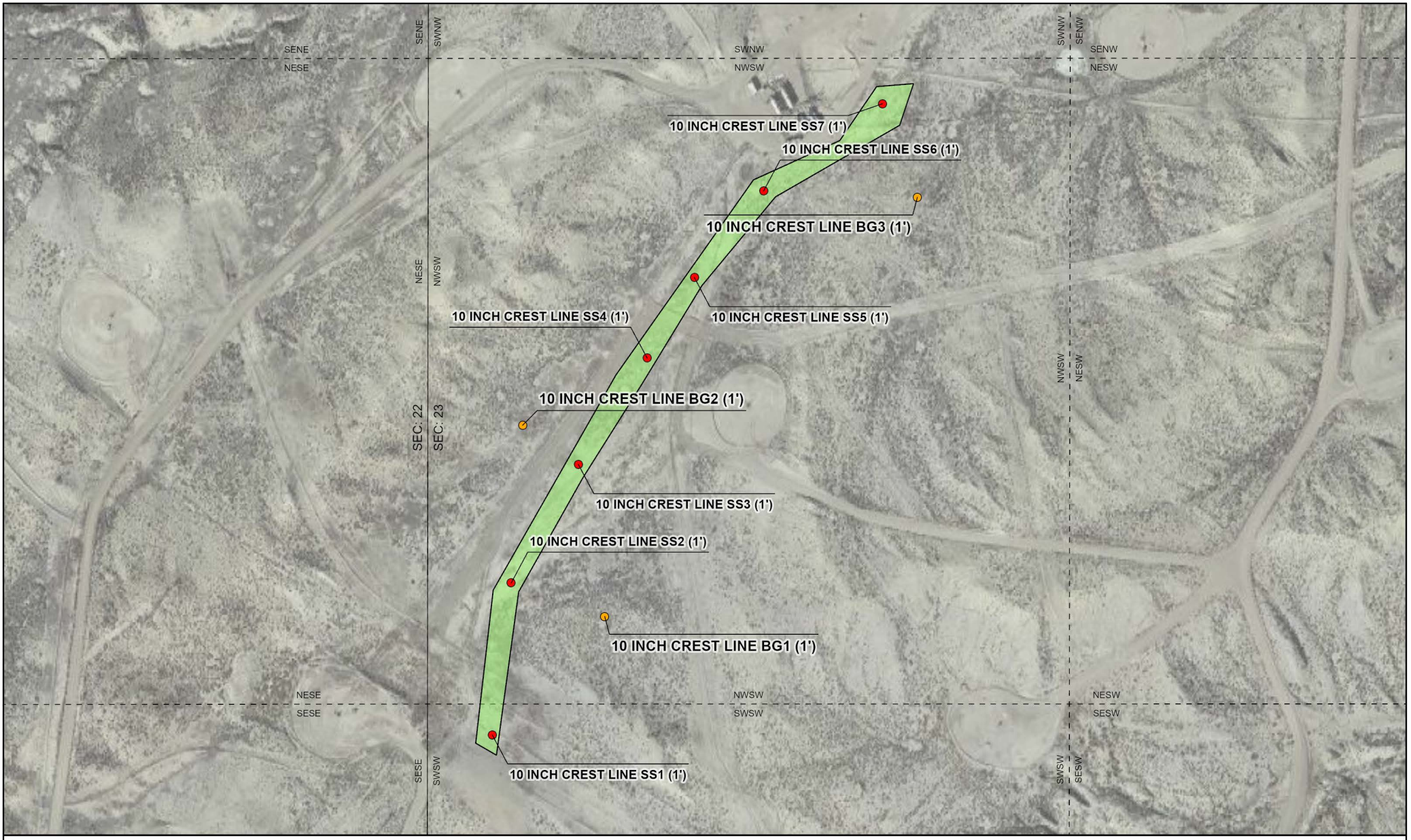


Legend

- Background Sample
- Soil Sample Location
- Spill Path

0 350 700 Ft

1 inch = 350 ft

N W E S

Project No:	021-205
Map By:	NDB
Date:	1/16/2024

10 inch Crest Line Spill
Scout Energy Partners
NWSE / SWSW, Section 23, T2N R103W, 6th PM
Rio Blanco County, Colorado

ENTRADA CONSULTING GROUP
330 Grand Avenue, Unit C
Grand Junction, CO 81501
970-549-1015

SCOUT
100 Chevron Road
Rangely, CO 81648
970-501-5157

Figure
1

Table 1
10 Inch Crest Line Spill
Soil Data Summary

SAMPLE SUMMARY	
Location Description	10 Inch Crest Line Spill
Sample Type	Soil

LABORATORY DATA SUMMARY														
Sample ID	10 IN CREST LINE SS1	10 IN CREST LINE SS2	10 IN CREST LINE SS3	10 IN CREST LINE SS4	10 IN CREST LINE SS5	10 IN CREST LINE SS6	10 IN CREST LINE SS7	10 IN CREST LINE BG1	10 IN CREST LINE BG2	10 IN CREST LINE BG3	ACM47-BG1	ECMC TABLE 915-1 CONCENTRATION LEVELS		
Depth	1'	1'	1'	1'	1'	1'	1'	1'	1'	1'	0-6"			
Sample Date	7/12/2023	7/12/2023	7/12/2023	7/12/2023	7/12/2023	7/12/2023	7/12/2023	7/12/2023	7/12/2023	7/12/2023	3/18/2021			
Analytical Parameters												**Residential Soil Screening Level**	**Protection of Groundwater Screening Level**	**UNITS**
TPH														
TPH (C6-C10)	0.111	0.195	0.13	0.18	0.132	0.107	0.0924 J	NT	NT	NT	NT	500		mg/kg
TPH (C10-C28)	18.1	1.65 J	17.0	6.67	<4.00	15.3	116	NT	NT	NT	NT			
TPH (C28-C36)	47.8	8.01	88.2	13.3	2.67 J	45.4	322	NT	NT	NT	NT			
Volatile Organic Compounds														
1,2,4-Trimethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NT	NT	NT	NT	30	0.0081	mg/kg
1,3,5-Trimethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NT	NT	NT	NT	27	0.0087	mg/kg
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	NT	NT	NT	1.2	0.0026	mg/kg
Toluene	<0.005	0.00178 J	<0.005	<0.005	<0.005	<0.005	<0.005	NT	NT	NT	NT	490	0.69	mg/kg
Ethylbenzene	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	NT	NT	NT	NT	5.8	0.78	mg/kg
Total Xylene	0.00133 J	0.00195 J	0.0011 J	0.0011 J	<0.0065	<0.0065	0.000925 J	NT	NT	NT	NT	58	9.9	mg/kg
Metals														
Arsenic	6.00	4.76	6.27	5.57	5.36	5.73	6.59	4.90	5.36	5.96	6.4	0.68	0.29	mg/kg
Barium	190	92.9	128	69.3	111	130	198	94	212	95.7	150	15,000	82	mg/kg
Cadmium	0.186 J	0.150 J	0.247 J	0.135 J	0.181 J	0.183 J	0.229 J	0.170 J	0.203 J	0.193 J	0.17	71	0.38	mg/kg
Chromium, Hexavalent	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.99	0.3	0.00067	mg/kg
Copper	9.68	8.71	11.8	9.63	10.6	10.1	11.6	8.17	9.83	11.7	13	3,100	46	mg/kg
Lead	13.0	11.0	15.2	11.6	11.8	17.1	17.7	10.1	12.7	16.5	17	400	14	mg/kg
Nickel	14.3	11.8	14.3	12.2	13.7	13.1	15.8	11.0	12.6	13.9	17	1,500	26	mg/kg
Selenium	0.900 J	0.985 J	0.984 J	0.973 J	1.20 J	0.974 J	1.16 J	0.590 J	0.745 J	1.36 J	0.82	390	0.26	mg/kg
Silver	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	0.0893 J	0.083 J	390	0.8	mg/kg
Zinc	65.8	49.1	63.7	51.9	56.2	60.5	71.6	46.3	51.2	63.5	67	23,000	370	mg/kg
Soil Suitability for Reclamation														
Sodium Adsorption Ratio (SAR)	41.4	0.105	1.26	65.0	63.0	59.3	63.1	NT	NT	NT	0.14	<6	<6	ratio
Electrical Conductivity (EC)	10.60	1.84	0.356	16.20	7.73	14.00	15.20	NT	NT	NT	0.51	<4	<4	mmhos/cm
pH	8.33	7.72	8.50	7.80	8.99	8.27	7.92	NT	NT	NT	9.53	6 - 8.3	6 - 8.3	su
Boron, Hot Water Soluble	5.55	0.853	0.894	4.17	4.13	4.10	4.59	0.771	0.80	1.75	1.6 B	2	2	mg/l
Polynuclear Aromatic Hyrdrocarbons														
1-Methylnaphthalene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.00493 J	NT	NT	NT	NT	18	0.006	mg/kg
2-Methylnaphthalene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.00526 J	NT	NT	NT	NT	24	0.019	mg/kg
Acenaphthene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	NT	NT	NT	NT	360	0.55	mg/kg
Anthracene	0.00299 J	<0.006	0.00753	<0.006	<0.006	<0.006	<0.006	NT	NT	NT	NT	1,800	5.8	mg/kg
Benzo(a)anthracene	<0.006	<0.006	0.0299	<0.006	<0.006	<0.006	<0.006	NT	NT	NT	NT	1.1	0.011	mg/kg
Benzo(a)pyrene	<0.006	<0.006	0.015	<0.006	<0.006	<0.006	<0.006	NT	NT	NT	NT	0.11	0.24	mg/kg
Benzo(b)fluoranthene	<0.006	<0.006	0.0303	<0.006	<0.006	<0.006	<0.006	NT	NT	NT	NT	1.1	0.3	mg/kg
Benzo(k)fluoranthene	<0.006	<0.006	0.0103	<0.006	<0.006	<0.006	<0.006	NT	NT	NT	NT	11	2.9	mg/kg
Chrysene	<0.006	<0.006	0.0267	<0.006	<0.006	<0.006	<0.006	NT	NT	NT	NT	110	9	mg/kg
Dibenzo(a,h)anthracene	<0.006	<0.006	0.00315 J	<0.006	<0.006	<0.006	<0.006	NT	NT	NT	NT	0.11	0.096	mg/kg
Fluoranthene	<0.006	<0.006	0.0931	<0.006	<0.006	<0.006	<0.006	NT	NT	NT	NT	240	8.9	mg/kg
Fluorene	0.00418 J	<0.006	<0.006	<0.006	<0.006	<0.006	0.00348 J	NT	NT	NT	NT	240	0.54	mg/kg
Indeno(1,2,3-cd)pyrene	<0.006	<0.006	0.0166	<0.006	<0.006	<0.006	<0.006	NT	NT	NT	NT	1.1	0.98	mg/kg
Napthalene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	NT	NT	NT	NT	2	0.0038	mg/kg
Pyrene	0.00349 J	<0.006	0.0823	<0.006	<0.006	<0.006	<0.006	NT	NT	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 ECMC Table 915-1 concentration levels but under BACKGROUND level.
Over ECMC Table 915-1 concentration levels and not within BACKGROUND level.
Over ECMC Table 915-1 concentration levels

ANALYTICAL REPORT

July 26, 2023

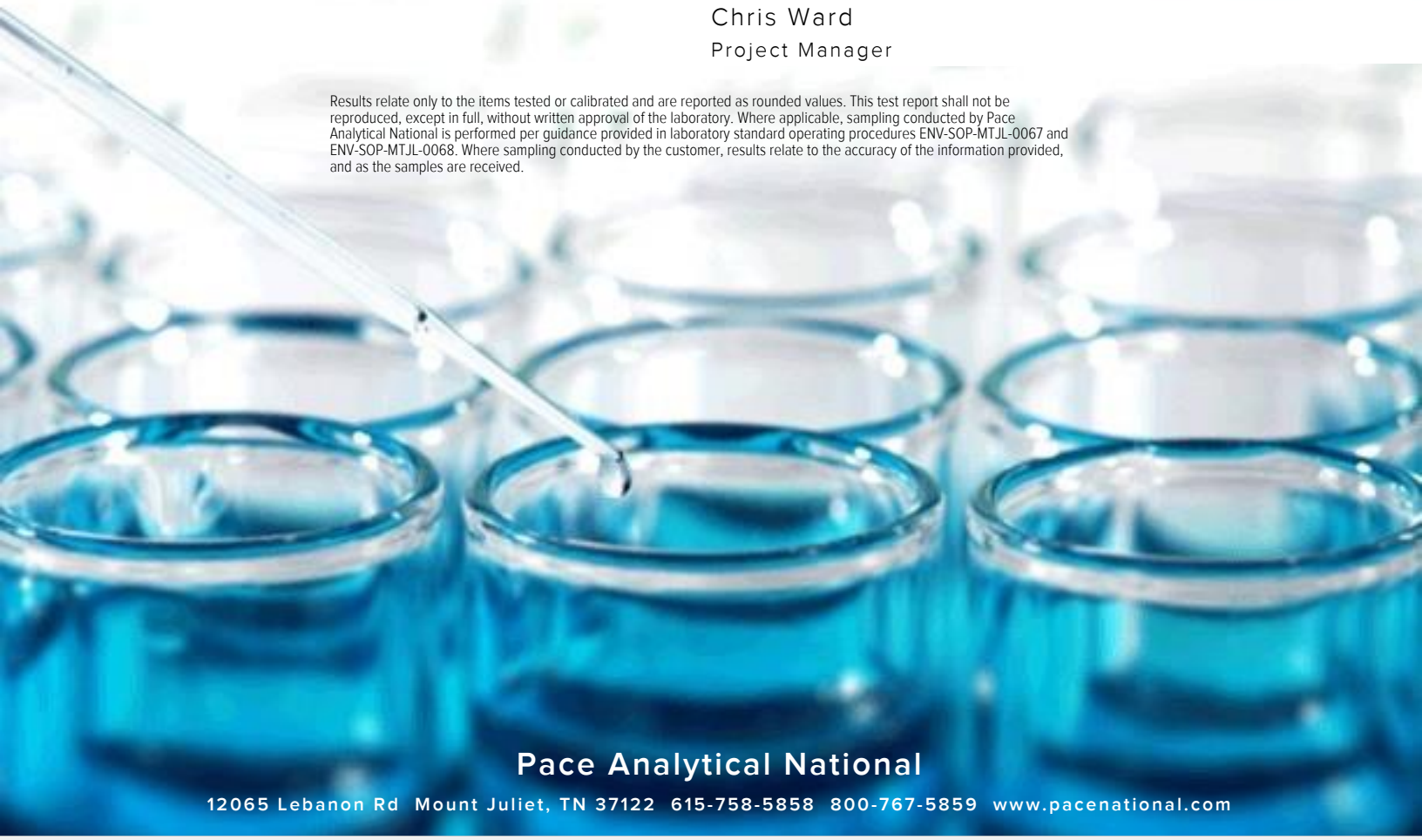
Scout Energy - Rangely, CO

Sample Delivery Group:	L1635421
Samples Received:	07/14/2023
Project Number:	
Description:	10 inch Crest line Spill

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

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



Pace Analytical National
12065 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 6

Sr: Sample Results 7

10 IN CREST LINE SS1 (1') L1635421-01 7

10 IN CREST LINE SS2 (1') L1635421-02 9

10 IN CREST LINE SS3 (1') L1635421-03 11

10 IN CREST LINE SS4 (1') L1635421-04 13

10 IN CREST LINE SS5 (1') L1635421-05 15

10 IN CREST LINE SS6 (1') L1635421-06 17

10 IN CREST LINE SS7 (1') L1635421-07 19

10 IN CREST LINE BG1 (1') L1635421-08 21

10 IN CREST LINE BG2 (1') L1635421-09 22

10 IN CREST LINE BG3 (1') L1635421-10 23

Qc: Quality Control Summary 24

Wet Chemistry by Method 7199 24

Wet Chemistry by Method 9045D 25

Wet Chemistry by Method 9050AMod 27

Metals (ICP) by Method 6010B-NE493 Ch 2 28

Metals (ICPMS) by Method 6020 31

Volatile Organic Compounds (GC) by Method 8015D/GRO 34

Volatile Organic Compounds (GC/MS) by Method 8260B 35

Semi-Volatile Organic Compounds (GC) by Method 8015M 36

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM 37

Gl: Glossary of Terms 39

Al: Accreditations & Locations 40

Sc: Sample Chain of Custody 41

10 IN CREST LINE SS1 (1') L1635421-01 Solid

Collected by: M. Schlageter | Collected date/time: 07/12/23 10:00 | Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095325	1	07/24/23 12:45	07/24/23 12:45	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095917	1	07/18/23 01:30	07/18/23 11:28	SET	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	WG2096047	1	07/17/23 08:56	07/17/23 13:04	MCC	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095331	1	07/21/23 09:51	07/24/23 11:24	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095886	5	07/16/23 18:13	07/18/23 19:05	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096505	1	07/17/23 14:10	07/17/23 23:50	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096607	1	07/17/23 14:10	07/18/23 02:03	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2098201	1	07/20/23 16:33	07/21/23 05:59	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097511	1	07/22/23 09:31	07/22/23 21:17	MBE	Mt. Juliet, TN

10 IN CREST LINE SS2 (1') L1635421-02 Solid

Collected by: M. Schlageter | Collected date/time: 07/12/23 10:10 | Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095325	1	07/24/23 12:48	07/24/23 12:48	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095917	1	07/18/23 01:30	07/18/23 11:33	SET	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	WG2096047	1	07/17/23 08:56	07/17/23 13:04	MCC	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095331	1	07/21/23 09:51	07/24/23 10:48	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095886	5	07/16/23 18:13	07/18/23 19:08	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096505	1	07/17/23 14:10	07/18/23 00:13	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096607	1	07/17/23 14:10	07/18/23 02:22	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2098201	1	07/20/23 16:33	07/21/23 04:21	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097511	1	07/22/23 09:31	07/22/23 14:45	MBE	Mt. Juliet, TN

10 IN CREST LINE SS3 (1') L1635421-03 Solid

Collected by: M. Schlageter | Collected date/time: 07/12/23 10:20 | Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095326	1	07/25/23 15:17	07/25/23 15:17	SPL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095917	1	07/18/23 01:30	07/18/23 11:38	SET	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	WG2096047	1	07/17/23 08:56	07/17/23 13:04	MCC	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095334	1	07/20/23 17:19	07/25/23 15:31	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095886	5	07/16/23 18:13	07/18/23 19:11	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096505	1	07/17/23 14:10	07/18/23 00:36	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096607	1	07/17/23 14:10	07/18/23 02:40	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2098201	1	07/20/23 16:33	07/21/23 05:31	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097511	1	07/22/23 09:31	07/22/23 19:39	MBE	Mt. Juliet, TN

10 IN CREST LINE SS4 (1') L1635421-04 Solid

Collected by: M. Schlageter | Collected date/time: 07/12/23 10:30 | Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095326	1	07/25/23 15:20	07/25/23 15:20	SPL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095917	1	07/18/23 01:30	07/18/23 11:54	SET	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	WG2096047	1	07/17/23 08:56	07/17/23 13:04	MCC	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095334	1	07/20/23 17:19	07/25/23 15:34	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095886	5	07/16/23 18:13	07/18/23 19:21	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096505	1	07/17/23 14:10	07/18/23 00:59	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096607	1	07/17/23 14:10	07/18/23 02:59	KSD	Mt. Juliet, TN

10 IN CREST LINE SS4 (1') L1635421-04 Solid

Collected by: M. Schlageter | Collected date/time: 07/12/23 10:30 | Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2098201	1	07/20/23 16:33	07/21/23 04:35	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097511	1	07/22/23 09:31	07/22/23 15:04	MBE	Mt. Juliet, TN

10 IN CREST LINE SS5 (1') L1635421-05 Solid

Collected by: M. Schlageter | Collected date/time: 07/12/23 10:40 | Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095326	1	07/25/23 15:23	07/25/23 15:23	SPL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095917	1	07/18/23 01:30	07/18/23 12:04	SET	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	WG2096047	1	07/17/23 08:56	07/17/23 13:04	MCC	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095334	1	07/20/23 17:19	07/25/23 15:37	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095886	5	07/16/23 18:13	07/18/23 19:24	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096505	1	07/17/23 14:10	07/18/23 01:22	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096607	1	07/17/23 14:10	07/18/23 03:18	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2098201	1	07/20/23 16:33	07/21/23 03:53	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097511	1	07/22/23 09:31	07/22/23 15:24	MBE	Mt. Juliet, TN

10 IN CREST LINE SS6 (1') L1635421-06 Solid

Collected by: M. Schlageter | Collected date/time: 07/12/23 10:50 | Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095326	1	07/25/23 15:25	07/25/23 15:25	SPL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095917	1	07/18/23 01:30	07/18/23 12:09	SET	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	WG2096047	1	07/17/23 08:56	07/17/23 13:04	MCC	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095334	1	07/20/23 17:19	07/25/23 15:40	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095886	5	07/16/23 18:14	07/18/23 19:28	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096505	1	07/17/23 14:10	07/18/23 01:46	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096607	1	07/17/23 14:10	07/18/23 03:37	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2098201	1	07/20/23 16:33	07/21/23 05:17	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097511	1	07/22/23 09:31	07/22/23 19:59	MBE	Mt. Juliet, TN

10 IN CREST LINE SS7 (1') L1635421-07 Solid

Collected by: M. Schlageter | Collected date/time: 07/12/23 11:00 | Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2095326	1	07/25/23 15:28	07/25/23 15:28	SPL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2095917	1	07/18/23 01:30	07/18/23 12:15	SET	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	WG2096047	1	07/17/23 08:56	07/17/23 13:04	MCC	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095334	1	07/20/23 17:19	07/25/23 15:42	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095886	5	07/16/23 18:14	07/18/23 19:31	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2096505	1	07/17/23 14:10	07/18/23 02:10	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2096607	1	07/17/23 14:10	07/18/23 03:55	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2098201	10	07/20/23 16:33	07/21/23 14:45	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2097511	1	07/22/23 09:31	07/22/23 21:37	MBE	Mt. Juliet, TN

10 IN CREST LINE BG1 (1') L1635421-08 Solid

Collected by: M. Schlageter
Collected date/time: 07/12/23 11:10
Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 7199	WG2095917	1	07/18/23 01:30	07/18/23 12:20	SET	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095341	1	07/24/23 18:11	07/26/23 13:54	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095886	5	07/16/23 18:14	07/18/23 19:34	JPD	Mt. Juliet, TN

10 IN CREST LINE BG2 (1') L1635421-09 Solid

Collected by: M. Schlageter
Collected date/time: 07/12/23 11:20
Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 7199	WG2095917	1	07/18/23 01:30	07/18/23 12:25	SET	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095341	2	07/24/23 18:11	07/26/23 13:56	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/18/23 18:37	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/19/23 14:15	JPD	Mt. Juliet, TN

10 IN CREST LINE BG3 (1') L1635421-10 Solid

Collected by: M. Schlageter
Collected date/time: 07/12/23 11:30
Received date/time: 07/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 7199	WG2095917	1	07/18/23 01:30	07/18/23 12:30	SET	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2095341	1	07/24/23 18:11	07/26/23 14:00	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/18/23 18:41	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2095880	5	07/16/23 17:26	07/19/23 14:18	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	41.4		1	07/24/2023 12:45	WG2095325

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	07/18/2023 11:28	WG2095917

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.33	T8	1	07/17/2023 10:00	WG2095847

Sample Narrative:

L1635421-01 WG2095847: 8.33 at 22.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	10600		10.0	1	07/17/2023 13:04	WG2096047

Sample Narrative:

L1635421-01 WG2096047: 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	5.55		0.0167	0.200	1	07/24/2023 11:24	WG2095331

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.00		0.100	1.00	5	07/18/2023 19:05	WG2095886
Barium	190		0.152	2.50	5	07/18/2023 19:05	WG2095886
Cadmium	0.186	J	0.0855	1.00	5	07/18/2023 19:05	WG2095886
Copper	9.68		0.132	5.00	5	07/18/2023 19:05	WG2095886
Lead	13.0		0.0990	2.00	5	07/18/2023 19:05	WG2095886
Nickel	14.3		0.197	2.50	5	07/18/2023 19:05	WG2095886
Selenium	0.900	J	0.180	2.50	5	07/18/2023 19:05	WG2095886
Silver	U		0.0865	0.500	5	07/18/2023 19:05	WG2095886
Zinc	65.8		0.740	25.0	5	07/18/2023 19:05	WG2095886

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	0.111	B	0.0217	0.100	1	07/17/2023 23:50	WG2096505
(S) a,a,a-Trifluorotoluene(FID)	*88.4*			*77.0-120*		*07/17/2023 23:50*	WG2096505

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	07/18/2023 02:03	WG2096607
Toluene	U		0.00130	0.00500	1	07/18/2023 02:03	WG2096607
Ethylbenzene	U		0.000737	0.00250	1	07/18/2023 02:03	WG2096607
Xylenes, Total	0.00133	J	0.000880	0.00650	1	07/18/2023 02:03	WG2096607
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/18/2023 02:03	WG2096607
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/18/2023 02:03	WG2096607
(S) Toluene-d8	*108*			*75.0-131*		*07/18/2023 02:03*	WG2096607
(S) 4-Bromofluorobenzene	*90.8*			*67.0-138*		*07/18/2023 02:03*	WG2096607
(S) 1,2-Dichloroethane-d4	*93.9*			*70.0-130*		*07/18/2023 02:03*	WG2096607

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	18.1		1.61	4.00	1	07/21/2023 05:59	WG2098201
C28-C36 Motor Oil Range	47.8		0.274	4.00	1	07/21/2023 05:59	WG2098201
(S) o-Terphenyl	*11.9*	J2		*18.0-148*		*07/21/2023 05:59*	WG2098201

Sample Narrative:

L1635421-01 WG2098201: Surrogate failure due to matrix interference

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	07/22/2023 21:17	WG2097511
Anthracene	0.00299	J	0.00230	0.00600	1	07/22/2023 21:17	WG2097511
Benzo(a)anthracene	U		0.00173	0.00600	1	07/22/2023 21:17	WG2097511
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/22/2023 21:17	WG2097511
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/22/2023 21:17	WG2097511
Benzo(a)pyrene	U		0.00179	0.00600	1	07/22/2023 21:17	WG2097511
Chrysene	U		0.00232	0.00600	1	07/22/2023 21:17	WG2097511
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/22/2023 21:17	WG2097511
Fluoranthene	U		0.00227	0.00600	1	07/22/2023 21:17	WG2097511
Fluorene	0.00418	J	0.00205	0.00600	1	07/22/2023 21:17	WG2097511
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/22/2023 21:17	WG2097511
1-Methylnaphthalene	U		0.00449	0.0200	1	07/22/2023 21:17	WG2097511
2-Methylnaphthalene	U		0.00427	0.0200	1	07/22/2023 21:17	WG2097511
Naphthalene	U		0.00408	0.0200	1	07/22/2023 21:17	WG2097511
Pyrene	0.00349	J	0.00200	0.00600	1	07/22/2023 21:17	WG2097511
(S) p-Terphenyl-d14	*37.0*			*23.0-120*		*07/22/2023 21:17*	WG2097511
(S) Nitrobenzene-d5	*83.6*			*14.0-149*		*07/22/2023 21:17*	WG2097511
(S) 2-Fluorobiphenyl	*39.9*			*34.0-125*		*07/22/2023 21:17*	WG2097511

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.105		1	07/24/2023 12:48	WG2095325

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	07/18/2023 11:33	WG2095917

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.72	T8	1	07/17/2023 10:00	WG2095847

Sample Narrative:

L1635421-02 WG2095847: 7.72 at 22.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1840		10.0	1	07/17/2023 13:04	WG2096047

Sample Narrative:

L1635421-02 WG2096047: 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	0.853		0.0167	0.200	1	07/24/2023 10:48	WG2095331

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.76		0.100	1.00	5	07/18/2023 19:08	WG2095886
Barium	92.9		0.152	2.50	5	07/18/2023 19:08	WG2095886
Cadmium	0.150	J	0.0855	1.00	5	07/18/2023 19:08	WG2095886
Copper	8.71		0.132	5.00	5	07/18/2023 19:08	WG2095886
Lead	11.0		0.0990	2.00	5	07/18/2023 19:08	WG2095886
Nickel	11.8		0.197	2.50	5	07/18/2023 19:08	WG2095886
Selenium	0.985	J	0.180	2.50	5	07/18/2023 19:08	WG2095886
Silver	U		0.0865	0.500	5	07/18/2023 19:08	WG2095886
Zinc	49.1		0.740	25.0	5	07/18/2023 19:08	WG2095886

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	0.195	B	0.0217	0.100	1	07/18/2023 00:13	WG2096505
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*		*07/18/2023 00:13*	WG2096505

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	07/18/2023 02:22	WG2096607
Toluene	0.00178	J	0.00130	0.00500	1	07/18/2023 02:22	WG2096607
Ethylbenzene	U		0.000737	0.00250	1	07/18/2023 02:22	WG2096607
Xylenes, Total	0.00195	J	0.000880	0.00650	1	07/18/2023 02:22	WG2096607
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/18/2023 02:22	WG2096607
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/18/2023 02:22	WG2096607
(S) Toluene-d8	*109*			*75.0-131*		*07/18/2023 02:22*	WG2096607
(S) 4-Bromofluorobenzene	*91.4*			*67.0-138*		*07/18/2023 02:22*	WG2096607
(S) 1,2-Dichloroethane-d4	*92.6*			*70.0-130*		*07/18/2023 02:22*	WG2096607

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	1.65	J	1.61	4.00	1	07/21/2023 04:21	WG2098201
C28-C36 Motor Oil Range	8.01		0.274	4.00	1	07/21/2023 04:21	WG2098201
(S) o-Terphenyl	*52.2*			*18.0-148*		*07/21/2023 04:21*	WG2098201

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	07/22/2023 14:45	WG2097511
Anthracene	U		0.00230	0.00600	1	07/22/2023 14:45	WG2097511
Benzo(a)anthracene	U		0.00173	0.00600	1	07/22/2023 14:45	WG2097511
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/22/2023 14:45	WG2097511
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/22/2023 14:45	WG2097511
Benzo(a)pyrene	U		0.00179	0.00600	1	07/22/2023 14:45	WG2097511
Chrysene	U		0.00232	0.00600	1	07/22/2023 14:45	WG2097511
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/22/2023 14:45	WG2097511
Fluoranthene	U		0.00227	0.00600	1	07/22/2023 14:45	WG2097511
Fluorene	U		0.00205	0.00600	1	07/22/2023 14:45	WG2097511
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/22/2023 14:45	WG2097511
1-Methylnaphthalene	U		0.00449	0.0200	1	07/22/2023 14:45	WG2097511
2-Methylnaphthalene	U		0.00427	0.0200	1	07/22/2023 14:45	WG2097511
Naphthalene	U		0.00408	0.0200	1	07/22/2023 14:45	WG2097511
Pyrene	U		0.00200	0.00600	1	07/22/2023 14:45	WG2097511
(S) p-Terphenyl-d14	*75.4*			*23.0-120*		*07/22/2023 14:45*	WG2097511
(S) Nitrobenzene-d5	*102*			*14.0-149*		*07/22/2023 14:45*	WG2097511
(S) 2-Fluorobiphenyl	*69.0*			*34.0-125*		*07/22/2023 14:45*	WG2097511

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.26		1	07/25/2023 15:17	WG2095326

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	07/18/2023 11:38	WG2095917

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.50	T8	1	07/17/2023 10:00	WG2095847

Sample Narrative:

L1635421-03 WG2095847: 8.5 at 22.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	356		10.0	1	07/17/2023 13:04	WG2096047

Sample Narrative:

L1635421-03 WG2096047: 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	0.894		0.0167	0.200	1	07/25/2023 15:31	WG2095334

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.27		0.100	1.00	5	07/18/2023 19:11	WG2095886
Barium	128		0.152	2.50	5	07/18/2023 19:11	WG2095886
Cadmium	0.247	J	0.0855	1.00	5	07/18/2023 19:11	WG2095886
Copper	11.8		0.132	5.00	5	07/18/2023 19:11	WG2095886
Lead	15.2		0.0990	2.00	5	07/18/2023 19:11	WG2095886
Nickel	14.3		0.197	2.50	5	07/18/2023 19:11	WG2095886
Selenium	0.984	J	0.180	2.50	5	07/18/2023 19:11	WG2095886
Silver	U		0.0865	0.500	5	07/18/2023 19:11	WG2095886
Zinc	63.7		0.740	25.0	5	07/18/2023 19:11	WG2095886

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	0.130	B	0.0217	0.100	1	07/18/2023 00:36	WG2096505
(S) a,a,a-Trifluorotoluene(FID)	*93.5*			*77.0-120*		*07/18/2023 00:36*	WG2096505

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	07/18/2023 02:40	WG2096607
Toluene	U		0.00130	0.00500	1	07/18/2023 02:40	WG2096607
Ethylbenzene	U		0.000737	0.00250	1	07/18/2023 02:40	WG2096607
Xylenes, Total	0.00110	J	0.000880	0.00650	1	07/18/2023 02:40	WG2096607
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/18/2023 02:40	WG2096607
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/18/2023 02:40	WG2096607
(S) Toluene-d8	*108*			*75.0-131*		*07/18/2023 02:40*	WG2096607
(S) 4-Bromofluorobenzene	*92.5*			*67.0-138*		*07/18/2023 02:40*	WG2096607
(S) 1,2-Dichloroethane-d4	*97.4*			*70.0-130*		*07/18/2023 02:40*	WG2096607

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	17.0		1.61	4.00	1	07/21/2023 05:31	WG2098201
C28-C36 Motor Oil Range	88.2		0.274	4.00	1	07/21/2023 05:31	WG2098201
(S) o-Terphenyl	*55.8*			*18.0-148*		*07/21/2023 05:31*	WG2098201

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	07/22/2023 19:39	WG2097511
Anthracene	0.00753		0.00230	0.00600	1	07/22/2023 19:39	WG2097511
Benzo(a)anthracene	0.0299		0.00173	0.00600	1	07/22/2023 19:39	WG2097511
Benzo(b)fluoranthene	0.0303		0.00153	0.00600	1	07/22/2023 19:39	WG2097511
Benzo(k)fluoranthene	0.0103		0.00215	0.00600	1	07/22/2023 19:39	WG2097511
Benzo(a)pyrene	0.0150		0.00179	0.00600	1	07/22/2023 19:39	WG2097511
Chrysene	0.0267		0.00232	0.00600	1	07/22/2023 19:39	WG2097511
Dibenz(a,h)anthracene	0.00315	J	0.00172	0.00600	1	07/22/2023 19:39	WG2097511
Fluoranthene	0.0931		0.00227	0.00600	1	07/22/2023 19:39	WG2097511
Fluorene	U		0.00205	0.00600	1	07/22/2023 19:39	WG2097511
Indeno(1,2,3-cd)pyrene	0.0166		0.00181	0.00600	1	07/22/2023 19:39	WG2097511
1-Methylnaphthalene	U		0.00449	0.0200	1	07/22/2023 19:39	WG2097511
2-Methylnaphthalene	U		0.00427	0.0200	1	07/22/2023 19:39	WG2097511
Naphthalene	U		0.00408	0.0200	1	07/22/2023 19:39	WG2097511
Pyrene	0.0823		0.00200	0.00600	1	07/22/2023 19:39	WG2097511
(S) p-Terphenyl-d14	*70.7*			*23.0-120*		*07/22/2023 19:39*	WG2097511
(S) Nitrobenzene-d5	*113*			*14.0-149*		*07/22/2023 19:39*	WG2097511
(S) 2-Fluorobiphenyl	*70.7*			*34.0-125*		*07/22/2023 19:39*	WG2097511

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	65.0		1	07/25/2023 15:20	WG2095326

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	07/18/2023 11:54	WG2095917

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.80	T8	1	07/16/2023 13:00	WG2095683

Sample Narrative:
L1635421-04 WG2095683: 7.8 at 23.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	16200		10.0	1	07/17/2023 13:04	WG2096047

Sample Narrative:
L1635421-04 WG2096047: 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	4.17		0.0167	0.200	1	07/25/2023 15:34	WG2095334

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.57		0.100	1.00	5	07/18/2023 19:21	WG2095886
Barium	69.3		0.152	2.50	5	07/18/2023 19:21	WG2095886
Cadmium	0.135	J	0.0855	1.00	5	07/18/2023 19:21	WG2095886
Copper	9.63		0.132	5.00	5	07/18/2023 19:21	WG2095886
Lead	11.6		0.0990	2.00	5	07/18/2023 19:21	WG2095886
Nickel	12.2		0.197	2.50	5	07/18/2023 19:21	WG2095886
Selenium	0.973	J	0.180	2.50	5	07/18/2023 19:21	WG2095886
Silver	U		0.0865	0.500	5	07/18/2023 19:21	WG2095886
Zinc	51.9		0.740	25.0	5	07/18/2023 19:21	WG2095886

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	0.180	B	0.0217	0.100	1	07/18/2023 00:59	WG2096505
(S) a,a,a-Trifluorotoluene(FID)	*93.8*			*77.0-120*		*07/18/2023 00:59*	WG2096505

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	07/18/2023 02:59	WG2096607
Toluene	U		0.00130	0.00500	1	07/18/2023 02:59	WG2096607
Ethylbenzene	U		0.000737	0.00250	1	07/18/2023 02:59	WG2096607
Xylenes, Total	0.00110	J	0.000880	0.00650	1	07/18/2023 02:59	WG2096607
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/18/2023 02:59	WG2096607
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/18/2023 02:59	WG2096607
(S) Toluene-d8	*109*			*75.0-131*		*07/18/2023 02:59*	WG2096607
(S) 4-Bromofluorobenzene	*91.2*			*67.0-138*		*07/18/2023 02:59*	WG2096607
(S) 1,2-Dichloroethane-d4	*92.9*			*70.0-130*		*07/18/2023 02:59*	WG2096607

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	6.67		1.61	4.00	1	07/21/2023 04:35	WG2098201
C28-C36 Motor Oil Range	13.3		0.274	4.00	1	07/21/2023 04:35	WG2098201
(S) o-Terphenyl	*54.5*			*18.0-148*		*07/21/2023 04:35*	WG2098201

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	07/22/2023 15:04	WG2097511
Anthracene	U		0.00230	0.00600	1	07/22/2023 15:04	WG2097511
Benzo(a)anthracene	U		0.00173	0.00600	1	07/22/2023 15:04	WG2097511
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/22/2023 15:04	WG2097511
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/22/2023 15:04	WG2097511
Benzo(a)pyrene	U		0.00179	0.00600	1	07/22/2023 15:04	WG2097511
Chrysene	U		0.00232	0.00600	1	07/22/2023 15:04	WG2097511
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/22/2023 15:04	WG2097511
Fluoranthene	U		0.00227	0.00600	1	07/22/2023 15:04	WG2097511
Fluorene	U		0.00205	0.00600	1	07/22/2023 15:04	WG2097511
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/22/2023 15:04	WG2097511
1-Methylnaphthalene	U		0.00449	0.0200	1	07/22/2023 15:04	WG2097511
2-Methylnaphthalene	U		0.00427	0.0200	1	07/22/2023 15:04	WG2097511
Naphthalene	U		0.00408	0.0200	1	07/22/2023 15:04	WG2097511
Pyrene	U		0.00200	0.00600	1	07/22/2023 15:04	WG2097511
(S) p-Terphenyl-d14	*70.8*			*23.0-120*		*07/22/2023 15:04*	WG2097511
(S) Nitrobenzene-d5	*66.6*			*14.0-149*		*07/22/2023 15:04*	WG2097511
(S) 2-Fluorobiphenyl	*54.5*			*34.0-125*		*07/22/2023 15:04*	WG2097511

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	63.0		1	07/25/2023 15:23	WG2095326

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	07/18/2023 12:04	WG2095917

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.99	T8	1	07/17/2023 10:00	WG2095847

Sample Narrative:

L1635421-05 WG2095847: 8.99 at 22C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	7730		10.0	1	07/17/2023 13:04	WG2096047

Sample Narrative:

L1635421-05 WG2096047: 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	4.13		0.0167	0.200	1	07/25/2023 15:37	WG2095334

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.36		0.100	1.00	5	07/18/2023 19:24	WG2095886
Barium	111		0.152	2.50	5	07/18/2023 19:24	WG2095886
Cadmium	0.181	J	0.0855	1.00	5	07/18/2023 19:24	WG2095886
Copper	10.6		0.132	5.00	5	07/18/2023 19:24	WG2095886
Lead	11.8		0.0990	2.00	5	07/18/2023 19:24	WG2095886
Nickel	13.7		0.197	2.50	5	07/18/2023 19:24	WG2095886
Selenium	1.20	J	0.180	2.50	5	07/18/2023 19:24	WG2095886
Silver	U		0.0865	0.500	5	07/18/2023 19:24	WG2095886
Zinc	56.2		0.740	25.0	5	07/18/2023 19:24	WG2095886

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	0.132	B	0.0217	0.100	1	07/18/2023 01:22	WG2096505
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*77.0-120*		*07/18/2023 01:22*	WG2096505

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	07/18/2023 03:18	WG2096607
Toluene	U		0.00130	0.00500	1	07/18/2023 03:18	WG2096607
Ethylbenzene	U		0.000737	0.00250	1	07/18/2023 03:18	WG2096607
Xylenes, Total	U		0.000880	0.00650	1	07/18/2023 03:18	WG2096607
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/18/2023 03:18	WG2096607
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/18/2023 03:18	WG2096607
(S) Toluene-d8	*105*			*75.0-131*		*07/18/2023 03:18*	WG2096607
(S) 4-Bromofluorobenzene	*90.9*			*67.0-138*		*07/18/2023 03:18*	WG2096607
(S) 1,2-Dichloroethane-d4	*88.1*			*70.0-130*		*07/18/2023 03:18*	WG2096607

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	U		1.61	4.00	1	07/21/2023 03:53	WG2098201
C28-C36 Motor Oil Range	2.67	B J	0.274	4.00	1	07/21/2023 03:53	WG2098201
(S) o-Terphenyl	*51.0*			*18.0-148*		*07/21/2023 03:53*	WG2098201

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	07/22/2023 15:24	WG2097511
Anthracene	U		0.00230	0.00600	1	07/22/2023 15:24	WG2097511
Benzo(a)anthracene	U		0.00173	0.00600	1	07/22/2023 15:24	WG2097511
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/22/2023 15:24	WG2097511
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/22/2023 15:24	WG2097511
Benzo(a)pyrene	U		0.00179	0.00600	1	07/22/2023 15:24	WG2097511
Chrysene	U		0.00232	0.00600	1	07/22/2023 15:24	WG2097511
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/22/2023 15:24	WG2097511
Fluoranthene	U		0.00227	0.00600	1	07/22/2023 15:24	WG2097511
Fluorene	U		0.00205	0.00600	1	07/22/2023 15:24	WG2097511
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/22/2023 15:24	WG2097511
1-Methylnaphthalene	U		0.00449	0.0200	1	07/22/2023 15:24	WG2097511
2-Methylnaphthalene	U		0.00427	0.0200	1	07/22/2023 15:24	WG2097511
Naphthalene	U		0.00408	0.0200	1	07/22/2023 15:24	WG2097511
Pyrene	U		0.00200	0.00600	1	07/22/2023 15:24	WG2097511
(S) p-Terphenyl-d14	*33.7*			*23.0-120*		*07/22/2023 15:24*	WG2097511
(S) Nitrobenzene-d5	*41.9*			*14.0-149*		*07/22/2023 15:24*	WG2097511
(S) 2-Fluorobiphenyl	*23.0*	J2		*34.0-125*		*07/22/2023 15:24*	WG2097511

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	59.3		1	07/25/2023 15:25	WG2095326

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	07/18/2023 12:09	WG2095917

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.27	T8	1	07/17/2023 10:00	WG2095847

Sample Narrative:
L1635421-06 WG2095847: 8.27 at 22C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	14000		10.0	1	07/17/2023 13:04	WG2096047

Sample Narrative:
L1635421-06 WG2096047: 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	4.10		0.0167	0.200	1	07/25/2023 15:40	WG2095334

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.73		0.100	1.00	5	07/18/2023 19:28	WG2095886
Barium	130		0.152	2.50	5	07/18/2023 19:28	WG2095886
Cadmium	0.183	J	0.0855	1.00	5	07/18/2023 19:28	WG2095886
Copper	10.1		0.132	5.00	5	07/18/2023 19:28	WG2095886
Lead	17.1		0.0990	2.00	5	07/18/2023 19:28	WG2095886
Nickel	13.1		0.197	2.50	5	07/18/2023 19:28	WG2095886
Selenium	0.974	J	0.180	2.50	5	07/18/2023 19:28	WG2095886
Silver	U		0.0865	0.500	5	07/18/2023 19:28	WG2095886
Zinc	60.5		0.740	25.0	5	07/18/2023 19:28	WG2095886

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	0.107	B	0.0217	0.100	1	07/18/2023 01:46	WG2096505
(S) a,a,a-Trifluorotoluene(FID)	*91.8*			*77.0-120*		*07/18/2023 01:46*	WG2096505

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	07/18/2023 03:37	WG2096607
Toluene	U		0.00130	0.00500	1	07/18/2023 03:37	WG2096607
Ethylbenzene	U		0.000737	0.00250	1	07/18/2023 03:37	WG2096607
Xylenes, Total	U		0.000880	0.00650	1	07/18/2023 03:37	WG2096607
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/18/2023 03:37	WG2096607
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/18/2023 03:37	WG2096607
(S) Toluene-d8	*107*			*75.0-131*		*07/18/2023 03:37*	WG2096607
(S) 4-Bromofluorobenzene	*89.6*			*67.0-138*		*07/18/2023 03:37*	WG2096607
(S) 1,2-Dichloroethane-d4	*87.4*			*70.0-130*		*07/18/2023 03:37*	WG2096607

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	15.3		1.61	4.00	1	07/21/2023 05:17	WG2098201
C28-C36 Motor Oil Range	45.4		0.274	4.00	1	07/21/2023 05:17	WG2098201
(S) o-Terphenyl	*34.9*			*18.0-148*		*07/21/2023 05:17*	WG2098201

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	07/22/2023 19:59	WG2097511
Anthracene	U		0.00230	0.00600	1	07/22/2023 19:59	WG2097511
Benzo(a)anthracene	U		0.00173	0.00600	1	07/22/2023 19:59	WG2097511
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/22/2023 19:59	WG2097511
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/22/2023 19:59	WG2097511
Benzo(a)pyrene	U		0.00179	0.00600	1	07/22/2023 19:59	WG2097511
Chrysene	U		0.00232	0.00600	1	07/22/2023 19:59	WG2097511
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/22/2023 19:59	WG2097511
Fluoranthene	U		0.00227	0.00600	1	07/22/2023 19:59	WG2097511
Fluorene	U		0.00205	0.00600	1	07/22/2023 19:59	WG2097511
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/22/2023 19:59	WG2097511
1-Methylnaphthalene	U		0.00449	0.0200	1	07/22/2023 19:59	WG2097511
2-Methylnaphthalene	U		0.00427	0.0200	1	07/22/2023 19:59	WG2097511
Naphthalene	U		0.00408	0.0200	1	07/22/2023 19:59	WG2097511
Pyrene	U		0.00200	0.00600	1	07/22/2023 19:59	WG2097511
(S) p-Terphenyl-d14	*59.4*			*23.0-120*		*07/22/2023 19:59*	WG2097511
(S) Nitrobenzene-d5	*80.1*			*14.0-149*		*07/22/2023 19:59*	WG2097511
(S) 2-Fluorobiphenyl	*54.8*			*34.0-125*		*07/22/2023 19:59*	WG2097511

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	63.1		1	07/25/2023 15:28	WG2095326

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	07/18/2023 12:15	WG2095917

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.92	T8	1	07/16/2023 13:00	WG2095683

Sample Narrative:

L1635421-07 WG2095683: 7.92 at 23.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	15200		10.0	1	07/17/2023 13:04	WG2096047

Sample Narrative:

L1635421-07 WG2096047: 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	4.59		0.0167	0.200	1	07/25/2023 15:42	WG2095334

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.59		0.100	1.00	5	07/18/2023 19:31	WG2095886
Barium	198		0.152	2.50	5	07/18/2023 19:31	WG2095886
Cadmium	0.229	J	0.0855	1.00	5	07/18/2023 19:31	WG2095886
Copper	11.6		0.132	5.00	5	07/18/2023 19:31	WG2095886
Lead	17.7		0.0990	2.00	5	07/18/2023 19:31	WG2095886
Nickel	15.8		0.197	2.50	5	07/18/2023 19:31	WG2095886
Selenium	1.16	J	0.180	2.50	5	07/18/2023 19:31	WG2095886
Silver	U		0.0865	0.500	5	07/18/2023 19:31	WG2095886
Zinc	71.6		0.740	25.0	5	07/18/2023 19:31	WG2095886

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	0.0924	B J	0.0217	0.100	1	07/18/2023 02:10	WG2096505
(S) a,a,a-Trifluorotoluene(FID)	*92.5*			*77.0-120*		*07/18/2023 02:10*	WG2096505

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	07/18/2023 03:55	WG2096607
Toluene	U		0.00130	0.00500	1	07/18/2023 03:55	WG2096607
Ethylbenzene	U		0.000737	0.00250	1	07/18/2023 03:55	WG2096607
Xylenes, Total	0.000925	J	0.000880	0.00650	1	07/18/2023 03:55	WG2096607
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/18/2023 03:55	WG2096607
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/18/2023 03:55	WG2096607
(S) Toluene-d8	*106*			*75.0-131*		*07/18/2023 03:55*	WG2096607
(S) 4-Bromofluorobenzene	*91.5*			*67.0-138*		*07/18/2023 03:55*	WG2096607
(S) 1,2-Dichloroethane-d4	*93.3*			*70.0-130*		*07/18/2023 03:55*	WG2096607

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	116		16.1	40.0	10	07/21/2023 14:45	WG2098201
C28-C36 Motor Oil Range	322		2.74	40.0	10	07/21/2023 14:45	WG2098201
(S) o-Terphenyl	*46.9*			*18.0-148*		*07/21/2023 14:45*	WG2098201

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	07/22/2023 21:37	WG2097511
Anthracene	U		0.00230	0.00600	1	07/22/2023 21:37	WG2097511
Benzo(a)anthracene	U		0.00173	0.00600	1	07/22/2023 21:37	WG2097511
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/22/2023 21:37	WG2097511
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/22/2023 21:37	WG2097511
Benzo(a)pyrene	U		0.00179	0.00600	1	07/22/2023 21:37	WG2097511
Chrysene	U		0.00232	0.00600	1	07/22/2023 21:37	WG2097511
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/22/2023 21:37	WG2097511
Fluoranthene	U		0.00227	0.00600	1	07/22/2023 21:37	WG2097511
Fluorene	0.00348	J	0.00205	0.00600	1	07/22/2023 21:37	WG2097511
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/22/2023 21:37	WG2097511
1-Methylnaphthalene	0.00493	J	0.00449	0.0200	1	07/22/2023 21:37	WG2097511
2-Methylnaphthalene	0.00526	J	0.00427	0.0200	1	07/22/2023 21:37	WG2097511
Naphthalene	U		0.00408	0.0200	1	07/22/2023 21:37	WG2097511
Pyrene	U		0.00200	0.00600	1	07/22/2023 21:37	WG2097511
(S) p-Terphenyl-d14	*63.0*			*23.0-120*		*07/22/2023 21:37*	WG2097511
(S) Nitrobenzene-d5	*104*			*14.0-149*		*07/22/2023 21:37*	WG2097511
(S) 2-Fluorobiphenyl	*61.0*			*34.0-125*		*07/22/2023 21:37*	WG2097511

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	07/18/2023 12:20	WG2095917

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	0.771		0.0167	0.200	1	07/26/2023 13:54	WG2095341

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.90		0.100	1.00	5	07/18/2023 19:34	WG2095886
Barium	94.0		0.152	2.50	5	07/18/2023 19:34	WG2095886
Cadmium	0.170	J	0.0855	1.00	5	07/18/2023 19:34	WG2095886
Copper	8.17		0.132	5.00	5	07/18/2023 19:34	WG2095886
Lead	10.1		0.0990	2.00	5	07/18/2023 19:34	WG2095886
Nickel	11.0		0.197	2.50	5	07/18/2023 19:34	WG2095886
Selenium	0.590	J	0.180	2.50	5	07/18/2023 19:34	WG2095886
Silver	U		0.0865	0.500	5	07/18/2023 19:34	WG2095886
Zinc	46.3		0.740	25.0	5	07/18/2023 19:34	WG2095886

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	07/18/2023 12:25	WG2095917

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	0.800		0.0334	0.400	2	07/26/2023 13:56	WG2095341

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.36		0.100	1.00	5	07/18/2023 18:37	WG2095880
Barium	212		0.152	2.50	5	07/18/2023 18:37	WG2095880
Cadmium	0.203	J	0.0855	1.00	5	07/18/2023 18:37	WG2095880
Copper	9.83		0.132	5.00	5	07/19/2023 14:15	WG2095880
Lead	12.7		0.0990	2.00	5	07/18/2023 18:37	WG2095880
Nickel	12.6		0.197	2.50	5	07/18/2023 18:37	WG2095880
Selenium	0.745	J	0.180	2.50	5	07/18/2023 18:37	WG2095880
Silver	U		0.0865	0.500	5	07/18/2023 18:37	WG2095880
Zinc	51.2		0.740	25.0	5	07/18/2023 18:37	WG2095880

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	07/18/2023 12:30	WG2095917

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	1.75		0.0167	0.200	1	07/26/2023 14:00	WG2095341

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.96		0.100	1.00	5	07/18/2023 18:41	WG2095880
Barium	95.7		0.152	2.50	5	07/18/2023 18:41	WG2095880
Cadmium	0.193	J	0.0855	1.00	5	07/18/2023 18:41	WG2095880
Copper	11.7		0.132	5.00	5	07/19/2023 14:18	WG2095880
Lead	16.5		0.0990	2.00	5	07/18/2023 18:41	WG2095880
Nickel	13.9		0.197	2.50	5	07/18/2023 18:41	WG2095880
Selenium	1.36	J	0.180	2.50	5	07/18/2023 18:41	WG2095880
Silver	0.0893	J	0.0865	0.500	5	07/18/2023 18:41	WG2095880
Zinc	63.5		0.740	25.0	5	07/18/2023 18:41	WG2095880

QUALITY CONTROL SUMMARY

L1635421-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R3949824-1 07/18/23 10:49

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

L1635420-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1635420-01 07/18/23 11:02 • (DUP) R3949824-3 07/18/23 11:07

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

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

(OS) L1635421-04 07/18/23 11:54 • (DUP) R3949824-4 07/18/23 11:59

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

Laboratory Control Sample (LCS)

(LCS) R3949824-2 07/18/23 10:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	10.7	107	80.0-120	

L1635424-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635424-03 07/18/23 12:56 • (MS) R3949824-5 07/18/23 13:01 • (MSD) R3949824-6 07/18/23 13:07

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 %
Hexavalent Chromium	20.0	U	19.0	15.8	94.9	78.9	1	75.0-125			18.5	20

L1635424-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1635424-03 07/18/23 12:56 • (MS) R3949824-7 07/18/23 13:12

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	641	U	886	138	50	75.0-125	J5

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

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

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	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

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

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

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	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

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	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

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	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

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

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

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	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

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

Sample Narrative:

LCS: 10 at 21.6C

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

Method Blank (MB)

(MB) R3949325-1 07/17/23 13:04

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

L1635424-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1635424-03 07/17/23 13:04 • (DUP) R3949325-3 07/17/23 13:04

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	4380	4370	1	0.229		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1635500-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1635500-04 07/17/23 13:04 • (DUP) R3949325-4 07/17/23 13:04

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	2720	2720	1	0.0368		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3949325-2 07/17/23 13:04

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	732	741	101	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3951980-1 07/24/23 10:59

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) R3951980-2 07/24/23 11:02 • (LCSD) R3951980-3 07/24/23 11:04

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	1.19	1.13	119	113	80.0-120			4.98	20

Method Blank (MB)

(MB) R3952782-1 07/25/23 15:23

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) R3952782-2 07/25/23 15:26 • (LCSD) R3952782-3 07/25/23 15:28

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	1.09	1.10	109	110	80.0-120			0.675	20

Method Blank (MB)

(MB) R3952980-1 07/26/23 13:45

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) R3952980-2 07/26/23 13:48 • (LCSD) R3952980-3 07/26/23 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	1.07	1.09	107	109	80.0-120			1.34	20

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

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

Method Blank (MB)

(MB) R3950058-1 07/18/23 18:42

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) R3950058-2 07/18/23 18:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	98.5	98.5	80.0-120	
Barium	100	94.6	94.6	80.0-120	
Cadmium	100	102	102	80.0-120	
Copper	100	91.1	91.1	80.0-120	
Lead	100	90.5	90.5	80.0-120	
Nickel	100	98.8	98.8	80.0-120	
Selenium	100	103	103	80.0-120	
Silver	20.0	19.3	96.3	80.0-120	
Zinc	100	94.6	94.6	80.0-120	

L1635599-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635599-15 07/18/23 18:48 • (MS) R3950058-5 07/18/23 18:58 • (MSD) R3950058-6 07/18/23 19:01

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	14.2	97.2	109	83.0	94.9	5	75.0-125			11.6	20
Barium	100	73.9	182	226	108	152	5	75.0-125		J3 J5	21.9	20
Cadmium	100	0.619	95.9	102	95.2	101	5	75.0-125			6.31	20
Copper	100	34.4	115	123	80.9	88.6	5	75.0-125			6.48	20
Lead	100	17.3	104	110	86.4	93.1	5	75.0-125			6.22	20
Nickel	100	24.6	111	121	86.7	96.5	5	75.0-125			8.43	20
Selenium	100	1.12	95.0	102	93.9	101	5	75.0-125			7.36	20
Silver	20.0	0.109	17.7	18.9	88.1	93.9	5	75.0-125			6.28	20
Zinc	100	90.9	167	178	76.5	86.7	5	75.0-125			5.93	20

Method Blank (MB)

(MB) R3949862-2 07/17/23 23:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0245	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3949862-1 07/17/23 22:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.12	74.9	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*96.6*	*77.0-120*	

Method Blank (MB)

(MB) R3949822-2 07/18/23 00:40

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	*106*			*75.0-131*
(S) 4-Bromofluorobenzene	*90.8*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*94.0*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3949822-1 07/17/23 23:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.114	91.2	70.0-123	
Toluene	0.125	0.112	89.6	75.0-121	
Ethylbenzene	0.125	0.112	89.6	74.0-126	
Xylenes, Total	0.375	0.308	82.1	72.0-127	
1,2,4-Trimethylbenzene	0.125	0.108	86.4	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.112	89.6	73.0-127	
(S) Toluene-d8			*103*	*75.0-131*	
(S) 4-Bromofluorobenzene			*92.5*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*104*	*70.0-130*	

L1635421-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635421-01 07/18/23 02:03 • (MS) R3949822-3 07/18/23 06:25 • (MSD) R3949822-4 07/18/23 06:43

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 %
Benzene	0.125	U	0.121	0.114	96.8	91.2	1	10.0-149			5.96	37
Toluene	0.125	U	0.126	0.118	101	94.4	1	10.0-156			6.56	38
Ethylbenzene	0.125	U	0.125	0.112	100	89.6	1	10.0-160			11.0	38
Xylenes, Total	0.375	0.00133	0.347	0.312	92.2	82.8	1	10.0-160			10.6	38
1,2,4-Trimethylbenzene	0.125	U	0.123	0.114	98.4	91.2	1	10.0-160			7.59	36
1,3,5-Trimethylbenzene	0.125	U	0.122	0.124	97.6	99.2	1	10.0-160			1.63	38
(S) Toluene-d8					*106*	*107*		*75.0-131*				
(S) 4-Bromofluorobenzene					*94.3*	*90.4*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*99.2*	*96.3*		*70.0-130*				

Method Blank (MB)

(MB) R3951148-1 07/21/23 01:33

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	0.315	J	0.274	4.00
(S) o-Terphenyl	*62.6*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3951148-2 07/21/23 01:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	35.3	70.6	50.0-150	
(S) o-Terphenyl			*65.3*	*18.0-148*	

L1635369-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635369-06 07/21/23 03:11 • (MS) R3951148-3 07/21/23 03:25 • (MSD) R3951148-4 07/21/23 03:39

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	U	34.4	37.3	68.8	74.6	1	50.0-150			8.09	20
(S) o-Terphenyl					*61.0*	*58.1*		*18.0-148*				

Method Blank (MB)

(MB) R3952834-2 07/22/23 14:25

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	*87.3*			*23.0-120*
(S) Nitrobenzene-d5	*110*			*14.0-149*
(S) 2-Fluorobiphenyl	*80.8*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R3952834-1 07/22/23 14:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0558	69.8	50.0-120	
Anthracene	0.0800	0.0591	73.9	50.0-126	
Benzo(a)anthracene	0.0800	0.0687	85.9	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0745	93.1	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0669	83.6	49.0-125	
Benzo(a)pyrene	0.0800	0.0563	70.4	42.0-120	
Chrysene	0.0800	0.0706	88.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0688	86.0	47.0-125	
Fluoranthene	0.0800	0.0628	78.5	49.0-129	
Fluorene	0.0800	0.0627	78.4	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0722	90.3	46.0-125	
1-Methylnaphthalene	0.0800	0.0537	67.1	51.0-121	
2-Methylnaphthalene	0.0800	0.0561	70.1	50.0-120	
Naphthalene	0.0800	0.0543	67.9	50.0-120	
Pyrene	0.0800	0.0738	92.3	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R3952834-1 07/22/23 14:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*86.1*	*23.0-120*	
(S) Nitrobenzene-d5			*119*	*14.0-149*	
(S) 2-Fluorobiphenyl			*84.4*	*34.0-125*	

L1635428-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635428-09 07/22/23 16:03 • (MS) R3952834-3 07/22/23 16:23 • (MSD) R3952834-4 07/22/23 16:42

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	0.0781	0.00273	0.0341	0.0310	40.2	36.8	1	14.0-127			9.52	27
Anthracene	0.0781	0.0257	0.0696	0.0710	56.3	59.0	1	10.0-145			1.99	30
Benzo(a)anthracene	0.0781	0.137	0.182	0.131	57.7	0.000	1	10.0-139		J3 J6	32.6	30
Benzo(b)fluoranthene	0.0781	0.190	0.254	0.142	82.1	0.000	1	10.0-140		J3 J6	56.6	36
Benzo(k)fluoranthene	0.0781	0.0714	0.120	0.0934	62.3	28.6	1	10.0-137			24.9	31
Benzo(a)pyrene	0.0781	0.0962	0.146	0.104	63.8	10.2	1	10.0-141		J3	33.6	31
Chrysene	0.0781	0.272	0.308	0.236	46.2	0.000	1	10.0-145		J6	26.5	30
Dibenz(a,h)anthracene	0.0781	0.0134	0.0638	0.0604	64.6	61.2	1	10.0-132			5.48	31
Fluoranthene	0.0781	0.408	0.399	0.216	0.000	0.000	1	10.0-153	V	J3 V	59.5	33
Fluorene	0.0781	0.0109	0.0530	0.0528	54.0	54.6	1	11.0-130			0.378	29
Indeno(1,2,3-cd)pyrene	0.0781	0.0577	0.113	0.0871	70.9	38.3	1	10.0-137			25.9	32
1-Methylnaphthalene	0.0781	0.0182	0.0326	0.0523	18.5	44.4	1	10.0-142		J3	46.4	28
2-Methylnaphthalene	0.0781	0.0388	0.0416	0.0896	3.59	66.1	1	10.0-137	J6	J3	73.2	28
Naphthalene	0.0781	0.0137	0.0290	0.0436	19.6	38.9	1	10.0-135		J3	40.2	27
Pyrene	0.0781	0.431	0.463	0.251	41.0	0.000	1	10.0-148		J3 V	59.4	35
(S) p-Terphenyl-d14					*58.9*	*64.9*		*23.0-120*				
(S) Nitrobenzene-d5					*103*	*114*		*14.0-149*				
(S) 2-Fluorobiphenyl					*52.3*	*61.2*		*34.0-125*				

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.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
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**

Report to: **Chris Patterson**

Email To: **chris.patterson@scoutep.com**

Project Description: **10 inch Crest line 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): MS

Immediately Packed on Ice N ___ Y X

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

Analysis / Container / Preservative

Pres Chk

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

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

L # L603542
B142

Table

Acctnum: **SCOENERCO**

Template:

Prelogin:

TSR:

PB:

Shipped Via:

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					Remarks	Sample # (lab only)
10 in Crest Line SS1 (1')	Grab	SS	1'	7/12/2023	1000	4	X	X	X	X	X	X						-01
10 in Crest Line SS2 (1')	Grab	SS	1'	7/12/2023	1010	4	X	X	X	X	X	X						-02
10 in Crest Line SS3 (1')	Grab	SS	1'	7/12/2023	1020	4	X	X	X	X	X	X						-03
10 in Crest Line SS4 (1')	Grab	SS	1'	7/12/2023	1030	4	X	X	X	X	X	X						-04
10 in Crest Line SS5 (1')	Grab	SS	1'	7/12/2023	1040	4	X	X	X	X	X	X						-05
10 in Crest Line SS6 (1')	Grab	SS	1'	7/12/2023	1050	4	X	X	X	X	X	X						-06
10 in Crest Line SS7 (1')	Grab	SS	1'	7/12/2023	1100	4	X	X	X	X	X	X						-07
10 in Crest Line BG1 (1')	Grab	SS	1'	7/12/2023	1110	4			X	X								-08
10 in Crest Line BG2 (1')	Grab	SS	1'	7/12/2023	1120	4			X	X								-09
10 in Crest Line BG3 (1')	Grab	SS	1'	7/12/2023	1130	4			X	X								-10

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

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

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 6126 6537 3328

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 Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
MSchl	7/12/23	1500			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 6.0+0.4°C Bottles Received: 5.4+0=5.4	If preservation required by Login: Date/Time
	7223	1800			
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7.14.23 Time: 9:00	Hold: / Condition: NCF / OK

LI635421

Tracking Numbers	Temperature
6176 6537 3338	GBAG 5.4 to 5.4
6176 6537 3306	GBAG 3.6 to 3.6
6176 6537 3339	GBAG 1.0 to 1.0

01-Apr-2021

Tim Dobransky
Entrada Consulting Group
240 Mesa Ave.
Grand Junction, CO 81501

Re: **AC McLaughlin 47 Spill** Work Order: **21032115**

Dear Tim,

ALS Environmental received 7 samples on 20-Mar-2021 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 34.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS Group, USA

Date: 01-Apr-21

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Work Order: **21032115**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
21032115-01	ACM 47-SS1	Soil		3/18/2021 10:30	3/20/2021 10:00	☐
21032115-02	ACM 47-SS2	Soil		3/18/2021 10:45	3/20/2021 10:00	☐
21032115-03	ACM 47-SS3	Soil		3/18/2021 11:00	3/20/2021 10:00	☐
21032115-04	ACM 47-BG1	Soil		3/18/2021 11:30	3/20/2021 10:00	☐
21032115-05	ACM 47-SS4	Soil		3/18/2021 11:45	3/20/2021 10:00	☐
21032115-06	ACM 47-BG2	Soil		3/18/2021 12:00	3/20/2021 10:00	☐
21032115-07	ACM 47-SS5	Soil		3/18/2021 12:20	3/20/2021 10:00	☐

ALS Group, USA

Date: 01-Apr-21

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Work Order: 21032115

Case Narrative

Batch 174110, Method SW6020B: The concentration in the Method Blank was greater than the quantitation limit for boron. The sample results were greater than 10x the concentration in the Method Blank; therefore, no qualification is required.

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	

ALS Group, USA

Date: *01-Apr-21*

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-SS1
Collection Date: 3/18/2021 10:30 AM

Work Order: 21032115
Lab ID: 21032115-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW3550 / 3/25/21		Analyst: **AK**
ERO (C10-C36)	**30**		**9.6**	**25**	**mg/Kg-dry**	1	3/27/2021 19:14
Surr: 4-Terphenyl-d14	*70.8*			*33-111*	*%REC*	1	3/27/2021 19:14
GASOLINE RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW5035 / 3/24/21		Analyst: **AK**
GRO (C6-C10)	U		3.3	7.9	mg/Kg-dry	1	3/27/2021 02:18
Surr: Toluene-d8	*104*			*71-123*	*%REC*	1	3/27/2021 02:18
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 3/26/21		Analyst: **STP**
Arsenic	**6.2**		**0.050**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:18
Barium	**150**		**0.39**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:18
Cadmium	**0.14**	J	**0.025**	**0.17**	**mg/Kg-dry**	1	3/26/2021 21:18
Copper	**12**		**0.42**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:18
Lead	**20**		**0.20**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:18
Nickel	**16**		**0.22**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:18
Selenium	**0.97**		**0.39**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:18
Silver	**0.096**	J	**0.055**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:18
Zinc	**77**		**0.82**	**0.84**	**mg/Kg-dry**	1	3/26/2021 21:18
SOLUBLE CATIONS FOR SAR		Method: **SW6020B**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Calcium	**1,000**		**2.5**	**5.0**	**mg/L**	10	3/29/2021 17:57
Magnesium	**47**		**0.50**	**2.0**	**mg/L**	10	3/29/2021 17:57
Sodium	**1,700**		**1.8**	**2.0**	**mg/L**	10	3/29/2021 17:57
HOT WATER SOLUBLE BORON BY ICP-MS		Method: **SW6020B**			Prep: EXTRACT / 3/26/21		Analyst: **STP**
Boron (Hot Water Soluble)	**3.3**	B	**0.020**	**0.51**	**mg/Kg-dry**	10	3/26/2021 20:07
SODIUM ADSORPTION RATIO		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Sodium Adsorption Ratio	**14**		**0.010**	**0.010**	**none**	1	3/29/2021
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)		Method: **SW8270E**			Prep: SW3546 / 3/24/21		Analyst: **EEW**
1-Methylnaphthalene	**0.017**		**0.0031**	**0.0052**	**mg/Kg-dry**	1	3/25/2021 16:34
2-Methylnaphthalene	**0.018**		**0.0036**	**0.0052**	**mg/Kg-dry**	1	3/25/2021 16:34
Acenaphthene	U		0.0044	0.0052	mg/Kg-dry	1	3/25/2021 16:34
Anthracene	U		0.0047	0.0052	mg/Kg-dry	1	3/25/2021 16:34
Benzo(a)anthracene	U		0.0050	0.0052	mg/Kg-dry	1	3/25/2021 16:34
Benzo(a)pyrene	U		0.0042	0.0052	mg/Kg-dry	1	3/25/2021 16:34
Benzo(b)fluoranthene	U		0.0044	0.0052	mg/Kg-dry	1	3/25/2021 16:34
Benzo(k)fluoranthene	U		0.0042	0.0052	mg/Kg-dry	1	3/25/2021 16:34
Chrysene	U		0.0048	0.0052	mg/Kg-dry	1	3/25/2021 16:34
Dibenzo(a,h)anthracene	U		0.0042	0.0052	mg/Kg-dry	1	3/25/2021 16:34

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-SS1
Collection Date: 3/18/2021 10:30 AM

Work Order: 21032115
Lab ID: 21032115-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	**0.0050**	J	**0.0041**	**0.0052**	**mg/Kg-dry**	1	3/25/2021 16:34
Fluorene	U		0.0041	0.0052	mg/Kg-dry	1	3/25/2021 16:34
Indeno(1,2,3-cd)pyrene	U		0.0045	0.0052	mg/Kg-dry	1	3/25/2021 16:34
Naphthalene	**0.0086**		**0.0050**	**0.0052**	**mg/Kg-dry**	1	3/25/2021 16:34
Pyrene	**0.0056**		**0.0050**	**0.0052**	**mg/Kg-dry**	1	3/25/2021 16:34
Surr: 2-Fluorobiphenyl	*65.7*			*20-140*	*%REC*	1	3/25/2021 16:34
Surr: 4-Terphenyl-d14	*77.6*			*22-172*	*%REC*	1	3/25/2021 16:34
Surr: Nitrobenzene-d5	*80.9*			*28-140*	*%REC*	1	3/25/2021 16:34
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260C**		Prep: SW5035 / 3/24/21		Analyst: **MF**
1,2,4-Trimethylbenzene	**0.086**		**0.035**	**0.047**	**mg/Kg-dry**	1	3/31/2021 14:39
1,3,5-Trimethylbenzene	**0.090**	J	**0.055**	**0.16**	**mg/Kg-dry**	1	3/31/2021 14:39
Benzene	U		0.023	0.047	mg/Kg-dry	1	3/31/2021 14:39
Ethylbenzene	U		0.0099	0.047	mg/Kg-dry	1	3/31/2021 14:39
m,p-Xylene	U		0.063	0.094	mg/Kg-dry	1	3/31/2021 14:39
o-Xylene	**0.060**		**0.018**	**0.047**	**mg/Kg-dry**	1	3/31/2021 14:39
Toluene	**0.021**	J	**0.013**	**0.047**	**mg/Kg-dry**	1	3/31/2021 14:39
Xylenes, Total	U		0.063	0.14	mg/Kg-dry	1	3/31/2021 14:39
Surr: 1,2-Dichloroethane-d4	*100*			*70-130*	*%REC*	1	3/31/2021 14:39
Surr: 4-Bromofluorobenzene	*97.6*			*70-130*	*%REC*	1	3/31/2021 14:39
Surr: Dibromofluoromethane	*102*			*70-130*	*%REC*	1	3/31/2021 14:39
Surr: Toluene-d8	*103*			*70-130*	*%REC*	1	3/31/2021 14:39
ELECTRICAL CONDUCTIVITY (SAR)		Method:	**USDA H60 METHOD 2**		Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
Electrical Conductivity @ Saturation	**14**		**0.011**	**0.10**	**mmhos/cm @25°**	20	3/29/2021 13:02
CHROMIUM, HEXAVALENT		Method:	**SW7196A**		Prep: SW3060A / 3/25/21		Analyst: **KTP**
Chromium, Hexavalent	U		1.1	1.3	mg/Kg-dry	1	3/25/2021 15:03
MOISTURE		Method:	**SW3550C**				Analyst: **KTP**
Moisture	**22**		**0.10**	**0.10**	**% of sample**	1	3/25/2021 13:44
PH MEASURED IN SOIL PASTE		Method:	**USDA METHOD 20B**		Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
pH @ Saturation	**9.38**		**0.13**	**0.13**	**s.u.-dry**	1	3/29/2021 13:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-SS2
Collection Date: 3/18/2021 10:45 AM

Work Order: 21032115
Lab ID: 21032115-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW3550 / 3/29/21		Analyst: **AK**
ERO (C10-C36)	**83**		**28**	**75**	**mg/Kg-dry**	1	3/29/2021 12:13
Surr: 4-Terphenyl-d14	*68.0*			*33-111*	*%REC*	1	3/29/2021 12:13
GASOLINE RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW5035 / 3/24/21		Analyst: **AK**
GRO (C6-C10)	**15**		**3.1**	**7.5**	**mg/Kg-dry**	1	3/27/2021 05:45
Surr: Toluene-d8	*105*			*71-123*	*%REC*	1	3/27/2021 05:45
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 3/26/21		Analyst: **STP**
Arsenic	**6.4**		**0.050**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:20
Barium	**1,400**		**3.9**	**4.2**	**mg/Kg-dry**	10	3/29/2021 16:04
Cadmium	**0.18**		**0.025**	**0.17**	**mg/Kg-dry**	1	3/26/2021 21:20
Copper	**12**		**0.42**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:20
Lead	**39**		**0.20**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:20
Nickel	**17**		**0.22**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:20
Selenium	**0.93**		**0.39**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:20
Silver	**0.073**	J	**0.055**	**0.42**	**mg/Kg-dry**	1	3/26/2021 21:20
Zinc	**120**		**0.82**	**0.84**	**mg/Kg-dry**	1	3/26/2021 21:20
SOLUBLE CATIONS FOR SAR		Method: **SW6020B**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Calcium	**210**		**2.5**	**5.0**	**mg/L**	10	3/29/2021 17:58
Magnesium	**33**		**0.50**	**2.0**	**mg/L**	10	3/29/2021 17:58
Sodium	**3,800**		**18**	**20**	**mg/L**	100	3/30/2021 13:47
HOT WATER SOLUBLE BORON BY ICP-MS		Method: **SW6020B**			Prep: EXTRACT / 3/26/21		Analyst: **STP**
Boron (Hot Water Soluble)	**5.5**	B	**0.021**	**0.51**	**mg/Kg-dry**	10	3/26/2021 20:09
SODIUM ADSORPTION RATIO		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Sodium Adsorption Ratio	**64**		**0.010**	**0.010**	**none**	1	3/29/2021
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)		Method: **SW8270E**			Prep: SW3546 / 3/24/21		Analyst: **EEW**
1-Methylnaphthalene	**0.15**		**0.0031**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 16:50
2-Methylnaphthalene	**0.18**		**0.0037**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 16:50
Acenaphthene	U		0.0045	0.0053	mg/Kg-dry	1	3/25/2021 16:50
Anthracene	U		0.0047	0.0053	mg/Kg-dry	1	3/25/2021 16:50
Benzo(a)anthracene	**0.014**		**0.0051**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 16:50
Benzo(a)pyrene	U		0.0042	0.0053	mg/Kg-dry	1	3/25/2021 16:50
Benzo(b)fluoranthene	U		0.0045	0.0053	mg/Kg-dry	1	3/25/2021 16:50
Benzo(k)fluoranthene	U		0.0043	0.0053	mg/Kg-dry	1	3/25/2021 16:50
Chrysene	**0.020**		**0.0048**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 16:50
Dibenzo(a,h)anthracene	U		0.0043	0.0053	mg/Kg-dry	1	3/25/2021 16:50

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-SS2
Collection Date: 3/18/2021 10:45 AM

Work Order: 21032115
Lab ID: 21032115-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	**0.0076**		**0.0042**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 16:50
Fluorene	**0.0085**		**0.0041**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 16:50
Indeno(1,2,3-cd)pyrene	U		0.0046	0.0053	mg/Kg-dry	1	3/25/2021 16:50
Naphthalene	**0.18**		**0.0051**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 16:50
Pyrene	**0.0092**		**0.0050**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 16:50
Surr: 2-Fluorobiphenyl	*66.0*			*20-140*	*%REC*	1	3/25/2021 16:50
Surr: 4-Terphenyl-d14	*63.8*			*22-172*	*%REC*	1	3/25/2021 16:50
Surr: Nitrobenzene-d5	*80.2*			*28-140*	*%REC*	1	3/25/2021 16:50
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260C**		Prep: SW5035 / 3/24/21		Analyst: **DMC**
1,2,4-Trimethylbenzene	**0.37**		**0.033**	**0.045**	**mg/Kg-dry**	1	3/31/2021 04:02
1,3,5-Trimethylbenzene	**0.15**	J	**0.052**	**0.15**	**mg/Kg-dry**	1	3/31/2021 04:02
Benzene	U		0.022	0.045	mg/Kg-dry	1	3/31/2021 04:02
Ethylbenzene	**0.048**		**0.0095**	**0.045**	**mg/Kg-dry**	1	3/31/2021 04:02
m,p-Xylene	**0.24**		**0.060**	**0.090**	**mg/Kg-dry**	1	3/31/2021 04:02
o-Xylene	**0.12**		**0.017**	**0.045**	**mg/Kg-dry**	1	3/31/2021 04:02
Toluene	**0.080**		**0.012**	**0.045**	**mg/Kg-dry**	1	3/31/2021 04:02
Xylenes, Total	**0.36**		**0.060**	**0.13**	**mg/Kg-dry**	1	3/31/2021 04:02
Surr: 1,2-Dichloroethane-d4	*98.0*			*70-130*	*%REC*	1	3/31/2021 04:02
Surr: 4-Bromofluorobenzene	*99.9*			*70-130*	*%REC*	1	3/31/2021 04:02
Surr: Dibromofluoromethane	*102*			*70-130*	*%REC*	1	3/31/2021 04:02
Surr: Toluene-d8	*104*			*70-130*	*%REC*	1	3/31/2021 04:02
ELECTRICAL CONDUCTIVITY (SAR)		Method:	**USDA H60 METHOD 2**		Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
Electrical Conductivity @ Saturation	**19**		**0.011**	**0.10**	**mmhos/cm @25°**	20	3/29/2021 13:02
CHROMIUM, HEXAVALENT		Method:	**SW7196A**		Prep: SW3060A / 3/25/21		Analyst: **KTP**
Chromium, Hexavalent	U		1.1	1.3	mg/Kg-dry	1	3/25/2021 15:03
MOISTURE		Method:	**SW3550C**				Analyst: **KTP**
Moisture	**22**		**0.10**	**0.10**	**% of sample**	1	3/25/2021 13:44
PH MEASURED IN SOIL PASTE		Method:	**USDA METHOD 20B**		Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
pH @ Saturation	**9.56**		**0.13**	**0.13**	**s.u.-dry**	1	3/29/2021 13:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-SS3
Collection Date: 3/18/2021 11:00 AM

Work Order: 21032115
Lab ID: 21032115-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW3550 / 3/25/21		Analyst: **AK**
ERO (C10-C36)	**33**		**9.7**	**25**	**mg/Kg-dry**	1	3/27/2021 21:52
Surr: 4-Terphenyl-d14	*70.7*			*33-111*	*%REC*	1	3/27/2021 21:52
GASOLINE RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW5035 / 3/24/21		Analyst: **AK**
GRO (C6-C10)	U		3.1	7.3	mg/Kg-dry	1	3/27/2021 06:08
Surr: Toluene-d8	*108*			*71-123*	*%REC*	1	3/27/2021 06:08
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 3/26/21		Analyst: **STP**
Arsenic	**6.3**		**0.056**	**0.47**	**mg/Kg-dry**	1	3/26/2021 22:00
Barium	**150**		**0.43**	**0.47**	**mg/Kg-dry**	1	3/26/2021 22:00
Cadmium	**0.13**	J	**0.028**	**0.19**	**mg/Kg-dry**	1	3/26/2021 22:00
Copper	**12**		**0.47**	**0.47**	**mg/Kg-dry**	1	3/26/2021 22:00
Lead	**18**		**0.22**	**0.47**	**mg/Kg-dry**	1	3/26/2021 22:00
Nickel	**16**		**0.24**	**0.47**	**mg/Kg-dry**	1	3/26/2021 22:00
Selenium	**0.91**		**0.43**	**0.47**	**mg/Kg-dry**	1	3/30/2021 13:28
Silver	**0.082**	J	**0.061**	**0.47**	**mg/Kg-dry**	1	3/26/2021 22:00
Zinc	**68**		**0.91**	**0.93**	**mg/Kg-dry**	1	3/26/2021 22:00
SOLUBLE CATIONS FOR SAR		Method: **SW6020B**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Calcium	**120**		**2.5**	**5.0**	**mg/L**	10	3/29/2021 18:00
Magnesium	**20**		**0.50**	**2.0**	**mg/L**	10	3/29/2021 18:00
Sodium	**2,900**		**18**	**20**	**mg/L**	100	3/30/2021 13:49
HOT WATER SOLUBLE BORON BY ICP-MS		Method: **SW6020B**			Prep: EXTRACT / 3/26/21		Analyst: **STP**
Boron (Hot Water Soluble)	**5.8**	B	**0.020**	**0.50**	**mg/Kg-dry**	10	3/26/2021 20:10
SODIUM ADSORPTION RATIO		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Sodium Adsorption Ratio	**64**		**0.010**	**0.010**	**none**	1	3/29/2021
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)		Method: **SW8270E**			Prep: SW3546 / 3/24/21		Analyst: **EEW**
1-Methylnaphthalene	**0.0033**	J	**0.0031**	**0.0052**	**mg/Kg-dry**	1	3/25/2021 17:06
2-Methylnaphthalene	U		0.0037	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Acenaphthene	U		0.0045	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Anthracene	U		0.0047	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Benzo(a)anthracene	U		0.0051	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Benzo(a)pyrene	U		0.0042	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Benzo(b)fluoranthene	U		0.0045	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Benzo(k)fluoranthene	U		0.0043	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Chrysene	U		0.0048	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Dibenzo(a,h)anthracene	U		0.0043	0.0052	mg/Kg-dry	1	3/25/2021 17:06

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-SS3
Collection Date: 3/18/2021 11:00 AM

Work Order: 21032115
Lab ID: 21032115-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	U		0.0042	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Fluorene	U		0.0041	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Indeno(1,2,3-cd)pyrene	U		0.0046	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Naphthalene	**0.0074**		**0.0051**	**0.0052**	**mg/Kg-dry**	1	3/25/2021 17:06
Pyrene	U		0.0050	0.0052	mg/Kg-dry	1	3/25/2021 17:06
Surr: 2-Fluorobiphenyl	*64.4*			*20-140*	*%REC*	1	3/25/2021 17:06
Surr: 4-Terphenyl-d14	*71.1*			*22-172*	*%REC*	1	3/25/2021 17:06
Surr: Nitrobenzene-d5	*78.8*			*28-140*	*%REC*	1	3/25/2021 17:06
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260C**		Prep: SW5035 / 3/24/21		Analyst: **DMC**
1,2,4-Trimethylbenzene	**0.12**		**0.032**	**0.044**	**mg/Kg-dry**	1	3/31/2021 04:18
1,3,5-Trimethylbenzene	**0.059**	J	**0.051**	**0.15**	**mg/Kg-dry**	1	3/31/2021 04:18
Benzene	U		0.021	0.044	mg/Kg-dry	1	3/31/2021 04:18
Ethylbenzene	U		0.0093	0.044	mg/Kg-dry	1	3/31/2021 04:18
m,p-Xylene	U		0.059	0.088	mg/Kg-dry	1	3/31/2021 04:18
o-Xylene	**0.054**		**0.017**	**0.044**	**mg/Kg-dry**	1	3/31/2021 04:18
Toluene	U		0.012	0.044	mg/Kg-dry	1	3/31/2021 04:18
Xylenes, Total	U		0.059	0.13	mg/Kg-dry	1	3/31/2021 04:18
Surr: 1,2-Dichloroethane-d4	*94.3*			*70-130*	*%REC*	1	3/31/2021 04:18
Surr: 4-Bromofluorobenzene	*100*			*70-130*	*%REC*	1	3/31/2021 04:18
Surr: Dibromofluoromethane	*100*			*70-130*	*%REC*	1	3/31/2021 04:18
Surr: Toluene-d8	*101*			*70-130*	*%REC*	1	3/31/2021 04:18
ELECTRICAL CONDUCTIVITY (SAR)		Method:	**USDA H60 METHOD 2**		Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
Electrical Conductivity @ Saturation	**15**		**0.011**	**0.10**	**mmhos/cm @25°**	20	3/29/2021 13:02
CHROMIUM, HEXAVALENT		Method:	**SW7196A**		Prep: SW3060A / 3/25/21		Analyst: **KTP**
Chromium, Hexavalent	U		1.1	1.2	mg/Kg-dry	1	3/25/2021 15:03
MOISTURE		Method:	**SW3550C**				Analyst: **KTP**
Moisture	**22**		**0.10**	**0.10**	**% of sample**	1	3/25/2021 13:44
PH MEASURED IN SOIL PASTE		Method:	**USDA METHOD 20B**		Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
pH @ Saturation	**9.99**		**0.13**	**0.13**	**s.u.-dry**	1	3/29/2021 13:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Apr-21*

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-BG1
Collection Date: 3/18/2021 11:30 AM

Work Order: 21032115
Lab ID: 21032115-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 3/26/21		Analyst: **STP**
Arsenic	**6.4**		**0.049**	**0.40**	**mg/Kg-dry**	1	3/26/2021 22:02
Barium	**150**		**3.7**	**4.0**	**mg/Kg-dry**	10	3/29/2021 16:05
Cadmium	**0.17**		**0.024**	**0.16**	**mg/Kg-dry**	1	3/29/2021 16:23
Copper	**13**		**0.40**	**0.40**	**mg/Kg-dry**	1	3/26/2021 22:02
Lead	**17**		**0.19**	**0.40**	**mg/Kg-dry**	1	3/26/2021 22:02
Nickel	**17**		**0.21**	**0.40**	**mg/Kg-dry**	1	3/26/2021 22:02
Selenium	**0.82**		**0.37**	**0.40**	**mg/Kg-dry**	1	3/30/2021 13:30
Silver	**0.083**	J	**0.053**	**0.40**	**mg/Kg-dry**	1	3/26/2021 22:02
Zinc	**67**		**0.79**	**0.81**	**mg/Kg-dry**	1	3/26/2021 22:02
SOLUBLE CATIONS FOR SAR		Method: **SW6020B**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Calcium	**79**		**2.5**	**5.0**	**mg/L**	10	3/29/2021 18:02
Magnesium	**9.7**		**0.50**	**2.0**	**mg/L**	10	3/29/2021 18:02
Sodium	**5.1**		**1.8**	**2.0**	**mg/L**	10	3/29/2021 18:02
HOT WATER SOLUBLE BORON BY ICP-MS		Method: **SW6020B**			Prep: EXTRACT / 3/26/21		Analyst: **STP**
Boron (Hot Water Soluble)	**1.6**	B	**0.018**	**0.46**	**mg/Kg-dry**	10	3/26/2021 20:12
SODIUM ADSORPTION RATIO		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Sodium Adsorption Ratio	**0.14**		**0.010**	**0.010**	**none**	1	3/29/2021
ELECTRICAL CONDUCTIVITY (SAR)		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
Electrical Conductivity @ Saturation	**0.51**		**0.011**	**0.10**	**mmhos/cm @25°**	20	3/29/2021 13:02
CHROMIUM, HEXAVALENT		Method: **SW7196A**			Prep: SW3060A / 3/25/21		Analyst: **KTP**
Chromium, Hexavalent	U		0.99	1.2	mg/Kg-dry	1	3/25/2021 15:03
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**16**		**0.10**	**0.10**	**% of sample**	1	3/25/2021 13:44
PH MEASURED IN SOIL PASTE		Method: **USDA METHOD 20B**			Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
pH @ Saturation	**9.53**		**0.12**	**0.12**	**s.u.-dry**	1	3/29/2021 13:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-SS4
Collection Date: 3/18/2021 11:45 AM

Work Order: 21032115
Lab ID: 21032115-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW3550 / 3/25/21		Analyst: **AK**
ERO (C10-C36)	**24**	J	**9.8**	**26**	**mg/Kg-dry**	1	3/27/2021 22:31
Surr: 4-Terphenyl-d14	*74.7*			*33-111*	*%REC*	1	3/27/2021 22:31
GASOLINE RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW5035 / 3/24/21		Analyst: **AK**
GRO (C6-C10)	U		3.1	7.5	mg/Kg-dry	1	3/27/2021 06:31
Surr: Toluene-d8	*96.8*			*71-123*	*%REC*	1	3/27/2021 06:31
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 3/26/21		Analyst: **STP**
Arsenic	**6.3**		**0.053**	**0.44**	**mg/Kg-dry**	1	3/26/2021 22:03
Barium	**140**		**0.41**	**0.44**	**mg/Kg-dry**	1	3/26/2021 22:03
Cadmium	**0.17**	J	**0.027**	**0.18**	**mg/Kg-dry**	1	3/26/2021 22:03
Copper	**14**		**0.44**	**0.44**	**mg/Kg-dry**	1	3/26/2021 22:03
Lead	**22**		**0.21**	**0.44**	**mg/Kg-dry**	1	3/26/2021 22:03
Nickel	**19**		**0.23**	**0.44**	**mg/Kg-dry**	1	3/26/2021 22:03
Selenium	**0.75**		**0.41**	**0.44**	**mg/Kg-dry**	1	3/30/2021 13:32
Silver	**0.11**	J	**0.059**	**0.44**	**mg/Kg-dry**	1	3/26/2021 22:03
Zinc	**78**		**0.87**	**0.89**	**mg/Kg-dry**	1	3/26/2021 22:03
SOLUBLE CATIONS FOR SAR		Method: **SW6020B**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Calcium	**370**		**2.5**	**5.0**	**mg/L**	10	3/29/2021 18:08
Magnesium	**76**		**0.50**	**2.0**	**mg/L**	10	3/29/2021 18:08
Sodium	**5,400**		**18**	**20**	**mg/L**	100	3/30/2021 13:50
HOT WATER SOLUBLE BORON BY ICP-MS		Method: **SW6020B**			Prep: EXTRACT / 3/26/21		Analyst: **STP**
Boron (Hot Water Soluble)	**6.1**	B	**0.021**	**0.52**	**mg/Kg-dry**	10	3/26/2021 20:13
SODIUM ADSORPTION RATIO		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Sodium Adsorption Ratio	**68**		**0.010**	**0.010**	**none**	1	3/29/2021
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)		Method: **SW8270E**			Prep: SW3546 / 3/24/21		Analyst: **EEW**
1-Methylnaphthalene	**0.0082**		**0.0032**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 17:21
2-Methylnaphthalene	**0.010**		**0.0037**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 17:21
Acenaphthene	U		0.0045	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Anthracene	U		0.0048	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Benzo(a)anthracene	U		0.0051	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Benzo(a)pyrene	U		0.0043	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Benzo(b)fluoranthene	U		0.0045	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Benzo(k)fluoranthene	U		0.0043	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Chrysene	U		0.0049	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Dibenzo(a,h)anthracene	U		0.0043	0.0053	mg/Kg-dry	1	3/25/2021 17:21

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-SS4
Collection Date: 3/18/2021 11:45 AM

Work Order: 21032115
Lab ID: 21032115-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	U		0.0042	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Fluorene	U		0.0042	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Indeno(1,2,3-cd)pyrene	U		0.0046	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Naphthalene	**0.0078**		**0.0051**	**0.0053**	**mg/Kg-dry**	1	3/25/2021 17:21
Pyrene	U		0.0051	0.0053	mg/Kg-dry	1	3/25/2021 17:21
Surr: 2-Fluorobiphenyl	*67.4*			*20-140*	*%REC*	1	3/25/2021 17:21
Surr: 4-Terphenyl-d14	*61.7*			*22-172*	*%REC*	1	3/25/2021 17:21
Surr: Nitrobenzene-d5	*82.1*			*28-140*	*%REC*	1	3/25/2021 17:21
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260C**		Prep: SW5035 / 3/24/21		Analyst: **DMC**
1,2,4-Trimethylbenzene	U		0.033	0.045	mg/Kg-dry	1	3/31/2021 04:35
1,3,5-Trimethylbenzene	U		0.052	0.15	mg/Kg-dry	1	3/31/2021 04:35
Benzene	U		0.022	0.045	mg/Kg-dry	1	3/31/2021 04:35
Ethylbenzene	U		0.0095	0.045	mg/Kg-dry	1	3/31/2021 04:35
m,p-Xylene	U		0.060	0.090	mg/Kg-dry	1	3/31/2021 04:35
o-Xylene	U		0.017	0.045	mg/Kg-dry	1	3/31/2021 04:35
Toluene	U		0.012	0.045	mg/Kg-dry	1	3/31/2021 04:35
Xylenes, Total	U		0.060	0.13	mg/Kg-dry	1	3/31/2021 04:35
Surr: 1,2-Dichloroethane-d4	*97.6*			*70-130*	*%REC*	1	3/31/2021 04:35
Surr: 4-Bromofluorobenzene	*96.9*			*70-130*	*%REC*	1	3/31/2021 04:35
Surr: Dibromofluoromethane	*101*			*70-130*	*%REC*	1	3/31/2021 04:35
Surr: Toluene-d8	*101*			*70-130*	*%REC*	1	3/31/2021 04:35
ELECTRICAL CONDUCTIVITY (SAR)		Method:	**USDA H60 METHOD 2**		Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
Electrical Conductivity @ Saturation	**28**		**0.011**	**0.10**	**mmhos/cm @25°**	20	3/29/2021 13:02
CHROMIUM, HEXAVALENT		Method:	**SW7196A**		Prep: SW3060A / 3/25/21		Analyst: **KTP**
Chromium, Hexavalent	U		1.1	1.3	mg/Kg-dry	1	3/25/2021 15:03
MOISTURE		Method:	**SW3550C**				Analyst: **KTP**
Moisture	**23**		**0.10**	**0.10**	**% of sample**	1	3/25/2021 13:44
PH MEASURED IN SOIL PASTE		Method:	**USDA METHOD 20B**		Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
pH @ Saturation	**10.1**		**0.13**	**0.13**	**s.u.-dry**	1	3/29/2021 13:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Apr-21*

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-BG2
Collection Date: 3/18/2021 12:00 PM

Work Order: 21032115
Lab ID: 21032115-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP		Method: **SW6010D**			Prep: SW3050B / 3/23/21		Analyst: **DSC**
Arsenic	**5.8**		**0.13**	**0.48**	**mg/Kg-dry**	1	3/24/2021 20:54
MOISTURE		Method: **SW3550C**					Analyst: **KTP**
Moisture	**25**		**0.10**	**0.10**	**% of sample**	1	3/25/2021 13:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-SS5
Collection Date: 3/18/2021 12:20 PM

Work Order: 21032115
Lab ID: 21032115-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW3550 / 3/25/21		Analyst: **AK**
ERO (C10-C36)	**86**		**9.8**	**26**	**mg/Kg-dry**	1	3/27/2021 23:11
Surr: 4-Terphenyl-d14	*77.1*			*33-111*	*%REC*	1	3/27/2021 23:11
GASOLINE RANGE ORGANICS BY GC-FID		Method: **SW8015D**			Prep: SW5035 / 3/24/21		Analyst: **AK**
GRO (C6-C10)	U		3.2	7.6	mg/Kg-dry	1	3/27/2021 06:54
Surr: Toluene-d8	*118*			*71-123*	*%REC*	1	3/27/2021 06:54
METALS BY ICP-MS		Method: **SW6020B**			Prep: SW3050B / 3/26/21		Analyst: **STP**
Arsenic	**7.3**		**0.053**	**0.45**	**mg/Kg-dry**	1	3/26/2021 22:05
Barium	**150**		**4.1**	**4.5**	**mg/Kg-dry**	10	3/29/2021 16:07
Cadmium	**0.19**		**0.027**	**0.18**	**mg/Kg-dry**	1	3/29/2021 16:27
Copper	**13**		**0.45**	**0.45**	**mg/Kg-dry**	1	3/26/2021 22:05
Lead	**18**		**0.21**	**0.45**	**mg/Kg-dry**	1	3/26/2021 22:05
Nickel	**18**		**0.23**	**0.45**	**mg/Kg-dry**	1	3/26/2021 22:05
Selenium	**0.82**		**0.41**	**0.45**	**mg/Kg-dry**	1	3/30/2021 13:34
Silver	**0.085**	J	**0.059**	**0.45**	**mg/Kg-dry**	1	3/26/2021 22:05
Zinc	**70**		**0.87**	**0.89**	**mg/Kg-dry**	1	3/26/2021 22:05
SOLUBLE CATIONS FOR SAR		Method: **SW6020B**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Calcium	**150**		**2.5**	**5.0**	**mg/L**	10	3/29/2021 18:10
Magnesium	**16**		**0.50**	**2.0**	**mg/L**	10	3/29/2021 18:10
Sodium	**120**		**1.8**	**2.0**	**mg/L**	10	3/29/2021 18:10
HOT WATER SOLUBLE BORON BY ICP-MS		Method: **SW6020B**			Prep: EXTRACT / 3/26/21		Analyst: **STP**
Boron (Hot Water Soluble)	**1.2**	B	**0.020**	**0.50**	**mg/Kg-dry**	10	3/26/2021 20:15
SODIUM ADSORPTION RATIO		Method: **USDA H60 METHOD 2**			Prep: USDA Method 20B / 3/29/21		Analyst: **STP**
Sodium Adsorption Ratio	**2.4**		**0.010**	**0.010**	**none**	1	3/29/2021
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)		Method: **SW8270E**			Prep: SW3546 / 3/24/21		Analyst: **EEW**
1-Methylnaphthalene	U		0.0031	0.0052	mg/Kg-dry	1	3/25/2021 17:37
2-Methylnaphthalene	U		0.0036	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Acenaphthene	U		0.0044	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Anthracene	U		0.0047	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Benzo(a)anthracene	U		0.0050	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Benzo(a)pyrene	U		0.0042	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Benzo(b)fluoranthene	U		0.0044	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Benzo(k)fluoranthene	U		0.0043	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Chrysene	U		0.0048	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Dibenzo(a,h)anthracene	U		0.0042	0.0052	mg/Kg-dry	1	3/25/2021 17:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Entrada Consulting Group
Project: AC McLaughlin 47 Spill
Sample ID: ACM 47-SS5
Collection Date: 3/18/2021 12:20 PM

Work Order: 21032115
Lab ID: 21032115-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	U		0.0041	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Fluorene	U		0.0041	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Indeno(1,2,3-cd)pyrene	U		0.0045	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Naphthalene	U		0.0050	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Pyrene	U		0.0050	0.0052	mg/Kg-dry	1	3/25/2021 17:37
Surr: 2-Fluorobiphenyl	*69.9*			*20-140*	*%REC*	1	3/25/2021 17:37
Surr: 4-Terphenyl-d14	*83.6*			*22-172*	*%REC*	1	3/25/2021 17:37
Surr: Nitrobenzene-d5	*80.2*			*28-140*	*%REC*	1	3/25/2021 17:37
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260C**		Prep: SW5035 / 3/24/21		Analyst: **DMC**
1,2,4-Trimethylbenzene	U		0.033	0.045	mg/Kg-dry	1	3/31/2021 04:51
1,3,5-Trimethylbenzene	U		0.053	0.15	mg/Kg-dry	1	3/31/2021 04:51
Benzene	U		0.022	0.045	mg/Kg-dry	1	3/31/2021 04:51
Ethylbenzene	U		0.0096	0.045	mg/Kg-dry	1	3/31/2021 04:51
m,p-Xylene	U		0.060	0.091	mg/Kg-dry	1	3/31/2021 04:51
o-Xylene	U		0.018	0.045	mg/Kg-dry	1	3/31/2021 04:51
Toluene	U		0.012	0.045	mg/Kg-dry	1	3/31/2021 04:51
Xylenes, Total	U		0.060	0.14	mg/Kg-dry	1	3/31/2021 04:51
Surr: 1,2-Dichloroethane-d4	*97.2*			*70-130*	*%REC*	1	3/31/2021 04:51
Surr: 4-Bromofluorobenzene	*99.4*			*70-130*	*%REC*	1	3/31/2021 04:51
Surr: Dibromofluoromethane	*103*			*70-130*	*%REC*	1	3/31/2021 04:51
Surr: Toluene-d8	*102*			*70-130*	*%REC*	1	3/31/2021 04:51
ELECTRICAL CONDUCTIVITY (SAR)		Method:	**USDA H60 METHOD 2**		Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
Electrical Conductivity @ Saturation	**1.6**		**0.011**	**0.10**	**mmhos/cm @25°**	20	3/29/2021 13:02
CHROMIUM, HEXAVALENT		Method:	**SW7196A**		Prep: SW3060A / 3/25/21		Analyst: **KTP**
Chromium, Hexavalent	U		1.1	1.3	mg/Kg-dry	1	3/25/2021 15:03
MOISTURE		Method:	**SW3550C**				Analyst: **KTP**
Moisture	**23**		**0.10**	**0.10**	**% of sample**	1	3/25/2021 13:44
PH MEASURED IN SOIL PASTE		Method:	**USDA METHOD 20B**		Prep: USDA Method 20B / 3/29/21		Analyst: **QTN**
pH @ Saturation	**10.2**		**0.13**	**0.13**	**s.u.-dry**	1	3/29/2021 13:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Apr-21

Client: Entrada Consulting Group

Work Order: 21032115

Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174049** Instrument ID **GC8** Method: **SW8015D**

MBLK Sample ID: **DBLKS1-174049-174049** Units: **mg/Kg** Analysis Date: **3/27/2021 06:46 AM**

Client ID: Run ID: **GC8_210326D** SeqNo: **7257026** Prep Date: **3/25/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C10-C36)	13.8	20								J
Surr: 4-Terphenyl-d14	*2.375*	0	*3.33*	0	*71.3*	*33-111*	0			

LCS Sample ID: **DLCSS1-174049-174049** Units: **mg/Kg** Analysis Date: **3/27/2021 07:25 AM**

Client ID: Run ID: **GC8_210326D** SeqNo: **7257027** Prep Date: **3/25/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C10-C36)	589.2	20	667	0	88.3	51-130	0			
Surr: 4-Terphenyl-d14	*2.244*	0	*3.33*	0	*67.4*	*33-111*	0			

MS Sample ID: **21031897-05A MS** Units: **mg/Kg** Analysis Date: **3/27/2021 08:05 AM**

Client ID: Run ID: **GC8_210326D** SeqNo: **7257028** Prep Date: **3/25/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C10-C36)	805.4	20	660.2	0	122	51-130	0			
Surr: 4-Terphenyl-d14	*2.136*	0	*3.296*	0	*64.8*	*33-111*	0			

MSD Sample ID: **21031897-05A MSD** Units: **mg/Kg** Analysis Date: **3/27/2021 08:44 AM**

Client ID: Run ID: **GC8_210326D** SeqNo: **7257029** Prep Date: **3/25/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C10-C36)	771.1	20	658.9	0	117	51-130	805.4	4.35	30	
Surr: 4-Terphenyl-d14	*2.188*	0	*3.29*	0	*66.5*	*33-111*	2.136	*2.39*	*30*	

The following samples were analyzed in this batch:

21032115-01A	21032115-02A	21032115-03A
21032115-05A	21032115-07A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174003** Instrument ID **GC9** Method: **SW8015D**

MBLK Sample ID: **MBLK-174003-174003** Units: **µg/Kg-dry** Analysis Date: **3/27/2021 12:01 AM**
Client ID: Run ID: **GC9_210326B** SeqNo: **7256179** Prep Date: **3/24/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	5,000	0	0	0		0			
Surr: Toluene-d8	*5862*	0	*5000*	0	*117*	*71-123*	0			

LCS Sample ID: **LCS-174003-174003** Units: **µg/Kg-dry** Analysis Date: **3/26/2021 10:51 PM**
Client ID: Run ID: **GC9_210326B** SeqNo: **7256213** Prep Date: **3/24/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	228600	5,000	250000	0	91.5	71-123	0			
Surr: Toluene-d8	*5900*	0	*5000*	0	*118*	*71-123*	0			

MS Sample ID: **21032115-01A MS** Units: **µg/Kg-dry** Analysis Date: **3/27/2021 02:41 AM**
Client ID: **ACM 47-SS1** Run ID: **GC9_210326B** SeqNo: **7256186** Prep Date: **3/24/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	389000	7,900	393000	0	99	71-123	0			
Surr: Toluene-d8	*8056*	0	*7859*	0	*102*	*71-123*	0			

MSD Sample ID: **21032115-01A MSD** Units: **µg/Kg-dry** Analysis Date: **3/27/2021 03:04 AM**
Client ID: **ACM 47-SS1** Run ID: **GC9_210326B** SeqNo: **7256187** Prep Date: **3/24/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	321000	7,900	394300	0	81.4	71-123	389000	19.1	30	
Surr: Toluene-d8	*8928*	0	*7885*	0	*113*	*71-123*	8056	*10.3*	*30*	

The following samples were analyzed in this batch:

21032115-01A	21032115-02A	21032115-03A
21032115-05A	21032115-07A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **173930** Instrument ID **ICP2** Method: **SW6010D**

MBLK Sample ID: **MBLK-173930-173930** Units: **mg/Kg** Analysis Date: **3/24/2021 07:49 PM**
Client ID: Run ID: **ICP2_210324B** SeqNo: **7247881** Prep Date: **3/23/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								

LCS Sample ID: **LCS-173930-173930** Units: **mg/Kg** Analysis Date: **3/24/2021 08:09 PM**
Client ID: Run ID: **ICP2_210324B** SeqNo: **7247885** Prep Date: **3/23/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.89	0.25	5	0	97.8	80-120	0			

MS Sample ID: **21032118-01AMS** Units: **mg/Kg** Analysis Date: **3/25/2021 06:59 PM**
Client ID: Run ID: **ICP2_210325A** SeqNo: **7250294** Prep Date: **3/23/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.135	0.33	6.57	3.906	79.6	75-125	0			

MSD Sample ID: **21032118-01AMSD** Units: **mg/Kg** Analysis Date: **3/25/2021 07:04 PM**
Client ID: Run ID: **ICP2_210325A** SeqNo: **7250298** Prep Date: **3/23/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.876	0.33	6.562	3.906	75.7	75-125	9.135	2.87	20	

The following samples were analyzed in this batch: 21032115-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174093** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-174093-174093** Units: **mg/Kg** Analysis Date: **3/26/2021 08:31 PM**
Client ID: Run ID: **ICPMS3_210326B** SeqNo: **7254857** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Barium	U	0.25								
Cadmium	U	0.10								
Copper	U	0.25								
Lead	U	0.25								
Nickel	U	0.25								
Selenium	U	0.25								
Silver	U	0.25								
Zinc	U	0.50								

LCS Sample ID: **LCS-174093-174093** Units: **mg/Kg** Analysis Date: **3/26/2021 08:33 PM**
Client ID: Run ID: **ICPMS3_210326B** SeqNo: **7254858** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.137	0.25	5	0	103	80-120	0			
Barium	5.37	0.25	5	0	107	80-120	0			
Cadmium	5.16	0.10	5	0	103	80-120	0			
Copper	5.322	0.25	5	0	106	80-120	0			
Lead	5.296	0.25	5	0	106	80-120	0			
Nickel	5.304	0.25	5	0	106	80-120	0			
Selenium	5.096	0.25	5	0	102	80-120	0			
Silver	5.333	0.25	5	0	107	80-120	0			
Zinc	5.147	0.50	5	0	103	80-120	0			

MS Sample ID: **21031891-10AMS** Units: **mg/Kg** Analysis Date: **3/26/2021 08:44 PM**
Client ID: Run ID: **ICPMS3_210326B** SeqNo: **7254864** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.07	0.35	7.022	3.001	101	75-125	0			
Barium	36.13	0.35	7.022	26.64	135	75-125	0			S
Cadmium	6.552	0.14	7.022	0.1533	91.1	75-125	0			
Copper	41.18	0.35	7.022	84.86	-622	75-125	0			SO
Lead	25.84	0.35	7.022	15.13	152	75-125	0			S
Nickel	13.55	0.35	7.022	9.297	60.5	75-125	0			S
Selenium	6.612	0.35	7.022	0.1212	92.4	75-125	0			
Silver	6.545	0.35	7.022	0.05641	92.4	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174093** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **21031891-10AMS** Units: **mg/Kg** Analysis Date: **3/29/2021 03:43 PM**
Client ID: Run ID: **ICPMS3_210329B** SeqNo: **7258881** Prep Date: **3/26/2021** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	78.23	7.0	7.022	162.3	-1200	75-125	0			SO

MSD Sample ID: **21031891-10AMSD** Units: **mg/Kg** Analysis Date: **3/26/2021 08:49 PM**
Client ID: Run ID: **ICPMS3_210326B** SeqNo: **7254867** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.546	0.34	6.849	3.001	95.6	75-125	10.07	5.32	20	
Barium	31.31	0.34	6.849	26.64	68.2	75-125	36.13	14.3	20	S
Cadmium	6.343	0.14	6.849	0.1533	90.4	75-125	6.552	3.25	20	
Copper	106.7	0.34	6.849	84.86	318	75-125	41.18	88.6	20	SRO
Lead	20.98	0.34	6.849	15.13	85.4	75-125	25.84	20.8	20	R
Nickel	16.49	0.34	6.849	9.297	105	75-125	13.55	19.6	20	
Selenium	6.44	0.34	6.849	0.1212	92.3	75-125	6.612	2.64	20	
Silver	6.314	0.34	6.849	0.05641	91.4	75-125	6.545	3.59	20	

MSD Sample ID: **21031891-10AMSD** Units: **mg/Kg** Analysis Date: **3/29/2021 03:45 PM**
Client ID: Run ID: **ICPMS3_210329B** SeqNo: **7258882** Prep Date: **3/26/2021** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	183.7	6.8	6.849	162.3	313	75-125	78.23	80.6	20	SRO

The following samples were analyzed in this batch: 21032115-01A 21032115-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174094** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-174094-174094** Units: **mg/Kg** Analysis Date: **3/26/2021 09:25 PM**
Client ID: Run ID: **ICPMS3_210326B** SeqNo: **7254887** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Barium	U	0.25								
Cadmium	U	0.10								
Copper	U	0.25								
Lead	U	0.25								
Nickel	U	0.25								
Selenium	U	0.25								
Silver	U	0.25								
Zinc	U	0.50								

LCS Sample ID: **LCS-174094-174094** Units: **mg/Kg** Analysis Date: **3/26/2021 09:26 PM**
Client ID: Run ID: **ICPMS3_210326B** SeqNo: **7254888** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.107	0.25	5	0	102	80-120	0			
Barium	5.318	0.25	5	0	106	80-120	0			
Cadmium	4.952	0.10	5	0	99	80-120	0			
Copper	5.171	0.25	5	0	103	80-120	0			
Lead	5.217	0.25	5	0	104	80-120	0			
Nickel	5.201	0.25	5	0	104	80-120	0			
Selenium	5.128	0.25	5	0	103	80-120	0			
Silver	5.087	0.25	5	0	102	80-120	0			
Zinc	5.326	0.50	5	0	107	80-120	0			

MS Sample ID: **21032119-02AMS** Units: **mg/Kg** Analysis Date: **3/26/2021 10:11 PM**
Client ID: Run ID: **ICPMS3_210326B** SeqNo: **7254914** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.12	0.32	6.369	4.508	88.1	75-125	0			
Copper	15.61	0.32	6.369	10.28	83.7	75-125	0			
Lead	21.23	0.32	6.369	14.16	111	75-125	0			
Nickel	18.87	0.32	6.369	13.23	88.5	75-125	0			
Silver	5.153	0.32	6.369	0.06713	79.8	75-125	0			
Zinc	60.74	0.64	6.369	53.91	107	75-125	0			O

MS Sample ID: **21032119-02AMS** Units: **mg/Kg** Analysis Date: **3/29/2021 04:12 PM**
Client ID: Run ID: **ICPMS3_210329B** SeqNo: **7258899** Prep Date: **3/26/2021** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	732.3	3.2	6.369	702	475	75-125	0			SO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174094** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **21032119-02AMS** Units: **mg/Kg** Analysis Date: **3/29/2021 04:32 PM**
Client ID: Run ID: **ICPMS3_210329B** SeqNo: **7258911** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	5.274	0.13	6.369	0.138	80.6	75-125	0			
Selenium	5.74	0.32	6.369	0.6799	79.4	75-125	0			

MSD Sample ID: **21032119-02AMSD** Units: **mg/Kg** Analysis Date: **3/26/2021 10:13 PM**
Client ID: Run ID: **ICPMS3_210326B** SeqNo: **7254915** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.21	0.33	6.64	4.508	85.9	75-125	10.12	0.951	20	
Copper	15.44	0.33	6.64	10.28	77.7	75-125	15.61	1.13	20	
Lead	21.17	0.33	6.64	14.16	105	75-125	21.23	0.306	20	
Nickel	18.37	0.33	6.64	13.23	77.3	75-125	18.87	2.69	20	
Silver	5.397	0.33	6.64	0.06713	80.3	75-125	5.153	4.63	20	
Zinc	58.66	0.66	6.64	53.91	71.6	75-125	60.74	3.48	20	SO

MSD Sample ID: **21032119-02AMSD** Units: **mg/Kg** Analysis Date: **3/29/2021 04:13 PM**
Client ID: Run ID: **ICPMS3_210329B** SeqNo: **7258900** Prep Date: **3/26/2021** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	835.4	3.3	6.64	702	2010	75-125	732.3	13.1	20	SO

MSD Sample ID: **21032119-02AMSD** Units: **mg/Kg** Analysis Date: **3/29/2021 04:34 PM**
Client ID: Run ID: **ICPMS3_210329B** SeqNo: **7258912** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	5.499	0.13	6.64	0.138	80.7	75-125	5.274	4.18	20	
Selenium	5.746	0.33	6.64	0.6799	76.3	75-125	5.74	0.106	20	

The following samples were analyzed in this batch: 21032115-03A 21032115-04A 21032115-05A 21032115-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174110** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-174110-174110** Units: **mg/Kg** Analysis Date: **3/26/2021 07:54 PM**
Client ID: Run ID: **ICPMS3_210326B** SeqNo: **7255070** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron (Hot Water Soluble)	0.07336	0.040								

LCS Sample ID: **LCS-174110-174110** Units: **mg/Kg** Analysis Date: **3/26/2021 07:56 PM**
Client ID: Run ID: **ICPMS3_210326B** SeqNo: **7255071** Prep Date: **3/26/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron (Hot Water Soluble)	0.9819	0.040	1	0	98.2	80-120	0			B

The following samples were analyzed in this batch:

21032115-01A	21032115-02A	21032115-03A
21032115-04A	21032115-05A	21032115-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174190** Instrument ID **ICPMS3** Method: **SW6020B**

DUP Sample ID: **21032115-04BDUP** Units: **mg/L** Analysis Date: **3/29/2021 06:03 PM**
Client ID: **ACM 47-BG1** Run ID: **ICPMS3_210329A** SeqNo: **7258620** Prep Date: **3/29/2021** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	78.7	5.0	0	0	0	0-0	79.12	0.532		
Magnesium	10.83	2.0	0	0	0	0-0	9.658	11.4		
Sodium	4.804	2.0	0	0	0	0-0	5.128	6.53		

The following samples were analyzed in this batch:

21032115-01A	21032115-01B	21032115-02A
21032115-02B	21032115-03A	21032115-03B
21032115-04A	21032115-04B	21032115-05A
21032115-05B	21032115-07A	21032115-07B

Batch ID: **174190** Instrument ID **SAR** Method: **USDA H60 Method**

DUP Sample ID: **21032115-04BDUP** Units: **none** Analysis Date: **3/29/2021**
Client ID: **ACM 47-BG1** Run ID: **SAR_210329A** SeqNo: **7261390** Prep Date: **3/29/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.1346	0.010	0	0	0		0.1448	7.32	50	

The following samples were analyzed in this batch:

21032115-01A	21032115-01B	21032115-02A
21032115-02B	21032115-03A	21032115-03B
21032115-04A	21032115-04B	21032115-05A
21032115-05B	21032115-07A	21032115-07B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **173996** Instrument ID **SVMS6** Method: **SW8270E**

MBLK Sample ID: **SBLKS1-173996-173996** Units: **µg/Kg** Analysis Date: **3/25/2021 12:56 PM**

Client ID: Run ID: **SVMS6_210325A** SeqNo: **7251641** Prep Date: **3/24/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	U	4.2								
2-Methylnaphthalene	U	4.2								
Acenaphthene	U	4.2								
Anthracene	U	4.2								
Benzo(a)anthracene	U	4.2								
Benzo(a)pyrene	U	4.2								
Benzo(b)fluoranthene	U	4.2								
Benzo(k)fluoranthene	U	4.2								
Chrysene	U	4.2								
Dibenzo(a,h)anthracene	U	4.2								
Fluoranthene	U	4.2								
Fluorene	U	4.2								
Indeno(1,2,3-cd)pyrene	U	4.2								
Naphthalene	U	4.2								
Pyrene	U	4.2								
Surr: 2-Fluorobiphenyl	*2339*	0	*3333*	0	*70.2*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2845*	0	*3333*	0	*85.3*	*22-172*	0			
Surr: Nitrobenzene-d5	*2629*	0	*3333*	0	*78.9*	*28-140*	0			

LCS Sample ID: **SLCSS1-173996-173996** Units: **µg/Kg** Analysis Date: **3/25/2021 12:10 PM**

Client ID: Run ID: **SVMS6_210325A** SeqNo: **7251638** Prep Date: **3/24/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1132	4.2	1333	0	84.9	40-140	0			
2-Methylnaphthalene	1046	4.2	1333	0	78.5	40-140	0			
Acenaphthene	1060	4.2	1333	0	79.5	40-140	0			
Anthracene	1100	4.2	1333	0	82.5	40-140	0			
Benzo(a)anthracene	1103	4.2	1333	0	82.7	40-140	0			
Benzo(a)pyrene	1021	4.2	1333	0	76.6	40-140	0			
Benzo(b)fluoranthene	1130	4.2	1333	0	84.8	40-140	0			
Benzo(k)fluoranthene	1001	4.2	1333	0	75.1	40-140	0			
Chrysene	1074	4.2	1333	0	80.5	40-140	0			
Dibenzo(a,h)anthracene	1187	4.2	1333	0	89.1	40-140	0			
Fluoranthene	1075	4.2	1333	0	80.6	40-140	0			
Fluorene	1046	4.2	1333	0	78.5	40-140	0			
Indeno(1,2,3-cd)pyrene	1279	4.2	1333	0	96	40-140	0			
Naphthalene	1091	4.2	1333	0	81.9	40-140	0			
Pyrene	1108	4.2	1333	0	83.1	40-140	0			
Surr: 2-Fluorobiphenyl	*2446*	0	*3333*	0	*73.4*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2667*	0	*3333*	0	*80*	*22-172*	0			
Surr: Nitrobenzene-d5	*1842*	0	*3333*	0	*55.3*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **173996** Instrument ID **SVMS6** Method: **SW8270E**

MS Sample ID: **21031897-08A MS** Units: **µg/Kg** Analysis Date: **3/25/2021 01:12 PM**
Client ID: Run ID: **SVMS6_210325A** SeqNo: **7251642** Prep Date: **3/24/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1015	4.1	1315	0	77.2	40-140	0			
2-Methylnaphthalene	1172	4.1	1315	0	89.1	40-140	0			
Acenaphthene	1131	4.1	1315	0	86	40-140	0			
Anthracene	1118	4.1	1315	0	85	40-140	0			
Benzo(a)anthracene	992.5	4.1	1315	2.15	75.3	40-140	0			
Benzo(a)pyrene	826.7	4.1	1315	0	62.9	40-140	0			
Benzo(b)fluoranthene	902.3	4.1	1315	0	68.6	40-140	0			
Benzo(k)fluoranthene	896.8	4.1	1315	0	68.2	40-140	0			
Chrysene	978.6	4.1	1315	0	74.4	40-140	0			
Dibenzo(a,h)anthracene	918.6	4.1	1315	0	69.9	40-140	0			
Fluoranthene	996.1	4.1	1315	0	75.8	40-140	0			
Fluorene	1102	4.1	1315	0	83.9	40-140	0			
Indeno(1,2,3-cd)pyrene	920.4	4.1	1315	0	70	40-140	0			
Naphthalene	1157	4.1	1315	0	88	40-140	0			
Pyrene	1180	4.1	1315	4.397	89.5	40-140	0			
Surr: 2-Fluorobiphenyl	*2338*	0	*3287*	0	*71.1*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2778*	0	*3287*	0	*84.5*	*22-172*	0			
Surr: Nitrobenzene-d5	*2306*	0	*3287*	0	*70.2*	*28-140*	0			

MSD Sample ID: **21031897-08A MSD** Units: **µg/Kg** Analysis Date: **3/25/2021 01:27 PM**
Client ID: Run ID: **SVMS6_210325A** SeqNo: **7251643** Prep Date: **3/24/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1021	4.1	1321	0	77.3	40-140	1015	0.547	30	
2-Methylnaphthalene	1143	4.1	1321	0	86.6	40-140	1172	2.45	30	
Acenaphthene	1118	4.1	1321	0	84.6	40-140	1131	1.17	30	
Anthracene	1102	4.1	1321	0	83.4	40-140	1118	1.43	30	
Benzo(a)anthracene	995.1	4.1	1321	2.15	75.2	40-140	992.5	0.259	30	
Benzo(a)pyrene	833.8	4.1	1321	0	63.1	40-140	826.7	0.848	30	
Benzo(b)fluoranthene	948.5	4.1	1321	0	71.8	40-140	902.3	5	30	
Benzo(k)fluoranthene	858.3	4.1	1321	0	65	40-140	896.8	4.38	30	
Chrysene	978	4.1	1321	0	74	40-140	978.6	0.0694	30	
Dibenzo(a,h)anthracene	933.1	4.1	1321	0	70.6	40-140	918.6	1.57	30	
Fluoranthene	983.9	4.1	1321	0	74.5	40-140	996.1	1.23	30	
Fluorene	1094	4.1	1321	0	82.8	40-140	1102	0.781	30	
Indeno(1,2,3-cd)pyrene	942.7	4.1	1321	0	71.4	40-140	920.4	2.4	30	
Naphthalene	1141	4.1	1321	0	86.4	40-140	1157	1.38	30	
Pyrene	1166	4.1	1321	4.397	87.9	40-140	1180	1.23	30	
Surr: 2-Fluorobiphenyl	*2338*	0	*3303*	0	*70.8*	*20-140*	2338	*0.0381*	*30*	
Surr: 4-Terphenyl-d14	*2782*	0	*3303*	0	*84.2*	*22-172*	2778	*0.158*	*30*	
Surr: Nitrobenzene-d5	*2269*	0	*3303*	0	*68.7*	*28-140*	2306	*1.65*	*30*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **173996** Instrument ID **SVMS6** Method: **SW8270E**

The following samples were analyzed in this batch:

21032115-01A	21032115-02A	21032115-03A
21032115-05A	21032115-07A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174002** Instrument ID **VMS8** Method: **SW8260C**

MBLK	Sample ID: **MBLK-174002-174002**				Units: **µg/Kg-dry**		Analysis Date: **3/31/2021 12:44 PM**			
Client ID:	Run ID: **VMS8_210331A**				SeqNo: **7266989**		Prep Date: **3/24/2021**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	U	30								
1,3,5-Trimethylbenzene	U	100								
Benzene	U	30								
Ethylbenzene	U	30								
m,p-Xylene	U	60								
o-Xylene	U	30								
Toluene	U	30								
Xylenes, Total	U	90								
Surr: 1,2-Dichloroethane-d4	*960*	0	*1000*	0	*96*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1010*	0	*1000*	0	*101*	*70-130*	0			
Surr: Dibromofluoromethane	*994.5*	0	*1000*	0	*99.4*	*70-130*	0			
Surr: Toluene-d8	*1028*	0	*1000*	0	*103*	*70-130*	0			

LCS	Sample ID: **LCS-174002-174002**				Units: **µg/Kg-dry**		Analysis Date: **3/31/2021 11:56 AM**			
Client ID:	Run ID: **VMS8_210331A**				SeqNo: **7266987**		Prep Date: **3/24/2021**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	1080	30	1000	0	108	65-135	0			
1,3,5-Trimethylbenzene	1144	100	1000	0	114	65-135	0			
Benzene	1030	30	1000	0	103	75-125	0			
Ethylbenzene	1166	30	1000	0	117	75-125	0			
m,p-Xylene	2367	60	2000	0	118	80-125	0			
o-Xylene	1120	30	1000	0	112	75-125	0			
Toluene	1016	30	1000	0	102	70-125	0			
Xylenes, Total	3486	90	3000	0	116	75-125	0			
Surr: 1,2-Dichloroethane-d4	*955.5*	0	*1000*	0	*95.6*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*978*	0	*1000*	0	*97.8*	*70-130*	0			
Surr: Dibromofluoromethane	*1003*	0	*1000*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*998*	0	*1000*	0	*99.8*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174002** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **21032115-01A MS** Units: **µg/Kg-dry** Analysis Date: **3/31/2021 07:03 PM**
Client ID: **ACM 47-SS1** Run ID: **VMS8_210331A** SeqNo: **7267026** Prep Date: **3/24/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	1803	47	1572	86.45	109	65-135	0			
1,3,5-Trimethylbenzene	1848	160	1572	89.6	112	65-135	0			
Benzene	1659	47	1572	0	106	75-125	0			
Ethylbenzene	1875	47	1572	0	119	75-125	0			
m,p-Xylene	3801	94	3144	14.15	120	80-125	0			
o-Xylene	1862	47	1572	59.73	115	75-125	0			
Toluene	1642	47	1572	21.22	103	70-125	0			
Xylenes, Total	5663	140	4716	60	119	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1489*	0	*1572*	0	*94.8*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1577*	0	*1572*	0	*100*	*70-130*	0			
Surr: Dibromofluoromethane	*1573*	0	*1572*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*1603*	0	*1572*	0	*102*	*70-130*	0			

MSD Sample ID: **21032115-01A MSD** Units: **µg/Kg-dry** Analysis Date: **3/31/2021 07:19 PM**
Client ID: **ACM 47-SS1** Run ID: **VMS8_210331A** SeqNo: **7267027** Prep Date: **3/24/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	1788	47	1577	86.45	108	65-135	1803	0.853	30	
1,3,5-Trimethylbenzene	1840	160	1577	89.6	111	65-135	1848	0.48	30	
Benzene	1668	47	1577	0	106	75-125	1659	0.52	30	
Ethylbenzene	1862	47	1577	0	118	75-125	1875	0.723	30	
m,p-Xylene	3746	95	3154	14.15	118	80-125	3801	1.46	30	
o-Xylene	1786	47	1577	59.73	109	75-125	1862	4.16	30	
Toluene	1614	47	1577	21.22	101	70-125	1642	1.7	30	
Xylenes, Total	5532	140	4731	60	116	75-125	5663	2.34	30	
Surr: 1,2-Dichloroethane-d4	*1579*	0	*1577*	0	*100*	*70-130*	1489	*5.87*	*30*	
Surr: 4-Bromofluorobenzene	*1496*	0	*1577*	0	*94.8*	*70-130*	1577	*5.26*	*30*	
Surr: Dibromofluoromethane	*1551*	0	*1577*	0	*98.4*	*70-130*	1573	*1.43*	*30*	
Surr: Toluene-d8	*1577*	0	*1577*	0	*100*	*70-130*	1603	*1.65*	*30*	

The following samples were analyzed in this batch:

21032115-01A	21032115-02A	21032115-03A
21032115-05A	21032115-07A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **174086** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-174086-174086** Units: **mg/Kg** Analysis Date: **3/25/2021 03:03 PM**
Client ID: Run ID: **WETCHEM_210325M** SeqNo: **7249194** Prep Date: **3/25/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	U	0.99								

LCS Sample ID: **LCS-174086-174086** Units: **mg/Kg** Analysis Date: **3/25/2021 03:03 PM**
Client ID: Run ID: **WETCHEM_210325M** SeqNo: **7249195** Prep Date: **3/25/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.098	0.98	4.902	0	83.6	80-120	0			

MS Sample ID: **21031949-01A MS** Units: **mg/Kg** Analysis Date: **3/25/2021 03:03 PM**
Client ID: Run ID: **WETCHEM_210325M** SeqNo: **7249197** Prep Date: **3/25/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	3.03	1.0	5	-0.2451	65.5	75-125	0			S

MS Sample ID: **21031949-01A MSI** Units: **mg/Kg** Analysis Date: **3/25/2021 03:03 PM**
Client ID: Run ID: **WETCHEM_210325M** SeqNo: **7249199** Prep Date: **3/25/2021** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1351	99	1816	-0.2451	74.4	75-125	0			S

MSD Sample ID: **21031949-01A MSD** Units: **mg/Kg** Analysis Date: **3/25/2021 03:03 PM**
Client ID: Run ID: **WETCHEM_210325M** SeqNo: **7249198** Prep Date: **3/25/2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.01	0.98	4.902	-0.2451	46	75-125	3.03	40.5	20	SR

The following samples were analyzed in this batch:

21032115-01A	21032115-02A	21032115-03A
21032115-04A	21032115-05A	21032115-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Entrada Consulting Group
Work Order: 21032115
Project: AC McLaughlin 47 Spill

QC BATCH REPORT

Batch ID: **R312730** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R312730** Units: **% of sample** Analysis Date: **3/25/2021 01:44 PM**
Client ID: Run ID: **MOIST_210325D** SeqNo: **7252046** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.10								

LCS Sample ID: **LCS-R312730** Units: **% of sample** Analysis Date: **3/25/2021 01:44 PM**
Client ID: Run ID: **MOIST_210325D** SeqNo: **7252045** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	99.99	0.10	100	0	100	98-102	0			

DUP Sample ID: **21032119-01A DUP** Units: **% of sample** Analysis Date: **3/25/2021 01:44 PM**
Client ID: Run ID: **MOIST_210325D** SeqNo: **7252035** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.08	0.10	0	0	0	0-0	17.07	0.0586	10	

DUP Sample ID: **21032119-02A DUP** Units: **% of sample** Analysis Date: **3/25/2021 01:44 PM**
Client ID: Run ID: **MOIST_210325D** SeqNo: **7252037** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.76	0.10	0	0	0	0-0	17.74	0.113	10	

The following samples were analyzed in this batch:

21032115-01A	21032115-02A	21032115-03A
21032115-04A	21032115-05A	21032115-06A
21032115-07A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Chain of Custody Form

Page _____ of _____

☑ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager:		ALS Work Order #:	2103211S

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	AC McLaughlin 47 Spill	A	BTEX, TMBs
Work Order		Project Number	018-065	B	Table 915 PAHs
Company Name	Entrada	Bill To Company	Entrada	C	Table 915 Metals
Send Report To	tdobransky@entradainc.com	Invoice Attn.	Tim Dobransky	D	Hot Water Soluble Boron
Address	330 Grand Ave, Suite C	Address	330 Grand Ave, Suite C	E	GRO
				F	ERO
City/State/Zip	Grand Junction, CO 81501	City/State/Zip	Grand Junction, CO 81501	G	SAR/EC/pH
Phone	970-270-2986	Phone	970-270-2986	H	Arsenic Only
Fax		Fax		I	
e-Mail Address				J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	ACM 47-SS1	3/18/2021	1030	Soil	8	2	X	X	X	X	X	X	X				
2	ACM 47-SS2	3/18/2021	1045	Soil	8	2	X	X	X	X	X	X	X				
3	ACM 47-SS3	3/18/2021	1100	Soil	8	2	X	X	X	X	X	X	X				
4	ACM 47-BG1	3/18/2021	1130	Soil	8	2			X	X			X				
5	ACM 47-SS4	3/18/2021	1145	Soil	8	2	X	X	X	X	X	X	X				
6	ACM 47-BG2	3/18/2021	1200	Soil	8	1								X			
7	ACM 47-SS5	3/18/2021	1220	Soil	8	2	X	X	X	X	X	X	X				

Sampler(s): Please Print & Sign
Jason McLarty

Shipment Method:

Turnaround Time: (Business Days)
☐ 10 BD ☑ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
	3/19/21	1500				
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	ALS Cooler ID / Cooler Temp
	3-19-21	1831		3/20/21	1000	1R1 / 2.6°C
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			
DFS	3/22/21	1515				

QC Package: (Check Box Below)
☐ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other: _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

ALS Group, USA

Sample Receipt Checklist

Client Name: **ENTRADA** Date/Time Received: **20-Mar-21 10:00**

Work Order: **21032115** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 22-Mar-21 (Date) Reviewed by: Chad Whelton (eSignature) 23-Mar-21 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.6/2.6 c	IR1	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	3/22/2021 3:45:16 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: