



January 27, 2022

Mr. Blair Rollins
Environmental Specialist
Caerus Oil and Gas LLC
143 Diamond Ave
Parachute, CO 81635

Via Email

**RE Report of Work Completed
Texaco Fee 6214 Spill, Facility ID: 323831
COGCC Remediation Number 18560
Garfield County, Colorado**

Mr. Rollins,

Entrada Consulting Group, Inc. (Entrada) has prepared a Report of Work Completed for Caerus Oil and Gas LLC (Caerus) for the spill area at the Texaco Fee 6214 (Site). The Site is in the SWNW of Section 17, Township 6S, Range 99W of the 6th Principal Meridian in Garfield County, Colorado. The center location coordinates of the spill is approximately 39.53457°, North latitude, and -108.46384°, East longitude. The Site location is shown on **Figure 1**. The following narrative provides Site information and presents the results of excavation and soil sampling activities conducted by Entrada on October 8th, 11th, and 12th, 2021.

BACKGROUND

On May 28, 2021 a condensate release was discovered on the Texaco Fee 6214 location due to the failure of the High Level Alarm on the condensate tank. Approximately 85 barrels of condensate was released, and 5 barrels were recovered. The area near the point of release was excavated and 72 yards of contaminated soils was transported to Greenleaf Environmental Services near DeBeque Colorado for offsite disposal. The release was reported to the Colorado Oil and Gas Conservation Commission (COGCC) in a Spill/Release Report Form 19 dated May 28, 2021.

Five soil vapor extraction (SVE) wells were installed by Entrada and Colorado Drilling and Sampling on June 8th through 10th, 2021, and June 16th through 17th, 2021. Please see COGCC document #402761150 for additional details regarding the installation of these wells and the investigation performed.

In addition, please see the following COGCC documents for additional information regarding this project:

- Form 19. Doc # 402782189
- Form 27. Doc # 402761090

EXCAVATION AND SAMPLING

The area of impact delineated during soil boring advancement was excavated by trackhoe on October 8th, 11th, and 12th, 2021. An Entrada employee was onsite to oversee operations, examine soil for potential impacts, and collect samples during excavation. The soil was visually examined for evidence of potential environmental impacts (e.g., petroleum staining and odor) and field-screened using a photo-ionization detector (PID) to evaluate the presence of volatile organic compounds (VOCs). The maximum PID reading observed during the investigations was 2305 parts per million (ppm). Groundwater was not encountered during this investigation.

Seven samples were taken from the excavation utilizing the bucket from the trackhoe. These samples were taken from the sidewalls and base of the excavation to assure adequate characterization of subsurface soils.

In addition, four background samples were taken on 10/8/2021 and 10/28/2021 from the area surrounding the location.

Spoils from the excavation were stockpiled on site totaling approximately 1900 cu yds. Spoils from the excavation were scanned with a PID and sampled. The excavation and sample locations are included 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. Samples were submitted to Pace Analytical in Mt. Juliet, TN and analyzed for the following analyses:

- Total Petroleum Hydrocarbons – diesel range organics (TPH-DRO [C10-C28]) and Total Petroleum Hydrocarbons – oil range organics (TPH-ORO [C28-C36]) by U.S. Environmental Protection Agency (EPA) Method 8015M;
- TPH-gasoline range organics (TPH-GRO [C6-C10]) by EPA Method 8015D/GRO;
- Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) by EPA Method 8260B;
- Semi-Volatile Organic Compounds by EPA Method 8270C-SIM;
- pH by EPA Method 9045D;
- Metals (COGCC Table 915) by EPA Method 6010B;
 - Hexavalent chromium by EPA Method 7199;
 - Arsenic by EPA Method 6020;
- Electrical conductivity (EC) by EPA Method 9050AMod;
- Sodium adsorption ratio (SAR) by calculation.
- Hot water-soluble boron by EPA Method 6010B-NE493 Chapter 2.

SOIL ANALYTICAL RESULTS

The laboratory soil analytical results were compared to the COGCC Table 915-1 Residential Soil Screening Level (RSSL). Soil sample analytical results are summarized in **Table 1**. Sample locations are presented on the attached **Figure 1**. The soil analytical results compared to the COGCC Table 915-1 RSSL are summarized below.

- Total Petroleum Hydrocarbons (TPH–GRO-DRO-ORO), Toluene, Ethylbenzene, Xylenes, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1-methylnaphthalene, 2-

methylnaphthalene and naphthalene were identified in soil sampling results. However, none of these analytes were reported above COGCC Table 915-1 RSSL.

- Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR), pH, and Boron were identified in soil sampling results.
 - SAR was reported above the COGCC Table 915-1 RSSL in 20211008-TEXACOFEE6214-BASE (20') at a value of 22.3. The COGCC Table 915-1 RSSL for SAR is less than 6.
 - pH was reported above the COGCC Table 915-1 RSSL and maximum background level in 20211008-TEXACOFEE6214-NWALL (9'), 20211008-TEXACOFEE6214-WWALL (10-12'), 20211012-TEXACOFEE6214-SWALL (12'), and 20211012-TEXACOFEE6214-WWALL (12'). The COGCC Table 915-1 RSSL for pH is 6 to 8.3 and the maximum background pH was 8.61. The maximum pH encountered in samples was 9.10 in 20211008-TEXACOFEE6214-WWALL (10-12').
- Arsenic was reported above COGCC Table 915-1 RSSL.
 - Arsenic was reported above the COGCC Table 915-1 RSSL and maximum background level in 20211008-TEXACOFEE6214-WWALL (10-12') at 26.6 mg/kg. The COGCC Table 915-1 RSSL for Arsenic is 0.68 mg/kg and the maximum background concentration for Arsenic was 20.1 mg/kg.

CONCLUSIONS AND RECOMMENDATIONS

Results from the excavation and soil sampling event indicate that the walls and base areas of the excavation are below COGCC Table 915-1 RSSL standards with respect to hydrocarbon contaminants. Concentrations of SAR, pH, and Arsenic were elevated above their COGCC Table 915-1 RSSL standards at select locations within the excavation. The spoil samples were also found to be above COGCC Table 915-1 RSSLs.

The spoils are staged on-Site and will be resampled after the winter season to determine remediation plans moving forward. Additional background samples will be collected when conditions allow to better understand the natural variability of inorganic contaminants at this Site. Caerus will submit remediation plans via Form 27 in Spring 2022. Caerus will continue to keep the excavation panel-fenced until a suitable fill material can be found.

We appreciate the opportunity to assist Caerus Oil and Gas LLC. Please contact me (720) 253-2940 if you have any questions.

Sincerely,
ENTRADA CONSULTING GROUP, INC



Reed Johnson
Senior Project Geologist



Tim Dobransky
Principal Scientist

Attachments:

Table 1 – Soil Data Summary
Figure 1 – Site Map
Laboratory Analytical Reports

TABLES

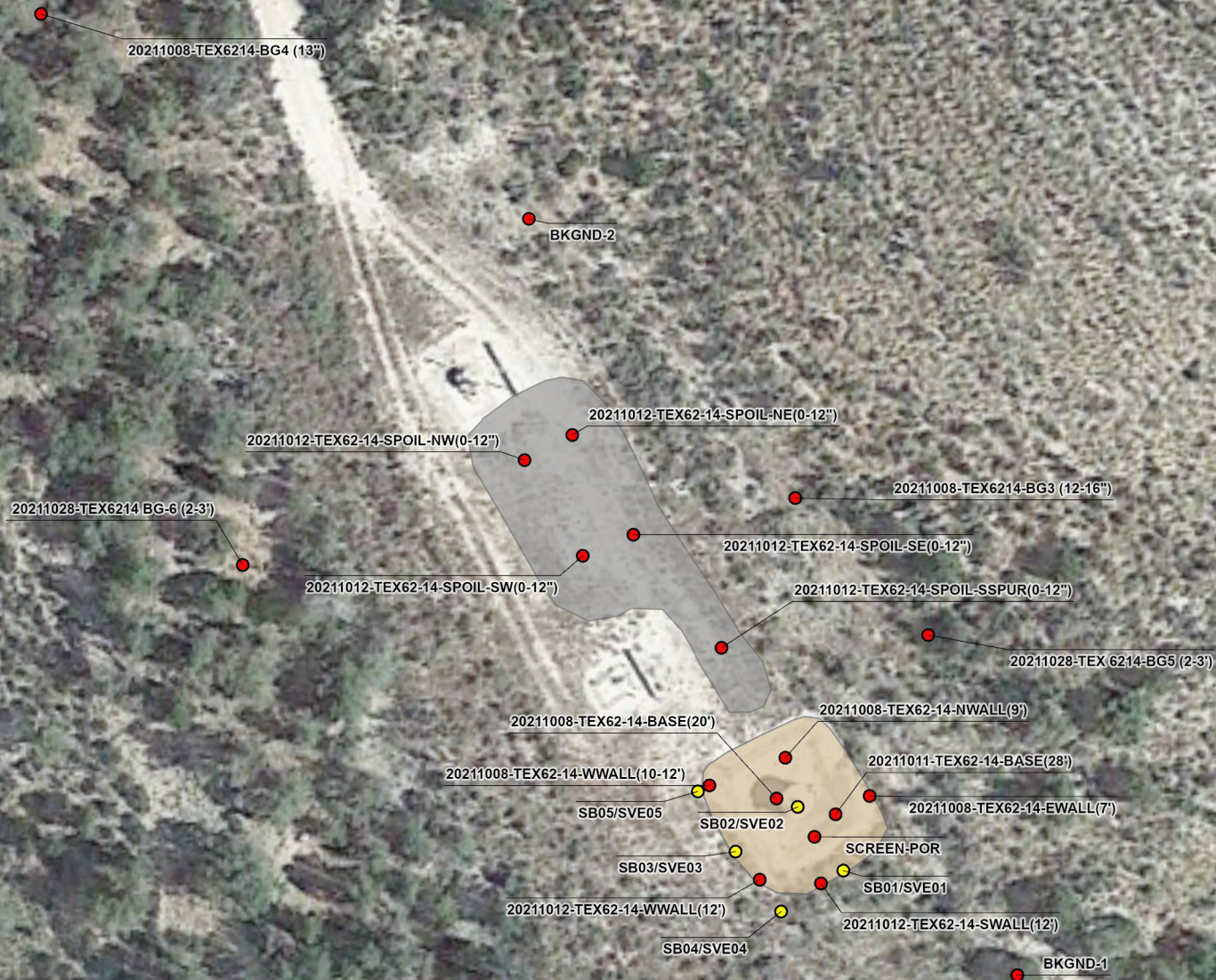
CAERUS OPERATING LLC
TEXACO FEE 6214
REMEDIAION PROJECT
SOIL ANALYTICAL RESULTS
GARFIELD COUNTY, COLORADO

PROTECTION OF GROUNDWATER SOIL SCREENING LEVEL CONCENTRATION (mg/kg)				CONTAMINANTS OF CONCERN	ORGANIC COMPOUNDS IN SOIL																								
RESIDENTIAL SOIL SCREENING LEVEL CONCENTRATION (mg/kg)					500 mg/kg)				0.0026	0.69	0.78	9.9	0.0081	0.0087	0.55	5.8	0.011	0.3	2.9	0.24	9	0.096	5.9	0.54	0.98	0.006	0.019	0.0038	1.3
									1.2	190	5.8	58	30	27	360	1800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	2	180
Location	Sample Date	Sample Matrix	Matrix Notes	TPH (total volatile (C ₅ -C ₁₀) and extractable (C ₁₀ -C ₁₈) hydrocarbons)	TPH - ORO (C6 - C10) Low Fraction	TPH - ORO (C10 - C28) C8H Oil Fraction	TPH - ORO (C10 - C28) C8H Oil Fraction	Benzene	Toluene	Ethylbenzene	Xylenes (sum of o-, m-, and p-isomers = total xylenes)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indene(1,2,3-cd)pyrene	1-methylnaphthalene	2-methylnaphthalene	Naphthalene	Pyrene	
G17 699 Texaco Fee 6214	06/08/21	Background	20210608-TEXACOF-EE-6214-BKND-1 (12-18)																										
G17 699 Texaco Fee 6214	06/08/21	Background	20210608-TEXACOF-EE-6214-BKND-1 (12")																										
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOF-EE-6214-BG4(13")																										
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOF-EE-6214-BG3(12-16")																										
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOF-EE-6214 BG3(12-16")																										
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOF-EE-6214 BG3(12-16")																										
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOF-EE-6214 BG3(12-16")																										
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOF-EE-6214 BG3(12-16")																										
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOF-EE-6214 BG5(2-3)																										
G17 699 Texaco Fee 6214	10/08/21	Background	20211028-TEXACOF-EE-6214 BG6(2-3)																										
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOF-EE-6214-SB5 (35-37)	103.224	0.224	24.2	78.8	<0.00100	<0.00500	<0.00250	<0.00950	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOF-EE-6214-SB5 (15-17)	60.127	0.147	9.78	50.2	<0.00100	0.00153	<0.00250	0.00117	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOF-EE-6214-SB5 (20-22)	181.848	0.146	37.5	144	<0.00100	0.00183	<0.00250	0.00123	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOF-EE-6214-SB5 (10-12)	67.2831	0.0631	17	50.2	<0.00100	<0.00500	<0.00250	0.00328	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOF-EE-6214-SB5 (25-27)	95.876	0.178	20.2	75.6	<0.00100	<0.00500	<0.00250	<0.00650	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOF-EE-6214-SB5 (30-32)	65.317	0.217	16	48.1	<0.00100	<0.00500	<0.00250	<0.00650	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOF-EE-6214-SB5 (5-7)	36.3125	0.0725	8.24	28	0.00555	0.00158	0.00295	0.00573	0.0016	0.00328	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOF-EE-6214-SB1 (30-32)	122.02	5.02	25.1	91.9	0.0816	1.63	0.12	1.16	0.0176	0.0229	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOF-EE-6214-SCREEN-PORT (0-6)	344.60	4620	20300	9340	0.226	16	4.8	252	187	104	<120	<0.00600	0.101	0.14	0.0742	<0.00600	0.543	<0.00600	0.564	6.58	<0.00600	60.9	71.1	30.7	0.361	
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOF-EE-6214-SB1 (25-27)	89.37	2.67	20.9	65.8	0.0222	0.06	0.151	1.89	0.0819	0.0814	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOF-EE-6214-SB1 (11-17)	129.805	0.105	28.7	101	<0.00100	<0.00500	<0.00250	<0.00650	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOF-EE-6214-SB1 (35-37)	212.07	1.57	46.5	164	0.0467	0.426	0.0249	0.228	<0.00500	0.00525	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOF-EE-6214-SB1 (10-12)	<115.2	<0.100	27.2	87.9	<0.00100	<0.00500	<0.00250	<0.00650	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOF-EE-6214-SB1 (40-42)	260.3	4.2	54.1	202	0.042	0.63	0.0473	0.447	0.01	0.0121	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOF-EE-6214-SB1 (20-22)	115.877	0.177	24.6	91.1	0.00138	0.0225	<0.00250	0.0147	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOF-EE-6214-SB1 (45-47)	161.089	0.389	33.7	127	0.00275	0.05	0.0043	0.0376	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOF-EE-6214-SB1 (5-7)	<36.6	<0.100	10.9	25.6	<0.00100	<0.00500	<0.00250	<0.00650	<0.00500	<0.00500	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOF-EE-6214-SB2 (25-27)	141.328	0.626	44	96.5	0.006075	0.00424	0.0273	0.388	0.185	0.116	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	0.00232	<0.00600	0.0407	0.5578	0.0311	<0.00600		
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOF-EE-6214-SB2 (15-17)	122.27	9.47	31.9	61	0.0217	0.733	0.143	5.44	1.73	1.16	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	0.00221	<0.00600	0.0212	0.026	0.614	<0.00600		
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOF-EE-6214-SB2 (40-42)	91.903	0.203	22.3	69.4	0.007725	0.0175	0.00448	0.0798	0.0117	0.0182	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	0.00723	<0.00600		
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOF-EE-6214-SB2 (5-7)	795.8	690	27.7	78.1	0.101	13.1	1.55	60.1	15.5	9.2	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	0.00625	<0.00600		
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOF-EE-6214-SB2 (20-22)	1633.670	0.879	1220	413	0.01553	0.0414	0.0312	0.468	0.211	0.243	0.07	<0.00600	<0.00600	<0.00600	<0.00600	0.0028	<0.00600	0.0023	0.144	<0.00600	2.5	3.67	1.73	0.0109		
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOF-EE-6214-SB2 (35-37)	120.8997	0.0997	32.6	88.2	0.00575	0.0148	0.00315	0.041	0.0102	0.00825	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	0.0156	0.0214	0.00802	<0.00600	
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOF-EE-6214-SB2 (30-32)	127.371	1.61	45.7	125	0.00208	0.0667	0.023	0.384	0.16	0.0962	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	0.00754	0.0299	0.00534	<0.00600	
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOF-EE-6214-SB2 (10-12)	1809.37	3.37	1360	446	0.00543	0.0349	0.29	3.99	0.557	0.852	<0.00600	<0.00600	<0.00600	0.00	<0.00600	<0.00600	<0.00600	<0.00600	0.0158	0.107	<0.00600	1.79	2.81	1.21	0.00756	
G17 699 Texaco Fee 62																													

CAERUS OPERATING LLC
TEXACO FEE 6214
REMEDATION PROJECT
SOIL ANALYTICAL RESULTS
GARFIELD COUNTY, COLORADO

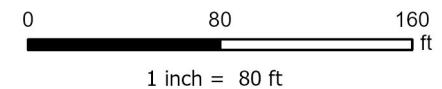
				Soil Suitability for Reclamation				Metals in Soil											
PROTECTION OF GROUNDWATER SOIL SCREENING LEVEL CONCENTRATION (mg/Kg)				<4.0				0.29	82	0.38		0.0007	46	14		26	0.26	0.8	370
RESIDENTIAL SOIL SCREENING LEVEL CONCENTRATION (mg/Kg)				mmhos/cm	<6	6 - 8.3	2 mg/L	0.68	15000	71		0.3	3100	400		1500	390	390	23000
Location	Sample Date	Sample Matrix	Matrix Notes	Electrical Conductivity (EC) (by saturated paste method)	Sodium Adsorption Ratio (SAR) by saturated paste method)	pH by saturated paste method)	Boron (hot water soluble soil extract)	Arsenic	Barium	Cadmium	Chromium (III)	Chromium (VI)	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc
G17 699 Texaco Fee 6214	06/08/21	Background	20210608-TEXACOFEE-6214-BKGND-1 (12-18)	0.244	0.153	8.5	0.463	7.22											
G17 699 Texaco Fee 6214	06/08/21	Background	20210608-TEXACOFEE-6214-BKGND-1 (12")	0.198	0.0811	8.43	0.315	10.5											
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOFEE-6214-BG4(13")	0.219	0.192	8.61		7.37											
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOFEE-6214-BG3(12-16")	0.243	0.17	8.18		20.1											
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOFEE-6214 BG3(12-16")					9.99											
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOFEE-6214 BG3(12-16")					10.2											
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOFEE-6214 BG3(12-16")					10.3											
G17 699 Texaco Fee 6214	10/08/21	Background	20211008-TEXACOFEE-6214 BG3(12-16")					12.7											
G17 699 Texaco Fee 6214	10/28/21	Background	20211028-TEXACOFEE-6214 BG5(2-3)	0.233	0.248	8.33		8.09											
G17 699 Texaco Fee 6214	10/28/21	Background	20211028-TEXACOFEE-6214 BG6(2-3)	0.209	0.1	8.3		7.89											
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOFEE-6214-SB5 (35-37)	0.87	3.13	8.46	0.21	5.9	315	0.531		<1.00	14.4	6.45		12.1	1.9	<1.00	37.9
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOFEE-6214-SB5 (15-17)	0.259	3.26	8.95	0.342	8.1	316	0.272		<1.00	13.4	7.52		17.2	1.06	<1.00	40.0
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOFEE-6214-SB5 (20-22)	0.341	5.68	9.25	0.303	8.33	306	0.317		<1.00	13.2	6.1		12.8	0.853	<1.00	37.0
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOFEE-6214-SB5 (10-12)	0.301	1.41	9.16	0.313	8.48	287	0.312		<1.00	13.4	7.54		13.3	20	<1.00	36.9
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOFEE-6214-SB5 (25-27)	0.858	2.02	8.47	0.258	9	311	0.323		<1.00	14	7.42		12.9	1.93	<1.00	37.2
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOFEE-6214-SB5 (30-32)	1	2.27	8.35	0.286	9.38	323	0.327		<1.00	16.2	7.28		16	2.33	<1.00	50.8
G17 699 Texaco Fee 6214	06/07/21	Spill	20210617-TEXACOFEE-6214-SB5 (5-7)	0.274	2.46	9.26	0.395	11.7	249	0.293		<1.00	11.3	7.48		17.2	2.07	<1.00	47.2
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOFEE-6214-SB1 (30-32)	2.9	6.26	8.12	0.272	3.16	245	<0.500		<1.00	7.17	2.78		7.18	<2.00	<1.00	20.7
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOFEE-6214-SCREEN-POR (0-6)	1.97	15.6	8.14	0.457	4.28	1400	<0.500		<1.00	9.64	16.8		9.99	<2.00	<1.00	59.6
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOFEE-6214-SB1 (25-27)	2.66	4.84	7.95	0.249	4.37	240	<0.500		<1.00	7.95	3.95		8.12	<2.00	<1.00	22.4
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOFEE-6214-SB1 (15-17)	0.761	5.74	8.63	0.268	6.12	247	<0.500		<1.00	7.92	4.66		9.24	<2.00	<1.00	28.0
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOFEE-6214-SB1 (35-37)	3.05	6.8	8.19	0.3	7.24	188	<0.500		<1.00	11.2	4.73		11.6	<2.00	<1.00	32.3
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOFEE-6214-SB1 (10-12)	0.555	7.11	9.14	0.295	7.75	197	<0.500		<1.00	15.7	6.68		14.1	<2.00	<1.00	40.5
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOFEE-6214-SB1 (40-42)	2.52	6.43	8.25	0.289	8.05	192	<0.500		<1.00	11.9	4.83		12.9	<2.00	<1.00	33.9
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOFEE-6214-SB1 (20-22)	2.41	6.04	8.27	0.244	8.34	196	<0.500		<1.00	8.74	4.49		10.8	<2.00	<1.00	30.5
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOFEE-6214-SB1 (45-47)	1.62	4.91	8.32	0.268	8.98	230	<0.500		<1.00	12.2	5.32		11.8	<2.00	<1.00	34.3
G17 699 Texaco Fee 6214	06/08/21	Spill	20210608-TEXACOFEE-6214-SB1 (5-7)	0.494	2.72	7.95	0.633	9.7	232	<0.500		<1.00	11.1	4.85		13.6	<2.00	<1.00	36.3
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOFEE-6214-SB2 (25-27)	1.56	1.78	8.17	0.362	6.51	243	0.383		<1.00	10.7	6.14		10.8	2.62	<1.00	32.5
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOFEE-6214-SB2 (15-17)	0.92	1.57	8.89	0.299	7	242	0.277		<1.00	10.3	6.58		10.7	1.85	<1.00	28.4
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOFEE-6214-SB2 (40-42)	1.21	2.74	8.3	0.201	7.1	308	0.468		<1.00	14.7	7.9		15	2.94	<1.00	45.7
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOFEE-6214-SB2 (5-7)	1.2	10.7	8.33	0.858	7.81	285	0.393		<1.00	13.1	7.29		12.9	2.23	<1.00	38.1
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOFEE-6214-SB2 (20-22)	0.843	2.08	9.01	0.298	8.88	277	0.513		<1.00	14.9	8.46		15.4	2.27	<1.00	42.6
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOFEE-6214-SB2 (35-37)	2.46	1.59	8.01	0.24	9.32	251	0.383		<1.00	14	7.22		14.1	1.61	<1.00	41.8
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOFEE-6214-SB2 (30-32)	1.51	1.79	8.16	0.253	9.89	286	0.498		<1.00	16.5	8.32		15.4	2.24	<1.00	45.7
G17 699 Texaco Fee 6214	06/09/21	Spill	20210609-TEXACOFEE-6214-SB2 (10-12)	0.879	9.86	8.93	0.718	10.2	249	0.423		<1.00	17.3	9.22		15.9	2.06	<1.00	44.2
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (5-7)	0.489	1.94	9.23	0.58	5.49	299	<0.500		<1.00	12.6	7.06		15.1	<2.00	<1.00	46.7
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (10-12)	0.461	3.11	9.48	0.3	7.63	332	<0.500		<1.00	12.5	6.69		16.4	<2.00	<1.00	44.9
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (50-52)	1.19	3.64	8.25	0.205	8.7	373	<0.500		<1.00	17	7.77		16	<2.00	<1.00	50.1
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (52-54)	1.44	4.03	8.61	<0.200	9.17	310	<0.500		<1.00	13.3	8.98		18.1	<2.00	<1.00	47.4
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (20-22)	0.655	6.53	8.63	0.254	10.1	311	<0.500		<1.00	26	9.42		20	<2.00	<1.00	54.6
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (35-37)	1.58	5.01	8.33	<0.200	10.7	333	<0.500		<1.00	19.1	8.83		19.4	<2.00	<1.00	51.3
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (45-47)	4.08	2.69	8	<0.200	10.8	379	<0.500		<1.00	13.6	8.26		16.4	<2.00	<1.00	48.3
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (59-60.5)	3.46	2.65	7.96	<0.200	10.8	319	<0.500		<1.00	18.7	9.92		19.9	<2.00	<1.00	54.0
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (40-42)	3.16	2.85	8.05	0.205	11	257	0.536		<1.00	17.2	9.95		19.9	<2.00	<1.00	63.7
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (25-27)	1.58	7.09	8.36	0.231	12.9	235	<0.500		<1.00	15.6	6.84		19	<2.00	<1.00	53.3
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (30-32)	3.42	5.1	8.27	0.244	13.2	370	0.578		<1.00	19	9.43		20.4	<2.00	<1.00	54.5
G17 699 Texaco Fee 6214	06/10/21	Spill	20210610-TEXACOFEE-6214-SB3 (15-17)	0.473	5.22	9.27	0.287	18.2	274	<0.500		<1.00	16.7	10.3		22.3	<2.00	<1.00	54.9
G17 699 Texaco Fee 6214	06/16/21	Spill	20210616-TEXACOFEE-6214-SB4 (25-27)	2.92	3.07	8.15	0.262	8.91	268	0.4		<1.00	16.7	7.09		16.4	<2.00	<1.00	45.8
G17 699 Texaco Fee 6214	06/16/21	Spill	20210616-TEXACOFEE-6214-SB4 (15-17)	2.43	9.25	8.65	0.32	8.94	273	0.284		<1.00	13.8	11.8		14	<2.00	<1.00	41.9
G17 699 Texaco Fee 6214																			

FIGURES



LEGEND

- Boring Location
- Soil Sample Location
- Excavation
- Spoils



Project No: 021-115

Map By: NDB

Date: 11/8/2021

Texaco Fee 62-14
Caerus Oil and Gas LLC
SWNE, Section 17, T6S R99W, 6th P.M.
Garfield County, Colorado



330 Grand Avenue, Unit C
Grand Junction, CO 81501
970-579-1015

Figure

1

ANALYTICAL REPORTS

October 21, 2021

Caerus Oil and Gas

Sample Delivery Group: L1416095
Samples Received: 10/09/2021
Project Number:
Description: Texaco Fee 62-14

Report To: Blair Rollins
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:



Chris Ward
Project Manager

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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SAMPLE SUMMARY

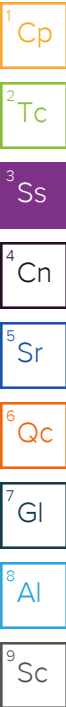
20211008-TEX62-14-EWALL(7') L1416095-01 Solid

Collected by
Reed Johnson

Collected date/time
10/08/21 09:45

Received date/time
10/09/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1757937	1	10/18/21 09:44	10/18/21 09:44	EL	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1757947	1	10/15/21 18:38	10/18/21 12:17	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1757710	1	10/15/21 10:40	10/18/21 17:59	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1757487	1	10/17/21 04:30	10/17/21 17:12	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1757728	1	10/15/21 13:05	10/16/21 12:47	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1757950	1	10/16/21 19:26	10/18/21 13:05	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1757806	5	10/15/21 13:02	10/16/21 13:49	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1758220	1	10/15/21 10:41	10/17/21 17:14	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1758139	1	10/15/21 10:41	10/16/21 07:56	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1758457	1	10/17/21 04:32	10/18/21 15:39	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1758738	1	10/18/21 09:09	10/18/21 15:07	LEA	Mt. Juliet, TN



20211008-TEX62-14-BASE(20') L1416095-02 Solid

Collected by
Reed Johnson

Collected date/time
10/08/21 11:25

Received date/time
10/09/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 7199	WG1757947	1	10/15/21 18:38	10/18/21 11:51	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1758065	1	10/16/21 08:00	10/16/21 09:54	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1757487	1	10/17/21 04:30	10/17/21 17:12	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1757728	1	10/15/21 13:05	10/16/21 12:50	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1757806	5	10/15/21 13:02	10/16/21 13:52	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1758220	1	10/15/21 10:41	10/17/21 17:37	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1758139	1	10/15/21 10:41	10/16/21 08:15	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1758457	1	10/17/21 04:32	10/18/21 15:52	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1758738	1	10/18/21 09:09	10/18/21 15:25	LEA	Mt. Juliet, TN

20211008-TEX62-14-NWALL(9') L1416095-03 Solid

Collected by
Reed Johnson

Collected date/time
10/08/21 11:40

Received date/time
10/09/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 7199	WG1757947	1	10/15/21 18:38	10/18/21 11:56	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1758296	1	10/16/21 16:21	10/18/21 13:00	CRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1757487	1	10/17/21 04:30	10/17/21 17:12	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1757728	1	10/15/21 13:05	10/16/21 12:53	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1757806	5	10/15/21 13:02	10/16/21 13:56	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1758220	1	10/15/21 10:41	10/17/21 18:01	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1758139	1	10/15/21 10:41	10/16/21 08:34	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1758457	1	10/17/21 04:32	10/18/21 16:06	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1758738	1	10/18/21 09:09	10/18/21 15:43	LEA	Mt. Juliet, TN

20211008-TEX62-14-WWALL(10-12') L1416095-04 Solid

Collected by
Reed Johnson

Collected date/time
10/08/21 14:00

Received date/time
10/09/21 09:30

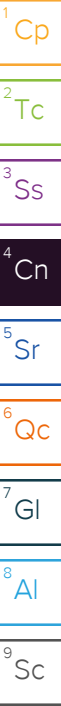
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 7199	WG1757947	1	10/15/21 18:38	10/18/21 12:01	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1758065	1	10/16/21 08:00	10/16/21 09:54	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1757487	1	10/17/21 04:30	10/17/21 17:12	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1757728	1	10/15/21 13:05	10/16/21 13:03	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1757806	5	10/15/21 13:02	10/16/21 14:06	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1758220	1	10/15/21 10:41	10/17/21 18:25	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1758139	1	10/15/21 10:41	10/16/21 08:53	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1758457	1	10/17/21 04:32	10/18/21 16:19	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1758738	1	10/18/21 09:09	10/18/21 16:00	LEA	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	0.624		1	10/18/2021 09:44	WG1757937

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	10/18/2021 12:17	WG1757947

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.60	T8	1	10/18/2021 17:59	WG1757710

Sample Narrative:

L1416095-01 WG1757710: 8.6 at 20.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	190		10.0	1	10/17/2021 17:12	WG1757487

Sample Narrative:

L1416095-01 WG1757487: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	626		0.0852	0.500	1	10/16/2021 12:47	WG1757728
Cadmium	0.407	J	0.0471	0.500	1	10/16/2021 12:47	WG1757728
Copper	16.2		0.400	2.00	1	10/16/2021 12:47	WG1757728
Lead	9.41		0.208	0.500	1	10/16/2021 12:47	WG1757728
Nickel	14.4		0.132	2.00	1	10/16/2021 12:47	WG1757728
Selenium	2.47		0.764	2.00	1	10/16/2021 12:47	WG1757728
Silver	U		0.127	1.00	1	10/16/2021 12:47	WG1757728
Zinc	45.8		0.832	5.00	1	10/16/2021 12:47	WG1757728

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	0.324		0.0167	0.200	1	10/18/2021 13:05	WG1757950

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.86		0.100	1.00	5	10/16/2021 13:49	WG1757806

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	0.176		0.0217	0.100	1	10/17/2021 17:14	WG1758220
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	97.9			77.0-120		10/17/2021 17:14	WG1758220

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/16/2021 07:56	WG1758139
Toluene	U		0.00130	0.00500	1	10/16/2021 07:56	WG1758139
Ethylbenzene	U		0.000737	0.00250	1	10/16/2021 07:56	WG1758139
Xylenes, Total	0.0118		0.000880	0.00650	1	10/16/2021 07:56	WG1758139
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/16/2021 07:56	WG1758139
1,3,5-Trimethylbenzene	0.0457		0.00200	0.00500	1	10/16/2021 07:56	WG1758139
(S) Toluene-d8	111			75.0-131		10/16/2021 07:56	WG1758139
(S) 4-Bromofluorobenzene	102			67.0-138		10/16/2021 07:56	WG1758139
(S) 1,2-Dichloroethane-d4	88.1			70.0-130		10/16/2021 07:56	WG1758139

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	17.4		1.61	4.00	1	10/18/2021 15:39	WG1758457
C28-C36 Motor Oil Range	44.9		0.274	4.00	1	10/18/2021 15:39	WG1758457
(S) o-Terphenyl	39.0			18.0-148		10/18/2021 15:39	WG1758457

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
Anthracene	U		0.00230	0.00600	1	10/18/2021 15:07	WG1758738
Acenaphthene	U		0.00209	0.00600	1	10/18/2021 15:07	WG1758738
Acenaphthylene	U		0.00216	0.00600	1	10/18/2021 15:07	WG1758738
Benzo(a)anthracene	U		0.00173	0.00600	1	10/18/2021 15:07	WG1758738
Benzo(a)pyrene	U		0.00179	0.00600	1	10/18/2021 15:07	WG1758738
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/18/2021 15:07	WG1758738
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/18/2021 15:07	WG1758738
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/18/2021 15:07	WG1758738
Chrysene	U		0.00232	0.00600	1	10/18/2021 15:07	WG1758738
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/18/2021 15:07	WG1758738
Fluoranthene	U		0.00227	0.00600	1	10/18/2021 15:07	WG1758738
Fluorene	U		0.00205	0.00600	1	10/18/2021 15:07	WG1758738
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/18/2021 15:07	WG1758738
Naphthalene	0.00925	U	0.00408	0.0200	1	10/18/2021 15:07	WG1758738
Phenanthrene	0.00611		0.00231	0.00600	1	10/18/2021 15:07	WG1758738
Pyrene	U		0.00200	0.00600	1	10/18/2021 15:07	WG1758738
1-Methylnaphthalene	0.0145	U	0.00449	0.0200	1	10/18/2021 15:07	WG1758738
2-Methylnaphthalene	0.0242		0.00427	0.0200	1	10/18/2021 15:07	WG1758738
2-Chloronaphthalene	U		0.00466	0.0200	1	10/18/2021 15:07	WG1758738
(S) p-Terphenyl-d14	96.2			23.0-120		10/18/2021 15:07	WG1758738
(S) Nitrobenzene-d5	56.9			14.0-149		10/18/2021 15:07	WG1758738
(S) 2-Fluorobiphenyl	77.0			34.0-125		10/18/2021 15:07	WG1758738

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Hexavalent Chromium	U		0.255	1.00	1	10/18/2021 11:51	WG1757947

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.36	T8	1	10/16/2021 09:54	WG1758065

Sample Narrative:

L1416095-02 WG1758065: 8.36 at 19.8C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	930		10.0	1	10/17/2021 17:12	WG1757487

Sample Narrative:

L1416095-02 WG1757487: at 25C

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	365		0.0852	0.500	1	10/16/2021 12:50	WG1757728
Cadmium	0.524		0.0471	0.500	1	10/16/2021 12:50	WG1757728
Copper	23.9		0.400	2.00	1	10/16/2021 12:50	WG1757728
Lead	12.0		0.208	0.500	1	10/16/2021 12:50	WG1757728
Nickel	23.1		0.132	2.00	1	10/16/2021 12:50	WG1757728
Selenium	1.80	J	0.764	2.00	1	10/16/2021 12:50	WG1757728
Silver	U		0.127	1.00	1	10/16/2021 12:50	WG1757728
Zinc	62.2		0.832	5.00	1	10/16/2021 12:50	WG1757728

Metals (ICPMS) by Method 6020

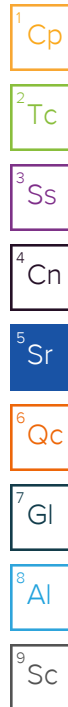
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	12.8		0.100	1.00	5	10/16/2021 13:52	WG1757806

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.131		0.0217	0.100	1	10/17/2021 17:37	WG1758220
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	97.9			77.0-120		10/17/2021 17:37	WG1758220

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000467	0.00100	1	10/16/2021 08:15	WG1758139
Toluene	U		0.00130	0.00500	1	10/16/2021 08:15	WG1758139
Ethylbenzene	U		0.000737	0.00250	1	10/16/2021 08:15	WG1758139
Xylenes, Total	U		0.000880	0.00650	1	10/16/2021 08:15	WG1758139
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/16/2021 08:15	WG1758139
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/16/2021 08:15	WG1758139
(S) Toluene-d8	111			75.0-131		10/16/2021 08:15	WG1758139
(S) 4-Bromofluorobenzene	101			67.0-138		10/16/2021 08:15	WG1758139



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
(S) 1,2-Dichloroethane-d4	90.1			70.0-130		10/16/2021 08:15	WG1758139

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	17.8		1.61	4.00	1	10/18/2021 15:52	WG1758457
C28-C36 Motor Oil Range	69.7		0.274	4.00	1	10/18/2021 15:52	WG1758457
(S) o-Terphenyl	32.0			18.0-148		10/18/2021 15:52	WG1758457

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
Anthracene	U		0.00230	0.00600	1	10/18/2021 15:25	WG1758738
Acenaphthene	U		0.00209	0.00600	1	10/18/2021 15:25	WG1758738
Acenaphthylene	U		0.00216	0.00600	1	10/18/2021 15:25	WG1758738
Benzo(a)anthracene	U		0.00173	0.00600	1	10/18/2021 15:25	WG1758738
Benzo(a)pyrene	U		0.00179	0.00600	1	10/18/2021 15:25	WG1758738
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/18/2021 15:25	WG1758738
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/18/2021 15:25	WG1758738
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/18/2021 15:25	WG1758738
Chrysene	U		0.00232	0.00600	1	10/18/2021 15:25	WG1758738
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/18/2021 15:25	WG1758738
Fluoranthene	U		0.00227	0.00600	1	10/18/2021 15:25	WG1758738
Fluorene	U		0.00205	0.00600	1	10/18/2021 15:25	WG1758738
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/18/2021 15:25	WG1758738
Naphthalene	U		0.00408	0.0200	1	10/18/2021 15:25	WG1758738
Phenanthrene	U		0.00231	0.00600	1	10/18/2021 15:25	WG1758738
Pyrene	U		0.00200	0.00600	1	10/18/2021 15:25	WG1758738
1-Methylnaphthalene	U		0.00449	0.0200	1	10/18/2021 15:25	WG1758738
2-Methylnaphthalene	U		0.00427	0.0200	1	10/18/2021 15:25	WG1758738
2-Chloronaphthalene	U		0.00466	0.0200	1	10/18/2021 15:25	WG1758738
(S) p-Terphenyl-d14	87.6			23.0-120		10/18/2021 15:25	WG1758738
(S) Nitrobenzene-d5	51.7			14.0-149		10/18/2021 15:25	WG1758738
(S) 2-Fluorobiphenyl	71.9			34.0-125		10/18/2021 15:25	WG1758738

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Hexavalent Chromium	U		0.255	1.00	1	10/18/2021 11:56	WG1757947

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	9.02	T8	1	10/18/2021 13:00	WG1758296

Sample Narrative:

L1416095-03 WG1758296: 9.02 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	193		10.0	1	10/17/2021 17:12	WG1757487

Sample Narrative:

L1416095-03 WG1757487: at 25C

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	324		0.0852	0.500	1	10/16/2021 12:53	WG1757728
Cadmium	0.430	J	0.0471	0.500	1	10/16/2021 12:53	WG1757728
Copper	14.2		0.400	2.00	1	10/16/2021 12:53	WG1757728
Lead	7.71		0.208	0.500	1	10/16/2021 12:53	WG1757728
Nickel	15.2		0.132	2.00	1	10/16/2021 12:53	WG1757728
Selenium	3.63		0.764	2.00	1	10/16/2021 12:53	WG1757728
Silver	U		0.127	1.00	1	10/16/2021 12:53	WG1757728
Zinc	40.6		0.832	5.00	1	10/16/2021 12:53	WG1757728

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	7.30		0.100	1.00	5	10/16/2021 13:56	WG1757806

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.170		0.0217	0.100	1	10/17/2021 18:01	WG1758220
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	98.4			77.0-120		10/17/2021 18:01	WG1758220

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000467	0.00100	1	10/16/2021 08:34	WG1758139
Toluene	U		0.00130	0.00500	1	10/16/2021 08:34	WG1758139
Ethylbenzene	U		0.000737	0.00250	1	10/16/2021 08:34	WG1758139
Xylenes, Total	U		0.000880	0.00650	1	10/16/2021 08:34	WG1758139
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/16/2021 08:34	WG1758139
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/16/2021 08:34	WG1758139
(S) Toluene-d8	111			75.0-131		10/16/2021 08:34	WG1758139
(S) 4-Bromofluorobenzene	101			67.0-138		10/16/2021 08:34	WG1758139

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
(S) 1,2-Dichloroethane-d4	90.6			70.0-130		10/16/2021 08:34	WG1758139

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	14.9		1.61	4.00	1	10/18/2021 16:06	WG1758457
C28-C36 Motor Oil Range	53.1		0.274	4.00	1	10/18/2021 16:06	WG1758457
(S) o-Terphenyl	37.4			18.0-148		10/18/2021 16:06	WG1758457

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
Anthracene	U		0.00230	0.00600	1	10/18/2021 15:43	WG1758738
Acenaphthene	U		0.00209	0.00600	1	10/18/2021 15:43	WG1758738
Acenaphthylene	U		0.00216	0.00600	1	10/18/2021 15:43	WG1758738
Benzo(a)anthracene	U		0.00173	0.00600	1	10/18/2021 15:43	WG1758738
Benzo(a)pyrene	U		0.00179	0.00600	1	10/18/2021 15:43	WG1758738
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/18/2021 15:43	WG1758738
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/18/2021 15:43	WG1758738
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/18/2021 15:43	WG1758738
Chrysene	U		0.00232	0.00600	1	10/18/2021 15:43	WG1758738
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/18/2021 15:43	WG1758738
Fluoranthene	U		0.00227	0.00600	1	10/18/2021 15:43	WG1758738
Fluorene	U		0.00205	0.00600	1	10/18/2021 15:43	WG1758738
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/18/2021 15:43	WG1758738
Naphthalene	U		0.00408	0.0200	1	10/18/2021 15:43	WG1758738
Phenanthrene	U		0.00231	0.00600	1	10/18/2021 15:43	WG1758738
Pyrene	U		0.00200	0.00600	1	10/18/2021 15:43	WG1758738
1-Methylnaphthalene	U		0.00449	0.0200	1	10/18/2021 15:43	WG1758738
2-Methylnaphthalene	U		0.00427	0.0200	1	10/18/2021 15:43	WG1758738
2-Chloronaphthalene	U		0.00466	0.0200	1	10/18/2021 15:43	WG1758738
(S) p-Terphenyl-d14	93.6			23.0-120		10/18/2021 15:43	WG1758738
(S) Nitrobenzene-d5	62.8			14.0-149		10/18/2021 15:43	WG1758738
(S) 2-Fluorobiphenyl	78.2			34.0-125		10/18/2021 15:43	WG1758738

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/18/2021 12:01	WG1757947

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	9.10	T8	1	10/16/2021 09:54	WG1758065

Sample Narrative:

L1416095-04 WG1758065: 9.1 at 19.9C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	323		10.0	1	10/17/2021 17:12	WG1757487

Sample Narrative:

L1416095-04 WG1757487: at 25C

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Barium	262		0.0852	0.500	1	10/16/2021 13:03	WG1757728
Cadmium	0.503		0.0471	0.500	1	10/16/2021 13:03	WG1757728
Copper	17.7		0.400	2.00	1	10/16/2021 13:03	WG1757728
Lead	9.52		0.208	0.500	1	10/16/2021 13:03	WG1757728
Nickel	19.4		0.132	2.00	1	10/16/2021 13:03	WG1757728
Selenium	3.35		0.764	2.00	1	10/16/2021 13:03	WG1757728
Silver	U		0.127	1.00	1	10/16/2021 13:03	WG1757728
Zinc	49.2		0.832	5.00	1	10/16/2021 13:03	WG1757728

Metals (ICPMS) by Method 6020

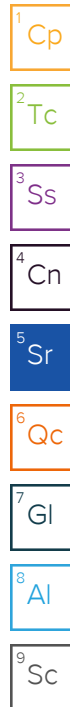
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Arsenic	26.6		0.100	1.00	5	10/16/2021 14:06	WG1757806

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.43		0.0217	0.100	1	10/17/2021 18:25	WG1758220
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	100			77.0-120		10/17/2021 18:25	WG1758220

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/16/2021 08:53	WG1758139
Toluene	0.00788		0.00130	0.00500	1	10/16/2021 08:53	WG1758139
Ethylbenzene	0.0111		0.000737	0.00250	1	10/16/2021 08:53	WG1758139
Xylenes, Total	0.411		0.000880	0.00650	1	10/16/2021 08:53	WG1758139
1,2,4-Trimethylbenzene	0.437		0.00158	0.00500	1	10/16/2021 08:53	WG1758139
1,3,5-Trimethylbenzene	0.255		0.00200	0.00500	1	10/16/2021 08:53	WG1758139
(S) Toluene-d8	112			75.0-131		10/16/2021 08:53	WG1758139
(S) 4-Bromofluorobenzene	101			67.0-138		10/16/2021 08:53	WG1758139



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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
(S) 1,2-Dichloroethane-d4	90.9			70.0-130		10/16/2021 08:53	WG1758139

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	17.5		1.61	4.00	1	10/18/2021 16:19	WG1758457
C28-C36 Motor Oil Range	29.2		0.274	4.00	1	10/18/2021 16:19	WG1758457
(S) o-Terphenyl	44.7			18.0-148		10/18/2021 16:19	WG1758457

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
Anthracene	U		0.00230	0.00600	1	10/18/2021 16:00	WG1758738
Acenaphthene	U		0.00209	0.00600	1	10/18/2021 16:00	WG1758738
Acenaphthylene	U		0.00216	0.00600	1	10/18/2021 16:00	WG1758738
Benzo(a)anthracene	U		0.00173	0.00600	1	10/18/2021 16:00	WG1758738
Benzo(a)pyrene	U		0.00179	0.00600	1	10/18/2021 16:00	WG1758738
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/18/2021 16:00	WG1758738
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/18/2021 16:00	WG1758738
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/18/2021 16:00	WG1758738
Chrysene	U		0.00232	0.00600	1	10/18/2021 16:00	WG1758738
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/18/2021 16:00	WG1758738
Fluoranthene	U		0.00227	0.00600	1	10/18/2021 16:00	WG1758738
Fluorene	U		0.00205	0.00600	1	10/18/2021 16:00	WG1758738
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/18/2021 16:00	WG1758738
Naphthalene	0.0149	U	0.00408	0.0200	1	10/18/2021 16:00	WG1758738
Phenanthrene	U		0.00231	0.00600	1	10/18/2021 16:00	WG1758738
Pyrene	U		0.00200	0.00600	1	10/18/2021 16:00	WG1758738
1-Methylnaphthalene	U		0.00449	0.0200	1	10/18/2021 16:00	WG1758738
2-Methylnaphthalene	0.00499	U	0.00427	0.0200	1	10/18/2021 16:00	WG1758738
2-Chloronaphthalene	U		0.00466	0.0200	1	10/18/2021 16:00	WG1758738
(S) p-Terphenyl-d14	90.2			23.0-120		10/18/2021 16:00	WG1758738
(S) Nitrobenzene-d5	65.6			14.0-149		10/18/2021 16:00	WG1758738
(S) 2-Fluorobiphenyl	72.3			34.0-125		10/18/2021 16:00	WG1758738

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3718019-1 10/18/21 11:40

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

L1416107-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1416107-08 10/18/21 13:36 • (DUP) R3718019-7 10/18/21 13:41

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

L1416010-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1416010-01 10/18/21 18:41 • (DUP) R3718019-8 10/18/21 18:47

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	0.305	0.384	1	22.7	J P1	20

Laboratory Control Sample (LCS)

(LCS) R3718019-2 10/18/21 11:46

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	9.68	96.8	80.0-120	

L1416095-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1416095-01 10/18/21 12:17 • (MS) R3718019-3 10/18/21 12:26 • (MSD) R3718019-4 10/18/21 12:33

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	U	15.8	15.4	78.9	77.0	1	75.0-125			2.47	20

L1416095-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1416095-01 10/18/21 12:17 • (MS) R3718019-5 10/18/21 12:38

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	648	U	590	91.0	50	75.0-125	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1415990-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1415990-12 10/18/21 17:59 • (DUP) R3718042-2 10/18/21 17:59

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	6.78	6.77	1	0.148		1

Sample Narrative:

OS: 6.78 at 20.5C

DUP: 6.77 at 20.3C



L1416095-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1416095-01 10/18/21 17:59 • (DUP) R3718042-3 10/18/21 17:59

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.60	8.58	1	0.233		1

Sample Narrative:

OS: 8.6 at 20.3C

DUP: 8.58 at 20.4C

Laboratory Control Sample (LCS)

(LCS) R3718042-1 10/18/21 17:59

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

Sample Narrative:

LCS: 10 at 20C

L1415618-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1415618-04 10/16/21 09:54 • (DUP) R3717299-2 10/16/21 09:54

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.65	8.65	1	0.000		1

Sample Narrative:

OS: 8.65 at 20C

DUP: 8.65 at 20.1C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1416500-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1416500-02 10/16/21 09:54 • (DUP) R3717299-3 10/16/21 09:54

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.74	8.71	1	0.344		1

Sample Narrative:

OS: 8.74 at 19.5C

DUP: 8.71 at 19.8C

Laboratory Control Sample (LCS)

(LCS) R3717299-1 10/16/21 09:54

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	10.1	101	99.0-101	

Sample Narrative:

LCS: 10.05 at 20.4C

L1416095-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1416095-03 10/18/21 13:00 • (DUP) R3718039-2 10/18/21 13:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	9.02	8.97	1	0.556		1

Sample Narrative:

OS: 9.02 at 20.2C

DUP: 8.97 at 20.3C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1416600-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1416600-01 10/18/21 13:00 • (DUP) R3718039-3 10/18/21 13:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	9.68	9.66	1	0.207		1

Sample Narrative:

OS: 9.68 at 20.2C

DUP: 9.66 at 20.1C

Laboratory Control Sample (LCS)

(LCS) R3718039-1 10/18/21 13:00

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

Sample Narrative:

LCS: 10.01 at 20.1C

Method Blank (MB)

(MB) R3717554-1 10/17/21 17:12

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

L1416107-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1416107-01 10/17/21 17:12 • (DUP) R3717554-3 10/17/21 17:12

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1270	1270	1	0.394		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1416107-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1416107-10 10/17/21 17:12 • (DUP) R3717554-4 10/17/21 17:12

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	284	286	1	0.737		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3717554-2 10/17/21 17:12

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	270	101	85.0-115	

Sample Narrative:

LCS: at 25C

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3717616-1 10/16/21 12:26

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) R3717616-2 10/16/21 12:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	109	109	80.0-120	
Cadmium	100	105	105	80.0-120	
Copper	100	109	109	80.0-120	
Lead	100	105	105	80.0-120	
Nickel	100	107	107	80.0-120	
Selenium	100	106	106	80.0-120	
Silver	20.0	18.9	94.5	80.0-120	
Zinc	100	102	102	80.0-120	

L1416124-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1416124-02 10/16/21 12:31 • (MS) R3717616-5 10/16/21 12:41 • (MSD) R3717616-6 10/16/21 12:44

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	427	608	540	181	113	1	75.0-125	V		11.9	20
Cadmium	100	0.338	101	104	100	104	1	75.0-125			3.67	20
Copper	100	15.0	114	119	99.3	104	1	75.0-125			4.20	20
Lead	100	13.1	114	113	101	99.7	1	75.0-125			0.975	20
Nickel	100	26.2	126	127	99.4	101	1	75.0-125			1.41	20
Selenium	100	1.74	102	106	101	104	1	75.0-125			3.28	20
Silver	20.0	U	18.7	19.3	93.5	96.6	1	75.0-125			3.27	20
Zinc	100	39.8	123	127	83.0	87.4	1	75.0-125			3.58	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3717951-1 10/18/21 12:57

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) R3717951-2 10/18/21 13:00 • (LCSD) R3717951-3 10/18/21 13:02

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	0.996	1.01	99.6	101	80.0-120			0.891	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3717337-1 10/16/21 13:25

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) R3717337-2 10/16/21 13:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	103	103	80.0-120	

L1416124-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1416124-02 10/16/21 13:32 • (MS) R3717337-5 10/16/21 13:42 • (MSD) R3717337-6 10/16/21 13:45

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	8.63	101	105	92.6	96.3	5	75.0-125			3.60	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3719586-2 10/17/21 16:39

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) R3719586-1 10/17/21 15:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.20	94.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			100	77.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3719682-3 10/16/21 06:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	114			75.0-131
(S) 4-Bromofluorobenzene	101			67.0-138
(S) 1,2-Dichloroethane-d4	86.8			70.0-130

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

(LCS) R3719682-1 10/16/21 04:46 • (LCSD) R3719682-2 10/16/21 05:05

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	0.129	0.125	103	100	70.0-123			3.15	20
Ethylbenzene	0.125	0.134	0.128	107	102	74.0-126			4.58	20
Toluene	0.125	0.128	0.124	102	99.2	75.0-121			3.17	20
1,2,4-Trimethylbenzene	0.125	0.133	0.127	106	102	70.0-126			4.62	20
1,3,5-Trimethylbenzene	0.125	0.130	0.126	104	101	73.0-127			3.12	20
Xylenes, Total	0.375	0.394	0.391	105	104	72.0-127			0.764	20
(S) Toluene-d8				107	107	75.0-131				
(S) 4-Bromofluorobenzene				103	104	67.0-138				
(S) 1,2-Dichloroethane-d4				92.4	92.3	70.0-130				

L1416089-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1416089-01 10/16/21 12:04 • (MS) R3719682-4 10/16/21 12:42 • (MSD) R3719682-5 10/16/21 13:01

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	1.51	0.323	1.38	0.948	103	60.7	20	10.0-149		J3	37.1	37
Ethylbenzene	1.51	7.78	8.22	7.67	42.7	0.000	20	10.0-160		V	6.92	38
Toluene	1.51	4.63	5.28	4.73	63.1	9.71	20	10.0-156		V	11.0	38
1,2,4-Trimethylbenzene	1.51	14.7	15.2	14.0	48.5	0.000	20	10.0-160		V	8.22	36
1,3,5-Trimethylbenzene	1.51	3.56	4.46	3.85	87.4	28.2	20	10.0-160			14.7	38
Xylenes, Total	4.49	16.0	17.8	16.5	58.6	16.3	20	10.0-160			7.58	38
(S) Toluene-d8					107	110		75.0-131				
(S) 4-Bromofluorobenzene					113	115		67.0-138				
(S) 1,2-Dichloroethane-d4					92.8	92.6		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3718051-1 10/18/21 13:23

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	0.825	J	0.274	4.00
(S) o-Terphenyl	49.7			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3718051-2 10/18/21 13:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	37.2	74.4	50.0-150	
(S) o-Terphenyl			58.3	18.0-148	

L1416123-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1416123-04 10/18/21 17:00 • (MS) R3718051-3 10/18/21 17:14 • (MSD) R3718051-4 10/18/21 17:27

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	48.5	14.0	58.8	46.5	92.4	67.0	1	50.0-150		J3	23.4	20
(S) o-Terphenyl					33.1	31.7		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3718052-2 10/18/21 14:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	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
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	60.9			14.0-149
(S) 2-Fluorobiphenyl	84.7			34.0-125
(S) p-Terphenyl-d14	109			23.0-120

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3718052-1 10/18/21 14:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0733	91.6	50.0-126	
Acenaphthene	0.0800	0.0681	85.1	50.0-120	
Acenaphthylene	0.0800	0.0736	92.0	50.0-120	
Benzo(a)anthracene	0.0800	0.0746	93.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0700	87.5	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0702	87.8	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0687	85.9	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0692	86.5	49.0-125	
Chrysene	0.0800	0.0738	92.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0716	89.5	47.0-125	
Fluoranthene	0.0800	0.0781	97.6	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3718052-1 10/18/21 14:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0730	91.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0718	89.8	46.0-125	
Naphthalene	0.0800	0.0683	85.4	50.0-120	
Phenanthrene	0.0800	0.0723	90.4	47.0-120	
Pyrene	0.0800	0.0667	83.4	43.0-123	
1-Methylnaphthalene	0.0800	0.0746	93.3	51.0-121	
2-Methylnaphthalene	0.0800	0.0710	88.8	50.0-120	
2-Chloronaphthalene	0.0800	0.0672	84.0	50.0-120	
(S) Nitrobenzene-d5			64.4	14.0-149	
(S) 2-Fluorobiphenyl			91.4	34.0-125	
(S) p-Terphenyl-d14			112	23.0-120	

L1416095-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1416095-04 10/18/21 16:00 • (MS) R3718052-3 10/18/21 16:18 • (MSD) R3718052-4 10/18/21 16:36

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 %
Anthracene	0.0792	U	0.0604	0.0615	76.3	77.7	1	10.0-145			1.80	30
Acenaphthene	0.0792	U	0.0569	0.0595	71.8	75.1	1	14.0-127			4.47	27
Acenaphthylene	0.0792	U	0.0607	0.0639	76.6	80.7	1	21.0-124			5.14	25
Benzo(a)anthracene	0.0792	U	0.0599	0.0639	75.6	80.7	1	10.0-139			6.46	30
Benzo(a)pyrene	0.0792	U	0.0588	0.0620	74.2	78.3	1	10.0-141			5.30	31
Benzo(b)fluoranthene	0.0792	U	0.0566	0.0594	71.5	75.0	1	10.0-140			4.83	36
Benzo(g,h,i)perylene	0.0792	U	0.0571	0.0597	72.1	75.4	1	10.0-140			4.45	33
Benzo(k)fluoranthene	0.0792	U	0.0565	0.0590	71.3	74.5	1	10.0-137			4.33	31
Chrysene	0.0792	U	0.0595	0.0622	75.1	78.5	1	10.0-145			4.44	30
Dibenz(a,h)anthracene	0.0792	U	0.0608	0.0629	76.8	79.4	1	10.0-132			3.40	31
Fluoranthene	0.0792	U	0.0635	0.0667	80.2	84.2	1	10.0-153			4.92	33
Fluorene	0.0792	U	0.0624	0.0633	78.8	79.9	1	11.0-130			1.43	29
Indeno(1,2,3-cd)pyrene	0.0792	U	0.0601	0.0628	75.9	79.3	1	10.0-137			4.39	32
Naphthalene	0.0792	0.0149	0.0928	0.0998	98.4	107	1	10.0-135			7.27	27
Phenanthrene	0.0792	U	0.0587	0.0612	74.1	77.3	1	10.0-144			4.17	31
Pyrene	0.0792	U	0.0552	0.0576	69.7	72.7	1	10.0-148			4.26	35
1-Methylnaphthalene	0.0792	U	0.0659	0.0693	83.2	87.5	1	10.0-142			5.03	28
2-Methylnaphthalene	0.0792	0.00499	0.0690	0.0723	80.8	85.0	1	10.0-137			4.67	28
2-Chloronaphthalene	0.0792	U	0.0559	0.0591	70.6	74.6	1	29.0-120			5.57	24
(S) Nitrobenzene-d5					73.2	61.6		14.0-149				
(S) 2-Fluorobiphenyl					83.5	85.1		34.0-125				
(S) p-Terphenyl-d14					101	100		23.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

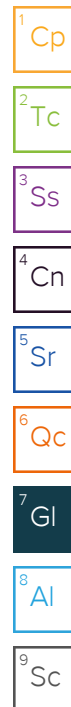
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
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

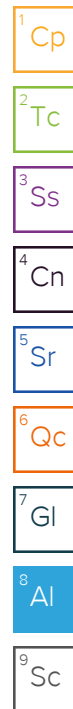
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



[illegible]

Caerus Oil and Gas

Sample Delivery Group: L1416096
Samples Received: 10/09/2021
Project Number:
Description: Texaco Fee 62-14 Background

Report To: Blair Rollins
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:



Chris Ward
Project Manager

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

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

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20211008-TEX62-14-B64(13") L1416096-02	6	⁴ Cn
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SAMPLE SUMMARY

20211008-TEX62-14-B63(12-16") L1416096-01 Solid

Collected by
Reed Johnson

Collected date/time
10/08/21 11:55

Received date/time
10/09/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1757937	1	10/18/21 09:49	10/18/21 09:49	EL	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1758065	1	10/16/21 08:00	10/16/21 09:54	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1757487	1	10/17/21 04:30	10/17/21 17:12	AMH	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1757857	5	10/16/21 00:26	10/16/21 17:45	JPD	Mt. Juliet, TN

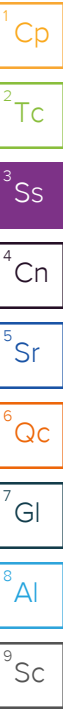
20211008-TEX62-14-B64(13") L1416096-02 Solid

Collected by
Reed Johnson

Collected date/time
10/08/21 12:25

Received date/time
10/09/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1757937	1	10/18/21 09:52	10/18/21 09:52	EL	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1757689	1	10/15/21 15:00	10/16/21 17:08	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1757487	1	10/17/21 04:30	10/17/21 17:12	AMH	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1757857	5	10/16/21 00:26	10/16/21 17:48	JPD	Mt. Juliet, TN



CASE NARRATIVE

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



Chris Ward
Project Manager



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.170		1	10/18/2021 09:49	WG1757937

¹Cp

²Tc

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.18	T8	1	10/16/2021 09:54	WG1758065

³Ss

⁴Cn

Sample Narrative:
L1416096-01 WG1758065: 8.18 at 19.8C

⁵Sr

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	<u>Qualifier</u>	RDL umhos/cm	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	243		10.0	1	10/17/2021 17:12	WG1757487

⁶Qc

⁷Gl

Sample Narrative:
L1416096-01 WG1757487: at 25C

⁸Al

Metals (ICPMS) by Method 6020

	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	20.1		0.100	1.00	5	10/16/2021 17:45	WG1757857

⁹Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.192		1	10/18/2021 09:52	WG1757937

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.61	T8	1	10/16/2021 17:08	WG1757689

Sample Narrative:

L1416096-02 WG1757689: 8.61 at 19.6C

Wet Chemistry by Method 9050AMod

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	219		10.0	1	10/17/2021 17:12	WG1757487

Sample Narrative:

L1416096-02 WG1757487: at 25C

Metals (ICPMS) by Method 6020

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	7.37		0.100	1.00	5	10/16/2021 17:48	WG1757857

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

L1414414-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1414414-04 10/16/21 17:08 • (DUP) R3717381-2 10/16/21 17:08

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	6.48	6.46	1	0.309		1

Sample Narrative:

OS: 6.48 at 20.5C

DUP: 6.46 at 20.4C

Laboratory Control Sample (LCS)

(LCS) R3717381-1 10/16/21 17:08

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

Sample Narrative:

LCS: 10.02 at 19.8C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1415618-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1415618-04 10/16/21 09:54 • (DUP) R3717299-2 10/16/21 09:54

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.65	8.65	1	0.000		1

Sample Narrative:

OS: 8.65 at 20C

DUP: 8.65 at 20.1C

L1416500-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1416500-02 10/16/21 09:54 • (DUP) R3717299-3 10/16/21 09:54

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.74	8.71	1	0.344		1

Sample Narrative:

OS: 8.74 at 19.5C

DUP: 8.71 at 19.8C

Laboratory Control Sample (LCS)

(LCS) R3717299-1 10/16/21 09:54

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	su	su	%	%	
pH	10.0	10.1	101	99.0-101	

Sample Narrative:

LCS: 10.05 at 20.4C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3717554-1 10/17/21 17:12

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

L1416107-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1416107-01 10/17/21 17:12 • (DUP) R3717554-3 10/17/21 17:12

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1270	1270	1	0.394		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1416107-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1416107-10 10/17/21 17:12 • (DUP) R3717554-4 10/17/21 17:12

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	284	286	1	0.737		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3717554-2 10/17/21 17:12

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	270	101	85.0-115	

Sample Narrative:

LCS: at 25C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3717385-1 10/16/21 16:51

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) R3717385-2 10/16/21 16:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	87.8	87.8	80.0-120	

L1416099-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1416099-03 10/16/21 16:58 • (MS) R3717385-5 10/16/21 17:08 • (MSD) R3717385-6 10/16/21 17:12

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	5.16	84.2	88.7	79.0	83.5	5	75.0-125			5.21	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

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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.
----	---

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCREDITATIONS & LOCATIONS

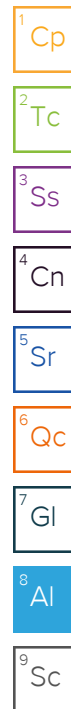
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122



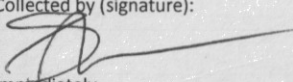
Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	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: Caerus Oil and Gas 143 Diamond Ave. Parachute, CO 81635				Billing Information: Caerus Oil and Gas 143 Diamond Ave. Parachute, CO 81635				Analysis / Container / Preservative								Chain of Custody Page <u>1</u> of <u>1</u>  L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 	
Report to: Blair Rollins				Email To: brollins@caerusoilandgas.com				<div style="display: flex; justify-content: space-around; font-weight: bold;"> Table 915 GRO/DRO/ORO Table 915 Metals Table 915 PAH's Table 915 VOCs Table 915 pH, SPCON, SAR Arsenic </div>								L # <u>1416095</u> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">B094</div>	
Project Description: <u>Texaco Fee 62-14 Background</u>				City/State Collected: <u>DeBogue, CO</u>												Acctnum:	
Phone: (970) 640-6919 Fax:		Client Project #		Lab Project #		Template:											
Collected by (print): Reed Johnson		Site/Facility ID #		P.O. #		Prelogin:											
Collected by (signature):  Immediately Packed on Ice N <u> </u> Y <u> </u> <input checked="" type="checkbox"/>		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day200% <input type="checkbox"/> Next Day100% <input type="checkbox"/> Two Day50% <input type="checkbox"/> Three Day25%		Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		No. of Cntrs		TSR:									
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cooler:									
<u>20211008-TEX 62-14 - B63 (12-16")</u>		<u>6rsb</u>	<u>SS</u>	<u>12-16"</u>	<u>10/8/21</u>	<u>1155</u>	<u>2</u>	Shipped Via:									
<u>20211008-TEX 62-14 - B64 (13")</u>		<u>1</u>	<u>1</u>	<u>13"</u>	<u>1</u>	<u>1225</u>	<u>2</u>	Rem./Contaminant Sample # (lab only)									

Caerus Oil and Gas

Sample Delivery Group: L1416957
Samples Received: 10/12/2021
Project Number:
Description: TexacoFee 62-14

Report To: Blair Rollins
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:



Chris Ward
Project Manager

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

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

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¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SAMPLE SUMMARY

20211011-TEX62-14-BASE(28") L1416957-01 Solid

Collected by
Reed Johnson

Collected date/time
10/11/21 13:00

Received date/time
10/12/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 7199	WG1758622	1	10/18/21 18:00	10/19/21 13:53	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1758322	1	10/16/21 15:33	10/18/21 15:36	CRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1758626	1	10/18/21 03:01	10/18/21 19:43	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1757920	1	10/17/21 08:01	10/18/21 21:39	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1758297	5	10/17/21 08:04	10/18/21 11:02	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1759219	1	10/15/21 20:26	10/20/21 03:13	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1758357	1	10/15/21 20:26	10/17/21 04:48	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1759042	1	10/18/21 20:04	10/19/21 08:07	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1759230	1	10/19/21 08:52	10/19/21 17:47	LEA	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

Project Narrative

L1416957-01 (20211011-TEX62-14-BASE(25')) unable to be run for Hot Water Soluble Boron and SAR due to the Matrix

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	U		0.255	1.00	1	10/19/2021 13:53	WG1758622

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.84	T8	1	10/18/2021 15:36	WG1758322

Sample Narrative:

L1416957-01 WG1758322: 7.84 at 20.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	3370		10.0	1	10/18/2021 19:43	WG1758626

Sample Narrative:

L1416957-01 WG1758626: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	290		0.0852	0.500	1	10/18/2021 21:39	WG1757920
Cadmium	0.400	J	0.0471	0.500	1	10/18/2021 21:39	WG1757920
Copper	13.5		0.400	2.00	1	10/18/2021 21:39	WG1757920
Lead	7.12		0.208	0.500	1	10/18/2021 21:39	WG1757920
Nickel	16.4		0.132	2.00	1	10/18/2021 21:39	WG1757920
Selenium	1.84	J	0.764	2.00	1	10/18/2021 21:39	WG1757920
Silver	U		0.127	1.00	1	10/18/2021 21:39	WG1757920
Zinc	48.3		0.832	5.00	1	10/18/2021 21:39	WG1757920

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	11.2		0.100	1.00	5	10/18/2021 11:02	WG1758297

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	0.235	B	0.0217	0.100	1	10/20/2021 03:13	WG1759219
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	94.2			77.0-120		10/20/2021 03:13	WG1759219

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	10/17/2021 04:48	WG1758357
Toluene	U		0.00130	0.00500	1	10/17/2021 04:48	WG1758357
Ethylbenzene	U		0.000737	0.00250	1	10/17/2021 04:48	WG1758357
Xylenes, Total	0.0103		0.000880	0.00650	1	10/17/2021 04:48	WG1758357
1,2,4-Trimethylbenzene	0.00931		0.00158	0.00500	1	10/17/2021 04:48	WG1758357
1,3,5-Trimethylbenzene	0.0251		0.00200	0.00500	1	10/17/2021 04:48	WG1758357
(S) Toluene-d8	111			75.0-131		10/17/2021 04:48	WG1758357
(S) 4-Bromofluorobenzene	99.9			67.0-138		10/17/2021 04:48	WG1758357

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
(S) 1,2-Dichloroethane-d4	91.5			70.0-130		10/17/2021 04:48	WG1758357

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	9.35		1.61	4.00	1	10/19/2021 08:07	WG1759042
C28-C36 Motor Oil Range	38.3		0.274	4.00	1	10/19/2021 08:07	WG1759042
(S) o-Terphenyl	74.1			18.0-148		10/19/2021 08:07	WG1759042

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
Anthracene	U		0.00230	0.00600	1	10/19/2021 17:47	WG1759230
Acenaphthene	U		0.00209	0.00600	1	10/19/2021 17:47	WG1759230
Acenaphthylene	U		0.00216	0.00600	1	10/19/2021 17:47	WG1759230
Benzo(a)anthracene	U		0.00173	0.00600	1	10/19/2021 17:47	WG1759230
Benzo(a)pyrene	U		0.00179	0.00600	1	10/19/2021 17:47	WG1759230
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/19/2021 17:47	WG1759230
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/19/2021 17:47	WG1759230
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/19/2021 17:47	WG1759230
Chrysene	U		0.00232	0.00600	1	10/19/2021 17:47	WG1759230
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/19/2021 17:47	WG1759230
Fluoranthene	U		0.00227	0.00600	1	10/19/2021 17:47	WG1759230
Fluorene	U		0.00205	0.00600	1	10/19/2021 17:47	WG1759230
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/19/2021 17:47	WG1759230
Naphthalene	U		0.00408	0.0200	1	10/19/2021 17:47	WG1759230
Phenanthrene	U		0.00231	0.00600	1	10/19/2021 17:47	WG1759230
Pyrene	U		0.00200	0.00600	1	10/19/2021 17:47	WG1759230
1-Methylnaphthalene	0.0160	U	0.00449	0.0200	1	10/19/2021 17:47	WG1759230
2-Methylnaphthalene	0.0150	U	0.00427	0.0200	1	10/19/2021 17:47	WG1759230
2-Chloronaphthalene	U		0.00466	0.0200	1	10/19/2021 17:47	WG1759230
(S) p-Terphenyl-d14	82.0			23.0-120		10/19/2021 17:47	WG1759230
(S) Nitrobenzene-d5	54.0			14.0-149		10/19/2021 17:47	WG1759230
(S) 2-Fluorobiphenyl	68.7			34.0-125		10/19/2021 17:47	WG1759230

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3718391-1 10/19/21 11:22

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

L1416124-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1416124-02 10/19/21 11:33 • (DUP) R3718391-3 10/19/21 11:38

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

L1416955-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1416955-01 10/19/21 13:37 • (DUP) R3718391-8 10/19/21 13:42

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

Laboratory Control Sample (LCS)

(LCS) R3718391-2 10/19/21 11:27

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	9.88	98.8	80.0-120	

L1416937-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1416937-02 10/19/21 12:24 • (MS) R3718391-6 10/19/21 12:40

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	652	U	637	97.7	50	75.0-125	

L1416937-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1416937-02 10/19/21 12:24 • (MS) R3718391-4 10/19/21 12:30 • (MSD) R3718391-5 10/19/21 12:35

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	U	8.20	7.09	41.0	35.4	1	75.0-125	J6	J6	14.6	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1416937-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1416937-03 10/18/21 15:36 • (DUP) R3718040-2 10/18/21 15:36

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.74	8.74	1	0.000		1

Sample Narrative:

OS: 8.74 at 20.7C

DUP: 8.74 at 20.7C



L1416959-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1416959-02 10/18/21 15:36 • (DUP) R3718040-3 10/18/21 15:36

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.62	7.62	1	0.000		1

Sample Narrative:

OS: 7.62 at 20.6C

DUP: 7.62 at 20.6C

Laboratory Control Sample (LCS)

(LCS) R3718040-1 10/18/21 15:36

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

Sample Narrative:

LCS: 10 at 20.8C

Method Blank (MB)

(MB) R3718049-1 10/18/21 19:43

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

L1416939-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1416939-01 10/18/21 19:43 • (DUP) R3718049-3 10/18/21 19:43

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	942	949	1	0.740		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1416959-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1416959-03 10/18/21 19:43 • (DUP) R3718049-4 10/18/21 19:43

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	373	377	1	1.07		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3718049-2 10/18/21 19:43

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	276	103	85.0-115	

Sample Narrative:

LCS: at 25C

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3718106-1 10/18/21 20:50

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) R3718106-2 10/18/21 20:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	103	103	80.0-120	
Cadmium	100	98.9	98.9	80.0-120	
Copper	100	97.3	97.3	80.0-120	
Lead	100	97.6	97.6	80.0-120	
Nickel	100	99.8	99.8	80.0-120	
Selenium	100	101	101	80.0-120	
Silver	20.0	17.4	86.9	80.0-120	
Zinc	100	98.0	98.0	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3717746-1 10/18/21 09:57

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) R3717746-2 10/18/21 10:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	98.8	98.8	80.0-120	

L1416937-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1416937-04 10/18/21 10:04 • (MS) R3717746-5 10/18/21 10:14 • (MSD) R3717746-6 10/18/21 10:17

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	4.69	96.3	95.9	91.6	91.2	5	75.0-125			0.488	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3719542-2 10/19/21 21:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0266	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	98.4			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3719542-1 10/19/21 20:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.47	99.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			112	77.0-120	

1
Cp

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Tc

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Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3718237-3 10/17/21 01:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	112			75.0-131
(S) 4-Bromofluorobenzene	98.5			67.0-138
(S) 1,2-Dichloroethane-d4	88.7			70.0-130

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

(LCS) R3718237-1 10/16/21 23:44 • (LCSD) R3718237-2 10/17/21 00:03

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	0.125	0.122	100	97.6	70.0-123			2.43	20
Ethylbenzene	0.125	0.128	0.127	102	102	74.0-126			0.784	20
Toluene	0.125	0.121	0.119	96.8	95.2	75.0-121			1.67	20
1,2,4-Trimethylbenzene	0.125	0.120	0.120	96.0	96.0	70.0-126			0.000	20
1,3,5-Trimethylbenzene	0.125	0.120	0.120	96.0	96.0	73.0-127			0.000	20
Xylenes, Total	0.375	0.373	0.370	99.5	98.7	72.0-127			0.808	20
(S) Toluene-d8				106	105	75.0-131				
(S) 4-Bromofluorobenzene				103	103	67.0-138				
(S) 1,2-Dichloroethane-d4				97.1	98.8	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3718180-1 10/19/21 01:31

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	83.8			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3718180-2 10/19/21 01:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	37.3	74.6	50.0-150	
(S) o-Terphenyl			102	18.0-148	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3718180-3 10/19/21 05:44 • (MSD) R3718180-4 10/19/21 05:57

Analyte	Spike Amount mg/kg	Original Result	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		35.9	38.1	71.8	76.2	1	50.0-150			5.95	20
(S) o-Terphenyl					92.3	97.6		18.0-148				

1
Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

Method Blank (MB)

(MB) R3718585-2 10/19/21 14:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	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
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	70.9			14.0-149
(S) 2-Fluorobiphenyl	89.4			34.0-125
(S) p-Terphenyl-d14	109			23.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3718585-1 10/19/21 14:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0585	73.1	50.0-126	
Acenaphthene	0.0800	0.0607	75.9	50.0-120	
Acenaphthylene	0.0800	0.0625	78.1	50.0-120	
Benzo(a)anthracene	0.0800	0.0574	71.8	45.0-120	
Benzo(a)pyrene	0.0800	0.0559	69.9	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0574	71.8	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0570	71.3	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0600	75.0	49.0-125	
Chrysene	0.0800	0.0623	77.9	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0593	74.1	47.0-125	
Fluoranthene	0.0800	0.0632	79.0	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3718585-1 10/19/21 14:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0618	77.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0571	71.4	46.0-125	
Naphthalene	0.0800	0.0599	74.9	50.0-120	
Phenanthrene	0.0800	0.0609	76.1	47.0-120	
Pyrene	0.0800	0.0610	76.3	43.0-123	
1-Methylnaphthalene	0.0800	0.0624	78.0	51.0-121	
2-Methylnaphthalene	0.0800	0.0581	72.6	50.0-120	
2-Chloronaphthalene	0.0800	0.0601	75.1	50.0-120	
(S) Nitrobenzene-d5			72.5	14.0-149	
(S) 2-Fluorobiphenyl			89.6	34.0-125	
(S) p-Terphenyl-d14			106	23.0-120	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3718585-3 10/19/21 18:47 • (MSD) R3718585-4 10/19/21 19:07

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0760		0.0356	0.0375	46.8	48.8	1	10.0-145			5.20	30
Acenaphthene	0.0760		0.0372	0.0400	48.9	52.1	1	14.0-127			7.25	27
Acenaphthylene	0.0760		0.0380	0.0398	50.0	51.8	1	21.0-124			4.63	25
Benzo(a)anthracene	0.0760		0.0349	0.0373	45.9	48.6	1	10.0-139			6.65	30
Benzo(a)pyrene	0.0760		0.0347	0.0375	45.7	48.8	1	10.0-141			7.76	31
Benzo(b)fluoranthene	0.0760		0.0349	0.0387	45.9	50.4	1	10.0-140			10.3	36
Benzo(g,h,i)perylene	0.0760		0.0354	0.0385	46.6	50.1	1	10.0-140			8.39	33
Benzo(k)fluoranthene	0.0760		0.0362	0.0386	47.6	50.3	1	10.0-137			6.42	31
Chrysene	0.0760		0.0405	0.0427	53.3	55.6	1	10.0-145			5.29	30
Dibenz(a,h)anthracene	0.0760		0.0364	0.0359	47.9	46.7	1	10.0-132			1.38	31
Fluoranthene	0.0760		0.0377	0.0410	49.6	53.4	1	10.0-153			8.39	33
Fluorene	0.0760		0.0377	0.0407	49.6	53.0	1	11.0-130			7.65	29
Indeno(1,2,3-cd)pyrene	0.0760		0.0334	0.0360	43.9	46.9	1	10.0-137			7.49	32
Naphthalene	0.0760		0.0399	0.0373	52.5	48.6	1	10.0-135			6.74	27
Phenanthrene	0.0760		0.0399	0.0406	52.5	52.9	1	10.0-144			1.74	31
Pyrene	0.0760		0.0372	0.0406	48.9	52.9	1	10.0-148			8.74	35
1-Methylnaphthalene	0.0760		0.0431	0.0409	56.7	53.3	1	10.0-142			5.24	28
2-Methylnaphthalene	0.0760		0.0398	0.0390	52.4	50.8	1	10.0-137			2.03	28
2-Chloronaphthalene	0.0760		0.0375	0.0390	49.3	50.8	1	29.0-120			3.92	24
(S) Nitrobenzene-d5					51.5	49.4		14.0-149				
(S) 2-Fluorobiphenyl					66.9	65.2		34.0-125				
(S) p-Terphenyl-d14					76.1	76.2		23.0-120				

1Cp

2Tc

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5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCREDITATIONS & LOCATIONS

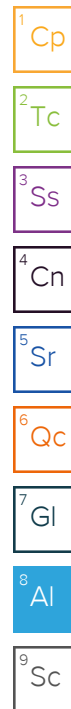
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico 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.



[illegible]

October 25, 2021

Caerus Oil and Gas

Sample Delivery Group: L1418081
Samples Received: 10/14/2021
Project Number:
Description: Texaco 62-14 Excavation

Report To: Blair Rollins
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:



Chris Ward
Project Manager

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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SAMPLE SUMMARY

20211012-TEX62-14-SWALL-(12') L1418081-01 Solid

Collected by
Reed Johnson

Collected date/time
10/12/21 09:45

Received date/time
10/14/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1759167	1	10/21/21 12:47	10/21/21 12:47	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1759816	1	10/19/21 17:00	10/20/21 16:45	SCM	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1759763	1	10/19/21 14:00	10/20/21 16:00	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1759141	1	10/19/21 06:21	10/19/21 19:36	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1760208	1	10/20/21 10:31	10/20/21 17:56	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1759162	1	10/20/21 08:31	10/21/21 13:25	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1760211	5	10/20/21 10:34	10/20/21 15:21	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1760038	1	10/19/21 19:38	10/21/21 01:18	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1760280	1	10/19/21 19:38	10/20/21 16:04	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1760440	1	10/20/21 16:55	10/21/21 03:56	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1760670	1	10/20/21 19:35	10/21/21 02:17	JNJ	Mt. Juliet, TN

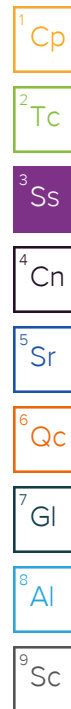
20211012-TEX62-14-WWALL-(12') L1418081-02 Solid

Collected by
Reed Johnson

Collected date/time
10/12/21 10:00

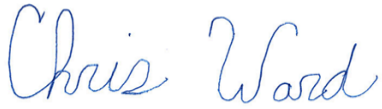
Received date/time
10/14/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1759167	1	10/21/21 12:50	10/21/21 12:50	CCE	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG1759816	1	10/19/21 17:00	10/20/21 16:50	SCM	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1759763	1	10/19/21 14:00	10/20/21 16:00	AW	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1759141	1	10/19/21 06:21	10/19/21 19:36	AMH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1760208	1	10/20/21 10:31	10/20/21 17:59	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1759162	1	10/20/21 08:31	10/21/21 13:28	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1760211	5	10/20/21 10:34	10/20/21 15:24	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1760038	1	10/19/21 19:38	10/21/21 01:42	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1760280	1	10/19/21 19:38	10/20/21 16:23	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG1760440	1	10/20/21 16:55	10/21/21 03:32	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1760670	1	10/20/21 19:35	10/21/21 02:37	JNJ	Mt. Juliet, TN

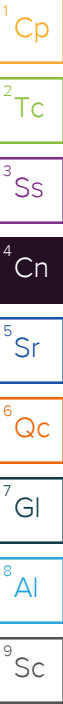


CASE NARRATIVE

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	2.64		1	10/21/2021 12:47	WG1759167

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	10/20/2021 16:45	WG1759816

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.98	T8	1	10/20/2021 16:00	WG1759763

Sample Narrative:

L1418081-01 WG1759763: 8.98 at 20.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	356		10.0	1	10/19/2021 19:36	WG1759141

Sample Narrative:

L1418081-01 WG1759141: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	270		0.0852	0.500	1	10/20/2021 17:56	WG1760208
Cadmium	0.389	J	0.0471	0.500	1	10/20/2021 17:56	WG1760208
Copper	14.5		0.400	2.00	1	10/20/2021 17:56	WG1760208
Lead	7.41		0.208	0.500	1	10/20/2021 17:56	WG1760208
Nickel	12.8		0.132	2.00	1	10/20/2021 17:56	WG1760208
Selenium	U		0.764	2.00	1	10/20/2021 17:56	WG1760208
Silver	U		0.127	1.00	1	10/20/2021 17:56	WG1760208
Zinc	44.0		0.832	5.00	1	10/20/2021 17:56	WG1760208

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	0.780		0.0167	0.200	1	10/21/2021 13:25	WG1759162

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	6.74		0.100	1.00	5	10/20/2021 15:21	WG1760211

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	0.0878	B J	0.0217	0.100	1	10/21/2021 01:18	WG1760038
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	95.0			77.0-120		10/21/2021 01:18	WG1760038

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	10/20/2021 16:04	WG1760280
Toluene	U		0.00130	0.00500	1	10/20/2021 16:04	WG1760280
Ethylbenzene	U		0.000737	0.00250	1	10/20/2021 16:04	WG1760280
Xylenes, Total	0.00344	J	0.000880	0.00650	1	10/20/2021 16:04	WG1760280
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	10/20/2021 16:04	WG1760280
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	10/20/2021 16:04	WG1760280
(S) Toluene-d8	111			75.0-131		10/20/2021 16:04	WG1760280
(S) 4-Bromofluorobenzene	99.3			67.0-138		10/20/2021 16:04	WG1760280
(S) 1,2-Dichloroethane-d4	99.6			70.0-130		10/20/2021 16:04	WG1760280

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	5.64		1.61	4.00	1	10/21/2021 03:56	WG1760440
C28-C36 Motor Oil Range	17.3		0.274	4.00	1	10/21/2021 03:56	WG1760440
(S) o-Terphenyl	70.6			18.0-148		10/21/2021 03:56	WG1760440

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
Anthracene	U		0.00230	0.00600	1	10/21/2021 02:17	WG1760670
Acenaphthene	U		0.00209	0.00600	1	10/21/2021 02:17	WG1760670
Acenaphthylene	U		0.00216	0.00600	1	10/21/2021 02:17	WG1760670
Benzo(a)anthracene	U		0.00173	0.00600	1	10/21/2021 02:17	WG1760670
Benzo(a)pyrene	U		0.00179	0.00600	1	10/21/2021 02:17	WG1760670
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/21/2021 02:17	WG1760670
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/21/2021 02:17	WG1760670
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/21/2021 02:17	WG1760670
Chrysene	U		0.00232	0.00600	1	10/21/2021 02:17	WG1760670
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/21/2021 02:17	WG1760670
Fluoranthene	U		0.00227	0.00600	1	10/21/2021 02:17	WG1760670
Fluorene	U		0.00205	0.00600	1	10/21/2021 02:17	WG1760670
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/21/2021 02:17	WG1760670
Naphthalene	U		0.00408	0.0200	1	10/21/2021 02:17	WG1760670
Phenanthrene	U		0.00231	0.00600	1	10/21/2021 02:17	WG1760670
Pyrene	U		0.00200	0.00600	1	10/21/2021 02:17	WG1760670
1-Methylnaphthalene	U		0.00449	0.0200	1	10/21/2021 02:17	WG1760670
2-Methylnaphthalene	U		0.00427	0.0200	1	10/21/2021 02:17	WG1760670
2-Chloronaphthalene	U		0.00466	0.0200	1	10/21/2021 02:17	WG1760670
(S) p-Terphenyl-d14	100			23.0-120		10/21/2021 02:17	WG1760670
(S) Nitrobenzene-d5	64.3			14.0-149		10/21/2021 02:17	WG1760670
(S) 2-Fluorobiphenyl	79.9			34.0-125		10/21/2021 02:17	WG1760670

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.83		1	10/21/2021 12:50	WG1759167

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	10/20/2021 16:50	WG1759816

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	9.02	T8	1	10/20/2021 16:00	WG1759763

Sample Narrative:

L1418081-02 WG1759763: 9.02 at 20.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	653		10.0	1	10/19/2021 19:36	WG1759141

Sample Narrative:

L1418081-02 WG1759141: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	265		0.0852	0.500	1	10/20/2021 17:59	WG1760208
Cadmium	0.384	J	0.0471	0.500	1	10/20/2021 17:59	WG1760208
Copper	12.1		0.400	2.00	1	10/20/2021 17:59	WG1760208
Lead	7.75		0.208	0.500	1	10/20/2021 17:59	WG1760208
Nickel	12.0		0.132	2.00	1	10/20/2021 17:59	WG1760208
Selenium	U		0.764	2.00	1	10/20/2021 17:59	WG1760208
Silver	U		0.127	1.00	1	10/20/2021 17:59	WG1760208
Zinc	34.0		0.832	5.00	1	10/20/2021 17:59	WG1760208

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	0.538		0.0167	0.200	1	10/21/2021 13:28	WG1759162

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.71		0.100	1.00	5	10/20/2021 15:24	WG1760211

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	0.389		0.0217	0.100	1	10/21/2021 01:42	WG1760038
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	95.6			77.0-120		10/21/2021 01:42	WG1760038

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U	J3	0.000467	0.00100	1	10/20/2021 16:23	WG1760280
Toluene	0.0172		0.00130	0.00500	1	10/20/2021 16:23	WG1760280
Ethylbenzene	0.0210		0.000737	0.00250	1	10/20/2021 16:23	WG1760280
Xylenes, Total	0.706	J5	0.000880	0.00650	1	10/20/2021 16:23	WG1760280
1,2,4-Trimethylbenzene	0.112	J5	0.00158	0.00500	1	10/20/2021 16:23	WG1760280
1,3,5-Trimethylbenzene	0.123	J5	0.00200	0.00500	1	10/20/2021 16:23	WG1760280
(S) Toluene-d8	106			75.0-131		10/20/2021 16:23	WG1760280
(S) 4-Bromofluorobenzene	102			67.0-138		10/20/2021 16:23	WG1760280
(S) 1,2-Dichloroethane-d4	96.9			70.0-130		10/20/2021 16:23	WG1760280

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	7.18		1.61	4.00	1	10/21/2021 03:32	WG1760440
C28-C36 Motor Oil Range	18.7		0.274	4.00	1	10/21/2021 03:32	WG1760440
(S) o-Terphenyl	93.5			18.0-148		10/21/2021 03:32	WG1760440

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
Anthracene	U		0.00230	0.00600	1	10/21/2021 02:37	WG1760670
Acenaphthene	U		0.00209	0.00600	1	10/21/2021 02:37	WG1760670
Acenaphthylene	U		0.00216	0.00600	1	10/21/2021 02:37	WG1760670
Benzo(a)anthracene	U		0.00173	0.00600	1	10/21/2021 02:37	WG1760670
Benzo(a)pyrene	U		0.00179	0.00600	1	10/21/2021 02:37	WG1760670
Benzo(b)fluoranthene	U		0.00153	0.00600	1	10/21/2021 02:37	WG1760670
Benzo(g,h,i)perylene	U		0.00177	0.00600	1	10/21/2021 02:37	WG1760670
Benzo(k)fluoranthene	U		0.00215	0.00600	1	10/21/2021 02:37	WG1760670
Chrysene	U		0.00232	0.00600	1	10/21/2021 02:37	WG1760670
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	10/21/2021 02:37	WG1760670
Fluoranthene	U		0.00227	0.00600	1	10/21/2021 02:37	WG1760670
Fluorene	U		0.00205	0.00600	1	10/21/2021 02:37	WG1760670
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	10/21/2021 02:37	WG1760670
Naphthalene	U		0.00408	0.0200	1	10/21/2021 02:37	WG1760670
Phenanthrene	U		0.00231	0.00600	1	10/21/2021 02:37	WG1760670
Pyrene	U		0.00200	0.00600	1	10/21/2021 02:37	WG1760670
1-Methylnaphthalene	U		0.00449	0.0200	1	10/21/2021 02:37	WG1760670
2-Methylnaphthalene	U		0.00427	0.0200	1	10/21/2021 02:37	WG1760670
2-Chloronaphthalene	U		0.00466	0.0200	1	10/21/2021 02:37	WG1760670
(S) p-Terphenyl-d14	92.3			23.0-120		10/21/2021 02:37	WG1760670
(S) Nitrobenzene-d5	55.4			14.0-149		10/21/2021 02:37	WG1760670
(S) 2-Fluorobiphenyl	74.3			34.0-125		10/21/2021 02:37	WG1760670

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3719117-1 10/20/21 14:22

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

L1416960-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1416960-09 10/20/21 14:40 • (DUP) R3719117-3 10/20/21 14:45

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

L1417574-45 Original Sample (OS) • Duplicate (DUP)

(OS) L1417574-45 10/20/21 16:29 • (DUP) R3719117-8 10/20/21 16:34

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

Laboratory Control Sample (LCS)

(LCS) R3719117-2 10/20/21 14:30

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	9.71	97.1	80.0-120	

L1417574-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1417574-09 10/20/21 15:27 • (MS) R3719117-4 10/20/21 15:32 • (MSD) R3719117-5 10/20/21 15:37

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	22.5	35.1	37.2	63.3	73.7	1	75.0-125	J6	J6	5.77	20

L1417574-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1417574-09 10/20/21 15:27 • (MS) R3719117-6 10/20/21 15:42

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Hexavalent Chromium	648	22.5	663	98.9	50	75.0-125	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1418063-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1418063-02 10/20/21 16:00 • (DUP) R3719064-2 10/20/21 16:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.93	7.95	1	0.252		1

Sample Narrative:

OS: 7.93 at 20.8C

DUP: 7.95 at 21C



L1418661-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1418661-01 10/20/21 16:00 • (DUP) R3719064-3 10/20/21 16:00

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.11	8.14	1	0.369		1

Sample Narrative:

OS: 8.11 at 20.4C

DUP: 8.14 at 20.3C

Laboratory Control Sample (LCS)

(LCS) R3719064-1 10/20/21 16:00

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	su	su	%	%	
pH	10.0	10.1	101	99.0-101	

Sample Narrative:

LCS: 10.06 at 20.9C

Method Blank (MB)

(MB) R3718561-1 10/19/21 19:36

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

L1418082-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1418082-03 10/19/21 19:36 • (DUP) R3718561-3 10/19/21 19:36

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	220	217	1	1.37		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1418177-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1418177-03 10/19/21 19:36 • (DUP) R3718561-4 10/19/21 19:36

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1010	1020	1	0.689		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3718561-2 10/19/21 19:36

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	275	102	85.0-115	

Sample Narrative:

LCS: at 25C



Method Blank (MB)

(MB) R3719212-1 10/20/21 17:09

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	0.139	J	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) R3719212-2 10/20/21 17:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	102	102	80.0-120	
Cadmium	100	98.7	98.7	80.0-120	
Copper	100	103	103	80.0-120	
Lead	100	99.0	99.0	80.0-120	
Nickel	100	99.1	99.1	80.0-120	
Selenium	100	98.3	98.3	80.0-120	
Silver	20.0	19.5	97.4	80.0-120	
Zinc	100	95.5	95.5	80.0-120	

L1418083-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1418083-01 10/20/21 17:15 • (MS) R3719212-5 10/20/21 17:23 • (MSD) R3719212-6 10/20/21 17:26

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 %
Barium	100	351	337	488	0.000	137	1	75.0-125	J6	J3 J5	36.6	20
Cadmium	100	0.422	91.1	92.3	90.7	91.9	1	75.0-125			1.32	20
Copper	100	14.6	101	113	86.6	98.1	1	75.0-125			10.7	20
Lead	100	8.82	96.7	104	87.9	95.2	1	75.0-125			7.35	20
Nickel	100	12.7	99.4	108	86.7	94.9	1	75.0-125			7.84	20
Selenium	100	U	92.3	93.2	92.3	93.2	1	75.0-125			0.953	20
Silver	20.0	U	18.4	18.8	92.2	94.1	1	75.0-125			2.10	20
Zinc	100	42.0	103	124	61.4	81.8	1	75.0-125	J6		17.9	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3719585-1 10/21/21 13:14

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

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

(LCS) R3719585-2 10/21/21 13:16 • (LCSD) R3719585-3 10/21/21 13:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	0.994	0.999	99.4	99.9	80.0-120			0.497	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3719041-1 10/20/21 14:26

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) R3719041-2 10/20/21 14:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	99.7	99.7	80.0-120	

L1418083-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1418083-01 10/20/21 14:32 • (MS) R3719041-5 10/20/21 14:42 • (MSD) R3719041-6 10/20/21 14:45

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	8.30	95.9	98.9	87.6	90.6	5	75.0-125			3.08	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3720453-3 10/20/21 19:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0288	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	96.5			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3720453-1 10/20/21 17:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.88	88.7	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			98.4	77.0-120	

L1418029-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1418029-05 10/21/21 00:31 • (MS) R3720453-6 10/21/21 04:28 • (MSD) R3720453-7 10/21/21 04:51

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	0.0326	1.91	2.27	34.1	40.7	1	10.0-151			17.2	28
(S) a,a,a-Trifluorotoluene(FID)					96.8	96.8		77.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3720838-3 10/20/21 09:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	111			75.0-131
(S) 4-Bromofluorobenzene	100			67.0-138
(S) 1,2-Dichloroethane-d4	99.1			70.0-130

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

(LCS) R3720838-1 10/20/21 08:15 • (LCSD) R3720838-2 10/20/21 08:34

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	0.118	0.122	94.4	97.6	70.0-123			3.33	20
Ethylbenzene	0.125	0.118	0.133	94.4	106	74.0-126			12.0	20
Toluene	0.125	0.121	0.133	96.8	106	75.0-121			9.45	20
1,2,4-Trimethylbenzene	0.125	0.133	0.141	106	113	70.0-126			5.84	20
1,3,5-Trimethylbenzene	0.125	0.139	0.144	111	115	73.0-127			3.53	20
Xylenes, Total	0.375	0.352	0.383	93.9	102	72.0-127			8.44	20
(S) Toluene-d8				109	112	75.0-131				
(S) 4-Bromofluorobenzene				91.5	90.0	67.0-138				
(S) 1,2-Dichloroethane-d4				105	106	70.0-130				

L1418081-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1418081-02 10/20/21 16:23 • (MS) R3720838-4 10/20/21 18:36 • (MSD) R3720838-5 10/20/21 18:54

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	U	0.0714	0.130	57.1	104	1	10.0-149		J3	58.2	37
Ethylbenzene	0.125	0.0210	0.146	0.207	100	149	1	10.0-160			34.6	38
Toluene	0.125	0.0172	0.145	0.204	102	149	1	10.0-156			33.8	38
1,2,4-Trimethylbenzene	0.125	0.112	0.430	0.516	254	323	1	10.0-160	J5	J5	18.2	36
1,3,5-Trimethylbenzene	0.125	0.123	0.462	0.547	271	339	1	10.0-160	J5	J5	16.8	38
Xylenes, Total	0.375	0.706	2.84	3.17	569	657	1	10.0-160	J5	J5	11.0	38
(S) Toluene-d8					103	99.6		75.0-131				
(S) 4-Bromofluorobenzene					100	99.9		67.0-138				
(S) 1,2-Dichloroethane-d4					104	107		70.0-130				

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R3719267-1 10/21/21 02:55

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	0.577	⬇	0.274	4.00
(S) o-Terphenyl	99.8			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3719267-2 10/21/21 03:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	47.8	95.6	50.0-150	
(S) o-Terphenyl			97.7	18.0-148	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3719344-2 10/21/21 00:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	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
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	80.5			14.0-149
(S) 2-Fluorobiphenyl	96.2			34.0-125
(S) p-Terphenyl-d14	119			23.0-120

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3719344-1 10/20/21 23:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0784	98.0	50.0-126	
Acenaphthene	0.0800	0.0764	95.5	50.0-120	
Acenaphthylene	0.0800	0.0836	105	50.0-120	
Benzo(a)anthracene	0.0800	0.0805	101	45.0-120	
Benzo(a)pyrene	0.0800	0.0677	84.6	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0676	84.5	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0673	84.1	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0702	87.8	49.0-125	
Chrysene	0.0800	0.0779	97.4	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0678	84.8	47.0-125	
Fluoranthene	0.0800	0.0839	105	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3719344-1 10/20/21 23:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0793	99.1	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0729	91.1	46.0-125	
Naphthalene	0.0800	0.0743	92.9	50.0-120	
Phenanthrene	0.0800	0.0784	98.0	47.0-120	
Pyrene	0.0800	0.0792	99.0	43.0-123	
1-Methylnaphthalene	0.0800	0.0781	97.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0728	91.0	50.0-120	
2-Chloronaphthalene	0.0800	0.0738	92.3	50.0-120	
(S) Nitrobenzene-d5			82.0	14.0-149	
(S) 2-Fluorobiphenyl			94.8	34.0-125	
(S) p-Terphenyl-d14			113	23.0-120	

L1418133-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1418133-08 10/21/21 05:35 • (MS) R3719344-3 10/21/21 05:55 • (MSD) R3719344-4 10/21/21 06:15

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 %
Anthracene	0.0760	U	0.0775	0.0700	102	88.8	1	10.0-145			10.2	30
Acenaphthene	0.0760	U	0.0750	0.0697	98.7	88.5	1	14.0-127			7.33	27
Acenaphthylene	0.0760	U	0.0817	0.0754	108	95.7	1	21.0-124			8.02	25
Benzo(a)anthracene	0.0760	U	0.0778	0.0714	102	90.6	1	10.0-139			8.58	30
Benzo(a)pyrene	0.0760	U	0.0723	0.0670	95.1	85.0	1	10.0-141			7.61	31
Benzo(b)fluoranthene	0.0760	U	0.0668	0.0622	87.9	78.9	1	10.0-140			7.13	36
Benzo(g,h,i)perylene	0.0760	U	0.0656	0.0612	86.3	77.7	1	10.0-140			6.94	33
Benzo(k)fluoranthene	0.0760	U	0.0682	0.0631	89.7	80.1	1	10.0-137			7.77	31
Chrysene	0.0760	U	0.0755	0.0707	99.3	89.7	1	10.0-145			6.57	30
Dibenz(a,h)anthracene	0.0760	U	0.0640	0.0597	84.2	75.8	1	10.0-132			6.95	31
Fluoranthene	0.0760	U	0.0842	0.0762	111	96.7	1	10.0-153			9.98	33
Fluorene	0.0760	U	0.0775	0.0715	102	90.7	1	11.0-130			8.05	29
Indeno(1,2,3-cd)pyrene	0.0760	U	0.0682	0.0664	89.7	84.3	1	10.0-137			2.67	32
Naphthalene	0.0760	U	0.0737	0.0686	97.0	87.1	1	10.0-135			7.17	27
Phenanthrene	0.0760	U	0.0760	0.0700	100	88.8	1	10.0-144			8.22	31
Pyrene	0.0760	U	0.0800	0.0744	105	94.4	1	10.0-148			7.25	35
1-Methylnaphthalene	0.0760	U	0.0784	0.0729	103	92.5	1	10.0-142			7.27	28
2-Methylnaphthalene	0.0760	U	0.0711	0.0667	93.6	84.6	1	10.0-137			6.39	28
2-Chloronaphthalene	0.0760	U	0.0707	0.0658	93.0	83.5	1	29.0-120			7.18	24
(S) Nitrobenzene-d5					80.6	73.2		14.0-149				
(S) 2-Fluorobiphenyl					98.2	89.5		34.0-125				
(S) p-Terphenyl-d14					120	109		23.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCREDITATIONS & LOCATIONS

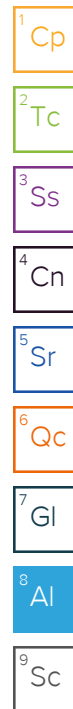
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico 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.



[illegible]


50112 1232 2323

Caerus Oil and Gas

Sample Delivery Group: L1424346
Samples Received: 10/29/2021
Project Number:
Description: Texaco Fee 62-14

Report To: Brett Middleton
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:



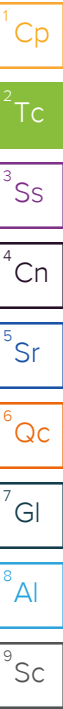
Chris Ward
Project Manager

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

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SAMPLE SUMMARY

20211028-TEX 62-14 BG5(2-3) L1424346-01 Solid

Collected by
JM

Collected date/time
10/28/21 12:30

Received date/time
10/29/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1766440	1	11/05/21 14:30	11/05/21 14:30	CCE	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1767483	1	11/02/21 09:00	11/03/21 09:00	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1766621	1	11/03/21 03:25	11/03/21 07:13	ARD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1769130	5	11/08/21 07:30	11/09/21 00:15	JPD	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

20211028-TEX 62-14 BG6(2-3) L1424346-02 Solid

Collected by
JM

Collected date/time
10/28/21 13:00

Received date/time
10/29/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1766440	1	11/05/21 14:33	11/05/21 14:33	CCE	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1768746	1	11/04/21 11:00	11/04/21 11:18	PSN	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG1767802	1	11/03/21 09:40	11/04/21 06:47	ARD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1769130	5	11/08/21 07:30	11/09/21 00:18	JPD	Mt. Juliet, TN

⁵Sr

⁶Qc

⁷Gl

⁸Al

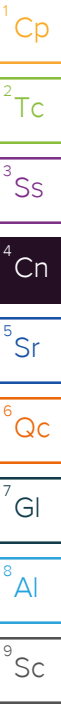
⁹Sc

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	0.248		1	11/05/2021 14:30	WG1766440

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.33	T8	1	11/03/2021 09:00	WG1767483

Sample Narrative:

L1424346-01 WG1767483: 8.33 at 18.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	<u>Qualifier</u>	RDL umhos/cm	Dilution	Analysis date / time	<u>Batch</u>
Specific Conductance	233		10.0	1	11/03/2021 07:13	WG1766621

Sample Narrative:

L1424346-01 WG1766621: at 25C

Metals (ICPMS) by Method 6020

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	8.09		0.100	1.00	5	11/09/2021 00:15	WG1769130

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.100		1	11/05/2021 14:33	WG1766440

¹Cp

²Tc

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.30	T8	1	11/04/2021 11:18	WG1768746

³Ss

⁴Cn

Sample Narrative:
L1424346-02 WG1768746: 8.3 at 20.6C

⁵Sr

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	209		10.0	1	11/04/2021 06:47	WG1767802

⁶Qc

⁷Gl

Sample Narrative:
L1424346-02 WG1767802: at 25C

⁸Al

Metals (ICPMS) by Method 6020

	Result	<u>Qualifier</u>	MDL	RDL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	7.89		0.100	1.00	5	11/09/2021 00:18	WG1769130

⁹Sc

L1424273-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1424273-07 11/03/21 09:00 • (DUP) R3724834-2 11/03/21 09:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.31	8.27	1	0.483		1

Sample Narrative:

OS: 8.31 at 19.4C

DUP: 8.27 at 19.9C



L1424301-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1424301-07 11/03/21 09:00 • (DUP) R3724834-3 11/03/21 09:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.92	7.97	1	0.629		1

Sample Narrative:

OS: 7.92 at 19.2C

DUP: 7.97 at 19.5C

Laboratory Control Sample (LCS)

(LCS) R3724834-1 11/03/21 09:00

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

Sample Narrative:

LCS: 10.01 at 19.3C

L1424346-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1424346-02 11/04/21 11:18 • (DUP) R3725486-2 11/04/21 11:18

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.30	8.29	1	0.121		1

Sample Narrative:

OS: 8.3 at 20.6C

DUP: 8.29 at 20.7C



L1425489-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1425489-10 11/04/21 11:18 • (DUP) R3725486-3 11/04/21 11:18

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.94	7.96	1	0.252		1

Sample Narrative:

OS: 7.94 at 20.1C

DUP: 7.96 at 20C

Laboratory Control Sample (LCS)

(LCS) R3725486-1 11/04/21 11:18

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	su	su	%	%	
pH	10.0	9.95	99.5	99.0-101	

Sample Narrative:

LCS: 9.95 at 18.9C

Method Blank (MB)

(MB) R3724706-1 11/03/21 07:13

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

L1424201-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1424201-05 11/03/21 07:13 • (DUP) R3724706-3 11/03/21 07:13

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	4670	4860	1	3.99		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1424346-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1424346-01 11/03/21 07:13 • (DUP) R3724706-4 11/03/21 07:13

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	233	234	1	0.557		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3724706-2 11/03/21 07:13

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	271	101	85.0-115	

Sample Narrative:

LCS: at 25C



Method Blank (MB)

(MB) R3725273-1 11/04/21 06:47

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

L1424411-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1424411-01 11/04/21 06:47 • (DUP) R3725273-3 11/04/21 06:47

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	179	183	1	2.27		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1424680-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1424680-02 11/04/21 06:47 • (DUP) R3725273-4 11/04/21 06:47

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	2590	2370	1	8.92		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3725273-2 11/04/21 06:47

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	270	101	85.0-115	

Sample Narrative:

LCS: at 25C



Method Blank (MB)

(MB) R3727082-7 11/08/21 23:49

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

Laboratory Control Sample (LCS)

(LCS) R3727082-8 11/08/21 23:52

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Arsenic	100	89.9	89.9	80.0-120	

L1424899-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1424899-13 11/08/21 23:55 • (MS) R3727082-11 11/09/21 00:05 • (MSD) R3727082-12 11/09/21 00:08

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Arsenic	100	8.04	94.1	93.5	86.1	85.5	5	75.0-125			0.644	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
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.
----	---

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCREDITATIONS & LOCATIONS

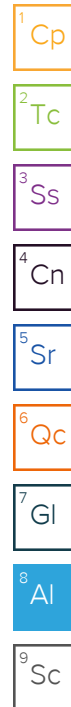
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico 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.



Caerus Oil and Gas

143 Diamond Avenue
Parachute, CO 81635

Report to:
Blair Rollins

Project Description:

Texaco Free 62-14

City/State
Collected:

DeBeque, CO

Please Circle:
PT ☒ MT ☐ CT ☐ ET

Phone: 970-640-6919

Client Project #

Lab Project #

Collected by (print):

JMclarty

Site/Facility ID #

P.O. #

Collected by (signature):

JMclarty

Rush? (Lab MUST Be Notified)

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

Quote #

Date Results Needed

Immediately
Packed on Ice N ☐ Y ☒

No.
of
Cntrs

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

No.
of
Cntrs

20211028-TEX 62-14 BG5(2-3) Grab	SS	2-3'	10/28/21	1230	2
20211028-TEX 62-14 BG6(2-3) Grab	SS	2-3'	10/28/21	1300	2

Billing Information:

Same as left

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



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



SDG #

B060

Acctnum: ENTCONJICO

Template: T180603

Prelogin: P822819

PM: 824 - Chris Ward

PB:

Shipped Via: FedEx Ground

Remarks

Sample # (lab only)

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

Remarks:

Samples returned via:

UPS ☐ FedEx ☐ Courier ☐

Tracking #

Relinquished by: (Signature)

Date:

10/28/21

Time:

1600

Received by: (Signature)

Trip Blank Received: Yes/No

HCL/MeOH

Relinquished by: (Signature)

Date:

10/28/21

Time:

1700

Received by: (Signature)

Temp: 10/28/21

Bottles Received: 4

Relinquished by: (Signature)

Date:

10-28-21

Time:

0900

Received for lab by: (Signature)

Date:

Time:

Hold:

Condition:

NCF / OK

Sample Receipt Checklist

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

If preservation required by Login: Date/Time

November 16, 2021

Revised Report

Caerus Oil and Gas

Sample Delivery Group: L1419967

Samples Received: 10/09/2021

Project Number:

Description: TEX62-14

Report To: Brett Middleton
143 Diamond Avenue
Parachute, CO 81635

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Entire Report Reviewed By:



Chris Ward
Project Manager

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

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

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

SAMPLE SUMMARY

20211011-TEX62-14-BASE(28') L1419967-01 Solid

Collected by
Reed Johnson

Collected date/time
10/11/21 13:00

Received date/time
10/12/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1771248	1	11/10/21 17:02	11/10/21 17:02	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1771245	1	11/09/21 15:50	11/10/21 20:32	EL	Mt. Juliet, TN
Subcontracted Analyses	WG1760386	1	11/15/21 00:00	11/15/21 00:00	-	Subcontract

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

20211008-TEX62-14-BASE(20') L1419967-04 Solid

Collected by
Reed Johnson

Collected date/time
10/08/21 11:25

Received date/time
10/09/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1770407	1	11/08/21 21:59	11/08/21 21:59	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1770403	1	11/07/21 20:40	11/09/21 13:29	EL	Mt. Juliet, TN
Subcontracted Analyses	WG1760386	1	11/15/21 00:00	11/15/21 00:00	-	Subcontract

20211008-TEX62-14-NWALL(9') L1419967-05 Solid

Collected by
Reed Johnson

Collected date/time
10/08/21 11:40

Received date/time
10/09/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1770407	1	11/08/21 22:02	11/08/21 22:02	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1770403	1	11/07/21 20:40	11/09/21 13:32	EL	Mt. Juliet, TN
Subcontracted Analyses	WG1760386	1	11/15/21 00:00	11/15/21 00:00	-	Subcontract

20211008-TEX62-14-WWALL(10-12') L1419967-06 Solid

Collected by
Reed Johnson

Collected date/time
10/08/21 14:00

Received date/time
10/09/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1770407	1	11/08/21 22:05	11/08/21 22:05	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG1770403	1	11/07/21 20:40	11/09/21 13:35	EL	Mt. Juliet, TN
Subcontracted Analyses	WG1760386	1	11/15/21 00:00	11/15/21 00:00	-	Subcontract

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.



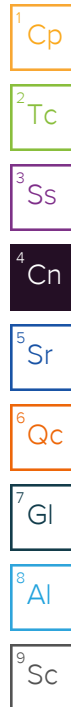
Chris Ward
Project Manager

Report Revision History

Level II Report - Version 1: 11/15/21 11:17
Level II Report - Version 2: 11/16/21 15:19

Project Narrative

Rerun for specified samples
L1419967 -01, -04, -05, -06 contains subout data that is included after the chain of custody.



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.31		1	11/10/2021 17:02	WG1771248

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	0.703		0.0167	0.200	1	11/10/2021 20:32	WG1771245

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	22.3		1	11/08/2021 21:59	WG1770407

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	0.533		0.0167	0.200	1	11/09/2021 13:29	WG1770403

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.87		1	11/08/2021 22:02	WG1770407

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	0.336		0.0167	0.200	1	11/09/2021 13:32	WG1770403

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.64		1	11/08/2021 22:05	WG1770407

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	0.508		0.0167	0.200	1	11/09/2021 13:35	WG1770403

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3727400-1 11/09/21 13:11

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) R3727400-2 11/09/21 13:14 • (LCSD) R3727400-3 11/09/21 13:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.09	1.06	109	106	80.0-120			2.73	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3728193-1 11/10/21 20:23

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

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

(LCS) R3728193-2 11/10/21 20:26 • (LCSD) R3728193-3 11/10/21 20:29

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	1.02	1.02	102	102	80.0-120			0.400	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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.
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCREDITATIONS & LOCATIONS

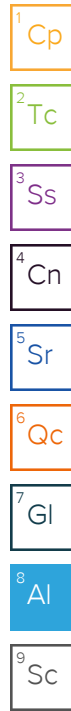
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico 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.



[illegible]

L71419967

Company Name/Address: Caerus Oil and Gas 143 Diamond Ave. Parachute, CO 81635				Billing Information: Caerus Oil and Gas 143 Diamond Ave. Parachute, CO 81635				Analysis / Container / Preservative				Chain of Custody Page 1 of 1	
Report to: Blair Rollins Texaco Fee 62-14				Email To: brollins@caerusoilandgas.com				<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">Table 915 GRO/DRO/ORO</div> <div style="text-align: center;">Table 915 Metals</div> <div style="text-align: center;">Table 915 PAH's</div> <div style="text-align: center;">Table 915 VOCs</div> <div style="text-align: center;">Table 915 pH, SPCON, SAR</div> </div>				 YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 	
Project Description:				City/State Collected: De Beque CO								L# +416095 B093	
Phone: (970) 640-6919 Fax:				Client Project #								Acctnum: Template: Prelogin: TSR: Cooler: Shipped Via:	
Collected by (print): Reed Johnson				Site/Facility ID #								Rem./Contaminant Sample # (lab only)	
Collected by (signature): 				Date Results Needed								-01 -02 -03 -04	
Rush? (Lab MUST Be Notified) Same Day200% Next Day100% Two Day50% Three Day25%				Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes				No. of Cntrs					
Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>				No. of Cntrs				RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N					
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 VOCs Table 915 pH, SPCON, SAR				pH _____ Temp _____ Flow _____ Other _____					
20211008-TEX62-14-GW11 (9') 20211008-TEX62-14-BASE (20') 20211008-TEX62-14-NW11 (9') 20211008-TEX62-14-GW11 (10-12')				Grab SS 7' 10/8/21 0945 3 20' 1125 3 9' 1140 3 10-12' 1400 3				Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N VOA Zero Headspace: <input type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Pres. Correct/Check: <input type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N					
* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____													
Remarks: Fedex Solg 1232 4153													
Relinquished by: (Signature)				Date: 10/8/21 Time: 1700				Received by: (Signature)					
Relinquished by: (Signature)				Date: 10/8/21 Time: 1800				Received by: (Signature)					
Relinquished by: (Signature)				Date: _____ Time: _____				Received for lab by: (Signature)					
Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____				Temp: 17°C Bottles Received: 4.7+0.4.7 12				Condition: (lab use only)					
Date: 10/9/21 Time: 930				COC Seal Intact: <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA				pH Checked: _____ NCF: _____					

CAERUSPCO Samples to be sent to Pace WY for Crushing

R3/R4/RX/EX

Project Service,

Please relog the below to a new SDGs (One new L# per L# below) with MISC-SUB code and add the comment "Samples to be sent to Pace WY for crushing". When they get back in we will log them for HWBICP and SAR

Next, Please delete the HWBICP and SAR for the parent samples if not already previously removed.

- L1416957-01
- L1416125-02
- L1416125-04
- L1416095-02
- L1416095-03
- L1416095-04

Time estimate: oh Time spent: oh

Members



Chris Ward (responsible)

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section B

Invoice Information:

Required Project Information:

Attention: Blair Rollins

Report To:	Pace Analytical Subout Team
Copy To:	
Purchase Order #:	L1419967
Project Name:	TexacoFee 62-14
Project #:	

Attention:	Blair Rollins
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	John Jacobs
Pace Profile #:	38076

State / Location

CO

Requested Analysis Filtered (Y/N)

-01
-02
-03
-04
-05
-06

RELINQUISHED BY / AFFILIATION

DATE _____

TIME

ACCEPTED BY / AFFILIATION

DATE _____

TIME

SAMPLE CONDITIONS

James C Huckaba

20-Oct	13:24
--------	-------

Crystal Hermann

10/28/21	1140a
11-4-21	0900

Pace Analytical Batch: WG1760386

Pace Analytical SDGs: L1419967

Location: Sheridan, WY 82801

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: _____

TEMP in C

Received on

 (Y/N)

Custody
Sealed

Cooler

Sample	(Y/N)
--------	-------

contact

Sample Receipt Checklist

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

J047

720-29
A7B1A