December 13, 2022

Ms. Laura Spencer
Summit Midstream Partners
910 Louisiana Street, Suite 4200
Houston, Texas 77002

RE: Report of Work Completed
H35 Gathering Line Release – Impacted Soils Removal
COGCC Facility ID: 482956
Garfield County, Colorado

Ms. Spencer,

Entrada Consulting Group (Entrada) has prepared report of work complete for impacted soil removal at the Summit Midstream Partners (Summit) H35 gathering line release location (Site) located in Garfield County, Colorado. The center location coordinates of the release area are approximately 39.4842927° latitude, and -107.7350707° longitude.

Entrada was contracted to collect confirmation of cleanup soil samples from the excavation related to the release. The release was originally discovered on September 18th, 2022 and reported to the COGCC on September 19th, 2022. This report was completed in accordance with the Colorado Oil and Gas Conservation Commission (COGCC) approved Form 19 (Document Number 403169922). Please see that document for additional details.

A search of the Colorado Division of Water Resources (DWR) database revealed that the closest water well to the Site is 2,720 feet northwest (Permit # 284265). Static water level in this well was recorded at 54 feet below ground surface (ft-bgs). Based on this, Entrada asserts that there is no clear path to groundwater on this Site and that Residential Soil Screening Levels (RSSLs) should be applied.

FIELD SCREENING AND SAMPLING ACTIVITIES

On September 30th, 2022, an Entrada representative was onsite to oversee excavation, field screen soil, and collect soil samples from the excavation. Additionally on November 7th, 2022 an Entrada representative was onsite to oversee further excavation, field screen soil, and collect additional soil samples from the excavation.

Soil from each of the sample locations was visually examined for evidence of potential environmental impacts (e.g., petroleum staining and odor) and screened for volatile organic compounds. Screening was conducted by placing the soil into a re-sealable bag, allowing the soil to warm and volatilize any organic compounds, and monitoring the headspace in the bag with a photoionization detector (PID) equipped with a 10.6 eV lamp. The maximum PID reading

observed during the investigations was 75.4 parts per million (ppm) at the point of release (20220930-H35-POR (6')) in material that was subsequently excavated.

In total, ten (10) samples were collected and submitted for laboratory analysis. In the first sampling event on September 30th, 2022, one soil sample (20220930-H35-POR (6')) was collected from the excavation base at 6 ft-bgs and four soil samples (20220930-H35-WWall (5-6'), 20220930-H35-EWall (4-5'), 20220930-H35-NWall (6'), and 20220930-H35-SWall (6')), were collected from the excavation sidewalls. Based on analytical results, it is assumed that the original excavation base sample (20220930-H35-POR (6')) was contaminated with slough. Prior to resampling on November 7th 2022, slough was thoroughly removed from the excavation. During that sampling event, one soil sample (20220930-H35-BASE (6')) was collected from the excavation base and one soil sample (20220930-H35-EWall (3')) was collected from the east sidewall. Soil sample depths are approximate.

In addition, three local background samples were collected at undisturbed locations outside of the spill area. Groundwater was not observed at any point during field activities. The field screening and soil sample locations are presented on **Figure 1**.

SOIL ANALYSIS

Soil samples were collected in sample containers appropriate for the specified analyses, sealed, labeled, and placed into an ice filled cooler for preservation. Soil samples were submitted to Pace Analytical in Mt. Juliet, Tennessee following chain of custody procedures and analyzed for the analytes below.

- Total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) by United States Environmental Protection Agency (EPA) Method 8015D;
- TPH as diesel range organics (DRO) and TPH as oil range organics (ORO) by EPA Method 8015M;
- Benzene, toluene, ethylbenzene, total xylenes, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene by EPA Method 8260B;
- Polycyclic aromatic hydrocarbons by EPA Method 8270C-SIM;
- Metals (COGCC Table 915-1 list) by EPA Method 6010B except arsenic and hexavalent chromium, which were analyzed by EPA Method 6020 and EPA Method 7199, respectively;
- Sodium adsorption ratio (SAR) by calculation;
- Hot water soluble boron by EPA Method 6010B-NE493 Ch 2;
- pH by EPA Method 9045D; and
- Specific Conductance by EPA Method 9050A Modified.

SOIL ANALYTICAL RESULTS

Analytical results are summarized in **Table 1** and are compared to COGCC Table 915-1 RSSLs.

Laboratory analysis reports and chain-of-custody documentation are included as an attachment. Soil analytical results were reported for ten (10) soil samples at depths ranging from 1 to 6 ft-bgs.

- TPH was identified in soil sampling results above the COGCC Table 915-1 allowable level at a concentration of 1064 mg/kg (20220930-H35-POR (6')). However, this area was further excavated and resampled. TPH concentrations in the soil sampling results from the resample were below the COGCC Table 915-1 allowable concentration at a level of 3.94 mg/kg (20220930-H35-BASE (6')). The COGCC Table 915-1 cleanup concentration for TPH is 500 mg/kg.
- Arsenic was identified in soil sampling results above the COGCC Table 915-1 RSSL's in all confirmation samples with results ranging from 0.886 mg/kg to 4.69 mg/kg. The COGCC Table 915-1 RSSL for arsenic is 0.68 mg/kg. However, all samples were below the local background sample of 15.9 mg/kg (20220930-H35-BG1 (12-16")). Therefore, COGCC Table 915-1 footnote 1 is applicable to these exceedances
- Hexavalent Chromium reporting detection limits (RDL) were identified above the COGCC Table 915-1 RSSL in all excavation samples. However, COGCC Table 915-1 footnote 9 is applicable to these exceedances.
- SAR was identified in soil sampling results above the COGCC Table 915-1 allowable concentration in at a level of 8.47 (20220930-H35-POR (6')). However, this area was further excavated and resampled. SAR concentrations in the soil sampling results from the resample were below the COGCC Table 915-1 allowable level of 3.94 mg/kg (20220930-H35-BASE (6')). The COGCC Table 915-1 allowable level for SAR is <6.
- pH was identified in soil sampling results above the COGCC Table 915-1 allowable concentration in 20220930-H35-EWall (4-5') at a level of 8.44. The COGCC Table 915-1 allowable range for pH is 6 to 8.3. However, this exceedance was below the local background level for pH of 9.48 (20221107-H35-BG3 (4')).

The soil analytical results are summarized in **Table 1** and laboratory analytical reports are included in the attachments.

CONCLUSIONS

Soil analytical results of the September soil sampling event identified subsurface concentrations of TPH, arsenic, SAR, hexavalent chromium, and pH above the applicable COGCC Table 915-1 cleanup concentrations. After additional excavation, results from the November 2022 sampling event identified TPH and SAR below the applicable COGCC Table 915-1 cleanup concentration. The additional exceedances were either below local background concentrations or subject to COGCC Table 915-1 footnote 9. All remaining sample results were compliant with the applicable COGCC Table 915-1 cleanup concentrations.

Based upon field screening and soil sampling activities completed at the site and laboratory analytical data presented herein, Entrada recommends that Summit request closure of this Site with the COGCC.

We appreciate the opportunity to assist Summit Midstream Partners. Please contact me (720) 253-2940 if you have any questions.

Sincerely,

ENTRADA CONSULTING GROUP

Reed Johnson
Senior Project Geologist

Attachments:

Table 1 – Soil Data Summary
Figure 1 – Sample Location Map
Laboratory Analytical Reports

TABLES

Table 1
Summit H35
Soil Sample Summary

LABORATORY DATA SUMMARY												
Sample ID	20220930-H35-WWall (5-6')	20220930-H35-EWall (4-5')	20220930-H35-POR (6')	20220930-H35-NWall (6')	20220930-H35-SWall (6')	20220930-H35-BASE (6')	20220930-H35-EWall (3')	20220930-H35-BG1 (12-16")	20221107-H35-BG2 (2')	20221107-H35-BG3 (4')	**COGCC TABLE 915-1 CONCENTRATION LEVELS**	
Sample Depth	5-6'	4-5'	6'	6'	6'	6'	3'	12-16"	2'	4'		
Latitude	39.4843123	39.4842736	39.4842927	39.484301	39.4842839	39.484291	39.4842667	39.485481	39.484158	39.484158		
Longitude	-107.7350949	-107.7350531	-107.7350707	-107.7350625	-107.7350833	-107.7350701	-107.7350463	-107.73491	-107.735047	-107.735047		
Sample Type	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab		
Sample Description	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil - Background	Soil - Background	Soil - Background		
Sample Date	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	11/7/2022	11/7/2022	9/30/2022	11/7/2022	11/7/2022		
Lab Report Number	L1541862	L1541862	L1541862	L1541862	L1541862	L155174	L1555174	L1541863	L1555171	L1555171		
Analytical Parameters											**Residential Soil Screening Level**	**Protection of Groundwater Screening Level**	**UNITS**
TPH													
TPH Gasoline Range Organics	0.0933 J	0.0623 J	161	0.0971 B J	0.190	0.570 J	0.378 J	NT	NT	NT			
TPH Diesel Range Organics [C10-C28]	21.6	2.84 J	272	6.43	25.0	2.24 J	<4.00	NT	NT	NT	500		mg/kg
TPH Oil Range Organics [C28-C36]	8.84	4.57	631	12.0	72.5	1.13 J	0.712	NT	NT	NT			
TOTAL TPH	30.5	7.47	1064	18.5	97.7	3.94	<5.09	NT	NT	NT			
BTEX													
Benzene	<0.00100	<0.00100	0.0103	0.000575 J	0.00160	<0.00100	<0.00100	NT	NT	NT	1.2	0.0026	mg/kg
Toluene	<0.00500	<0.00500	0.0519	<0.00500	0.00630	<0.00500	<0.00500	NT	NT	NT	490	0.69	mg/kg
Ethylbenzene	<0.00250	<0.00250	0.00580	<0.00250	<0.00250	<0.00250	<0.00250	NT	NT	NT	5.8	0.78	mg/kg
Total Xylenes	<0.00650	0.00166 J	0.852	0.00870	0.0757	<0.00650	<0.00650	NT	NT	NT	58	9.9	mg/kg
TMB													
1,2,4-Trimethylbenzene	<0.00500	<0.00500	0.0605	<0.00500	<0.00500	<0.00500	<0.00500	NT	NT	NT	30	0.0081	mg/kg
1,3,5-Trimethylbenzene	0.00658	0.00210	2.41	0.00295 J	0.0113	<0.00500	<0.00500	NT	NT	NT	27	0.0087	mg/kg
Metals													
Arsenic	4.69	2.53	2.08	1.23	1.74	0.886 J	1.02	15.9	NT	NT	0.68	0.29	mg/kg
Barium	582	576	1460	2210	524	1850	592	NT	NT	NT	15,000	82	mg/kg
Cadmium	0.190 J	0.248 J	<0.500	<0.500	0.294 J	0.454 J	0.385 J	NT	NT	NT	71	0.38	mg/kg
Chromium (Hexavalent)	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NT	NT	NT	0.3	0.00067	mg/kg
Copper	7.82	6.76	7.01	4.38	6.10	4.85	4.21	NT	NT	NT	3,100	46	mg/kg
Lead	8.22	8.65	7.51	7.75	6.66	6.93	5.63	NT	NT	NT	400	14	mg/kg
Nickel	13.0	12.1	10.6	9.21	9.46	7.64	8.05	NT	NT	NT	1,500	26	mg/kg
Selenium	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	NT	NT	NT	390	0.26	mg/kg
Silver	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NT	NT	NT	390	0.8	mg/kg
Zinc	34.4	34.1	32.9	24.2	28.6	24.2	22	NT	NT	NT	23,000	370	mg/kg
SAR Metals Analysis													
Sodium Adsorption Ratio	1.13	1.05	8.47	1.37	1.92	1.18	0.145	0.0667	8.38	0.195	<6		ratio
Polynuclear Aromatic Hydrocarbons													
Acenaphthene	0.00221 J	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	360	0.55	mg/kg
Anthracene	0.00332 J	<0.00600	0.0170	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	1,800	5.8	mg/kg
Benzo(a)anthracene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	1.1	0.011	mg/kg
Benzo(a)pyrene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	0.11	0.24	mg/kg
Benzo(b)fluoranthene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	1.1	0.3	mg/kg
Benzo(k)fluoranthene	<0.00600	<0.00600	0.00271 J	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	11	2.9	mg/kg
Chrysene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	110	9	mg/kg
Dibenz(a,h)anthracene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	0.11	0.096	mg/kg
Fluoranthene	<0.00600	<0.00600	0.00254 J	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	240	8.9	mg/kg
Fluorene	0.00807	<0.00600	0.0690	<0.00600	0.00373 J	<0.00600	<0.00600	NT	NT	NT	240	0.54	mg/kg
Indeno(1,2,3-cd)pyrene	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	1.1	0.98	mg/kg
1-Methylnapthalene	0.0194 J	<0.0200	0.229	<0.0200	<0.0200	<0.0200	<0.0200	NT	NT	NT	18	0.006	mg/kg
2-Methylnapthalene	0.0190 J	<0.0200	0.164	<0.0200	<0.0200	<0.0200	<0.0200	NT	NT	NT	24	0.019	mg/kg
Napthalene	0.0174 J	<0.0200	0.0108 J	<0.0200	<0.0200	<0.0200	<0.0200	NT	NT	NT	2	0.0038	mg/kg
Pyrene	<0.00600	<0.00600	0.00358 J	<0.00600	<0.00600	<0.00600	<0.00600	NT	NT	NT	180	1.3	mg/kg
General Chemistry													
Boron	0.260	0.323	0.371	0.183 J	0.187 J	0.120 J	0.147 J	NT	NT	NT	2		mg/L
Specific Conductivity	0.725	0.246	2.730	0.396	1.030	0.142	0.330	0.0994	0.3740	0.7750	<4		mmhos/cm
pH	8.06	8.44	7.88	8.24	8.05	8.21	7.94	8.08	8.81	9.48	6-8.3		su

mg/kg - milligrams per kilogram
mg/L - milligrams per liter
mmhos/cm - millimhos per centimeter
su - standard units

B - same analyte is found in associated blank
J - indicates an estimated value
J3 - The associated batch QC was outside the established quality control range for presision.
J5 - The sample matrix interfered with the ability to make any accurate determineation; spike value is high.
J6 - sample matrix interfered with the ability to make any accurate determineation; spike value is low
V - The sample concentration is too high to evaluate accurate spike recoveries.

NA - not applicable
NT - parameter was not tested

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

FIGURES

LEGEND

- Well Location
- Soil Sample Location
- Excavation

0 100 200 ft

1 inch = 105 ft

N W E S

Project No:	022-117
Map By:	NDB
Date:	12/13/2022

H35 Site Diagram
Summit Midstream
SENE, Section 35, T6S R93W, 6th PM
Garfield County, Colorado

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

Figure
1

SOIL ANALYTICAL REPORTS

ANALYTICAL REPORT

October 24, 2022

Entrada Consulting Group

Sample Delivery Group:	L1541862
Samples Received:	10/01/2022
Project Number:	
Description:	H35

Report To:

Matt Kasten
330 Grand Avenue
Suite C
Grand Junction, CO 81501

Entire Report Reviewed By:

Chris Ward
Project Manager

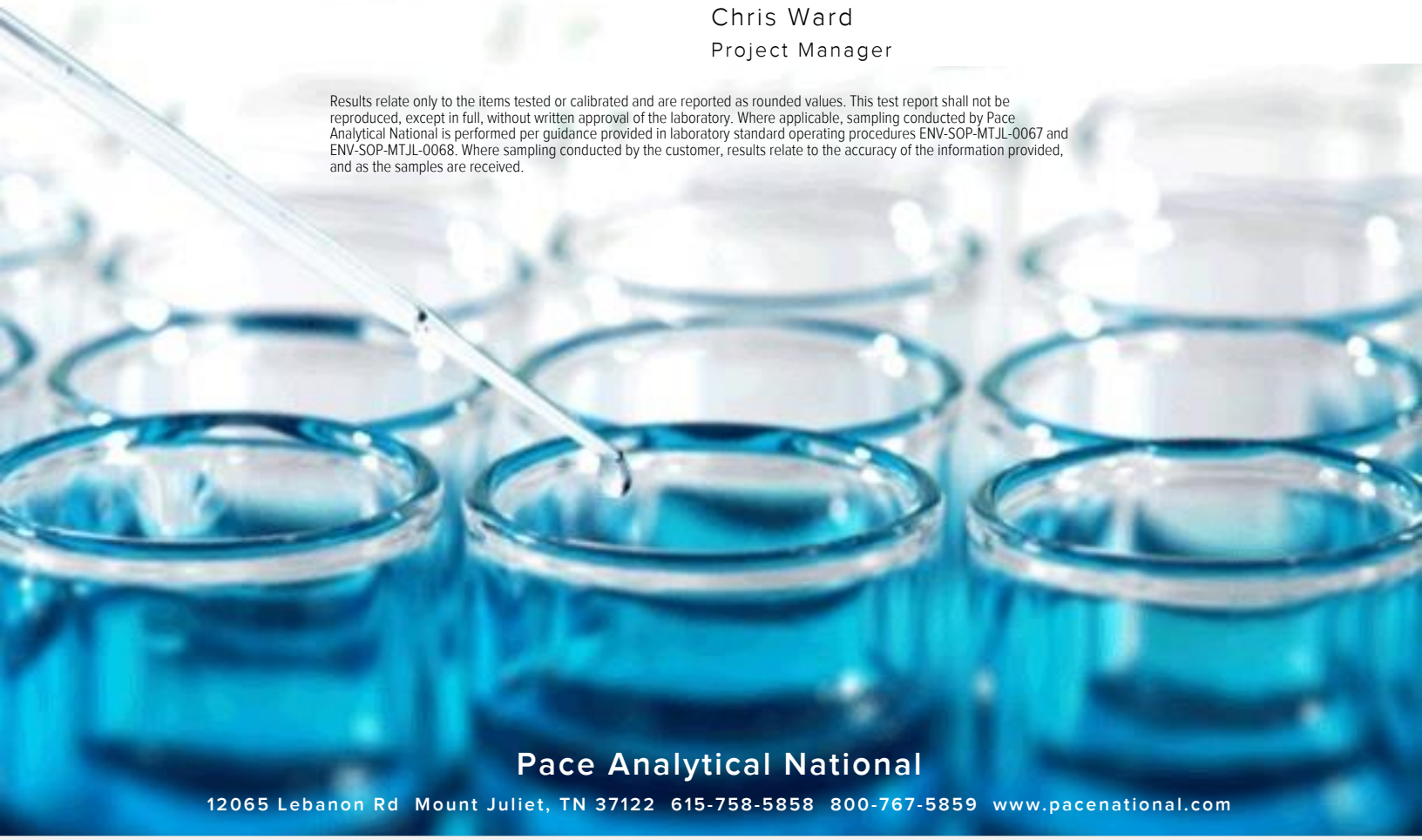

TABLE OF CONTENTS

20220930-H35-WWALL (5-6') L1541862-01 Solid

Collected by: R. Johnson | Collected date/time: 09/30/22 11:35 | Received date/time: 10/01/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1944113	1	10/22/22 20:10	10/22/22 20:10	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1939667	1	10/09/22 00:36	10/13/22 09:35	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1939513	1	10/12/22 12:00	10/13/22 14:00	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1937494	1	10/05/22 09:10	10/07/22 09:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1938390	1	10/19/22 10:51	10/21/22 02:07	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1935956	1	10/06/22 09:26	10/18/22 19:29	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1938402	5	10/19/22 10:52	10/21/22 16:37	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1937361	1	10/04/22 16:50	10/05/22 08:29	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1939367	1	10/04/22 16:50	10/08/22 17:27	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1940510	1	10/11/22 14:15	10/11/22 19:24	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1938273	1	10/07/22 04:21	10/07/22 19:37	AMG	Mt. Juliet, TN

20220930-H35-GWALL (4-5') L1541862-02 Solid

Collected by: R. Johnson | Collected date/time: 09/30/22 11:40 | Received date/time: 10/01/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1944113	1	10/22/22 20:13	10/22/22 20:13	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1939667	1	10/09/22 00:36	10/13/22 09:47	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1939513	1	10/12/22 12:00	10/13/22 14:00	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1937494	1	10/05/22 09:10	10/07/22 09:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1938390	1	10/19/22 10:51	10/21/22 02:10	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1935956	1	10/06/22 09:26	10/18/22 19:32	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1938402	5	10/19/22 10:52	10/21/22 16:41	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1937361	1	10/04/22 16:50	10/05/22 08:52	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1939367	1	10/04/22 16:50	10/08/22 17:45	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1940510	1	10/11/22 14:15	10/11/22 19:39	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1938837	1	10/07/22 11:44	10/08/22 08:40	AMG	Mt. Juliet, TN

20220930-H35-POR (6') L1541862-03 Solid

Collected by: R. Johnson | Collected date/time: 09/30/22 11:45 | Received date/time: 10/01/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1944113	1	10/22/22 20:16	10/22/22 20:16	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1939667	1	10/09/22 00:36	10/13/22 10:10	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1939513	1	10/12/22 12:00	10/13/22 14:00	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1937494	1	10/05/22 09:10	10/07/22 09:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1938390	1	10/19/22 10:51	10/21/22 02:13	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1935956	1	10/06/22 09:26	10/18/22 19:35	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1938402	5	10/19/22 10:52	10/21/22 16:44	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1939191	25	10/04/22 16:50	10/08/22 05:19	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1939367	1	10/04/22 16:50	10/08/22 18:04	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1940510	1	10/11/22 14:15	10/11/22 19:53	KAP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1940510	10	10/11/22 14:15	10/12/22 10:13	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1938837	1	10/07/22 11:44	10/08/22 09:00	AMG	Mt. Juliet, TN

20220930-H35-NWALL (6') L1541862-04 Solid

Collected by: R. Johnson | Collected date/time: 09/30/22 11:50 | Received date/time: 10/01/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1944113	1	10/22/22 20:19	10/22/22 20:19	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1939667	1	10/09/22 00:36	10/13/22 10:15	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1939513	1	10/12/22 12:00	10/13/22 14:00	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1940643	1	10/11/22 09:40	10/11/22 15:00	NTG	Mt. Juliet, TN

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

20220930-H35-NWALL (6') L1541862-04 Solid

Collected by: R. Johnson
Collected date/time: 09/30/22 11:50
Received date/time: 10/01/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1938390	1	10/19/22 10:51	10/21/22 02:16	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1935956	1	10/06/22 09:26	10/18/22 19:37	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1938402	5	10/19/22 10:52	10/21/22 16:47	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1939192	1	10/04/22 16:50	10/08/22 00:55	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1939367	1	10/04/22 16:50	10/08/22 18:23	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1940830	1	10/04/22 16:50	10/11/22 21:32	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1940510	1	10/11/22 14:15	10/12/22 10:00	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1938837	1	10/07/22 11:44	10/08/22 09:20	AMG	Mt. Juliet, TN

20220930-H35-SWALL (6') L1541862-05 Solid

Collected by: R. Johnson
Collected date/time: 09/30/22 11:55
Received date/time: 10/01/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1944113	1	10/22/22 20:22	10/22/22 20:22	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1939667	1	10/09/22 00:36	10/13/22 10:20	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1939513	1	10/12/22 12:00	10/13/22 14:00	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1940643	1	10/11/22 09:40	10/11/22 15:00	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1938390	1	10/19/22 10:51	10/21/22 02:19	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1935956	1	10/06/22 09:26	10/18/22 19:45	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1938402	5	10/19/22 10:52	10/21/22 16:51	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1937361	1	10/04/22 16:50	10/05/22 10:01	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1939367	1	10/04/22 16:50	10/08/22 18:42	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1940830	1	10/04/22 16:50	10/11/22 21:51	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1940510	1	10/11/22 14:15	10/11/22 20:21	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1938837	1	10/07/22 11:44	10/08/22 09:40	AMG	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	1.13		1	10/22/2022 20:10	WG1944113

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	10/13/2022 09:35	WG1939667

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.06	T8	1	10/13/2022 14:00	WG1939513

Sample Narrative:

L1541862-01 WG1939513: 8.06 at 20.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	725		10.0	1	10/07/2022 09:00	WG1937494

Sample Narrative:

L1541862-01 WG1937494: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	582		0.0852	0.500	1	10/21/2022 02:07	WG1938390
Cadmium	0.190	J	0.0471	0.500	1	10/21/2022 02:07	WG1938390
Copper	7.82		0.400	2.00	1	10/21/2022 02:07	WG1938390
Lead	8.22		0.208	0.500	1	10/21/2022 02:07	WG1938390
Nickel	13.0		0.132	2.00	1	10/21/2022 02:07	WG1938390
Selenium	U		0.764	2.00	1	10/21/2022 02:07	WG1938390
Silver	U		0.127	1.00	1	10/21/2022 02:07	WG1938390
Zinc	34.4		0.832	5.00	1	10/21/2022 02:07	WG1938390

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	0.260		0.0167	0.200	1	10/18/2022 19:29	WG1935956

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.69		0.100	1.00	5	10/21/2022 16:37	WG1938402

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	0.0933	J	0.0217	0.100	1	10/05/2022 08:29	WG1937361
(S) a,a,a-Trifluorotoluene(FID)	*87.7*			*77.0-120*		*10/05/2022 08:29*	WG1937361

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	10/08/2022 17:27	WG1939367
Toluene	U		0.00130	0.00500	1	10/08/2022 17:27	WG1939367
Ethylbenzene	U		0.000737	0.00250	1	10/08/2022 17:27	WG1939367
Xylenes, Total	U		0.000880	0.00650	1	10/08/2022 17:27	WG1939367
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/08/2022 17:27	WG1939367
1,3,5-Trimethylbenzene	0.00658		0.00200	0.00500	1	10/08/2022 17:27	WG1939367
(S) Toluene-d8	*98.9*			*75.0-131*		*10/08/2022 17:27*	WG1939367
(S) 4-Bromofluorobenzene	*98.2*			*67.0-138*		*10/08/2022 17:27*	WG1939367
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/08/2022 17:27*	WG1939367

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	21.6		1.61	4.00	1	10/11/2022 19:24	WG1940510
C28-C36 Motor Oil Range	8.84		0.274	4.00	1	10/11/2022 19:24	WG1940510
(S) o-Terphenyl	*69.1*			*18.0-148*		*10/11/2022 19:24*	WG1940510

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	0.00221	J	0.00209	0.00600	1	10/07/2022 19:37	WG1938273
Anthracene	0.00332	J	0.00230	0.00600	1	10/07/2022 19:37	WG1938273
Benzo(a)anthracene	U		0.00173	0.00600	1	10/07/2022 19:37	WG1938273
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/07/2022 19:37	WG1938273
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/07/2022 19:37	WG1938273
Benzo(a)pyrene	U		0.00179	0.00600	1	10/07/2022 19:37	WG1938273
Chrysene	U		0.00232	0.00600	1	10/07/2022 19:37	WG1938273
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/07/2022 19:37	WG1938273
Fluoranthene	U		0.00227	0.00600	1	10/07/2022 19:37	WG1938273
Fluorene	0.00807		0.00205	0.00600	1	10/07/2022 19:37	WG1938273
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/07/2022 19:37	WG1938273
1-Methylnaphthalene	0.0194	J	0.00449	0.0200	1	10/07/2022 19:37	WG1938273
2-Methylnaphthalene	0.0190	J	0.00427	0.0200	1	10/07/2022 19:37	WG1938273
Naphthalene	0.0174	J	0.00408	0.0200	1	10/07/2022 19:37	WG1938273
Pyrene	U		0.00200	0.00600	1	10/07/2022 19:37	WG1938273
(S) p-Terphenyl-d14	*82.5*			*23.0-120*		*10/07/2022 19:37*	WG1938273
(S) Nitrobenzene-d5	*112*			*14.0-149*		*10/07/2022 19:37*	WG1938273
(S) 2-Fluorobiphenyl	*91.1*			*34.0-125*		*10/07/2022 19:37*	WG1938273

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.05		1	10/22/2022 20:13	WG1944113

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	10/13/2022 09:47	WG1939667

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.44	T8	1	10/13/2022 14:00	WG1939513

Sample Narrative:

L1541862-02 WG1939513: 8.44 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	246		10.0	1	10/07/2022 09:00	WG1937494

Sample Narrative:

L1541862-02 WG1937494: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	576		0.0852	0.500	1	10/21/2022 02:10	WG1938390
Cadmium	0.248	J	0.0471	0.500	1	10/21/2022 02:10	WG1938390
Copper	6.76		0.400	2.00	1	10/21/2022 02:10	WG1938390
Lead	8.65		0.208	0.500	1	10/21/2022 02:10	WG1938390
Nickel	12.1		0.132	2.00	1	10/21/2022 02:10	WG1938390
Selenium	U		0.764	2.00	1	10/21/2022 02:10	WG1938390
Silver	U		0.127	1.00	1	10/21/2022 02:10	WG1938390
Zinc	34.1		0.832	5.00	1	10/21/2022 02:10	WG1938390

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	0.323		0.0167	0.200	1	10/18/2022 19:32	WG1935956

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.53		0.100	1.00	5	10/21/2022 16:41	WG1938402

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	0.0623	J	0.0217	0.100	1	10/05/2022 08:52	WG1937361
(S) a,a,a-Trifluorotoluene(FID)	*87.4*			*77.0-120*		*10/05/2022 08:52*	WG1937361

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	10/08/2022 17:45	WG1939367
Toluene	U		0.00130	0.00500	1	10/08/2022 17:45	WG1939367
Ethylbenzene	U		0.000737	0.00250	1	10/08/2022 17:45	WG1939367
Xylenes, Total	0.00166	J	0.000880	0.00650	1	10/08/2022 17:45	WG1939367
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/08/2022 17:45	WG1939367
1,3,5-Trimethylbenzene	0.00210	J	0.00200	0.00500	1	10/08/2022 17:45	WG1939367
(S) Toluene-d8	*98.3*			*75.0-131*		*10/08/2022 17:45*	WG1939367
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*10/08/2022 17:45*	WG1939367
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*10/08/2022 17:45*	WG1939367

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	2.84	J	1.61	4.00	1	10/11/2022 19:39	WG1940510
C28-C36 Motor Oil Range	4.57		0.274	4.00	1	10/11/2022 19:39	WG1940510
(S) o-Terphenyl	*76.9*			*18.0-148*		*10/11/2022 19:39*	WG1940510

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	10/08/2022 08:40	WG1938837
Anthracene	U		0.00230	0.00600	1	10/08/2022 08:40	WG1938837
Benzo(a)anthracene	U		0.00173	0.00600	1	10/08/2022 08:40	WG1938837
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/08/2022 08:40	WG1938837
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/08/2022 08:40	WG1938837
Benzo(a)pyrene	U		0.00179	0.00600	1	10/08/2022 08:40	WG1938837
Chrysene	U		0.00232	0.00600	1	10/08/2022 08:40	WG1938837
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/08/2022 08:40	WG1938837
Fluoranthene	U		0.00227	0.00600	1	10/08/2022 08:40	WG1938837
Fluorene	U		0.00205	0.00600	1	10/08/2022 08:40	WG1938837
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/08/2022 08:40	WG1938837
1-Methylnaphthalene	U		0.00449	0.0200	1	10/08/2022 08:40	WG1938837
2-Methylnaphthalene	U		0.00427	0.0200	1	10/08/2022 08:40	WG1938837
Naphthalene	U		0.00408	0.0200	1	10/08/2022 08:40	WG1938837
Pyrene	U		0.00200	0.00600	1	10/08/2022 08:40	WG1938837
(S) p-Terphenyl-d14	*68.1*			*23.0-120*		*10/08/2022 08:40*	WG1938837
(S) Nitrobenzene-d5	*52.9*			*14.0-149*		*10/08/2022 08:40*	WG1938837
(S) 2-Fluorobiphenyl	*64.1*			*34.0-125*		*10/08/2022 08:40*	WG1938837

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	8.47		1	10/22/2022 20:16	WG1944113

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	10/13/2022 10:10	WG1939667

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.88	T8	1	10/13/2022 14:00	WG1939513

Sample Narrative:

L1541862-03 WG1939513: 7.88 at 20.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	2730		10.0	1	10/07/2022 09:00	WG1937494

Sample Narrative:

L1541862-03 WG1937494: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	1460		0.0852	0.500	1	10/21/2022 02:13	WG1938390
Cadmium	U		0.0471	0.500	1	10/21/2022 02:13	WG1938390
Copper	7.01		0.400	2.00	1	10/21/2022 02:13	WG1938390
Lead	7.51		0.208	0.500	1	10/21/2022 02:13	WG1938390
Nickel	10.6		0.132	2.00	1	10/21/2022 02:13	WG1938390
Selenium	U		0.764	2.00	1	10/21/2022 02:13	WG1938390
Silver	U		0.127	1.00	1	10/21/2022 02:13	WG1938390
Zinc	32.9		0.832	5.00	1	10/21/2022 02:13	WG1938390

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	0.371		0.0167	0.200	1	10/18/2022 19:35	WG1935956

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.08		0.100	1.00	5	10/21/2022 16:44	WG1938402

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	161		0.543	2.50	25	10/08/2022 05:19	WG1939191
(S) a,a,a-Trifluorotoluene(FID)	*81.5*			*77.0-120*		*10/08/2022 05:19*	WG1939191

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	0.0103		0.000467	0.00100	1	10/08/2022 18:04	WG1939367
Toluene	0.0519		0.00130	0.00500	1	10/08/2022 18:04	WG1939367
Ethylbenzene	0.00580		0.000737	0.00250	1	10/08/2022 18:04	WG1939367
Xylenes, Total	0.852		0.000880	0.00650	1	10/08/2022 18:04	WG1939367
1,2,4-Trimethylbenzene	0.0605		0.00158	0.00500	1	10/08/2022 18:04	WG1939367
1,3,5-Trimethylbenzene	2.41		0.00200	0.00500	1	10/08/2022 18:04	WG1939367
(S) Toluene-d8	*95.4*			*75.0-131*		*10/08/2022 18:04*	WG1939367
(S) 4-Bromofluorobenzene	*99.0*			*67.0-138*		*10/08/2022 18:04*	WG1939367
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/08/2022 18:04*	WG1939367

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	272		1.61	4.00	1	10/11/2022 19:53	WG1940510
C28-C36 Motor Oil Range	631		2.74	40.0	10	10/12/2022 10:13	WG1940510
(S) o-Terphenyl	*37.4*			*18.0-148*		*10/11/2022 19:53*	WG1940510
(S) o-Terphenyl	*69.6*			*18.0-148*		*10/12/2022 10:13*	WG1940510

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	10/08/2022 09:00	WG1938837
Anthracene	0.0170		0.00230	0.00600	1	10/08/2022 09:00	WG1938837
Benzo(a)anthracene	U		0.00173	0.00600	1	10/08/2022 09:00	WG1938837
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/08/2022 09:00	WG1938837
Benzo(k)fluoranthene	0.00271	J	0.00215	0.00600	1	10/08/2022 09:00	WG1938837
Benzo(a)pyrene	U		0.00179	0.00600	1	10/08/2022 09:00	WG1938837
Chrysene	U		0.00232	0.00600	1	10/08/2022 09:00	WG1938837
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/08/2022 09:00	WG1938837
Fluoranthene	0.00254	J	0.00227	0.00600	1	10/08/2022 09:00	WG1938837
Fluorene	0.0690		0.00205	0.00600	1	10/08/2022 09:00	WG1938837
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/08/2022 09:00	WG1938837
1-Methylnaphthalene	0.229		0.00449	0.0200	1	10/08/2022 09:00	WG1938837
2-Methylnaphthalene	0.164		0.00427	0.0200	1	10/08/2022 09:00	WG1938837
Naphthalene	0.0108	J	0.00408	0.0200	1	10/08/2022 09:00	WG1938837
Pyrene	0.00358	J	0.00200	0.00600	1	10/08/2022 09:00	WG1938837
(S) p-Terphenyl-d14	*66.7*			*23.0-120*		*10/08/2022 09:00*	WG1938837
(S) Nitrobenzene-d5	*261*	J1		*14.0-149*		*10/08/2022 09:00*	WG1938837
(S) 2-Fluorobiphenyl	*75.6*			*34.0-125*		*10/08/2022 09:00*	WG1938837

Sample Narrative:

L1541862-03 WG1938837: Surrogate failure due to matrix interference

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.37		1	10/22/2022 20:19	WG1944113

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	10/13/2022 10:15	WG1939667

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.24	T8	1	10/13/2022 14:00	WG1939513

Sample Narrative:
L1541862-04 WG1939513: 8.24 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	396		10.0	1	10/11/2022 15:00	WG1940643

Sample Narrative:
L1541862-04 WG1940643: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	2210		0.0852	0.500	1	10/21/2022 02:16	WG1938390
Cadmium	U		0.0471	0.500	1	10/21/2022 02:16	WG1938390
Copper	4.38		0.400	2.00	1	10/21/2022 02:16	WG1938390
Lead	7.75		0.208	0.500	1	10/21/2022 02:16	WG1938390
Nickel	9.21		0.132	2.00	1	10/21/2022 02:16	WG1938390
Selenium	U		0.764	2.00	1	10/21/2022 02:16	WG1938390
Silver	U		0.127	1.00	1	10/21/2022 02:16	WG1938390
Zinc	24.2		0.832	5.00	1	10/21/2022 02:16	WG1938390

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	0.183	J	0.0167	0.200	1	10/18/2022 19:37	WG1935956

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.23		0.100	1.00	5	10/21/2022 16:47	WG1938402

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	0.0971	B J	0.0217	0.100	1	10/08/2022 00:55	WG1939192
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*77.0-120*		*10/08/2022 00:55*	WG1939192

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	0.000575	J	0.000467	0.00100	1	10/08/2022 18:23	WG1939367
Toluene	U		0.00130	0.00500	1	10/08/2022 18:23	WG1939367
Ethylbenzene	U		0.000737	0.00250	1	10/08/2022 18:23	WG1939367
Xylenes, Total	0.00870		0.000880	0.00650	1	10/11/2022 21:32	WG1940830
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/08/2022 18:23	WG1939367
1,3,5-Trimethylbenzene	0.00295	J	0.00200	0.00500	1	10/11/2022 21:32	WG1940830
(S) Toluene-d8	*101*			*75.0-131*		*10/08/2022 18:23*	WG1939367
(S) Toluene-d8	*101*			*75.0-131*		*10/11/2022 21:32*	WG1940830
(S) 4-Bromofluorobenzene	*99.7*			*67.0-138*		*10/08/2022 18:23*	WG1939367
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*10/11/2022 21:32*	WG1940830
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/08/2022 18:23*	WG1939367
(S) 1,2-Dichloroethane-d4	*91.4*			*70.0-130*		*10/11/2022 21:32*	WG1940830

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	6.43		1.61	4.00	1	10/12/2022 10:00	WG1940510
C28-C36 Motor Oil Range	12.0		0.274	4.00	1	10/12/2022 10:00	WG1940510
(S) o-Terphenyl	*84.5*			*18.0-148*		*10/12/2022 10:00*	WG1940510

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	10/08/2022 09:20	WG1938837
Anthracene	U		0.00230	0.00600	1	10/08/2022 09:20	WG1938837
Benzo(a)anthracene	U		0.00173	0.00600	1	10/08/2022 09:20	WG1938837
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/08/2022 09:20	WG1938837
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/08/2022 09:20	WG1938837
Benzo(a)pyrene	U		0.00179	0.00600	1	10/08/2022 09:20	WG1938837
Chrysene	U		0.00232	0.00600	1	10/08/2022 09:20	WG1938837
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/08/2022 09:20	WG1938837
Fluoranthene	U		0.00227	0.00600	1	10/08/2022 09:20	WG1938837
Fluorene	U		0.00205	0.00600	1	10/08/2022 09:20	WG1938837
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/08/2022 09:20	WG1938837
1-Methylnaphthalene	U		0.00449	0.0200	1	10/08/2022 09:20	WG1938837
2-Methylnaphthalene	U		0.00427	0.0200	1	10/08/2022 09:20	WG1938837
Naphthalene	U		0.00408	0.0200	1	10/08/2022 09:20	WG1938837
Pyrene	U		0.00200	0.00600	1	10/08/2022 09:20	WG1938837
(S) p-Terphenyl-d14	*64.0*			*23.0-120*		*10/08/2022 09:20*	WG1938837
(S) Nitrobenzene-d5	*55.3*			*14.0-149*		*10/08/2022 09:20*	WG1938837
(S) 2-Fluorobiphenyl	*60.7*			*34.0-125*		*10/08/2022 09:20*	WG1938837

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.92		1	10/22/2022 20:22	WG1944113

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	10/13/2022 10:20	WG1939667

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.05	T8	1	10/13/2022 14:00	WG1939513

Sample Narrative:

L1541862-05 WG1939513: 8.05 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1030		10.0	1	10/11/2022 15:00	WG1940643

Sample Narrative:

L1541862-05 WG1940643: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	524		0.0852	0.500	1	10/21/2022 02:19	WG1938390
Cadmium	0.294	J	0.0471	0.500	1	10/21/2022 02:19	WG1938390
Copper	6.10		0.400	2.00	1	10/21/2022 02:19	WG1938390
Lead	6.66		0.208	0.500	1	10/21/2022 02:19	WG1938390
Nickel	9.46		0.132	2.00	1	10/21/2022 02:19	WG1938390
Selenium	U		0.764	2.00	1	10/21/2022 02:19	WG1938390
Silver	U		0.127	1.00	1	10/21/2022 02:19	WG1938390
Zinc	28.6		0.832	5.00	1	10/21/2022 02:19	WG1938390

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	0.187	J	0.0167	0.200	1	10/18/2022 19:45	WG1935956

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.74		0.100	1.00	5	10/21/2022 16:51	WG1938402

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	0.190		0.0217	0.100	1	10/05/2022 10:01	WG1937361
(S) a,a,a-Trifluorotoluene(FID)	*86.7*			*77.0-120*		*10/05/2022 10:01*	WG1937361

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	0.00160		0.000467	0.00100	1	10/08/2022 18:42	WG1939367
Toluene	0.00630		0.00130	0.00500	1	10/08/2022 18:42	WG1939367
Ethylbenzene	U		0.000737	0.00250	1	10/08/2022 18:42	WG1939367
Xylenes, Total	0.0757		0.000880	0.00650	1	10/11/2022 21:51	WG1940830
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/08/2022 18:42	WG1939367
1,3,5-Trimethylbenzene	0.0113		0.00200	0.00500	1	10/11/2022 21:51	WG1940830
(S) Toluene-d8	*100*			*75.0-131*		*10/08/2022 18:42*	WG1939367
(S) Toluene-d8	*99.6*			*75.0-131*		*10/11/2022 21:51*	WG1940830
(S) 4-Bromofluorobenzene	*95.9*			*67.0-138*		*10/08/2022 18:42*	WG1939367
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*10/11/2022 21:51*	WG1940830
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/08/2022 18:42*	WG1939367
(S) 1,2-Dichloroethane-d4	*95.3*			*70.0-130*		*10/11/2022 21:51*	WG1940830

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	25.0		1.61	4.00	1	10/11/2022 20:21	WG1940510
C28-C36 Motor Oil Range	72.5		0.274	4.00	1	10/11/2022 20:21	WG1940510
(S) o-Terphenyl	*67.9*			*18.0-148*		*10/11/2022 20:21*	WG1940510

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	10/08/2022 09:40	WG1938837
Anthracene	U		0.00230	0.00600	1	10/08/2022 09:40	WG1938837
Benzo(a)anthracene	U		0.00173	0.00600	1	10/08/2022 09:40	WG1938837
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/08/2022 09:40	WG1938837
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/08/2022 09:40	WG1938837
Benzo(a)pyrene	U		0.00179	0.00600	1	10/08/2022 09:40	WG1938837
Chrysene	U		0.00232	0.00600	1	10/08/2022 09:40	WG1938837
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/08/2022 09:40	WG1938837
Fluoranthene	U		0.00227	0.00600	1	10/08/2022 09:40	WG1938837
Fluorene	0.00373	J	0.00205	0.00600	1	10/08/2022 09:40	WG1938837
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/08/2022 09:40	WG1938837
1-Methylnaphthalene	U		0.00449	0.0200	1	10/08/2022 09:40	WG1938837
2-Methylnaphthalene	U		0.00427	0.0200	1	10/08/2022 09:40	WG1938837
Naphthalene	U		0.00408	0.0200	1	10/08/2022 09:40	WG1938837
Pyrene	U		0.00200	0.00600	1	10/08/2022 09:40	WG1938837
(S) p-Terphenyl-d14	*70.6*			*23.0-120*		*10/08/2022 09:40*	WG1938837
(S) Nitrobenzene-d5	*63.1*			*14.0-149*		*10/08/2022 09:40*	WG1938837
(S) 2-Fluorobiphenyl	*65.8*			*34.0-125*		*10/08/2022 09:40*	WG1938837

Method Blank (MB)

(MB) R3850788-1 10/13/22 02:48

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

L1541423-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1541423-01 10/13/22 06:08 • (DUP) R3850788-3 10/13/22 06:15

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

L1541862-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1541862-02 10/13/22 09:47 • (DUP) R3850788-8 10/13/22 10:04

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) R3850788-2 10/13/22 02:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	9.98	99.8	80.0-120	

L1541860-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1541860-03 10/13/22 09:03 • (MS) R3850788-5 10/13/22 09:14 • (MSD) R3850788-6 10/13/22 09:19

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	18.6	17.9	92.8	89.5	1	75.0-125			3.63	20

L1541860-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1541860-03 10/13/22 09:03 • (MS) R3850788-7 10/13/22 09:24

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	641	U	582	90.9	50	75.0-125	

L1541862-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1541862-01 10/13/22 14:00 • (DUP) R3848092-2 10/13/22 14:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.06	8.04	1	0.248		1

Sample Narrative:

OS: 8.06 at 20.8C

DUP: 8.04 at 20.9C

L1541869-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1541869-07 10/13/22 14:00 • (DUP) R3848092-3 10/13/22 14:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.18	8.13	1	0.613		1

Sample Narrative:

OS: 8.18 at 19.7C

DUP: 8.13 at 19.6C

Laboratory Control Sample (LCS)

(LCS) R3848092-1 10/13/22 14:00

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

Sample Narrative:

LCS: 9.9 at 20.6C

Method Blank (MB)

(MB) R3845723-1 10/07/22 09:00

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

L1541862-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1541862-02 10/07/22 09:00 • (DUP) R3845723-3 10/07/22 09:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	246	246	1	0.244		20

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

L1542584-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1542584-08 10/07/22 09:00 • (DUP) R3845723-4 10/07/22 09:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	199	197	1	0.759		20

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

Laboratory Control Sample (LCS)

(LCS) R3845723-2 10/07/22 09:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1120	100	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3847163-1 10/11/22 15:00

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

L1541823-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1541823-06 10/11/22 15:00 • (DUP) R3847163-3 10/11/22 15:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	108	106	1	1.68		20

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

L1544043-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1544043-06 10/11/22 15:00 • (DUP) R3847163-4 10/11/22 15:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	2350	2350	1	0.341		20

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

Laboratory Control Sample (LCS)

(LCS) R3847163-2 10/11/22 15:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1080	96.1	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3851935-1 10/23/22 17:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Copper	U		0.400	2.00
Lead	U		0.208	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Zinc	U		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R3851935-2 10/23/22 17:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	104	104	80.0-120	
Cadmium	100	98.5	98.5	80.0-120	
Copper	100	104	104	80.0-120	
Lead	100	99.1	99.1	80.0-120	
Nickel	100	100	100	80.0-120	
Selenium	100	98.6	98.6	80.0-120	
Silver	20.0	17.7	88.3	80.0-120	
Zinc	100	96.4	96.4	80.0-120	

L1542584-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1542584-07 10/21/22 01:35 • (MS) R3851937-3 10/21/22 01:44 • (MSD) R3851937-4 10/21/22 01:47

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 %
Barium	100	584	888	700	304	116	1	75.0-125	V	J3	23.7	20
Cadmium	100	U	103	93.9	103	93.9	1	75.0-125			8.96	20
Copper	100	11.4	119	108	108	96.3	1	75.0-125			10.3	20
Lead	100	6.96	110	101	103	93.6	1	75.0-125			8.58	20
Nickel	100	16.8	121	111	104	94.6	1	75.0-125			8.24	20
Selenium	100	U	101	93.2	101	93.2	1	75.0-125			7.85	20
Silver	20.0	U	18.5	17.1	92.7	85.4	1	75.0-125			8.13	20
Zinc	100	31.9	131	118	99.1	85.6	1	75.0-125			10.9	20

Method Blank (MB)

(MB) R3850144-1 10/18/22 19:13

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) R3850144-2 10/18/22 19:16 • (LCSD) R3850144-3 10/18/22 19:18

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	1.13	1.13	113	113	80.0-120			0.00972	20

Method Blank (MB)

(MB) R3851647-1 10/21/22 15:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00

Laboratory Control Sample (LCS)

(LCS) R3851647-2 10/21/22 15:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	90.4	90.4	80.0-120	

L1542584-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1542584-07 10/21/22 16:01 • (MS) R3851647-5 10/21/22 16:11 • (MSD) R3851647-6 10/21/22 16:14

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	3.63	88.8	88.5	85.1	84.8	5	75.0-125			0.330	20

Method Blank (MB)

(MB) R3845925-2 10/05/22 06:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*88.3*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3845925-1 10/05/22 05:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.51	82.0	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*95.9*	*77.0-120*	

L1541860-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1541860-01 10/05/22 06:57 • (MS) R3845925-3 10/05/22 14:37 • (MSD) R3845925-4 10/05/22 15:00

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.45	0.151	3.03	1.75	52.8	29.1	1	10.0-151		J3	53.6	28
(S) a,a,a-Trifluorotoluene(FID)					*85.0*	*83.9*		*77.0-120*				

Method Blank (MB)

(MB) R3847043-2 10/07/22 17:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.543	2.50
(S) a,a,a-Trifluorotoluene(FID)	*94.2*			*77.0-120*

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

(LCS) R3847043-1 10/07/22 16:24 • (LCSD) R3847043-3 10/07/22 18:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.14	5.76	93.5	105	72.0-127			11.4	20
(S) a,a,a-Trifluorotoluene(FID)				*107*	*110*	*77.0-120*				

Method Blank (MB)

(MB) R3846284-2 10/07/22 17:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0305	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3846284-1 10/07/22 16:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.90	89.1	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*77.0-120*	

Method Blank (MB)

(MB) R3847078-3 10/08/22 13:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*98.4*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

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

(LCS) R3847078-1 10/08/22 09:57 • (LCSD) R3847078-2 10/08/22 10:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.121	0.136	96.8	109	70.0-123			11.7	20
Toluene	0.125	0.110	0.124	88.0	99.2	75.0-121			12.0	20
Ethylbenzene	0.125	0.115	0.128	92.0	102	74.0-126			10.7	20
Xylenes, Total	0.375	0.349	0.391	93.1	104	72.0-127			11.4	20
1,2,4-Trimethylbenzene	0.125	0.119	0.133	95.2	106	70.0-126			11.1	20
1,3,5-Trimethylbenzene	0.125	0.121	0.135	96.8	108	73.0-127			10.9	20
(S) Toluene-d8				*95.3*	*96.4*	*75.0-131*				
(S) 4-Bromofluorobenzene				*105*	*102*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*116*	*112*	*70.0-130*				

Method Blank (MB)

(MB) R3847398-2 10/11/22 16:16

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Xylenes, Total	U		0.000880	0.00650
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*101*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3847398-1 10/11/22 12:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Xylenes, Total	0.375	0.371	98.9	72.0-127	
1,3,5-Trimethylbenzene	0.125	0.130	104	73.0-127	
(S) Toluene-d8			*97.4*	*75.0-131*	
(S) 4-Bromofluorobenzene			*105*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*112*	*70.0-130*	

Method Blank (MB)

(MB) R3847455-1 10/11/22 18:14

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	0.374	J	0.274	4.00
(S) o-Terphenyl	*73.0*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3847455-2 10/11/22 18:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	39.6	79.2	50.0-150	
(S) o-Terphenyl			*90.8*	*18.0-148*	

L1541696-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1541696-17 10/11/22 18:42 • (MS) R3847455-3 10/11/22 18:57 • (MSD) R3847455-4 10/11/22 19:11

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 %
C10-C28 Diesel Range	49.8	U	37.3	35.5	74.9	71.7	1	50.0-150			4.95	20
(S) o-Terphenyl					*87.7*	*80.0*		*18.0-148*				

Method Blank (MB)

(MB) R3846766-2 10/07/22 14:40

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	*87.9*			*23.0-120*
(S) Nitrobenzene-d5	*90.9*			*14.0-149*
(S) 2-Fluorobiphenyl	*91.2*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R3846766-1 10/07/22 14:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0706	88.3	50.0-120	
Anthracene	0.0800	0.0712	89.0	50.0-126	
Benzo(a)anthracene	0.0800	0.0737	92.1	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0656	82.0	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0631	78.9	49.0-125	
Benzo(a)pyrene	0.0800	0.0645	80.6	42.0-120	
Chrysene	0.0800	0.0714	89.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0645	80.6	47.0-125	
Fluoranthene	0.0800	0.0736	92.0	49.0-129	
Fluorene	0.0800	0.0707	88.4	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0677	84.6	46.0-125	
1-Methylnaphthalene	0.0800	0.0708	88.5	51.0-121	
2-Methylnaphthalene	0.0800	0.0708	88.5	50.0-120	
Naphthalene	0.0800	0.0692	86.5	50.0-120	
Pyrene	0.0800	0.0692	86.5	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R3846766-1 10/07/22 14:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*83.6*	*23.0-120*	
(S) Nitrobenzene-d5			*89.6*	*14.0-149*	
(S) 2-Fluorobiphenyl			*89.8*	*34.0-125*	

L1536980-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1536980-15 10/07/22 19:56 • (MS) R3846754-1 10/07/22 20:16 • (MSD) R3846754-2 10/07/22 20:36

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0784	U	0.0596	0.0508	76.0	67.6	1	14.0-127			15.9	27
Anthracene	0.0784	U	0.0610	0.0510	77.8	67.8	1	10.0-145			17.9	30
Benzo(a)anthracene	0.0784	U	0.0637	0.0530	81.3	70.5	1	10.0-139			18.3	30
Benzo(b)fluoranthene	0.0784	U	0.0505	0.0448	64.4	59.6	1	10.0-140			12.0	36
Benzo(k)fluoranthene	0.0784	U	0.0544	0.0455	69.4	60.5	1	10.0-137			17.8	31
Benzo(a)pyrene	0.0784	U	0.0618	0.0519	78.8	69.0	1	10.0-141			17.4	31
Chrysene	0.0784	U	0.0630	0.0522	80.4	69.4	1	10.0-145			18.8	30
Dibenz(a,h)anthracene	0.0784	U	0.0509	0.0408	64.9	54.3	1	10.0-132			22.0	31
Fluoranthene	0.0784	U	0.0659	0.0566	84.1	75.3	1	10.0-153			15.2	33
Fluorene	0.0784	U	0.0604	0.0520	77.0	69.1	1	11.0-130			14.9	29
Indeno(1,2,3-cd)pyrene	0.0784	U	0.0524	0.0437	66.8	58.1	1	10.0-137			18.1	32
1-Methylnaphthalene	0.0784	U	0.0606	0.0515	77.3	68.5	1	10.0-142			16.2	28
2-Methylnaphthalene	0.0784	U	0.0651	0.0509	83.0	67.7	1	10.0-137			24.5	28
Naphthalene	0.0784	U	0.0647	0.0513	82.5	68.2	1	10.0-135			23.1	27
Pyrene	0.0784	U	0.0562	0.0492	71.7	65.4	1	10.0-148			13.3	35
(S) p-Terphenyl-d14					*70.5*	*58.2*		*23.0-120*				
(S) Nitrobenzene-d5					*103*	*76.5*		*14.0-149*				
(S) 2-Fluorobiphenyl					*81.3*	*68.8*		*34.0-125*				

Method Blank (MB)

(MB) R3846581-2 10/08/22 08:20

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	*77.7*			*23.0-120*
(S) Nitrobenzene-d5	*61.8*			*14.0-149*
(S) 2-Fluorobiphenyl	*72.8*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R3846581-1 10/08/22 08:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0535	66.9	50.0-120	
Anthracene	0.0800	0.0568	71.0	50.0-126	
Benzo(a)anthracene	0.0800	0.0546	68.3	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0497	62.1	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0511	63.9	49.0-125	
Benzo(a)pyrene	0.0800	0.0549	68.6	42.0-120	
Chrysene	0.0800	0.0558	69.8	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0533	66.6	47.0-125	
Fluoranthene	0.0800	0.0575	71.9	49.0-129	
Fluorene	0.0800	0.0555	69.4	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0540	67.5	46.0-125	
1-Methylnaphthalene	0.0800	0.0565	70.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0575	71.9	50.0-120	
Naphthalene	0.0800	0.0552	69.0	50.0-120	
Pyrene	0.0800	0.0610	76.3	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R3846581-1 10/08/22 08:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*67.6*	*23.0-120*	
(S) Nitrobenzene-d5			*59.5*	*14.0-149*	
(S) 2-Fluorobiphenyl			*66.5*	*34.0-125*	

L1541890-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1541890-06 10/08/22 13:20 • (MS) R3846581-3 10/08/22 13:40 • (MSD) R3846581-4 10/08/22 13:59

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	0.0792	U	0.0432	0.0497	54.5	63.4	1	14.0-127			14.0	27
Anthracene	0.0792	U	0.0463	0.0545	58.5	69.5	1	10.0-145			16.3	30
Benzo(a)anthracene	0.0792	0.00188	0.0541	0.0584	65.9	72.1	1	10.0-139			7.64	30
Benzo(b)fluoranthene	0.0792	0.00364	0.0456	0.0483	53.0	57.0	1	10.0-140			5.75	36
Benzo(k)fluoranthene	0.0792	U	0.0463	0.0475	58.5	60.6	1	10.0-137			2.56	31
Benzo(a)pyrene	0.0792	0.00193	0.0525	0.0566	63.9	69.7	1	10.0-141			7.52	31
Chrysene	0.0792	U	0.0560	0.0601	70.7	76.7	1	10.0-145			7.06	30
Dibenz(a,h)anthracene	0.0792	U	0.0452	0.0456	57.1	58.2	1	10.0-132			0.881	31
Fluoranthene	0.0792	0.00450	0.0585	0.0613	68.2	72.4	1	10.0-153			4.67	33
Fluorene	0.0792	U	0.0461	0.0525	58.2	67.0	1	11.0-130			13.0	29
Indeno(1,2,3-cd)pyrene	0.0792	0.00204	0.0471	0.0488	56.9	59.6	1	10.0-137			3.55	32
1-Methylnaphthalene	0.0792	U	0.0489	0.0555	61.7	70.8	1	10.0-142			12.6	28
2-Methylnaphthalene	0.0792	U	0.0493	0.0578	62.2	73.7	1	10.0-137			15.9	28
Naphthalene	0.0792	U	0.0455	0.0522	57.4	66.6	1	10.0-135			13.7	27
Pyrene	0.0792	0.00581	0.0621	0.0688	71.1	80.3	1	10.0-148			10.2	35
(S) p-Terphenyl-d14					*64.4*	*65.2*		*23.0-120*				
(S) Nitrobenzene-d5					*52.8*	*63.9*		*14.0-149*				
(S) 2-Fluorobiphenyl					*59.3*	*64.7*		*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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Entrada Consulting Group
330 Grand Ave
Grand Junction, CO 81501

Billing Information:
Stuart Hall
330 Grand Ave
Grand Junction, CO 81501

Report to: Stuart Hall

Email To: shall@entradainc.com

Project Description: H35

City/State Collected:

Phone: 970-640-0568
Fax:

Client Project #

Lab Project #

Collected by (print): R. Johnson

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ✓No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Table 915 GRO/DRO/ORO	Table 915 Metals	Table 915 PAH's	Table 915 VOC's	Table 915 pH, SPCON, SAR	Table 915 Boron	Rem./Contaminant	Sample # (lab only)
20220930-H35-WWall (5-6')	Grab	SS	5-6'	9/30/22	1135	2	X	X	X	X	X	X		-01
20220930-H35-EWall (4-5')	"	"	4-5'	"	1140	2	X	X	X	X	X	X		-02
20220930-H35-POR (6')	"	"	6'	"	1145	2	X	X	X	X	X	X		-03
20220930-H35-NWall (6')	"	"	6'	"	1150	2	X	X	X	X	X	X		-04
20220930-H35-SWall (6')	"	"	6'	"	1155	2	X	X	X	X	X	X		-05

Sample Receipt Checklist

		If Applicable	
COC Seal Present/Intact:	Y N		
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L154862
C048

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other ___

pH ___ Temp ___

Remarks: 5755 8085 0742

Flow ___ Other ___

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	9/30/22	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	9/30/22	1730	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ___

Temp: GBAT C Bottles Received: 10
4.8+0=4.8

Date: 10.01.22 Time: 0915

Condition: (lab use only)

COC Seal Intact: ___ Y ___ N ___ NA

pH Checked: NCF:

ANALYTICAL REPORT

October 24, 2022

Entrada Consulting Group

Sample Delivery Group:	L1541863
Samples Received:	10/01/2022
Project Number:	
Description:	H35 BG

Report To: Stuart Hall
330 Grand Avenue
Suite C
Grand Junction, CO 81501

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager

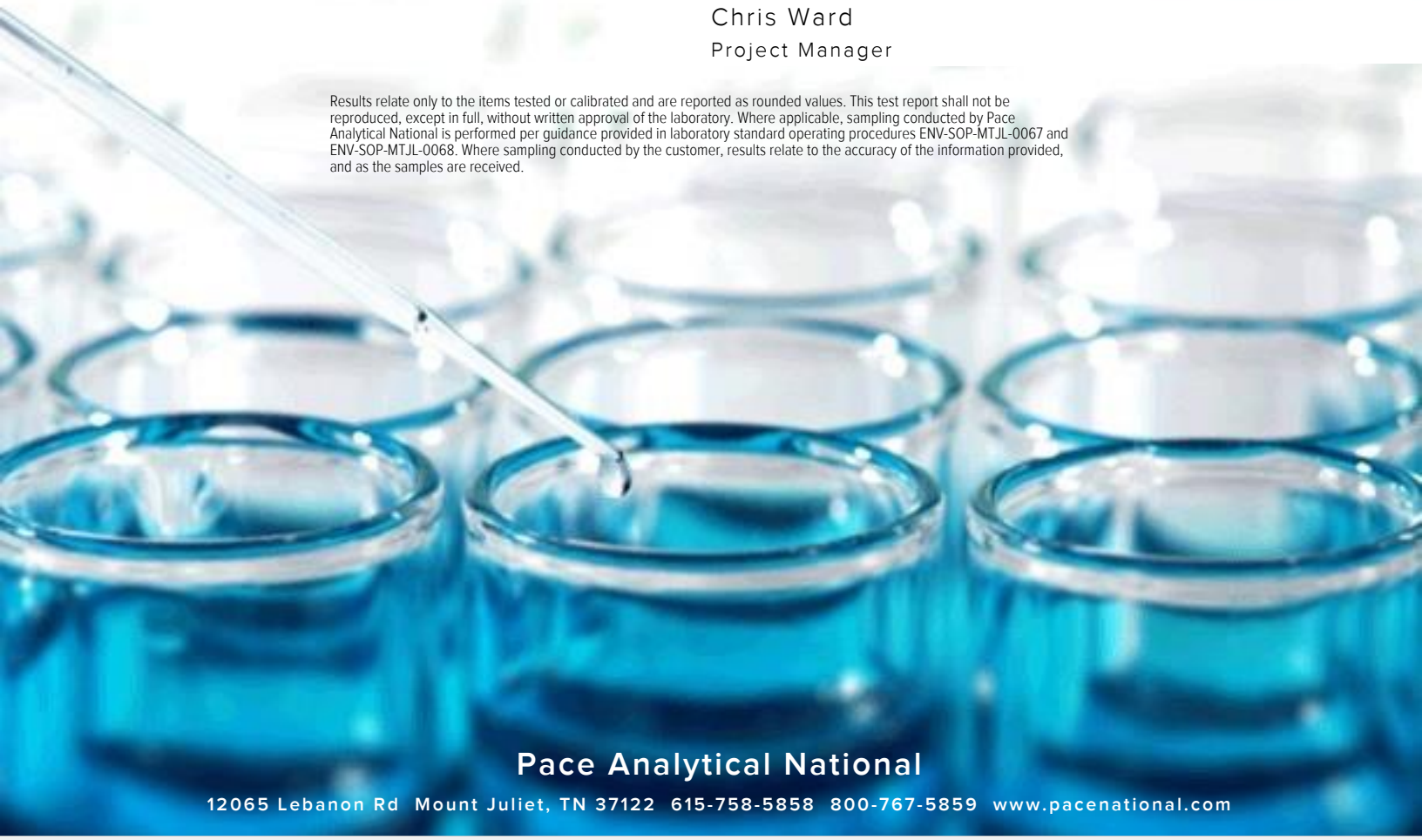

TABLE OF CONTENTS

SAMPLE SUMMARY

20220930-H35-BG1 (12-16") L1541863-01 Solid

Collected by: R. Johnson
Collected date/time: 09/30/22 12:40
Received date/time: 10/01/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1944113	1	10/22/22 20:24	10/22/22 20:24	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1939513	1	10/12/22 12:00	10/13/22 14:00	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1940546	1	10/11/22 10:00	10/11/22 13:30	NTG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1938344	5	10/06/22 11:36	10/06/22 19:53	LD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris Ward
Project Manager

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.0667		1	10/22/2022 20:24	WG1944113

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.08	T8	1	10/13/2022 14:00	WG1939513

Sample Narrative:

L1541863-01 WG1939513: 8.08 at 19.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	99.4		10.0	1	10/11/2022 13:30	WG1940546

Sample Narrative:

L1541863-01 WG1940546: at 25C

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	15.9		1.00	5	10/06/2022 19:53	WG1938344

L1541862-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1541862-01 10/13/22 14:00 • (DUP) R3848092-2 10/13/22 14:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.06	8.04	1	0.248		1

Sample Narrative:

OS: 8.06 at 20.8C

DUP: 8.04 at 20.9C

L1541869-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1541869-07 10/13/22 14:00 • (DUP) R3848092-3 10/13/22 14:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.18	8.13	1	0.613		1

Sample Narrative:

OS: 8.18 at 19.7C

DUP: 8.13 at 19.6C

Laboratory Control Sample (LCS)

(LCS) R3848092-1 10/13/22 14:00

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

Sample Narrative:

LCS: 9.9 at 20.6C

Method Blank (MB)

(MB) R3847098-1 10/11/22 13:30

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

L1544559-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1544559-01 10/11/22 13:30 • (DUP) R3847098-3 10/11/22 13:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	117	116	1	0.430		20

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

L1544586-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1544586-03 10/11/22 13:30 • (DUP) R3847098-4 10/11/22 13:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	200	199	1	0.251		20

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

Laboratory Control Sample (LCS)

(LCS) R3847098-2 10/11/22 13:30

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1100	98.0	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3845624-1 10/06/22 18:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		1.00	10.0

Laboratory Control Sample (LCS)

(LCS) R3845624-2 10/06/22 18:58

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

L1541823-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1541823-05 10/06/22 19:01 • (MS) R3845624-5 10/06/22 19:11 • (MSD) R3845624-6 10/06/22 19:14

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	2.45	94.7	94.1	92.3	91.7	5	75.0-125			0.633	20

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

Company Name/Address:
Entrada Consulting Group
330 Grand Ave
Grand Junction, CO 81501

Billing Information:
Stuart Hall
330 Grand Ave
Grand Junction, CO 81501

Report to: Stuart Hall

Email To: shall@entradainc.com

Project Description: H35 BG

City/State Collected:

Phone: 970-640-0568
Fax:

Client Project #

Lab Project #

Collected by (print): R. Johnson

Site/Facility ID #

P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ✓No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Table 915 GRO/DRO/ORO	Table 915 Metals	Table 915 PAH's	Table 915 VOC's	Table 915 pH, SPCON, SAR	Table 915 Boron	Arsenic				Rem./Contaminant	Sample # (lab only)
20220930-H35-BG1 (12-16")	Grab	SS	12-16"	9/30/22	1240	2					X		X					-01

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	✓Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	✓Y N	Pres.Correct/Check:	Y N
Correct bottles used:	✓Y N		
Sufficient volume sent:	✓Y N		
RAD Screen <0.5 mR/hr:	✓Y N		

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

pH _____ Temp _____

Remarks: 5755 8085 0742

Flow _____ Other _____

	Date:	Time:		
Relinquished by: (Signature)	9/30/22	1700	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____
Relinquished by: (Signature)	9/30/22	1730	Received by: (Signature)	Temp GBAT °C 4.8+0=4.8 Bottles Received: 2
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10.01.22 Time: 0915

Hold #

Condition: (lab use only)

COC Seal Intact: ___ Y ___ N ___ NA

pH Checked: NCF:

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L541863
C049

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

ANALYTICAL REPORT

November 22, 2022

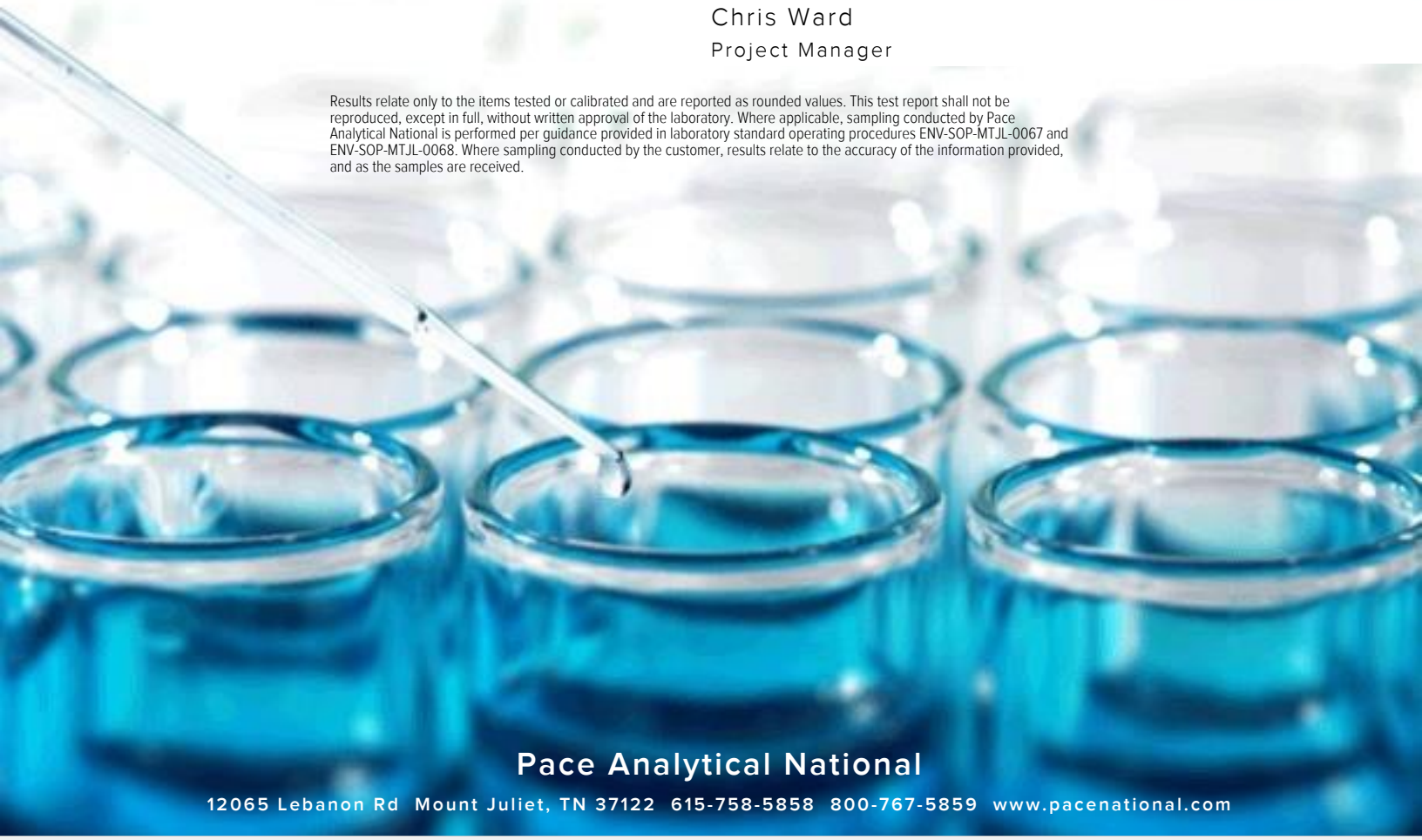
Entrada Consulting Group

Sample Delivery Group:	L1555171
Samples Received:	11/08/2022
Project Number:	022-117
Description:	Summit H35

Report To: Matt Kasten
330 Grand Avenue
Suite C
Grand Junction, CO 81501

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

SAMPLE SUMMARY

20221107-H35-BG2 (2') L1555171-01 Solid

Collected by: C. Mace
Collected date/time: 11/07/22 09:45
Received date/time: 11/08/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1960430	1	11/21/22 15:41	11/21/22 15:41	ABL	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1958320	1	11/13/22 13:32	11/13/22 17:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1958140	1	11/11/22 13:52	11/12/22 13:00	NTG	Mt. Juliet, TN

20221107-H35-BG2 (4') L1555171-02 Solid

Collected by: C. Mace
Collected date/time: 11/07/22 09:45
Received date/time: 11/08/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1960430	1	11/21/22 13:51	11/21/22 13:51	ABL	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1958320	1	11/13/22 13:32	11/13/22 17:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1958140	1	11/11/22 13:52	11/12/22 13:00	NTG	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	8.38		1	11/21/2022 15:41	WG1960430

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.81	T8	1	11/13/2022 17:00	WG1958320

Sample Narrative:

L1555171-01 WG1958320: 8.81 at 20.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	374		10.0	1	11/12/2022 13:00	WG1958140

Sample Narrative:

L1555171-01 WG1958140: at 25C

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.195		1	11/21/2022 13:51	WG1960430

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	9.48	T8	1	11/13/2022 17:00	WG1958320

Sample Narrative:

L1555171-02 WG1958320: 9.48 at 20.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	775		10.0	1	11/12/2022 13:00	WG1958140

Sample Narrative:

L1555171-02 WG1958140: at 25C

L1555191-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1555191-04 11/13/22 17:00 • (DUP) R3860453-2 11/13/22 17:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.31	6.30	1	0.159		1

Sample Narrative:

OS: 6.31 at 20.2C

DUP: 6.3 at 20.3C

Laboratory Control Sample (LCS)

(LCS) R3860453-1 11/13/22 17:00

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

Sample Narrative:

LCS: 9.9 at 19.7C

QUALITY CONTROL SUMMARY

L1555171-01,02

Method Blank (MB)

(MB) R3860291-1 11/12/22 13:00

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

L1553775-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1553775-02 11/12/22 13:00 • (DUP) R3860291-3 11/12/22 13:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	3170	3180	1	0.315		20

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

L1555643-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1555643-03 11/12/22 13:00 • (DUP) R3860291-4 11/12/22 13:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	417	408	1	2.18		20

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

Laboratory Control Sample (LCS)

(LCS) R3860291-2 11/12/22 13:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1080	96.3	85.0-115	

Sample Narrative:
LCS: at 25C

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

Company Name/Address:
Entrada Consulting Group

330 Grand Avenue, Unit C
Grand Junction, CO 81503

Billing Information:
Same as left.

Report to:
Stuart Hall

Email To:
shall@entradainc.com

Project Description: Summit H35

City/State Collected: Rifle, CO

Phone: **(970) 901-9007**
Fax:

Client Project #
022-117

Lab Project #

Collected by (print):
C. Mace

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ✓No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Table 915 VOCs	Table 915 PAHs	Table 915 Metals	Table 915 Soil TPH (GRO/DRO/ORO)	Table 915 Hot Water Soluble Boron	Table 915 SAR, EC, pH	Table 915 BTEX, TMBs				Rem./Contaminant	Sample # (lab only)
20221107-H35-BG2 (2')	Grab	SS	2'	2022-11-07	0945	2						X						-01
20221107-H35-BG2 (4')	Grab	SS	4'	2022-11-07	0945	2						X						-02

5755 8085 2296

Sample Receipt Checklist
COC Seal Present/Intact: __Y__N ✓ If Applicable
COC Signed/Accurate: ✓Y__N VOA Zero Headspace: __Y__N
Bottles arrive intact: ✓Y__N Pres.Correct/Check: __Y__N
Correct bottles used: ✓Y__N NSK7
Sufficient volume sent: ✓Y__N 4.6
RAD Screen <0.5 mR/hr: ✓Y__N

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____	Condition: (lab use only)
	2022 1107	1530			
Relinquished by : (Signature)	Date: 11/7/22	Time: 1630	Received by: (Signature)	Temp: NSA? 4.6 °C Bottles Received: 4	COC Seal Intact: ___Y ___N ___NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Caleb Tapp	Date: 11/8/22 Time: 09:45	pH Checked: NCF:

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 155171
G167

Acctnum: ENTCONGJCO
Template: T180606
Prelogin: P822085
TSR:
Cooler:
Shipped Via:

11/08-NCF-L1555171-ENTCONGJCO PM

R5

Time estimate: oh **Time spent:** oh

Members

Paul Minnich (responsible) Chris Ward

Due on *11 November 2022 5:00 PM* for target *Done*

- [ ] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [x] Sample IDs on containers do not match IDs on COC
- [ ] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [x] Client informed by Email
- [ ] Client informed by Voicemail
- [x] Date/Time:_____11/9/22_____
- [x] PM initials:_____CMW_____
- [x] Client Contact:_____

Comments

Paul Minnich *8 November 2022 7:41 PM*

Sample -01 should be 2' but client marked it as 24'. Logged per COC.

Chris Ward *9 November 2022 10:56 AM*

Please log as 2'

Troy Dunlap *9 November 2022 1:50 PM*

Done.

ANALYTICAL REPORT

November 22, 2022

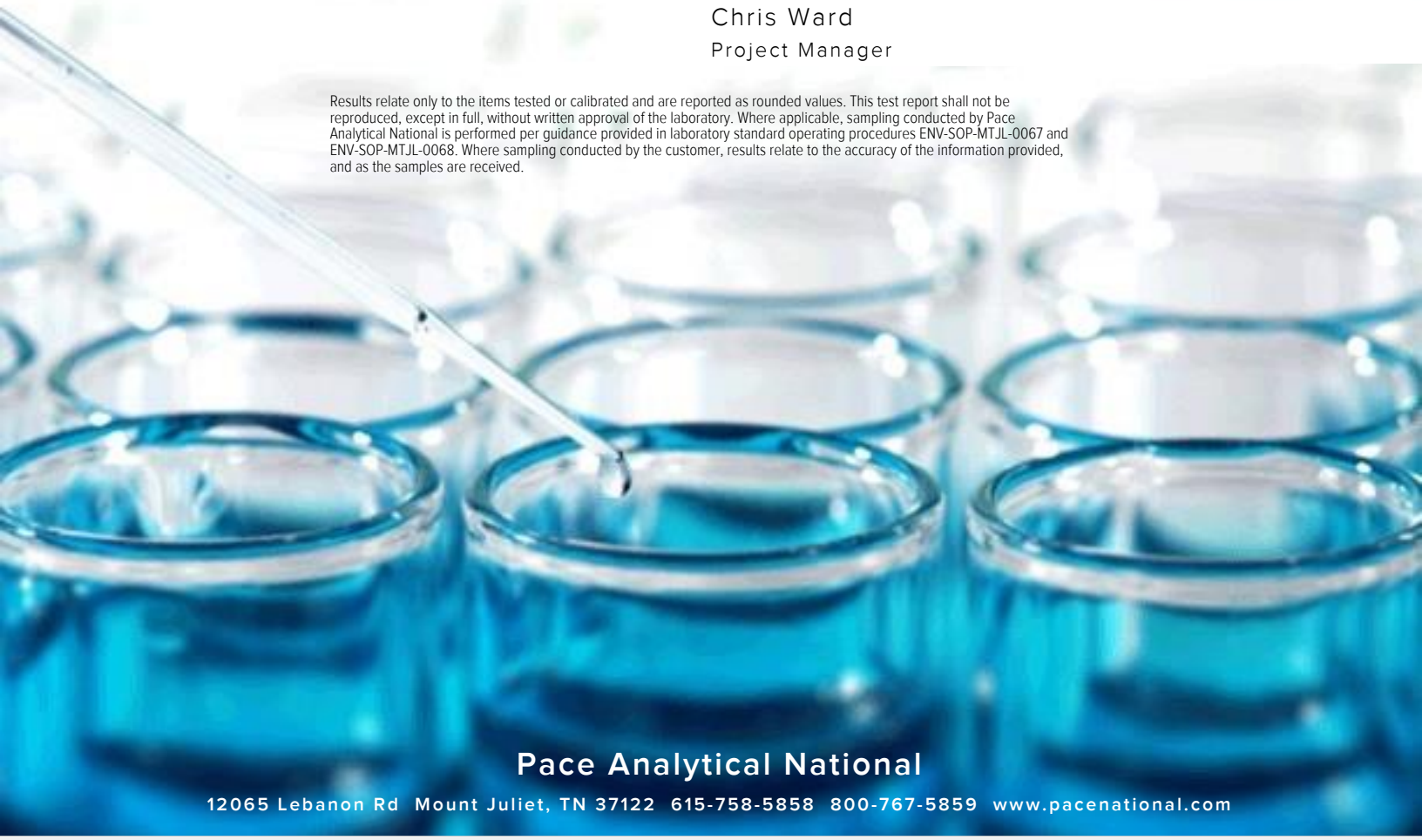
Entrada Consulting Group

Sample Delivery Group:	L1555174
Samples Received:	11/08/2022
Project Number:	022-117
Description:	Summit H35

Report To: Matt Kasten
330 Grand Avenue
Suite C
Grand Junction, CO 81501

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

SAMPLE SUMMARY

20221107-H35-BASE (6') L1555174-01 Solid

Collected by: C. Mace
Collected date/time: 11/07/22 10:00
Received date/time: 11/08/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1960437	1	11/21/22 18:12	11/21/22 18:12	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1956506	1	11/10/22 07:47	11/13/22 23:45	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1958320	1	11/13/22 13:32	11/13/22 17:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1958679	1	11/15/22 16:00	11/16/22 12:10	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1960699	1	11/16/22 19:44	11/17/22 19:43	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1955186	1	11/10/22 08:53	11/16/22 23:51	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1960727	5	11/16/22 19:57	11/17/22 17:09	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1961930	1	11/17/22 15:54	11/18/22 12:19	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1958925	1	11/09/22 17:01	11/14/22 11:18	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1958428	1	11/12/22 05:50	11/12/22 14:09	JDG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1957245	1	11/11/22 17:36	11/12/22 12:08	AMM	Mt. Juliet, TN

20221107-H35-EWALL (3') L1555174-02 Solid

Collected by: C. Mace
Collected date/time: 11/07/22 10:00
Received date/time: 11/08/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1960437	1	11/21/22 18:15	11/21/22 18:15	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1956506	1	11/10/22 07:47	11/13/22 23:50	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1958320	1	11/13/22 13:32	11/13/22 17:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1958688	1	11/15/22 13:20	11/16/22 11:10	NTG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1960699	1	11/16/22 19:44	11/17/22 19:46	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1955186	1	11/10/22 08:53	11/16/22 23:54	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1960727	5	11/16/22 19:57	11/17/22 17:12	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1961455	1	11/09/22 17:01	11/18/22 00:34	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1958925	1	11/09/22 17:01	11/14/22 11:37	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1958428	1	11/12/22 05:50	11/12/22 14:09	JDG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1957245	1	11/11/22 17:36	11/12/22 12:25	AMM	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	1.18		1	11/21/2022 18:12	WG1960437

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	11/13/2022 23:45	WG1956506

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.21	T8	1	11/13/2022 17:00	WG1958320

Sample Narrative:

L1555174-01 WG1958320: 8.21 at 20C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	142		10.0	1	11/16/2022 12:10	WG1958679

Sample Narrative:

L1555174-01 WG1958679: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	1850		0.0852	0.500	1	11/17/2022 19:43	WG1960699
Cadmium	0.454	J	0.0471	0.500	1	11/17/2022 19:43	WG1960699
Copper	4.85		0.400	2.00	1	11/17/2022 19:43	WG1960699
Lead	6.93		0.208	0.500	1	11/17/2022 19:43	WG1960699
Nickel	7.64		0.132	2.00	1	11/17/2022 19:43	WG1960699
Selenium	U		0.764	2.00	1	11/17/2022 19:43	WG1960699
Silver	U		0.127	1.00	1	11/17/2022 19:43	WG1960699
Zinc	24.2		0.832	5.00	1	11/17/2022 19:43	WG1960699

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	0.120	J	0.0167	0.200	1	11/16/2022 23:51	WG1955186

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.886	J	0.100	1.00	5	11/17/2022 17:09	WG1960727

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	0.0570	J	0.0217	0.100	1	11/18/2022 12:19	WG1961930
(S) a,a,a-Trifluorotoluene(FID)	*99.6*			*77.0-120*		*11/18/2022 12:19*	WG1961930

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	11/14/2022 11:18	WG1958925
Toluene	U		0.00130	0.00500	1	11/14/2022 11:18	WG1958925
Ethylbenzene	U		0.000737	0.00250	1	11/14/2022 11:18	WG1958925
Xylenes, Total	U		0.000880	0.00650	1	11/14/2022 11:18	WG1958925
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	11/14/2022 11:18	WG1958925
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	11/14/2022 11:18	WG1958925
(S) Toluene-d8	*116*			*75.0-131*		*11/14/2022 11:18*	WG1958925
(S) 4-Bromofluorobenzene	*96.4*			*67.0-138*		*11/14/2022 11:18*	WG1958925
(S) 1,2-Dichloroethane-d4	*83.2*			*70.0-130*		*11/14/2022 11:18*	WG1958925

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	2.24	J	1.61	4.00	1	11/12/2022 14:09	WG1958428
C28-C36 Motor Oil Range	1.13	J	0.274	4.00	1	11/12/2022 14:09	WG1958428
(S) o-Terphenyl	*70.3*			*18.0-148*		*11/12/2022 14:09*	WG1958428

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	11/12/2022 12:08	WG1957245
Anthracene	U		0.00230	0.00600	1	11/12/2022 12:08	WG1957245
Benzo(a)anthracene	U		0.00173	0.00600	1	11/12/2022 12:08	WG1957245
Benzo(b)fluoranthene	U		0.00153	0.00600	1	11/12/2022 12:08	WG1957245
Benzo(k)fluoranthene	U		0.00215	0.00600	1	11/12/2022 12:08	WG1957245
Benzo(a)pyrene	U		0.00179	0.00600	1	11/12/2022 12:08	WG1957245
Chrysene	U		0.00232	0.00600	1	11/12/2022 12:08	WG1957245
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	11/12/2022 12:08	WG1957245
Fluoranthene	U		0.00227	0.00600	1	11/12/2022 12:08	WG1957245
Fluorene	U		0.00205	0.00600	1	11/12/2022 12:08	WG1957245
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	11/12/2022 12:08	WG1957245
1-Methylnaphthalene	U		0.00449	0.0200	1	11/12/2022 12:08	WG1957245
2-Methylnaphthalene	U		0.00427	0.0200	1	11/12/2022 12:08	WG1957245
Naphthalene	U		0.00408	0.0200	1	11/12/2022 12:08	WG1957245
Pyrene	U		0.00200	0.00600	1	11/12/2022 12:08	WG1957245
(S) p-Terphenyl-d14	*80.5*			*23.0-120*		*11/12/2022 12:08*	WG1957245
(S) Nitrobenzene-d5	*76.4*			*14.0-149*		*11/12/2022 12:08*	WG1957245
(S) 2-Fluorobiphenyl	*75.8*			*34.0-125*		*11/12/2022 12:08*	WG1957245

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.145		1	11/21/2022 18:15	WG1960437

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	11/13/2022 23:50	WG1956506

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.94	T8	1	11/13/2022 17:00	WG1958320

Sample Narrative:

L1555174-02 WG1958320: 7.94 at 20.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	330		10.0	1	11/16/2022 11:10	WG1958688

Sample Narrative:

L1555174-02 WG1958688: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	592		0.0852	0.500	1	11/17/2022 19:46	WG1960699
Cadmium	0.385	J	0.0471	0.500	1	11/17/2022 19:46	WG1960699
Copper	4.21		0.400	2.00	1	11/17/2022 19:46	WG1960699
Lead	5.63		0.208	0.500	1	11/17/2022 19:46	WG1960699
Nickel	8.05		0.132	2.00	1	11/17/2022 19:46	WG1960699
Selenium	U		0.764	2.00	1	11/17/2022 19:46	WG1960699
Silver	U		0.127	1.00	1	11/17/2022 19:46	WG1960699
Zinc	22.5		0.832	5.00	1	11/17/2022 19:46	WG1960699

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	0.147	J	0.0167	0.200	1	11/16/2022 23:54	WG1955186

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.02		0.100	1.00	5	11/17/2022 17:12	WG1960727

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	0.0378	J	0.0217	0.100	1	11/18/2022 00:34	WG1961455
(S) a,a,a-Trifluorotoluene(FID)	*97.4*			*59.0-128*		*11/18/2022 00:34*	WG1961455

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	11/14/2022 11:37	WG1958925
Toluene	U		0.00130	0.00500	1	11/14/2022 11:37	WG1958925
Ethylbenzene	U		0.000737	0.00250	1	11/14/2022 11:37	WG1958925
Xylenes, Total	U		0.000880	0.00650	1	11/14/2022 11:37	WG1958925
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	11/14/2022 11:37	WG1958925
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	11/14/2022 11:37	WG1958925
(S) Toluene-d8	*119*			*75.0-131*		*11/14/2022 11:37*	WG1958925
(S) 4-Bromofluorobenzene	*95.9*			*67.0-138*		*11/14/2022 11:37*	WG1958925
(S) 1,2-Dichloroethane-d4	*85.7*			*70.0-130*		*11/14/2022 11:37*	WG1958925

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	11/12/2022 14:09	WG1958428
C28-C36 Motor Oil Range	0.712	J	0.274	4.00	1	11/12/2022 14:09	WG1958428
(S) o-Terphenyl	*54.4*			*18.0-148*		*11/12/2022 14:09*	WG1958428

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	11/12/2022 12:25	WG1957245
Anthracene	U		0.00230	0.00600	1	11/12/2022 12:25	WG1957245
Benzo(a)anthracene	U		0.00173	0.00600	1	11/12/2022 12:25	WG1957245
Benzo(b)fluoranthene	U		0.00153	0.00600	1	11/12/2022 12:25	WG1957245
Benzo(k)fluoranthene	U		0.00215	0.00600	1	11/12/2022 12:25	WG1957245
Benzo(a)pyrene	U		0.00179	0.00600	1	11/12/2022 12:25	WG1957245
Chrysene	U		0.00232	0.00600	1	11/12/2022 12:25	WG1957245
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	11/12/2022 12:25	WG1957245
Fluoranthene	U		0.00227	0.00600	1	11/12/2022 12:25	WG1957245
Fluorene	U		0.00205	0.00600	1	11/12/2022 12:25	WG1957245
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	11/12/2022 12:25	WG1957245
1-Methylnaphthalene	U		0.00449	0.0200	1	11/12/2022 12:25	WG1957245
2-Methylnaphthalene	U		0.00427	0.0200	1	11/12/2022 12:25	WG1957245
Naphthalene	U		0.00408	0.0200	1	11/12/2022 12:25	WG1957245
Pyrene	U		0.00200	0.00600	1	11/12/2022 12:25	WG1957245
(S) p-Terphenyl-d14	*67.5*			*23.0-120*		*11/12/2022 12:25*	WG1957245
(S) Nitrobenzene-d5	*69.8*			*14.0-149*		*11/12/2022 12:25*	WG1957245
(S) 2-Fluorobiphenyl	*63.3*			*34.0-125*		*11/12/2022 12:25*	WG1957245

QUALITY CONTROL SUMMARY

L1555174-01,02

Method Blank (MB)

(MB) R3861680-1 11/13/22 21:07

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

L1554030-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1554030-13 11/13/22 22:11 • (DUP) R3861680-3 11/13/22 22:17

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	0.430	0.425	1	1.09	J	20

L1554565-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1554565-06 11/13/22 23:34 • (DUP) R3861680-10 11/13/22 23:40

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) R3861680-2 11/13/22 21:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	10.5	105	80.0-120	

L1554565-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554565-05 11/13/22 22:58 • (MS) R3861680-7 11/13/22 23:19 • (MSD) R3861680-8 11/13/22 23:24

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	13.9	14.6	69.4	73.2	1	75.0-125	J6	J6	5.38	20

Sample Narrative:

MS: Sample is an oxidizer.

MSD: Sample is an oxidizer.

L1554565-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1554565-05 11/13/22 22:58 • (MS) R3861680-9 11/13/22 23:29

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	641	U	571	89.0	50	75.0-125	

L1555191-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1555191-04 11/13/22 17:00 • (DUP) R3860453-2 11/13/22 17:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.31	6.30	1	0.159		1

Sample Narrative:

OS: 6.31 at 20.2C

DUP: 6.3 at 20.3C

Laboratory Control Sample (LCS)

(LCS) R3860453-1 11/13/22 17:00

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

Sample Narrative:

LCS: 9.9 at 19.7C

Method Blank (MB)

(MB) R3861635-1 11/16/22 12:10

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

L1554563-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1554563-02 11/16/22 12:10 • (DUP) R3861635-3 11/16/22 12:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	284	288	1	1.57		20

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

L1554565-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1554565-03 11/16/22 12:10 • (DUP) R3861635-4 11/16/22 12:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1300	1310	1	0.538		20

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

Laboratory Control Sample (LCS)

(LCS) R3861635-2 11/16/22 12:10

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1120	100	85.0-115	

Sample Narrative:
LCS: at 25C

QUALITY CONTROL SUMMARY

L1555174-02

Method Blank (MB)

(MB) R3861601-1 11/16/22 11:10

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

L1556020-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1556020-03 11/16/22 11:10 • (DUP) R3861601-3 11/16/22 11:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	319	317	1	0.629		20

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

L1556472-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1556472-01 11/16/22 11:10 • (DUP) R3861601-4 11/16/22 11:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	3760	3800	1	1.06		20

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

Laboratory Control Sample (LCS)

(LCS) R3861601-2 11/16/22 11:10

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1130	101	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3862487-1 11/17/22 19:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Copper	U		0.400	2.00
Lead	U		0.208	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Zinc	U		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R3862487-2 11/17/22 20:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	105	105	80.0-120	
Cadmium	100	99.2	99.2	80.0-120	
Copper	100	101	101	80.0-120	
Lead	100	101	101	80.0-120	
Nickel	100	102	102	80.0-120	
Selenium	100	101	101	80.0-120	
Silver	20.0	19.6	98.1	80.0-120	
Zinc	100	99.0	99.0	80.0-120	

L1554563-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554563-03 11/17/22 20:03 • (MS) R3862487-5 11/17/22 20:12 • (MSD) R3862487-6 11/17/22 20:15

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 %
Barium	100	152	247	236	94.9	83.3	1	75.0-125			4.78	20
Cadmium	100	0.239	98.3	93.3	98.1	93.0	1	75.0-125			5.26	20
Copper	100	33.4	137	142	104	108	1	75.0-125			3.42	20
Lead	100	84.3	219	225	135	141	1	75.0-125	J5	J5	2.70	20
Nickel	100	24.1	128	119	104	94.7	1	75.0-125			7.28	20
Selenium	100	U	97.4	94.2	97.4	94.2	1	75.0-125			3.31	20
Silver	20.0	U	19.8	18.9	98.9	94.3	1	75.0-125			4.75	20
Zinc	100	49.2	145	145	95.9	95.5	1	75.0-125			0.284	20

QUALITY CONTROL SUMMARY

L1555174-01,02

Method Blank (MB)

(MB) R3861958-1 11/17/22 00:03

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) R3861958-2 11/17/22 00:06 • (LCSD) R3861958-3 11/17/22 00:08

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	1.04	1.04	104	104	80.0-120			0.364	20

Method Blank (MB)

(MB) R3862382-1 11/17/22 15:40

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00

Laboratory Control Sample (LCS)

(LCS) R3862382-2 11/17/22 15:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	92.0	92.0	80.0-120	

L1554563-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554563-03 11/17/22 15:47 • (MS) R3862382-5 11/17/22 15:57 • (MSD) R3862382-6 11/17/22 16:00

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	5.23	86.8	87.7	81.6	82.5	5	75.0-125			1.08	20

Method Blank (MB)

(MB) R3862604-2 11/17/22 23:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3862604-1 11/17/22 22:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.40	98.2	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*77.0-120*	

Method Blank (MB)

(MB) R3862810-2 11/18/22 11:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3862810-1 11/18/22 10:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.90	89.1	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*77.0-120*	

Method Blank (MB)

(MB) R3861117-3 11/14/22 08:04

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	*119*			*75.0-131*
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*82.1*			*70.0-130*

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

(LCS) R3861117-1 11/14/22 06:48 • (LCSD) R3861117-2 11/14/22 07:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.111	0.113	88.8	90.4	70.0-123			1.79	20
Toluene	0.125	0.122	0.124	97.6	99.2	75.0-121			1.63	20
Ethylbenzene	0.125	0.129	0.134	103	107	74.0-126			3.80	20
Xylenes, Total	0.375	0.423	0.435	113	116	72.0-127			2.80	20
1,2,4-Trimethylbenzene	0.125	0.136	0.137	109	110	70.0-126			0.733	20
1,3,5-Trimethylbenzene	0.125	0.134	0.132	107	106	73.0-127			1.50	20
(S) Toluene-d8				*107*	*108*	*75.0-131*				
(S) 4-Bromofluorobenzene				*107*	*109*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*92.1*	*93.9*	*70.0-130*				

Method Blank (MB)

(MB) R3860309-1 11/12/22 13:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	*77.0*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3860309-2 11/12/22 13:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	44.3	88.6	50.0-150	
(S) o-Terphenyl			*84.2*	*18.0-148*	

L1555248-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1555248-01 11/12/22 15:23 • (MS) R3860344-1 11/12/22 15:35 • (MSD) R3860344-2 11/12/22 15:47

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	8.47	32.6	32.1	48.3	47.3	1	50.0-150	J6	J6	1.55	20
(S) o-Terphenyl					*58.4*	*65.6*		*18.0-148*				

Method Blank (MB)

(MB) R3860695-2 11/12/22 11:33

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	*82.9*			*23.0-120*
(S) Nitrobenzene-d5	*73.6*			*14.0-149*
(S) 2-Fluorobiphenyl	*75.5*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R3860695-1 11/12/22 11:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0564	70.5	50.0-120	
Anthracene	0.0800	0.0534	66.8	50.0-126	
Benzo(a)anthracene	0.0800	0.0575	71.9	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0581	72.6	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0563	70.4	49.0-125	
Benzo(a)pyrene	0.0800	0.0525	65.6	42.0-120	
Chrysene	0.0800	0.0599	74.9	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0540	67.5	47.0-125	
Fluoranthene	0.0800	0.0603	75.4	49.0-129	
Fluorene	0.0800	0.0592	74.0	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0572	71.5	46.0-125	
1-Methylnaphthalene	0.0800	0.0557	69.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0568	71.0	50.0-120	
Naphthalene	0.0800	0.0562	70.3	50.0-120	
Pyrene	0.0800	0.0590	73.8	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R3860695-1 11/12/22 11:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*81.3*	*23.0-120*	
(S) Nitrobenzene-d5			*77.1*	*14.0-149*	
(S) 2-Fluorobiphenyl			*77.3*	*34.0-125*	

L1555245-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1555245-04 11/12/22 15:52 • (MS) R3860695-3 11/12/22 16:09 • (MSD) R3860695-4 11/12/22 16:26

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0760	U	0.0484	0.0532	63.7	70.0	1	14.0-127			9.45	27
Anthracene	0.0760	U	0.0458	0.0500	60.3	65.8	1	10.0-145			8.77	30
Benzo(a)anthracene	0.0760	U	0.0485	0.0526	63.8	69.2	1	10.0-139			8.11	30
Benzo(b)fluoranthene	0.0760	U	0.0483	0.0532	63.6	70.0	1	10.0-140			9.66	36
Benzo(k)fluoranthene	0.0760	U	0.0489	0.0532	64.3	70.0	1	10.0-137			8.42	31
Benzo(a)pyrene	0.0760	U	0.0504	0.0549	66.3	72.2	1	10.0-141			8.55	31
Chrysene	0.0760	U	0.0530	0.0568	69.7	74.7	1	10.0-145			6.92	30
Dibenz(a,h)anthracene	0.0760	U	0.0473	0.0512	62.2	67.4	1	10.0-132			7.92	31
Fluoranthene	0.0760	0.00296	0.0523	0.0571	64.9	71.2	1	10.0-153			8.78	33
Fluorene	0.0760	U	0.0502	0.0554	66.1	72.9	1	11.0-130			9.85	29
Indeno(1,2,3-cd)pyrene	0.0760	U	0.0492	0.0541	64.7	71.2	1	10.0-137			9.49	32
1-Methylnaphthalene	0.0760	U	0.0494	0.0541	65.0	71.2	1	10.0-142			9.08	28
2-Methylnaphthalene	0.0760	U	0.0507	0.0549	66.7	72.2	1	10.0-137			7.95	28
Naphthalene	0.0760	U	0.0517	0.0566	68.0	74.5	1	10.0-135			9.05	27
Pyrene	0.0760	0.00323	0.0516	0.0559	63.6	69.3	1	10.0-148			8.00	35
(S) p-Terphenyl-d14					*79.0*	*77.1*		*23.0-120*				
(S) Nitrobenzene-d5					*78.8*	*66.8*		*14.0-149*				
(S) 2-Fluorobiphenyl					*75.4*	*65.5*		*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
J	The identification of the analyte is acceptable; the reported value is an estimate.
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.

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.

Company Name/Address:
Entrada Consulting Group

330 Grand Avenue, Unit C
Grand Junction, CO 81503

Billing Information:
Same as left.

Report to:
Stuart Hall

Email To:
shall@entradainc.com

Project Description: Summit H35

City/State Collected: Rifle, CO

Phone: **(970) 901-9007**
Fax:

Client Project #
022-117

Lab Project #

Collected by (print):
C. Mace

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ✓No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Table 915 VOCs	Table 915 PAHs	Table 915 Metals	Table 915 Soil TPH (GRO/DRO/ORO)	Table 915 Hot Water Soluble Boron	Table 915 SAR, EC, pH	Table 915 BTEX, TMBs			Rem./Contaminant	Sample # (lab only)
20221107-H35-BASE (6')	Grab	SS	6'	2022-11-07	1000	3	X	X	X	X	X	X	X				-01
20221107-H35-EWALL (3')	Grab	SS	3'	2022-11-07	1000	3	X	X	X	X	X	X	X				-02

5755 8085 2290

Sample Receipt Checklist
COC Seal Present/Intact: __Y __N ✓ If Applicable
COC Signed/Accurate: ✓Y __N VOA Zero Headspace: __Y __N
Bottles arrive intact: ✓Y __N Pres.Correct/Check: __Y __N
Correct bottles used: ✓Y __N NSAT
Sufficient volume sent: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N 4.6

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____	Condition: (lab use only)
Relinquished by : (Signature)	11/7/22	1530	Received by: (Signature)	Temp: NSAT 4.6 °C Bottles Received: 6	COC Seal Intact: ___Y ___N ___NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Caleb Trap	Date: 11/8/22 Time: 09:45	pH Checked: NCF:

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 155179
G166

Acctnum: ENTCONGJCO
Template: T180606
Prelogin: P822085
TSR:
Cooler:
Shipped Via: