description	Fee 40 Lateral
Sample Type	Soil

LABORATORY DATA SUMMARY										
Sample ID	FEE 40	FEE 40-SS1	FEE 40-SS2	FEE 40-SS3	FEE 40-SS4	FEE 40-BG1	FEE 40-BG2	COGCC TABLE 915-1 CONCENTRATION LEVELS		
Depth	7'	1'	1'	1'	1'	1'	1'			
Sample Date	12/20/2022	7/11/2023	7/11/2023	7/11/2023	7/11/2023	7/11/2023	7/11/2023			
Analytical Parameters								Residential Soil Screening Level	Protection of Groundwater Screening Level	UNITS
TPH										
TPH (C6-C10)	0.0437 J	0.102	0.125	0.101	0.117	NT	NT	500		mg/kg
TPH (C10-C28)	16.5	1.90 J	6.69	8.79	5.97	NT	NT			
TPH (C28-C36)	18.3	6.0	35.0	25.7	18.6	NT	NT			
Volatile Organic Compounds										
1,2,4-Trimethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005	NT	NT	30	0.0081	mg/kg
1,3,5-Trimethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005	NT	NT	27	0.0087	mg/kg
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	NT	NT	1.2	0.0026	mg/kg
Toluene	<0.005	<0.005	<0.005	<0.005	<0.005	NT	NT	490	0.69	mg/kg
Ethylbenzene	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	NT	NT	5.8	0.78	mg/kg
Total Xylene	<0.0065	0.00133 J	<0.0065	0.00105 J	0.000925 J	NT	NT	58	9.9	mg/kg
Metals										
Arsenic	7.59	5.43	7.17	7.39	6.75	6.00	6.81	0.68	0.29	mg/kg
Barium	29.6	164	200	152	231	210	430	15,000	82	mg/kg
Cadmium	<1.00	0.212 J	0.374 J	0.409 J	0.302 J	0.305 J	0.461 J	71	0.38	mg/kg
Chromium, Hexavalent	<1.00	<1.00	0.262 J	<1.00	<1.00	<1.00	<1.00	0.3	0.00067	mg/kg
Copper	3.54 J	12.0	16.9	17.3	15.0	14.7	18.0	3,100	46	mg/kg
Lead	8.17	13.7	20.7	18.9	17.1	15.6	50.0	400	14	mg/kg
Nickel	6.87	14.6	20.1	20.7	17.9	17.0	20.1	1,500	26	mg/kg
Selenium	0.420 J	1.21 J	1.62 J	1.39 J	1.48 J	1.25 J	1.36	390	0.26	mg/kg
Silver	<0.500	<0.500	0.0953 J	0.116 J	<0.500	<0.500	0.103 J	390	0.8	mg/kg
Zinc	26.7	60.1	86.7	83.6	79.7	70.3	92.1	23,000	370	mg/kg
Soil Suitability for Reclamation										
Sodium Adsorption Ratio (SAR)	0.126	0.417	0.388	5.74	21.4	NT	NT	<6	<6	ratio
Electrical Conductivity (EC)	0.182	0.289	0.415	3.240	5.020	NT	NT	<4	<4	mmhos/cm
pH	8.43	8.24	8.12	7.84	8.30	NT	NT	6 - 8.3	6 - 8.3	su
Boron, Hot Water Soluble	0.602	0.589	0.662	1.81	2.45	0.58	1.32	2	2	mg/l
Polynuclear Aromatic Hydrocarbons										
1-Methylnaphthalene	<0.02	<0.02	<0.02	<0.02	<0.02	NT	NT	18	0.006	mg/kg
2-Methylnaphthalene	<0.02	<0.02	<0.02	<0.02	<0.02	NT	NT	24	0.019	mg/kg
Acenaphthene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	360	0.55	mg/kg
Anthracene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	1,800	5.8	mg/kg
Benzo(a)anthracene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	1.1	0.011	mg/kg
Benzo(a)pyrene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	0.11	0.24	mg/kg
Benzo(b)fluoranthene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	1.1	0.3	mg/kg
Benzo(k)fluoranthene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	11	2.9	mg/kg
Chrysene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	110	9	mg/kg
Dibenzo(a,h)anthracene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	0.11	0.096	mg/kg
Fluoranthene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	240	8.9	mg/kg
Fluorene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	240	0.54	mg/kg
Indeno(1,2,3-cd)pyrene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	1.1	0.98	mg/kg
Napthalene	<0.02	<0.02	<0.02	<0.02	<0.02	NT	NT	2	0.0038	mg/kg
Pyrene	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	180	1.3	mg/kg

mg/kg - milligrams per kilogram
mg/L - milligrams per liter
B - analyte detected in the associated Method Blank above the Reporting Limit
J - indicates an estimated value
H - analyzed outside of holding time
mmhos/cm - millimhos per centimeter
mv - millivolts
su - standard units
NA - not applicable
NT - parameter was not tested

Over COGCC Table 915-1 concentration levels but under BACKGROUND level.
Over COGCC Table 915-1 concentration levels and not within BACKGROUND level.
Over COGCC Table 915-1 concentration levels

Scout Energy - Rangely, CO

Sample Delivery Group: L1579558

Samples Received: 01/26/2023

Project Number:

Description:

Report To: Chris Patterson
100 Chevron Road
Rangely, CO 81648

Entire Report Reviewed By:



Chris Ward
Project Manager

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Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
FEE 40 L1579558-01	5
Qc: Quality Control Summary	7
Wet Chemistry by Method 7199	7
Wet Chemistry by Method 9045D	8
Wet Chemistry by Method 9050AMod	9
Metals (ICP) by Method 6010B-NE493 Ch 2	10
Metals (ICPMS) by Method 6020	11
Volatile Organic Compounds (GC) by Method 8015D/GRO	12
Volatile Organic Compounds (GC/MS) by Method 8260B	13
Semi-Volatile Organic Compounds (GC) by Method 8015M	14
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	15
Gl: Glossary of Terms	17
Al: Accreditations & Locations	18
Sc: Sample Chain of Custody	19

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

SAMPLE SUMMARY

FEE 40 L1579558-01 Solid

Collected by

Collected date/time

Received date/time

12/20/22 00:00

01/26/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1995907	1	02/02/23 00:30	02/02/23 00:30	ABL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1995857	1	01/27/23 15:37	01/30/23 01:55	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1995819	1	01/27/23 14:00	01/27/23 15:52	KAD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1998544	1	02/02/23 14:10	02/02/23 16:50	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1995677	1	01/30/23 14:28	02/01/23 18:06	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1995872	5	01/27/23 11:38	01/30/23 20:41	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1996600	1	01/26/23 16:51	01/30/23 18:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1995798	1	01/26/23 16:51	01/27/23 19:06	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1995592	1	01/27/23 14:36	01/28/23 11:53	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1995589	1	01/27/23 14:28	01/28/23 01:46	DSH	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

ACCOUNT:

Scout Energy - Rangely, CO

PROJECT:

SDG:

L1579558

DATE/TIME:

02/03/23 12:03

PAGE:

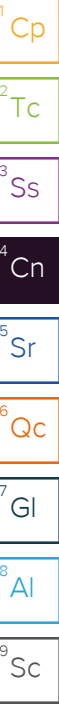
3 of 19

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



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.126		1	02/02/2023 00:30	WG1995907

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U	O1 T8	0.255	1.00	1	01/30/2023 01:55	WG1995857

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.43	T8	1	01/27/2023 15:52	WG1995819

Sample Narrative:

L1579558-01 WG1995819: 8.43 at 19.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	182	T8	10.0	1	02/02/2023 16:50	WG1998544

Sample Narrative:

L1579558-01 WG1998544: at 25C

Metals (ICP) by Method 6010B-NE493 Ch 2

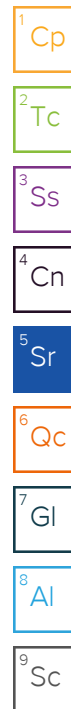
Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.602		0.0167	0.200	1	02/01/2023 18:06	WG1995677

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.59		0.100	1.00	5	01/30/2023 20:41	WG1995872
Barium	29.6		0.152	2.50	5	01/30/2023 20:41	WG1995872
Cadmium	U		0.0855	1.00	5	01/30/2023 20:41	WG1995872
Copper	3.54	J	0.132	5.00	5	01/30/2023 20:41	WG1995872
Lead	8.17		0.0990	2.00	5	01/30/2023 20:41	WG1995872
Nickel	6.87		0.197	2.50	5	01/30/2023 20:41	WG1995872
Selenium	0.420	J	0.180	2.50	5	01/30/2023 20:41	WG1995872
Silver	U		0.0865	0.500	5	01/30/2023 20:41	WG1995872
Zinc	26.7		0.740	25.0	5	01/30/2023 20:41	WG1995872

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0437	J T8	0.0217	0.100	1	01/30/2023 18:54	WG1996600
(S) a,a,a-Trifluorotoluene(FID)	102			77.0-120		01/30/2023 18:54	WG1996600



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U	T8	0.000467	0.00100	1	01/27/2023 19:06	WG1995798
Toluene	U	T8	0.00130	0.00500	1	01/27/2023 19:06	WG1995798
Ethylbenzene	U	T8	0.000737	0.00250	1	01/27/2023 19:06	WG1995798
Xylenes, Total	U	T8	0.000880	0.00650	1	01/27/2023 19:06	WG1995798
1,2,4-Trimethylbenzene	U	T8	0.00158	0.00500	1	01/27/2023 19:06	WG1995798
1,3,5-Trimethylbenzene	U	T8	0.00200	0.00500	1	01/27/2023 19:06	WG1995798
(S) Toluene-d8	112			75.0-131		01/27/2023 19:06	WG1995798
(S) 4-Bromofluorobenzene	97.6			67.0-138		01/27/2023 19:06	WG1995798
(S) 1,2-Dichloroethane-d4	91.1			70.0-130		01/27/2023 19:06	WG1995798

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	16.5	T8	1.61	4.00	1	01/28/2023 11:53	WG1995592
C28-C36 Motor Oil Range	18.3	T8	0.274	4.00	1	01/28/2023 11:53	WG1995592
(S) o-Terphenyl	97.0			18.0-148		01/28/2023 11:53	WG1995592

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U	T8	0.00209	0.00600	1	01/28/2023 01:46	WG1995589
Anthracene	U	T8	0.00230	0.00600	1	01/28/2023 01:46	WG1995589
Benzo(a)anthracene	U	T8	0.00173	0.00600	1	01/28/2023 01:46	WG1995589
Benzo(b)fluoranthene	U	T8	0.00153	0.00600	1	01/28/2023 01:46	WG1995589
Benzo(k)fluoranthene	U	T8	0.00215	0.00600	1	01/28/2023 01:46	WG1995589
Benzo(a)pyrene	U	T8	0.00179	0.00600	1	01/28/2023 01:46	WG1995589
Chrysene	U	T8	0.00232	0.00600	1	01/28/2023 01:46	WG1995589
Dibenz(a,h)anthracene	U	T8	0.00172	0.00600	1	01/28/2023 01:46	WG1995589
Fluoranthene	U	T8	0.00227	0.00600	1	01/28/2023 01:46	WG1995589
Fluorene	U	T8	0.00205	0.00600	1	01/28/2023 01:46	WG1995589
Indeno(1,2,3-cd)pyrene	U	T8	0.00181	0.00600	1	01/28/2023 01:46	WG1995589
1-Methylnaphthalene	U	T8	0.00449	0.0200	1	01/28/2023 01:46	WG1995589
2-Methylnaphthalene	U	T8	0.00427	0.0200	1	01/28/2023 01:46	WG1995589
Naphthalene	U	T8	0.00408	0.0200	1	01/28/2023 01:46	WG1995589
Pyrene	U	T8	0.00200	0.00600	1	01/28/2023 01:46	WG1995589
(S) p-Terphenyl-d14	70.8			23.0-120		01/28/2023 01:46	WG1995589
(S) Nitrobenzene-d5	66.5			14.0-149		01/28/2023 01:46	WG1995589
(S) 2-Fluorobiphenyl	74.7			34.0-125		01/28/2023 01:46	WG1995589

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3885503-1 01/30/23 01:11

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Hexavalent Chromium	U		0.255	1.00

L1579562-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1579562-01 01/30/23 02:31 • (DUP) R3885503-7 01/30/23 02:36

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	U	U	1	0.000		20

L1579612-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1579612-01 01/30/23 03:07 • (DUP) R3885503-8 01/30/23 03:13

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3885503-2 01/30/23 01:18

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	11.1	111	80.0-120	

L1579558-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1579558-01 01/30/23 01:55 • (MS) R3885503-4 01/30/23 02:05 • (MSD) R3885503-5 01/30/23 02:10

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	U	23.6	20.4	118	102	1	75.0-125			14.8	20

L1579558-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1579558-01 01/30/23 01:55 • (MS) R3885503-6 01/30/23 02:16

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	702	U	740	105	50	75.0-125	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1579627-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1579627-01 01/27/23 15:52 • (DUP) R3885230-2 01/27/23 15:52

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.57	7.58	1	0.132		1

Sample Narrative:

OS: 7.57 at 19C

DUP: 7.58 at 19C

Laboratory Control Sample (LCS)

(LCS) R3885230-1 01/27/23 15:52

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	su	su	%	%	
pH	10.0	9.90	99.0	99.0-101	

Sample Narrative:

LCS: 9.9 at 18C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3886965-1 02/02/23 16:50

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

L1579608-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1579608-03 02/02/23 16:50 • (DUP) R3886965-3 02/02/23 16:50

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	3680	4320	1	16.0		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3886965-2 02/02/23 16:50

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1120	99.6	85.0-115	

Sample Narrative:

LCS: at 25C

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3886547-1 02/01/23 17:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	U		0.0167	0.200

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

(LCS) R3886547-2 02/01/23 17:35 • (LCSD) R3886547-3 02/01/23 17:38

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	1.00	1.01	100	101	80.0-120			0.909	20

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3885857-1 01/30/23 19:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Copper	U		0.133	5.00
Lead	U		0.0990	2.00
Nickel	U		0.197	2.50
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500
Zinc	U		0.740	25.0

Laboratory Control Sample (LCS)

(LCS) R3885857-2 01/30/23 19:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	96.2	96.2	80.0-120	
Barium	100	94.6	94.6	80.0-120	
Cadmium	100	98.3	98.3	80.0-120	
Copper	100	97.7	97.7	80.0-120	
Lead	100	96.9	96.9	80.0-120	
Nickel	100	98.3	98.3	80.0-120	
Selenium	100	105	105	80.0-120	
Silver	20.0	19.3	96.7	80.0-120	
Zinc	100	94.8	94.8	80.0-120	

L1579690-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1579690-11 01/30/23 19:55 • (MS) R3885857-6 01/30/23 20:31 • (MSD) R3885857-5 01/30/23 20:08

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	4.18	83.6	86.0	79.4	81.9	5	75.0-125			2.85	20
Barium	100	142	181	222	39.3	80.6	5	75.0-125	E J6	E J3	20.5	20
Cadmium	100	0.321	87.2	92.7	86.9	92.4	5	75.0-125			6.16	20
Copper	100	16.7	95.0	103	78.3	85.9	5	75.0-125			7.72	20
Lead	100	68.9	109	127	39.9	58.4	5	75.0-125	J6	J6	15.7	20
Nickel	100	14.4	91.8	97.0	77.4	82.6	5	75.0-125			5.55	20
Selenium	100	0.592	95.5	96.5	94.9	95.9	5	75.0-125			0.981	20
Silver	20.0	U	17.4	18.0	87.2	89.8	5	75.0-125			3.00	20
Zinc	100	57.1	114	132	56.5	75.0	5	75.0-125	J6		15.0	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3886123-2 01/30/23 11:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	99.8			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3886123-1 01/30/23 10:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.55	119	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			117	77.0-120	

L1579234-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1579234-01 01/30/23 15:51 • (MS) R3886123-3 01/30/23 19:17 • (MSD) R3886123-4 01/30/23 19:40

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	0.0443	3.28	4.19	58.8	75.4	1	10.0-151			24.4	28
(S) a,a,a-Trifluorotoluene(FID)					105	108		77.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3885424-3 01/27/23 10:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	111			75.0-131
(S) 4-Bromofluorobenzene	98.1			67.0-138
(S) 1,2-Dichloroethane-d4	92.4			70.0-130

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

(LCS) R3885424-1 01/27/23 08:55 • (LCSD) R3885424-2 01/27/23 09:14

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 %
Benzene	0.125	0.117	0.105	93.6	84.0	70.0-123			10.8	20
Toluene	0.125	0.125	0.113	100	90.4	75.0-121			10.1	20
Ethylbenzene	0.125	0.113	0.0982	90.4	78.6	74.0-126			14.0	20
Xylenes, Total	0.375	0.342	0.305	91.2	81.3	72.0-127			11.4	20
1,2,4-Trimethylbenzene	0.125	0.108	0.0937	86.4	75.0	70.0-126			14.2	20
1,3,5-Trimethylbenzene	0.125	0.118	0.107	94.4	85.6	73.0-127			9.78	20
(S) Toluene-d8				112	114	75.0-131				
(S) 4-Bromofluorobenzene				100	97.4	67.0-138				
(S) 1,2-Dichloroethane-d4				95.6	91.6	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3885377-1 01/28/23 08:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	69.5			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3885377-2 01/28/23 09:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	38.3	76.6	50.0-150	
(S) o-Terphenyl			89.6	18.0-148	

L1579605-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1579605-01 01/28/23 11:59 • (MS) R3885377-3 01/28/23 12:13 • (MSD) R3885377-4 01/28/23 12:27

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	50.0	4.16	42.1	40.7	75.9	73.5	1	50.0-150			3.38	20
(S) o-Terphenyl					80.0	78.9		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3885751-2 01/27/23 21:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	83.2			23.0-120
(S) Nitrobenzene-d5	69.8			14.0-149
(S) 2-Fluorobiphenyl	83.9			34.0-125

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3885751-1 01/27/23 21:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0769	96.1	50.0-120	
Anthracene	0.0800	0.0714	89.3	50.0-126	
Benzo(a)anthracene	0.0800	0.0737	92.1	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0750	93.8	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0746	93.3	49.0-125	
Benzo(a)pyrene	0.0800	0.0668	83.5	42.0-120	
Chrysene	0.0800	0.0797	99.6	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0716	89.5	47.0-125	
Fluoranthene	0.0800	0.0760	95.0	49.0-129	
Fluorene	0.0800	0.0765	95.6	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0740	92.5	46.0-125	
1-Methylnaphthalene	0.0800	0.0752	94.0	51.0-121	
2-Methylnaphthalene	0.0800	0.0762	95.3	50.0-120	
Naphthalene	0.0800	0.0781	97.6	50.0-120	
Pyrene	0.0800	0.0808	101	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R3885751-1 01/27/23 21:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			90.3	23.0-120	
(S) Nitrobenzene-d5			84.5	14.0-149	
(S) 2-Fluorobiphenyl			94.5	34.0-125	

L1579480-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1579480-01 01/27/23 22:06 • (MS) R3885751-3 01/27/23 22:26 • (MSD) R3885751-4 01/27/23 22:46

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0784	U	0.0554	0.0549	70.7	68.6	1	14.0-127			0.907	27
Anthracene	0.0784	U	0.0497	0.0491	63.4	61.4	1	10.0-145			1.21	30
Benzo(a)anthracene	0.0784	U	0.0485	0.0475	61.9	59.4	1	10.0-139			2.08	30
Benzo(b)fluoranthene	0.0784	U	0.0474	0.0443	60.5	55.4	1	10.0-140			6.76	36
Benzo(k)fluoranthene	0.0784	U	0.0483	0.0447	61.6	55.9	1	10.0-137			7.74	31
Benzo(a)pyrene	0.0784	U	0.0510	0.0491	65.1	61.4	1	10.0-141			3.80	31
Chrysene	0.0784	U	0.0542	0.0523	69.1	65.4	1	10.0-145			3.57	30
Dibenz(a,h)anthracene	0.0784	U	0.0453	0.0427	57.8	53.4	1	10.0-132			5.91	31
Fluoranthene	0.0784	U	0.0507	0.0493	64.7	61.6	1	10.0-153			2.80	33
Fluorene	0.0784	U	0.0534	0.0545	68.1	68.1	1	11.0-130			2.04	29
Indeno(1,2,3-cd)pyrene	0.0784	U	0.0463	0.0445	59.1	55.6	1	10.0-137			3.96	32
1-Methylnaphthalene	0.0784	U	0.0564	0.0567	71.9	70.9	1	10.0-142			0.530	28
2-Methylnaphthalene	0.0784	U	0.0563	0.0570	71.8	71.3	1	10.0-137			1.24	28
Naphthalene	0.0784	U	0.0613	0.0625	78.2	78.1	1	10.0-135			1.94	27
Pyrene	0.0784	U	0.0525	0.0507	67.0	63.4	1	10.0-148			3.49	35
(S) p-Terphenyl-d14					55.7	51.9		23.0-120				
(S) Nitrobenzene-d5					62.8	64.5		14.0-149				
(S) 2-Fluorobiphenyl					54.0	55.6		34.0-125				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

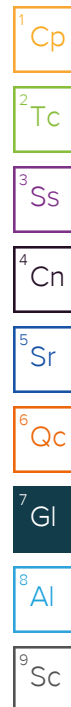
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	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
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.
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.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.



ACCREDITATIONS & LOCATIONS

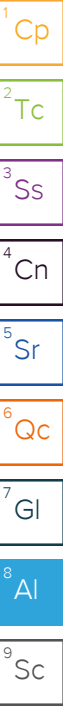
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



Scout Energy Partners
100 Chevron Road
Rangely, CO 81648

Billing Information:

Same as left

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page ____ of ____



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# 1579566
F065

Acctnum: SCOENERCO

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks Sample # (lab only)

-01

Report to:
Chris Patterson

Project
Description: Fee 40 Spill

Email To:
chris.patterson@scoutep.com

Phone: 1-970-501-5157
Fax:

Client Project #

City/State
Collected: CO

Lab Project #

Collected by (print):
SCOUT

Site/Facility ID #

P.O. #

Collected by (signature):
SCOUT

Rush? (Lab MUST Be Notified)

___ Same Day ___ X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No.
of
Cntrs

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

No.
of
Cntrs

BTEX, TMBs

Table 915 PAHs

Table 915 Metals

Hot Water Soluble Boron

GRO/DRO/ORO

SAR/EC/pH

Fee 40

Grab

SS

7'

12/20/22

N/A

1

X

X

X

X

X

X

Remarks:

Please prioritize organic analysis, SAR, EC, and pH if volume is insufficient.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:

___ UPS ___ FedEx ___ Courier

Tracking #

Received by: (Signature)

Received by: (Signature)

Received for lab by: (Signature)

Trip Blank Received: Yes (No) HCL / MeOH TBR

Bottles Received: 1

Date: 1-26-23 Time: 0930

Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N

COC Signed/Accurate: ☒ Y ☐ N

Bottles arrive intact: ☒ Y ☐ N

Correct bottles used: ☒ Y ☐ N

Sufficient volume sent: ☒ Y ☐ N

If Applicable

VOA Zero Headspace: ☒ Y ☐ N

Preservation Correct/Checked: ☒ Y ☐ N

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Relinquished by: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

Date:
1/24/23

Time:
1515

Date:
1/24/23

Time:
1530

Scout Energy - Rangely, CO

Sample Delivery Group: L1635495

Samples Received: 07/14/2023

Project Number:

Description: Fee 40 Spill

Report To: Chris Patterson
100 Chevron Road
Rangely, CO 81648

Entire Report Reviewed By:



Chris Ward
Project Manager

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

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
FEE 40-SS1-(1') L1635495-01	6
FEE 40-SS2-(1') L1635495-02	8
FEE 40-SS3-(1') L1635495-03	10
FEE 40-SS4-(1') L1635495-04	12
FEE 40-BG1-(1') L1635495-05	14
FEE 40-BG2-(1') L1635495-06	15
Qc: Quality Control Summary	16
Wet Chemistry by Method 7199	16
Wet Chemistry by Method 9045D	17
Wet Chemistry by Method 9050AMod	19
Metals (ICP) by Method 6010B-NE493 Ch 2	20
Metals (ICPMS) by Method 6020	22
Volatile Organic Compounds (GC) by Method 8015D/GRO	24
Volatile Organic Compounds (GC/MS) by Method 8260B	25
Semi-Volatile Organic Compounds (GC) by Method 8015M	26
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	27
Gl: Glossary of Terms	29
Al: Accreditations & Locations	30
Sc: Sample Chain of Custody	31

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

SAMPLE SUMMARY

FEE 40-SS1-(1') L1635495-01 Solid

Collected by
M. Schlageter

Collected date/time
07/11/23 11:00

Received date/time
07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095327	1	07/25/23 16:11	07/25/23 16:11	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095567	1	07/17/23 00:43	07/17/23 16:19	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2095683	1	07/16/23 08:22	07/16/23 13:00	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2095574	1	07/15/23 15:37	07/15/23 18:07	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095332	1	07/21/23 09:53	07/25/23 09:10	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/18/23 18:44	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/19/23 14:21	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096198	1	07/17/23 10:41	07/17/23 12:12	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096216	1	07/17/23 10:41	07/17/23 17:27	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2097093	1	07/19/23 20:23	07/20/23 10:28	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097418	1	07/19/23 06:54	07/19/23 14:26	DLH	Mt. Juliet, TN



FEE 40-SS2-(1') L1635495-02 Solid

Collected by
M. Schlageter

Collected date/time
07/11/23 11:10

Received date/time
07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095327	1	07/25/23 16:14	07/25/23 16:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095567	1	07/17/23 00:43	07/17/23 16:29	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2095847	1	07/16/23 16:04	07/17/23 10:00	SJA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2095574	1	07/15/23 15:37	07/15/23 18:07	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095332	1	07/21/23 09:53	07/25/23 09:13	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/18/23 18:55	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/19/23 14:31	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096198	1	07/17/23 10:41	07/17/23 12:36	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096216	1	07/17/23 10:41	07/17/23 17:48	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2097093	1	07/19/23 20:23	07/20/23 12:01	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097418	1	07/19/23 06:54	07/19/23 14:43	DLH	Mt. Juliet, TN

FEE 40-SS3-(1') L1635495-03 Solid

Collected by
M. Schlageter

Collected date/time
07/11/23 11:20

Received date/time
07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095327	1	07/25/23 16:17	07/25/23 16:17	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095567	1	07/17/23 00:43	07/17/23 16:34	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2095847	1	07/16/23 16:04	07/17/23 10:00	SJA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2095574	1	07/15/23 15:37	07/15/23 18:07	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095332	1	07/21/23 09:53	07/25/23 09:16	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/18/23 18:58	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/19/23 14:34	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096198	1	07/17/23 10:41	07/17/23 12:59	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096216	1	07/17/23 10:41	07/17/23 18:10	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2097093	1	07/19/23 20:23	07/20/23 11:08	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097418	1	07/19/23 06:54	07/19/23 15:01	DLH	Mt. Juliet, TN

FEE 40-SS4-(1') L1635495-04 Solid

Collected by
M. Schlageter

Collected date/time
07/11/23 11:30

Received date/time
07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095327	1	07/25/23 16:20	07/25/23 16:20	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095567	1	07/17/23 00:43	07/17/23 16:39	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2095847	1	07/16/23 16:04	07/17/23 10:00	SJA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2095574	1	07/15/23 15:37	07/15/23 18:07	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095332	1	07/21/23 09:53	07/25/23 09:19	ZSA	Mt. Juliet, TN

SAMPLE SUMMARY

FEE 40-SS4-(1') L1635495-04 Solid

Collected by
M. Schlageter

Collected date/time
07/11/23 11:30

Received date/time
07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/18/23 19:01	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/19/23 14:38	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096198	1	07/17/23 10:41	07/17/23 13:22	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096216	1	07/17/23 10:41	07/17/23 18:32	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2097093	1	07/19/23 20:23	07/20/23 10:42	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097418	1	07/19/23 06:54	07/19/23 15:18	DLH	Mt. Juliet, TN

FEE 40-BG1-(1') L1635495-05 Solid

Collected by
M. Schlageter

Collected date/time
07/11/23 11:40

Received date/time
07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 7199	WG2095567	1	07/17/23 00:43	07/17/23 16:44	VSS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2102867	1	07/27/23 12:20	07/28/23 10:56	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/18/23 19:05	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/19/23 14:41	JPD	Mt. Juliet, TN

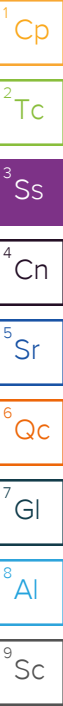
FEE 40-BG2-(1') L1635495-06 Solid

Collected by
M. Schlageter

Collected date/time
07/11/23 11:50

Received date/time
07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 7199	WG2095567	1	07/17/23 00:43	07/17/23 17:20	VSS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2102867	1	07/27/23 12:20	07/28/23 10:59	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/18/23 19:08	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/19/23 14:44	JPD	Mt. Juliet, TN



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



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.417		1	07/25/2023 16:11	WG2095327

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	07/17/2023 16:19	WG2095567

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.24	T8	1	07/16/2023 13:00	WG2095683

Sample Narrative:

L1635495-01 WG2095683: 8.24 at 22.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	289		10.0	1	07/15/2023 18:07	WG2095574

Sample Narrative:

L1635495-01 WG2095574: at 25C

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.589		0.0167	0.200	1	07/25/2023 09:10	WG2095332

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.43		0.100	1.00	5	07/18/2023 18:44	WG2095880
Barium	164		0.152	2.50	5	07/18/2023 18:44	WG2095880
Cadmium	0.212	J	0.0855	1.00	5	07/18/2023 18:44	WG2095880
Copper	12.0		0.132	5.00	5	07/19/2023 14:21	WG2095880
Lead	13.7		0.0990	2.00	5	07/18/2023 18:44	WG2095880
Nickel	14.6		0.197	2.50	5	07/18/2023 18:44	WG2095880
Selenium	1.21	J	0.180	2.50	5	07/18/2023 18:44	WG2095880
Silver	U		0.0865	0.500	5	07/18/2023 18:44	WG2095880
Zinc	60.1		0.740	25.0	5	07/18/2023 18:44	WG2095880

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.102	B	0.0217	0.100	1	07/17/2023 12:12	WG2096198
(S) a,a,a-Trifluorotoluene(FID)	93.2			77.0-120		07/17/2023 12:12	WG2096198

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	07/17/2023 17:27	WG2096216
Toluene	U		0.00130	0.00500	1	07/17/2023 17:27	WG2096216
Ethylbenzene	U		0.000737	0.00250	1	07/17/2023 17:27	WG2096216
Xylenes, Total	0.00133	<u>J</u>	0.000880	0.00650	1	07/17/2023 17:27	WG2096216
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/17/2023 17:27	WG2096216
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/17/2023 17:27	WG2096216
(S) Toluene-d8	112			75.0-131		07/17/2023 17:27	WG2096216
(S) 4-Bromofluorobenzene	93.6			67.0-138		07/17/2023 17:27	WG2096216
(S) 1,2-Dichloroethane-d4	116			70.0-130		07/17/2023 17:27	WG2096216

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	1.90	<u>J</u>	1.61	4.00	1	07/20/2023 10:28	WG2097093
C28-C36 Motor Oil Range	6.00	<u>B</u>	0.274	4.00	1	07/20/2023 10:28	WG2097093
(S) o-Terphenyl	62.8			18.0-148		07/20/2023 10:28	WG2097093

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	07/19/2023 14:26	WG2097418
Anthracene	U		0.00230	0.00600	1	07/19/2023 14:26	WG2097418
Benzo(a)anthracene	U		0.00173	0.00600	1	07/19/2023 14:26	WG2097418
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/19/2023 14:26	WG2097418
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/19/2023 14:26	WG2097418
Benzo(a)pyrene	U		0.00179	0.00600	1	07/19/2023 14:26	WG2097418
Chrysene	U		0.00232	0.00600	1	07/19/2023 14:26	WG2097418
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/19/2023 14:26	WG2097418
Fluoranthene	U		0.00227	0.00600	1	07/19/2023 14:26	WG2097418
Fluorene	U		0.00205	0.00600	1	07/19/2023 14:26	WG2097418
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/19/2023 14:26	WG2097418
1-Methylnaphthalene	U		0.00449	0.0200	1	07/19/2023 14:26	WG2097418
2-Methylnaphthalene	U		0.00427	0.0200	1	07/19/2023 14:26	WG2097418
Naphthalene	U		0.00408	0.0200	1	07/19/2023 14:26	WG2097418
Pyrene	U		0.00200	0.00600	1	07/19/2023 14:26	WG2097418
(S) p-Terphenyl-d14	76.4			23.0-120		07/19/2023 14:26	WG2097418
(S) Nitrobenzene-d5	69.3			14.0-149		07/19/2023 14:26	WG2097418
(S) 2-Fluorobiphenyl	76.0			34.0-125		07/19/2023 14:26	WG2097418

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.388		1	07/25/2023 16:14	WG2095327

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.262	J	0.255	1.00	1	07/17/2023 16:29	WG2095567

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.12	T8	1	07/17/2023 10:00	WG2095847

Sample Narrative:

L1635495-02 WG2095847: 8.12 at 21.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	415		10.0	1	07/15/2023 18:07	WG2095574

Sample Narrative:

L1635495-02 WG2095574: at 25C

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.662		0.0167	0.200	1	07/25/2023 09:13	WG2095332

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.17		0.100	1.00	5	07/18/2023 18:55	WG2095880
Barium	200		0.152	2.50	5	07/18/2023 18:55	WG2095880
Cadmium	0.374	J	0.0855	1.00	5	07/18/2023 18:55	WG2095880
Copper	16.9		0.132	5.00	5	07/19/2023 14:31	WG2095880
Lead	20.7		0.0990	2.00	5	07/18/2023 18:55	WG2095880
Nickel	20.1		0.197	2.50	5	07/18/2023 18:55	WG2095880
Selenium	1.62	J	0.180	2.50	5	07/18/2023 18:55	WG2095880
Silver	0.0953	J	0.0865	0.500	5	07/18/2023 18:55	WG2095880
Zinc	86.7		0.740	25.0	5	07/18/2023 18:55	WG2095880

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.125	B	0.0217	0.100	1	07/17/2023 12:36	WG2096198
(S) a,a,a-Trifluorotoluene(FID)	91.8			77.0-120		07/17/2023 12:36	WG2096198

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	07/17/2023 17:48	WG2096216
Toluene	U		0.00130	0.00500	1	07/17/2023 17:48	WG2096216
Ethylbenzene	U		0.000737	0.00250	1	07/17/2023 17:48	WG2096216
Xylenes, Total	U		0.000880	0.00650	1	07/17/2023 17:48	WG2096216
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/17/2023 17:48	WG2096216
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/17/2023 17:48	WG2096216
(S) Toluene-d8	111			75.0-131		07/17/2023 17:48	WG2096216
(S) 4-Bromofluorobenzene	90.5			67.0-138		07/17/2023 17:48	WG2096216
(S) 1,2-Dichloroethane-d4	115			70.0-130		07/17/2023 17:48	WG2096216

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	6.69		1.61	4.00	1	07/20/2023 12:01	WG2097093
C28-C36 Motor Oil Range	35.0		0.274	4.00	1	07/20/2023 12:01	WG2097093
(S) o-Terphenyl	59.5			18.0-148		07/20/2023 12:01	WG2097093

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	07/19/2023 14:43	WG2097418
Anthracene	U		0.00230	0.00600	1	07/19/2023 14:43	WG2097418
Benzo(a)anthracene	U		0.00173	0.00600	1	07/19/2023 14:43	WG2097418
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/19/2023 14:43	WG2097418
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/19/2023 14:43	WG2097418
Benzo(a)pyrene	U		0.00179	0.00600	1	07/19/2023 14:43	WG2097418
Chrysene	U		0.00232	0.00600	1	07/19/2023 14:43	WG2097418
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/19/2023 14:43	WG2097418
Fluoranthene	U		0.00227	0.00600	1	07/19/2023 14:43	WG2097418
Fluorene	U		0.00205	0.00600	1	07/19/2023 14:43	WG2097418
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/19/2023 14:43	WG2097418
1-Methylnaphthalene	U		0.00449	0.0200	1	07/19/2023 14:43	WG2097418
2-Methylnaphthalene	U		0.00427	0.0200	1	07/19/2023 14:43	WG2097418
Naphthalene	U		0.00408	0.0200	1	07/19/2023 14:43	WG2097418
Pyrene	U		0.00200	0.00600	1	07/19/2023 14:43	WG2097418
(S) p-Terphenyl-d14	72.5			23.0-120		07/19/2023 14:43	WG2097418
(S) Nitrobenzene-d5	68.2			14.0-149		07/19/2023 14:43	WG2097418
(S) 2-Fluorobiphenyl	72.2			34.0-125		07/19/2023 14:43	WG2097418

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	5.74		1	07/25/2023 16:17	WG2095327

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	07/17/2023 16:34	WG2095567

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.84	T8	1	07/17/2023 10:00	WG2095847

Sample Narrative:

L1635495-03 WG2095847: 7.84 at 22.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	3240		10.0	1	07/15/2023 18:07	WG2095574

Sample Narrative:

L1635495-03 WG2095574: at 25C

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	1.81		0.0167	0.200	1	07/25/2023 09:16	WG2095332

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.39		0.100	1.00	5	07/18/2023 18:58	WG2095880
Barium	152		0.152	2.50	5	07/18/2023 18:58	WG2095880
Cadmium	0.409	J	0.0855	1.00	5	07/18/2023 18:58	WG2095880
Copper	17.3		0.132	5.00	5	07/19/2023 14:34	WG2095880
Lead	18.9		0.0990	2.00	5	07/18/2023 18:58	WG2095880
Nickel	20.7		0.197	2.50	5	07/18/2023 18:58	WG2095880
Selenium	1.39	J	0.180	2.50	5	07/18/2023 18:58	WG2095880
Silver	0.116	J	0.0865	0.500	5	07/18/2023 18:58	WG2095880
Zinc	83.6		0.740	25.0	5	07/18/2023 18:58	WG2095880

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.101	B	0.0217	0.100	1	07/17/2023 12:59	WG2096198
(S) a,a,a-Trifluorotoluene(FID)	91.5			77.0-120		07/17/2023 12:59	WG2096198

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	07/17/2023 18:10	WG2096216
Toluene	U		0.00130	0.00500	1	07/17/2023 18:10	WG2096216
Ethylbenzene	U		0.000737	0.00250	1	07/17/2023 18:10	WG2096216
Xylenes, Total	0.00105	J	0.000880	0.00650	1	07/17/2023 18:10	WG2096216
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/17/2023 18:10	WG2096216
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/17/2023 18:10	WG2096216
(S) Toluene-d8	115			75.0-131		07/17/2023 18:10	WG2096216
(S) 4-Bromofluorobenzene	97.0			67.0-138		07/17/2023 18:10	WG2096216
(S) 1,2-Dichloroethane-d4	117			70.0-130		07/17/2023 18:10	WG2096216

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	8.79		1.61	4.00	1	07/20/2023 11:08	WG2097093
C28-C36 Motor Oil Range	25.7		0.274	4.00	1	07/20/2023 11:08	WG2097093
(S) o-Terphenyl	56.5			18.0-148		07/20/2023 11:08	WG2097093

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	07/19/2023 15:01	WG2097418
Anthracene	U		0.00230	0.00600	1	07/19/2023 15:01	WG2097418
Benzo(a)anthracene	U		0.00173	0.00600	1	07/19/2023 15:01	WG2097418
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/19/2023 15:01	WG2097418
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/19/2023 15:01	WG2097418
Benzo(a)pyrene	U		0.00179	0.00600	1	07/19/2023 15:01	WG2097418
Chrysene	U		0.00232	0.00600	1	07/19/2023 15:01	WG2097418
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/19/2023 15:01	WG2097418
Fluoranthene	U		0.00227	0.00600	1	07/19/2023 15:01	WG2097418
Fluorene	U		0.00205	0.00600	1	07/19/2023 15:01	WG2097418
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/19/2023 15:01	WG2097418
1-Methylnaphthalene	U		0.00449	0.0200	1	07/19/2023 15:01	WG2097418
2-Methylnaphthalene	U		0.00427	0.0200	1	07/19/2023 15:01	WG2097418
Naphthalene	U		0.00408	0.0200	1	07/19/2023 15:01	WG2097418
Pyrene	U		0.00200	0.00600	1	07/19/2023 15:01	WG2097418
(S) p-Terphenyl-d14	74.5			23.0-120		07/19/2023 15:01	WG2097418
(S) Nitrobenzene-d5	70.0			14.0-149		07/19/2023 15:01	WG2097418
(S) 2-Fluorobiphenyl	75.3			34.0-125		07/19/2023 15:01	WG2097418

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	21.4		1	07/25/2023 16:20	WG2095327

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	07/17/2023 16:39	WG2095567

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.30	T8	1	07/17/2023 10:00	WG2095847

Sample Narrative:
L1635495-04 WG2095847: 8.3 at 21.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	5020		10.0	1	07/15/2023 18:07	WG2095574

Sample Narrative:
L1635495-04 WG2095574: at 25C

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	2.45		0.0167	0.200	1	07/25/2023 09:19	WG2095332

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.75		0.100	1.00	5	07/18/2023 19:01	WG2095880
Barium	231		0.152	2.50	5	07/18/2023 19:01	WG2095880
Cadmium	0.302	J	0.0855	1.00	5	07/18/2023 19:01	WG2095880
Copper	15.0		0.132	5.00	5	07/19/2023 14:38	WG2095880
Lead	17.1		0.0990	2.00	5	07/18/2023 19:01	WG2095880
Nickel	17.9		0.197	2.50	5	07/18/2023 19:01	WG2095880
Selenium	1.48	J	0.180	2.50	5	07/18/2023 19:01	WG2095880
Silver	U		0.0865	0.500	5	07/18/2023 19:01	WG2095880
Zinc	79.7		0.740	25.0	5	07/18/2023 19:01	WG2095880

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.117	B	0.0217	0.100	1	07/17/2023 13:22	WG2096198
(S) a,a,a-Trifluorotoluene(FID)	93.2			77.0-120		07/17/2023 13:22	WG2096198

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	07/17/2023 18:32	WG2096216
Toluene	U		0.00130	0.00500	1	07/17/2023 18:32	WG2096216
Ethylbenzene	U		0.000737	0.00250	1	07/17/2023 18:32	WG2096216
Xylenes, Total	0.000925	<u>J</u>	0.000880	0.00650	1	07/17/2023 18:32	WG2096216
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/17/2023 18:32	WG2096216
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/17/2023 18:32	WG2096216
(S) Toluene-d8	114			75.0-131		07/17/2023 18:32	WG2096216
(S) 4-Bromofluorobenzene	92.8			67.0-138		07/17/2023 18:32	WG2096216
(S) 1,2-Dichloroethane-d4	103			70.0-130		07/17/2023 18:32	WG2096216

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	5.97		1.61	4.00	1	07/20/2023 10:42	WG2097093
C28-C36 Motor Oil Range	18.6		0.274	4.00	1	07/20/2023 10:42	WG2097093
(S) o-Terphenyl	52.2			18.0-148		07/20/2023 10:42	WG2097093

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	07/19/2023 15:18	WG2097418
Anthracene	U		0.00230	0.00600	1	07/19/2023 15:18	WG2097418
Benzo(a)anthracene	U		0.00173	0.00600	1	07/19/2023 15:18	WG2097418
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/19/2023 15:18	WG2097418
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/19/2023 15:18	WG2097418
Benzo(a)pyrene	U		0.00179	0.00600	1	07/19/2023 15:18	WG2097418
Chrysene	U		0.00232	0.00600	1	07/19/2023 15:18	WG2097418
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/19/2023 15:18	WG2097418
Fluoranthene	U		0.00227	0.00600	1	07/19/2023 15:18	WG2097418
Fluorene	U		0.00205	0.00600	1	07/19/2023 15:18	WG2097418
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/19/2023 15:18	WG2097418
1-Methylnaphthalene	U		0.00449	0.0200	1	07/19/2023 15:18	WG2097418
2-Methylnaphthalene	U		0.00427	0.0200	1	07/19/2023 15:18	WG2097418
Naphthalene	U		0.00408	0.0200	1	07/19/2023 15:18	WG2097418
Pyrene	U		0.00200	0.00600	1	07/19/2023 15:18	WG2097418
(S) p-Terphenyl-d14	71.6			23.0-120		07/19/2023 15:18	WG2097418
(S) Nitrobenzene-d5	64.9			14.0-149		07/19/2023 15:18	WG2097418
(S) 2-Fluorobiphenyl	71.5			34.0-125		07/19/2023 15:18	WG2097418

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Hexavalent Chromium	U		0.255	1.00	1	07/17/2023 16:44	WG2095567

¹Cp

²Tc

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Hot Water Sol. Boron	0.580		0.0167	0.200	1	07/28/2023 10:56	WG2102867

³Ss

⁴Cn

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	6.00		0.100	1.00	5	07/18/2023 19:05	WG2095880
Barium	210		0.152	2.50	5	07/18/2023 19:05	WG2095880
Cadmium	0.305	J	0.0855	1.00	5	07/18/2023 19:05	WG2095880
Copper	14.7		0.132	5.00	5	07/19/2023 14:41	WG2095880
Lead	15.6		0.0990	2.00	5	07/18/2023 19:05	WG2095880
Nickel	17.0		0.197	2.50	5	07/18/2023 19:05	WG2095880
Selenium	1.25	J	0.180	2.50	5	07/18/2023 19:05	WG2095880
Silver	U		0.0865	0.500	5	07/18/2023 19:05	WG2095880
Zinc	70.3		0.740	25.0	5	07/18/2023 19:05	WG2095880

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Hexavalent Chromium	U		0.255	1.00	1	07/17/2023 17:20	WG2095567

¹Cp

²Tc

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Hot Water Sol. Boron	1.32		0.0167	0.200	1	07/28/2023 10:59	WG2102867

³Ss

⁴Cn

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	6.81		0.100	1.00	5	07/18/2023 19:08	WG2095880
Barium	430		0.152	2.50	5	07/18/2023 19:08	WG2095880
Cadmium	0.461	J	0.0855	1.00	5	07/18/2023 19:08	WG2095880
Copper	18.0		0.132	5.00	5	07/19/2023 14:44	WG2095880
Lead	50.0		0.0990	2.00	5	07/18/2023 19:08	WG2095880
Nickel	20.1		0.197	2.50	5	07/18/2023 19:08	WG2095880
Selenium	1.36	J	0.180	2.50	5	07/18/2023 19:08	WG2095880
Silver	0.103	J	0.0865	0.500	5	07/18/2023 19:08	WG2095880
Zinc	92.1		0.740	25.0	5	07/18/2023 19:08	WG2095880

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3949518-1 07/17/23 16:06

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Hexavalent Chromium	U		0.255	1.00

L1635495-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1635495-01 07/17/23 16:19 • (DUP) R3949518-3 07/17/23 16:24

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	U	U	1	0.000		20

L1635796-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1635796-02 07/17/23 21:45 • (DUP) R3949518-8 07/17/23 21:50

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3949518-2 07/17/23 16:14

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	11.6	116	80.0-120	

L1635495-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635495-05 07/17/23 16:44 • (MS) R3949518-4 07/17/23 16:49 • (MSD) R3949518-5 07/17/23 16:55

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	U	17.9	17.3	89.5	86.7	1	75.0-125			3.25	20

L1635495-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1635495-05 07/17/23 16:44 • (MS) R3949518-6 07/17/23 17:10

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	643	U	798	124	50	75.0-125	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1635421-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1635421-04 07/16/23 13:00 • (DUP) R3949078-2 07/16/23 13:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.80	7.84	1	0.512		1

Sample Narrative:
OS: 7.8 at 23.3C
DUP: 7.84 at 23.5C

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

L1635421-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1635421-07 07/16/23 13:00 • (DUP) R3949078-3 07/16/23 13:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.92	7.93	1	0.126		1

Sample Narrative:
OS: 7.92 at 23.3C
DUP: 7.93 at 23.2C

Laboratory Control Sample (LCS)

(LCS) R3949078-1 07/16/23 13:00

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

Sample Narrative:
LCS: 10 at 22.7C

L1635593-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1635593-01 07/17/23 10:00 • (DUP) R3949261-2 07/17/23 10:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.64	8.63	1	0.116		1

Sample Narrative:

OS: 8.64 at 22.2C

DUP: 8.63 at 22.2C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1635599-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1635599-07 07/17/23 10:00 • (DUP) R3949261-3 07/17/23 10:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	9.00	9.04	1	0.443		1

Sample Narrative:

OS: 9 at 21.5C

DUP: 9.04 at 21.5C

Laboratory Control Sample (LCS)

(LCS) R3949261-1 07/17/23 10:00

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

Sample Narrative:

LCS: 10 at 21.6C

Method Blank (MB)

(MB) R3948997-1 07/15/23 18:07

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

L1635495-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1635495-04 07/15/23 18:07 • (DUP) R3948997-3 07/15/23 18:07

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	5020	4920	1	2.01		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1635668-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1635668-11 07/15/23 18:07 • (DUP) R3948997-4 07/15/23 18:07

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	693	629	1	9.68		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3948997-2 07/15/23 18:07

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	732	723	98.8	85.0-115	

Sample Narrative:

LCS: at 25C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3952441-1 07/25/23 09:03

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	U		0.0167	0.200

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

(LCS) R3952441-2 07/25/23 09:05 • (LCSD) R3952441-3 07/25/23 09:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.11	1.12	111	112	80.0-120			0.914	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3953962-1 07/28/23 10:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	U		0.0167	0.200

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

(LCS) R3953962-2 07/28/23 10:51 • (LCSD) R3953962-3 07/28/23 10:53

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	1.08	1.08	108	108	80.0-120			0.406	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3950062-1 07/18/23 18:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Lead	U		0.0990	2.00
Nickel	U		0.197	2.50
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500
Zinc	U		0.740	25.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3950297-7 07/19/23 13:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Copper	U		0.133	5.00

Laboratory Control Sample (LCS)

(LCS) R3950062-2 07/18/23 18:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	86.0	86.0	80.0-120	
Barium	100	82.0	82.0	80.0-120	
Cadmium	100	84.5	84.5	80.0-120	
Lead	100	84.0	84.0	80.0-120	
Nickel	100	84.7	84.7	80.0-120	
Selenium	100	87.8	87.8	80.0-120	
Silver	20.0	16.5	82.4	80.0-120	
Zinc	100	81.1	81.1	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3950297-2 07/19/23 13:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Copper	100	80.1	80.1	80.0-120	

L1635656-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635656-13 07/18/23 18:20 • (MS) R3950062-5 07/18/23 18:31 • (MSD) R3950062-6 07/18/23 18:34

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	99.9	2.87	97.5	95.4	94.6	92.5	5	75.0-125			2.17	20
Barium	99.9	80.8	198	184	117	103	5	75.0-125			7.43	20
Cadmium	99.9	U	89.5	93.2	89.5	93.2	5	75.0-125			4.05	20
Lead	99.9	3.76	90.5	89.7	86.7	86.0	5	75.0-125			0.870	20
Nickel	99.9	8.19	104	98.5	96.2	90.3	5	75.0-125			5.79	20
Selenium	99.9	0.212	94.7	98.9	94.5	98.7	5	75.0-125			4.38	20
Silver	20.0	U	17.1	18.2	85.6	90.8	5	75.0-125			5.85	20
Zinc	99.9	30.6	118	119	87.7	88.3	5	75.0-125			0.519	20

L1635656-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635656-13 07/19/23 13:59 • (MS) R3950297-5 07/19/23 14:08 • (MSD) R3950297-6 07/19/23 14:11

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Copper	99.9	8.58	93.1	95.2	84.6	86.6	5	75.0-125			2.17	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3949319-2 07/17/23 11:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0312	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	97.9			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3949319-1 07/17/23 10:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.04	73.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			96.8	77.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3950152-2 07/17/23 11:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	112			75.0-131
(S) 4-Bromofluorobenzene	91.6			67.0-138
(S) 1,2-Dichloroethane-d4	107			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3950152-1 07/17/23 09:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.115	92.0	70.0-123	
Toluene	0.125	0.125	100	75.0-121	
Ethylbenzene	0.125	0.134	107	74.0-126	
Xylenes, Total	0.375	0.383	102	72.0-127	
1,2,4-Trimethylbenzene	0.125	0.112	89.6	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.113	90.4	73.0-127	
(S) Toluene-d8			110	75.0-131	
(S) 4-Bromofluorobenzene			97.1	67.0-138	
(S) 1,2-Dichloroethane-d4			125	70.0-130	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3950843-1 07/20/23 09:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	1.80	J	0.274	4.00
(S) o-Terphenyl	82.4			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3950843-2 07/20/23 09:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	34.4	68.8	50.0-150	
(S) o-Terphenyl			62.0	18.0-148	

L1635511-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635511-05 07/20/23 13:33 • (MS) R3950843-3 07/20/23 13:47 • (MSD) R3950843-4 07/20/23 14:00

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	49.2	49.9	112	87.8	126	76.6	5	50.0-150		J3	24.2	20
(S) o-Terphenyl					46.0	42.9		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3950287-2 07/19/23 13:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	72.7			23.0-120
(S) Nitrobenzene-d5	68.2			14.0-149
(S) 2-Fluorobiphenyl	72.3			34.0-125

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Laboratory Control Sample (LCS)

(LCS) R3950287-1 07/19/23 13:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0518	64.8	50.0-120	
Anthracene	0.0800	0.0519	64.9	50.0-126	
Benzo(a)anthracene	0.0800	0.0547	68.4	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0514	64.3	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0535	66.9	49.0-125	
Benzo(a)pyrene	0.0800	0.0504	63.0	42.0-120	
Chrysene	0.0800	0.0549	68.6	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0524	65.5	47.0-125	
Fluoranthene	0.0800	0.0582	72.8	49.0-129	
Fluorene	0.0800	0.0556	69.5	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0558	69.8	46.0-125	
1-Methylnaphthalene	0.0800	0.0556	69.5	51.0-121	
2-Methylnaphthalene	0.0800	0.0568	71.0	50.0-120	
Naphthalene	0.0800	0.0512	64.0	50.0-120	
Pyrene	0.0800	0.0520	65.0	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R3950287-1 07/19/23 13:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			71.1	23.0-120	
(S) Nitrobenzene-d5			68.3	14.0-149	
(S) 2-Fluorobiphenyl			71.5	34.0-125	

L1635495-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635495-04 07/19/23 15:18 • (MS) R3950287-3 07/19/23 15:35 • (MSD) R3950287-4 07/19/23 15:53

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0760	U	0.0465	0.0481	61.2	63.0	1	14.0-127			3.38	27
Anthracene	0.0760	U	0.0453	0.0475	59.6	62.2	1	10.0-145			4.74	30
Benzo(a)anthracene	0.0760	U	0.0478	0.0492	62.9	64.4	1	10.0-139			2.89	30
Benzo(b)fluoranthene	0.0760	U	0.0459	0.0474	60.4	62.0	1	10.0-140			3.22	36
Benzo(k)fluoranthene	0.0760	U	0.0472	0.0483	62.1	63.2	1	10.0-137			2.30	31
Benzo(a)pyrene	0.0760	U	0.0517	0.0531	68.0	69.5	1	10.0-141			2.67	31
Chrysene	0.0760	U	0.0487	0.0507	64.1	66.4	1	10.0-145			4.02	30
Dibenz(a,h)anthracene	0.0760	U	0.0467	0.0480	61.4	62.8	1	10.0-132			2.75	31
Fluoranthene	0.0760	U	0.0518	0.0539	68.2	70.5	1	10.0-153			3.97	33
Fluorene	0.0760	U	0.0505	0.0507	66.4	66.4	1	11.0-130			0.395	29
Indeno(1,2,3-cd)pyrene	0.0760	U	0.0484	0.0516	63.7	67.5	1	10.0-137			6.40	32
1-Methylnaphthalene	0.0760	U	0.0479	0.0504	63.0	66.0	1	10.0-142			5.09	28
2-Methylnaphthalene	0.0760	U	0.0498	0.0516	65.5	67.5	1	10.0-137			3.55	28
Naphthalene	0.0760	U	0.0454	0.0464	59.7	60.7	1	10.0-135			2.18	27
Pyrene	0.0760	U	0.0468	0.0481	61.6	63.0	1	10.0-148			2.74	35
(S) p-Terphenyl-d14					63.6	65.2		23.0-120				
(S) Nitrobenzene-d5					58.2	61.9		14.0-149				
(S) 2-Fluorobiphenyl					64.9	66.6		34.0-125				

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

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.

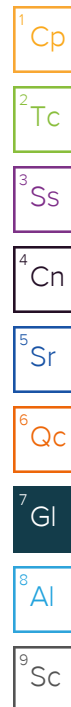
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	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

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.
T8	Sample(s) received past/too close to holding time expiration.



ACCREDITATIONS & LOCATIONS

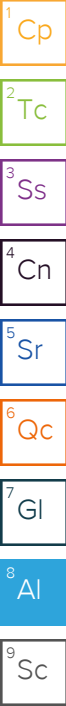
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



Scout Energy Partners
100 Chevron Road
Rangely, CO 81648

Billing Information:

Same as left

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page ____ of ____



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1635495
F072

Acctnum: **SCOENERCO**

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks Sample # (lab only)

Report to:
Chris Patterson

Email To:
chris.patterson@scoutep.com

Project
Description: **FEE 40 SPILL**

City/State
Collected: **CO**

Phone: **1-970-501-5157**
Fax:

Client Project #

Lab Project #

Collected by (print):
M.Schlageter

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

ms
Immediately
Packed on Ice N ___ Y ☒

___ Same Day ☒ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

No.
of
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time		BTEX, TMBs	Table 915 PAHs	Table 915 Metals	Hot Water Soluble Boron	GRO/DRO/ORO	SAR/EC/pH						
Fee 40-SS1-(1')	Grab	SS	1'	7/11/23	1100	4	X	X	X	X	X	X						-01
Fee 40-SS2-(1')	Grab	SS	1'	7/11/23	1110	4	X	X	X	X	X	X						-02
Fee 40-SS3-(1')	Grab	SS	1'	7/11/23	1120	4	X	X	X	X	X	X						-03
Fee 40-SS4-(1')	Grab	SS	1'	7/11/23	1130	4	X	X	X	X	X	X						-04
Fee 40-BG1-(1')	Grab	SS	1'	7/11/23	1140	4			X	X								-05
Fee 40-BG2-(1')	Grab	SS	1'	7/11/23	1150	4			X	X								-06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:
___ UPS ___ FedEx ___ Courier

Tracking #

pH ___ Temp ___

Flow ___ Other ___

Sample Receipt Checklist

COC Seal Present/Intact: ☒ NP ☒ Y ☒ N
COC Signed/Accurate: ☒ Y ☒ N
Bottles arrive intact: ☒ Y ☒ N
Correct bottles used: ☒ Y ☒ N
Sufficient volume sent: ☒ Y ☒ N
If Applicable
VOA Zero Headpace: ☒ Y ☒ N
Preservation Correct/Checked: ☒ Y ☒ N

Relinquished by: (Signature)
[Signature]

Date: 7/12/23

Time: 930

Received by: (Signature)

[Signature]

Trip Blank Received: Yes ☒ No ☒
HCL / MeOH
TBR

Relinquished by: (Signature)

[Signature]

Date: 7/12/23

Time: 1030

Received by: (Signature)

Temp: 63.4°C Bottles Received: 23
1.8 + 0 = 1.8

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

D. Ramboey (4)

Date: 07-14-23 Time: 0900

Hold:

Condition:
NCF / ☒ OK