

September 18, 2024

#### **New Mexico Oil Conservation Division**

New Mexico Energy, Minerals, and Natural Resources Department 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Remediation Report and Closure Request

Federal Gas Com #1
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident No: NAPP2310935343

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Remediation Report and Closure Request* for a release at the former Federal Gas Com #1 natural gas production well (Site). The Site is located on federal land managed by the Bureau of Land Management (BLM) in Unit A, Section 28, Township 28 North, Range 10 West, in San Juan County, New Mexico (Figure 1).

#### SITE BACKGROUND

While conducting activities to plug and abandon the Federal Gas Com #1 well, remove associated equipment, and reclaim the well pad, Hilcorp personnel discovered historical contamination at the Site. Obvious stained soil was removed from the Site and disposed at the Envirotech Landfarm located in San Juan County, New Mexico. Based on initial field screening of soil collected from the floor and sidewalls of the excavation, Hilcorp ceased excavating and began delineation activities in order to assess the lateral and vertical extents on soil impacts at the Site. Hilcorp notified the New Mexico Oil Conservation Division (NMOCD) and submitted an initial *Form C-141 Release Notification* on April 19, 2023. NMOCD assigned the release incident number NAPP2310935343.

#### SITE CHARACTERIZATION AND CLOSURE CRITERIA

As part of the Site investigation, local geology/hydrogeology and nearby sensitive receptors were assessed in accordance with Title 19, Chapter 15, Part 29, Sections 11 and 12 (19.15.29.11 and 12) of the New Mexico Administrative Code (NMAC).

The Site is located within the Nacimiento Geologic Formation. In the report titled "Hydrogeology and Water Resources of San Juan Basin, New Mexico" (Stone, et. al., 1983), the Nacimiento Formation is characterized by interbedded black carbonaceous mudstones and white, coarse-grained sandstones, which ranges in thickness from 418 feet to 2,232 feet. The hydrogeologic properties of the Nacimiento Formation display variable hydrogeologic properties dependent on location. Where sufficient yield is present, the primary use of water from this formation is for

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domestic and/or livestock supply. The Nacimiento Formation is underlain by the Ojo Alamo sandstone (Stone et. al., 1983).

The closest significant watercourse is an unnamed dry wash with a defined bed and bank located 280 feet to the southeast of the Site and is a first-order tributary of a significant watercourse, as defined by a dashed blue line on a United States Geologic Survey (USGS) 7.5 minute quadrangle map. The Site is greater than 200 feet from any lakebed, sinkhole, or playa lake, and greater than 300 feet from any wetland (Figure 1). The nearest fresh-water well is New Mexico Office of the State Engineer (NMOSE) permitted well SJ-04072 (Appendix A), located approximately 1.17 miles north of the Site. The recorded depth to water on the NMOSE database is 242 feet below ground surface (bgs). No wellhead protection areas, springs, or domestic/stock wells are located within a ½-mile from the Site. The Site is not within a 100-year floodplain, overlying a subsurface mine, or located within an area underlain by unstable geology (area designated as low potential karst by the BLM). Schools, hospitals, institutions, churches, and/or other occupied permanent residence or structures are not located within 300 feet of the Site.

Based on the information presented above and in accordance with the *Table I, Closure Criteria* for Soils Impacted by a Release (19.15.29.12 NMAC), the following Closure Criteria will be applied to the Site based on the information provided above:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH) as a combination of gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO): 100 mg/kg
- Chloride: 600 mg/kg

#### INITIAL EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

In response to the discovery of historical impacts, Hilcorp performed initial excavation activities at the end of 2022 and beginning of 2023 to remove soil impacted by hydrocarbons. The initial excavation footprint measured approximately 6,600 square feet in areal extent to a maximum depth of 5 feet bgs. In total, approximately 1,500 cubic yards of soil was excavated and transported to the Envirotech, Inc. Landfarm, located in San Juan County, New Mexico. Because of the size of the excavation, Hilcorp halted excavation activities and conducted delineation activities on December 8, 2022 using an excavator to assess the lateral and vertical extent of impacts at the Site. Based on the analytical results gathered during the December 2022 delineation activities, TPH and BTEX concentrations exceeded the Closure Criteria in several samples. Additional delineation activities were performed by Ensolum on April 3, 2023, to continue delineating soil impacts at the Site. Seven potholes were advanced in all directions around the excavation extent using an excavator to depths up to 7 feet bgs. Based on the analytical results gathered during the April 2023 sampling event, the vertical and lateral extents of impacts were delineated.

Additional details regarding the delineation and sampling activities are presented in the *Site Investigation Report and Remediation Work Plan* prepared by Ensolum and dated July 17, 2023.

#### **EXCAVATION AND CONFIRMATION SOIL SAMPLING ACTIVITIES**

Based on the large volume of impacted soil, large areal extent, and generally shallow depths of impacts, Hilcorp applied Micro-Blaze Emergency Liquid Spill Control (Micro-Blaze™) amendment to remediate petroleum hydrocarbon impacted soil through enhanced bioremediation techniques. Micro-Blaze™ is a liquid amendment designed to enhance/supplement the natural biological degradation of residual hydrocarbons in impacted media. Based on the manufacturer's application



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guidelines, approximately 1 gallon of concentrated Micro-Blaze<sup>™</sup> can treat 5 to 7 cubic yards of TPH impacted soil. Based on this application rate, approximately 300 gallons of Micro-Blaze<sup>™</sup> was diluted to a 10 percent (%) solution and applied to the impacted soil per the manufacturer's recommendations.

In order to apply the solution, Hilcorp removed the impacted soil in October 2023 from the area shown on Figure 2 and created small stockpiles within the excavation footprint, each measuring approximately 100 cubic yards. As soil was removed, the excavation sidewalls and floors were field screened using a photoionization detector (PID). Once field screening indicated impacted soil had been removed, 5-point composite samples were collected from the sidewalls and floor of the excavation at a frequency of one sample per 400 square feet, as approved by the NMOCD. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Samples were collected and submitted to Eurofins Environment Testing (Eurofins) in Albuquerque, New Mexico for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B and TPH following EPA Method 8015M/D. Notifications were provided to the NMOCD and BLM prior to sampling activities and are attached as Appendix B.

The total excavation (including the original excavation extent) measured approximately 16,600 square feet in areal extent and was advanced to an average depth of 5 feet bgs. In total, 43 floor samples and 9 sidewall samples were collected from the final excavation extent. Analytical results from the excavation indicated concentrations of TPH and BTEX were compliant with NMOCD Table I Closure Criteria in all confirmation samples. Excavation sample locations are indicated on Figure 2. Soil sample results are summarized in Table 1, with complete laboratory analytical reports attached as Appendix C. Photographs taken by Ensolum during the excavation work are included in Appendix D.

#### TREATED STOCKPILE REMEDIATION AND SOIL SAMPLING ACTIVITIES

In total, approximately 1,900 cubic yards of impacted soil was removed and treated using the Micro-Blaze™ amendment (this volume does not include the 1,500 cubic yards initially excavated and transported to the Envirotech Landfarm). Once confirmation sampling was completed and all impacted soil was removed, the Micro-Blaze™ solution was sprayed onto the 19 stockpiles and mixed into the soil by turning with the excavator. After allowing the Micro-Blaze™ to degrade the residual TPH concentrations in the soil, Hilcorp field screened the soil and collected several samples from stockpiles indicating the highest PID readings. Due to weather conditions, Ensolum was not able to return to the Site to field screen the treated stockpiles until February 26, 2024. Composite samples were collected from several of the stockpiles and six stockpiles were sampled for TPH and BTEX analysis to assess the remediation progress. Several stockpiles contained elevated TPH concentrations above the NMOCD Table I Closure Criteria, with results summarized in Table 2. Based on these results, the stockpiles were turned in April 2024 with an excavator in order to reintroduce oxygen and promote volatilization of contaminants.

Treated stockpiles were again field screened in May 2024 and six composite samples were collected from stockpiles indicating the highest PID readings. During this event, only one stockpile contained TPH concentrations exceeding the applicable Closure Criteria. The stockpiles were once again turned and spread within the excavation area in early June 2024. On June 28, 2024, Ensolum collected final stockpile confirmation samples. Sampling notification was provided to the NMOCD and BLM prior to field work and is included in Appendix B. Samples TSP01 through TSP19 were sampled using a hand auger in order to collect a 5-point composite sample from each stockpile that was representative of the entire 100 cubic yards of soil. The 5-point composite samples were collected into laboratory-provided jars and immediately placed on ice. Samples were submitted to Eurofins for analysis of BTEX and TPH following the methods described above. Analytical results from the treated stockpile sampling indicated concentrations of TPH and BTEX



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were compliant with NMOCD Table I Closure Criteria in all confirmation samples. Soil sample results are summarized in Table 2, with complete laboratory analytical reports included in Appendix C. Photographs taken by Ensolum during the excavation work are included in Appendix D.

#### **CLOSURE REQUEST**

Corrective actions and soil sampling activities were conducted at the Site to address the historical release discovered in April 2023. Laboratory analytical results for the confirmation soil samples, collected from the final extents of the excavation, indicated all COC concentrations were compliant with the Site Closure Criteria and no further remediation is required. Additionally, all soil samples collected from the treated stockpiles were also compliant with the applicable Site Closure Criteria and reclamation requirement The corrective action initiated by Hilcorp has mitigated impacts at this Site and these remedial actions have been protective of human health, the environment, and groundwater. As such, Hilcorp respectfully request closure for Incident Number NAPP2310935343.

The excavation will be backfilled using the treated soil as well as clean imported material. Once backfilled, Hilcorp will proceed with implementation of the BLM-approved reclamation plan for the Site.

#### **REFERENCES**

Stone, W., Lyford, F., Frenzel, P., Mizell, N., & Padgett, E. (1983). Hydrogeology and Water Resources of San Juan Basin, New Mexico. New Mexico Bureau of Mines & Mineral Resources.

We appreciate the opportunity to provide this report to the NMOCD. If you should have any questions or comments regarding this document, please contact the undersigned.

Sincerely,

**Ensolum, LLC** 

Stuart Hyde, PG (licensed in WA and TX)
Senior Managing Geologist

(970) 903-1607

shyde@ensolum.com

Daniel R. Moir, PG (licensed in WY and TX) Senior Managing Geologist (303) 887-2946

dmoir@ensolum.com

Attachments:

Figure 1: Site Receptor Map

Figure 2: Excavation Soil Sample Locations

Figure 3: Treated Stockpile Soil Sample Locations

Table 1: Excavation Soil Sample Analytical Results

Table 2: Treated Stockpile Soil Sample Analytical Results

Appendix A: NMOSE Well Summary
Appendix B: Agency Notifications

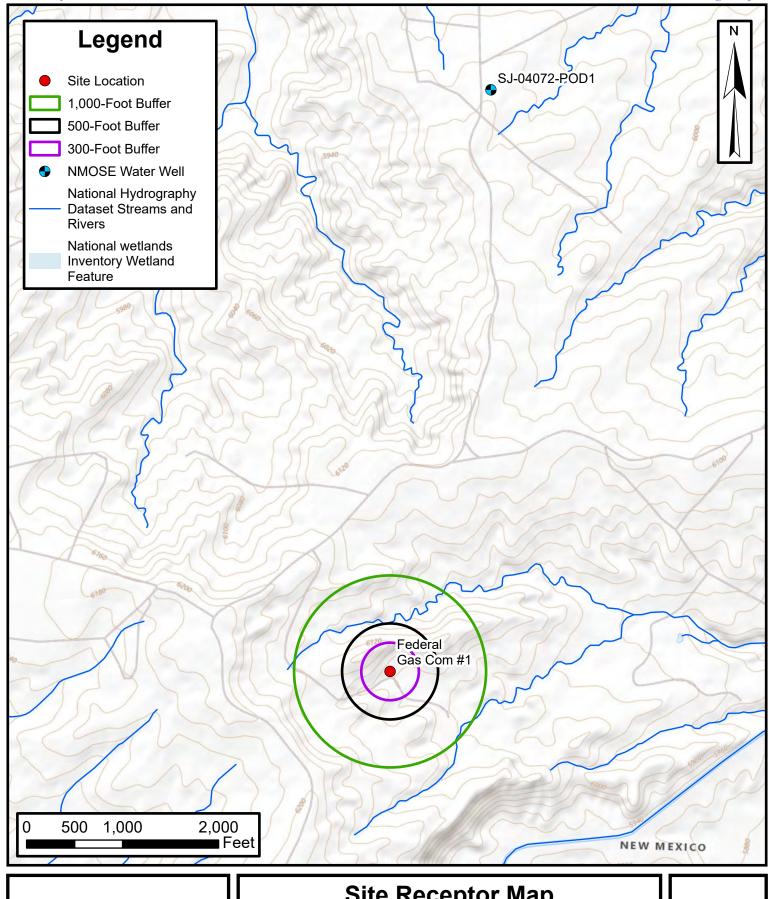
Appendix C: Laboratory Analytical Reports

Appendix D: Photographic Log





**FIGURES** 





## **Site Receptor Map**

Federal Gas Com #1 Hilcorp Energy Company

36.637216, -107.895431 San Juan County, New Mexico **FIGURE** 



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## **Excavation Soil Sample Locations**

Federal Gas Com #1 Hilcorp Energy Company

36.637216, -107.895431 San Juan County, New Mexico FIGURE 2

NMOCD: New Mexico Oil Conservation Division

Notes:





## **Treated Stockpile Sample Locations**

Federal Gas Com #1 Hilcorp Energy Company

36.637216, -107.895431 San Juan County, New Mexico FIGURE



**TABLES** 



## TABLE 1

### **EXCAVATION SOIL SAMPLE ANALYTICAL RESULTS**

Federal Gas Com #1
Hilcorp Energy Company
San Juan County, New Mexico

	San Juan County, New Mexico												
Sample ID	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (mg/kg)		
	Criteria for Soils (Groundwater <		10	NE	NE	NE	50	NE	NE	NE	100		
					Excavation Sa	mple results							
FS01	10/26/2023	5	< 0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.5	<47	<47		
FS02	10/26/2023	5	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.4	<47	<47		
FS03	10/26/2023	5	< 0.025	<0.050	<0.050	<0.100	<0.100	<5.0	<9.5	<48	<48		
FS04	10/26/2023	5	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.8	<49	<49		
FS05	10/26/2023	5	< 0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.5	<48	<48		
FS06	10/26/2023	5	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<9.6	<48	<48		
FS07	10/26/2023	5	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<8.4	<42	<42		
FS08	10/26/2023	5	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.0	<45	<45		
FS09	10/26/2023	5	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.6	<48	<48		
FS10	10/26/2023	5	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	73.0	<47	73.0		
FS11	10/26/2023	5	< 0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<8.4	<42	<42		
FS12	10/26/2023	5	< 0.023	<0.046	<0.046	<0.092	<0.092	<4.6	<9.5	<48	<48		
FS13	10/26/2023	5	< 0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.1	<45	<45		
FS14	10/26/2023	5	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<8.7	<44	<44		
FS15	10/26/2023	5	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<8.7	<43	<43		
FS16	10/27/2023	5	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<9.8	<49	<49		
FS17	10/27/2023	5	< 0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.1	<45	<45		
FS18	10/27/2023	5	< 0.023	<0.046	<0.046	<0.093	<0.093	<4.6	<9.5	<47	<47		
FS18*	10/27/2023	3	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.4	<47	<47		
FS19	10/27/2023	5	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<8.7	<43	<43		
FS20	10/27/2023	5	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	10.0	<46	10.0		
FS21	10/27/2023	4	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.4	<47	<47		
FS22	10/27/2023	3	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.6	<48	<48		
FS23	10/27/2023	3	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.2	<46	<46		
FS24	10/27/2023	3	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	11.0	<50	11.0		
FS25	10/27/2023	3	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.3	<46	<46		
FS26	10/27/2023	3	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<8.7	<43	<43		
FS27	10/27/2023	4	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	10.0	<47	10.0		
FS28	10/27/2023	5	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	12.0	<49	12.0		
FS29	10/27/2023	5	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	9.7	<44	9.7		
FS30	10/27/2023	5	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	12.0	<49	12.0		

Ensolum



### TABLE 1

### **EXCAVATION SOIL SAMPLE ANALYTICAL RESULTS**

Federal Gas Com #1 Hilcorp Energy Company San Juan County, New Mexico

	Sall Suall County, New Mexico										
Sample ID	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (mg/kg)
NMOCD Closure Release	Criteria for Soils (Groundwater <5		10	NE	NE	NE	50	NE	NE	NE	100
FS31	10/27/2023	5	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	9.7	<43	9.7
FS32	10/27/2023	5	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	9.7	<43	9.7
FS33	10/27/2023	5	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	43.0	<50	43.0
FS34	10/27/2023	5	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.6	<48	<48
FS35	10/27/2023	5	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.2	<46	<46
FS36	10/27/2023	5	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.6	<48	<48
FS37	10/27/2023	5	<0.025	<0.050	<0.050	<0.100	<0.100	<5.0	10.0	<47	10.0
FS38	10/27/2023	5	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.5	<47	<47
FS39	10/27/2023	5	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.9	<49	<49
FS40	10/27/2023	5	<0.023	<0.046	<0.046	<0.093	< 0.093	<4.6	<9.8	<49	<49
FS41	10/27/2023	6	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.6	<48	<48
FS42	10/30/2023	4	<0.024	<0.049	<0.049	0.14	0.14	17.0	41.0	<49	58.0
SW01	10/27/2023	0-5	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.1	<45	<45
SW02	10/27/2023	0-5	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.8	<49	<49
SW03	10/27/2023	0-3	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.6	<48	<48
SW04	10/27/2023	0-3	<0.023	<0.046	<0.046	<0.093	< 0.093	<4.6	11.0	<46	11.0
SW05	10/27/2023	0-4	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	15.0	<43	15.0
SW06	10/27/2023	0-5	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	17.0	<45	17.0
SW07	10/27/2023	0-5	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	16.0	<48	16.0
SW08	10/27/2023	0-4	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	10.0	<49	10.0
SW09	10/30/2023	0-6	<0.024	<0.048	<0.048	<0.097	<0.096	<4.8	10.0	<48	10.0

#### Notes:

bgs: below ground surface

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

mg/kg: milligrams per kilogram

NE: Not Established

NMOCD: New Mexico Oil Conservation Division

': feet

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics TPH: Total Petroleum Hydrocarbon

TTT. Total T CirolCulli Tiyarocarbon

<: indicates result less than the stated laboratory reporting limit (RL)



### TABLE 2

#### TREATED STOCKPILE SOIL SAMPLE ANALYTICAL RESULTS

Federal Gas Com #1
Hilcorp Energy Company
San Juan County, New Mexic

	<del>,                                      </del>			San Juan	County, New	Mexico				
Sample ID	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (mg/kg)
NMOCD Closure Impacted by		10	NE	NE	NE	50	NE	NE	NE	100
				iminary Treated S						
SS01	2/26/2024	<0.025	<0.049	<0.049	<0.099	<0.099	23	140	<47	163
SS02	2/26/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS03	2/26/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS04	2/26/2024	<0.025	<0.050	<0.050	2.0	2.0	170	400	<46	570
SS05	2/26/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS06	2/26/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS07	2/26/2024	<0.024	<0.049	<0.049	0.098	0.098	<4.9	10	<47	10
SS08	2/26/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS09	2/26/2024	<0.012	<0.25	< 0.25	0.98	0.98	97	270	<46	367
SS10	2/26/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS11	2/26/2024	<0.024	<0.049	0.061	<0.097	0.061	35.0	280	<47	315
SS12	2/26/2024	<0.025	<0.049	< 0.049	<0.099	< 0.099	6.3	28	<46	34.3
SS13	2/26/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS14	2/26/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS01A	5/21/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS02A	5/21/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS03A	5/21/2024	< 0.024	<0.047	< 0.047	< 0.095	< 0.095	<4.7	<9.3	<47	<47
SS04A	5/21/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS05A	5/21/2024	< 0.025	< 0.050	< 0.050	< 0.10	< 0.10	18	72	<49	90
SS06A	5/21/2024	< 0.024	<0.048	<0.048	<0.096	< 0.096	<4.8	<9.2	<46	<46
SS07A	5/21/2024	< 0.024	<0.048	0.071	0.16	0.23	83	240	<46	323
SS08A	5/21/2024	< 0.023	< 0.046	< 0.046	< 0.093	< 0.093	9.7	52	<45	61.7
SS09A	5/21/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS10A	5/21/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS11A	5/21/2024	< 0.023	< 0.047	< 0.047	< 0.093	< 0.093	<4.7	10	<48	10
SS12A	5/21/2024	NS	NS	NS	NS	NS	NS	NS	NS	NS
			F	inal Treated Stoc	kpile Sample A	nalytical Results				
TSP01	6/28/2024	< 0.025	< 0.049	< 0.049	<0.098	<0.098	<4.9	<9.5	<47	<47
TSP02	6/28/2024	<0.025	< 0.050	< 0.050	< 0.10	< 0.10	<5	<9.7	<49	<49
TSP03	6/28/2024	< 0.025	< 0.050	< 0.050	< 0.10	< 0.10	<5	<9.8	<49	<49
TSP04	6/28/2024	<0.024	<0.048	<0.048	<0.095	< 0.095	5.2	<9.6	<48	<48
TSP05	6/28/2024	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.6	<48	<48
TSP06	6/28/2024	<0.049	<0.098	<0.098	<0.20	<0.20	<9.8	<9.2	<46	<46
TSP07	6/28/2024	<0.025	< 0.050	< 0.050	<0.10	< 0.10	<5	<9.7	<49	<49
TSP08	6/28/2024	< 0.025	< 0.050	< 0.050	< 0.10	< 0.10	<5	<9.7	<49	<49
TSP09	6/28/2024	< 0.049	< 0.099	<0.099	<0.20	<0.20	<9.9	<9.9	<49	<49
TSP10	6/28/2024	<0.025	< 0.049	<0.049	<0.099	< 0.099	<4.9	<9.3	<46	<46
TSP11	6/28/2024	<0.024	<0.048	<0.048	<0.096	< 0.096	<4.8	<9.4	<47	<47
TSP12	6/28/2024	< 0.023	< 0.046	<0.046	< 0.093	< 0.093	<4.6	<9.0	<45	<45
TSP13	6/28/2024	< 0.025	< 0.050	< 0.050	<0.099	<0.099	<5	<9.3	<47	<47
TSP14	6/28/2024	< 0.025	< 0.050	< 0.050	< 0.10	< 0.10	<5	<9.8	<49	<49
TSP15	6/28/2024	< 0.024	< 0.049	< 0.049	< 0.097	< 0.097	<4.9	<9.9	<49	<49
TSP16	6/28/2024	< 0.025	< 0.050	< 0.050	< 0.10	< 0.10	<5	<9.9	<50	<50
TSP17	6/28/2024	<0.024	<0.048	<0.048	<0.096	< 0.096	<4.8	<9.1	<45	<45
TSP18	6/28/2024	<0.024	<0.048	<0.048	<0.096	< 0.096	<4.8	<9.7	<48	<48
TSP19	6/28/2024	<0.024	< 0.047	<0.047	<0.095	< 0.095	<4.7	<9.5	<47	<47

#### Notes:

bgs: Below ground surface

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

mg/kg: milligrams per kilogram

NE: Not established

NMOCD: New Mexico Oil Conservation Division

PID: Photoionization Detector ppm: Parts per million NS: Not sampled GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceeded the New Mexico Oil Conservation Division Table I Closure Criteria for Soils Impacted by a Release during preliminary soil screening.

<sup>&#</sup>x27;: Feet

<sup>&</sup>lt;: Indicates result less than the stated laboratory reporting limit (RL)



**APPENDIX A** 

**NMOSE Well Summary** 





2014 JAN -8 PM 3: 36

7	OSE POD N	UMBER (WEL	L NUMBER)			OSE FILE NUM	MBER(S)		
100	WELL ONLY	ED MANGERS			<del></del>	<u>-U2</u>	4012	<u> </u>	
Z.	{	ER NAME(S)				PHONE (OPTI	UNAL)		
217	L	Sulliv ER MAILING		· · · · · · · · · · · · · · · · · · ·		CITY	<del></del>	STATE	ZIP
GENERAL AND WELL LOCATION	j	R 4990			ĺ		field NM 8		
Ď	<del> </del>	===		GREES MINUTES SECO	ONDS				
£ A!	WELL LOCATION		ITUDE 3,	~ 70 4 <i>4</i>	N	* ACCURACY	REQUIRED: ONE TEN	TH OF A SECOND	
ERA	(FROM G	PS)		5 39 14	w	* DATUM REC	QUIRED: WGS 84		
EN	DESCRIPTI			53 37 STREET ADDRESS AND COMMON LANDS	MARKS – PLSS	S (SECTION, TO	WNSHJIP, RANGE) WH	ERE AVAILABLE	
1.6	ļ				#) =				
===	LICENSE N	O.M.Fn.	NAME OF LICENSED	DDBACE	· 			H L DIG COM	
							NAME OF WELL DR	ILLING COMPANY	
}	DRILLING S		Terry Hoo	DEPTH OF COMPLETED WELL (FT)	BORE HOL	E DEPTH (FT)	DEPTH WATER FIR	ST ENCOUNTERED (FT	)
	12/20	6/13	1/5/14	470			242		
}	<b> </b>							EL IN COMPLETED WI	ELL (FT)
Z	COMPLETE	D WELL IS:	ARTESIAN	DRY HOLE SHALLOW (UNC	ONFINED)		470		
CASING INFORMATION	DRILLING F	LUID:	X AIR	MUD ADDITIVES - SPI	CIFY:			·	· 
N. W.	DRILLING N	METHOD:	ROTARY	HAMMER CABLE TOOL	OTHE	R - SPECIFY:			÷
NFC	DEPTH	(feet bgl)	BORE HOLE	CASING MATERIAL AND/OR	CA	SING	CASING	CASING WALL	SLOT
NG	FROM	то	DIAM	GRADE (include each casing string, and	CONN	ECTION	INSIDE DIAM.	THICKNESS	SIZE
ASI			(inches)	note sections of screen)	T	YPE	(inches)	(inches)	(inches)
જ	0	479	5	SDR 21 PVC			5		060
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Æ		ļ	<del></del>		<del> </del>				<del> </del>
2. D	ļ	<del> </del>	<del> </del>		<del> </del>			<b>3</b>	
					<del>                                     </del>			C.T.	o ( ) p ( ) ( ) p ( ) ( ) ( )
	·							\$ 100 mg (1) 100 mg (1	n/r
		ļ							450 d
								 	100
		<u> </u>	<u> </u>		<u></u>				
د	DEPTH	(feet bgl)	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MA		· · · · · · · · · · · · · · · · · · ·	AMOUNT	МЕТНО	D.OF
ANNULAR MATERIAL	FROM	то	<u> </u>	GRAVEL PACK SIZE-RANG	EBY INTER	CVAL	(cubic feet)	PLACEN	TENI
\TE	5	20	9	Concrete			4	Pour	
X M	102	<u> </u>	<del></del>					<del></del>	
LAI			<del></del> -	<u> </u>	·				
NN			<del> </del>				<del></del>	}	
3. A		<del></del>			<del></del> -		<del></del>		
FOR	OSE INTER	NAL USE				WR-20	WELL RECORD &	& LOG (Version 06/0	8/2012)
	NUMBER (	60-40	172 POD	POD NUMBER			TUMBER 58	2092	
LOC	ATION	28N	10W.2	1.220				PAGE	1 OF 2

				<del></del>		
	DEPTH (	feet bgl)	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES/NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	0	10	10	Clay & sand	□Y □N	<del></del>
<u> </u>		40	30	Brown Shale	□Y □N	
,	40	70	30	Sandstone	N D N	
	70	130	60	Blue Sandstone	□Y □N	<del></del>
	130	145	15	Blu Sandy Shale	DY DN	
1	145	175	30	Blue Sandstone		
4. HYDROGEOLOGIC LOG OF WELL	175	235	60	Blue Sandy Shale	□Y □N	
OF	235	255	20	Blue Sandstone	DY DN	
90	255	295	40	Blu Shale	□Y □N	
101	295	340	45		□Y □N	<del></del>
90		370	30	Blue Sandy Shale Blu SandStone	□Y □N	<del></del>
EOI	340 370	410	40	Blue Sandy Shale	OY ON	<del></del> _
SOG !	410	455	45	Blusandstone	DY □N	
[QX]	455	470	15	Blue Sandy Shale	N DY	
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	METHOD I	ISED TÓ ES	TIMATE YIELD	OF WATER-BEARING STRATA: PUMP	TOTAL ESTIMATED	L
<b>:</b>	☐ AIR LIF		*	_	WELL YIELD (gpm):	1
		·	BAILER _	JOHER - SIECH I		
ION	WELL TES			ACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCL ME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER		
TEST; RIG SUPERVISION	MISCELLA	NEOUS IN	ORMATION:			<del></del>
					<b>3</b>	2
G St						
l; RI						
LES	PRINT NAM	AE(S) OF D	RILL RIG SUPE	VISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONS	RUCTION OTHER TH	AN LICENSEE:
i,						
	<u> </u>					
SIGNATURE	CORRECT	RECORD O	F THE ABOVE D	RES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIER DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL REC TO DAYS AFTER COMPLETION OF WELL DRILLING:	CORD WITH THE STA	TRUE AND TE ENCONCER
NAT	·					
SIG					1/8/14	
6.		SIGNAT	URE OF DRILLE	ER / PRINT SIGNEE NAME	DATE	
		=====				
	R OSE INTER	NAL USE	NA DA		RECORD & LOG (Ve	
}	E NUMBER	<del>&gt;</del> /-4	UIXXXQ	POD NUMBER TRN NUMBE	R 58209	<del></del>
1 500	CATION	シカル	1. W/WV.'/	VI . V I/U .		PAGE 2 OF 2



**APPENDIX B** 

**Agency Notifications** 

From: Velez, Nelson, EMNRD

To: Stuart Hyde

Cc: Kate Kaufman; Dale Crawford; Devin Hencmann; Eufracio Trujillo; Chad Perkins; Adeloye, Abiodun A

**Subject:** Re: [EXTERNAL] nAPP2310935343 - Federal Gas Com #1 Sampling Notification

**Date:** Tuesday, October 24, 2023 7:51:42 AM

Attachments: image001.pnq

image002.png image003.png image004.png Outlook-pne4z1n5.png

### [ \*\*EXTERNAL EMAIL\*\*]

Good morning Stuart,

Thank you for the notice.

If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC or from an OCD pre-approved sampling plan. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

Nelson Velez • Environmental Specialist - Adv Environmental Bureau | EMNRD - Oil Conservation Division 1000 Rio Brazos Road | Aztec, NM 87410 (505) 469-6146 | nelson.velez@emnrd.nm.gov http://www.emnrd.state.nm.us/OCD/



From: Stuart Hyde <shyde@ensolum.com> Sent: Monday, October 23, 2023 4:41 PM

To: Adeloye, Abiodun A <aadeloye@blm.gov>; Velez, Nelson, EMNRD

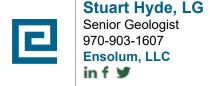
<Nelson.Velez@emnrd.nm.gov>

**Cc:** Kate Kaufman < kkaufman@hilcorp.com>; Dale Crawford < dcrawford@hilcorp.com>; Devin Hencmann < dhencmann@ensolum.com>; Eufracio Trujillo < etrujillo@hilcorp.com>; Chad Perkins < cperkins@hilcorp.com>

Subject: [EXTERNAL] nAPP2310935343 - Federal Gas Com #1 Sampling Notification

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

On behalf of Hilcorp Energy Company, we are submitting this notification for confirmation sampling at the Federal Gas Com #1 on Thursday October 26, 2023 at 8 AM. The site is located in rural San Juan County, NM at coordinates 36.637216, -107.895431. Please reach out with any questions.



From: OCDOnline@state.nm.us

To: <u>Stuart Hyde</u>

**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 357519

**Date:** Tuesday, June 25, 2024 3:41:09 PM

### [\*\*EXTERNAL EMAIL\*\*]

To whom it may concern (c/o Stuart Hyde for HILCORP ENERGY COMPANY),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2310935343.

The sampling event is expected to take place:

When: 06/28/2024 @ 10:00

Where: A-28-28N-10W 1190 FNL 1190 FEL (36.637216,-107.895431)

Additional Information: Contact Stuart Hyde, 970-903-1607

Additional Instructions: Federal Gas Com 1 P&A well pad, Coordinates 36.637279,

-107.896270

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

• Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

New Mexico Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, NM 87505



## **APPENDIX C**

**Laboratory Analytical Reports** 



Eurofins Environment Testing South Central, LLC 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

November 15, 2023

Stuart Hyde HILCORP ENERGY PO Box 4700 Farmington, NM 87499 TEL: (505) 564-0733

FAX:

RE: Fed GC 1 OrderNo.: 2310D78

### Dear Stuart Hyde:

Eurofins Environment Testing South Central, LLC received 52 sample(s) on 10/31/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS01

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 10:20:00 AM

 Lab ID:
 2310D78-001
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	<b>Date Analyzed</b>
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/2/2023 12:03:23 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/2/2023 12:03:23 AM
Surr: DNOP	136	69-147	%Rec	1	11/2/2023 12:03:23 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/3/2023 9:39:54 AM
Surr: BFB	120	15-244	%Rec	1	11/3/2023 9:39:54 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.023	mg/Kg	1	11/3/2023 9:39:54 AM
Toluene	ND	0.047	mg/Kg	1	11/3/2023 9:39:54 AM
Ethylbenzene	ND	0.047	mg/Kg	1	11/3/2023 9:39:54 AM
Xylenes, Total	ND	0.093	mg/Kg	1	11/3/2023 9:39:54 AM
Surr: 4-Bromofluorobenzene	96.8	39.1-146	%Rec	1	11/3/2023 9:39:54 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS02

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 10:24:00 AM

 Lab ID:
 2310D78-002
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/2/2023 12:14:03 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/2/2023 12:14:03 AM
Surr: DNOP	89.1	69-147	%Rec	1	11/2/2023 12:14:03 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/3/2023 10:03:31 AM
Surr: BFB	95.3	15-244	%Rec	1	11/3/2023 10:03:31 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	11/3/2023 10:03:31 AM
Toluene	ND	0.048	mg/Kg	1	11/3/2023 10:03:31 AM
Ethylbenzene	ND	0.048	mg/Kg	1	11/3/2023 10:03:31 AM
Xylenes, Total	ND	0.097	mg/Kg	1	11/3/2023 10:03:31 AM
Surr: 4-Bromofluorobenzene	95.7	39.1-146	%Rec	1	11/3/2023 10:03:31 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS03

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 10:28:00 AM

 Lab ID:
 2310D78-003
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/2/2023 12:24:41 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 12:24:41 AM
Surr: DNOP	74.6	69-147	%Rec	1	11/2/2023 12:24:41 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/3/2023 1:10:57 PM
Surr: BFB	87.8	15-244	%Rec	1	11/3/2023 1:10:57 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	11/3/2023 1:10:57 PM
Toluene	ND	0.050	mg/Kg	1	11/3/2023 1:10:57 PM
Ethylbenzene	ND	0.050	mg/Kg	1	11/3/2023 1:10:57 PM
Xylenes, Total	ND	0.10	mg/Kg	1	11/3/2023 1:10:57 PM
Surr: 4-Bromofluorobenzene	90.0	39.1-146	%Rec	1	11/3/2023 1:10:57 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS04

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 10:32:00 AM

 Lab ID:
 2310D78-004
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/2/2023 12:35:20 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/2/2023 12:35:20 AM
Surr: DNOP	89.0	69-147	%Rec	1	11/2/2023 12:35:20 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/3/2023 1:34:18 PM
Surr: BFB	90.4	15-244	%Rec	1	11/3/2023 1:34:18 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	11/3/2023 1:34:18 PM
Toluene	ND	0.049	mg/Kg	1	11/3/2023 1:34:18 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/3/2023 1:34:18 PM
Xylenes, Total	ND	0.098	mg/Kg	1	11/3/2023 1:34:18 PM
Surr: 4-Bromofluorobenzene	95.0	39.1-146	%Rec	1	11/3/2023 1:34:18 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS05

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 10:36:00 AM

 Lab ID:
 2310D78-005
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/2/2023 1:07:07 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 1:07:07 AM
Surr: DNOP	114	69-147	%Rec	1	11/2/2023 1:07:07 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/5/2023 4:33:26 PM
Surr: BFB	94.4	15-244	%Rec	1	11/5/2023 4:33:26 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>
Benzene	ND	0.025	mg/Kg	1	11/5/2023 4:33:26 PM
Toluene	ND	0.050	mg/Kg	1	11/5/2023 4:33:26 PM
Ethylbenzene	ND	0.050	mg/Kg	1	11/5/2023 4:33:26 PM
Xylenes, Total	ND	0.099	mg/Kg	1	11/5/2023 4:33:26 PM
Surr: 4-Bromofluorobenzene	97.0	39.1-146	%Rec	1	11/5/2023 4:33:26 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS06

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 10:40:00 AM

 Lab ID:
 2310D78-006
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/2/2023 1:17:40 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 1:17:40 AM
Surr: DNOP	105	69-147	%Rec	1	11/2/2023 1:17:40 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/5/2023 5:44:04 PM
Surr: BFB	95.6	15-244	%Rec	1	11/5/2023 5:44:04 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>
Benzene	ND	0.023	mg/Kg	1	11/5/2023 5:44:04 PM
Toluene	ND	0.047	mg/Kg	1	11/5/2023 5:44:04 PM
Ethylbenzene	ND	0.047	mg/Kg	1	11/5/2023 5:44:04 PM
Xylenes, Total	ND	0.094	mg/Kg	1	11/5/2023 5:44:04 PM
Surr: 4-Bromofluorobenzene	97.9	39.1-146	%Rec	1	11/5/2023 5:44:04 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS07

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 10:44:00 AM

 Lab ID:
 2310D78-007
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	8.4	mg/Kg	1	11/2/2023 1:28:13 AM
Motor Oil Range Organics (MRO)	ND	42	mg/Kg	1	11/2/2023 1:28:13 AM
Surr: DNOP	79.3	69-147	%Rec	1	11/2/2023 1:28:13 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/5/2023 6:54:14 PM
Surr: BFB	97.8	15-244	%Rec	1	11/5/2023 6:54:14 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>
Benzene	ND	0.024	mg/Kg	1	11/5/2023 6:54:14 PM
Toluene	ND	0.047	mg/Kg	1	11/5/2023 6:54:14 PM
Ethylbenzene	ND	0.047	mg/Kg	1	11/5/2023 6:54:14 PM
Xylenes, Total	ND	0.094	mg/Kg	1	11/5/2023 6:54:14 PM
Surr: 4-Bromofluorobenzene	99.3	39.1-146	%Rec	1	11/5/2023 6:54:14 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS08

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 10:48:00 AM

 Lab ID:
 2310D78-008
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.0	mg/Kg	1	11/2/2023 1:38:45 AM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	11/2/2023 1:38:45 AM
Surr: DNOP	117	69-147	%Rec	1	11/2/2023 1:38:45 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/5/2023 7:17:29 PM
Surr: BFB	96.0	15-244	%Rec	1	11/5/2023 7:17:29 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	11/5/2023 7:17:29 PM
Toluene	ND	0.048	mg/Kg	1	11/5/2023 7:17:29 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/5/2023 7:17:29 PM
Xylenes, Total	ND	0.097	mg/Kg	1	11/5/2023 7:17:29 PM
Surr: 4-Bromofluorobenzene	99.0	39.1-146	%Rec	1	11/5/2023 7:17:29 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS09

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 10:52:00 AM

 Lab ID:
 2310D78-009
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: <b>PRD</b>				
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/2/2023 1:49:16 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 1:49:16 AM
Surr: DNOP	103	69-147	%Rec	1	11/2/2023 1:49:16 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/5/2023 7:40:50 PM
Surr: BFB	94.8	15-244	%Rec	1	11/5/2023 7:40:50 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	11/5/2023 7:40:50 PM
Toluene	ND	0.049	mg/Kg	1	11/5/2023 7:40:50 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/5/2023 7:40:50 PM
Xylenes, Total	ND	0.099	mg/Kg	1	11/5/2023 7:40:50 PM
Surr: 4-Bromofluorobenzene	97.2	39.1-146	%Rec	1	11/5/2023 7:40:50 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS10

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 10:56:00 AM

 Lab ID:
 2310D78-010
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE C	Analyst: PRD				
Diesel Range Organics (DRO)	73	9.5	mg/Kg	1	11/2/2023 1:59:46 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/2/2023 1:59:46 AM
Surr: DNOP	113	69-147	%Rec	1	11/2/2023 1:59:46 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/5/2023 8:04:19 PM
Surr: BFB	95.1	15-244	%Rec	1	11/5/2023 8:04:19 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>
Benzene	ND	0.024	mg/Kg	1	11/5/2023 8:04:19 PM
Toluene	ND	0.048	mg/Kg	1	11/5/2023 8:04:19 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/5/2023 8:04:19 PM
Xylenes, Total	ND	0.096	mg/Kg	1	11/5/2023 8:04:19 PM
Surr: 4-Bromofluorobenzene	96.2	39.1-146	%Rec	1	11/5/2023 8:04:19 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS11

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 11:00:00 AM

 Lab ID:
 2310D78-011
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	ND	8.4	mg/Kg	1	11/2/2023 2:10:15 AM
Motor Oil Range Organics (MRO)	ND	42	mg/Kg	1	11/2/2023 2:10:15 AM
Surr: DNOP	117	69-147	%Rec	1	11/2/2023 2:10:15 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/5/2023 8:27:46 PM
Surr: BFB	93.3	15-244	%Rec	1	11/5/2023 8:27:46 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.023	mg/Kg	1	11/5/2023 8:27:46 PM
Toluene	ND	0.047	mg/Kg	1	11/5/2023 8:27:46 PM
Ethylbenzene	ND	0.047	mg/Kg	1	11/5/2023 8:27:46 PM
Xylenes, Total	ND	0.094	mg/Kg	1	11/5/2023 8:27:46 PM
Surr: 4-Bromofluorobenzene	95.9	39.1-146	%Rec	1	11/5/2023 8:27:46 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS12

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 11:04:00 AM

 Lab ID:
 2310D78-012
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/2/2023 2:31:03 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 2:31:03 AM
Surr: DNOP	127	69-147	%Rec	1	11/2/2023 2:31:03 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/5/2023 8:51:13 PM
Surr: BFB	93.5	15-244	%Rec	1	11/5/2023 8:51:13 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>
Benzene	ND	0.023	mg/Kg	1	11/5/2023 8:51:13 PM
Toluene	ND	0.046	mg/Kg	1	11/5/2023 8:51:13 PM
Ethylbenzene	ND	0.046	mg/Kg	1	11/5/2023 8:51:13 PM
Xylenes, Total	ND	0.092	mg/Kg	1	11/5/2023 8:51:13 PM
Surr: 4-Bromofluorobenzene	96.3	39.1-146	%Rec	1	11/5/2023 8:51:13 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS13

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 11:08:00 AM

 Lab ID:
 2310D78-013
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	11/2/2023 2:41:30 AM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	11/2/2023 2:41:30 AM
Surr: DNOP	119	69-147	%Rec	1	11/2/2023 2:41:30 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/5/2023 9:14:33 PM
Surr: BFB	95.5	15-244	%Rec	1	11/5/2023 9:14:33 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	11/5/2023 9:14:33 PM
Toluene	ND	0.050	mg/Kg	1	11/5/2023 9:14:33 PM
Ethylbenzene	ND	0.050	mg/Kg	1	11/5/2023 9:14:33 PM
Xylenes, Total	ND	0.099	mg/Kg	1	11/5/2023 9:14:33 PM
Surr: 4-Bromofluorobenzene	97.8	39.1-146	%Rec	1	11/5/2023 9:14:33 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS14

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 11:12:00 AM

 Lab ID:
 2310D78-014
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: <b>PRD</b>				
Diesel Range Organics (DRO)	ND	8.7	mg/Kg	1	11/2/2023 2:51:55 AM
Motor Oil Range Organics (MRO)	ND	44	mg/Kg	1	11/2/2023 2:51:55 AM
Surr: DNOP	117	69-147	%Rec	1	11/2/2023 2:51:55 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/5/2023 9:37:53 PM
Surr: BFB	95.9	15-244	%Rec	1	11/5/2023 9:37:53 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	11/5/2023 9:37:53 PM
Toluene	ND	0.048	mg/Kg	1	11/5/2023 9:37:53 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/5/2023 9:37:53 PM
Xylenes, Total	ND	0.096	mg/Kg	1	11/5/2023 9:37:53 PM
Surr: 4-Bromofluorobenzene	98.6	39.1-146	%Rec	1	11/5/2023 9:37:53 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS15

 Project:
 Fed GC 1
 Collection Date: 10/26/2023 11:16:00 AM

 Lab ID:
 2310D78-015
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	ND	8.7	mg/Kg	1	11/2/2023 3:02:20 AM
Motor Oil Range Organics (MRO)	ND	43	mg/Kg	1	11/2/2023 3:02:20 AM
Surr: DNOP	115	69-147	%Rec	1	11/2/2023 3:02:20 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/5/2023 10:25:01 PM
Surr: BFB	95.1	15-244	%Rec	1	11/5/2023 10:25:01 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>
Benzene	ND	0.024	mg/Kg	1	11/5/2023 10:25:01 PM
Toluene	ND	0.049	mg/Kg	1	11/5/2023 10:25:01 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/5/2023 10:25:01 PM
Xylenes, Total	ND	0.097	mg/Kg	1	11/5/2023 10:25:01 PM
Surr: 4-Bromofluorobenzene	97.0	39.1-146	%Rec	1	11/5/2023 10:25:01 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SW01

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 9:30:00 AM

 Lab ID:
 2310D78-016
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	11/2/2023 3:12:43 AM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	11/2/2023 3:12:43 AM
Surr: DNOP	116	69-147	%Rec	1	11/2/2023 3:12:43 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/5/2023 10:48:26 PM
Surr: BFB	95.5	15-244	%Rec	1	11/5/2023 10:48:26 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	11/5/2023 10:48:26 PM
Toluene	ND	0.047	mg/Kg	1	11/5/2023 10:48:26 PM
Ethylbenzene	ND	0.047	mg/Kg	1	11/5/2023 10:48:26 PM
Xylenes, Total	ND	0.094	mg/Kg	1	11/5/2023 10:48:26 PM
Surr: 4-Bromofluorobenzene	98.0	39.1-146	%Rec	1	11/5/2023 10:48:26 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SW02

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 9:32:00 AM

 Lab ID:
 2310D78-017
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/2/2023 3:23:06 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/2/2023 3:23:06 AM
Surr: DNOP	100	69-147	%Rec	1	11/2/2023 3:23:06 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/5/2023 11:11:45 PM
Surr: BFB	94.8	15-244	%Rec	1	11/5/2023 11:11:45 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	11/5/2023 11:11:45 PM
Toluene	ND	0.048	mg/Kg	1	11/5/2023 11:11:45 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/5/2023 11:11:45 PM
Xylenes, Total	ND	0.096	mg/Kg	1	11/5/2023 11:11:45 PM
Surr: 4-Bromofluorobenzene	97.5	39.1-146	%Rec	1	11/5/2023 11:11:45 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SW03

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 9:34:00 AM

 Lab ID:
 2310D78-018
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/2/2023 3:33:28 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 3:33:28 AM
Surr: DNOP	104	69-147	%Rec	1	11/2/2023 3:33:28 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/5/2023 11:35:12 PM
Surr: BFB	92.3	15-244	%Rec	1	11/5/2023 11:35:12 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	11/5/2023 11:35:12 PM
Toluene	ND	0.049	mg/Kg	1	11/5/2023 11:35:12 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/5/2023 11:35:12 PM
Xylenes, Total	ND	0.098	mg/Kg	1	11/5/2023 11:35:12 PM
Surr: 4-Bromofluorobenzene	94.6	39.1-146	%Rec	1	11/5/2023 11:35:12 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SW04

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 9:36:00 AM

 Lab ID:
 2310D78-019
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	<b>Date Analyzed</b>
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	11	9.3	mg/Kg	1	11/2/2023 3:43:49 AM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/2/2023 3:43:49 AM
Surr: DNOP	109	69-147	%Rec	1	11/2/2023 3:43:49 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/5/2023 11:58:44 PM
Surr: BFB	94.8	15-244	%Rec	1	11/5/2023 11:58:44 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.023	mg/Kg	1	11/5/2023 11:58:44 PM
Toluene	ND	0.046	mg/Kg	1	11/5/2023 11:58:44 PM
Ethylbenzene	ND	0.046	mg/Kg	1	11/5/2023 11:58:44 PM
Xylenes, Total	ND	0.093	mg/Kg	1	11/5/2023 11:58:44 PM
Surr: 4-Bromofluorobenzene	96.6	39.1-146	%Rec	1	11/5/2023 11:58:44 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS16

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 9:38:00 AM

 Lab ID:
 2310D78-020
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/2/2023 3:54:13 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/2/2023 3:54:13 AM
Surr: DNOP	75.8	69-147	%Rec	1	11/2/2023 3:54:13 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/6/2023 12:22:17 AM
Surr: BFB	93.5	15-244	%Rec	1	11/6/2023 12:22:17 AM
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>
Benzene	ND	0.023	mg/Kg	1	11/6/2023 12:22:17 AM
Toluene	ND	0.047	mg/Kg	1	11/6/2023 12:22:17 AM
Ethylbenzene	ND	0.047	mg/Kg	1	11/6/2023 12:22:17 AM
Xylenes, Total	ND	0.094	mg/Kg	1	11/6/2023 12:22:17 AM
Surr: 4-Bromofluorobenzene	96.1	39.1-146	%Rec	1	11/6/2023 12:22:17 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS17

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 9:40:00 AM

 Lab ID:
 2310D78-021
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	11/2/2023 4:04:35 AM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	11/2/2023 4:04:35 AM
Surr: DNOP	98.9	69-147	%Rec	1	11/2/2023 4:04:35 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/6/2023 12:45:47 AM
Surr: BFB	96.3	15-244	%Rec	1	11/6/2023 12:45:47 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	11/6/2023 12:45:47 AM
Toluene	ND	0.049	mg/Kg	1	11/6/2023 12:45:47 AM
Ethylbenzene	ND	0.049	mg/Kg	1	11/6/2023 12:45:47 AM
Xylenes, Total	ND	0.098	mg/Kg	1	11/6/2023 12:45:47 AM
Surr: 4-Bromofluorobenzene	99.0	39.1-146	%Rec	1	11/6/2023 12:45:47 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS18

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 9:42:00 AM

 Lab ID:
 2310D78-022
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OI	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/2/2023 4:14:56 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/2/2023 4:14:56 AM
Surr: DNOP	104	69-147	%Rec	1	11/2/2023 4:14:56 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/6/2023 1:09:19 AM
Surr: BFB	94.6	15-244	%Rec	1	11/6/2023 1:09:19 AM
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: <b>JJP</b>
Benzene	ND	0.023	mg/Kg	1	11/6/2023 1:09:19 AM
Toluene	ND	0.046	mg/Kg	1	11/6/2023 1:09:19 AM
Ethylbenzene	ND	0.046	mg/Kg	1	11/6/2023 1:09:19 AM
Xylenes, Total	ND	0.093	mg/Kg	1	11/6/2023 1:09:19 AM
Surr: 4-Bromofluorobenzene	96.5	39.1-146	%Rec	1	11/6/2023 1:09:19 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS19

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 9:44:00 AM

 Lab ID:
 2310D78-023
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	ND	8.7	mg/Kg	1	11/2/2023 4:25:17 AM
Motor Oil Range Organics (MRO)	ND	43	mg/Kg	1	11/2/2023 4:25:17 AM
Surr: DNOP	78.0	69-147	%Rec	1	11/2/2023 4:25:17 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/6/2023 1:32:44 AM
Surr: BFB	95.3	15-244	%Rec	1	11/6/2023 1:32:44 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	11/6/2023 1:32:44 AM
Toluene	ND	0.049	mg/Kg	1	11/6/2023 1:32:44 AM
Ethylbenzene	ND	0.049	mg/Kg	1	11/6/2023 1:32:44 AM
Xylenes, Total	ND	0.098	mg/Kg	1	11/6/2023 1:32:44 AM
Surr: 4-Bromofluorobenzene	97.2	39.1-146	%Rec	1	11/6/2023 1:32:44 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS20

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 9:46:00 AM

 Lab ID:
 2310D78-024
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	10	9.2	mg/Kg	1	11/2/2023 4:35:38 AM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/2/2023 4:35:38 AM
Surr: DNOP	107	69-147	%Rec	1	11/2/2023 4:35:38 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/6/2023 1:56:18 AM
Surr: BFB	95.3	15-244	%Rec	1	11/6/2023 1:56:18 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	11/6/2023 1:56:18 AM
Toluene	ND	0.048	mg/Kg	1	11/6/2023 1:56:18 AM
Ethylbenzene	ND	0.048	mg/Kg	1	11/6/2023 1:56:18 AM
Xylenes, Total	ND	0.097	mg/Kg	1	11/6/2023 1:56:18 AM
Surr: 4-Bromofluorobenzene	98.4	39.1-146	%Rec	1	11/6/2023 1:56:18 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS21

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 10:10:00 AM

 Lab ID:
 2310D78-025
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE C	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/2/2023 4:25:57 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/2/2023 4:25:57 PM
Surr: DNOP	100	69-147	%Rec	1	11/2/2023 4:25:57 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/8/2023 10:53:00 PM
Surr: BFB	99.3	15-244	%Rec	1	11/8/2023 10:53:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	11/8/2023 10:53:00 PM
Toluene	ND	0.048	mg/Kg	1	11/8/2023 10:53:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/8/2023 10:53:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	11/8/2023 10:53:00 PM
Surr: 4-Bromofluorobenzene	83.0	39.1-146	%Rec	1	11/8/2023 10:53:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS22

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 10:15:00 AM

 Lab ID:
 2310D78-026
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/2/2023 4:36:52 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 4:36:52 PM
Surr: DNOP	91.0	69-147	%Rec	1	11/2/2023 4:36:52 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/8/2023 11:58:00 PM
Surr: BFB	109	15-244	%Rec	1	11/8/2023 11:58:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.025	mg/Kg	1	11/8/2023 11:58:00 PM
Toluene	ND	0.049	mg/Kg	1	11/8/2023 11:58:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/8/2023 11:58:00 PM
Xylenes, Total	ND	0.098	mg/Kg	1	11/8/2023 11:58:00 PM
Surr: 4-Bromofluorobenzene	88.5	39.1-146	%Rec	1	11/8/2023 11:58:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS23

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 10:20:00 AM

 Lab ID:
 2310D78-027
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OI	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	11/2/2023 4:47:47 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/2/2023 4:47:47 PM
Surr: DNOP	103	69-147	%Rec	1	11/2/2023 4:47:47 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/9/2023 1:03:00 AM
Surr: BFB	103	15-244	%Rec	1	11/9/2023 1:03:00 AM
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: <b>KMN</b>
Benzene	ND	0.025	mg/Kg	1	11/9/2023 1:03:00 AM
Toluene	ND	0.050	mg/Kg	1	11/9/2023 1:03:00 AM
Ethylbenzene	ND	0.050	mg/Kg	1	11/9/2023 1:03:00 AM
Xylenes, Total	ND	0.099	mg/Kg	1	11/9/2023 1:03:00 AM
Surr: 4-Bromofluorobenzene	86.1	39.1-146	%Rec	1	11/9/2023 1:03:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS24

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 10:25:00 AM

 Lab ID:
 2310D78-028
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: PRD				
Diesel Range Organics (DRO)	11	9.9	mg/Kg	1	11/2/2023 4:58:39 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/2/2023 4:58:39 PM
Surr: DNOP	119	69-147	%Rec	1	11/2/2023 4:58:39 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 1:25:00 AM
Surr: BFB	105	15-244	%Rec	1	11/9/2023 1:25:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.025	mg/Kg	1	11/9/2023 1:25:00 AM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 1:25:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 1:25:00 AM
Xylenes, Total	ND	0.099	mg/Kg	1	11/9/2023 1:25:00 AM
Surr: 4-Bromofluorobenzene	87.1	39.1-146	%Rec	1	11/9/2023 1:25:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS25

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 10:30:00 AM

 Lab ID:
 2310D78-029
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/2/2023 5:09:34 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/2/2023 5:09:34 PM
Surr: DNOP	105	69-147	%Rec	1	11/2/2023 5:09:34 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 1:47:00 AM
Surr: BFB	104	15-244	%Rec	1	11/9/2023 1:47:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	11/9/2023 1:47:00 AM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 1:47:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 1:47:00 AM
Xylenes, Total	ND	0.097	mg/Kg	1	11/9/2023 1:47:00 AM
Surr: 4-Bromofluorobenzene	86.9	39.1-146	%Rec	1	11/9/2023 1:47:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS26

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 10:35:00 AM

 Lab ID:
 2310D78-030
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: PRD				
Diesel Range Organics (DRO)	ND	8.7	mg/Kg	1	11/2/2023 5:20:27 PM
Motor Oil Range Organics (MRO)	ND	43	mg/Kg	1	11/2/2023 5:20:27 PM
Surr: DNOP	92.8	69-147	%Rec	1	11/2/2023 5:20:27 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 2:08:00 AM
Surr: BFB	104	15-244	%Rec	1	11/9/2023 2:08:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.024	mg/Kg	1	11/9/2023 2:08:00 AM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 2:08:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 2:08:00 AM
Xylenes, Total	ND	0.098	mg/Kg	1	11/9/2023 2:08:00 AM
Surr: 4-Bromofluorobenzene	85.3	39.1-146	%Rec	1	11/9/2023 2:08:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SW05

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:30:00 PM

 Lab ID:
 2310D78-031
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	15	8.6	mg/Kg	1	11/2/2023 5:31:19 PM
Motor Oil Range Organics (MRO)	ND	43	mg/Kg	1	11/2/2023 5:31:19 PM
Surr: DNOP	117	69-147	%Rec	1	11/2/2023 5:31:19 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 2:30:00 AM
Surr: BFB	111	15-244	%Rec	1	11/9/2023 2:30:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.025	mg/Kg	1	11/9/2023 2:30:00 AM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 2:30:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 2:30:00 AM
Xylenes, Total	ND	0.099	mg/Kg	1	11/9/2023 2:30:00 AM
Surr: 4-Bromofluorobenzene	88.7	39.1-146	%Rec	1	11/9/2023 2:30:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SW06

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:32:00 PM

 Lab ID:
 2310D78-032
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE C	Analyst: PRD				
Diesel Range Organics (DRO)	17	9.1	mg/Kg	1	11/2/2023 5:42:11 PM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	11/2/2023 5:42:11 PM
Surr: DNOP	98.4	69-147	%Rec	1	11/2/2023 5:42:11 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 2:52:00 AM
Surr: BFB	99.8	15-244	%Rec	1	11/9/2023 2:52:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.025	mg/Kg	1	11/9/2023 2:52:00 AM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 2:52:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 2:52:00 AM
Xylenes, Total	ND	0.099	mg/Kg	1	11/9/2023 2:52:00 AM
Surr: 4-Bromofluorobenzene	84.4	39.1-146	%Rec	1	11/9/2023 2:52:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SW07

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:36:00 PM

 Lab ID:
 2310D78-033
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	16	9.5	mg/Kg	1	11/2/2023 5:53:05 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 5:53:05 PM
Surr: DNOP	103	69-147	%Rec	1	11/2/2023 5:53:05 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 3:14:00 AM
Surr: BFB	99.3	15-244	%Rec	1	11/9/2023 3:14:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.025	mg/Kg	1	11/9/2023 3:14:00 AM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 3:14:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 3:14:00 AM
Xylenes, Total	ND	0.099	mg/Kg	1	11/9/2023 3:14:00 AM
Surr: 4-Bromofluorobenzene	86.1	39.1-146	%Rec	1	11/9/2023 3:14:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SW08

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:38:00 PM

 Lab ID:
 2310D78-034
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: PRD				
Diesel Range Organics (DRO)	10	9.8	mg/Kg	1	11/2/2023 6:03:59 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/2/2023 6:03:59 PM
Surr: DNOP	112	69-147	%Rec	1	11/2/2023 6:03:59 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/9/2023 3:35:00 AM
Surr: BFB	101	15-244	%Rec	1	11/9/2023 3:35:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.025	mg/Kg	1	11/9/2023 3:35:00 AM
Toluene	ND	0.050	mg/Kg	1	11/9/2023 3:35:00 AM
Ethylbenzene	ND	0.050	mg/Kg	1	11/9/2023 3:35:00 AM
Xylenes, Total	ND	0.099	mg/Kg	1	11/9/2023 3:35:00 AM
Surr: 4-Bromofluorobenzene	86.2	39.1-146	%Rec	1	11/9/2023 3:35:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS18

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:40:00 PM

 Lab ID:
 2310D78-035
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OI	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/2/2023 6:25:37 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/2/2023 6:25:37 PM
Surr: DNOP	99.4	69-147	%Rec	1	11/2/2023 6:25:37 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 4:19:00 AM
Surr: BFB	101	15-244	%Rec	1	11/9/2023 4:19:00 AM
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: KMN
Benzene	ND	0.025	mg/Kg	1	11/9/2023 6:44:00 PM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 6:44:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 6:44:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	11/9/2023 6:44:00 PM
Surr: 4-Bromofluorobenzene	86.5	39.1-146	%Rec	1	11/9/2023 6:44:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS27

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:42:00 PM

 Lab ID:
 2310D78-036
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	10	9.4	mg/Kg	1	11/2/2023 6:36:28 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/2/2023 6:36:28 PM
Surr: DNOP	113	69-147	%Rec	1	11/2/2023 6:36:28 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/9/2023 4:41:00 AM
Surr: BFB	99.7	15-244	%Rec	1	11/9/2023 4:41:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	11/9/2023 7:05:00 PM
Toluene	ND	0.048	mg/Kg	1	11/9/2023 7:05:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/9/2023 7:05:00 PM
Xylenes, Total	ND	0.095	mg/Kg	1	11/9/2023 7:05:00 PM
Surr: 4-Bromofluorobenzene	83.8	39.1-146	%Rec	1	11/9/2023 7:05:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS28

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:44:00 PM

 Lab ID:
 2310D78-037
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	12	9.7	mg/Kg	1	11/2/2023 6:47:16 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/2/2023 6:47:16 PM
Surr: DNOP	130	69-147	%Rec	1	11/2/2023 6:47:16 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/9/2023 5:03:00 AM
Surr: BFB	97.4	15-244	%Rec	1	11/9/2023 5:03:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.023	mg/Kg	1	11/9/2023 7:27:00 PM
Toluene	ND	0.047	mg/Kg	1	11/9/2023 7:27:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	11/9/2023 7:27:00 PM
Xylenes, Total	ND	0.094	mg/Kg	1	11/9/2023 7:27:00 PM
Surr: 4-Bromofluorobenzene	86.7	39.1-146	%Rec	1	11/9/2023 7:27:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS29

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:46:00 PM

 Lab ID:
 2310D78-038
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: PRD				
Diesel Range Organics (DRO)	9.7	8.9	mg/Kg	1	11/2/2023 6:58:02 PM
Motor Oil Range Organics (MRO)	ND	44	mg/Kg	1	11/2/2023 6:58:02 PM
Surr: DNOP	109	69-147	%Rec	1	11/2/2023 6:58:02 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 5:24:00 AM
Surr: BFB	105	15-244	%Rec	1	11/9/2023 5:24:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.024	mg/Kg	1	11/9/2023 7:49:00 PM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 7:49:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 7:49:00 PM
Xylenes, Total	ND	0.097	mg/Kg	1	11/9/2023 7:49:00 PM
Surr: 4-Bromofluorobenzene	86.7	39.1-146	%Rec	1	11/9/2023 7:49:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS30

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:48:00 PM

 Lab ID:
 2310D78-039
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: <b>PRD</b>
Diesel Range Organics (DRO)	12	9.9	mg/Kg	1	11/2/2023 7:08:52 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/2/2023 7:08:52 PM
Surr: DNOP	115	69-147	%Rec	1	11/2/2023 7:08:52 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 5:46:00 AM
Surr: BFB	100	15-244	%Rec	1	11/9/2023 5:46:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.025	mg/Kg	1	11/9/2023 8:11:00 PM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 8:11:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 8:11:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	11/9/2023 8:11:00 PM
Surr: 4-Bromofluorobenzene	87.3	39.1-146	%Rec	1	11/9/2023 8:11:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS31

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:50:00 PM

 Lab ID:
 2310D78-040
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OI	Analyst: PRD				
Diesel Range Organics (DRO)	9.7	8.6	mg/Kg	1	11/2/2023 7:19:40 PM
Motor Oil Range Organics (MRO)	ND	43	mg/Kg	1	11/2/2023 7:19:40 PM
Surr: DNOP	109	69-147	%Rec	1	11/2/2023 7:19:40 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 6:08:00 AM
Surr: BFB	103	15-244	%Rec	1	11/9/2023 6:08:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	11/9/2023 8:32:00 PM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 8:32:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 8:32:00 PM
Xylenes, Total	ND	0.097	mg/Kg	1	11/9/2023 8:32:00 PM
Surr: 4-Bromofluorobenzene	84.1	39.1-146	%Rec	1	11/9/2023 8:32:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS32

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:52:00 PM

 Lab ID:
 2310D78-041
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	9.7	8.5	mg/Kg	1	11/2/2023 7:30:26 PM
Motor Oil Range Organics (MRO)	ND	43	mg/Kg	1	11/2/2023 7:30:26 PM
Surr: DNOP	98.4	69-147	%Rec	1	11/2/2023 7:30:26 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 6:30:00 AM
Surr: BFB	102	15-244	%Rec	1	11/9/2023 6:30:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.025	mg/Kg	1	11/9/2023 8:54:00 PM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 8:54:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 8:54:00 PM
Xylenes, Total	ND	0.098	mg/Kg	1	11/9/2023 8:54:00 PM
Surr: 4-Bromofluorobenzene	87.1	39.1-146	%Rec	1	11/9/2023 8:54:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS33

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:54:00 PM

 Lab ID:
 2310D78-042
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	43	9.9	mg/Kg	1	11/2/2023 7:41:10 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/2/2023 7:41:10 PM
Surr: DNOP	109	69-147	%Rec	1	11/2/2023 7:41:10 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 6:51:00 AM
Surr: BFB	107	15-244	%Rec	1	11/9/2023 6:51:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	11/9/2023 9:16:00 PM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 9:16:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 9:16:00 PM
Xylenes, Total	ND	0.098	mg/Kg	1	11/9/2023 9:16:00 PM
Surr: 4-Bromofluorobenzene	89.1	39.1-146	%Rec	1	11/9/2023 9:16:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS34

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:56:00 PM

 Lab ID:
 2310D78-043
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/2/2023 7:51:54 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 7:51:54 PM
Surr: DNOP	129	69-147	%Rec	1	11/2/2023 7:51:54 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/9/2023 7:13:00 AM
Surr: BFB	103	15-244	%Rec	1	11/9/2023 7:13:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	11/9/2023 9:37:00 PM
Toluene	ND	0.048	mg/Kg	1	11/9/2023 9:37:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/9/2023 9:37:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	11/9/2023 9:37:00 PM
Surr: 4-Bromofluorobenzene	84.9	39.1-146	%Rec	1	11/9/2023 9:37:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS35

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 2:58:00 PM

 Lab ID:
 2310D78-044
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	11/2/2023 8:02:36 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/2/2023 8:02:36 PM
Surr: DNOP	104	69-147	%Rec	1	11/2/2023 8:02:36 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/9/2023 7:35:00 AM
Surr: BFB	106	15-244	%Rec	1	11/9/2023 7:35:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.025	mg/Kg	1	11/9/2023 9:59:00 PM
Toluene	ND	0.049	mg/Kg	1	11/9/2023 9:59:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	11/9/2023 9:59:00 PM
Xylenes, Total	ND	0.098	mg/Kg	1	11/9/2023 9:59:00 PM
Surr: 4-Bromofluorobenzene	87.9	39.1-146	%Rec	1	11/9/2023 9:59:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS36

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 3:00:00 PM

 Lab ID:
 2310D78-045
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/2/2023 10:55:46 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 10:55:46 AM
Surr: DNOP	103	69-147	%Rec	1	11/2/2023 10:55:46 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/3/2023 2:02:00 PM
Surr: BFB	103	15-244	%Rec	1	11/3/2023 2:02:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	11/3/2023 2:02:00 PM
Toluene	ND	0.048	mg/Kg	1	11/3/2023 2:02:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/3/2023 2:02:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	11/3/2023 2:02:00 PM
Surr: 4-Bromofluorobenzene	86.5	39.1-146	%Rec	1	11/3/2023 2:02:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS37

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 3:02:00 PM

 Lab ID:
 2310D78-046
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	10	9.4	mg/Kg	1	11/2/2023 11:06:16 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/2/2023 11:06:16 AM
Surr: DNOP	94.0	69-147	%Rec	1	11/2/2023 11:06:16 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/3/2023 3:07:00 PM
Surr: BFB	104	15-244	%Rec	1	11/3/2023 3:07:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.025	mg/Kg	1	11/3/2023 3:07:00 PM
Toluene	ND	0.050	mg/Kg	1	11/3/2023 3:07:00 PM
Ethylbenzene	ND	0.050	mg/Kg	1	11/3/2023 3:07:00 PM
Xylenes, Total	ND	0.10	mg/Kg	1	11/3/2023 3:07:00 PM
Surr: 4-Bromofluorobenzene	88.8	39.1-146	%Rec	1	11/3/2023 3:07:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

QL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS38

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 3:04:00 PM

 Lab ID:
 2310D78-047
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/3/2023 9:55:31 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/3/2023 9:55:31 AM
Surr: DNOP	104	69-147	%Rec	1	11/3/2023 9:55:31 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/3/2023 4:19:00 PM
Surr: BFB	103	15-244	%Rec	1	11/3/2023 4:19:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.024	mg/Kg	1	11/3/2023 4:19:00 PM
Toluene	ND	0.048	mg/Kg	1	11/3/2023 4:19:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/3/2023 4:19:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	11/3/2023 4:19:00 PM
Surr: 4-Bromofluorobenzene	88.4	39.1-146	%Rec	1	11/3/2023 4:19:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS39

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 3:06:00 PM

 Lab ID:
 2310D78-048
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/2/2023 11:37:51 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/2/2023 11:37:51 AM
Surr: DNOP	100	69-147	%Rec	1	11/2/2023 11:37:51 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/3/2023 4:40:00 PM
Surr: BFB	104	15-244	%Rec	1	11/3/2023 4:40:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.024	mg/Kg	1	11/3/2023 4:40:00 PM
Toluene	ND	0.048	mg/Kg	1	11/3/2023 4:40:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/3/2023 4:40:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	11/3/2023 4:40:00 PM
Surr: 4-Bromofluorobenzene	86.9	39.1-146	%Rec	1	11/3/2023 4:40:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS40

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 3:08:00 PM

 Lab ID:
 2310D78-049
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/2/2023 11:48:27 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/2/2023 11:48:27 AM
Surr: DNOP	107	69-147	%Rec	1	11/2/2023 11:48:27 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/3/2023 5:02:00 PM
Surr: BFB	96.7	15-244	%Rec	1	11/3/2023 5:02:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.023	mg/Kg	1	11/3/2023 5:02:00 PM
Toluene	ND	0.046	mg/Kg	1	11/3/2023 5:02:00 PM
Ethylbenzene	ND	0.046	mg/Kg	1	11/3/2023 5:02:00 PM
Xylenes, Total	ND	0.093	mg/Kg	1	11/3/2023 5:02:00 PM
Surr: 4-Bromofluorobenzene	82.7	39.1-146	%Rec	1	11/3/2023 5:02:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS41

 Project:
 Fed GC 1
 Collection Date: 10/27/2023 4:30:00 PM

 Lab ID:
 2310D78-050
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/2/2023 11:59:03 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 11:59:03 AM
Surr: DNOP	97.4	69-147	%Rec	1	11/2/2023 11:59:03 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/3/2023 5:24:00 PM
Surr: BFB	111	15-244	%Rec	1	11/3/2023 5:24:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.024	mg/Kg	1	11/3/2023 5:24:00 PM
Toluene	ND	0.047	mg/Kg	1	11/3/2023 5:24:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	11/3/2023 5:24:00 PM
Xylenes, Total	ND	0.095	mg/Kg	1	11/3/2023 5:24:00 PM
Surr: 4-Bromofluorobenzene	88.5	39.1-146	%Rec	1	11/3/2023 5:24:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SW09

 Project:
 Fed GC 1
 Collection Date: 10/30/2023 9:30:00 AM

 Lab ID:
 2310D78-051
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: PRD				
Diesel Range Organics (DRO)	10	9.6	mg/Kg	1	11/2/2023 12:09:40 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/2/2023 12:09:40 PM
Surr: DNOP	101	69-147	%Rec	1	11/2/2023 12:09:40 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/3/2023 5:45:00 PM
Surr: BFB	109	15-244	%Rec	1	11/3/2023 5:45:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	11/3/2023 5:45:00 PM
Toluene	ND	0.048	mg/Kg	1	11/3/2023 5:45:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	11/3/2023 5:45:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	11/3/2023 5:45:00 PM
Surr: 4-Bromofluorobenzene	86.1	39.1-146	%Rec	1	11/3/2023 5:45:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Analytical Report Lab Order 2310D78

Date Reported: 11/15/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: FS42

 Project:
 Fed GC 1
 Collection Date: 10/30/2023 10:00:00 AM

 Lab ID:
 2310D78-052
 Matrix: SOIL
 Received Date: 10/31/2023 7:30:00 AM

Analyses	Result	RL (	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	RGANICS					Analyst: PRD
Diesel Range Organics (DRO)	41	9.7		mg/Kg	1	11/2/2023 12:20:19 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/2/2023 12:20:19 PM
Surr: DNOP	94.9	69-147		%Rec	1	11/2/2023 12:20:19 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	17	4.9		mg/Kg	1	11/3/2023 6:07:00 PM
Surr: BFB	287	15-244	S	%Rec	1	11/3/2023 6:07:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	11/3/2023 6:07:00 PM
Toluene	ND	0.049		mg/Kg	1	11/3/2023 6:07:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/3/2023 6:07:00 PM
Xylenes, Total	0.14	0.097		mg/Kg	1	11/3/2023 6:07:00 PM
Surr: 4-Bromofluorobenzene	124	39.1-146		%Rec	1	11/3/2023 6:07:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### Hall Environmental Analysis Laboratory, Inc.

2310D78

WO#:

15-Nov-23

**Client:** HILCORP ENERGY

**Project:** Fed GC 1

Sample ID:	2310D78-024AMS	SampTy	/pe: <b>MS</b>	3	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	FS20	Batch	ID: <b>78</b>	484	F	RunNo: 10	00868				
Prep Date:	10/31/2023	Analysis Da	ate: <b>1</b> 1	1/2/2023	5	SeqNo: 37	701931	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	58	9.8	49.12	10.38	97.7	54.2	135			
Surr: DNOP		7.0		4.912		143	69	147			
Sample ID:	2310D78-024AMSD	SampTy	/pe: <b>MS</b>	SD	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	FS20	Batch	ID: <b>78</b>	484	F	RunNo: 10	00868				
Prep Date:	10/31/2023	Analysis Da	ate: <b>1</b> 1	1/2/2023	5	SeqNo: 37	701932	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	53	9.2	46.08	10.38	93.1	54.2	135	9.15	29.2	
Surr: DNOP		6.2		4.608		135	69	147	0	0	
Sample ID:	LCS-78476	SampTy	/pe: <b>LC</b>	s	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batch	ID: <b>78</b>	476	F	RunNo: 10	00868				
Prep Date:	10/31/2023	Analysis Da	ate: <b>1</b> 1	1/1/2023	9	SeqNo: 37	701935	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	Organics (DRO)	48	10	50.00	0	96.8	61.9	130			
Surr: DNOP		6.0		5.000		120	69	147			
Sample ID:	LCS-78484	SampTy	/pe: <b>LC</b>	s	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batch	ID: <b>78</b>	484	F	RunNo: 10	00868				
					_		701026	Units: mg/K	(a		
Prep Date:	10/31/2023	Analysis Da	ate: <b>1</b> 1	1/2/2023	\$	SeqNo: 37	101930	Office. High	.g		
Prep Date: Analyte	10/31/2023	Analysis Da	ate: <b>1</b> 1 PQL	1/2/2023 SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte	<b>10/31/2023</b> Drganics (DRO)							J	ŭ	RPDLimit	Qual
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	ŭ	RPDLimit	Qual
Analyte Diesel Range C	Organics (DRO)	Result 48	PQL 10	SPK value 50.00 5.000	SPK Ref Val	%REC 95.4 123	LowLimit 61.9 69	HighLimit 130	%RPD		Qual

#### Qualifiers:

Prep Date:

Surr: DNOP

Diesel Range Organics (DRO)

Motor Oil Range Organics (MRO)

Analyte

Value exceeds Maximum Contaminant Level.

10/31/2023

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

Analysis Date: 11/1/2023

10

50

Result

ND

ND

12

B Analyte detected in the associated Method Blank

SeqNo: 3701938

LowLimit

69

%REC

119

Units: mg/Kg

147

%RPD

**RPDLimit** 

Qual

HighLimit

- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

SPK value SPK Ref Val

10.00

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2310D78** 

15-Nov-23

**Client:** HILCORP ENERGY

**Project:** Fed GC 1

Sample ID: MB-78484	CompT	SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics									
,							8015W/D: DIE	sei Kange	Organics		
Client ID: PBS		n ID: <b>78</b> 4			RunNo: 10		11.5				
Prep Date: 10/31/2023	Analysis D	)ate: 11	/2/2023	8	SeqNo: 37	701939	Units: mg/K	.g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50	40.00		00.5	00	4.47				
Surr: DNOP	9.7		10.00		96.5	69	147				
Sample ID: <b>2310D78-044AMS</b>	SampT	ype: MS	6	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics		
Client ID: FS35	Batch	n ID: <b>78</b>	505	F	RunNo: 100922						
Prep Date: 11/1/2023	Analysis D	ate: 11	/2/2023	9	SeqNo: 37	703608	Units: mg/K	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	49	9.1	45.75	0	108	54.2	135				
Surr: DNOP	5.8		4.575		126	69	147				
Sample ID: 2310D78-044AMSD	SampT	ype: <b>MS</b>	SD	Tes	tCode: <b>EF</b>	PA Method	8015M/D: Die	sel Range	Organics		
Client ID: FS35	Batch	n ID: <b>78</b>	505	F	RunNo: 10	00922					
Prep Date: 11/1/2023	Analysis D	ate: <b>11</b>	/2/2023	5	SeqNo: 37	703609	Units: mg/K	g			
Prep Date: 11/1/2023 Analyte	Analysis D	oate: <b>11</b> PQL		SPK Ref Val	SeqNo: <b>3</b> 7 %REC	703609 LowLimit	Units: mg/K HighLimit	g %RPD	RPDLimit	Qual	
,	•				•		Ū	•	RPDLimit 29.2	Qual	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD		Qual	
Analyte Diesel Range Organics (DRO)	Result 52 6.0	PQL	SPK value 47.57 4.757	SPK Ref Val	%REC 109 127	LowLimit 54.2 69	HighLimit 135	%RPD 5.32 0	29.2	Qual	
Analyte Diesel Range Organics (DRO) Surr: DNOP	Result 52 6.0 SampT	PQL 9.5	SPK value 47.57 4.757	SPK Ref Val 0	%REC 109 127	LowLimit 54.2 69 PA Method	HighLimit 135 147	%RPD 5.32 0	29.2	Qual	
Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID: LCS-78505	Result 52 6.0 SampT	9.5 Type: <b>LC</b>	SPK value 47.57 4.757 <b>S</b>	SPK Ref Val 0	%REC 109 127 tCode: <b>EF</b>	54.2 69 PA Method	HighLimit 135 147	%RPD 5.32 0 sel Range	29.2	Qual	
Analyte Diesel Range Organics (DRO) Surr: DNOP  Sample ID: LCS-78505 Client ID: LCSS	Result 52 6.0 SampT Batch	9.5 Type: <b>LC</b>	SPK value 47.57 4.757 <b>S</b>	SPK Ref Val 0	%REC 109 127 tCode: <b>EF</b> RunNo: <b>1</b> (	54.2 69 PA Method	HighLimit 135 147 8015M/D: Die	%RPD 5.32 0 sel Range	29.2	Qual	
Analyte Diesel Range Organics (DRO) Surr: DNOP  Sample ID: LCS-78505 Client ID: LCSS Prep Date: 11/1/2023	Result 52 6.0 SampT Batch Analysis D	9.5 Type: <b>LC</b> on ID: <b>785</b> Pate: <b>11</b>	SPK value 47.57 4.757 <b>S</b> 505 /2/2023	SPK Ref Val 0	%REC 109 127 tCode: EF RunNo: 10	LowLimit 54.2 69 PA Method 00922 703675	HighLimit 135 147  8015M/D: Die Units: mg/K	%RPD 5.32 0 sel Range	29.2 0 Organics		
Analyte Diesel Range Organics (DRO) Surr: DNOP  Sample ID: LCS-78505 Client ID: LCSS Prep Date: 11/1/2023 Analyte	Result 52 6.0 SampT Batch Analysis D Result	9.5 Type: LC on ID: 785 Pate: 11	SPK value 47.57 4.757 <b>S</b> <b>505</b> <b>/2/2023</b> SPK value	SPK Ref Val  0  Tes  F  SPK Ref Val	%REC 109 127 tCode: EF RunNo: 10 SeqNo: 37 %REC	24 Method 20922 Constitution of the constituti	HighLimit 135 147  8015M/D: Die  Units: mg/K  HighLimit	%RPD 5.32 0 sel Range	29.2 0 Organics		
Analyte Diesel Range Organics (DRO) Surr: DNOP  Sample ID: LCS-78505 Client ID: LCSS Prep Date: 11/1/2023 Analyte Diesel Range Organics (DRO)	Result 52 6.0 SampT Batch Analysis D Result 50 6.1	9.5 Type: LC on ID: 785 Pate: 11	SPK value 47.57 4.757  S 505 /2/2023 SPK value 50.00 5.000	SPK Ref Val 0 Tes F S SPK Ref Val 0	%REC 109 127 tCode: EF RunNo: 10 SeqNo: 37 %REC 99.4 123	LowLimit 54.2 69 PA Method 00922 703675 LowLimit 61.9 69	HighLimit 135 147  8015M/D: Die Units: mg/K HighLimit 130	%RPD 5.32 0 sel Range g %RPD	29.2 0 Organics		
Analyte Diesel Range Organics (DRO) Surr: DNOP  Sample ID: LCS-78505 Client ID: LCSS Prep Date: 11/1/2023 Analyte Diesel Range Organics (DRO) Surr: DNOP	Result 52 6.0  SampT Batch Analysis D Result 50 6.1  SampT	9.5 Type: LC 1D: 788 Pate: 11	SPK value	SPK Ref Val 0 Tes F SPK Ref Val 0	%REC 109 127 tCode: EF RunNo: 10 SeqNo: 37 %REC 99.4 123	LowLimit 54.2 69 PA Method 00922 703675 LowLimit 61.9 69	HighLimit 135 147  8015M/D: Die Units: mg/K HighLimit 130 147	%RPD 5.32 0 sel Range g %RPD	29.2 0 Organics		

#### Qualifiers:

Analyte

Surr: DNOP

Diesel Range Organics (DRO)

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

PQL

10

Result

52

6.3

- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value

%REC

104

126

LowLimit

61.9

69

%RPD

HighLimit

130

147

**RPDLimit** 

Qual

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

SPK value SPK Ref Val

50.00

5.000

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2310D78** *15-Nov-23* 

Client: HILCORP ENERGY

**Project:** Fed GC 1

Project: Fed GC	1	
Sample ID: <b>MB-78505</b>	SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: PBS	Batch ID: <b>78505</b> RunNo: <b>100922</b>	
Prep Date: 11/1/2023	Analysis Date: 11/2/2023 SeqNo: 3703679 Units: mg/Kg	
Analyte	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	
Diesel Range Organics (DRO)	ND 10	
Motor Oil Range Organics (MRO) Surr: DNOP	ND 50 9.3 10.00 92.9 69 147	
		_
Sample ID: <b>MB-78507</b>	SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: PBS	Batch ID: <b>78507</b> RunNo: <b>100922</b>	
Prep Date: 11/1/2023	Analysis Date: 11/2/2023 SeqNo: 3703680 Units: mg/Kg	
Analyte	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	
Diesel Range Organics (DRO)  Motor Oil Range Organics (MRO)	ND 10 ND 50	
Surr: DNOP	9.3 10.00 92.8 69 147	
Sample ID: LCS-78534	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: LCSS	Batch ID: 78534 RunNo: 100940	
Prep Date: 11/2/2023	Analysis Date: 11/3/2023 SeqNo: 3704561 Units: %Rec	
·	·	
Analyte Surr: DNOP	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 5.5 5.000 111 69 147	
Occupie ID NO TOTAL	Occupation MDIA.	
Sample ID: MB-78534	SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: PBS	Batch ID: <b>78534</b> RunNo: <b>100940</b>	
Prep Date: 11/2/2023	Analysis Date: 11/3/2023 SeqNo: 3704563 Units: %Rec	
Analyte Surr: DNOP	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 9.0 10.00 90.0 69 147	
	5.0 10.00 50.0 05 147	
Sample ID: LCS-78541	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: LCSS	Batch ID: <b>78541</b> RunNo: <b>100940</b>	
Prep Date: 11/2/2023	Analysis Date: 11/3/2023 SeqNo: 3705011 Units: %Rec	
Analyte	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	
Surr: DNOP	8.7 5.000 174 69 147 S	
Sample ID: LCS-78561	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: LCSS	Batch ID: <b>78561</b> RunNo: <b>100940</b>	
Prep Date: 11/3/2023	Analysis Date: 11/4/2023 SeqNo: 3705013 Units: %Rec	
Analyte	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	
Surr: DNOP	5.5 5.000 111 69 147	

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### Hall Environmental Analysis Laboratory, Inc.

14

WO#: **2310D78** 

15-Nov-23

**Client:** HILCORP ENERGY

**Project:** Fed GC 1

Surr: DNOP

Sample ID: MB-78541 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 78541 RunNo: 100940

Prep Date: 11/2/2023 Analysis Date: 11/3/2023 SeqNo: 3705015 Units: %Rec

10.00

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

140

69

147

Sample ID: MB-78561 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 78561 RunNo: 100940

Prep Date: 11/3/2023 Analysis Date: 11/4/2023 SeqNo: 3705017 Units: %Rec

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Surr: DNOP 9.1 10.00 91.2 69 147

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2310D78** 

15-Nov-23

**Client:** HILCORP ENERGY

**Project:** Fed GC 1

	Fed GC 1										
Sample ID:	lcs-78470	SampT	ype: <b>LC</b>	S	Tes	tCode: <b>EF</b>	PA Method	8015D: Gaso	line Range		
Client ID:	LCSS	Batch	1D: <b>78</b> 4	170	F	RunNo: <b>1(</b>	00917				
Prep Date:	10/31/2023	Analysis D	ate: 11	/2/2023	8	SeqNo: 37	703685	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
_	ge Organics (GRO)	22	5.0	25.00	0	88.6	70	130			
Surr: BFB		1900		1000		195	15	244			
Sample ID:	mb-78470	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch	1D: <b>78</b> 4	170	F	RunNo: <b>1(</b>	00917				
Prep Date:	10/31/2023	Analysis D	ate: 11	/2/2023	5	SeqNo: 37	703686	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
_	ge Organics (GRO)	ND	5.0	4000		04.0	45	044			
Surr: BFB		920		1000		91.8	15	244			
Sample ID:	lcs-78501	SampT	ype: <b>LC</b>	S	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	LCSS	Batch ID: <b>78501</b> Analysis Date: <b>11/3/2023</b>			RunNo: 100941						
Prep Date:	11/1/2023	Analysis D	ate: 11	/3/2023	5	SeqNo: 37	705069	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
_	ge Organics (GRO)	24	5.0	25.00	0	95.0	70	130			
Surr: BFB		2300		1000		231	15	244			
Sample ID:	mb-78501	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch	1D: <b>785</b>	501	F	RunNo: <b>1(</b>	00941				
Prep Date:	11/1/2023	Analysis D	ate: 11	/3/2023	5	SeqNo: 37	705070	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
_	ge Organics (GRO)	ND	5.0								
Surr: BFB		1000		1000		102	15	244			
Sample ID:	2310D78-045ams	SampT	ype: MS	;	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	FS36	Batch	1D: <b>785</b>	501	F	RunNo: 10	00941				
Prep Date:	11/1/2023	Analysis D	ate: 11	/3/2023	5	SeqNo: 37	705072	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	ge Organics (GRO)	22	4.8	23.81	0	93.4	70	130			
Surr: BFB		2100		952.4		225	15	244			
Sample ID:	2310D78-045amsd	SampT	ype: MS	SD.	Tes	tCode: <b>EF</b>	PA Method	8015D: Gaso	line Range		
Client ID:	FS36	Batch	1D: <b>785</b>	501	F	RunNo: <b>10</b>	00941				
Prep Date:	11/1/2023	Analysis D	ate: 11	/3/2023	\$	SeqNo: 37	705073	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2310D78** *15-Nov-23* 

Client: HILCORP ENERGY

**Project:** Fed GC 1

Sample ID: 2310D78-045amsd	SampT	уре: <b>м</b> s	D	Tes	TestCode: EPA Method 8015D: Gasoline Range						
Client ID: FS36	Batch	n ID: <b>78</b>	501	F	RunNo: 10	00941					
Prep Date: 11/1/2023	Analysis D	Date: 11	/3/2023	5	SeqNo: 3	705073	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	22	4.8	23.76	0	94.6	70	130	1.09	20		
Surr: BFB	2100		950.6		225	15	244	0	0		
Sample ID: Ics-78477	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8015D: Gaso	line Range	)		

Client ID: LCSS Batch ID: 78477 RunNo: 100955 Analysis Date: 11/5/2023 SeqNo: 3705315 Prep Date: 10/31/2023 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 25 25.00 99.5 70 Surr: BFB 2000 1000 205 15 244

Sample ID: mb-78477 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: Batch ID: 78477 RunNo: 100955 Prep Date: 10/31/2023 Analysis Date: 11/5/2023 SeqNo: 3705316 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result **PQL** LowLimit HighLimit Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 930 1000 93.5 15 244

SampType: MS Sample ID: 2310d78-005ams TestCode: EPA Method 8015D: Gasoline Range Client ID: Batch ID: 78477 RunNo: 100955 FS05 Prep Date: 10/31/2023 Analysis Date: 11/5/2023 SeqNo: 3705318 Units: mg/Kg Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 24 25.00 97.2 70 130 5.0 Surr: BFB 2100 1000 205 15 244

Sample ID: 2310d78-005amso	samp	Type: MS	SD	TestCode: EPA Method 8015D: Gasoline Range						
Client ID: FS05	Bato	h ID: <b>78</b> 4	477	F	RunNo: 10	00955				
Prep Date: 10/31/2023	Analysis I	Date: <b>11</b>	/5/2023	5	SeqNo: 37	705319	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.78	0	90.2	70	130	8.37	20	
Surr: BFB	2000		991.1		205	15	244	0	0	

Sample ID: Ics-78482 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 78482 RunNo: 101035 Prep Date: SeqNo: 3710556 10/31/2023 Analysis Date: 11/8/2023 Units: mg/Kg PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result LowLimit Qual

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### Hall Environmental Analysis Laboratory, Inc.

2310D78 15-Nov-23

WO#:

**Client:** HILCORP ENERGY

**Project:** Fed GC 1

Sample ID: Ics-78482	SampType: Lo	SampType: LCS TestCode: EPA Method					ine Range		
Client ID: LCSS	Batch ID: 78	3482	F	RunNo: 10	1035				
Prep Date: 10/31/2023	Analysis Date: 1	1/8/2023	9	SeqNo: 37	10556	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21 5.0	25.00	0	84.4	70	130			
Surr: BFB	2100	1000		210	15	244			
Sample ID: <b>mb-78482</b>	SampType: M	BLK	Tes	tCode: EP	A Method	8015D: Gasol	ine Range	ı.	
Client ID: PBS	Batch ID: 78	3482	F	RunNo: 10	1035				
Prep Date: 10/31/2023	Analysis Date: 1	1/8/2023	9	SeqNo: 37	10557	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND 5.0	1							
Surr: BFB	1000	1000		102	15	244			
Sample ID: <b>2310D78-025ams</b>	SampType: M	s	Tes	tCode: EP	A Method	8015D: Gasol	ine Range		
Client ID: FS21	Batch ID: 78	3482	F	RunNo: 10	1035				
Prep Date: 10/31/2023	Analysis Date: 1	1/8/2023	SeqNo: 3710558 Units: mg/Kg						

Sample ID: 2310D/8-025ams	<b>d</b> Sampi	ype: MS	ספ	res	tCode: El					
Client ID: FS21	Batch	n ID: <b>78</b> 4	<b>182</b>	F	RunNo: 10	01035				
Prep Date: 10/31/2023	Analysis D	)ate: <b>11</b>	/8/2023	5	SeqNo: 37	710559	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.8	24.11	0	80.6	70	130	2.40	20	
Surr: BFB	2100		964.3		219	15	244	0	0	

LowLimit

70

15

HighLimit

130

244

%REC

82.8

226

%RPD

**RPDLimit** 

Qual

SPK value SPK Ref Val

24.06

962.5

PQL

4.8

Result

2200

20

#### Qualifiers:

Analyte

Surr: BFB

Gasoline Range Organics (GRO)

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2310D78** 

15-Nov-23

**Client:** HILCORP ENERGY

**Project:** Fed GC 1

Sample ID: LCS-78470	SampT	SampType: LCS TestCode					e: EPA Method 8021B: Volatiles					
Client ID: LCSS	Batch	n ID: <b>784</b>	70	F	RunNo: 100917							
Prep Date: 10/31/2023	Analysis D	ate: 11	/2/2023	5	SeqNo: 37	703716	Units: mg/K	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.84	0.025	1.000	0	83.7	70	130					
Toluene	0.88	0.050	1.000	0	87.8	70	130					
Ethylbenzene	0.89	0.050	1.000	0	88.7	70	130					
Xylenes, Total	2.7	0.10	3.000	0	89.6	70	130					
Surr: 4-Bromofluorobenzene	1.0		1.000		100	39.1	146					

Sample ID: <b>mb-78470</b>	SampT	Гуре: МЕ	BLK	Tes	tCode: EF	les					
Client ID: PBS	Batch	h ID: <b>78</b> 4	170	F	RunNo: 10	00917					
Prep Date: 10/31/2023	Analysis D	Date: 11	/2/2023	5	SeqNo: <b>3703717</b>			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.97		1.000		97.3	39.1	146				

Sample ID: Ics-78501	SampType: LCS TestCode: EPA Meth						8021B: Volati	les				
Client ID: LCSS	Batcl	h ID: <b>785</b>	501	F	RunNo: 10							
Prep Date: 11/1/2023	Analysis [	Date: 11	/3/2023	5	SeqNo: 37	705026	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.71	0.025	1.000	0	70.6	70	130					
Toluene	0.73	0.050	1.000	0	73.5	70	130					
Ethylbenzene	0.77	0.050	1.000	0	76.9	70	130					
Xylenes, Total	2.3	0.10	3.000	0	76.5	70	130					
Surr: 4-Bromofluorobenzene	0.87		1.000		87.5	39.1	146					

Sample ID: <b>mb-78501</b>	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: PBS	Batch	n ID: <b>78</b> 5	501	F	RunNo: 10	00941				
Prep Date: 11/1/2023	Analysis D	Date: 11	/3/2023	5	SeqNo: 37	705027	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.86		1.000		85.5	39.1	146			

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2310D78** 

15-Nov-23

**Client:** HILCORP ENERGY

**Project:** Fed GC 1

Sample ID: 2310D78-046ams	SampT	уре: МЅ	<b>)</b>	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: FS37	Batch	n ID: <b>785</b>	501	F	RunNo: 10	00941				
Prep Date: 11/1/2023	Analysis D	)ate: 11	/3/2023	5	SeqNo: 37	705030	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.025	0.9950	0	72.7	70	130			
Toluene	0.76	0.050	0.9950	0	76.2	70	130			
Ethylbenzene	0.78	0.050	0.9950	0	78.4	70	130			
Xylenes, Total	2.3	0.10	2.985	0	78.3	70	130			
Surr: 4-Bromofluorobenzene	0.88		0.9950		88.2	39.1	146			

Sample ID: 2310D78-046amsd	SampT	ype: MS	SD .	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: FS37	Batch	n ID: <b>785</b>	501	F	RunNo: 10	00941				
Prep Date: 11/1/2023	Analysis D	Date: 11	/3/2023	5	SeqNo: 37	705031	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.025	0.9960	0	78.0	70	130	7.20	20	
Toluene	0.83	0.050	0.9960	0	83.0	70	130	8.67	20	
Ethylbenzene	0.86	0.050	0.9960	0	86.2	70	130	9.60	20	
Xylenes, Total	2.6	0.10	2.988	0	85.8	70	130	9.19	20	
Surr: 4-Bromofluorobenzene	0.93		0.9960		92.9	39.1	146	0	0	

Sample ID: LCS-78477	Samp	SampType: LCS TestCode: EPA Method 8021B: Volatiles							•	
Client ID: LCSS	Batcl	h ID: <b>78</b> 4	<b>177</b>	F	RunNo: 10	00955				
Prep Date: 10/31/2023	Analysis [	Date: 11	/5/2023	5	SeqNo: 3	705342	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.76	0.025	1.000	0	75.9	70	130			
Toluene	0.80	0.050	1.000	0	79.8	70	130			
Ethylbenzene	0.81	0.050	1.000	0	81.4	70	130			
Xylenes, Total	2.5	0.10	3.000	0	81.7	70	130			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.1	39.1	146			

Sample ID: <b>mb-78477</b>	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: PBS	Batch	n ID: <b>78</b> 4	177	F	RunNo: 10	00955				
Prep Date: 10/31/2023	Analysis D	Date: 11	/5/2023	9	SeqNo: 37	705343	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.1	39.1	146			

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2310D78** *15-Nov-23* 

Client: HILCORP ENERGY

**Project:** Fed GC 1

Sample ID: 2310d78-006ams	SampT	ype: MS	;	Tes	tCode: EF					
Client ID: FS06	Batch	n ID: <b>78</b> 4	177	F	RunNo: 10	00955				
Prep Date: 10/31/2023	Analysis D	)ate: 11	/5/2023	5	SeqNo: 37	705346	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.023	0.9372	0	87.9	70	130			
Toluene	0.87	0.047	0.9372	0	92.4	70	130			
Ethylbenzene	0.88	0.047	0.9372	0.01030	93.2	70	130			
Xylenes, Total	2.7	0.094	2.812	0.01901	94.2	70	130			
Surr: 4-Bromofluorobenzene	0.92		0.9372		98.2	39.1	146			

Sample ID: 2310d78-006amsd	SampT	Гуре: <b>МЅ</b>	<b>D</b>	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: FS06	Batch	h ID: <b>784</b>	177	F	RunNo: 10	00955				
Prep Date: 10/31/2023	Analysis D	)ate: 11	/5/2023	5	SeqNo: 37	705347	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.023	0.9390	0	84.7	70	130	3.50	20	
Toluene	0.85	0.047	0.9390	0	90.9	70	130	1.48	20	
Ethylbenzene	0.88	0.047	0.9390	0.01030	92.7	70	130	0.355	20	
Xylenes, Total	2.6	0.094	2.817	0.01901	92.8	70	130	1.35	20	
Surr: 4-Bromofluorobenzene	0.93		0.9390		98.6	39.1	146	0	0	

Sample ID: <b>mb-78482</b>	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volati	les		·
Client ID: PBS	Batcl	n ID: <b>78</b> 4	182	F	RunNo: 10	01035				
Prep Date: 10/31/2023	Analysis D	Date: 11	/8/2023	9	SeqNo: 37	710549	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.88		1.000		87.8	39.1	146			

Sample ID: 2310D78-026ams	Samp	Гуре: МЅ	3	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: FS22	Batcl	h ID: <b>78</b> 4	<b>182</b>	F	RunNo: 10	01035				
Prep Date: 10/31/2023	Analysis [	Date: 11	/9/2023	5	SeqNo: 37	711631	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.64	0.025	0.9823	0	64.7	70	130			S
Toluene	0.71	0.049	0.9823	0	71.8	70	130			
Ethylbenzene	0.74	0.049	0.9823	0	75.6	70	130			
Xylenes, Total	2.2	0.098	2.947	0	75.3	70	130			
Surr: 4-Bromofluorobenzene	0.85		0.9823		86.1	39.1	146			

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2310D78** 

15-Nov-23

**Client:** HILCORP ENERGY

**Project:** Fed GC 1

Sample ID: 2310D78-026amsd	Samp1	Гуре: МЅ	SD.	Tes	tCode: EF	les				
Client ID: FS22	Batch	h ID: <b>78</b> 4	182	F	RunNo: 10	01035				
Prep Date: 10/31/2023	Analysis D	Date: 11	/9/2023	5	SeqNo: 37	711632	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.025	0.9843	0	67.6	70	130	4.50	20	S
Toluene	0.74	0.049	0.9843	0	75.1	70	130	4.70	20	
Ethylbenzene	0.78	0.049	0.9843	0	79.2	70	130	4.83	20	
Xylenes, Total	2.3	0.098	2.953	0	78.5	70	130	4.38	20	
Surr: 4-Bromofluorobenzene	0.86		0.9843		87.4	39.1	146	0	0	

Sample ID: Ics-78482	Samp <sup>-</sup>	Гуре: <b>LC</b>	S	Tes	tCode: El	iles				
Client ID: LCSS	Batc	Batch ID: <b>78482</b>			RunNo: 10	01076				
Prep Date: 10/31/2023	Analysis [	Date: <b>11</b>	/9/2023	5	SeqNo: 37	711641	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.71	0.025	1.000	0	70.9	70	130			
Toluene	0.73	0.050	1.000	0	73.4	70	130			
Ethylbenzene	0.76	0.050	1.000	0	76.1	70	130			
Xylenes, Total	2.3	0.10	3.000	0	75.5	70	130			
Surr: 4-Bromofluorobenzene	0.89		1.000		88.8	39.1	146			

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

## Sample Log-In Check List

Released to Imaging: 12/6/2024 1:19:43 PM

Client Name: HILCORP ENERGY Wo	ork Order Number: 231	0D78		ReptNo	p: 1
Received By: Tracy Casarrubias 10/31	/2023 7:30:00 AM				
Completed By: Tracy Casarrubias 10/31	/2023 7:56:28 AM				
Reviewed By: SCM 10/31/23					
Chain of Custody					
1. Is Chain of Custody complete?	Yes		No 🗹	Not Present	
2. How was the sample delivered?	Cou	rier			
<u>Log In</u>					
3. Was an attempt made to cool the samples?	Yes	V	No 🗌	na 🗌	
4. Were all samples received at a temperature of >0°	C to 6.0°C Yes	<b>✓</b>	No 🗌	NA 🗌	
5. Sample(s) in proper container(s)?	Yes	<b>✓</b>	No 🗌		
6. Sufficient sample volume for indicated test(s)?	Yes	$\checkmark$	No 🗆		
$7_{\cdot}$ Are samples (except VOA and ONG) properly prese	rved? Yes	<b>V</b>	No 🗌		
8. Was preservative added to bottles?	Yes		No 🗹	NA 🗀	
9. Received at least 1 vial with headspace <1/4" for AC	Q VOA? Yes		No 🗌	NA 🗸	
10. Were any sample containers received broken?	Yes		No 🗹	# of preserved	
11. Does paperwork match bottle labels?	v		No 🗆	bottles checked for pH:	
(Note discrepancies on chain of custody)	Yes	V	No 📙		or >12 unless noted)
12. Are matrices correctly identified on Chain of Custod	y? Yes	<b>V</b>	No 🗌	Adjusted?	
13. Is it clear what analyses were requested?	Yes	<b>✓</b>	No 🗌		. 1
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes	<b>✓</b>	No 🗆	Checked by:	7410/31/2
Special Handling (if applicable)					
15. Was client notified of all discrepancies with this ord	er? Yes		No 🗌	NA 🗹	
Person Notified:	Date:		THE PERSON NAMED IN COLUMN 1999		
By Whom:	Via: ☐ eM	ail 🗌 P	hone  Fax	☐ In Person	
Regarding:					
Client Instructions: Mailing address and pho	ne number are missing	on COC-	TMC 10/31/23	The second second second second second	
16. Additional remarks:					
17. Cooler Information Cooler No Temp °C Condition Seal Inta 1 2.7 Good Yes	ct Seal No Seal D	ate	Signed By		

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Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type		BIEX?	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310 or	RCRA 8 Metals	CI, F, Br, NO <sub>3</sub> ,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)		64 1 M	2000		
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Phone #	4.								lyth.			Α	naly	sis l	Req	uest					
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Accredi	tation:		· ·	Sampler: /			≱	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	EDB (Method 504.1)	or 82		NO <sub>2</sub> ,		8	Total Coliform (Present/Absent)	1				
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Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2310078	ВТЕХ	TPH:8	8081 F	EDB (	PAHs	RCRA 8 Metals	CI, F, Br, NO <sub>3</sub> ,	8260 (VOA)	8270 (Semi-VOA)	Total (					
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Eurofins Environment Testing South Central, LLC 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

March 11, 2024

Mitch Killough HILCORP ENERGY PO Box 4700 Farmington, NM 87499 TEL: (505) 564-0733

FAX

RE: Federal GC 1 OrderNo.: 2402C73

#### Dear Mitch Killough:

Eurofins Environment Testing South Central, LLC received 6 sample(s) on 2/27/2024 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 3/11/2024

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SS01

 Project:
 Federal GC 1
 Collection Date: 2/26/2024 11:00:00 AM

 Lab ID:
 2402C73-001
 Matrix: SOIL
 Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGAN	NICS					Analyst: <b>JKU</b>
Diesel Range Organics (DRO)	140	9.4		mg/Kg	1	3/1/2024 1:26:20 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/1/2024 1:26:20 PM
Surr: DNOP	93.8	61.2-134		%Rec	1	3/1/2024 1:26:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	23	4.9		mg/Kg	1	3/4/2024 7:11:46 PM
Surr: BFB	366	15-244	S	%Rec	1	3/4/2024 7:11:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	3/4/2024 7:11:46 PM
Toluene	ND	0.049		mg/Kg	1	3/4/2024 7:11:46 PM
Ethylbenzene	ND	0.049		mg/Kg	1	3/4/2024 7:11:46 PM
Xylenes, Total	ND	0.099		mg/Kg	1	3/4/2024 7:11:46 PM
Surr: 4-Bromofluorobenzene	108	39.1-146		%Rec	1	3/4/2024 7:11:46 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 3/11/2024

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SS04

 Project:
 Federal GC 1
 Collection Date: 2/26/2024 11:30:00 AM

 Lab ID:
 2402C73-002
 Matrix: SOIL
 Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst: <b>JKU</b>
Diesel Range Organics (DRO)	400	9.2		mg/Kg	1	3/1/2024 2:38:31 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/1/2024 2:38:31 PM
Surr: DNOP	94.0	61.2-134		%Rec	1	3/1/2024 2:38:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	170	5.0		mg/Kg	1	3/4/2024 7:35:32 PM
Surr: BFB	1900	15-244	S	%Rec	1	3/4/2024 7:35:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	3/4/2024 7:35:32 PM
Toluene	ND	0.050		mg/Kg	1	3/4/2024 7:35:32 PM
Ethylbenzene	ND	0.050		mg/Kg	1	3/4/2024 7:35:32 PM
Xylenes, Total	2.0	0.099		mg/Kg	1	3/4/2024 7:35:32 PM
Surr: 4-Bromofluorobenzene	217	39.1-146	S	%Rec	1	3/4/2024 7:35:32 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 3/11/2024

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SS07

 Project:
 Federal GC 1
 Collection Date: 2/26/2024 12:00:00 PM

 Lab ID:
 2402C73-003
 Matrix: SOIL
 Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: <b>JKU</b>
Diesel Range Organics (DRO)	10	9.4	mg/Kg	1	3/1/2024 3:02:34 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/1/2024 3:02:34 PM
Surr: DNOP	95.5	61.2-134	%Rec	1	3/1/2024 3:02:34 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/4/2024 10:21:57 PM
Surr: BFB	118	15-244	%Rec	1	3/4/2024 10:21:57 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	3/4/2024 10:21:57 PM
Toluene	ND	0.049	mg/Kg	1	3/4/2024 10:21:57 PM
Ethylbenzene	ND	0.049	mg/Kg	1	3/4/2024 10:21:57 PM
Xylenes, Total	0.098	0.098	mg/Kg	1	3/4/2024 10:21:57 PM
Surr: 4-Bromofluorobenzene	103	39.1-146	%Rec	1	3/4/2024 10:21:57 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 3/11/2024

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SS09

 Project:
 Federal GC 1
 Collection Date: 2/26/2024 12:20:00 PM

 Lab ID:
 2402C73-004
 Matrix: SOIL
 Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGAI	NICS					Analyst: <b>JKU</b>
Diesel Range Organics (DRO)	270	9.3		mg/Kg	1	3/1/2024 3:26:42 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/1/2024 3:26:42 PM
Surr: DNOP	96.6	61.2-134		%Rec	1	3/1/2024 3:26:42 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	97	25		mg/Kg	5	3/4/2024 10:45:41 PM
Surr: BFB	281	15-244	S	%Rec	5	3/4/2024 10:45:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.12		mg/Kg	5	3/4/2024 10:45:41 PM
Toluene	ND	0.25		mg/Kg	5	3/4/2024 10:45:41 PM
Ethylbenzene	ND	0.25		mg/Kg	5	3/4/2024 10:45:41 PM
Xylenes, Total	0.98	0.50		mg/Kg	5	3/4/2024 10:45:41 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	5	3/4/2024 10:45:41 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 3/11/2024

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SS11

 Project:
 Federal GC 1
 Collection Date: 2/26/2024 1:30:00 PM

 Lab ID:
 2402C73-005
 Matrix: SOIL
 Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					Analyst: <b>JKU</b>
Diesel Range Organics (DRO)	280	9.3		mg/Kg	1	3/1/2024 3:50:48 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/1/2024 3:50:48 PM
Surr: DNOP	101	61.2-134		%Rec	1	3/1/2024 3:50:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	35	4.9		mg/Kg	1	3/5/2024 3:47:33 PM
Surr: BFB	448	15-244	S	%Rec	1	3/5/2024 3:47:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	3/5/2024 3:47:33 PM
Toluene	ND	0.049		mg/Kg	1	3/5/2024 3:47:33 PM
Ethylbenzene	0.061	0.049		mg/Kg	1	3/5/2024 3:47:33 PM
Xylenes, Total	ND	0.097		mg/Kg	1	3/5/2024 3:47:33 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	3/5/2024 3:47:33 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 3/11/2024

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: SS12

 Project:
 Federal GC 1
 Collection Date: 2/26/2024 2:00:00 PM

 Lab ID:
 2402C73-006
 Matrix: SOIL
 Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: <b>JKU</b>
Diesel Range Organics (DRO)	28	9.1	mg/Kg	1	2/28/2024 8:54:06 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	2/28/2024 8:54:06 PM
Surr: DNOP	91.7	61.2-134	%Rec	1	2/28/2024 8:54:06 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: imr
Gasoline Range Organics (GRO)	6.3	4.9	mg/Kg	1	2/29/2024 10:40:00 PM
Surr: BFB	135	15-244	%Rec	1	2/29/2024 10:40:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: imr
Benzene	ND	0.025	mg/Kg	1	2/29/2024 10:40:00 PM
Toluene	ND	0.049	mg/Kg	1	2/29/2024 10:40:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	2/29/2024 10:40:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	2/29/2024 10:40:00 PM
Surr: 4-Bromofluorobenzene	104	39.1-146	%Rec	1	2/29/2024 10:40:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

### Hall Environmental Analysis Laboratory, Inc.

SampType: MBLK

WO#: **2402C73** 

11-Mar-24

**Client:** HILCORP ENERGY

**Project:** Federal GC 1

Sample ID: MB-80669

Client ID: PBS Batch ID: 80669 RunNo: 103382 Analysis Date: 2/28/2024 SeqNo: 3824791 Units: mg/Kg Prep Date: 2/27/2024 Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 10 ND Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 9.4 10.00 94.3 61.2 134 Sample ID: LCS-80669 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 80669 RunNo: 103382 Prep Date: 2/27/2024 Analysis Date: 2/28/2024 SeqNo: 3824792 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 10 Diesel Range Organics (DRO) 42 50.00 83.5 59.7 135 Surr: DNOP 4.8 5.000 96.8 61.2 134 Sample ID: 2402C73-006AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: SS12 Batch ID: 80669 RunNo: 103382 Prep Date: 2/27/2024 Analysis Date: 2/28/2024 SeqNo: 3824814 Units: mg/Kg Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 66 9.3 46.25 27.67 83.4 43.7 136 Surr: DNOP 4.625 92.4 61.2 4.3 134

TestCode: EPA Method 8015M/D: Diesel Range Organics

<b>D</b> SampT	уре: МS	SD	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Batch	h ID: <b>80</b> 0	669	F	RunNo: 1	03382				
Analysis D	Date: 2/	28/2024	S	SeqNo: 3	824815	Units: mg/K	(g		
Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
73	9.0	44.80	27.67	102	43.7	136	10.4	31.3	
4.2		4.480		94.7	61.2	134	0	0	
	Batcl Analysis D Result	Batch ID: <b>80</b> 0 Analysis Date: <b>2</b> / Result PQL 73 9.0	Batch ID: 80669         Analysis Date:       2/28/2024         Result       PQL       SPK value         73       9.0       44.80	Batch ID: 80669       Result PQL SPK value SPK Ref Val         73       9.0       44.80       27.67	Batch ID: 80669       RunNo: 10         Analysis Date:       2/28/2024       SeqNo: 38         Result       PQL       SPK value       SPK Ref Val       %REC         73       9.0       44.80       27.67       102	Batch ID: 80669       RunNo: 103382         Analysis Date: 2/28/2024       SeqNo: 3824815         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit         73       9.0       44.80       27.67       102       43.7	Batch ID: 80669       RunNo: 103382         Analysis Date:       2/28/2024       SeqNo: 3824815       Units: mg/k         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit         73       9.0       44.80       27.67       102       43.7       136	Batch ID: 80669       RunNo: 103382         Analysis Date: 2/28/2024       SeqNo: 3824815       Units: mg/Kg         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD         73       9.0       44.80       27.67       102       43.7       136       10.4	Batch ID: 80669       RunNo: 103382         Analysis Date: 2/28/2024       SeqNo: 3824815       Units: mg/Kg         Result PQL SPK value SPK Ref Val 73       %REC LowLimit HighLimit MighLimit 73       %RPD RPDLimit 73         73       9.0       44.80       27.67       102       43.7       136       10.4       31.3

Sample ID: MB-80688	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 80688	RunNo: 103382							
Prep Date: 2/28/2024	Analysis Date: 2/28/2024	SeqNo: <b>3824817</b>	Units: %Rec						
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual						
Surr: DNOP	9.5 10.00	95.2 61.2	134						

Sample ID: LCS-80688	SampType: <b>LCS</b>	TestCode: EPA Method	TestCode: EPA Method 8015M/D: Diesel Range Organics										
Client ID: LCSS	Batch ID: 80688	RunNo: 103382											
Prep Date: 2/28/2024	Analysis Date: 2/28/2024	SeqNo: <b>3824818</b>	Units: %Rec										
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual									

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 7 of 12

### Hall Environmental Analysis Laboratory, Inc.

WO#: 2402C73

11-Mar-24

**Client:** HILCORP ENERGY

**Project:** Federal GC 1

Sample ID: LCS-80688 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 80688 RunNo: 103382

SeqNo: 3824818 Prep Date: 2/28/2024 Analysis Date: 2/28/2024 Units: %Rec

Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Surr: DNOP 5.000 61.2 4.6 92.2 134

Sample ID: MB-80723 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 80723 RunNo: 103440

Prep Date: 2/29/2024 Analysis Date: 3/1/2024 SeqNo: 3827432 Units: mg/Kg

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 10.00 9.7 96.9 612 134

Sample ID: LCS-80723 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 80723 RunNo: 103440

Prep Date: 2/29/2024 Analysis Date: 3/1/2024 SeqNo: 3827433 Units: mg/Kg

SPK value SPK Ref Val LowLimit Analyte Result **PQL** %REC HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 51 10 50.00 0 103 59.7 135 Surr: DNOP 4.8 5.000 96.1 61.2 134

Sample ID: 2402C73-001AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: **SS01** Batch ID: 80723 RunNo: 103440

Prep Date: 2/29/2024 Analysis Date: 3/1/2024 SeqNo: 3829436 Units: mg/Kg

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 210 9.2 45.83 144.4 139 S 43 7 136 Surr: DNOP 4.4 4.583 96.1 61.2 134

Sample ID: 2402C73-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: SS01 Batch ID: 80723 RunNo: 103440

Prep Date: 2/29/2024 Analysis Date: 3/1/2024 SeqNo: 3829437 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result HighLimit Qual Diesel Range Organics (DRO) 144.4 210 9.4 46.86 133 43.7 0.535 31.3 136 Surr: DNOP 4.5 4.686 96.3 61.2 134 0 0

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

Above Quantitation Range/Estimated Value

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 8 of 12

### Hall Environmental Analysis Laboratory, Inc.

WO#: 2402C73

11-Mar-24

Client: HILCORP ENERGY

**Project:** Federal GC 1

<b>Project:</b> Federal	eral GC 1										
Sample ID: Ics-80651	SampType: LCS TestCode: EPA Method 8015D: Gasoline Range										
Client ID: LCSS	Batch ID: 8	0651	F	RunNo: <b>1</b> 0	03441						
Prep Date: 2/27/2024	Analysis Date: 2	2/29/2024	8	SeqNo: 38	827447	Units: mg/K	ζg				
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	22 5.0		0	87.9	70	130					
Surr: BFB	2100	1000		213	15	244					
Sample ID: mb-80651	SampType: N	IBLK	Tes	tCode: EF	PA Method	8015D: Gaso	oline Rang	е			
Client ID: PBS	Batch ID: 8	0651	F	RunNo: 10	03441						
Prep Date: 2/27/2024	Analysis Date:	2/29/2024	S	SeqNo: 38	827493	Units: mg/K	(g				
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	ND 5.0			00.0	45	044					
Surr: BFB	990	1000		99.0	15	244					
Sample ID: 2.5ug gro lcs	SampType: L	cs	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: G	S103486	F	RunNo: 10	03486	86					
Prep Date:	Analysis Date:	3/4/2024	S	SeqNo: 38	829762	Units: %Re	С				
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: BFB	2300	1000		225	15	244					
					10	244					
Sample ID: mb	SampType: N		Tes			8015D: Gaso	oline Rang	e			
Sample ID: mb Client ID: PBS		IBLK			PA Method		oline Rang	e			
	SampType: <b>N</b>	IBLK \$103486	F	tCode: <b>E</b>	PA Method 03486		_	e			
Client ID: PBS	SampType: <b>N</b> Batch ID: <b>G</b>	BLK S103486 8/4/2024	F	tCode: EF	PA Method 03486	8015D: Gasc	_	e RPDLimit	Qual		
Client ID: PBS Prep Date:	SampType: N Batch ID: G Analysis Date: :	BLK S103486 8/4/2024	F S	tCode: ER RunNo: 10 SeqNo: 38	PA Method 03486 829763	8015D: Gaso	c		Qual		
Client ID: PBS Prep Date: Analyte	SampType: N Batch ID: G Analysis Date: : Result PQL	S103486 8/4/2024 SPK value 1000	SPK Ref Val	tCode: EF RunNo: 16 SeqNo: 38 %REC 107	PA Method 03486 829763 LowLimit	8015D: Gaso Units: %Rec	c %RPD	RPDLimit	Qual		
Client ID: PBS Prep Date: Analyte Surr: BFB	SampType: N Batch ID: G Analysis Date: : Result PQL 1100	SPK value 1000	SPK Ref Val	tCode: EF RunNo: 16 SeqNo: 38 %REC 107	PA Method 03486 829763 LowLimit 15	8015D: Gaso Units: %Red HighLimit 244	c %RPD	RPDLimit	Qual		
Client ID: PBS Prep Date: Analyte Surr: BFB  Sample ID: Ics-80659	SampType: N Batch ID: G Analysis Date: ; Result PQL 1100 SampType: L	SPK value 1000 CS 0659	SPK Ref Val  Tes	tCode: EF RunNo: 16 SeqNo: 38 %REC 107 tCode: EF	PA Method 03486 829763 LowLimit 15 PA Method 03486	8015D: Gaso Units: %Red HighLimit 244	c %RPD bline Rang	RPDLimit	Qual		
Client ID: PBS Prep Date: Analyte Surr: BFB  Sample ID: Ics-80659 Client ID: LCSS	SampType: N Batch ID: G Analysis Date: : Result PQL 1100 SampType: L Batch ID: 8	BLK \$103486 8/4/2024 \$PK value 1000 CS 0659 8/4/2024	SPK Ref Val  Tes	tCode: ER RunNo: 10 SeqNo: 38 %REC 107 tCode: ER	PA Method 03486 829763 LowLimit 15 PA Method 03486	8015D: Gasc Units: %Red HighLimit 244 8015D: Gasc	c %RPD bline Rang	RPDLimit	Qual		
Client ID: PBS Prep Date: Analyte Surr: BFB  Sample ID: Ics-80659 Client ID: LCSS Prep Date: 2/27/2024 Analyte Gasoline Range Organics (GRO)	SampType: N Batch ID: G Analysis Date: : Result PQL 1100 SampType: L Batch ID: 8 Analysis Date: :	SPK value 1000 CS 0659 SPK value SPK value	SPK Ref Val  Tes	tCode: Eff RunNo: 16 SeqNo: 38 %REC 107 tCode: Eff RunNo: 16 SeqNo: 38 %REC 104	PA Method 03486 829763 LowLimit 15 PA Method 03486 830177	8015D: Gasc Units: %Rec HighLimit 244 8015D: Gasc Units: mg/k	c %RPD oline Rang	RPDLimit e			
Client ID: PBS Prep Date: Analyte Surr: BFB  Sample ID: Ics-80659 Client ID: LCSS Prep Date: 2/27/2024 Analyte	SampType: N Batch ID: G Analysis Date: : Result PQL 1100 SampType: L Batch ID: 8 Analysis Date: : Result PQL	SPK value 1000 CS 0659 SPK value SPK value	SPK Ref Val  Tes  F S SPK Ref Val	tCode: Eff RunNo: 16 SeqNo: 38 %REC 107 tCode: Eff RunNo: 16 SeqNo: 38	PA Method 03486 829763 LowLimit 15 PA Method 03486 830177 LowLimit	8015D: Gasc Units: %Rec HighLimit 244  8015D: Gasc Units: mg/k HighLimit	c %RPD oline Rang	RPDLimit e			
Client ID: PBS Prep Date: Analyte Surr: BFB  Sample ID: Ics-80659 Client ID: LCSS Prep Date: 2/27/2024 Analyte Gasoline Range Organics (GRO)	SampType: N Batch ID: G Analysis Date: 3 Result PQL 1100 SampType: L Batch ID: 8 Analysis Date: 3 Result PQL 26 5.6	SPK value 1000  CS 0659 8/4/2024  SPK value 25.00 1000	SPK Ref Val  Tes  S SPK Ref Val  0	tCode: ER RunNo: 16 SeqNo: 36 %REC 107 tCode: ER RunNo: 16 SeqNo: 36 %REC 104 226	PA Method 03486 829763 LowLimit 15 PA Method 03486 830177 LowLimit 70 15	8015D: Gaso Units: %Red HighLimit 244  8015D: Gaso Units: mg/K HighLimit 130	c %RPD oline Rang (g %RPD	RPDLimit  e  RPDLimit			
Client ID: PBS Prep Date: Analyte Surr: BFB  Sample ID: Ics-80659 Client ID: LCSS Prep Date: 2/27/2024 Analyte Gasoline Range Organics (GRO) Surr: BFB	SampType: N Batch ID: G Analysis Date: (3 Result PQL 1100 SampType: L Batch ID: 8 Analysis Date: (3 Result PQL 26 5.0 2300	SPK value 1000 CS 0659 SPK value 1000 CS 0659 SPK value 0 25.00 1000	SPK Ref Val  Tes SPK Ref Val 0	tCode: ER RunNo: 16 SeqNo: 36 %REC 107 tCode: ER RunNo: 16 SeqNo: 36 %REC 104 226	PA Method 03486 829763  LowLimit 15 PA Method 03486 830177  LowLimit 70 15 PA Method	8015D: Gaso Units: %Red HighLimit 244  8015D: Gaso Units: mg/K HighLimit 130 244	c %RPD oline Rang (g %RPD	RPDLimit  e  RPDLimit			
Client ID: PBS Prep Date: Analyte Surr: BFB  Sample ID: Ics-80659 Client ID: LCSS Prep Date: 2/27/2024 Analyte Gasoline Range Organics (GRO) Surr: BFB  Sample ID: mb-80659	SampType: N Batch ID: G Analysis Date: : Result PQL 1100  SampType: L Batch ID: 8 Analysis Date: : Result PQL 26 5.0 2300  SampType: N	SPK value 1000 CS 0659 SPK value 25.00 1000 BBLK	SPK Ref Val  Tes  SPK Ref Val  0  Tes	tCode: EF  RunNo: 10  SeqNo: 38  %REC  107  tCode: EF  RunNo: 10  SeqNo: 38  %REC  104  226	PA Method 03486 829763 LowLimit 15 PA Method 03486 830177 LowLimit 70 15 PA Method 03486	8015D: Gaso Units: %Red HighLimit 244  8015D: Gaso Units: mg/K HighLimit 130 244	c %RPD  oline Rang  (g %RPD	RPDLimit  e  RPDLimit			
Client ID: PBS Prep Date: Analyte Surr: BFB  Sample ID: Ics-80659 Client ID: LCSS Prep Date: 2/27/2024 Analyte Gasoline Range Organics (GRO) Surr: BFB  Sample ID: mb-80659 Client ID: PBS	SampType: N Batch ID: G Analysis Date: : Result PQL 1100  SampType: L Batch ID: 8 Analysis Date: : Result PQL 26 5.0 2300  SampType: N Batch ID: 8	SPK value 1000 CS 0659 8/4/2024 SPK value 0 25.00 1000 BLK 06659 8/4/2024	SPK Ref Val  Tes  SPK Ref Val  0  Tes	tCode: EF RunNo: 16 ReqNo: 38 %REC 107 tCode: EF RunNo: 16 SeqNo: 38 %REC 104 226 tCode: EF	PA Method 03486 829763 LowLimit 15 PA Method 03486 830177 LowLimit 70 15 PA Method 03486	8015D: Gasc Units: %Rec HighLimit 244  8015D: Gasc Units: mg/k HighLimit 130 244  8015D: Gasc	c %RPD  oline Rang  (g %RPD	RPDLimit  e  RPDLimit			
Client ID: PBS Prep Date: Analyte Surr: BFB  Sample ID: Ics-80659 Client ID: LCSS Prep Date: 2/27/2024 Analyte  Gasoline Range Organics (GRO) Surr: BFB  Sample ID: mb-80659 Client ID: PBS Prep Date: 2/27/2024	SampType: N Batch ID: G Analysis Date: : Result PQL 1100  SampType: L Batch ID: 8 Analysis Date: : Result PQL 26 5.0 2300  SampType: N Batch ID: 8 Analysis Date: :	SPK value 1000 CS 0659 8/4/2024 SPK value 25.00 1000 BBLK 0659 8/4/2024 SPK value	SPK Ref Val  Tes SPK Ref Val 0  Tes SPK Ref Val 0	RunNo: 16 ReqNo: 38  %REC 107  tCode: EF RunNo: 16 ReqNo: 38  %REC 104 226  tCode: EF RunNo: 16	PA Method 03486 829763 LowLimit 15 PA Method 03486 830177 LowLimit 70 15 PA Method 03486 830178	8015D: Gasc Units: %Rec HighLimit 244  8015D: Gasc Units: mg/k HighLimit 130 244  8015D: Gasc Units: mg/k	c %RPD  oline Rang  Kg  %RPD  oline Rang	RPDLimit  e  RPDLimit	Qual		

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2402C73** 

11-Mar-24

Client: HILCORP ENERGY

**Project:** Federal GC 1

Sample ID: 2402c73-001ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range

Client ID: \$501 Batch ID: 80659 RunNo: 103486

Prep Date: 2/27/2024 Analysis Date: 3/5/2024 SeqNo: 3830465 Units: mg/Kg

Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 5.0 24.95 22.64 78.7 70 42 130 S Surr: BFB 4200 998.0 416 15 244

Sample ID: Ics-80774 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 80774 RunNo: 103517

Prep Date: 3/4/2024 Analysis Date: 3/5/2024 SeqNo: 3831419 Units: %Rec

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Surr: BFB
 2200
 1000
 217
 15
 244

Sample ID: mb-80774 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 80774 RunNo: 103517

Prep Date: 3/4/2024 Analysis Date: 3/5/2024 SeqNo: 3831421 Units: %Rec

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Surr: BFB 1000 1000 103 15 244

Sample ID: 2402c73-001amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: **\$\$01** Batch ID: **80659** RunNo: **103517** 

Prep Date: 2/27/2024 Analysis Date: 3/5/2024 SeqNo: 3831427 Units: mg/Kg

SPK value SPK Ref Val %REC %RPD **RPDLimit** Result PQL LowLimit HighLimit Qual Gasoline Range Organics (GRO) 44 4.9 24.53 22.64 87.2 70 20 130 4.12 Surr: BFB 4500 981.4 454 15 244 0 0 S

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 10 of 12

### Hall Environmental Analysis Laboratory, Inc.

WO#: 2402C73

11-Mar-24

**Client:** HILCORP ENERGY

**Project:** Federal GC 1

Sample ID: Ics-80651	SampT	ype: <b>LC</b>	S	Tes	tCode: El	PA Method	8021B: Volat	iles			
Client ID: LCSS	Batcl	n ID: <b>80</b>	651	F	RunNo: 10	03441					
Prep Date: 2/27/2024	Analysis D	Date: 2/	29/2024	S	SeqNo: 3	827446	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.89	0.025	1.000	0	88.7	70	130				
Toluene	0.90	0.050	1.000	0	89.5	70	130				
Ethylbenzene	0.92	0.050	1.000	0	91.6	70	130				
Xylenes, Total	2.8	0.10	3.000	0	92.3	70	130				
Surr: 4-Bromofluorobenzene	0.99		1.000		98.7	39.1	146				
Sample ID: <b>mb-80651</b>	SampT	SampType: MBLK TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS	Batcl	n ID: <b>80</b>	651	F	RunNo: 10	03441					
Prep Date: 2/27/2024	Analysis D	Date: 2/	29/2024	S	SeqNo: 3	827492	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.96		1.000 95.6 39.1 146								
Sample ID: LCS-80659	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8021B: Volat	iles			
Client ID: LCSS	Batcl	cch ID: <b>80659</b> RunNo: <b>103486</b>									

Cap.c .2 . 200 00000	• • • • • • • • • • • • • • • • • • •	. , p c. <b>_c</b>	•		002 12. Tolai						
Client ID: LCSS	Batc	h ID: <b>80</b> 0	659	F	RunNo: 1	03486					
Prep Date: 2/27/2024	Analysis [	Date: 3/	4/2024	Units: mg/K	(g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.88	0.025	1.000	0	88.2	70	130				
Toluene	0.90	0.050	1.000	0	90.0	70	130				
Ethylbenzene	0.93	0.050	1.000	0	92.8	70	130				
Xylenes, Total	2.8	0.10	3.000	0	93.2	70	130				
Surr: 4-Bromofluorobenzene	1.1		1.000		106	39.1	146				

Sample ID: <b>mb-80659</b>	SampT	уре: <b>МЕ</b>	BLK	Tes	tCode: El	tiles				
Client ID: PBS	Batch	1D: <b>80</b>	659	F	RunNo: 10	03486				
Prep Date: 2/27/2024	Analysis D	ate: 3/	4/2024	S	SeqNo: 3	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	39.1	146			

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated.

Analyte detected in the associated Method Blank

Above Quantitation Range/Estimated Value

Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Limit

Page 11 of 12

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2402C73** 

11-Mar-24

Client: HILCORP ENERGY

**Project:** Federal GC 1

Sample ID: 2402c73-002ams	SampT	SampType: MS TestCode: EPA Method 8						tiles					
Client ID: SS04	Batch	Batch ID: <b>80659</b> RunNo: <b>103486</b>											
Prep Date: 2/27/2024	Analysis D	ate: 3/	5/2024	S	SeqNo: 3	830487	Units: mg/Kg						
Analyte	Result	·							RPDLimit	Qual			
Benzene	0.81	0.025	0.9814	0	82.3	70	130						
Toluene	0.83	0.049	0.9814	0.07267	77.1	70	130						
Ethylbenzene	0.94	0.049	0.9814	0	95.8	70	130						
Xylenes, Total	4.2	0.098	2.944	1.956	77.3	70	130						
Surr: 4-Bromofluorobenzene	1.9		0.9814		189	39.1	146			S			

Sample ID: LCS-80774	SampTy	/pe: <b>LC</b>	S	Tes	8021B: Volat	iles				
Client ID: LCSS	Batch	ID: <b>807</b>	774	R						
Prep Date: 3/4/2024	Analysis Da	Analysis Date: 3/5/2024			SeqNo: 3	831458	Units: %Rec	;		
Analyte	Result	Result PQL SPK value SPK Ref Val %REC LowLimit F					HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.97	1.000		97.0	39.1	146				

Sample ID: <b>mb-80774</b>	TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS	Batch	ID: <b>80</b>	774	F	RunNo: 1	03517				
Prep Date: 3/4/2024	Analysis D	ate: 3/	5/2024	S	SeqNo: 3	831460	Units: %Red	•		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	39.1	146			

Sample ID: 2402c73-002ams	SD	Tes	tCode: El	PA Method	8021B: Volat	tiles				
Client ID: \$\$04	Batc	h ID: <b>80</b>	659	F	RunNo: 1	03517				
Prep Date: 2/27/2024	Analysis [	Date: <b>3/</b>	5/2024	S	SeqNo: 3	831494	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.025	0.9804	0	83.1	70	130	0.966	20	
Toluene	0.85	0.049	0.9804	0	86.8	70	130	2.61	20	
Ethylbenzene	0.98	0.049	0.9804	0	99.5	70	130	3.73	20	
Xylenes, Total	4.1	0.098	2.941	1.956	74.5	70	130	2.00	20	
Surr: 4-Bromofluorobenzene	2.0		0.9804		199	39.1	146	0	0	S

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 12 of 12



### Environment Testin

#### Eurofins Environment Testing South Central, LLC 4901 Hawkins NE

4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name:	HILCORP ENERGY	Work Order Number	24020	73		RcptNo	1
Received By:	Tracy Casarrubias	2/27/2024 6:35:00 AM	ı				
Completed By:	Tracy Casarrubias	2/27/2024 8:08:32 AM	ı				
Reviewed By:	any	2/27/24					
Chain of Cus	stody						
1. Is Chain of C	sustody complete?		Yes		No 🗸	Not Present	
2. How was the	sample delivered?		Courie	ī			
<u>Log In</u>			Yes 5	<u> </u>	No 🗌	na 🗆	
3. Was an atten	npt made to cool the sample	5?	Yes 1	Y	NO L	IVA 🗀	
4. Were all sam	ples received at a temperatu	re of >0° C to 6.0°C	Yes 5	<b>V</b>	No 🗌	na $\square$	
5. Sample(s) in	proper container(s)?		Yes		No 🗌		
6. Sufficient san	nple volume for indicated tes	t(s)?	Yes 🛭		No 🗌		
7. Are samples	(except VOA and ONG) prop	erly preserved?	Yes 1		No 🗌		
8. Was preserva	ative added to bottles?		Yes [		No 🗹	na 🗆	
9. Received at le	east 1 vial with headspace <	1/4" for AQ VOA?	Yes		No 🗌	NA 🗹	
10. Were any sa	mple containers received bro	oken?	Yes		No 🗹	# of preserved	
			-	-	🗀	bottles checked	
	ork match bottle labels?		Yes 1	<b>Z</b> I	No 🗀	for pH: (<2 c	r >12 unless noted)
	cancies on chain of custody) correctly identified on Chain	of Custody?	Yes 5	/	No 🗌	Adjusted?	
	at analyses were requested?	or outday.	Yes 1		No 🗌		
14. Were all hold	ling times able to be met?		Yes 🛚		No 🗆	Checked by:	M 2/27/20
	customer for authorization.)						
	lling (if applicable)		V		No 🗌	NA 🗹	
15. Was client n	otified of all discrepancies w		Yes		INO L.	IVA 🖭	
	n Notified:	Date:					
By Wh		Via:	eMai	I Phon	e 🗌 Fax	In Person	
Regard							
Client	Instructions: Mailing addres	ss is missing on COC- TMC	2/27/24				
16. Additional re	emarks:						
17. Cooler Info	ormation	5 20 520					
Cooler N			Seal Da	te Sig	ned By		
1	5.3 Good	Yes Morty					

	Chain-of-Custody Record  Client: Hilcorp Energy Company		Turn-Around Time: 5-da Y				У		52	ADATE:	ı.	AL		FI	NIN	TE	20	NI N	ΛEI	NT	ΑI		
Client:	Hila	ore I	normy Company	] ⊿/s	Standard			. 1			=	107	RVE OF THE									RY	,
Attu	M	1416	Killough	Proje	ct Name	ə:		_	100									tal.co					
Mailing	Address	<u>: 1                                   </u>	KINOVAL	F	edero	1 GC	1			40	01 L								м 87 <sup>.</sup>	100			
				Proje					f			15-34							-4107				
Phone	# 28	1-251	- 2338	1						1 6	31. 50	)U-3 <sup>2</sup>	+0-0:	-		-		uest	47.7	1	A 140		4-1
			ugh Chilcorp. Com	Proie	ect Mana	ager:			~	6					SO4			-	- 3				
	Package:		□ Level 4 (Full Validation)	٦		+ Hyd	e	п	BTEX /-MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's		8270SIMS		NO2, PO4, SO		11	Total Coliform (Present/Absent)					
	litation:	□ Az Co	ompliance	Sami	oler:	Al Tho	ms	ion	₩.	R	382	<del>(</del>	3270		02,			seu					
□ NE		□ Othe	•	On Id		¥ Yes	□ No		7	်	)8/s	504.	or 8	တ			8						
□ ED	EDD (Type)		# of Coalers:   Cooler Temp(including CF): 5.4-6.1-2-5.3 (°C)				Ħ	[ <u>0</u>	icide	EDB (Method 504.1)	PAHs by 8310 or	RCRA 8 Metals	Br, NO <sub>3</sub> ,	8	8270 (Semi-VOA)	E							
									<b>*</b>	015	Pest	Met	by 8	8	Ŗ,	8260 (VOA)	Sen	<del> </del>					
					Container Preservative HEAL No.				IEX.	꽃	18	)B(	4Hs	CR.	CI, F,	90	270 (	)tal					
Date	+	Matrix	Sample Name		and #		240	020703	B	F	8	프	<u>P</u>	Ř	ਹ	-8	- 82	Ĕ		-		_	┿
3-71		Soil	5501	1x	402	Cool		100	X	X									-	-	_	_	╄
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Date:	Time:	Relinquis		Recei	ved by:	Via: Caunter	2 B	Date Time	/		11	a	) C	n5e	NU	M.	60	m					
Spir	welled shape our They						6:35 2/24/29		) N	10,		0	(+h	on	501	n @	en	501	UM	.60	M		
	If necessary, samples submitted to Hall Environmental may be			contracte	ed to other :	accredited laborator	ies. This	s serves as notice of this	s poss	ibility.	Any s	ub-cor	ntracte	d data	will b	e clear	ly nota	ated or	n the ar	nalytica	il report.		

## PREPARED FOR

Attn: Mitch Killough Hilcorp Energy PO BOX 4700 Farmington, New Mexico 87499

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## **JOB DESCRIPTION**

Federal GC #1

## **JOB NUMBER**

885-4922-1

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109

## **Eurofins Albuquerque**

### **Job Notes**

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

### **Authorization**

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Authorized for release by Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com (505)345-3975

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Laboratory Job ID: 885-4922-1

Client: Hilcorp Energy Project/Site: Federal GC #1

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### **Definitions/Glossary**

Job ID: 885-4922-1 Client: Hilcorp Energy

Project/Site: Federal GC #1

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Surrogate recovery exceeds control limits, high biased.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

Percent Recovery %R CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

Estimated Detection Limit (Dioxin) EDL LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

### **Case Narrative**

Client: Hilcorp Energy Job ID: 885-4922-1 Project: Federal GC #1

Job ID: 885-4922-1 **Eurofins Albuquerque** 

#### Job Narrative 885-4922-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The samples were received on 5/22/2024 6:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.4°C.

### Gasoline Range Organics

Method 8015D GRO: Internal standard responses were outside of acceptance limits for the following sample: SS07A (885-4922-4). The sample(s) shows evidence of matrix interference.

Method 8015D GRO: Internal standard responses were outside of acceptance limits for the following sample: SS08A (885-4922-5). The sample(s) shows evidence of matrix interference.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### **GC VOA**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### **Diesel Range Organics**

Method 8015D DRO: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 885-5576 and analytical batch 885-5629 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Hilcorp Energy

Project/Site: Federal GC #1

Lab Sample ID: 885-4922-1

Matrix: Solid

Job ID: 885-4922-1

Client Sample ID: SS03A Date Collected: 05/21/24 13:50

Date Received: 05/22/24 06:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		05/22/24 08:45	05/28/24 23:45	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		35 - 166			05/22/24 08:45	05/28/24 23:45	
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND.		0.024	ma/Ka		05/22/24 08:45	05/28/24 23:45	

4-Bromofluorobenzene (Surr)	92		48 - 145		05/22/24 08:45	05/28/24 23:45	1
Surrogate	%Recovery Q	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.095	mg/Kg	05/22/24 08:45	05/28/24 23:45	1
Toluene	ND		0.047	mg/Kg	05/22/24 08:45	05/28/24 23:45	1
Ethylbenzene	ND		0.047	mg/Kg	05/22/24 08:45	05/28/24 23:45	1

Method: SW846 8015D - Diesel R	ange Organics	(DRO) (GC	<b>3</b> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		05/23/24 14:41	05/24/24 13:23	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/23/24 14:41	05/24/24 13:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
D' ( ) -  - ( ) - ( ) - ( )	400					05/00/04 44 44	05/04/04 40 00	

100 62 - 134 Di-n-octyl phthalate (Surr)

Client: Hilcorp Energy

Job ID: 885-4922-1

Project/Site: Federal GC #1

Client Sample ID: SS05A Lab Sample ID: 885-4922-2

Matrix: Solid

Date Collected: 05/21/24 13:52 Date Received: 05/22/24 06:45

Diesel Range Organics [C10-C28]

Motor Oil Range Organics [C28-C40]

Di-n-octyl phthalate (Surr)

Surrogate

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 -	18		5.0	mg/Kg		05/22/24 08:45	05/29/24 00:09	1
C10]								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	319	S1+	35 - 166			05/22/24 08:45	05/29/24 00:09	1
Method: SW846 8021B - Volatilo	e Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/22/24 08:45	05/29/24 00:09	1
Ethylbenzene	ND		0.050	mg/Kg		05/22/24 08:45	05/29/24 00:09	1
Toluene	ND		0.050	mg/Kg		05/22/24 08:45	05/29/24 00:09	1
Xylenes, Total	ND		0.10	mg/Kg		05/22/24 08:45	05/29/24 00:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		48 - 145			05/22/24 08:45	05/29/24 00:09	1

9.8

49

Limits

62 - 134

mg/Kg

mg/Kg

05/23/24 14:41

05/23/24 14:41

Prepared

05/23/24 14:41

05/24/24 13:34

05/24/24 13:34

Analyzed

05/24/24 13:34

72

ND

92

Qualifier

%Recovery

Dil Fac

2

2

4

7

8

10

11

# **Client Sample Results**

Client: Hilcorp Energy

Project/Site: Federal GC #1

Client Sample ID: SS06A Lab Sample ID: 885-4922-3

Date Collected: 05/21/24 13:54

Page Page ived: 05/23/24 06:45

Method: SW846 8015D - Gasoline Analyte		Qualifier	, RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/22/24 08:45	05/29/24 00:32	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		35 - 166			05/22/24 08:45	05/29/24 00:32	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/22/24 08:45	05/29/24 00:32	1
Ethylbenzene	ND		0.048	mg/Kg		05/22/24 08:45	05/29/24 00:32	1
Toluene	ND		0.048	mg/Kg		05/22/24 08:45	05/29/24 00:32	1
Xylenes, Total	ND		0.096	mg/Kg		05/22/24 08:45	05/29/24 00:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		48 - 145			05/22/24 08:45	05/29/24 00:32	1
Method: SW846 8015D - Diesel R	ange Organics	s (DRO) (GC	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2	mg/Kg		05/23/24 14:41	05/24/24 13:44	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/23/24 14:41	05/24/24 13:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	93		62 - 134			05/23/24 14:41	05/24/24 13:44	1

2

4

7

8

10

11

05/22/24 08:45

05/22/24 08:45

Client: Hilcorp Energy Project/Site: Federal GC #1

Toluene

**Xylenes, Total** 

Client Sample ID: SS07A

Lab Sample ID: 885-4922-4

Matrix: Solid

Date Collected: 05/21/24 13:56
Date Received: 05/22/24 06:45

ND

0.16

\_\_ [

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	83		4.8	mg/Kg		05/22/24 08:45	05/29/24 00:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	959	S1+	35 - 166			05/22/24 08:45	05/29/24 00:56	1
– Method: SW846 8021B - Volatile	e Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	MD		0.024	mg/Kg		05/22/24 08:45	05/29/24 00:56	1
Ethylbenzene	0.071		0.048	ma/Ka		05/22/24 08:45	05/29/24 00:56	1

05/29/24 00:56	1	9
05/29/24 00:56	1	
05/29/24 00:56	1	
05/29/24 00:56	1	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		48 - 145	05/22/24 08:45	05/29/24 00:56	1

0.048

0.095

mg/Kg

mg/Kg

 Method: SW846 8015D - Diesel R	ange Organics	s (DRO) (GO	<b>S</b> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	240		9.3	mg/Kg		05/23/24 14:41	05/24/24 13:55	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/23/24 14:41	05/24/24 13:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134			05/23/24 14:41	05/24/24 13:55	1

Client: Hilcorp Energy Project/Site: Federal GC #1

Client Sample ID: SS08A

Date Collected: 05/21/24 13:58

Date Received: 05/22/24 06:45

Motor Oil Range Organics [C28-C40]

Di-n-octyl phthalate (Surr)

Surrogate

Lab Sample ID: 885-4922-5

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 -	9.7		4.6	mg/Kg		05/22/24 08:45	05/29/24 13:32	1
C10]								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	216	S1+	35 - 166			05/22/24 08:45	05/29/24 13:32	1
Method: SW846 8021B - Volatile (	Organic Comp	ounds (GC)	)					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		05/22/24 08:45	05/29/24 01:19	1
Ethylbenzene	ND		0.046	mg/Kg		05/22/24 08:45	05/29/24 01:19	1
Toluene	ND		0.046	mg/Kg		05/22/24 08:45	05/29/24 01:19	1
Xylenes, Total	ND		0.093	mg/Kg		05/22/24 08:45	05/29/24 01:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		48 - 145			05/22/24 08:45	05/29/24 01:19	1
Method: SW846 8015D - Diesel R	ange Organics	(DRO) (GC	;)					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	52		8.9	mg/Kg		05/23/24 14:41	05/24/24 14:06	

45

Limits

62 - 134

mg/Kg

05/23/24 14:41

Prepared

05/24/24 14:06

Analyzed

05/23/24 14:41 05/24/24 14:06

Dil Fac

ND

%Recovery Qualifier

94

Client: Hilcorp Energy Job ID: 885-4922-1

Project/Site: Federal GC #1

Lab Sample ID: 885-4922-6 Client Sample ID: SS11A

Matrix: Solid

Date Collected: 05/21/24 14:00 Date Received: 05/22/24 06:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		05/22/24 08:45	05/29/24 01:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		35 - 166			05/22/24 08:45	05/29/24 01:42	1
	Organic Comp	ounds (GC)						
Method: SW846 8021B - Volatile	Organic Comp	ounus (OO)						
Method: SW846 8021B - Volatile Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	•	• •		Unit mg/Kg	<u>D</u>	Prepared 05/22/24 08:45	Analyzed 05/29/24 01:42	Dil Fac

Toluene	ND		0.047	mg/Kg	05/22/24 08:45	05/29/24 01:42	1
Xylenes, Total	ND		0.093	mg/Kg	05/22/24 08:45	05/29/24 01:42	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		48 - 145		05/22/24 08:45	05/29/24 01:42	1

Method: SW846 8015D - Diesel R	ange Organics	(DRO) (GO	<b>;</b> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	9.9		9.5	mg/Kg		05/23/24 14:41	05/24/24 14:17	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/23/24 14:41	05/24/24 14:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	95		62 134			05/23/24 14:41	05/24/24 14:17	1

Client: Hilcorp Energy Project/Site: Federal GC #1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-5422/1-A

**Matrix: Solid** 

**Analysis Batch: 5727** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5422

Dil Fac

Analyte Result Qualifier RLUnit D Prepared Analyzed Gasoline Range Organics [C6 - C10] ND 5.0 mg/Kg 05/22/24 08:45 05/28/24 18:18

MB MB

MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 4-Bromofluorobenzene (Surr) 95 35 - 166 05/22/24 08:45 05/28/24 18:18

Lab Sample ID: LCS 885-5422/2-A Client Sample ID: Lab Control Sample

**Matrix: Solid** 

**Analysis Batch: 5727** 

Prep Type: Total/NA

Prep Batch: 5422

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits 25.0 25.2 101 mg/Kg 70 - 130Gasoline Range Organics [C6 -C10]

LCS LCS

%Recovery Qualifier Limits Surrogate 206 S1+ 35 - 166 4-Bromofluorobenzene (Surr)

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-5422/1-A Client Sample ID: Method Blank **Matrix: Solid** 

**Analysis Batch: 5728** 

Prep Type: Total/NA Prep Batch: 5422

MB MB Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac ND 0.025 05/22/24 08:45 05/28/24 18:18 Benzene mg/Kg Ethylbenzene ND 0.050 mg/Kg 05/22/24 08:45 05/28/24 18:18 Toluene NΠ 0.050 05/22/24 08:45 05/28/24 18:18 mg/Kg Xylenes, Total ND 0.10 mg/Kg 05/22/24 08:45 05/28/24 18:18

MB MB

Surrogate %Recovery Qualifier Limits Dil Fac Prepared Analyzed 4-Bromofluorobenzene (Surr) 48 - 145 05/22/24 08:45 05/28/24 18:18 88

Lab Sample ID: LCS 885-5422/3-A

**Matrix: Solid** 

Toluene

**Analysis Batch: 5728** 

Client Sample ID: Lab Control Sample

70 - 130

84

Prep Type: Total/NA

Prep Batch: 5422

Spike LCS LCS %Rec Result Qualifier Analyte Added Unit D %Rec Limits 1.00 0.888 Benzene mg/Kg 89 70 - 130 Ethylbenzene 1.00 0.844 mg/Kg 84 70 - 130 2.00 86 1.71 mg/Kg 70 - 130 m&p-Xylene 0.830 70 - 130 o-Xylene 1.00 mg/Kg 83

0.844

mg/Kg

1 00

LCS LCS

Qualifier Limits Surrogate %Recovery 48 - 145 4-Bromofluorobenzene (Surr) 92

### QC Sample Results

Client: Hilcorp Energy Job ID: 885-4922-1

Project/Site: Federal GC #1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: LCS 885-5576/2-A

Lab Sample ID: MB 885-5576/1-A Client Sample ID: Method Blank

**Matrix: Solid** 

Analysis Batch: 5629

Prep Type: Total/NA Prep Batch: 5576 MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		05/23/24 14:41	05/24/24 11:05	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		05/23/24 14:41	05/24/24 11:05	1

MB MB

%Recovery Qualifier Limits Prepared Analyzed Dil Fac Surrogate Di-n-octyl phthalate (Surr) 102 62 - 134 05/23/24 14:41 05/24/24 11:05

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5576

Spike LCS LCS %Rec Added Result Qualifier Analyte Unit D %Rec Limits **Diesel Range Organics** 50.0 56.1 mg/Kg 112 60 - 135

[C10-C28]

Matrix: Solid

**Analysis Batch: 5629** 

LCS LCS Surrogate %Recovery Qualifier Limits Di-n-octyl phthalate (Surr) 109 62 - 134

# **QC Association Summary**

Client: Hilcorp Energy

Job ID: 885-4922-1

Project/Site: Federal GC #1

GC VOA

Prep Batch: 5422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4922-1	SS03A	Total/NA	Solid	5030C	
885-4922-2	SS05A	Total/NA	Solid	5030C	
885-4922-3	SS06A	Total/NA	Solid	5030C	
885-4922-4	SS07A	Total/NA	Solid	5030C	
885-4922-5	SS08A	Total/NA	Solid	5030C	
885-4922-6	SS11A	Total/NA	Solid	5030C	
MB 885-5422/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-5422/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-5422/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 5727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4922-1	SS03A	Total/NA	Solid	8015D	5422
885-4922-2	SS05A	Total/NA	Solid	8015D	5422
885-4922-3	SS06A	Total/NA	Solid	8015D	5422
885-4922-4	SS07A	Total/NA	Solid	8015D	5422
885-4922-6	SS11A	Total/NA	Solid	8015D	5422
MB 885-5422/1-A	Method Blank	Total/NA	Solid	8015D	5422
LCS 885-5422/2-A	Lab Control Sample	Total/NA	Solid	8015D	5422

**Analysis Batch: 5728** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4922-1	SS03A	Total/NA	Solid	8021B	5422
885-4922-2	SS05A	Total/NA	Solid	8021B	5422
885-4922-3	SS06A	Total/NA	Solid	8021B	5422
885-4922-4	SS07A	Total/NA	Solid	8021B	5422
885-4922-5	SS08A	Total/NA	Solid	8021B	5422
885-4922-6	SS11A	Total/NA	Solid	8021B	5422
MB 885-5422/1-A	Method Blank	Total/NA	Solid	8021B	5422
LCS 885-5422/3-A	Lab Control Sample	Total/NA	Solid	8021B	5422

**Analysis Batch: 5860** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4922-5	SS08A	Total/NA	Solid	8015D	5422

GC Semi VOA

Prep Batch: 5576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4922-1	SS03A	Total/NA	Solid	SHAKE	
885-4922-2	SS05A	Total/NA	Solid	SHAKE	
885-4922-3	SS06A	Total/NA	Solid	SHAKE	
885-4922-4	SS07A	Total/NA	Solid	SHAKE	
885-4922-5	SS08A	Total/NA	Solid	SHAKE	
885-4922-6	SS11A	Total/NA	Solid	SHAKE	
MB 885-5576/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-5576/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 5629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4922-1	SS03A	Total/NA	Solid	8015D	5576

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# **QC Association Summary**

Client: Hilcorp Energy Job ID: 885-4922-1

Project/Site: Federal GC #1

### GC Semi VOA (Continued)

### **Analysis Batch: 5629 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4922-2	SS05A	Total/NA	Solid	8015D	5576
885-4922-3	SS06A	Total/NA	Solid	8015D	5576
885-4922-4	SS07A	Total/NA	Solid	8015D	5576
885-4922-5	SS08A	Total/NA	Solid	8015D	5576
885-4922-6	SS11A	Total/NA	Solid	8015D	5576
MB 885-5576/1-A	Method Blank	Total/NA	Solid	8015D	5576
LCS 885-5576/2-A	Lab Control Sample	Total/NA	Solid	8015D	5576

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Client: Hilcorp Energy Project/Site: Federal GC #1

Client Sample ID: SS03A

Date Received: 05/22/24 06:45

Lab Sample ID: 885-4922-1 Date Collected: 05/21/24 13:50

Matrix: Solid

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor **Number Analyst** Lab or Analyzed 5030C 05/22/24 08:45 Total/NA Prep 5422 AT EET ALB 8015D Total/NA Analysis 1 5727 JP **EET ALB** 05/28/24 23:45 Total/NA Prep 5030C 5422 AT **EET ALB** 05/22/24 08:45 05/28/24 23:45 Total/NA Analysis 8021B 1 5728 JΡ **EET ALB** 05/23/24 14:41 Total/NA Prep SHAKE 5576 DH **EET ALB** Total/NA Analysis 8015D 1 5629 JU **EET ALB** 05/24/24 13:23

Client Sample ID: SS05A Lab Sample ID: 885-4922-2 Date Collected: 05/21/24 13:52

Date Received: 05/22/24 06:45

**Matrix: Solid** 

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			5422	AT	EET ALB	05/22/24 08:45
Total/NA	Analysis	8015D		1	5727	JP	EET ALB	05/29/24 00:09
Total/NA	Prep	5030C			5422	AT	EET ALB	05/22/24 08:45
Total/NA	Analysis	8021B		1	5728	JP	EET ALB	05/29/24 00:09
Total/NA	Prep	SHAKE			5576	DH	EET ALB	05/23/24 14:41
Total/NA	Analysis	8015D		1	5629	JU	EET ALB	05/24/24 13:34

Client Sample ID: SS06A Lab Sample ID: 885-4922-3

Date Collected: 05/21/24 13:54 **Matrix: Solid** Date Received: 05/22/24 06:45

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			5422	AT	EET ALB	05/22/24 08:45
Total/NA	Analysis	8015D		1	5727	JP	EET ALB	05/29/24 00:32
Total/NA	Prep	5030C			5422	AT	EET ALB	05/22/24 08:45
Total/NA	Analysis	8021B		1	5728	JP	EET ALB	05/29/24 00:32
Total/NA	Prep	SHAKE			5576	DH	EET ALB	05/23/24 14:41
Total/NA	Analysis	8015D		1	5629	JU	EET ALB	05/24/24 13:44

Client Sample ID: SS07A Lab Sample ID: 885-4922-4 Date Collected: 05/21/24 13:56 Matrix: Solid

Date Received: 05/22/24 06:45

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			5422	AT	EET ALB	05/22/24 08:45
Total/NA	Analysis	8015D		1	5727	JP	EET ALB	05/29/24 00:56
Total/NA	Prep	5030C			5422	AT	EET ALB	05/22/24 08:45
Total/NA	Analysis	8021B		1	5728	JP	EET ALB	05/29/24 00:56
Total/NA	Prep	SHAKE			5576	DH	EET ALB	05/23/24 14:41
Total/NA	Analysis	8015D		1	5629	JU	EET ALB	05/24/24 13:55

Client: Hilcorp Energy Project/Site: Federal GC #1

Client Sample ID: SS08A

Lab Sample ID: 885-4922-5

Matrix: Solid

Date Collected: 05/21/24 13:58 Date Received: 05/22/24 06:45

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			5422	AT	EET ALB	05/22/24 08:45
Total/NA	Analysis	8015D		1	5860	JP	EET ALB	05/29/24 13:32
Total/NA	Prep	5030C			5422	AT	EET ALB	05/22/24 08:45
Total/NA	Analysis	8021B		1	5728	JP	EET ALB	05/29/24 01:19
Total/NA	Prep	SHAKE			5576	DH	EET ALB	05/23/24 14:41
Total/NA	Analysis	8015D		1	5629	JU	EET ALB	05/24/24 14:06

Lab Sample ID: 885-4922-6

Matrix: Solid

Client Sample ID: SS11A
Date Collected: 05/21/24 14:00
Date Received: 05/22/24 06:45

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			5422	AT	EET ALB	05/22/24 08:45
Total/NA	Analysis	8015D		1	5727	JP	EET ALB	05/29/24 01:42
Total/NA	Prep	5030C			5422	AT	EET ALB	05/22/24 08:45
Total/NA	Analysis	8021B		1	5728	JP	EET ALB	05/29/24 01:42
Total/NA	Prep	SHAKE			5576	DH	EET ALB	05/23/24 14:41
Total/NA	Analysis	8015D		1	5629	JU	EET ALB	05/24/24 14:17

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Eurofins Albuquerque

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# **Accreditation/Certification Summary**

Client: Hilcorp Energy Job ID: 885-4922-1

Project/Site: Federal GC #1

### **Laboratory: Eurofins Albuquerque**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program		Identification Number	Expiration Date		
New Mexico	State		NM9425, NM0901	02-26-25		
The following analytes are included for which the agency does not of		e laboratory is not certif	ied by the governing authority. This lis	st may include analytes		
Analysis Method Pr	rep Method	Matrix	Analyte			
8015D 50	030C	Solid	Gasoline Range Organics	[C6 - C10]		
8015D SI	HAKE	Solid	Diesel Range Organics [C	:10-C28]		
8015D SI	HAKE	Solid	Motor Oil Range Organics	[C28-C40]		
8021B 50	030C	Solid	Benzene			
8021B 50	030C	Solid	Ethylbenzene			
8021B 50	030C	Solid	Toluene			
8021B 50	030C	Solid	Xylenes, Total			
)regon	NELAP		NM100001	02-26-25		

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### **Login Sample Receipt Checklist**

Client: Hilcorp Energy Job Number: 885-4922-1

Login Number: 4922 List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

Creator: Casarrupias, Tracy		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# PREPARED FOR

Attn: Mitch Killough Hilcorp Energy PO BOX 4700 Farmington, New Mexico 87499

Generated 7/9/2024 1:22:16 PM

# **JOB DESCRIPTION**

Federal GC1

# **JOB NUMBER**

885-7154-1

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109

# **Eurofins Albuquerque**

## **Job Notes**

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

# Authorization

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Authorized for release by Michelle Garcia, Project Manager michelle.garcia@et.eurofinsus.com (505)345-3975

Page 2 of 42 7/9/2024

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Laboratory Job ID: 885-7154-1

Client: Hilcorp Energy Project/Site: Federal GC1

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### **Definitions/Glossary**

Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

### **Qualifiers**

### **GC VOA**

Qualifier **Qualifier Description** 

Surrogate recovery exceeds control limits, high biased.

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDI	Father and Data stick (Display)

Estimated Detection Limit (Dioxin) EDL LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) **TEQ** 

**TNTC** Too Numerous To Count

### **Case Narrative**

Client: Hilcorp Energy Job ID: 885-7154-1 Project: Federal GC1

**Eurofins Albuquerque** Job ID: 885-7154-1

#### Job Narrative 885-7154-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

### Receipt

The samples were received on 6/29/2024 6:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C.

### Gasoline Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### **Diesel Range Organics**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

**Client Sample ID: TSP01** Lab Sample ID: 885-7154-1

Matrix: Solid

Date Collected: 06/28/24 12:00 Date Received: 06/29/24 06:15

Released to Imaging: 12/6/2024 1:19:43 PM

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		07/01/24 10:15	07/02/24 18:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			35 - 166			07/01/24 10:15	07/02/24 18:05	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/01/24 10:15	07/02/24 18:05	1
Ethylbenzene	ND		0.049	mg/Kg		07/01/24 10:15	07/02/24 18:05	1
Toluene	ND		0.049	mg/Kg		07/01/24 10:15	07/02/24 18:05	1
Xylenes, Total	ND		0.098	mg/Kg		07/01/24 10:15	07/02/24 18:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		48 - 145			07/01/24 10:15	07/02/24 18:05	1

Method: SW846 8015M/D - Diesel Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		07/01/24 14:34	07/01/24 20:39	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		07/01/24 14:34	07/01/24 20:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	110		62 - 134			07/01/24 14:34	07/01/24 20:39	1

Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP02** Date Collected: 06/28/24 12:05

Date Received: 06/29/24 06:15

Lab Sample ID: 885-7154-2

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		07/01/24 10:15	07/02/24 18:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		35 - 166			07/01/24 10:15	07/02/24 18:27	1
- Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte	Pocult	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Method: SW846 8021B - Volati	lie Organic Compound	s (GC)					
Analyte	Result Qualit	fier RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND ND	0.025	mg/Kg		07/01/24 10:15	07/02/24 18:27	1
Ethylbenzene	ND	0.050	mg/Kg		07/01/24 10:15	07/02/24 18:27	1
Toluene	ND	0.050	mg/Kg		07/01/24 10:15	07/02/24 18:27	1
Xylenes, Total	ND	0.10	mg/Kg		07/01/24 10:15	07/02/24 18:27	1
Surrogate	%Recovery Quality	fier Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97	48 - 145			07/01/24 10:15	07/02/24 18:27	1

Method: SW846 8015M/D - Diesei	Range Organ	ICS (DRU) (I	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		07/01/24 14:34	07/01/24 20:52	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		07/01/24 14:34	07/01/24 20:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	96		62 - 134			07/01/24 14:34	07/01/24 20:52	1

**Client Sample ID: TSP03** 

Lab Sample ID: 885-7154-3

Matrix: Solid

Date Collected: 06/28/24 12:10 Date Received: 06/29/24 06:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		07/01/24 10:15	07/02/24 19:11	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	138		35 - 166			07/01/24 10:15	07/02/24 19:11	1	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/01/24 10:15	07/02/24 19:11	1
Ethylbenzene	ND		0.050	mg/Kg		07/01/24 10:15	07/02/24 19:11	1
Toluene	ND		0.050	mg/Kg		07/01/24 10:15	07/02/24 19:11	1
Xylenes, Total	ND		0.10	mg/Kg		07/01/24 10:15	07/02/24 19:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			07/01/24 10:15	07/02/24 19:11	1

Method: SW846 8015M/D - Diese Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		07/01/24 14:34	07/01/24 21:19	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		07/01/24 14:34	07/01/24 21:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	93		62 - 134			07/01/24 14:34	07/01/24 21:19	1

Eurofins Albuquerque

Client: Hilcorp Energy Project/Site: Federal GC1

Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP04** 

Lab Sample ID: 885-7154-4

07/01/24 21:32

Analyzed

07/01/24 14:34 07/01/24 21:32

07/01/24 14:34

Prepared

Matrix: Solid

Date Collected: 06/28/24 12:15

Motor Oil Range Organics [C28-C40]

Di-n-octyl phthalate (Surr)

Surrogate

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	5.2		4.8	mg/Kg		07/01/24 10:15	07/02/24 19:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	142		35 - 166			07/01/24 10:15	07/02/24 19:33	1
- Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		07/01/24 10:15	07/02/24 19:33	1
Ethylbenzene	ND		0.048	mg/Kg		07/01/24 10:15	07/02/24 19:33	1
Toluene	ND		0.048	mg/Kg		07/01/24 10:15	07/02/24 19:33	1
Xylenes, Total	ND		0.095	mg/Kg		07/01/24 10:15	07/02/24 19:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		48 - 145			07/01/24 10:15	07/02/24 19:33	1
- Method: SW846 8015M/D - Diese	el Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		07/01/24 14:34	07/01/24 21:32	1

48

Limits

62 - 134

mg/Kg

ND

%Recovery Qualifier

102

Eurofins Albuquerque

Dil Fac

Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP05** 

Lab Sample ID: 885-7154-5

Matrix: Solid

Date Collected: 06/28/24 12:20 Date Received: 06/29/24 06:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)								
Analyte Gasoline Range Organics [C6 - C10]	Result ND	Qualifier	RL 4.8	Mnit mg/Kg	<u>D</u>	Prepared 07/01/24 10:15	Analyzed 07/02/24 19:55	Dil Fac
Surrogate 4-Bromofluorobenzene (Surr)	%Recovery	Qualifier	25 - 166			Prepared 07/01/24 10:15	<b>Analyzed</b> 07/02/24 19:55	Dil Fac

Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND ND		0.024	mg/Kg		07/01/24 10:15	07/02/24 19:55	1
Ethylbenzene	ND		0.048	mg/Kg		07/01/24 10:15	07/02/24 19:55	1
Toluene	ND		0.048	mg/Kg		07/01/24 10:15	07/02/24 19:55	1
Xylenes, Total	ND		0.096	mg/Kg		07/01/24 10:15	07/02/24 19:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		48 - 145			07/01/24 10:15	07/02/24 19:55	1

Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		07/01/24 14:34	07/01/24 21:45	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		07/01/24 14:34	07/01/24 21:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99	-	62 - 134			07/01/24 14:34	07/01/24 21:45	1

Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP06** 

Lab Sample ID: 885-7154-6

07/01/24 14:34

07/01/24 14:34

Prepared

07/01/24 14:34

Date Collected: 06/28/24 12:25

Matrix: Solid

07/01/24 21:59

07/01/24 21:59

Analyzed

07/01/24 21:59

Dil Fac

Date Received: 06/29/24 06:15

Diesel Range Organics [C10-C28]

Di-n-octyl phthalate (Surr)

Surrogate

Motor Oil Range Organics [C28-C40]

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		9.8	mg/Kg		07/01/24 10:15	07/02/24 20:17	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		35 - 166			07/01/24 10:15	07/02/24 20:17	2
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.049	mg/Kg		07/01/24 10:15	07/02/24 20:17	2
Ethylbenzene	ND		0.098	mg/Kg		07/01/24 10:15	07/02/24 20:17	2
Toluene	ND		0.098	mg/Kg		07/01/24 10:15	07/02/24 20:17	2
Xylenes, Total	ND		0.20	mg/Kg		07/01/24 10:15	07/02/24 20:17	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			07/01/24 10:15	07/02/24 20:17	2

9.2

46

Limits

62 - 134

mg/Kg

mg/Kg

ND

ND

100

Qualifier

%Recovery

Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP07** 

Lab Sample ID: 885-7154-7

Matrix: Solid

Date Collected: 06/28/24 12:30 Date Received: 06/29/24 06:15

Method: SW846 8015M/D - Gasoli	ne Range Org	anics (GRC	O) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		07/01/24 10:15	07/02/24 20:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		35 - 166			07/01/24 10:15	07/02/24 20:38	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/01/24 10:15	07/02/24 20:38	1
Ethylbenzene	ND		0.050	mg/Kg		07/01/24 10:15	07/02/24 20:38	1
Toluene	ND		0.050	mg/Kg		07/01/24 10:15	07/02/24 20:38	1
Xylenes, Total	ND		0.10	mg/Kg		07/01/24 10:15	07/02/24 20:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			07/01/24 10:15	07/02/24 20:38	1

Method: 544846 8015M/D - Diese	i Range Organics (DR	(U) (GC)					
Analyte	Result Qualifie	er RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND ND	9.7	mg/Kg		07/01/24 14:34	07/01/24 22:12	1
Motor Oil Range Organics [C28-C40]	ND	49	mg/Kg		07/01/24 14:34	07/01/24 22:12	1
Surrogate	%Recovery Qualifie	er Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99	62 - 134			07/01/24 14:34	07/01/24 22:12	1

Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP08** 

Lab Sample ID: 885-7154-8

Matrix: Solid

Date Collected: 06/28/24 12:35 Date Received: 06/29/24 06:15

Method: SW846 8015M/D - Gasol	ine Range Org	anics (GR0	O) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		07/01/24 10:15	07/02/24 21:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			07/01/24 10:15	07/02/24 21:00	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/01/24 10:15	07/02/24 21:00	1
Ethylbenzene	ND		0.050	mg/Kg		07/01/24 10:15	07/02/24 21:00	1
Toluene	ND		0.050	mg/Kg		07/01/24 10:15	07/02/24 21:00	1
Xylenes, Total	ND		0.10	mg/Kg		07/01/24 10:15	07/02/24 21:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		48 - 145			07/01/24 10:15	07/02/24 21:00	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		07/01/24 14:34	07/01/24 22:25	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		07/01/24 14:34	07/01/24 22:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	101		62 - 134			07/01/24 14:34	07/01/24 22:25	1

Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP09** 

Lab Sample ID: 885-7154-9

Matrix: Solid

Date Collected: 06/28/24 12:40 Date Received: 06/29/24 06:15

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		9.9	mg/Kg		07/01/24 10:15	07/02/24 21:22	2	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	100		35 - 166			07/01/24 10:15	07/02/24 21:22	2	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.049	mg/Kg		07/01/24 10:15	07/02/24 21:22	2
Ethylbenzene	ND		0.099	mg/Kg		07/01/24 10:15	07/02/24 21:22	2
Toluene	ND		0.099	mg/Kg		07/01/24 10:15	07/02/24 21:22	2
Xylenes, Total	ND		0.20	mg/Kg		07/01/24 10:15	07/02/24 21:22	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			07/01/24 10:15	07/02/24 21:22	2

Method: SW846 8015M/D - Diese	l Range Organi	cs (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9	mg/Kg		07/01/24 14:34	07/01/24 22:39	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		07/01/24 14:34	07/01/24 22:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	95		62 - 134			07/01/24 14:34	07/01/24 22:39	1

Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

Client Sample ID: TSP10 Lab Sample ID: 885-7154-10

Matrix: Solid

Date Collected: 06/28/24 12:45 Date Received: 06/29/24 06:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		07/01/24 10:15	07/02/24 21:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		35 - 166			07/01/24 10:15	07/02/24 21:44	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/01/24 10:15	07/02/24 21:44	1
Ethylbenzene	ND		0.049	mg/Kg		07/01/24 10:15	07/02/24 21:44	1
Toluene	ND		0.049	mg/Kg		07/01/24 10:15	07/02/24 21:44	1
Xylenes, Total	ND		0.099	mg/Kg		07/01/24 10:15	07/02/24 21:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			07/01/24 10:15	07/02/24 21:44	1

Method: SW846 8015M/D - Diese	I Range Organio	cs (DRO) (	GC)					
Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		07/01/24 14:34	07/01/24 22:52	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		07/01/24 14:34	07/01/24 22:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99		62 - 134			07/01/24 14:34	07/01/24 22:52	1

Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP11** 

Lab Sample ID: 885-7154-11

Matrix: Solid

Date Collected: 06/28/24 12:50 Date Received: 06/29/24 06:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		07/01/24 10:15	07/02/24 22:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		35 - 166			07/01/24 10:15	07/02/24 22:06	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		07/01/24 10:15	07/02/24 22:06	1
Ethylbenzene	ND		0.048	mg/Kg		07/01/24 10:15	07/02/24 22:06	1
Toluene	ND		0.048	mg/Kg		07/01/24 10:15	07/02/24 22:06	1
Xylenes, Total	ND		0.096	mg/Kg		07/01/24 10:15	07/02/24 22:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			07/01/24 10:15	07/02/24 22:06	1

Method: SW846 8015M/D - Diese	I Range Organic	cs (DRO) ((	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		07/01/24 14:34	07/01/24 23:05	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		07/01/24 14:34	07/01/24 23:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	100		62 - 134			07/01/24 14:34	07/01/24 23:05	1

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Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

Client Sample ID: TSP12 Lab Sample ID: 885-7154-12

Matrix: Solid

Date Collected: 06/28/24 12:55 Date Received: 06/29/24 06:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		07/01/24 10:15	07/02/24 22:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		35 - 166			07/01/24 10:15	07/02/24 22:28	1

Method: SW846 8021B - Volati	le Organic Compo							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		07/01/24 10:15	07/02/24 22:28	1
Ethylbenzene	ND		0.046	mg/Kg		07/01/24 10:15	07/02/24 22:28	1
Toluene	ND		0.046	mg/Kg		07/01/24 10:15	07/02/24 22:28	1
Xylenes, Total	ND		0.093	mg/Kg		07/01/24 10:15	07/02/24 22:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		48 - 145			07/01/24 10:15	07/02/24 22:28	1

Method: SVV846 8015M/D - Diese	Range Organics	S (DKO) (GC	GC)					
Analyte	Result Qu	ualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0	mg/Kg		07/01/24 14:34	07/01/24 23:19	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		07/01/24 14:34	07/01/24 23:19	1
Surrogate	%Recovery Qu	ualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	101		62 - 134			07/01/24 14:34	07/01/24 23:19	1

Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

**Client Sample ID: TSP13** Lab Sample ID: 885-7154-13 Date Collected: 06/28/24 13:00

Matrix: Solid

<b>Date Received:</b>	06/29/24	06:15
<u> </u>		

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		07/01/24 14:00	07/02/24 22:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			07/01/24 14:00	07/02/24 22:25	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/01/24 14:00	07/02/24 22:25	1
Ethylbenzene	ND		0.050	mg/Kg		07/01/24 14:00	07/02/24 22:25	1
Toluene	ND		0.050	mg/Kg		07/01/24 14:00	07/02/24 22:25	1
Xylenes, Total	ND		0.099	mg/Kg		07/01/24 14:00	07/02/24 22:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		48 - 145			07/01/24 14:00	07/02/24 22:25	1

Method: SW846 8015M/D - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		07/02/24 08:13	07/02/24 11:59	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		07/02/24 08:13	07/02/24 11:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	89		62 - 134			07/02/24 08:13	07/02/24 11:59	1

Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

Client Sample ID: TSP14 Lab Sample ID: 885-7154-14

Matrix: Solid

Date Collected: 06/28/24 13:05 Date Received: 06/29/24 06:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		07/01/24 14:00	07/02/24 23:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		35 - 166			07/01/24 14:00	07/02/24 23:36	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	MD		0.025	mg/Kg		07/01/24 14:00	07/02/24 23:36	1
Ethylbenzene	ND		0.050	mg/Kg		07/01/24 14:00	07/02/24 23:36	1
Toluene	ND		0.050	mg/Kg		07/01/24 14:00	07/02/24 23:36	1
Xylenes, Total	ND		0.10	mg/Kg		07/01/24 14:00	07/02/24 23:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		48 - 145			07/01/24 14:00	07/02/24 23:36	1

Method: SW846 8015M/D - Diese	ı Range Organi	ICS (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		07/02/24 08:13	07/02/24 12:09	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		07/02/24 08:13	07/02/24 12:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	88		62 - 134			07/02/24 08:13	07/02/24 12:09	1

Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

**Client Sample ID: TSP15** Lab Sample ID: 885-7154-15

Date Collected: 06/28/24 13:10 Matrix: Solid Date Received: 06/29/24 06:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		07/01/24 14:00	07/03/24 00:46	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	112		35 - 166			07/01/24 14:00	07/03/24 00:46	

Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND ND		0.024	mg/Kg		07/01/24 14:00	07/03/24 00:46	
Ethylbenzene	ND		0.049	mg/Kg		07/01/24 14:00	07/03/24 00:46	•
Toluene	ND		0.049	mg/Kg		07/01/24 14:00	07/03/24 00:46	
Xylenes, Total	ND		0.097	mg/Kg		07/01/24 14:00	07/03/24 00:46	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	90		48 - 145			07/01/24 14:00	07/03/24 00:46	

Method: SW846 8015M/D - Diese	I Range Organics ([	DRO) (GC)					
Analyte	Result Quali	lifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND ND	9.9	mg/Kg		07/02/24 08:13	07/02/24 12:20	1
Motor Oil Range Organics [C28-C40]	ND	49	mg/Kg		07/02/24 08:13	07/02/24 12:20	1
Surrogate	%Recovery Quali	lifier Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	88	62 - 134			07/02/24 08:13	07/02/24 12:20	1

# **Client Sample Results**

Client: Hilcorp Energy

Project/Site: Federal GC1

Lab Sample ID: 885-7154-16

Matrix: Solid

Job ID: 885-7154-1

Client Sample ID: TSP16 Date Collected: 06/28/24 13:15

Date Received: 06/29/24 06:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		07/01/24 14:00	07/03/24 01:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		35 - 166			07/01/24 14:00	07/03/24 01:09	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/01/24 14:00	07/03/24 01:09	1
Ethylbenzene	ND		0.050	mg/Kg		07/01/24 14:00	07/03/24 01:09	1
Toluene	ND		0.050	mg/Kg		07/01/24 14:00	07/03/24 01:09	1
Xylenes, Total	ND		0.10	mg/Kg		07/01/24 14:00	07/03/24 01:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		48 - 145			07/01/24 14:00	07/03/24 01:09	1

Method: SW846 8015M/D - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9	mg/Kg		07/02/24 08:13	07/02/24 12:31	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		07/02/24 08:13	07/02/24 12:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	89		62 - 134			07/02/24 08:13	07/02/24 12:31	1

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Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP17** 

Lab Sample ID: 885-7154-17

Matrix: Solid

Date Collected: 06/28/24 13:20 Date Received: 06/29/24 06:15

Method: SW846 8015M/D - Gasoli	ne Range Org	anics (GR0	O) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		07/01/24 14:00	07/03/24 01:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		35 - 166			07/01/24 14:00	07/03/24 01:33	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND ND		0.024	mg/Kg		07/01/24 14:00	07/03/24 01:33	1
Ethylbenzene	ND		0.048	mg/Kg		07/01/24 14:00	07/03/24 01:33	1
Toluene	ND		0.048	mg/Kg		07/01/24 14:00	07/03/24 01:33	1
Xylenes, Total	ND		0.096	mg/Kg		07/01/24 14:00	07/03/24 01:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		48 - 145			07/01/24 14:00	07/03/24 01:33	1

Method: SW846 8015M/D - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		07/02/24 08:13	07/02/24 12:41	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		07/02/24 08:13	07/02/24 12:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	81		62 - 134			07/02/24 08:13	07/02/24 12:41	1

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# **Client Sample Results**

Client: Hilcorp Energy

Job ID: 885-7154-1

Project/Site: Federal GC1

Client Sample ID: TSP18 Lab Sample ID: 885-7154-18

Matrix: Solid

Date Collected: 06/28/24 13:25 Date Received: 06/29/24 06:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		07/01/24 14:00	07/03/24 01:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		35 - 166			07/01/24 14:00	07/03/24 01:56	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		07/01/24 14:00	07/03/24 01:56	1
Ethylbenzene	ND		0.048	mg/Kg		07/01/24 14:00	07/03/24 01:56	1
Toluene	ND		0.048	mg/Kg		07/01/24 14:00	07/03/24 01:56	1
Xylenes, Total	ND		0.096	mg/Kg		07/01/24 14:00	07/03/24 01:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		48 - 145			07/01/24 14:00	07/03/24 01:56	1

Method: SW846 8015M/D - Diese	I Range Organics (DRO)	(GC)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND ND	9.7	mg/Kg		07/02/24 08:13	07/02/24 12:52	1
Motor Oil Range Organics [C28-C40]	ND	48	mg/Kg		07/02/24 08:13	07/02/24 12:52	1
Surrogate	%Recovery Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	91	62 - 134			07/02/24 08:13	07/02/24 12:52	1

Client: Hilcorp Energy Project/Site: Federal GC1

Client Sample ID: TSP19
Date Collected: 06/28/24 13:30

Date Received: 06/29/24 06:15

Lab Sample ID: 885-7154-19

Matrix: Salid

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		07/01/24 14:00	07/03/24 02:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			07/01/24 14:00	07/03/24 02:20	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
D	ND.		0.004			07/04/04 44:00	07/00/04 00:00	

Method: SW846 8021B - Volatil	e Organic Comp	ounds (GC	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	MD		0.024	mg/Kg		07/01/24 14:00	07/03/24 02:20	1
Ethylbenzene	ND		0.047	mg/Kg		07/01/24 14:00	07/03/24 02:20	1
Toluene	ND		0.047	mg/Kg		07/01/24 14:00	07/03/24 02:20	1
Xylenes, Total	ND		0.095	mg/Kg		07/01/24 14:00	07/03/24 02:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		48 - 145			07/01/24 14:00	07/03/24 02:20	1

Method: SW846 8015M/D - Diese Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		07/02/24 08:13	07/02/24 13:03	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		07/02/24 08:13	07/02/24 13:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	87		62 - 134			07/02/24 08:13	07/02/24 13:03	1

Client: Hilcorp Energy

Project/Site: Federal GC1

## Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-7690/1-A

**Matrix: Solid** 

**Analysis Batch: 7845** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7690

мв мв

Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac Gasoline Range Organics [C6 - C10] ND 5.0 mg/Kg 07/01/24 10:15 07/02/24 13:19

MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 4-Bromofluorobenzene (Surr) 95 35 - 166 07/01/24 10:15 07/02/24 13:19

Lab Sample ID: LCS 885-7690/2-A Client Sample ID: Lab Control Sample

**Matrix: Solid** 

**Analysis Batch: 7845** 

Prep Type: Total/NA

Prep Batch: 7690

Prep Type: Total/NA

Prep Batch: 7717

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits 25.0 25.7 103 mg/Kg 70 - 130Gasoline Range Organics [C6 -

C10]

LCS LCS

%Recovery Qualifier Limits Surrogate S1+ 35 - 166 4-Bromofluorobenzene (Surr) 204

Client Sample ID: Method Blank **Matrix: Solid** 

Lab Sample ID: MB 885-7717/1-A

**Analysis Batch: 7830** 

MB MB

Prepared Dil Fac Analyte Result Qualifier RLUnit D Analyzed 5.0 07/01/24 14:00 07/02/24 21:38 Gasoline Range Organics [C6 - C10] ND mg/Kg

MR MR

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 94 35 - 166 07/01/24 14:00 07/02/24 21:38 4-Bromofluorobenzene (Surr)

Lab Sample ID: LCS 885-7717/2-A

**Matrix: Solid** 

**Analysis Batch: 7830** 

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 7717

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits 25.0 Gasoline Range Organics [C6 -23.7 mg/Kg 95 70 - 130

C10]

LCS LCS

Qualifier Limits Surrogate %Recovery 4-Bromofluorobenzene (Surr) 195 S1+ 35 - 166

Lab Sample ID: 885-7154-13 MS

**Matrix: Solid** 

**Analysis Batch: 7830** 

**Client Sample ID: TSP13** Prep Type: Total/NA

Prep Batch: 7717

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier %Rec Limits Analyte Unit ND 24.8 22.7 91 70 - 130Gasoline Range Organics [C6 mg/Kg

C10]

MS MS

Surrogate %Recovery Qualifier Limits 35 - 166 4-Bromofluorobenzene (Surr) 204 S1+

# **QC Sample Results**

Client: Hilcorp Energy

Job ID: 885-7154-1

Project/Site: Federal GC1

## Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: 885-7154-13 MSD

**Matrix: Solid** 

**Analysis Batch: 7830** 

Gasoline Range Organics [C6 -

**Client Sample ID: TSP13** Prep Type: Total/NA

Prep Batch: 7717 RPD

RPD %Rec Limits Limit 89 70 - 130 4 20

C10]

Analyte

MSD MSD

ND

Sample Sample

Result Qualifier

%Recovery Qualifier Surrogate 200 S1+ 4-Bromofluorobenzene (Surr)

Limits 35 - 166

Spike

Added

24.7

MSD MSD

21.9

Result Qualifier

Unit

mg/Kg

### Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-7690/1-A

**Matrix: Solid** 

**Analysis Batch: 7849** 

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 7690

	141.0	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/01/24 10:15	07/02/24 13:19	1
Ethylbenzene	ND		0.050	mg/Kg		07/01/24 10:15	07/02/24 13:19	1
Toluene	ND		0.050	mg/Kg		07/01/24 10:15	07/02/24 13:19	1
Xylenes, Total	ND		0.10	mg/Kg		07/01/24 10:15	07/02/24 13:19	1

MB MB

MR MR

%Recovery Qualifier Dil Fac Surrogate Limits Prepared Analyzed 48 - 145 4-Bromofluorobenzene (Surr) 07/01/24 10:15 07/02/24 13:19 92

Lab Sample ID: LCS 885-7690/3-A

**Matrix: Solid** 

**Analysis Batch: 7849** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 7690

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	1.00	0.872		mg/Kg		87	70 - 130
Ethylbenzene	1.00	0.898		mg/Kg		90	70 - 130
m&p-Xylene	2.00	1.79		mg/Kg		90	70 - 130
o-Xylene	1.00	0.905		mg/Kg		91	70 - 130
Toluene	1.00	0.882		mg/Kg		88	70 - 130
Xylenes, Total	3.00	2.70		mg/Kg		90	70 - 130

LCS LCS

%Recovery Qualifier Limits Surrogate 48 - 145 4-Bromofluorobenzene (Surr) 95

Lab Sample ID: MB 885-7717/1-A

**Matrix: Solid** 

**Analysis Batch: 7831** 

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 7717

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		07/01/24 14:00	07/02/24 21:38	1
Ethylbenzene	ND		0.050	mg/Kg		07/01/24 14:00	07/02/24 21:38	1
Toluene	ND		0.050	mg/Kg		07/01/24 14:00	07/02/24 21:38	1
Xylenes, Total	ND		0.10	mg/Kg		07/01/24 14:00	07/02/24 21:38	1

MB MB

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 84 48 - 145

07/01/24 14:00 07/02/24 21:38

Analyzed

Prepared

Eurofins Albuquerque

Dil Fac

Client: Hilcorp Energy Project/Site: Federal GC1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 885-7717/3-A

Analysis Batch: 7831

**Matrix: Solid** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 7717

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	1.00	0.805		mg/Kg		81	70 - 130	
Ethylbenzene	1.00	0.789		mg/Kg		79	70 - 130	
m&p-Xylene	2.00	1.61		mg/Kg		80	70 - 130	
o-Xylene	1.00	0.785		mg/Kg		78	70 - 130	
Toluene	1.00	0.776		mg/Kg		78	70 - 130	
Xylenes, Total	3.00	2.39		mg/Kg		80	70 - 130	
	100 100							

%Recovery Qualifier Limits Surrogate 48 - 145 4-Bromofluorobenzene (Surr) 87

Lab Sample ID: 885-7154-14 MS

**Matrix: Solid** 

Analysis Batch: 7831

**Client Sample ID: TSP14** Prep Type: Total/NA

Prep Batch: 7717

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	ND		0.997	0.774		mg/Kg		78	70 - 130	
Ethylbenzene	ND		0.997	0.752		mg/Kg		75	70 - 130	
m&p-Xylene	ND		1.99	1.55		mg/Kg		76	70 - 130	
o-Xylene	ND		0.997	0.742		mg/Kg		74	70 - 130	
Toluene	ND		0.997	0.744		mg/Kg		73	70 - 130	
Xylenes, Total	ND		2.99	2.29		mg/Kg		76	70 - 130	
	MS	MS								

%Recovery Qualifier Limits Surrogate 48 - 145 4-Bromofluorobenzene (Surr) 89

Lab Sample ID: 885-7154-14 MSD

**Matrix: Solid** 

**Analysis Batch: 7831** 

Client Sample ID: TSP14 Prep Type: Total/NA

Prep Batch: 7717

/ maryoro Datom / co :										p =uto	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		0.996	0.774		mg/Kg		78	70 - 130	0	20
Ethylbenzene	ND		0.996	0.758		mg/Kg		76	70 - 130	1	20
m&p-Xylene	ND		1.99	1.56		mg/Kg		77	70 - 130	0	20
o-Xylene	ND		0.996	0.739		mg/Kg		74	70 - 130	0	20
Toluene	ND		0.996	0.758		mg/Kg		75	70 - 130	2	20
Xylenes, Total	ND		2.99	2.29		mg/Kg		76	70 - 130	0	20

MSD MSD

%Recovery Qualifier Limits Surrogate 4-Bromofluorobenzene (Surr) 90 48 - 145

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-7719/1-A

**Matrix: Solid** 

Analysis Batch: 7694

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7719

MB MB Dil Fac Analyte Result Qualifier Unit Prepared Analyzed Diesel Range Organics [C10-C28] 10 07/01/24 14:34 07/01/24 18:27 ND mg/Kg

Client: Hilcorp Energy Project/Site: Federal GC1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-7719/1-A

**Matrix: Solid** 

Analysis Batch: 7694

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 7719

Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte Motor Oil Range Organics [C28-C40] ND 50 07/01/24 14:34 07/01/24 18:27 mg/Kg

> ΜВ ΜВ

MB MB

%Recovery Qualifier Limits Prepared Analyzed Dil Fac Di-n-octyl phthalate (Surr) 102 62 - 134 07/01/24 14:34 07/01/24 18:27

Lab Sample ID: LCS 885-7719/2-A Client Sample ID: Lab Control Sample

**Matrix: Solid** 

**Analysis Batch: 7694** LCS LCS Spike

Prep Type: Total/NA

Prep Batch: 7719

%Rec Result Qualifier Added Analyte Unit %Rec Limits Diesel Range Organics 50.0 48.3 60 - 135 mg/Kg

[C10-C28]

LCS LCS

MS MS

Surrogate %Recovery Qualifier Limits Di-n-octyl phthalate (Surr) 106 62 - 134

Lab Sample ID: 885-7154-12 MS **Client Sample ID: TSP12 Matrix: Solid** 

Prep Type: Total/NA

Prep Batch: 7719

MS MS %Rec Sample Sample Spike Qualifier Added Analyte Result Result Qualifier Unit D %Rec

Limits ND 49.8 49.7 mg/Kg 100 44 - 136 Diesel Range Organics

[C10-C28]

%Recovery Qualifier Limits Surrogate Di-n-octyl phthalate (Surr) 62 - 134 116

Lab Sample ID: 885-7154-12 MSD **Client Sample ID: TSP12** 

**Matrix: Solid** 

**Analysis Batch: 7694** 

Analysis Batch: 7694

Prep Type: Total/NA Prep Batch: 7719

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits **RPD** Limit **Diesel Range Organics** ND 48.1 53.9 mg/Kg 112 44 - 136 32

MSD MSD

%Recovery Qualifier Limits Surrogate Di-n-octyl phthalate (Surr) 122

62 - 134

**Matrix: Solid** 

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 7742

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Diesel Range Organics [C10-C28] 10 07/02/24 08:13 07/02/24 11:38 ND mg/Kg 50 07/02/24 08:13 Motor Oil Range Organics [C28-C40] ND mg/Kg 07/02/24 11:38

MB MB

MB MB

Qualifier %Recovery I imits Prepared Dil Fac Surrogate Analyzed 07/02/24 08:13 Di-n-octyl phthalate (Surr) 85 62 - 134 07/02/24 11:38

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[C10-C28]

Lab Sample ID: MB 885-7742/1-A

**Analysis Batch: 7757** 

Lab Sample ID: LCS 885-7742/2-A

# **QC Sample Results**

Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

**Analysis Batch: 7757** 

Diesel Range Organics

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Client Sample ID: Lab Control Sample

Prep Batch: 7742

**Prep Type: Total/NA** 

Spike LCS LCS Added Result Qualifier Unit %Rec Limits 50.0 45.2 mg/Kg 90 60 - 135

[C10-C28]

Analyte

**Matrix: Solid** 

LCS LCS

%Recovery Qualifier Limits Surrogate 62 - 134 Di-n-octyl phthalate (Surr) 87

Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

**GC VOA** 

Prep Batch: 7690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
885-7154-1	TSP01	Total/NA	Solid	5030C	
885-7154-2	TSP02	Total/NA	Solid	5030C	
885-7154-3	TSP03	Total/NA	Solid	5030C	
885-7154-4	TSP04	Total/NA	Solid	5030C	
885-7154-5	TSP05	Total/NA	Solid	5030C	
885-7154-6	TSP06	Total/NA	Solid	5030C	
885-7154-7	TSP07	Total/NA	Solid	5030C	
885-7154-8	TSP08	Total/NA	Solid	5030C	
885-7154-9	TSP09	Total/NA	Solid	5030C	
885-7154-10	TSP10	Total/NA	Solid	5030C	
885-7154-11	TSP11	Total/NA	Solid	5030C	
885-7154-12	TSP12	Total/NA	Solid	5030C	
MB 885-7690/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-7690/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-7690/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 7717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-13	TSP13	Total/NA	Solid	5030C	_
885-7154-14	TSP14	Total/NA	Solid	5030C	
885-7154-15	TSP15	Total/NA	Solid	5030C	
885-7154-16	TSP16	Total/NA	Solid	5030C	
885-7154-17	TSP17	Total/NA	Solid	5030C	
885-7154-18	TSP18	Total/NA	Solid	5030C	
885-7154-19	TSP19	Total/NA	Solid	5030C	
MB 885-7717/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-7717/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-7717/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-7154-13 MS	TSP13	Total/NA	Solid	5030C	
885-7154-13 MSD	TSP13	Total/NA	Solid	5030C	
885-7154-14 MS	TSP14	Total/NA	Solid	5030C	
885-7154-14 MSD	TSP14	Total/NA	Solid	5030C	

Analysis Batch: 7830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-13	TSP13	Total/NA	Solid	8015M/D	7717
885-7154-14	TSP14	Total/NA	Solid	8015M/D	7717
885-7154-15	TSP15	Total/NA	Solid	8015M/D	7717
885-7154-16	TSP16	Total/NA	Solid	8015M/D	7717
885-7154-17	TSP17	Total/NA	Solid	8015M/D	7717
885-7154-18	TSP18	Total/NA	Solid	8015M/D	7717
885-7154-19	TSP19	Total/NA	Solid	8015M/D	7717
MB 885-7717/1-A	Method Blank	Total/NA	Solid	8015M/D	7717
LCS 885-7717/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	7717
885-7154-13 MS	TSP13	Total/NA	Solid	8015M/D	7717
885-7154-13 MSD	TSP13	Total/NA	Solid	8015M/D	7717

Analysis Batch: 7831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-13	TSP13	Total/NA	Solid	8021B	7717
885-7154-14	TSP14	Total/NA	Solid	8021B	7717

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Client: Hilcorp Energy Job ID: 885-7154-1 Project/Site: Federal GC1

**GC VOA (Continued)** 

### **Analysis Batch: 7831 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-15	TSP15	Total/NA	Solid	8021B	7717
885-7154-16	TSP16	Total/NA	Solid	8021B	7717
885-7154-17	TSP17	Total/NA	Solid	8021B	7717
885-7154-18	TSP18	Total/NA	Solid	8021B	7717
885-7154-19	TSP19	Total/NA	Solid	8021B	7717
MB 885-7717/1-A	Method Blank	Total/NA	Solid	8021B	7717
LCS 885-7717/3-A	Lab Control Sample	Total/NA	Solid	8021B	7717
885-7154-14 MS	TSP14	Total/NA	Solid	8021B	7717
885-7154-14 MSD	TSP14	Total/NA	Solid	8021B	7717

#### **Analysis Batch: 7845**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-1	TSP01	Total/NA	Solid	8015M/D	7690
885-7154-2	TSP02	Total/NA	Solid	8015M/D	7690
885-7154-3	TSP03	Total/NA	Solid	8015M/D	7690
885-7154-4	TSP04	Total/NA	Solid	8015M/D	7690
885-7154-5	TSP05	Total/NA	Solid	8015M/D	7690
885-7154-6	TSP06	Total/NA	Solid	8015M/D	7690
885-7154-7	TSP07	Total/NA	Solid	8015M/D	7690
885-7154-8	TSP08	Total/NA	Solid	8015M/D	7690
885-7154-9	TSP09	Total/NA	Solid	8015M/D	7690
885-7154-10	TSP10	Total/NA	Solid	8015M/D	7690
885-7154-11	TSP11	Total/NA	Solid	8015M/D	7690
885-7154-12	TSP12	Total/NA	Solid	8015M/D	7690
MB 885-7690/1-A	Method Blank	Total/NA	Solid	8015M/D	7690
LCS 885-7690/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	7690

### **Analysis Batch: 7849**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-1	TSP01	Total/NA	Solid	8021B	7690
885-7154-2	TSP02	Total/NA	Solid	8021B	7690
885-7154-3	TSP03	Total/NA	Solid	8021B	7690
885-7154-4	TSP04	Total/NA	Solid	8021B	7690
885-7154-5	TSP05	Total/NA	Solid	8021B	7690
885-7154-6	TSP06	Total/NA	Solid	8021B	7690
885-7154-7	TSP07	Total/NA	Solid	8021B	7690
885-7154-8	TSP08	Total/NA	Solid	8021B	7690
885-7154-9	TSP09	Total/NA	Solid	8021B	7690
885-7154-10	TSP10	Total/NA	Solid	8021B	7690
885-7154-11	TSP11	Total/NA	Solid	8021B	7690
885-7154-12	TSP12	Total/NA	Solid	8021B	7690
MB 885-7690/1-A	Method Blank	Total/NA	Solid	8021B	7690
LCS 885-7690/3-A	Lab Control Sample	Total/NA	Solid	8021B	7690

#### **GC Semi VOA**

#### Analysis Batch: 7694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-1	TSP01	Total/NA	Solid	8015M/D	7719
885-7154-2	TSP02	Total/NA	Solid	8015M/D	7719
885-7154-3	TSP03	Total/NA	Solid	8015M/D	7719

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Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

## GC Semi VOA (Continued)

## **Analysis Batch: 7694 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-4	TSP04	Total/NA	Solid	8015M/D	7719
885-7154-5	TSP05	Total/NA	Solid	8015M/D	7719
885-7154-6	TSP06	Total/NA	Solid	8015M/D	7719
885-7154-7	TSP07	Total/NA	Solid	8015M/D	7719
885-7154-8	TSP08	Total/NA	Solid	8015M/D	7719
885-7154-9	TSP09	Total/NA	Solid	8015M/D	7719
885-7154-10	TSP10	Total/NA	Solid	8015M/D	7719
885-7154-11	TSP11	Total/NA	Solid	8015M/D	7719
885-7154-12	TSP12	Total/NA	Solid	8015M/D	7719
MB 885-7719/1-A	Method Blank	Total/NA	Solid	8015M/D	7719
LCS 885-7719/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	7719
885-7154-12 MS	TSP12	Total/NA	Solid	8015M/D	7719
885-7154-12 MSD	TSP12	Total/NA	Solid	8015M/D	7719

#### Prep Batch: 7719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-1	TSP01	Total/NA	Solid	SHAKE	
885-7154-2	TSP02	Total/NA	Solid	SHAKE	
885-7154-3	TSP03	Total/NA	Solid	SHAKE	
885-7154-4	TSP04	Total/NA	Solid	SHAKE	
885-7154-5	TSP05	Total/NA	Solid	SHAKE	
885-7154-6	TSP06	Total/NA	Solid	SHAKE	
885-7154-7	TSP07	Total/NA	Solid	SHAKE	
885-7154-8	TSP08	Total/NA	Solid	SHAKE	
885-7154-9	TSP09	Total/NA	Solid	SHAKE	
885-7154-10	TSP10	Total/NA	Solid	SHAKE	
885-7154-11	TSP11	Total/NA	Solid	SHAKE	
885-7154-12	TSP12	Total/NA	Solid	SHAKE	
MB 885-7719/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-7719/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-7154-12 MS	TSP12	Total/NA	Solid	SHAKE	
885-7154-12 MSD	TSP12	Total/NA	Solid	SHAKE	

### Prep Batch: 7742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-13	TSP13	Total/NA	Solid	SHAKE	
885-7154-14	TSP14	Total/NA	Solid	SHAKE	
885-7154-15	TSP15	Total/NA	Solid	SHAKE	
885-7154-16	TSP16	Total/NA	Solid	SHAKE	
885-7154-17	TSP17	Total/NA	Solid	SHAKE	
885-7154-18	TSP18	Total/NA	Solid	SHAKE	
885-7154-19	TSP19	Total/NA	Solid	SHAKE	
MB 885-7742/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-7742/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

#### **Analysis Batch: 7757**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-13	TSP13	Total/NA	Solid	8015M/D	7742
885-7154-14	TSP14	Total/NA	Solid	8015M/D	7742
885-7154-15	TSP15	Total/NA	Solid	8015M/D	7742
885-7154-16	TSP16	Total/NA	Solid	8015M/D	7742

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Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

## GC Semi VOA (Continued)

## **Analysis Batch: 7757 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7154-17	TSP17	Total/NA	Solid	8015M/D	7742
885-7154-18	TSP18	Total/NA	Solid	8015M/D	7742
885-7154-19	TSP19	Total/NA	Solid	8015M/D	7742
MB 885-7742/1-A	Method Blank	Total/NA	Solid	8015M/D	7742
LCS 885-7742/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	7742

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Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP01** 

Date Received: 06/29/24 06:15

Lab Sample ID: 885-7154-1 Date Collected: 06/28/24 12:00

**Matrix: Solid** 

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number Analyst Lab or Analyzed 5030C 07/01/24 10:15 Total/NA Prep 7690 AT EET ALB Total/NA Analysis 8015M/D 1 7845 RA **EET ALB** 07/02/24 18:05 Total/NA Prep 5030C 7690 ΑT **EET ALB** 07/01/24 10:15 07/02/24 18:05 Total/NA Analysis 8021B 1 7849 RA **EET ALB** Total/NA Prep SHAKE 7719 KR **EET ALB** 07/01/24 14:34 Total/NA Analysis 8015M/D 1 7694 DH **EET ALB** 07/01/24 20:39

**Client Sample ID: TSP02** Lab Sample ID: 885-7154-2

Date Collected: 06/28/24 12:05 Matrix: Solid Date Received: 06/29/24 06:15

Batch Batch Dilution Prepared Batch Prep Type Туре Method Run Factor Number Analyst Lab or Analyzed Total/NA Prep 5030C 7690 AT EET ALB 07/01/24 10:15 Total/NA 8015M/D 07/02/24 18:27 RA **EET ALB** Analysis 1 7845 Total/NA 5030C **EET ALB** 07/01/24 10:15 Prep 7690 ΑT Total/NA 8021B 07/02/24 18:27 Analysis 1 7849 RA **EET ALB** Total/NA **EET ALB** 07/01/24 14:34 Prep SHAKE 7719 KR Total/NA Analysis 8015M/D 1 7694 DH **EET ALB** 07/01/24 20:52

**Client Sample ID: TSP03** Lab Sample ID: 885-7154-3

Date Collected: 06/28/24 12:10 **Matrix: Solid** Date Received: 06/29/24 06:15

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8015M/D		1	7845	RA	EET ALB	07/02/24 19:11
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8021B		1	7849	RA	EET ALB	07/02/24 19:11
Total/NA	Prep	SHAKE			7719	KR	EET ALB	07/01/24 14:34
Total/NA	Analysis	8015M/D		1	7694	DH	EET ALB	07/01/24 21:19

**Client Sample ID: TSP04** Lab Sample ID: 885-7154-4

Date Collected: 06/28/24 12:15 Matrix: Solid Date Received: 06/29/24 06:15

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8015M/D		1	7845	RA	EET ALB	07/02/24 19:33
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8021B		1	7849	RA	EET ALB	07/02/24 19:33
Total/NA	Prep	SHAKE			7719	KR	EET ALB	07/01/24 14:34
Total/NA	Analysis	8015M/D		1	7694	DH	EET ALB	07/01/24 21:32

Client: Hilcorp Energy Project/Site: Federal GC1

Client Sample ID: TSP05

Lab Sample ID: 885-7154-5

Matrix: Solid

Date Collected: 06/28/24 12:20 Date Received: 06/29/24 06:15

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8015M/D		1	7845	RA	EET ALB	07/02/24 19:55
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8021B		1	7849	RA	EET ALB	07/02/24 19:55
Total/NA	Prep	SHAKE			7719	KR	EET ALB	07/01/24 14:34
Total/NA	Analysis	8015M/D		1	7694	DH	EET ALB	07/01/24 21:45

Lab Sample ID: 885-7154-6

Matrix: Solid

Client Sample ID: TSP06
Date Collected: 06/28/24 12:25

Date Received: 06/29/24 06:15

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8015M/D		2	7845	RA	EET ALB	07/02/24 20:17
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8021B		2	7849	RA	EET ALB	07/02/24 20:17
Total/NA	Prep	SHAKE			7719	KR	EET ALB	07/01/24 14:34
Total/NA	Analysis	8015M/D		1	7694	DH	EET ALB	07/01/24 21:59

Client Sample ID: TSP07 Lab Sample ID: 885-7154-7

Matrix: Solid

Date Collected: 06/28/24 12:30 Date Received: 06/29/24 06:15

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8015M/D		1	7845	RA	EET ALB	07/02/24 20:38
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8021B		1	7849	RA	EET ALB	07/02/24 20:38
Total/NA	Prep	SHAKE			7719	KR	EET ALB	07/01/24 14:34
Total/NA	Analysis	8015M/D		1	7694	DH	EET ALB	07/01/24 22:12

Client Sample ID: TSP08

Lab Sample ID: 885-7154-8

Date Collected: 06/28/24 12:35

Matrix: Solid

Date Received: 06/29/24 06:15

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8015M/D		1	7845	RA	EET ALB	07/02/24 21:00
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8021B		1	7849	RA	EET ALB	07/02/24 21:00
Total/NA	Prep	SHAKE			7719	KR	EET ALB	07/01/24 14:34
Total/NA	Analysis	8015M/D		1	7694	DH	EET ALB	07/01/24 22:25

Client: Hilcorp Energy Project/Site: Federal GC1

Client Sample ID: TSP09

Lab Sample ID: 885-7154-9

Matrix: Solid

Date Collected: 06/28/24 12:40 Date Received: 06/29/24 06:15

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8015M/D		2	7845	RA	EET ALB	07/02/24 21:22
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8021B		2	7849	RA	EET ALB	07/02/24 21:22
Total/NA	Prep	SHAKE			7719	KR	EET ALB	07/01/24 14:34
Total/NA	Analysis	8015M/D		1	7694	DH	EET ALB	07/01/24 22:39

Lab Sample ID: 885-7154-10

Matrix: Solid

Client Sample ID: TSP10
Date Collected: 06/28/24 12:45
Date Received: 06/29/24 06:15

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor **Number Analyst** Lab or Analyzed Total/NA Prep 5030C 7690 AT EET ALB 07/01/24 10:15 Total/NA 8015M/D 07/02/24 21:44 Analysis 7845 RA **EET ALB** 1 Total/NA Prep 5030C **EET ALB** 07/01/24 10:15 7690 AT Total/NA 8021B **EET ALB** 07/02/24 21:44 Analysis 7849 RA Total/NA **EET ALB** 07/01/24 14:34 Prep SHAKE 7719 KR 07/01/24 22:52 Total/NA Analysis 8015M/D 1 7694 DH **EET ALB** 

Client Sample ID: TSP11 Lab Sample ID: 885-7154-11

Matrix: Solid

Date Collected: 06/28/24 12:50 Date Received: 06/29/24 06:15

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8015M/D		1	7845	RA	EET ALB	07/02/24 22:06
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8021B		1	7849	RA	EET ALB	07/02/24 22:06
Total/NA	Prep	SHAKE			7719	KR	EET ALB	07/01/24 14:34
Total/NA	Analysis	8015M/D		1	7694	DH	EET ALB	07/01/24 23:05

Client Sample ID: TSP12 Lab Sample ID: 885-7154-12

Date Collected: 06/28/24 12:55

Matrix: Solid

Date Received: 06/29/24 06:15

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8015M/D		1	7845	RA	EET ALB	07/02/24 22:28
Total/NA	Prep	5030C			7690	AT	EET ALB	07/01/24 10:15
Total/NA	Analysis	8021B		1	7849	RA	EET ALB	07/02/24 22:28
Total/NA	Prep	SHAKE			7719	KR	EET ALB	07/01/24 14:34
Total/NA	Analysis	8015M/D		1	7694	DH	EET ALB	07/01/24 23:19

Client: Hilcorp Energy Project/Site: Federal GC1

**Client Sample ID: TSP13** 

Date Received: 06/29/24 06:15

Lab Sample ID: 885-7154-13 Date Collected: 06/28/24 13:00

**Matrix: Solid** 

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number Analyst Lab or Analyzed 5030C 07/01/24 14:00 Total/NA Prep 7717 AT EET ALB 8015M/D Total/NA Analysis 1 7830 JP **EET ALB** 07/02/24 22:25 Total/NA Prep 5030C 7717 AT **EET ALB** 07/01/24 14:00 Total/NA Analysis 8021B 1 7831 JΡ **EET ALB** 07/02/24 22:25 Prep Total/NA SHAKE 7742 KR **EET ALB** 07/02/24 08:13 Total/NA Analysis 8015M/D 1 7757 PD **EET ALB** 07/02/24 11:59

**Client Sample ID: TSP14** Lab Sample ID: 885-7154-14

Date Collected: 06/28/24 13:05 Date Received: 06/29/24 06:15

Matrix: Solid

Batch Batch Dilution Prepared Batch Prep Type Туре Method Run Factor **Number Analyst** Lab or Analyzed Total/NA Prep 5030C 7717 AT EET ALB 07/01/24 14:00 Total/NA 8015M/D 07/02/24 23:36 7830 JΡ **EET ALB** Analysis 1 Total/NA 5030C **EET ALB** 07/01/24 14:00 Prep 7717 ΑT Total/NA 8021B 07/02/24 23:36 Analysis 1 7831 JΡ **EET ALB** 

Total/NA **EET ALB** 07/02/24 08:13 Prep SHAKE 7742 KR 7757 PD Total/NA Analysis 8015M/D 1 **EET ALB** 07/02/24 12:09 **Client Sample ID: TSP15** 

Lab Sample ID: 885-7154-15

**Matrix: Solid** 

Date Collected: 06/28/24 13:10 Date Received: 06/29/24 06:15

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7717	AT	EET ALB	07/01/24 14:00
Total/NA	Analysis	8015M/D		1	7830	JP	EET ALB	07/03/24 00:46
Total/NA	Prep	5030C			7717	AT	EET ALB	07/01/24 14:00
Total/NA	Analysis	8021B		1	7831	JP	EET ALB	07/03/24 00:46
Total/NA	Prep	SHAKE			7742	KR	EET ALB	07/02/24 08:13
Total/NA	Analysis	8015M/D		1	7757	PD	EET ALB	07/02/24 12:20

**Client Sample ID: TSP16** 

Lab Sample ID: 885-7154-16

Matrix: Solid

Date Collected: 06/28/24 13:15 Date Received: 06/29/24 06:15

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7717	AT	EET ALB	07/01/24 14:00
Total/NA	Analysis	8015M/D		1	7830	JP	EET ALB	07/03/24 01:09
Total/NA	Prep	5030C			7717	AT	EET ALB	07/01/24 14:00
Total/NA	Analysis	8021B		1	7831	JP	EET ALB	07/03/24 01:09
Total/NA	Prep	SHAKE			7742	KR	EET ALB	07/02/24 08:13
Total/NA	Analysis	8015M/D		1	7757	PD	EET ALB	07/02/24 12:31

Client: Hilcorp Energy Project/Site: Federal GC1

Client Sample ID: TSP17

Lab Sample ID: 885-7154-17

Matrix: Solid

Date Collected: 06/28/24 13:20 Date Received: 06/29/24 06:15

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7717	AT	EET ALB	07/01/24 14:00
Total/NA	Analysis	8015M/D		1	7830	JP	EET ALB	07/03/24 01:33
Total/NA	Prep	5030C			7717	AT	EET ALB	07/01/24 14:00
Total/NA	Analysis	8021B		1	7831	JP	EET ALB	07/03/24 01:33
Total/NA	Prep	SHAKE			7742	KR	EET ALB	07/02/24 08:13
Total/NA	Analysis	8015M/D		1	7757	PD	EET ALB	07/02/24 12:41

Lab Sample ID: 885-7154-18

Matrix: Solid

Date Collected: 06/28/24 13:25 Date Received: 06/29/24 06:15

**Client Sample ID: TSP18** 

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7717	AT	EET ALB	07/01/24 14:00
Total/NA	Analysis	8015M/D		1	7830	JP	EET ALB	07/03/24 01:56
Total/NA	Prep	5030C			7717	AT	EET ALB	07/01/24 14:00
Total/NA	Analysis	8021B		1	7831	JP	EET ALB	07/03/24 01:56
Total/NA	Prep	SHAKE			7742	KR	EET ALB	07/02/24 08:13
Total/NA	Analysis	8015M/D		1	7757	PD	EET ALB	07/02/24 12:52

Client Sample ID: TSP19 Lab Sample ID: 885-7154-19

Matrix: Solid

Date Collected: 06/28/24 13:30 Date Received: 06/29/24 06:15

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			7717	AT	EET ALB	07/01/24 14:00
Total/NA	Analysis	8015M/D		1	7830	JP	EET ALB	07/03/24 02:20
Total/NA	Prep	5030C			7717	AT	EET ALB	07/01/24 14:00
Total/NA	Analysis	8021B		1	7831	JP	EET ALB	07/03/24 02:20
Total/NA	Prep	SHAKE			7742	KR	EET ALB	07/02/24 08:13
Total/NA	Analysis	8015M/D		1	7757	PD	EET ALB	07/02/24 13:03

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

# **Accreditation/Certification Summary**

Client: Hilcorp Energy Job ID: 885-7154-1

Project/Site: Federal GC1

### **Laboratory: Eurofins Albuquerque**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

ıthority	Progr	am	Identification Number	<b>Expiration Date</b>
ew Mexico	State		NM9425, NM0901	02-26-25
0 ,	are included in this report, but	ut the laboratory is not certif	fied by the governing authority. This lis	t may include analytes
Analysis Method	Prep Method	Matrix	Analyte	
8015M/D	5030C	Solid	Gasoline Range Organics	[C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C	10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics	[C28-C40]
8021B	5030C	Solid	Benzene	
8021B	5030C	Solid	Ethylbenzene	
8021B	5030C	Solid	Toluene	
8021B	5030C	Solid	Xylenes, Total	
regon	NELA	D	NM100001	02-26-25

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40 of 42

Client:

Mailing Address:

tilcorp

**Chain-of-Custody Record** 

Killough

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# HALL ENVIRON **ANALYSIS LABO**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87

Tel. 505-345-3975 Fax 505-345-410

Phone #: **Analysis Request** email or Fax#: SO4 Project Manager: Total Coliform (Present/Absent) TPH:8015D(GRO / DRO / MRO) 8081 Pesticides/8082 PCB's PAHs by 8310 or 8270SIMS QA/QC Package: Stuart PO<sub>4</sub>, ★ Standard ☐ Level 4 (Full Validation)  $NO_2$ ☐ Az Compliance Accreditation: Sampler: EDB (Method 504.1) □ NELAC □ Other 8270 (Semi-VOA) On Ice: Y Yes □ No MTBE / CI, F, Br, NO<sub>3</sub>, AOG) RCRA 8 Metals EDD (Type) PPF. Exce # of Coolers: Cooler Temp(including CF): 3.9 10 = 3.9. BTEX, HEAL No. Container Preservative Sample Name Date Time Matrix Type and # Type lice ZPO! 1200 1,402 600 1205 1210 40 1215 1220 1295 00 1230 8 1240 1245 5010 10 1250 11 Received by: Via: 1440

Turn-Around Time: 5-day

Federal 66 1

□ Rush

✓ Standard

Project Name:

Project #:

Received by:

Via: courier

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

6:15

Client:

Mailing Address:

**Chain-of-Custody Record** 

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Total Coliform (Present/Absent)					4 3:39:45 PM

HALL ENVIRONM
ANALYSIS LABOR
verse bellem desense estel en es

www.hallenvironmenta

4901 Hawkins NE - Albuquerque

Tel. 505-345-3975

Fax 505-3

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Phone #:									А	naly	sis I	Requ	uest				
email or Fax#:  QA/QC Package:  ☐ Standard ☐ Level 4 (Full Validation)	Project Mana	1 1		s (8021)	O/MRO)	PCB's		8270SIMS		PO <sub>4</sub> , SO <sub>4</sub>			(Present/Absent)		1		
Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other ☐ EDD (Type) _ TDF, Ex Lell		Yes	□ No yog;	E / TMB's	3RO/DRO	Pesticides/8082	1504.1)	0 or 8270	als	NO <sub>2</sub> ,		(OA)					
Date Time Matrix Sample Name	Cooler Tempo	Preservative	±Ø = 3.8 (°C) HEAL No.	втех/ мтве	TPH:8015D(GRO	8081 Pesticio	EDB (Method 504.1)	PAHs by 8310 or	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> ,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform				
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Project Name:

Project #:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

4/29/24

4:15

Via: courier

Received by:







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## **Login Sample Receipt Checklist**

Client: Hilcorp Energy Job Number: 885-7154-1

Login Number: 7154 List Source: Eurofins Albuquerque

List Number: 1

**Creator: Casarrubias, Tracy** 

Creator: Casarrupias, Tracy		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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APPENDIX D

Photographic Log



### **Photographic Log**

Hilcorp Energy Company Federal Gas Com #1 San Juan County, New Mexico



Photograph: 1 Date: 11/15/2022

Description: Excavation of impacted soil
View: Aerial view looking west



Photograph: 2 Date: 10/26/2024
Description: Removal of impacted soil during final excavation

View: East



## **Photographic Log**

Hilcorp Energy Company Federal Gas Com #1 San Juan County, New Mexico



Photograph: 3 Date: 11/16/2023

Description: Applying Micro-Blaze amendment to soil removed from the excavation

View: East



Photograph: 4 Date: 2/26/2024

Description: Treated stockpiles during preliminary screening and sampling

View: West



## **Photographic Log**

Hilcorp Energy Company Federal Gas Com #1 San Juan County, New Mexico



Photograph: 5 Date: 2/26/2024

Description: Sampling stockpiles during preliminary screening

View: North



Photograph: 6 Date: 6/28/2024

Description: Final sampling of treated soil

View: West

Sante Fe Main Office Phone: (505) 476-3441 General Information Phone: (505) 629-6116

Online Phone Directory <a href="https://www.emnrd.nm.gov/ocd/contact-us">https://www.emnrd.nm.gov/ocd/contact-us</a>

# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS

Action 384760

#### **QUESTIONS**

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	384760
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2310935343
Incident Name	NAPP2310935343 FEDERAL GAS COM #1 @ 30-045-07196
Incident Type	Release Other
Incident Status	Remediation Closure Report Received
Incident Well	[30-045-07196] FEDERAL GAS COM #001

Location of Release Source					
Please answer all the questions in this group.					
Site Name	FEDERAL GAS COM #1				
Date Release Discovered	04/18/2023				
Surface Owner	Federal				

Incident Details				
Please answer all the questions in this group.				
Incident Type	Release Other			
Did this release result in a fire or is the result of a fire	No			
Did this release result in any injuries	No			
Has this release reached or does it have a reasonable probability of reaching a watercourse	No			
Has this release endangered or does it have a reasonable probability of endangering public health	No			
Has this release substantially damaged or will it substantially damage property or the environment	No			
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No			

Nature and Volume of Release					
Material(s) released, please answer all that apply below. Any calculations or specific justifications fo	r the volumes provided should be attached to the follow-up C-141 submission.				
Crude Oil Released (bbls) Details	Not answered.				
Produced Water Released (bbls) Details	Not answered.				
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.				
Condensate Released (bbls) Details	Not answered.				
Natural Gas Vented (Mcf) Details	Not answered.				
Natural Gas Flared (Mcf) Details	Not answered.				
Other Released Details	Cause: Other   Unknown   Unknown   Released: 29 BBL   Recovered: 0 BBL   Lost: 29 BBL.				
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Historic contamination was discovered during P&A and site reclamation operations. Cause and nature of release is unknown.				

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 2

Action 384760

QUESTI	ONS (continued)
Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171 Action Number: 384760 Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)
QUESTIONS	
Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e.	e. gas only) are to be submitted on the C-129 form.
Initial Response	
The responsible party must undertake the following actions immediately unless they could create a s	afety hazard that would result in injury. T
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	False
If all the actions described above have not been undertaken, explain why	This is a historic release and there was no active source at the time of discovery.
	i ation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of valuation in the follow-up C-141 submission.
to report and/or file certain release notifications and perform corrective actions for releathe OCD does not relieve the operator of liability should their operations have failed to a	knowledge and understand that pursuant to OCD rules and regulations all operators are required asses which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or
I hereby agree and sign off to the above statement	Name: Stuart Hyde Title: Senior Geologist Email: shyde@ensolum.com Date: 09/18/2024

Sante Fe Main Office Phone: (505) 476-3441 General Information

Phone: (505) 629-6116

Online Phone Directory
<a href="https://www.emnrd.nm.gov/ocd/contact-us">https://www.emnrd.nm.gov/ocd/contact-us</a>

# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 3

Action 384760

**QUESTIONS** (continued)

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	384760
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release ar	nd the following surface areas:
A continuously flowing watercourse or any other significant watercourse	Between 200 and 300 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 300 and 500 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan		
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.		
Requesting a remediation plan approval with this submission	Yes	
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination	associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes	
Was this release entirely contained within a lined containment area	No	
Soil Contamination Sampling: (Provide the highest observable value for each, in mil	ligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	210	
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	6900	
GRO+DRO (EPA SW-846 Method 8015M)	6900	
BTEX (EPA SW-846 Method 8021B or 8260B)	331	
Benzene (EPA SW-846 Method 8021B or 8260B)	0.9	
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.		
On what estimated date will the remediation commence	11/16/2023	
On what date will (or did) the final sampling or liner inspection occur	06/28/2024	
On what date will (or was) the remediation complete(d)	06/28/2024	
What is the estimated surface area (in square feet) that will be reclaimed	0	
What is the estimated volume (in cubic yards) that will be reclaimed	0	
What is the estimated surface area (in square feet) that will be remediated	16600	
What is the estimated volume (in cubic yards) that will be remediated	3400	
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.		

significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

Sante Fe Main Office Phone: (505) 476-3441 General Information

Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 4

Action 384760

**QUESTIONS** (continued)

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	384760
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
Yes	
ENVIROTECH LANDFARM #2 [fEEM0112336756]	
Not answered.	
Yes	
Not answered.	
Not answered.	
Not answered.	

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Name: Stuart Hyde
Title: Senior Geologist
Email: shyde@ensolum.com
Date: 09/18/2024

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 5

Action 384760

**QUESTIONS** (continued)

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	384760
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of	the following items must be confirmed as part of any request for deferral of remediation.
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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Phone: (505) 629-6116

Online Phone Directory
<a href="https://www.emnrd.nm.gov/ocd/contact-us">https://www.emnrd.nm.gov/ocd/contact-us</a>

# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 6

Action 384760

**QUESTIONS** (continued)

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	384760
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	357519
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	06/28/2024
What was the (estimated) number of samples that were to be gathered	19
What was the sampling surface area in square feet	3800

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	16600
What was the total volume (cubic yards) remediated	3400
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	NA NA

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement

Name: Stuart Hyde
Title: Senior Geologist
Email: shyde@ensolum.com
Date: 09/18/2024

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# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 7

Action 384760

**QUESTIONS** (continued)

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	384760
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Action 384760

#### **CONDITIONS**

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	384760
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### CONDITIONS

Created By	Condition	Condition Date
nvelez	None	12/6/2024