ENSOLUM

October 14, 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: 2024 Third Quarter – Remediation System Operation and Monitoring Report
Hare 15
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident No: NRM2020945060

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *2024 Third Quarter - Remediation System Operation and Monitoring Report* summarizing remediation system performance during the third quarter of 2024 at the Hare 15 natural gas production well (Site, Figure 1) on land managed by the Bureau of Lan Management (BLM). The Site is located in Unit M, Section 3, Township 29 North, Range 10 West in San Juan County, New Mexico (Figure 1). The duration of operation and monitoring activities included in this report is for the period from August 13, 2024 (system startup), through September 30, 2024.

This report was prepared following the approval from the New Mexico Oil Conservation Division (NMOCD) regarding the dual-phase extraction (DPE) remediation system described in the *Dual-Phase Extraction (DPE) Pilot Test Report and Final Remediation Work Plan* prepared by Ensolum and submitted to the NMOCD in April 2023. Per the conditions of approval (COAs) issued by the NMOCD on May 19, 2023, this report includes the following information based on COAs issued for similar Sites:

- A summary of remediation activities during the quarter;
- The system run time summary (90% run time typically required);
- Total system flow and vacuum measurements;
- Individual well flow rates, photoionization detector (PID) measurements of volatile organic compounds (VOCs), vacuum measurements, and oxygen/carbon dioxide measurements via hand-held analyzers;
- The petroleum mass removal and fluid product recovery from the remediation system.

As approved in the *Dual-Phase Extraction (DPE) Pilot Test Report and Final Remediation Work Plan,* groundwater sampling is being conducted semi-annually beginning in 2024. This quarterly remediation summary report also includes data and summaries from semi-annual groundwater sampling events conducted at the Site during every other reporting period. Because groundwater sampling activities were previously being performed quarterly prior to 2024 this report summarizes groundwater data gathered between the fourth quarter of 2022 and the second quarter of 2024.

REMEDIATION SYSTEM DESCRIPTION

The remediation system at the Site includes a DPE system which uses a rotary lobe positive displacement blower to apply vacuum to ten remediation wells (MW01, MW06, MW08, MW09, MW10, MW11, MW13, MW14, MW15, and MW16) that are connected to the blower via subsurface piping (Figure 2). The extracted air, petroleum vapors, and fluids enter a vapor/liquid separator or "knockout" tank. Air and petroleum vapors are passed through the high vacuum extraction blower and discharged to the atmosphere via an exhaust stack. Separated liquid, which includes phase separated hydrocarbons (PSH) and potentially impacted groundwater, is pumped to an aboveground storage tank for storage and off-site disposal. The system layout is depicted on Figure 3.

THIRD QUARTER 2024 OPERATION AND MAINTENANCE

Field data measurements were collected from the system daily for the first week of operation and then weekly thereafter for the remainder of the third quarter of 2024. Regular weekly system operations and maintenance (O&M) activities have been performed throughout the third quarter of 2024. Field forms completed during O&M visits are presented in Appendix A.

Since startup on August 13, 2024, all Site DPE wells were operated in order to recover PSH, draw down the groundwater table, and induce air flow in impacted soil zones. Between August 13 and September 30, 2024, the DPE system operated for 1,014 hours for a runtime efficiency of 88 percent (%). System downtime was the result of scaling in the liquid transfer piping located after the transfer pump causing liquids to accumulate within the knockout tank at a faster rate than the pump could transfer them into the storage tank. The piping was cleaned to maximize the pumping rate, and discussions are underway with the system fabricator to make modifications that would minimize the chance for similar downtime occurring in the future. Appendix B presents photographs of the runtime meter for calculating the third quarter 2024 runtime efficiency. Appendix C includes correspondence with the NMOCD regarding system downtime. Table 1 presents the SVE system operational hours and calculated percent runtime. Field measurements collected during O&M events are summarized in Table 2.

Vapor Recovery

Initial influent vapor samples from the DPE system were collected on August 13, August 14, August 21, August 28, and September 4, 2024, using a high vacuum air sampling pump on the system inlet, after the manifold assembly, but prior to the liquid knockout tank. Per the May 19, 2023 COAs, the August 13, 2024 sample was collected following initial startup; however, due to the startup being mid-afternoon on August 13th, a sample could not be collected 8-10 hours after startup and the second sample was collected on the morning of August 14, 2024. An additional sample was collected on September 19, 2024, but results have not yet been received. The remaining third quarter 2024 vapor sample analytical results will be summarized in the next quarterly report. Samples were collected into 1-Liter Tedlar® bags and submitted to Eurofins Environment Testing (Eurofins) in Albuquerque, New Mexico for analysis of VOCs following United States Environmental Protection Agency (EPA) EPA Method 8260B, total petroleum hydrocarbons (TPH) following EPA Method 8015D, and fixed gas analysis of oxygen and carbon dioxide following Gas Processors Association (GPA) Method 2261. A summary of laboratory analytical results are summarized in Table 3, with complete laboratory analytical reports attached as Appendix D. Graphs 1 and 2 also present oxygen and carbon dioxide levels over time, respectively. Per the May 19, 2023 COAs, influent vapor samples will be collected twice per month during October 2024 and then bi-monthly (every other month) for the first year of system operation.

Vapor sample data and measured influent flow rates are used to estimate total mass recovered and total emissions generated by the DPE system (Table 4). Based on these estimates, 6,051 pounds (3.0 tons) of vapor phase TPH have been removed by the system to date.

Liquid Recovery

Total liquid recovery volumes are measured using a totalizing flow metering device. During the initial O&M field visit in August of 2024, it was determined that a liquid totalizer was not installed between the transfer pump and storage tank by the fabricator. A totalizer was installed on August 20, 2024; therefore, liquid recovery totals presented in this, and future reports will not include data between August 13 and August 20, 2024.

Since totalizer installation on August 20, 2024, through September 30, 2024, approximately 20,511 gallons of liquid have been recovered. The impacted groundwater and recovered PSH are emulsified and homogenously commingled enough during extraction that product thickness is unmeasurable in the liquid recovery tank. Therefore, the estimated volume of PSH recovered is not measurable and not reported. Liquid recovery is summarized in Table 5.

GROUNDWATER MONITORING

Since September 2020, groundwater gauging and sampling activities have been conducted at the Site. Previous to this report, the last summary of groundwater analytical results was presented in the *2022 Delineation and Updated Remediation Work Plan* document prepared by Ensolum and submitted to the NMOCD in December 2022. The *2022 Delineation and Updated Remediation Work Plan* document summarized groundwater sampling activities and data collected at the Site between September 2020 and September 2022. As such, this report summarizes quarterly groundwater sampling activities and data collected from the fourth quarter of 2022 through the second quarter 2024.

Fluid Level Measurements

Prior to purging and sampling, static depth to groundwater and total depth of each monitoring well was measured using an oil/water interface probe. Depth to PSH was also recorded when present and a correction factor of 0.8 was applied to the calculated groundwater elevation to account for the depression of the water column caused by the presence of overlying PSH. The interface probe was decontaminated with Alconox® soap and rinsed with distilled water prior to each measurement to prevent cross contamination. Depth to groundwater, depth to PSH, and calculated groundwater elevations are summarized in Table 6. Potentiometric surface maps were drafted with groundwater elevations and PSH thickness measured during the first and second quarter 2024 quarterly monitoring events (Figures 3 and 4, respectively).

Groundwater Sampling Activities and Analytical Results

Groundwater samples were collected for laboratory analysis from monitoring wells containing sufficient water to sample and that did not contain measurable PSH. Disposable polyvinyl chloride (PVC) bailers were used to collect groundwater samples due to limited water volume within several of the monitoring wells. Prior to collecting groundwater samples, Hilcorp purged a minimum of three casing volumes or until the well was bailed dry to ensure water from the adjacent formation, representative of actual aquifer conditions, was sampled. If a well was purged dry, the well was allowed to recharge before samples were collected. Water quality parameters including pH, electrical conductivity, and temperature were measured in each well using a multi-probe water quality field meter during purging.

Groundwater samples were collected into laboratory provided sample bottles and immediately placed on ice for preservation. Samples were submitted to Hall Environmental Analysis Laboratory (Hall) and/or Eurofins (formerly Hall) for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX). A summary of groundwater analytical results is presented in Table 7. The groundwater analytical results from the first and second quarters of 2024 are depicted on Figure 5 and 6, respectively, with complete laboratory analytical reports attached as Appendix E.

PSH Recovery

Beginning in September of 2020, PSH has been manually recovered from monitoring wells using a disposable bailer. During each PSH recovery event, the thickness of product within the well and total volume removed was recorded. Table 8 presents the total volume recovered from each well at the Site during these recovery events. To date, approximately 7.62 gallons of PSH have been recovered manually from the Site. Manual PSH recovery will no longer occur at the Site while the DPE system is operational as PSH is being recovered from the extraction wells continuously during system operation.

DISCUSSIONS AND RECOMMENDATIONS

Bi-weekly (every other week) to monthly O&M visits and bi-monthly (every other month) sampling events will be performed by Ensolum and/or Hilcorp personnel to ensure the DPE system is operating within normal working ranges (i.e., temperature, pressure, and vacuum). Deviations from regular operations will be noted on field logs and included in the following quarterly report. Semi-annual groundwater sampling events will continue to be conducted in the second and fourth quarters of the year.

Reporting

Updated remediation reports will be prepared and submitted to the NMOCD on a quarterly basis within 15 days following the end of the quarter and will contain the following:

- A summary of remediation and monitoring activities during the period;
- System run-time summary;
- Petroleum hydrocarbon mass removal and fluid recovery from the remediation system;
- DPE volume liquid removal; and
- Groundwater monitoring results, when applicable.

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

Sincerely,
Ensolum, LLC

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Attachments:

Figure 1	Site Location Map
Figure 2	Dual Phase Extraction System Layout
Figure 3	Groundwater Elevation Map – Q1 2024
Figure 4	Groundwater Elevation Map – Q2 2024
Figure 5	Groundwater Analytical Results – Q1 2024
Figure 6	Groundwater Analytical Results – Q2 2024
Table 1	Dual Phase Extraction System Runtime Calculations
Table 2	Dual Phase Extraction System Field Measurements
Table 3	Dual Phase Extraction System Emissions Analytical Results
Table 4	Dual Phase Extraction System Mass Removal and Emissions
Table 5	Liquid Recovery
Table 6	Groundwater Elevation
Table 7	Groundwater Analytical Results
Table 8	PSH Recovery Summary
Graph 1	O_2 vs. Time
Graph 2	CO_2 vs. Time
Appendix A	O&M Field Notes
Appendix B	Project Photographs
Appendix C	Correspondence
Appendix D	DPE Laboratory Analytical Reports
Appendix E	Groundwater Laboratory Analytical Reports

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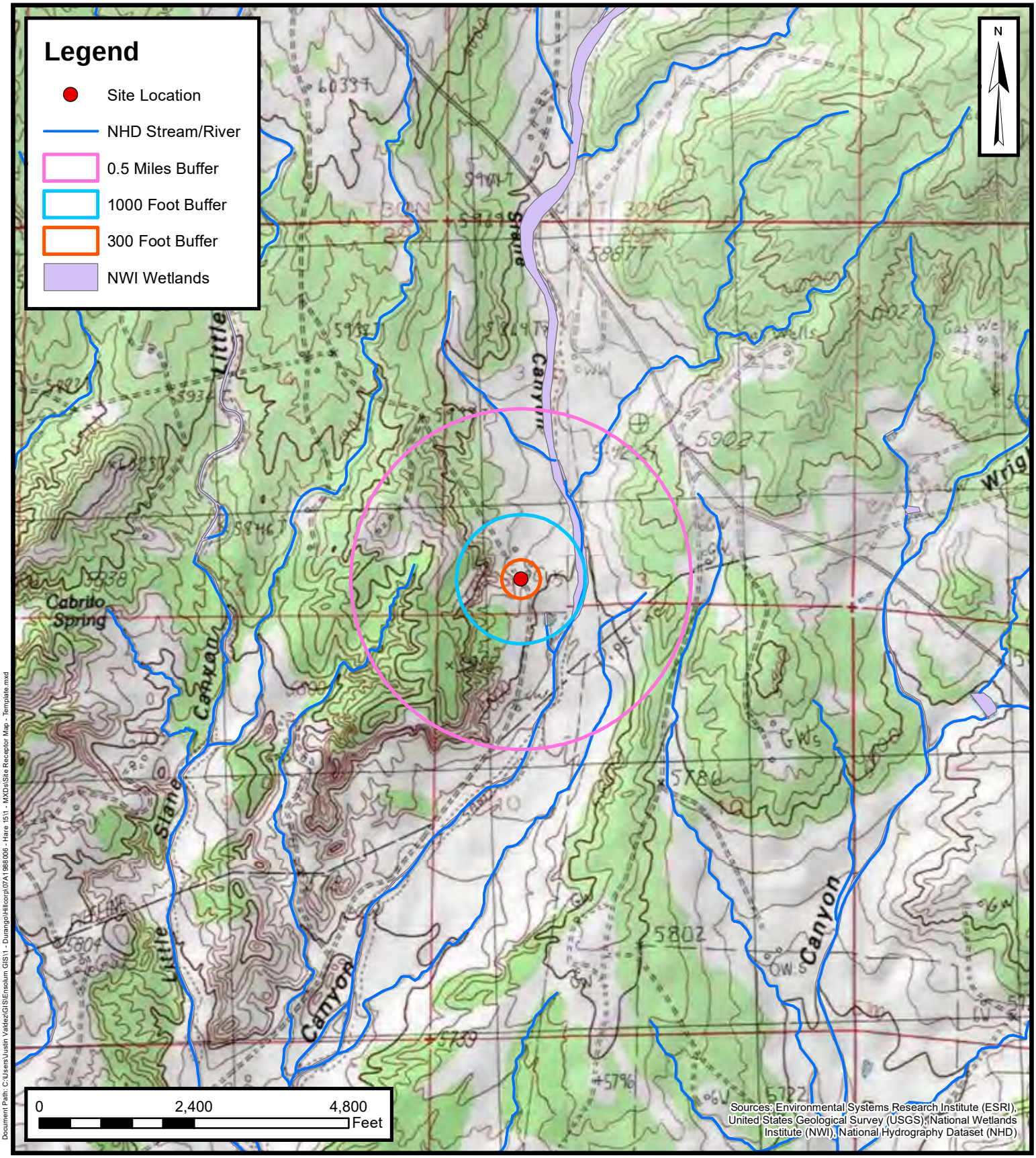
Figures



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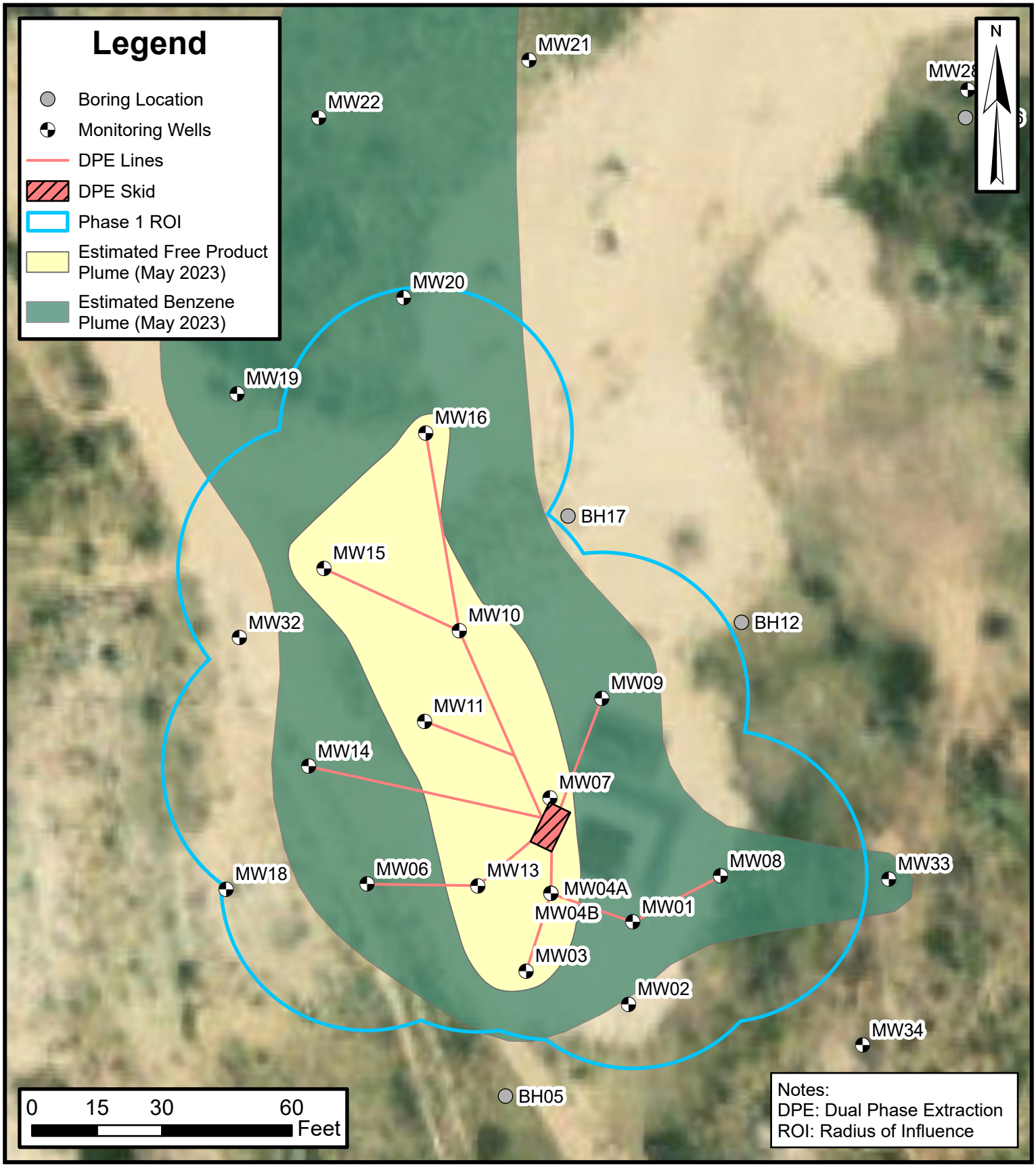
Site Receptor Map

Hare 15
Hilcorp Energy Company
36.749188, -107.877461
San Juan County, NM

PROJECT NUMBER: 07A1988006

FIGURE
1



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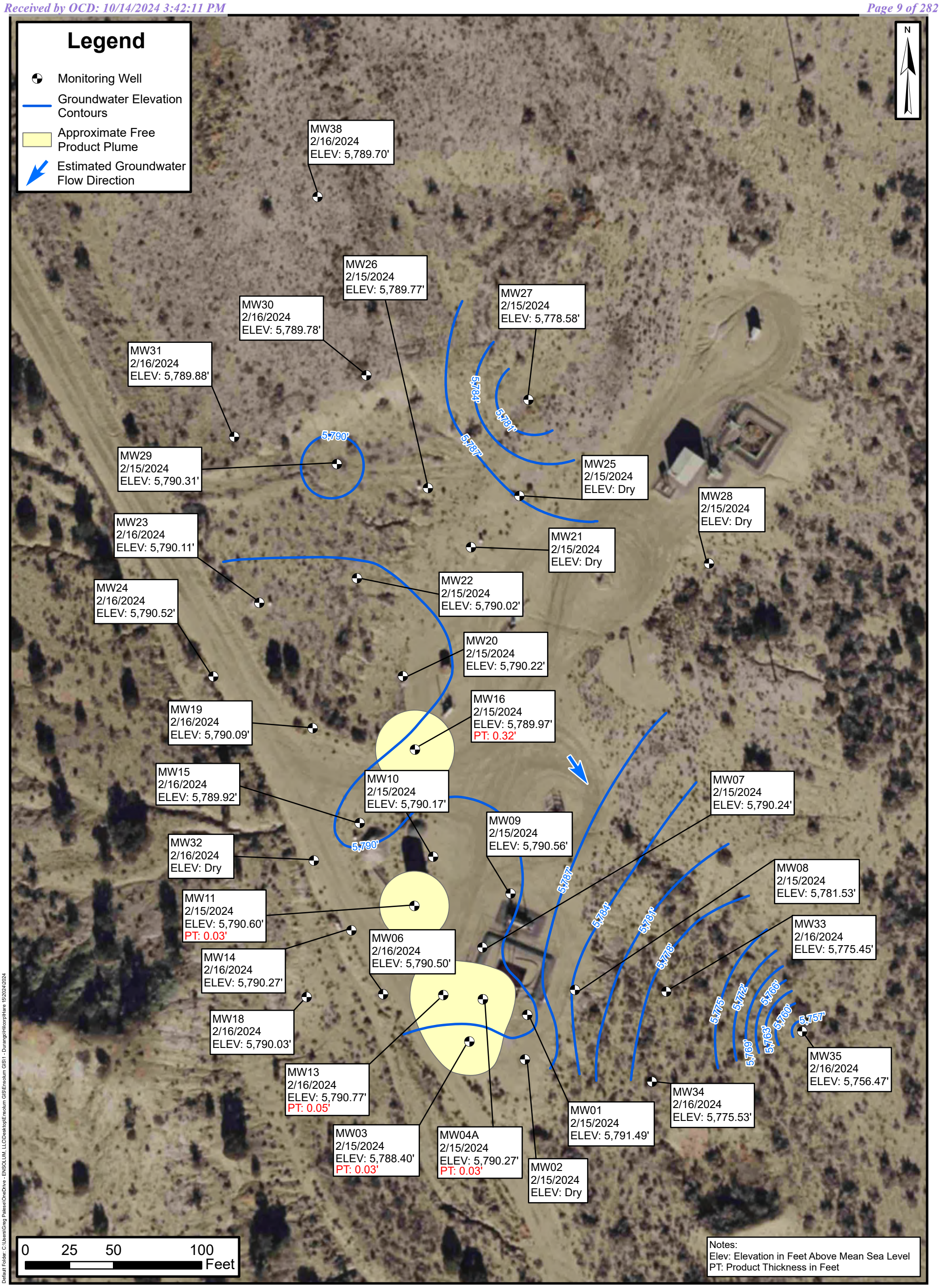
Dual Phase Extraction System

Hare 15
Hilcorp Energy Company
SW/SW, Sec 3, T29N, R10W
36.749188, -107.877461
San Juan County, New Mexico

FIGURE
2

Sources: Environmental Systems Research Institute (ESRI), Maxar, Microsoft



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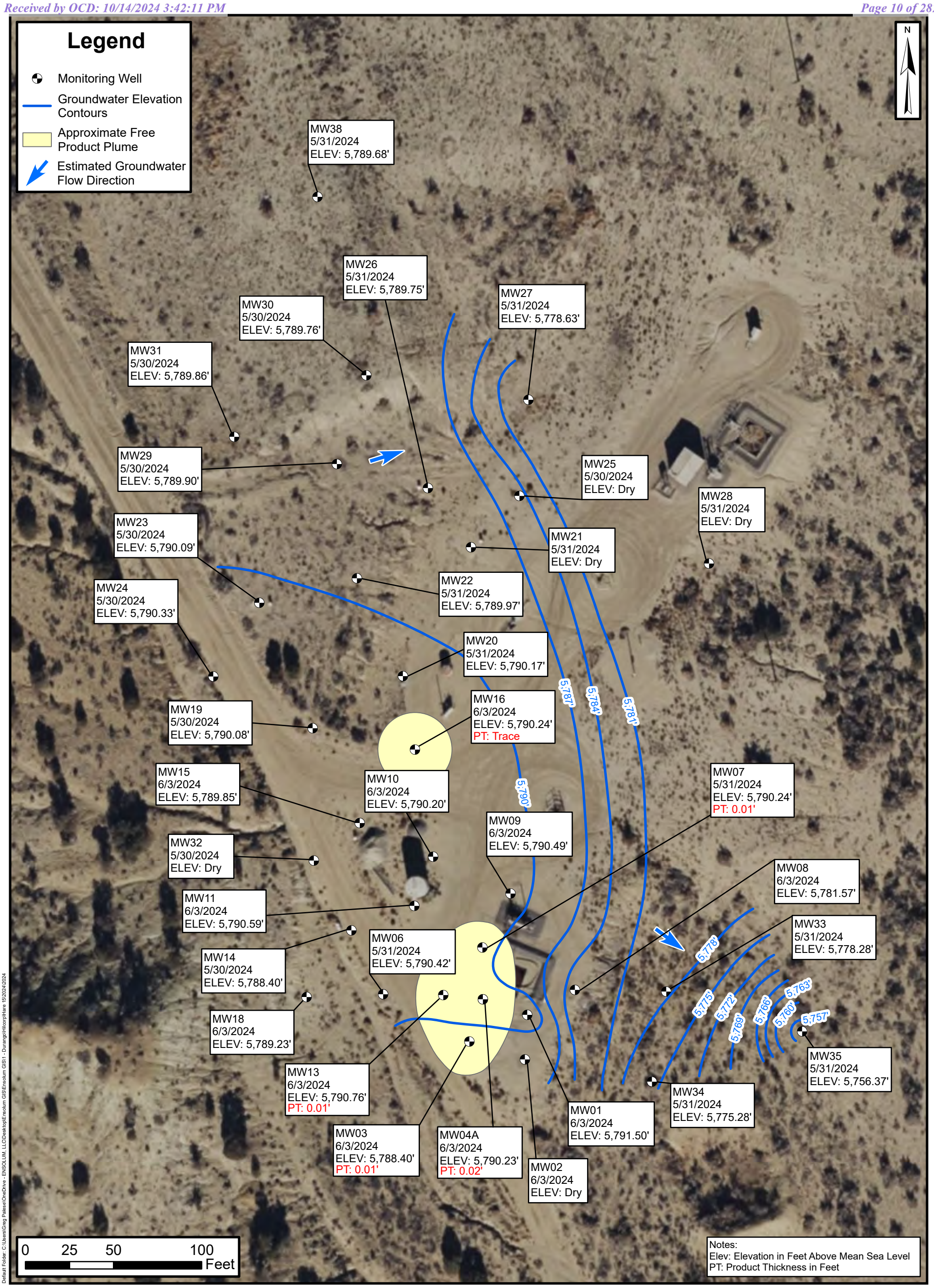
Groundwater Elevation Contours February 2024

Hare 15
Hilcorp Energy Company
SW/SW, Sec 3, T29N, R10W
36.749188, -107.877461
San Juan County, New Mexico

FIGURE
3

Sources: Environmental Systems Research Institute (ESRI), Maxar, Microsoft



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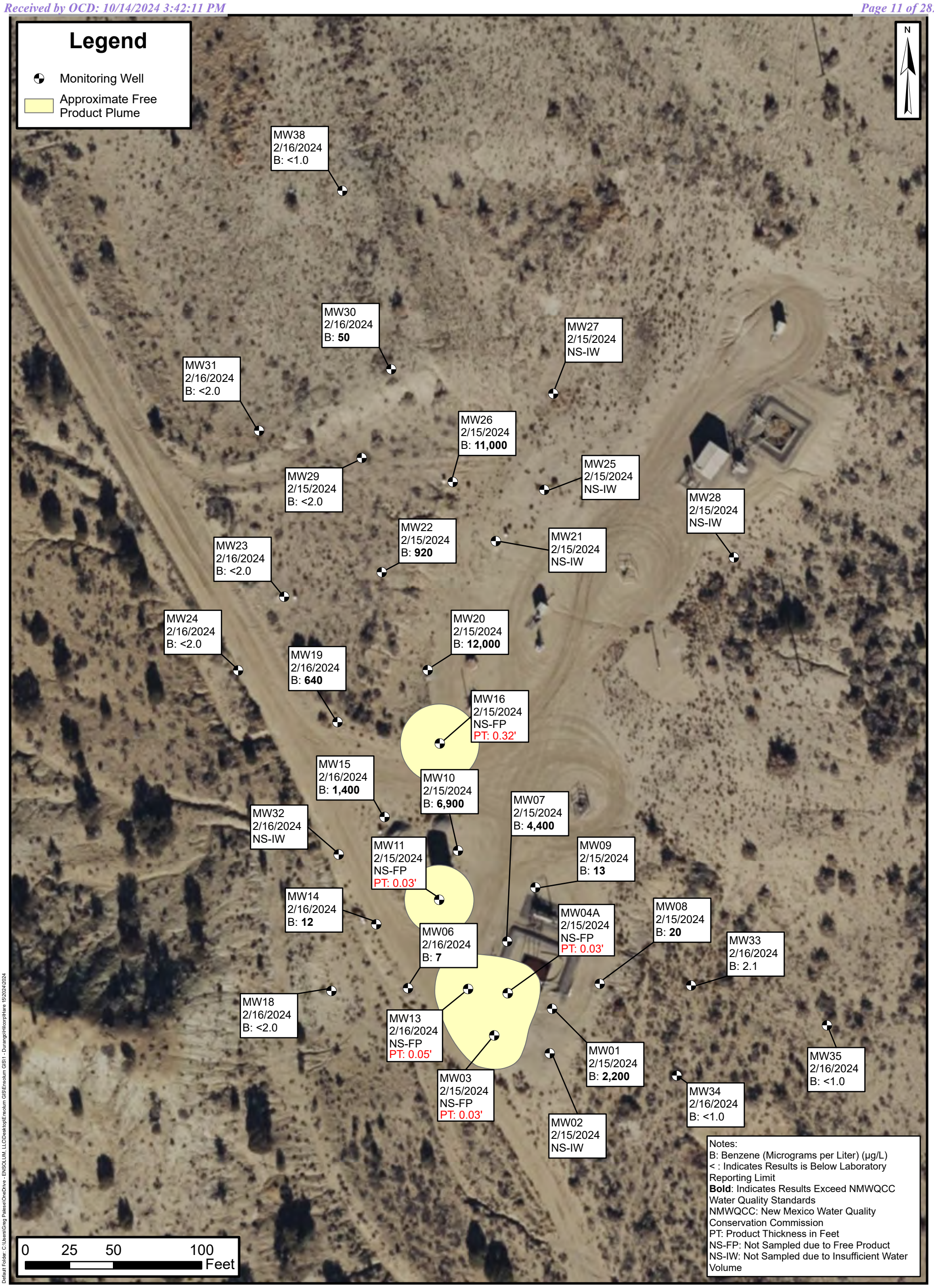
Groundwater Elevation Contours June 2024

Hare 15
Hilcorp Energy Company
SW/SW, Sec 3, T29N, R10W
36.749188, -107.877461
San Juan County, New Mexico

FIGURE
4

Sources: Environmental Systems Research Institute (ESRI), Maxar, Microsoft



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Groundwater Analytical Results
February 2024

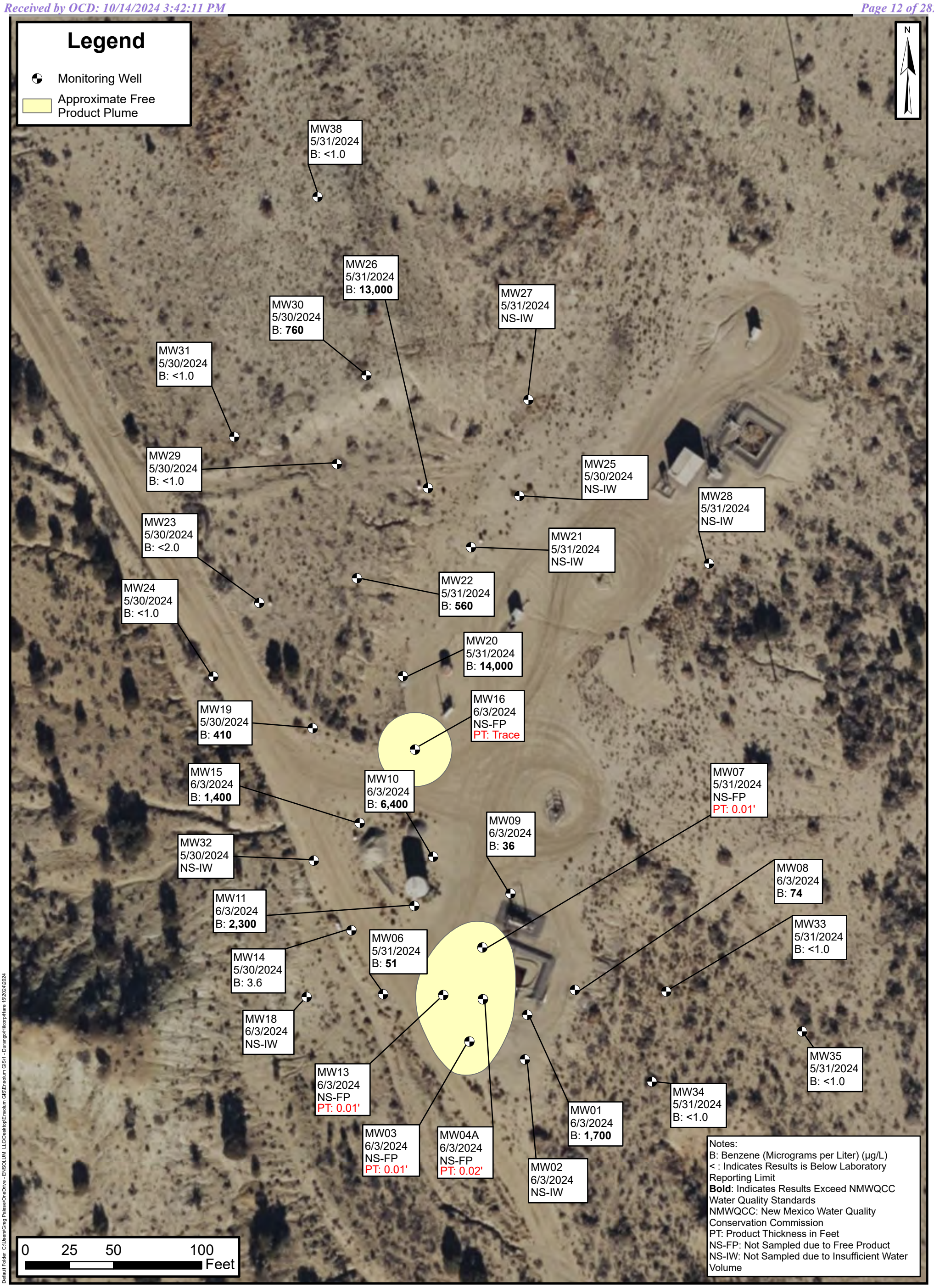
Hare 15
Hilcorp Energy Company

SW/SW, Sec 3, T29N, R10W
36.749188, -107.877461
San Juan County, New Mexico

FIGURE

5

Sources: Environmental Systems Research Institute (ESRI), Maxar, Microsoft



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Groundwater Analytical Results June 2024

Hare 15
Hilcorp Energy Company

SW/SW, Sec 3, T29N, R10W
36.749188, -107.877461
San Juan County, New Mexico

FIGURE

6

Sources: Environmental Systems Research Institute (ESRI), Maxar, Microsoft

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Tables & Graphs

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TABLE 1
DUAL PHASE EXTRACTION SYSTEM RUNTIME CALCULATIONS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Date/Time of Reading	System Hour Runtime	Run Time (%)	Cumulative Run Time (%)	Notes
8/13/2024	4	START UP		
8/14/2024	24	82%	82%	
8/15/2024	51	114%	98%	
8/16/2024	74	95%	97%	
8/21/2024	190	96%	97%	
8/28/2024	353	97%	97%	
9/4/2024	520	100%	98%	
9/11/2024	687	99%	98%	
9/19/2024	879	100%	99%	
9/25/2024	970	63%	94%	
9/30/2024	1,014	36%	88%	

Notes:

%: percent

Dashed line indicates quarter change

--: not applicable/not collected

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TABLE 2
DUAL PHASE EXTRACTION SYSTEM FIELD MEASUREMENTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

SVE Well ID	Date	PID (ppm)	Differential Pressure (IWC)	Flow Rate (acfm)	Flow Rate (scfm)[1]	Vacuum (IHG)	Vacuum (psi)	Oxygen (%)	Carbon Dioxide (%)
Influent, All Wells	8/13/2024	1,572	0.40	221	127	8.0	3.93	12.7	>5.0
	8/14/2024	1,915	0.40	221	127	8.0	3.93	16.5	3.52
	8/15/2024	1,372	0.55	259	142	9.0	4.42	20.4	0.96
	8/16/2024	1,277	0.50	247	139	8.5	4.17	20.4	0.94
	8/21/2024	1,838	0.50	247	120	11.5	5.65	20.1	0.94
	8/28/2024	2,020	0.55	259	136	10.0	4.91	20.9	0.00
	9/4/2024	495	--	300	157	10.0	4.91	20.4	0.34
	9/11/2024	691	--	300	157	10.0	4.91	20.9	0.34
	9/19/2024	1,004	--	300	149	11.0	5.40	20.2	0.26
	9/25/2024	421	--	300	149	11.0	5.40	18.8	0.26
MW01	8/13/2024	736	--	62	38	6.5	3.19	14.6	>5.00
	8/14/2024	1,515	--	60	39	5.0	2.46	18.5	1.78
	8/15/2024	2,298	--	68	44	5.0	2.46	20.4	0.64
	8/16/2024	1,454	--	64	42	5.0	2.46	20.4	0.60
	8/21/2024	1,270	--	76	42	9.0	4.42	20.6	0.36
	8/28/2024	2,601	--	70	43	6.5	3.19	20.1	0.72
	9/4/2024	344	--	45	29	5.0	2.46	20.4	0.20
	9/11/2024	211	--	45	30	4.5	2.21	20.8	0.24
	9/19/2024	201	--	28	18	6.0	2.95	20.2	0.22
	9/25/2024	92	--	50	31	6.0	2.95	19.0	0.18
MW06	8/13/2024	42	--	30	19	6.0	2.95	20.9	0.02
	8/14/2024	325	--	20	13	5.0	2.46	20.0	1.70
	8/15/2024	274	--	22	15	4.0	1.96	20.9	0.88
	8/16/2024	364	--	26	17	5.0	2.46	20.9	0.86
	8/21/2024	368	--	58	29	11.0	5.40	20.9	0.40
	8/28/2024	378	--	55	33	7.0	3.44	20.9	0.22
	9/4/2024	144	--	55	35	6.0	2.95	20.9	0.14
	9/11/2024	56	--	50	31	6.0	2.95	20.9	0.10
	9/19/2024	98	--	50	31	6.0	2.95	20.5	0.14
	9/25/2024	254	--	45	29	5.5	2.70	19.4	0.08
MW08	8/13/2024	16	--	28	18	6.0	2.95	17.9	4.58
	8/14/2024	403	--	30	20	5.0	2.46	19.7	1.62
	8/15/2024	346	--	32	21	5.0	2.46	20.9	0.74
	8/16/2024	436	--	38	25	5.0	2.46	20.9	0.48
	8/21/2024	110	--	38	21	9.0	4.42	20.9	0.42
	8/28/2024	37	--	30	18	7.5	3.68	20.9	0.24
	9/4/2024	35	--	30	18	7.5	3.68	20.4	0.14
	9/11/2024	69	--	30	18	7.5	3.68	20.9	0.12
	9/19/2024	57	--	25	15	7.5	3.68	20.5	0.16
	9/25/2024	28	--	40	25	6.0	2.95	19.5	0.10
MW09	8/13/2024	59	--	32	21	5.5	2.70	16.5	>5.00
	8/14/2024	373	--	34	23	4.5	2.21	19.4	3.06
	8/15/2024	283	--	74	50	4.0	1.96	20.4	1.58
	8/16/2024	619	--	50	34	4.0	1.96	20.6	1.16
	8/21/2024	162	--	58	33	8.0	3.93	20.9	0.48
	8/28/2024	85	--	50	31	6.0	2.95	20.9	0.40
	9/4/2024	87	--	60	38	5.5	2.70	20.4	0.24
	9/11/2024	50	--	40	25	6.0	2.95	20.9	0.24
	9/19/2024	53	--	60	38	6.0	2.95	20.2	0.26
	9/25/2024	52	--	60	40	4.5	2.21	19.3	0.18
MW10	8/13/2024	1,334	--	56	36	5.5	2.70	17.7	3.38
	8/14/2024	1,803	--	44	29	4.5	2.21	12.0	3.46
	8/15/2024	2,053	--	62	42	4.0	1.96	16.4	1.78
	8/16/2024	1,978	--	58	38	5.0	2.46	18.0	1.66
	8/21/2024	2,851	--	70	38	9.0	4.42	18.9	1.50
	8/28/2024	1,302	--	65	43	4.5	2.21	20.9	0.32
	9/4/2024	1,112	--	70	46	5.0	2.46	20.8	0.38
	9/11/2024	704	--	70	45	5.5	2.70	20.8	0.40
	9/19/2024	1,201	--	70	44	6.0	2.95	19.9	0.38
	9/25/2024	556	--	65	42	5.0	2.46	17.0	0.64
MW11	8/13/2024	1,751	--	44	26	7.0	3.44	10.3	>5.00
	8/14/2024	1,940	--	40	26	5.0	2.46	15.1	3.80
	8/15/2024	1,852	--	74	48	5.0	2.46	18.2	1.64
	8/16/2024	2,190	--	68	44	5.0	2.46	18.8	1.46
	8/21/2024	2,381	--	76	36	12.0	5.89	19.3	0.94
	8/28/2024	2,964	--	80	47	7.5	3.68	20.6	0.50
	9/4/2024	977	--	55	32	7.5	3.68	20.6	0.31
	9/11/2024	423	--	80	47	7.5	3.68	20.9	0.26
	9/19/2024	1,999	--	60	36	7.0	3.44	20.5	0.28
	9/25/2024	461	--	70	44	6.0	2.95	17.3	0.46

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TABLE 2
DUAL PHASE EXTRACTION SYSTEM FIELD MEASUREMENTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

SVE Well ID	Date	PID (ppm)	Differential Pressure (IWC)	Flow Rate (acfm)	Flow Rate (scfm)[1]	Vacuum (IHG)	Vacuum (psi)	Oxygen (%)	Carbon Dioxide (%)
MW13	8/13/2024	290	--	44	24	9.0	4.42	18.9	2.28
	8/14/2024	963	--	10	6	6.0	2.95	20.9	0.14
	8/15/2024	662	--	14	10	4.0	1.96	20.9	0.10
	8/16/2024	451	--	14	10	4.0	1.96	20.9	0.06
	8/21/2024	2,845	--	72	38	10.0	4.91	20.6	0.48
	8/28/2024	993	--	60	35	8.0	3.93	20.9	0.00
	9/4/2024	122	--	60	39	5.0	2.46	20.9	0.02
	9/11/2024	63	--	NM	NM	4.0	1.96	20.9	0.04
	9/19/2024	113	--	NM	NM	7.5	3.68	20.5	0.04
	9/25/2024	464	--	NM	NM	7.5	3.68	17.4	0.26
MW14	8/13/2024	379	--	42	25	7.0	3.44	14.8	>5.00
	8/14/2024	1,074	--	32	21	5.0	2.46	18.3	4.18
	8/15/2024	759	--	50	34	4.0	1.96	19.9	1.94
	8/16/2024	726	--	52	34	5.0	2.46	19.9	2.02
	8/21/2024	688	--	58	27	12.0	5.89	20.6	1.26
	8/28/2024	633	--	50	30	7.0	3.44	20.9	0.65
	9/4/2024	210		45	28	6.5	3.19	20.9	0.40
	9/11/2024	150		45	28	6.5	3.19	20.9	0.32
	9/19/2024	161		60	35	7.5	3.68	20.9	0.05
	9/25/2024	203		60	38	6.0	2.95	19.5	0.20
MW15	8/13/2024	379	--	70	42	7.0	3.44	12.0	>5.00
	8/14/2024	1,932	--	52	33	5.5	2.70	14.6	>5.00
	8/15/2024	1,677	--	58	36	6.0	2.95	16.9	4.26
	8/16/2024	1,262	--	44	29	5.0	2.46	17.7	3.82
	8/21/2024	1,555	--	70	35	11.0	5.40	18.9	2.52
	8/28/2024	1,865	--	55	33	7.0	3.44	20.9	0.76
	9/4/2024	975	--	55	33	7.0	3.44	20.7	0.72
	9/11/2024	555	--	60	35	7.5	3.68	20.8	0.54
	9/19/2024	602	--	70	41	7.5	3.68	19.9	0.50
	9/25/2024	393	--	60	38	6.0	2.95	18.2	0.62
MW16	8/13/2024	1,796	--	14	8	7.0	3.44	13.5	>5.00
	8/14/2024	480	--	12	8	5.5	2.70	20.9	0.02
	8/15/2024	501	--	18	12	5.0	2.46	20.9	0.00
	8/16/2024	47	--	26	17	5.0	2.46	20.9	0.02
	8/21/2024	404	--	25	12	11.0	5.40	20.9	0.02
	8/28/2024	4,787	--	45	27	7.0	3.44	20.9	0.76
	9/4/2024	1,810	--	30	18	7.0	3.44	20.8	0.51
	9/11/2024	1,335	--	30	18	7.5	3.68	20.7	0.42
	9/19/2024	1,421	--	NM	NM	7.0	3.44	20.2	0.32
	9/25/2024	188	--	30	19	6.0	2.95	19.9	0.04

Notes:

(1) Individual Well Flow Rates in scfm estimated based on rotometer readings from 1/2/24 to 1/5/24

IHG: inches of mercury

PID: photoionization detector

ppm: parts per million

acfm: actual cubic feet per minute

scfm: standard cubic feet per minute

%: percent

--: not measured

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TABLE 3
DUAL PHASE EXTRACTION SYSTEM EMISSIONS ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH/GRO (µg/L)	Oxygen (%)	Carbon Dioxide (%)
8/13/2024	1,572	310	240	36	530	45,000	12.01	7.68
8/14/2024	1,915	180	250	30	390	28,000	16.73	3.02
8/21/2024	1,838	54	280	37	480	18,000	20.46	0.95
8/28/2024	2,020	20	160	28	380	12,000	21.20	0.64
9/4/2024	495	14	100	14	190	6,600	21.57	0.33

Notes:

GRO: gasoline range organics
µg/L: microgram per liter
PID: photoionization detector
ppm: parts per million
(1) PID reading is from 1/11/2024
(2) PID Reading is from 7/29/2024
TVPH: total volatile petroleum hydrocarbons
%: percent
--: not sampled

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TABLE 4
DUAL PHASE EXTRACTION SYSTEM MASS REMOVAL AND EMISSIONS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Laboratory Analysis

Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH (µg/L)
8/13/2024	1,572	310	240	36	530	45,000
8/14/2024	1,915	180	250	30	390	28,000
8/21/2024	1,838	54	280	37	480	18,000
8/28/2024	2,020	20	160	28	380	12,000
9/4/2024	495	14	100	14	190	6,600
Average	1,568	116	206	29	394	21,920

Vapor Extraction Summary

Date	Flow Rate (scfm)	Total System Flow (cf)	Delta Flow (cf)	Benzene (lb/hr)	Toluene (lb/hr)	Ethylbenzene (lb/hr)	Total Xylenes (lb/hr)	TVPH (lb/hr)
8/13/2024	127	0	0	0.1472	0.1140	0.0171	0.2517	21.37
8/14/2024	127	150,114	150,114	0.0855	0.1187	0.0142	0.1852	13.30
8/21/2024	120	1,346,034	1,195,920	0.0242	0.1257	0.0166	0.2154	8.08
9/4/2024	300	7,291,434	5,945,400	0.0224	0.1795	0.0314	0.4264	13.46
			Average	0.0699	0.134	0.0198	0.270	14.05

Mass Recovery

Date	Total SVE System Hours	Delta Hours	Benzene (pounds)	Toluene (pounds)	Ethylbenzene (pounds)	Total Xylenes (pounds)	TVPH (pounds)	TVPH (tons)
8/13/2024	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/14/2024	24	20	1.7	2.3	0.3	3.6	262.0	0.1
8/21/2024	190	166	4.0	20.9	2.8	35.8	1341.9	0.7
9/4/2024	520	330	7.4	59.3	10.4	140.8	4447.3	2.2
		Total Mass Recovery to Date	13	83	13	180	6,051	3.0

Notes:

cf: cubic feet
cfm: cubic feet per minute
µg/L: micrograms per liter
lb/hr: pounds per hour
--: not sampled
PID: photoionization detector
ppm: parts per million
TVPH: total volatile petroleum hydrocarbons
Laboratory detection limit used to estimate mass removal

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TABLE 5
LIQUID RECOVERY
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Date/Time	Hour Meter Reading	Flow Meter Reading (gal)	Gallons Recovered this Period	Cumulative Volume Recovered (gal)	Time Period (hr:min:sec)	Time Period (min)	Recovery Rate		Notes
							(gpm)	(gal/day)	
8/12/2024	System Startup								
8/20/2024	Totalizer Installed								
8/21/2024	189.7	--	--	--	--	--	--	--	
8/28/2024	352.6	4,680	4,680	4,680	168:45:00	10,125	0.46	666	
9/4/2024	520.3	9,057	4,378	9,057	168:25:00	10,105	0.43	624	
9/11/2024	687.4	13,093	4,035	13,093	153:30:00	9,210	0.44	631	
9/19/2024	878.9	17,197	4,105	17,197	192:00:00	11,520	0.36	513	
9/25/2024	970.3	20,511	3,313	20,511	157:58:00	9,478	0.35	503	

Notes:

**: totalizing meter installed on 8/16/2024*

bbl: barrel
ft: feet
gal: gallon
gal/day: gallon per day
gpm: gallon per minute
hr: hour
in: inch
min: minute
sec: second
Dashed line indicated quarter change
--: not applicable

Total Quantity of Liquid Removed:	20,511	Gal
	488	bbl

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TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Well Number	Top of Casing Elevation (feet AMSL)	Total Depth (feet)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW01	5,817.82	27.60	9/22/2020	26.48	--	--	5,791.34
			10/2/2020	26.48	--	--	5,791.34
			10/7/2020	26.46	--	--	5,791.36
			2/17/2021	26.42	--	--	5,791.40
			9/27/2021	26.45	--	--	5,791.37
			1/7/2022	26.40	--	--	5,791.42
			4/22/2022	26.44	--	--	5,791.38
			9/8/2022	26.36	--	--	5,791.46
			12/9/2022	26.25	--	--	5,791.57
			3/9/2023	26.31	--	--	5,791.51
			5/2/2023	26.29	--	--	5,791.53
			8/30/2023	26.23	--	--	5,791.59
			11/30/2023	26.23	--	--	5,791.59
			2/15/2024	26.33	--	--	5,791.49
			6/3/2024	26.32	--	--	5,791.50
MW02	5,817.36	37.10	9/22/2020	DRY	--	--	--
			10/2/2020	37.02 (1)	--	--	--
			10/7/2020	DRY	--	--	--
			2/17/2021	37.09 (1)	--	--	--
			9/27/2021	DRY	--	--	--
			1/7/2022	DRY	--	--	--
			9/8/2022	DRY	--	--	--
			12/9/2022	DRY	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	DRY	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
			2/15/2024	DRY	--	--	--
			6/3/2024	DRY	--	--	--
MW03	5,817.81	37.55	9/22/2020	27.85	27.14	0.71	5,790.53
			10/2/2020	30.62	27.16	3.46	5,789.96
			10/7/2020	29.90	27.14	2.76	5,790.12
			2/17/2021	28.01	27.42	0.59	5,790.27
			9/27/2021	27.45	27.31	0.14	5,790.47
			11/24/2021	27.48	27.32	0.16	5,790.46
			1/7/2022	27.42	27.31	0.11	5,790.48
			4/22/2022	27.66	27.58	0.08	5,790.21
			9/8/2022	27.45	27.35	0.10	5,790.44
	5,815.53		12/9/2022	25.24	25.14	0.10	5,790.37
			3/9/2023	27.14	27.05	0.09	5,788.46
			5/2/2023	27.20	27.08	0.12	5,788.43
			8/30/2023	27.16	--	--	5,788.37
			11/30/2023	28.13	--	--	5,787.40
			2/15/2024	27.13	27.10	0.03	5,788.40
			6/3/2024	27.13	27.12	0.01	5,788.40

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Well Number	Top of Casing Elevation (feet AMSL)	Total Depth (feet)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW04A	5,818.23	36.58	9/22/2020	27.58	27.56	0.02	5,790.67
			10/2/2020	29.39	27.56	1.83	5,790.30
			10/7/2020	28.08	27.57	0.51	5,790.56
			2/17/2021	27.96	27.66	0.30	5,790.51
			9/27/2021	28.15	27.90	0.25	5,790.28
			11/24/2021	28.22	27.92	0.30	5,790.25
			1/7/2022	28.04	27.85	0.19	5,790.34
			4/22/2022	28.06	27.88	0.18	5,790.31
			9/8/2022	27.89	27.77	0.12	5,790.44
			12/9/2022	27.87	27.74	0.13	5,790.46
			3/9/2023	27.81	27.75	0.06	5,790.47
			5/2/2023	28.11	27.97	0.14	5,790.23
			8/30/2023	27.91	--	--	5,790.32
			11/30/2023	27.91	--	--	5,790.32
			2/15/2024	27.96	27.93	0.03	5,790.27
			6/3/2024	28.00	27.98	0.02	5,790.23
MW04B	5,818.22	17.30	9/22/2020	DRY	--	--	--
			10/2/2020	DRY	--	--	--
			10/7/2020	DRY	--	--	--
			2/17/2021	DRY	--	--	--
			9/27/2021	DRY	--	--	--
			1/7/2022	DRY	--	--	--
			9/8/2022	DRY	--	--	--
			12/9/2022	DRY	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	DRY	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
MW06	5,818.28	32.30	9/22/2020	27.71	--	--	5,790.57
			10/2/2020	27.70	--	--	5,790.58
			10/7/2020	27.67	--	--	5,790.61
			2/17/2021	27.75	--	--	5,790.53
			9/27/2021	27.75	--	--	5,790.53
			1/7/2022	26.73	--	--	5,791.55
			9/8/2022	27.77	--	--	5,790.51
			12/9/2022	27.75	--	--	5,790.53
			3/9/2023	27.76	--	--	5,790.52
			5/2/2023	27.79	--	--	5,790.49
			8/30/2023	28.75	--	--	5,789.53
			11/30/2023	27.74	--	--	5,790.54
			2/16/2024	27.78	--	--	5,790.50
			5/31/2024	27.86	--	--	5,790.42

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Well Number	Top of Casing Elevation (feet AMSL)	Total Depth (feet)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW07	5,818.64	30.45	9/22/2020	28.77	28.01	0.76	5,790.48
			10/2/2020	28.52	28.03	0.49	5,790.51
			10/7/2020	28.69	28.16	0.53	5,790.37
			2/17/2021	28.33	Sheen	--	5,790.31
			9/27/2021	28.29	28.22	0.07	5,790.41
			11/24/2021	28.25	28.21	0.04	5,790.42
			1/7/2022	28.23	Sheen	--	5,790.41
			4/22/2022	28.52	28.17	0.35	5,790.40
			9/8/2022	28.40	Sheen	--	5,790.24
			12/9/2022	28.37	28.17	0.20	5,790.43
			3/9/2023	28.46	Sheen	--	5,790.18
			5/2/2023	28.62	28.40	0.22	5,790.02
			8/30/2023	28.37	--	--	5,790.27
			11/30/2023	28.37	--	--	5,790.27
			2/15/2024	28.40	--	--	5,790.24
			5/31/2024	28.40	28.39	0.01	5,790.24
MW08	5,817.40	37.27	9/22/2020	DRY	--	--	--
			10/2/2020	DRY	--	--	--
			10/7/2020	DRY	--	--	--
			2/17/2021	36.72 (1)	--	--	--
			9/27/2021	36.89 (1)	--	--	--
			1/7/2022	DRY	--	--	--
			9/8/2022	36.80 (1)	--	--	--
			12/9/2022	36.81(1)	--	--	--
			3/9/2023	36.75 (1)	--	--	--
			5/2/2023	36.85 (1)	--	--	--
			8/30/2023	36.98 (1)	--	--	--
			11/30/2023	37.18 (1)	--	--	--
			2/15/2024	35.87	--	--	5,781.53
			6/3/2024	35.83	--	--	5,781.57
MW09	5,818.61	32.30	9/22/2020	28.10	--	--	5,790.51
			10/2/2020	30.71	--	--	5,787.90
			10/7/2020	29.72	--	--	5,788.89
			2/17/2021	28.15	--	--	5,790.46
			9/27/2021	28.17	--	--	5,790.44
			1/7/2022	28.22	--	--	5,790.39
			4/22/2022	28.20	--	--	5,790.41
			9/8/2022	28.23	--	--	5,790.38
			12/9/2022	28.09	--	--	5,790.52
			3/9/2023	28.08	--	--	5,790.53
			5/2/2023	28.12	--	--	5,790.49
			8/30/2023	27.97	--	--	5,790.64
			11/30/2023	27.95	--	--	5,790.66
			2/15/2024	28.05	--	--	5,790.56
			6/3/2024	28.12	--	--	5,790.49

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TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Well Number	Top of Casing Elevation (feet AMSL)	Total Depth (feet)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW10	5,819.73	32.60	9/22/2020	30.23	29.22	1.01	5,790.31
			10/2/2020	29.74	29.29	0.45	5,790.35
			10/7/2020	29.80	29.21	0.59	5,790.40
			2/17/2021	30.23	29.49	0.74	5,790.09
			9/27/2021	29.65	29.37	0.28	5,790.30
			11/24/2022	29.60	29.39	0.21	5,790.30
			1/7/2022	29.50	29.42	0.08	5,790.29
			4/22/2022	29.55	--	--	5,790.18
			9/8/2022	29.45	Sheen	--	5,790.28
			12/9/2022	29.44	--	--	5,790.29
			3/9/2023	29.46	Sheen	--	5,790.27
			5/2/2023	29.40	Sheen	--	5,790.33
			8/30/2023	29.47	--	--	5,790.26
			11/30/2023	29.31	--	--	5,790.42
			2/15/2024	29.56	--	--	5,790.17
			6/3/2024	29.53	--	--	5,790.20
MW11	5,819.37	32.57	9/22/2020	29.01	--	--	5,790.36
			10/2/2020	29.02	--	--	5,790.35
			10/7/2020	28.91	--	--	5,790.46
			2/17/2021	29.00	--	--	5,790.37
			9/27/2021	28.97	--	--	5,790.40
			1/7/2022	28.98	--	--	5,790.39
			4/22/2022	28.99	--	--	5,790.38
			9/8/2022	29.01	--	--	5,790.36
			12/9/2022	28.98	--	--	5,790.39
			3/9/2023	29.00	--	--	5,790.37
			5/2/2023	29.01	29.00	0.01	5,790.36
			8/30/2023	28.71	--	--	5,790.66
			11/30/2023	28.70	--	--	5,790.67
			2/15/2024	28.77	28.74	0.03	5,790.60
			6/3/2024	28.78	--	--	5,790.59
MW13	5,818.06	32.60	9/22/2020	27.81	27.43	0.38	5,790.55
			10/2/2020	27.80	27.44	0.36	5,790.55
			10/7/2020	27.81	27.42	0.39	5,790.56
			2/17/2021	27.79	27.64	0.15	5,790.39
			9/27/2021	27.68	27.57	0.11	5,790.47
			11/24/2021	27.70	27.57	0.13	5,790.46
			1/7/2022	27.66	27.58	0.08	5,790.46
			4/22/2022	27.70	27.58	0.12	5,790.46
			9/8/2022	27.69	27.60	0.09	5,790.44
			12/9/2022	27.66	27.58	0.08	5,790.46
			3/9/2023	27.67	27.58	0.09	5,790.46
			5/2/2023	27.75	27.59	0.16	5,790.44
			8/30/2023	27.29	27.18	0.11	5,790.86
			11/30/2023	27.32	--	--	5,790.74
			2/15/2024	27.29	27.24	0.05	5,790.77
			6/3/2024	27.30	27.29	0.01	5,790.76

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Well Number	Top of Casing Elevation (feet AMSL)	Total Depth (feet)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW14	5,821.30	33.83	2/17/2021	33.78	--	--	5,787.52
			9/27/2021	30.94	--	--	5,790.36
			1/7/2022	30.99	--	--	5,790.31
			9/8/2022	30.96	--	--	5,790.34
			12/9/2022	30.91	--	--	5,790.39
			3/9/2023	30.99	--	--	5,790.31
			5/2/2023	31.60	--	--	5,789.70
			8/30/2023	31.34	--	--	5,789.96
			11/30/2023	30.79	--	--	5,790.51
			2/16/2024	31.03	--	--	5,790.27
			5/30/2024	32.90	--	--	5,788.40
MW15	5,823.34	35.62	2/17/2021	33.27	33.11	0.16	5,790.20
			9/27/2021	33.65	33.05	0.60	5,790.17
			1/7/2022	33.44	33.33	0.11	5,789.99
			4/22/2022	33.33	--	--	5,790.01
			9/8/2022	32.23	Sheen	--	5,791.11
			12/9/2022	33.22	--	--	5,790.12
			3/9/2023	33.21	Sheen	--	5,790.13
			5/2/2023	33.25	Sheen	--	5,790.09
			8/30/2023	33.75	--	--	5,789.59
			11/30/2023	33.32	--	--	5,790.02
			2/16/2024	33.42	--	--	5,789.92
			6/3/2024	33.49	--	--	5,789.85
MW16	5,821.55	37.05	2/17/2021	32.20	31.67	0.53	5,789.77
			9/27/2021	31.71	31.18	0.53	5,790.26
			1/7/2022	31.65	31.24	0.41	5,790.23
			4/22/2022	31.56	31.19	0.37	5,790.29
			9/8/2022	31.64	31.21	0.43	5,790.25
			12/9/2022	31.64	31.25	0.39	5,790.22
			3/9/2023	31.56	31.22	0.34	5,790.26
			5/2/2023	31.62	31.25	0.37	5,790.23
			8/30/2023	31.60	31.28	0.32	5,790.21
			11/30/2023	31.28	--	--	5,790.27
			2/15/2024	31.58	31.26	0.32	5,789.97
			6/3/2024	31.31	--	--	5,790.24
MW18	5,821.35	32.54	2/17/2021	DRY	--	--	--
			9/27/2021	DRY	--	--	--
			1/7/2022	DRY	--	--	--
			4/22/2022	DRY	--	--	--
			9/8/2022	DRY	--	--	--
			12/9/2022	31.86 (1)	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	32.1 (1)	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
			2/16/2024	31.32	--	--	5,790.03
			6/3/2024	32.12	--	--	5,789.23

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Well Number	Top of Casing Elevation (feet AMSL)	Total Depth (feet)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW19	5,825.06	43.50	2/17/2021	34.93	--	--	5,790.13
			9/27/2021	34.93	--	--	5,790.13
			1/7/2021	34.93	--	--	5,790.13
			4/22/2022	34.88	--	--	5,790.18
			9/8/2022	34.93	--	--	5,790.13
			12/9/2022	34.94	--	--	5,790.12
			3/9/2023	34.91	--	--	5,790.15
			5/2/2023	34.96	--	--	5,790.10
			8/30/2023	34.98	--	--	5,790.08
			11/30/2023	34.93	--	--	5,790.13
			2/16/2024	34.97	--	--	5,790.09
			5/30/2024	34.98	--	--	5,790.08
MW20	5,820.60	40.13	2/17/2021	30.36	--	--	5,790.24
			9/27/2021	30.38	--	--	5,790.22
			1/7/2022	30.35	--	--	5,790.25
			4/22/2022	30.33	--	--	5,790.27
			9/8/2022	30.38	--	--	5,790.22
			12/9/2022	30.38	--	--	5,790.22
			3/9/2023	30.35	--	--	5,790.25
			5/2/2023	30.40	--	--	5,790.20
			8/30/2023	30.42	--	--	5,790.18
			11/30/2023	30.45	--	--	5,790.15
			2/15/2024	30.38	--	--	5,790.22
			5/31/2024	30.43	--	--	5,790.17
MW21	5,820.72	36.24	5/21/2021	35.88 (1)	--	--	--
			9/27/2021	36.19 (1)	--	--	--
			4/22/2022	36.17 (1)	--	--	--
			9/8/2022	36.16 (1)	--	--	--
			12/9/2022	DRY	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	DRY	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
			2/15/2024	DRY	--	--	--
			5/31/2024	DRY	--	--	--
MW22	5,826.83	42.95	5/21/2021	36.78	--	--	5,790.05
			9/27/2021	36.81	--	--	5,790.02
			4/22/2022	36.72	--	--	5,790.11
			9/8/2022	36.79	--	--	5,790.04
			12/9/2022	36.81	--	--	5,790.02
			3/9/2023	36.77	--	--	5,790.06
			5/2/2023	36.84	--	--	5,789.99
			8/30/2023	36.85	--	--	5,789.98
			11/30/2023	36.88	--	--	5,789.95
			2/15/2024	36.81	--	--	5,790.02
			5/31/2024	36.86	--	--	5,789.97

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Well Number	Top of Casing Elevation (feet AMSL)	Total Depth (feet)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW23	5,829.60	44.78	5/21/2021	40.38	--	--	5,789.22
			9/27/2021	39.45	--	--	5,790.15
			4/22/2022	39.38	--	--	5,790.22
			9/8/2022	39.45	--	--	5,790.15
			12/9/2022	39.47	--	--	5,790.13
			3/9/2023	39.43	--	--	5,790.17
			5/2/2023	39.50	--	--	5,790.10
			8/30/2023	39.33	--	--	5,790.27
			11/30/2023	39.46	--	--	5,790.14
			2/16/2024	39.49	--	--	5,790.11
			5/30/2024	39.51	--	--	5,790.09
MW24	5,826.76	41.39	5/21/2021	36.35	--	--	5,790.41
			9/27/2021	36.40			5,790.36
			9/8/2022	36.36	--	--	5,790.40
			12/9/2022	36.41	--	--	5,790.35
			3/9/2023	36.37	--	--	5,790.39
			5/2/2023	36.42	--	--	5,790.34
			8/30/2023	36.45	--	--	5,790.31
			11/30/2023	36.38	--	--	5,790.38
			2/16/2024	36.24	--	--	5,790.52
			5/30/2024	36.43	--	--	5,790.33
MW25	5,819.84	40.40	5/21/2021	40.02 (1)	--	--	--
			9/27/2021	DRY	--	--	--
			4/22/2022	40.30 (1)	--	--	--
			9/8/2022	40.25 (1)	--	--	--
			12/9/2022	40.26 (1)	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	DRY	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
			2/15/2024	DRY	--	--	--
			5/30/2024	DRY	--	--	--
MW26	5,822.35	40.52	5/21/2021	32.58	--	--	5,789.77
			9/27/2021	32.57	--	--	5,789.78
			4/22/2022	32.49	--	--	5,789.86
			9/8/2022	32.57	--	--	5,789.78
			12/9/2022	32.56	--	--	5,789.79
			3/9/2023	32.52	--	--	5,789.83
			5/2/2023	32.58	--	--	5,789.77
			8/30/2023	32.70	--	--	5,789.65
			11/30/2023	32.63	--	--	5,789.72
			2/15/2024	32.58	--	--	5,789.77
			5/31/2024	32.60	--	--	5,789.75
MW27	5,818.56	40.60	9/27/2021	40.46 (1)	--	--	--
			4/22/2022	39.48 (1)	--	--	--
			9/8/2022	39.95 (1)	--	--	--
			12/9/2022	39.96 (1)	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	39.90 (1)	--	--	--
			8/30/2023	40.01	--	--	--
			11/30/2023	40.03	--	--	--
			2/15/2024	39.98	--	--	5,778.58
			5/31/2024	39.93	--	--	5,778.63

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Well Number	Top of Casing Elevation (feet AMSL)	Total Depth (feet)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW28	5,815.12	40.61	9/27/2021	DRY	--	--	--
			4/22/2022	DRY	--	--	--
			9/8/2022	39.95 (1)	--	--	--
			12/9/2022	39.97 (1)	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	DRY	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
			2/15/2024	DRY	--	--	--
			5/31/2024	DRY	--	--	--
MW29	5,829.68	48.10	9/27/2021	39.75	--	--	5,789.93
			4/22/2022	39.66	--	--	5,790.02
			9/8/2022	39.73	--	--	5,789.95
			12/9/2022	39.74	--	--	5,789.94
			3/9/2023	39.70	--	--	5,789.98
			5/2/2023	39.75	--	--	5,789.93
			8/30/2023	38.82	--	--	5,790.86
			11/30/2023	39.76	--	--	5,789.92
			2/15/2024	39.37	--	--	5,790.31
			5/30/2024	39.78	--	--	5,789.90
MW30	5,834.72	54.74	9/8/2022	44.96	--	--	5,789.76
			12/9/2022	44.91	--	--	5,789.81
			3/9/2023	44.89	--	--	5,789.83
			5/2/2023	44.90	--	--	5,789.82
			8/30/2023	44.98	--	--	5,789.74
			11/30/2023	44.94	--	--	5,789.78
			2/16/2024	44.94	--	--	5,789.78
			5/30/2024	44.96	--	--	5,789.76
MW31	5,834.88	53.55	9/8/2022	45.02	--	--	5,789.86
			12/9/2023	44.98	--	--	5,789.90
			3/9/2023	44.94	--	--	5,789.94
			5/2/2023	45.00	--	--	5,789.88
			8/30/2023	45.05	--	--	5,789.83
			11/30/2023	44.97	--	--	5,789.91
			2/16/2024	45.00	--	--	5,789.88
			5/30/2024	45.02	--	--	5,789.86
MW32	5,821.84	40.18	9/8/2022	40.04 (1)	--	--	--
			12/9/2022	34.75	--	--	5,787.09
			3/9/2023	34.03	--	--	5,787.81
			5/2/2023	36.45	--	--	5,785.39
			8/30/2023	38.59	--	--	5,783.25
			11/30/2023	DRY	--	--	--
			2/15/2024	DRY	--	--	--
			5/30/2024	DRY	--	--	--
MW33	5,808.24	47.87	9/8/2022	33.51	--	--	5,774.73
			12/9/2022	32.92	--	--	5,775.32
			3/9/2023	32.75	--	--	5,775.49
			5/2/2023	32.72	--	--	5,775.52
			8/30/2023	33.52	--	--	5,774.72
			11/30/2023	33.07	--	--	5,775.17
			2/16/2024	32.79	--	--	5,775.45
			5/31/2024	29.96	--	--	5,778.28

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Well Number	Top of Casing Elevation (feet AMSL)	Total Depth (feet)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW34	5,807.90	43.64	9/8/2022	33.00	--	--	5,774.90
			12/9/2022	32.47	--	--	5,775.43
			3/9/2023	32.29	--	--	5,775.61
			5/2/2023	32.29	--	--	5,775.61
			8/30/2023	33.16	--	--	5,774.74
			11/30/2023	32.71	--	--	5,775.19
			2/16/2024	32.37	--	--	5,775.53
			5/31/2024	32.62	--	--	5,775.28
MW35	5,803.64	53.75	9/8/2022	47.22	--	--	5,756.42
			12/9/2022	46.85	--	--	5,756.79
			3/9/2023	46.80	--	--	5,756.84
			5/2/2023	46.78	--	--	5,756.86
			8/30/2023	47.33	--	--	5,756.31
			11/30/2023	47.28	--	--	5,756.36
			2/16/2024	47.17	--	--	5,756.47
			5/31/2024	47.27	--	--	5,756.37
MW38	5,835.26	53.12	9/9/2022	45.54	--	--	5,789.72
			12/9/2022	45.54	--	--	5,789.72
			3/9/2023	DRY	--	--	--
			5/2/2023	45.55	--	--	5,789.71
			8/30/2023	45.62	--	--	5,789.64
			11/30/2023	45.57	--	--	5,789.69
			2/16/2024	45.56	--	--	5,789.70
			5/30/2024	445.58	--	--	5,389.68

Notes:

(1): water measured in well is not indicative of the perched groundwater aquifer at the Site

AMSL: above mean sea level

BTOC: below top of casing

--: indicates no GWEL or PSH measured

When product is present, the groundwater elevation is corrected using an estimated density correction factor of 0.8

ENSOLUM

TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW01	2/17/2021	Well Dry			
	9/28/2021	**1,200**	14	9.1	**9,900**
	9/8/2022	Well Dry			
	3/9/2023	**1,900**	<50	400	**7,500**
	5/3/2023	**1,800**	<50	380	**6,400**
	8/30/2023	**2,700**	<50	240	**8,300**
	11/30/2023	**2,600**	<50	290	**4,500**
	2/15/2024	**2,200**	<50	330	**3,100**
	6/3/2024	**1,700**	<50	220	**3,500**
MW02	2/17/2021	Well Dry			
	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	6/3/2024	Well Dry			
MW03	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/15/2024	**No Sample Collected, PSH Present**			
	6/3/2024	**No Sample Collected, PSH Present**			
MW04A	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/15/2024	**No Sample Collected, PSH Present**			
	6/3/2024	**No Sample Collected, PSH Present**			
MW04B	2/17/2021	Well Dry			
	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	6/3/2024	Well Dry			
MW06	2/17/2021	**110**	7.7	27	48
	9/28/2021	**210**	<5.0	8.0	130
	9/9/2022	**160**	<5.0	<5.0	70
	3/9/2023	**110**	8.2	<5.0	32
	5/3/2023	**70**	<5.0	<5.0	<10
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	11/30/2023	**130**	<2.0	13	310
	2/16/2024	**7**	<5.0	<5.0	<7.5
	5/31/2024	**51**	<5.0	<5.0	7.7
MW07	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/15/2024	**4,400**	**10,000**	**1,400**	**32,000**
	5/31/2024	**No Sample Collected, PSH Present**			
MW08	2/17/2021	Well Dry			
	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	**20**	<5.0	13	<7.5
	6/3/2024	**74**	<2.0	58	35

ENSOLUM

TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW09	2/17/2021	**37**	<5.0	99	230
	9/28/2021	**140**	<5.0	200	280
	9/9/2022	**63**	<5.0	48	250
	3/9/2023	**60**	<5.0	180	270
	5/3/2023	**40**	<5.0	110	220
	8/31/2023	**26**	<5.0	100	200
	11/30/2023	**13**	<5.0	73	110
	2/15/2024	**13**	<5.0	68	90
	6/3/2024	**36**	<5.0	100	170
MW10	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/15/2024	**6,900**	**15,000**	**1,500**	**28,000**
	6/3/2024	**6,400**	**13,000**	**1,600**	**29,000**
MW11	2/17/2021	**3,500**	**4,500**	320	**11,000**
	9/28/2021	**3,400**	**7,500**	650	**11,000**
	9/9/2022	**2,800**	**8,200**	630	**11,000**
	3/9/2023	**1,900**	**5,000**	320	**7,800**
	5/2/2023	**No Sample Collected, PSH Present**			
	8/30/2023	**2,900**	**8,600**	460	**14,000**
	11/30/2023	**1,900**	**2,100**	90	**11,000**
	2/15/2024	**No Sample Collected, PSH Present**			
	6/3/2024	**2,300**	**3,900**	290	**14,000**
MW13	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/15/2024	**No Sample Collected, PSH Present**			
	6/3/2024	**No Sample Collected, PSH Present**			
MW14	2/17/2021	Well Dry			
	9/28/2021	**32**	5.2	8.2	120
	9/9/2022	**16**	33	13.0	250
	3/9/2023	**6.3**	10	<5.0	130
	5/3/2023	**9.0**	14	<5.0	130
	8/31/2023	**8.1**	11	<5.0	86
	11/30/2023	**21**	51	9	300
	2/16/2024	**12**	15	3	99
	5/30/2024	3.6	9.8	2	130
MW15	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/16/2024	**1,400**	**3,800**	**580**	**22,000**
	6/3/2024	**1,400**	**4,100**	**1,200**	**28,000**
MW16	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/15/2024	**No Sample Collected, PSH Present**			
	6/3/2024	**No Sample Collected, PSH Present**			
MW18	2/17/2021	Well Dry			
	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/16/2024	<2.0	<2.0	<2.0	<3.0
	6/3/2024	Insuffiecient volume to sample			

ENSOLUM

TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW19	2/17/2021	**660**	390	520	**2,800**
	9/28/2021	**720**	140	**790**	**1,400**
	9/9/2022	**320**	150	670	**1,300**
	3/9/2023	**310**	74	600	**900**
	5/3/2023	**240**	38	530	**690**
	8/30/2023	**350**	130	680	**1,100**
	11/30/2023	**510**	280	630	**2,400**
	2/16/2024	**640**	310	640	**2,300**
	5/30/2024	**410**	260	530	**2,000**
MW20	2/17/2021	**12,000**	**15,000**	**1,100**	**10,000**
	9/28/2021	**11,000**	**12,000**	610	**5,100**
	9/9/2022	**11,000**	**14,000**	**1,200**	**9,500**
	3/9/2023	**11,000**	**15,000**	**1,100**	**10,000**
	5/3/2023	**12,000**	**15,000**	**1,100**	**10,000**
	8/30/2023	**13,000**	**20,000**	**1,200**	**13,000**
	12/4/2023	**12,000**	**18,000**	**1,200**	**12,000**
	2/15/2024	**12,000**	**14,000**	**1,200**	**11,000**
	5/31/2024	**14,000**	**19,000**	670	**13,000**
MW21	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	5/31/2024	Well Dry			
MW22	9/28/2021	**2,000**	**1,500**	**890**	**3,000**
	9/9/2022	**640**	230	660	**1,300**
	3/9/2023	**650**	180	640	**880**
	5/2/2023	**610**	150	620	**700**
	8/30/2023	**710**	280	**770**	**750**
	12/4/2023	**620**	180	**740**	**780**
	2/15/2024	**920**	480	**770**	**1,200**
	5/31/2024	**560**	230	**860**	**690**
MW23	9/28/2021	<2.0	<2.0	<2.0	<3.0
	9/9/2022	<2.0	<2.0	<2.0	<4.0
	3/9/2023	<2.0	<2.0	<2.0	<4.0
	5/2/2023	<2.0	<2.0	<2.0	<4.0
	8/30/2023	<2.0	<2.0	<2.0	<4.0
	11/30/2023	<2.0	<2.0	<2.0	<3.0
	2/16/2024	<2.0	<2.0	<2.0	<3.0
	5/30/2024	<2.0	<2.0	<2.0	<3.0
MW24	9/28/2021	<2.0	<2.0	<2.0	<3.0
	9/8/2022	<1.0	<1.0	<1.0	<2.0
	3/9/2023	<1.0	<1.0	<1.0	<2.0
	5/2/2023	<1.0	<1.0	<1.0	<2.0
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	11/30/2023	<1.0	<1.0	<1.0	<1.5
	2/16/2024	<2.0	<2.0	<2.0	<3.0
	5/30/2024	<1.0	<1.0	<1.0	<1.5
MW25	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	5/30/2024	Well Dry			
MW26	9/28/2021	**9,700**	**24,000**	**830**	**11,000**
	9/9/2022	**11,000**	**27,000**	**850**	**11,000**
	3/9/2023	**10,000**	**28,000**	**820**	**11,000**
	5/2/2023	**11,000**	**29,000**	**840**	**12,000**
	8/30/2023	**12,000**	**31,000**	**810**	**12,000**
	11/29/2023	**10,000**	**25,000**	**730**	**9,800**
	2/15/2024	**11,000**	**26,000**	**740**	**11,000**
	5/31/2024	**13,000**	**32,000**	**970**	**13,000**
MW27	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	5/31/2024	Insuffiecient volume to sample			

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Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW28	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	5/31/2024	Well Dry			
MW29	9/28/2021	**12**	5.9	17	34
	9/9/2022	4.1	3.9	34	7.9
	3/9/2023	<1.0	<1.0	50	2.3
	5/2/2023	<1.0	<1.0	30	<2.0
	8/30/2023	<1.0	<1.0	35	<2.0
	11/29/2023	3.0	3.2	45	8.8
	2/15/2024	<2.0	<2.0	<2.0	<3.0
	5/30/2024	<1.0	<1.0	45	<1.5
MW30	9/8/2022	**1,900**	**8,500**	**1,000**	**13,000**
	3/9/2023	**680**	**1,700**	**1,000**	**10,000**
	5/2/2023	**580**	990	**930**	**7,500**
	8/30/2023	**390**	190	**1,100**	**8,800**
	11/29/2023	**420**	150	**980**	**7,800**
	2/16/2024	**50**	<50	85	570
	5/30/2024	**760**	200	**1,200**	**9,600**
MW31	9/8/2022	<2.0	<2.0	<2.0	<4.0
	3/9/2023	<2.0	<2.0	<2.0	<4.0
	5/2/2023	<1.0	<1.0	<1.0	<2.0
	8/30/2023	<2.0	<2.0	<2.0	<4.0
	11/29/2023	<2.0	<2.0	<2.0	<3.0
	2/16/2024	<2.0	<2.0	<2.0	<3.0
	5/30/2024	<1.0	<1.0	<1.0	<1.5
MW32	9/8/2022	Well Dry			
	3/9/2023	<2.0	<2.0	<2.0	<4.0
	5/3/2023	<1.0	<1.0	<1.0	<2.0
	8/31/2023	<2.0	<2.0	<2.0	<4.0
	2/15/2024	Well Dry			
	5/30/2024	Well Dry			
MW33	9/8/2022	3.7	19	4.4	38
	3/9/2023	4.8	<1.0	1.7	<2.0
	5/2/2023	9.7	<1.0	1.8	<2.0
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	12/4/2023	3.6	<1.0	<1.0	<1.5
	2/16/2024	2.1	<1.0	<1.0	<1.5
	5/31/2024	<1.0	<1.0	<1.0	<1.5
MW34	9/9/2022	<1.0	<1.0	<1.0	<2.0
	3/9/2023	<1.0	<1.0	<1.0	<2.0
	5/2/2023	<1.0	<1.0	<1.0	<2.0
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	12/4/2023	<1.0	<1.0	<1.0	<1.5
	2/16/2024	<1.0	<1.0	<1.0	<1.5
	5/31/2024	<1.0	<1.0	<1.0	<1.5
MW35	9/9/2022	<1.0	<1.0	<1.0	<2.0
	3/9/2023	<1.0	<1.0	<1.0	<2.0
	5/2/2023	<1.0	<1.0	<1.0	<2.0
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	12/4/2023	<1.0	<1.0	<1.0	<1.5
	2/16/2024	<1.0	<1.0	<1.0	<1.5
	5/31/2024	<1.0	<1.0	<1.0	<1.5
MW38	9/9/2022	<1.0	<1.0	<1.0	<2.0
	3/9/2023	Well Dry			
	5/2/2023	<1.0	<1.0	<1.0	<2.0
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	11/29/2023	<1.0	<1.0	<1.0	<1.5
	2/16/2024	<1.0	<1.0	<1.0	<1.5
	5/30/2024	<1.0	<1.0	<1.0	<1.5

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San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620

Notes:

µg/L: micrograms per liter
NMWQCC: New Mexico Water Quality Control Commision
PSH: phase separated hydrocarbons
***Bold** and highlighted: indicates value exceeds the NMWQCC Standard*
<: indicates result is less than the stated laboratory reporting limit
P2 : The sample was received with pH>2

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TABLE 8
PSH RECOVERY SUMMARY
Hare 15
Hilcorp Energy Company
San Juan, New Mexico

Boring/Well Number	Date	Product Thickness (feet)	Product Recovered (ounces)
MW03	10/7/2020	2.76	128.00
	9/28/2021	0.14	1.75
	11/24/2021	0.16	1.00
	1/7/2022	0.11	2.00
	3/2/2022	0.07	19.00
	4/22/2022	0.08	24.00
	12/9/2022	0.10	2.00
	5/3/2023	0.12	2.00
	8/30/2023	---	21.00
	11/30/2023	---	8.50
	2/15/2024	0.03	7.00
	6/3/2024	0.01	<1
MW04A	9/30/2020	0.49	5.00
	10/2/2020	1.83	100.00
	10/7/2020	0.51	32.00
	9/28/2021	0.25	1.50
	11/24/2021	0.30	4.00
	1/7/2022	0.19	10.00
	3/2/2022	0.21	5.00
	4/22/2022	0.18	18.00
	12/9/2022	0.13	4.00
	5/3/2023	0.14	4.00
	8/30/2023	---	14.00
	11/30/2023	---	5.00
	2/15/2024	0.03	3.00
	6/3/2024	0.02	3.00
MW07	9/30/2020	0.67	32.00
	10/2/2020	0.49	5.00
	10/7/2020	0.53	16.00
	11/24/2021	0.04	0.50
	1/7/2022	Sheen	0.50
	3/2/2022	0.32	14.00
	4/22/2022	0.35	15.00
	12/9/2022	0.20	5.00
	5/3/2023	0.22	6.00
	8/30/2023	---	13.00
	11/30/2023	---	2.50
	5/31/2024	0.01	4.00

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TABLE 8
PSH RECOVERY SUMMARY
Hare 15
Hilcorp Energy Company
San Juan, New Mexico

Boring/Well Number	Date	Product Thickness (feet)	Product Recovered (ounces)
MW10	9/30/2020	1.02	64.00
	10/2/2020	0.45	4.00
	10/7/2020	0.59	16.00
	9/28/2021	0.28	6.00
	11/24/2021	0.21	4.00
	1/7/2022	0.08	1.00
	3/2/2022	0.02	13.00
	4/22/2022	ND	8.50
	12/9/2022	ND	0.00
	5/3/2023	Sheen	0.00
	8/30/2023	---	<1.00
	11/30/2023	---	<1.00
MW12	9/30/2020	0.38	5.00
	10/2/2020	0.36	3.00
MW11	2/15/2024	0.03	<1
MW13	9/28/2021	0.11	0.50
	11/24/2021	0.13	1.00
	1/7/2022	0.08	1.00
	3/2/2022	0.15	1.50
	4/22/2022	0.12	1.00
	12/9/2022	0.08	2.00
	5/3/2023	0.16	3.00
	8/30/2023	0.11	13.00
	11/30/2023	---	5.00
	2/15/2024	0.05	1.50
	6/3/2024	0.01	<1
MW15	9/28/2021	0.60	26.00
	1/7/2022	0.11	7.00
	3/2/2022	ND	8.50
	4/22/2022	ND	17.00
	12/9/2022	ND	0.00
	5/3/2023	Sheen	0.00
	11/30/2023	---	1.50
MW16	9/28/2021	0.53	50.00
	1/7/2022	0.41	20.00
	3/2/2022	0.41	29.50
	4/22/2022	0.37	54.00
	12/9/2022	0.39	6.00
	5/3/2023	0.37	6.00
	11/30/2023	---	0.25
	2/15/2024	0.32	24.50
	6/3/2024	--*	33.00

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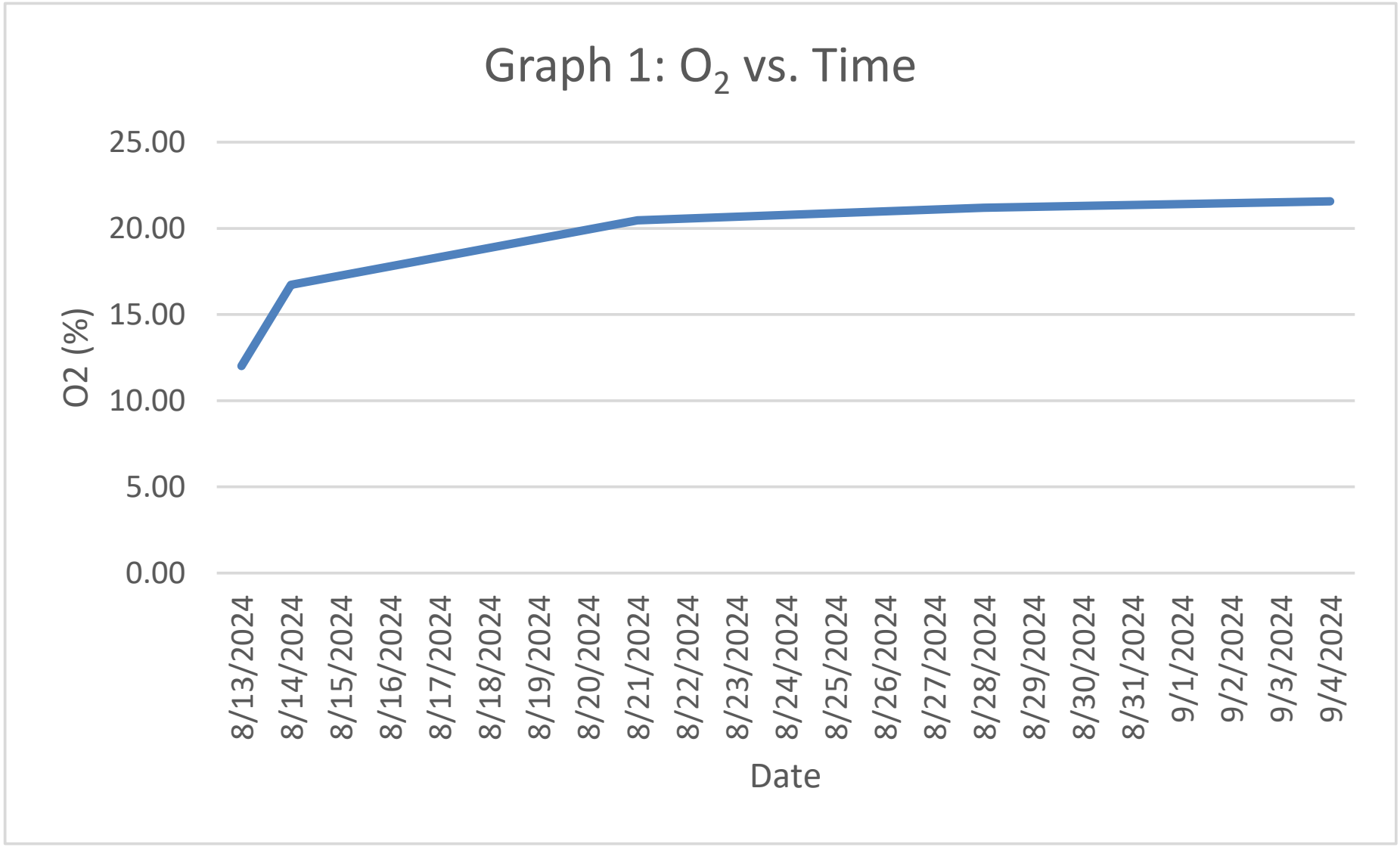
TABLE 8
PSH RECOVERY SUMMARY
Hare 15
Hilcorp Energy Company
San Juan, New Mexico

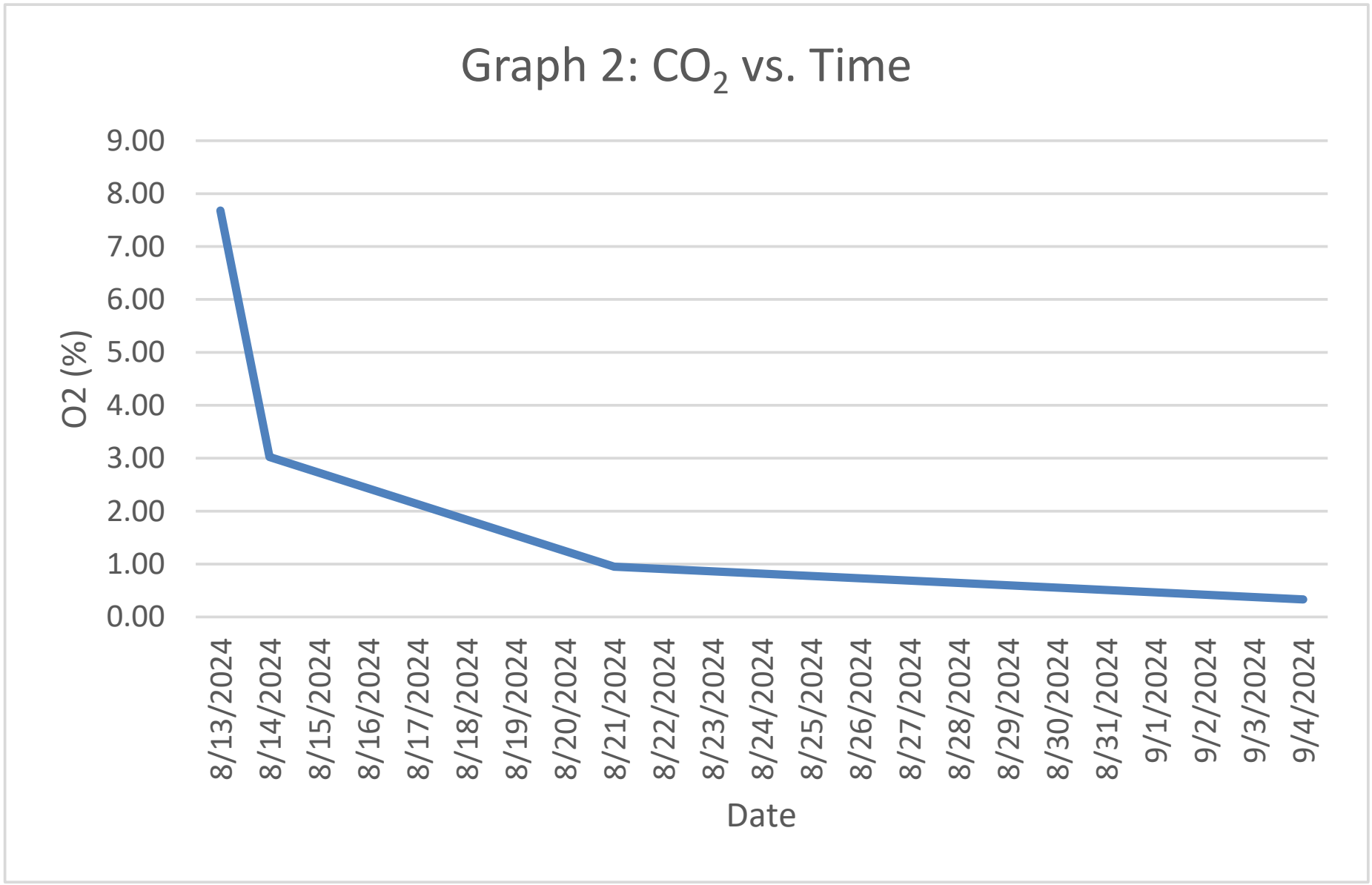
Boring/Well Number	Date	Product Thickness (feet)	Product Recovered (ounces)
	Total Recovered (gallons)		7.363

Notes:

ND: not detected

** : Product recovered during sampling but was not detected with probe.*





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APPENDIX A

O&M Field Notes

Location Hare 15 Date 8-7-24

Project / Client HEC Hot, sunny, 90s

DB Truck/tools, generator, welder, fusion

0930 - Onsite to meet w/ CFM to trench in remediation wells to future trailer location.
Review HASP, sign JSA.

Trenching & installing well vaults to:

	TD			
MW 01	28	MW	11	33
06	33		13	33
08	37		14	34
09	32		15	36
10	33		16	36

~~2300~~ 335'

- Went to get 1,000' of SDR11 2" poly + 25' 1" flex + 50' 2" flex.

1245 - Back onsite, Bryan Hall w/ HEC stopped by to look @ electrical path.

1530 - offsite

Rite in the Rain

4

Location Hare 15 Date 8-5-24

Project / Client HEC 100: clear, sunny, v. hot

DB Truck/tools, generator, fusion welder

1000 - Onsite to continue well vault + remediation piping.

CF+M laid out poly pipe so it is more flexible/maleable to work with.

Laying pipe + installing remediation wells.

Fuse went out on backhoe ~13:15. Replacement on the way.

Welded all connections.

Laid pipe in all wells except MW 06 + 14.

Will finish those tomorrow.

1620 - offsite

Location Hare 15 Date 8-6-24 5

Project / Client HEC Sunny, hot 90s

DB Truck/tools, generator, fusion welder

0930 - Onsite to continue well install CF+M onsite, trenching to SVE 06 + 14.

- Backhoe down, popping fuses when in reverse. Mechanic en route.

1030 - Mechanic onsite (Romero) Fixed backhoe. Reverse works

- Cary (HEC) onsite
- Trailer onsite.
- All underground piping is laid except for stub up connections @ manifold
- Flex tubing connections ready to weld @ manifold
- Placed all 1" flex tubing + vac gauges in vaults. Only need stingers
- 1630 - offsite

Location Flare 15 Date 8-7-24

Project / Client HEC Hot, clear, sunny, 90s.

DB Truck/tools, generator, fusion welder

0915 - Onsite to complete remediation well & piping install.

- CF&M onsite, welding poly to flex.

0945 -

1000 - Safety stand down, ~~Cory~~ Chad Perkins HEC onsite Review HASPs, everyone signed each other's JSAs.

- Reiterate hand safety, wearing gloves avoid pinch points/slivers,
- 4 gas monitor in pipe trench @ all times due to generator exhaust nearby,
- Attaching female camlocks to outside of trailer manifold.
- Backfilling piping trench 12:15

Location

Project / Client

caution tape/hot surfaces - orange paint

To Get List - 1" to 3/4" bushing and hose adapter

- Cleaning supplies, (brushes, acid, simple green) etc.
- Gloves - flashlight my - trash can
- Towels - paper towels
- Spare oil + air filter + light bulbs.
- Watch your head / caution tape for rear filter, → padding
- Copy Keys. - ~~1/4 NPT Barbs~~ 1/4"
- Shop vac - broom
- Label maker - ladder or step for cargo door
- ear plugs
- Drain hose + adapter - spare vac gauges - MW10
- temp gauge
- Stubby ratchet screwdriver - ~~rubber hammer~~
- wrench for mounts
- long skinny screwdriver + rubber mallet
- Ply wood for bench/table.
- chair / ladder
- ~~3/4" totalizer~~
- grease zirk on elec. motor
- grease + grease gun + oil for PD Blower
- Gardner GAFMDPA

Location Hare 15 Date 8-12-24

Project Event Sunny, hot, clear, 90s

DB Truck/tools, PID, 6-gas, OWIP

1100 Onsite for system startup.
Electrical has been connected and steel building around trailer.

New TOC measurements

Well	DTP	DTW	TD	Stinger	# Leg
MW01	—	23.62	24.79	25'	2
06	—	25.56	30.30	30'	4
08	—	34.04	34.78	35'	1
09	—	25.23	29.35		10
10	—	26.58	29.62	30'	29.75 8
11	26.32	26.34	29.85		5
13	—	24.93	29.82	30'	3
14	—	—	26.90	25'	6
15	—	29.31	31.58		9
16	28.26	28.66	33.42		7

Vernon (HEC) pumper onsite, show him the system + gauge tank. 4" currently in tank

Vernon Martinez 505-320-0613

1540. All stingers set in place, cont'd →

Location Flare 15 Date 8-12-24

Project / Client

System Start Up Cont'd.

1550 - Turn on system & blowers, clearing out debris from lines and test blower.

Some liquids being pulled, fresh air bypass still 100% open.

Identifying lines coming in, marking on outside manifold.

1630 - Turn off system, don't want to leave on overnight w/o knowing how much liquids will be recovered.

1645 - close lid boxes & valves, lock trailer. Offsite

8

Location Hare 15 Date 8-12-24

Project / Client Sunny, hot, clear, 90s

DB Truck/tools, PID, 6-gas, OWIP

1100- Onsite for system startup.
Electrical has been connected and steel building around trailer.

New TOC measurements

Well	DTP	DTW	TD	Stinger	# Leg
MW01	—	23.62	24.79	25'	2
06	—	25.56	30.30	30'	4
08	—	34.04	34.78	35	1
09	—	25.23	29.35		10
10	—	26.58	29.62	30'	29.758
11	26.32	26.34	29.85		5
13	—	24.93	29.82	30'	3
14	—	—	26.90	25'	6
15	—	29.31	31.58		9
16	28.26	28.66	33.42		7

Vernon (HEC) pumper onsite, show him the system + gauge tank. 4" currently in tank

Vernon Martinez 505-320-0613

1540- All stingers set in place,

cont'd →

Location Flare 15 Date 8-12-24

Project / Client

System Start Up Cont'd.

1550 - Turn on system & blowers, clearing out debris from lines and test blower.

Some liquids being pulled, fresh air bypass still 100% open.

Identifying lines coming in, marking on outside manifold.

1630 - Turn off system, don't want to leave on overnight w/o knowing how much liquids will be recovered.

1645 - close lid boxes & valves, lock trailer. Offsite

10

Location Have 15 Date 8-13-24

Project / Client HEC Cloudy, 70s

DB. Truck/tools, PID, HVAS, 6-gas, OWIP

0930 - Onsite to continue system startup. Review HASP, sign JSA.

- Clearing out debris/~~sand~~ dirt from rotameters.

1045 - turn system back on.
SVE - 0.7 hrs
Pump - 0.2 hrs.

- Having trouble clearing debris & sediment from rotameters. Have to remove section from unions & clear manually

- As closing fresh air bypass ~~to~~ to increase total vac, relief valve is opening. Need to check specs.
- 8" Hg

1140 - Observed production separator dumping fluids into BGT pit. Need to gauge again to estimate fluid intake.

Contd →

Location Hare 15 Date 8-13-24

Project / Client DB O+M/startup

- No totalizer on transfer pump
- Exhaust fan relay checked - works set @ 85°F
- Heater relay checked - works set @ 40°F
- liquid continually draining from 3/4" out let piping
  - ☆ May need 3/4" check valve somewhere in piping.

1320 - Vernon onsite

- Calibrated PID w/ 100ppm isobutylene
- To get flow in all wells, MW06 + 16 have cam locks not all the way buckled to allow some air bypass to purge liquids all the way.
- Transfer pump runs a cycle of approx 25-30 gal. per event.

Rita in the Rain

12

Location Hare 15 Date 8-13-24

Project / Client

O&M/Startup

Well	inHg Vac	ppm PID	vol% Oxy	vol% CO_2	%LEL CH_4
MW01	6.5	736	14.6	>5.00	17
06	6.0	41.6	20.9	0.02	0
08	6.0	15.9	17.9	4.58	0
09	5.5	58.7	16.5	>5.00	2
10	5.5	1,334	17.7	3.38	26
11	7.0	1,751	10.3	>5.00	6.5 vol%
13	9.0	290	18.9	2.28	2
14	7.0	379	14.8	>5.00	9
15	7.0	1,882	12.0	>5.00	32
16	7.0	1,796	13.5	>5.00	67

Readings taken @ 1345 – 1430

1500 - Drained KO tank to just above low level switch. Will see how much liquids accumulate until offsite.

Readings in trailer @ ~~15:00~~ 15:25 to 15:45
SVE Hrs - 4.2 No Alarms
Pump Hrs - 0.4 Running @ 60.0 Hz
Pre KO vac - 8.0 inHg to
- Dilution bypass open to prevent relief valve from opening cont'd

Location Hare 15 Date 8-13-24 13

Project / Client

O+M cont'd

@ 15:25
Post KO, pre filter Vac - 8.0 in Hg
Post filter, pre blower Vac - 7.75 in Hg
Exhaust Temp - 145°F
Exhaust Pressure - 0.0 in WC
Exhaust Flow - 0.4 IWC Diff press pitot tube 6"
Chart shows ~ 275 SCFM

Well	inHg Vac	SCFM Rota meter Flow	Liquids
MW01	7.5	62	minimal
06	7.0	30	Y
08	6.0	28	Y
09	7.0	32	Yes
10	7.0	[illegible]	yes 56 SCFM
11	7.5	44	Y
13	6.5	58	Y
14	8.5	42	Y
15	7.5	70	Y
16	5.5	14	Y
	Total	436	

1555 - Influent 081324 2024 collected cont'd
PID - 1,572 ppm Oxy - 12.7 vol%.
CO_2 - >5.00 vol% CH_4 - 84 %LEL
CO - 4 ppm H_2S - 0.0 ppm CH_4 - 2% vol.

14

Location Flare 15 Date 8-13-24

Project / Client

DB O&M/startup cont'd

- 1620 - ~~FLT~~ HL switch hit to turn on transfer pump
  Ran for approx. 3 min till it hit LL float
- So from approx 1500 to 1620 was how long it took to fill KO tank enough to run transfer pump w/ approx 25-30 gal per event.

24 Hrs ÷ 1 1/3 Hr = ~18 times per day

18 x 25~30 = 450~540 gal/day

~ 10.7 to 12.8 bbl/day.

1700 - offsite

DB

Date:

Location

Project / Client

To Get List - 1" to 3/4" bushing and hose adapter

- Cleaning supplies, (brushes, acid, simple green) etc.
- Gloves
- flashlight
- trash can
- Towels
- paper towels
- Spare oil + air filter + light bulbs.
- Watch your head / caution tape for lair filter, → padding
- Copy keys.
- 1/4" NPT Barbs
- Shop vac
- broom
- Label maker
- ladder or step for cargo door
- Drain hose + adapter
- spare vac gauges - MW10

- Study ratchet screwdriver
- wrench for mounts
- long skinny screwdriver + rubber mallet
- Ply wood for bench/table.

3/4" totalizer
- grease zirk on elec. motor
- grease + grease gun + oil for PD Blower

Gardner GAFMDPA

Location Hare 15 Date 8/14/24 15

Project / Client Hilcorp

RH, Truck/tools, PID, HVAS, 6-bag

9:45 - RH on Site System running - All wells open

Influent 8/14/24 sample @ 9:55

- HVAS out & battery, possibly left on

Panel readings:

SVE = 21.9 hours @ 10:08
Pump = 0.65 " " "

- 10:15 leave Site to get spare battery @ State Ave - Melting Street

11:35 - RH back on Site
- Calibrate PID w/ 100 ppm Isobutylene

Influent 8/14/24 collected @ 11:50

PID = 1915 Oxy = 16.5% vol
CO_2 = 3.52 vol% C H_4 = 34% LEL

16

Location Hare 15 Date 8/14/24

Project / Client Hilcorp

O&M cont. →

Influent : Vac = 8.0 in Hg

H_2S = 0 ppm CO = 26 ppm

CH_4 = 1.05 vol%

Well	in Hg Vac	SCFM Flow	liquids?
08	6.0	30	Yes
01	7.5	60	Yes - minimal
13	6.5	10	Yes
06	7.0	20	Yes
11	7.25	40	Yes
14	8.5	32	Yes - minimal
16	5.5	12	Yes
10	7.0	44	Yes - minimal
15	7.0	52	Yes
09	7.0	34	Yes

Sight tube = 1/3 full (20½" from top of T to top of liquid)

Post K/O vac = 7.5 in Hg

Exhaust temp = 1415° F

" Flow = 0.45 to 0.50 in H_2O

PID

→ cont →

Location Hwy 15 Date 8/14/24 17

Project / Client Hilcorp

O&M continued

Hours @ 12:10

SVT: = 23.9 Pump = 0.65

60.0 Hz

Wellhead Readings

Well	in Hg Vac	ppm PID	Vol% O_2	Vol% CO_2	%LEL CH_4
06	5.0	45.0	20.9	0.00	0
08	5.0	338	20.7	0.32	0%
09	4.0	401	20.9	0.12	0%
10					
11					
13	6.0	553	20.9	0.18	1
14					
15					
16					
01	5.0	16.6	20.9	0	0

readings taken 12:15 -

- Switch to car battery - both GeoTech batts dead

13:15 - Transfer pump knocked on, H/V liquids drained to T&T

- leave MW06 cam-lock partially open → (cont →)

Rite in the Rain

18

Location HARE 15 Date 8/14/24

Project / Client Hilcorp

O&M continued

13:30 - Wasn't using Needle probe to properly screen wellhead gas's re-do all wells

Well	mlty Vac	ppm PID	Vol % Oxy	Vol% CO2	% LEL CH4
01	5.0	1,515	18.5	1.78	21
06	5.0	325	20.0	1.70	0
08	5.0	403	19.7	1.62	0
09	4.5	373	19.4	3.06	1
10	4.5	1,803	12.0	3.46	12.0 vol% ove
11	5.0	1,940	15.1	3.80	93
13	6.0	963	20.9	0.14	4
14	5.0	1,074	18.3	4.18	10
15	5.5	1,932	14.6	>5.0	45
16	5.5	480	20.9	0.02	2

leave MW 16 cam lock gw locally open

14:45 - RH off site to drop samples from 8/13 & 8/14

RH

Hare 15 Date 8-15-24

HEC Hot, sunny 80-90s

DB Truck/tools, PID, 6-gas, HVAS

1400 - Onsite for O&M/start up

System running upon arrival.

Well	inHg vac	ppm PID	vol% O_2	vol% CO_2	%LEL CH_4
MW01	5.0	2,298	20.4	0.64	9
06	4.0	274	20.9	0.88	0
08	5.0	346	20.9	0.74	0
09	4.0	283	20.4	1.58	0
10	4.0	2,053	16.4	1.78	58
11	~~5.0~~ 4.5	1,852	18.2	1.64	26
13	4.0	662	20.9	0.10	0
14	4.0	759	19.9	1.94	3
15	6.0	1,677	16.9	4.26	13
16	5.0	501	20.9	0.0	0

Readings @ well @ 1445-1515

1510 BB transfer pump emptied/cycled. Will see how much water builds up @ leaving site

- 0'9" marked as gauged on BGT as of 8-14-24 so 4" in 1 or 2 days?

cont'd →

20 Location Hare 15 Date 8-15-24

Project / Client

SB C+M cont'd

Readings @ 15:30
SVE Hrs - 51.25 @ 60 Hz
Pump Hrs - 0.95
Pre KO vac - 9.0 in Hg
Post KO vac - 9.0 in Hg
— Fresh air bypass open enough so that relief valve isn't open
Post filter Vac - 8.5 in Hg
Exhaust Temp - 155 °F
Pressure - 0 iwc
Flow - 0.55 iwc diff press.
~ 350 SCFM
Exhaust PID - 1,372 ppm
Exh. CH4 - 0.63 vol%.
Oxy - 20.4 v-l%.
H2S - 0.0 ppm
CO - 0 ppm
CO2 - 0.96 vol%.
CH4 - 12 % LEL
Influent PID - 1,604 ppm
CH4 - 1.00 v-l%. CO - 9 ppm
Oxy - 18.2 vol% CO2 - 2.04 vol%.
H2S - 0.0 ppm CH4 - 34 % LEL

cont'd

Location Hare 15 Date 8-15-24 21

Project / Client

DB O&M cont'd

Well	Vac	Flow	Liquids
MW01	8.0	68	y- [redacted]
06	8.0	22	y
08	6.5	32	y
09	7.5	74	y
10	8.0	62	y
11	8.0	74	y
13	7.0	14	y
14	9.5	50	y
15	8.0	58	y
16	6.5	18	y

1615 - KO tank level has gone up approx 4 inches since 15:10-15:15

1620 - No lab sampling today, button up & lock site Offsite

22 Location Flare 15 Date 8-16-24

Project / Client HEC Hot, sunny, clear 90s

DB Truck/tools, PID, 6-gas, HVAS

1200 - Onsite for start up / O&M.
Got equipment/materials from Home Depot.

System running upon arrival

Well	in.Hg Vac	ppm PID	vol% Oxy	vol% CO_2	%LEL CH_4
MW01	5.0	1,454	20.4	0.60	10
06	5.0	364	20.9	0.86	1
08	5.0	436	20.9	0.48	2
09	4.0	619	20.6	1.16	4
10	5.0	1,978	18.0	1.66	46
11	5.0	2,190	18.8	1.46	24
13	4.0	451	20.9	0.06	0
14	5.0	726	19.9	2.02	5
15	5.0	1,262	17.7	3.82	16
16	5.0	47	20.9	0.02	0

Readings collect@ well bores, 1300-1345

Hare 1S Date 8-16-24

Project/Client

O&M Cont'd

Readings @ 14:00
Blower Hours - 74.0 60 Hz
Pump Hrs - 1.2
Pre KO Vac - 8.5 inHg
Post KO Vac - 8.5 inHg
Fresh Air Bypass - Open partially, no vac relief valve
Post Filter Vac - 8.5 inHg
Exhaust Temp - 155 °F
Pressure - 0.0 IWC
Flow - 0.50 Diff Press IWC
~325 SCFM
PID - 1,277
CH_4 - 0.59 vol% CO - 0 ppm
Oxy - 20.4 vol% CO_2 - 0.94 vol%
H_2S - 0.0 ppm CH_4 - 15 % LEL

Influent PID - 1,553 ppmC.
CH_4 - 0.85 vol% CO - 0
Oxy - 18.7 vol% CO_2 - 1.80 vol%
H_2S - 0.0 CH_4 - 23 % LEL

24 Location Here 15 Date 8-16-24

Project / Client DB CM cont'd

Readings @ 1430

Well	Vac	Flow	Liquids
MW01	8.5	64	y
06	8.0	26	y
08	6.5	38	y
09	8.0	50	y
10	8.0	58	y
11	8.5	68	y
13	7.5	14	y
14	9.5	52	y
15	8.0	44	y
16	6.5	26	y
	Total	440	

1500 - Fucked w/ vacuum relief valve. Was able to get above 8.0 in Hg, But not past 10 in Hg.

1530 - Offsite

26

Location Hare 15 Date 8-21-24

Project / Client HEC Partly cloudy, 83

DB/AL Truck/tools, PID, 6-gas, HVAS, Air Sample

1000 - Onsite for O&M + weekly air sample during start up.
Review HASP, sign JSA.

Bryan Hall (HEC) onsite to check electrical issue w/ transfer pump. Relay needed to be reset.

- Calibrated PID w/ 100ppm isobutylene.

Well	Vac (in Hg)	PID (ppm)	Oxy (vol%)	CO_2 (vol%)	CH_4 (% LEL)
MW01	9.0	1270	20.6	0.36	4
06	11.0	~~2345~~ 368. AL	20.9	0.40	0
08	9.0	110	20.9	0.42	1
09	8.0	162	20.9	0.48	2
10	9.0	2851	18.9	1.50	50
11	12	2381	19.3	0.94	27
13	10.0	2845	20.6	0.48	23
14	12.0	688	20.6	1.26	3
15	11.0	1555	18.9	2.52	10
16	11.0	404	20.9	0.02	0

Readings from 11:45 – 13:00

MW06 SWCC WITSTINGER

Project: Flare 15 Date: 8-21-24

Client: HEC

DB/AL O+M cont'd

Readings @ 1305	
Blower Hours -	189.7
Transfer Pump Hrs -	7.1
VFD Hz - 60.0	Amps - ~22
Pre KO Vac - 11.5 inHg	
Post KO Vac - 12.0 inHg	
Fresh Air Bypass -	closed all the way, no air thru vac relief valve.
Post Filter Vac -	11.5 inHg
Exhaust: Temp -	200 °f
Pressure -	0 in iWC
Flow -	~275 scfm
PID -	2573
CH_4 vol% - 0.88	CO ppm - 0
Oxy vol% - 19.9	CO_2 vol% - 1.16
H_2S ppm - 0.0	CH_4 % LEL - 25
Influent: PID -	1838 ppm
CH_4 vol% - 0.75	CO ppm - 0
Oxy vol% - 20.1	CO_2 vol% - 0.94
H_2S ppm - 0.0	CH_4 % LEL - 19

cont'd →

28

Location Hare 15 Date 8-21-24

Project / Client HEC

DB/AL O+M cont'd

Readings @ 1310-1340

Well	Voc	Flow SCFM	Liquids
MW01	11.5	76	YES-MIN
06	11.5	58	YES
08	10.0	38	NO
09	11.0	58	YES
10	11.0	70	YES
11	11.5	76	YES-
13	11.0	72	YES
14	12.5	58	YES
15	11.0	~~>100~~ AL 70	YES
16	9.5	25	YES
	Total:		

-1220- Hyperion Well Services & Vernon Martinez (HEC) onsite.
-Possibly swabbing Hare 15 production well. Will meet w/ them regarding any H2S issues & stay out of their way.

1320 - "Influent 08212024" air sample collected, submitted to lab for ~~BTEX~~, TPH, Fixed gas ~~full~~ 8260 VOCs

Location Hare 15 Date 8-21-24 29

Project / Client

System Off @ 1340

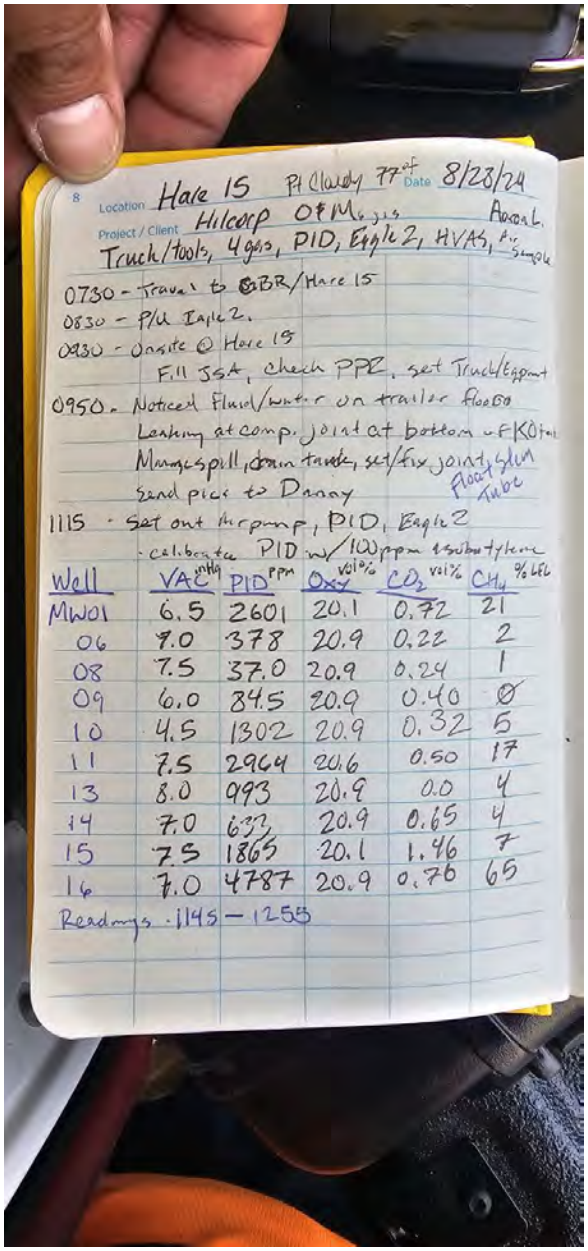
Totalizer - 95.19 gal

O+M completed

- cleaned wye strainer
- " " float stem + tube
- checked air filter - no evidence of carryover.

15:20 offsite

From: Danny Burns
To: Danny Burns
Date: Wednesday, September 4, 2024 9:52:47 AM

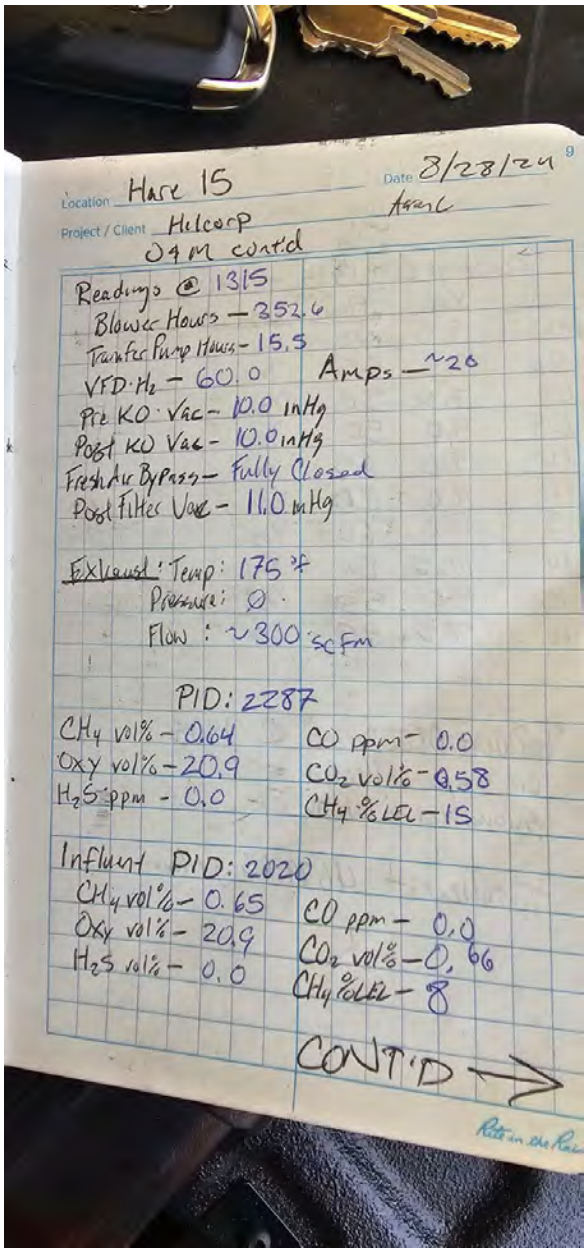


Location Hare 15 PC Cloudy 77° Date 8/28/24
Project / Client Hilcorp O&M 6 yrs Arcos L.
Truck/tools, 4 gas, PID, Eagle 2, HVAS, Air Sample

0730 - Travel to SJBR/Hare 15
0830 - P/U Eagle 2.
0930 - Onsite @ Hare 15
F.11 JSA, check PPE, set Truck/Equipt
0950 - Noticed Fluid/water on trailer floor
Leaking at comp. joint at bottom of KO tank
Manage spill, drain tank, set/fix joint, plum
send pics to Danny (float tube)
1115 - Set out Airpump, PID, Eagle 2
- calibrate PID w/ 100 ppm isobutylene

Well	VAC inHg	PID ppm	Oxy vol%	CO_2 vol%	CH_4 % LEL
MW01	6.5	2601	20.1	0.72	21
06	9.0	378	20.9	0.22	2
08	7.5	37.0	20.9	0.24	1
09	6.0	34.5	20.9	0.40	0
10	4.5	1302	20.9	0.32	5
11	7.5	2964	20.6	0.50	17
13	8.0	993	20.9	0.0	4
14	7.0	637	20.9	0.65	4
15	7.5	1865	20.1	1.46	7
16	7.0	4787	20.9	0.76	65

Readings - 1145 – 1255



Location: Hare 15 Date: 8/28/24

Project / Client: Helcorp Team: C

O4M cont'd

Readings @ 1315

Blower Hours – 352.6

Transfer Pump Hours – 15.5

VFD Hz – 60.0 Amps – ~20

Pre KO Vac – 10.0 inHg

Post KO Vac – 10.0 inHg

Fresh Air Bypass – Fully Closed

Post Filter Vac – 11.0 inHg

Exhaust: Temp: 175 °F

Pressure: 0

Flow: ~300 SCFM

PID: 2287

CH_4 vol% – 0.64 CO ppm – 0.0

Oxy vol% – 20.9 CO_2 vol% – 0.58

H_2S ppm – 0.0 CH_4 %LEL – 15

Influent PID: 2020

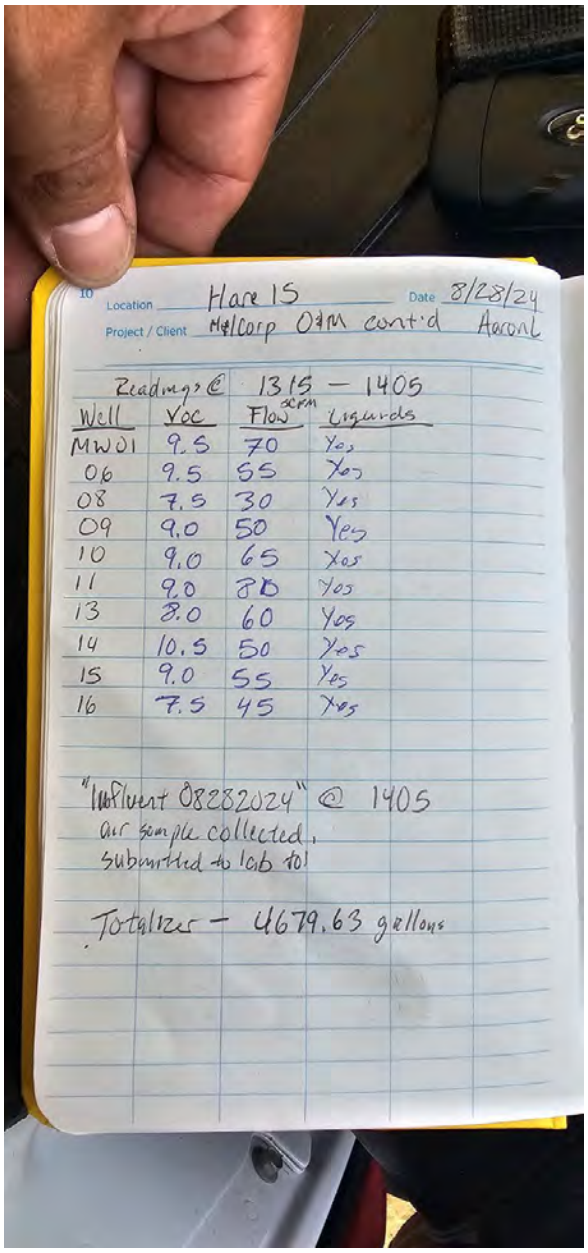
CH_4 vol% – 0.65 CO ppm – 0.0

Oxy vol% – 20.9 CO_2 vol% – 0.66

H_2S vol% – 0.0 CH_4 %LEL – 8

CONT'D →

Rat in the Rain



Location Flare 15 Date 8/28/24

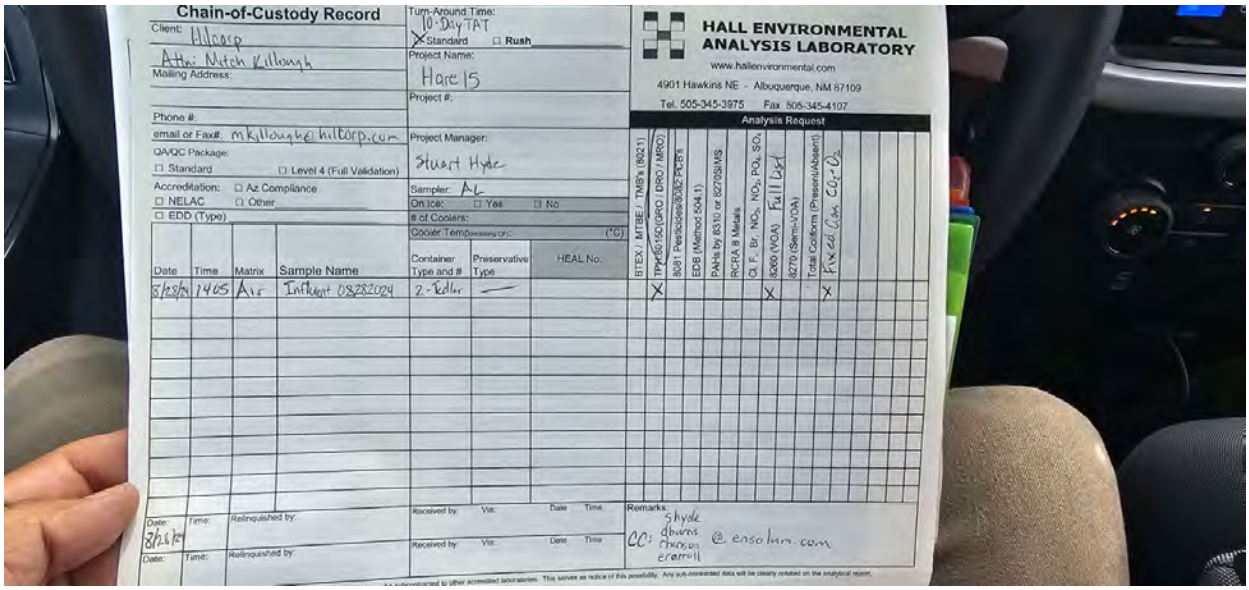
Project / Client Hilcorp O&M cont'd Aaron

Readings @ 1315 – 1405

Well	VOC	Flow scfm	Liquids
MW01	9.5	70	Yes
06	9.5	55	Yes
08	7.5	30	Yes
09	9.0	50	Yes
10	9.0	65	Yes
11	9.0	80	Yes
13	8.0	60	Yes
14	10.5	50	Yes
15	9.0	55	Yes
16	7.5	45	Yes

"Influent 08282024" @ 1405
Air sample collected, submitted to lab for

Totalizer – 4679.63 gallons



Chain-of-Custody Record

Client: Hilcorp
Attn: Mitch Killough
Mailing Address:
Phone #:
email or Fax#: mkillough@hilcorp.com
QA/QC Package: ☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 10-Day TAT
☒ Standard ☐ Rush
Project Name: Hare 15
Project #:
Project Manager: Stuart Hyde
Sampler: AL
On Ice: ☐ Yes ☐ No
# of Coolers:
Cooler Temp (Including CF): (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
8/28/24	1405	Air	Influent 08282024	2-Tedlar	—	

Relinquished by: Date: 8/28/24 Time:
Relinquished by: Date: Time:
Received by: Via: Date Time
Received by: Via: Date Time

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAH's by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) Full List	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed Gas CO_2, O_2
	X						X			X

Remarks:
CC: shyde, dburns, tmcgee, erarroll @ensolum.com

All subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

dburns@ensolum.com
303-601-1420

Location Hare 15 Date 9/4/24

Project / Client Hilcorp

O+M CONT'D

Readings @ 1415

Well	VOC	Flow SCFM	Liquids
MW01	9.5	45	Yes
06	9.5	55	Yes
08	7.5	30	Yes
09	9.0	60	Yes
10	9.0	70	Yes
11	9.5	55	Yes
13	8.5	60	Yes
14	11.0	45	Yes
15	9.0	55	Yes
16	7.5	30	Yes

Totalizer - 9057.48 gallons

"Influent 09042024" sample @ 1430

1505 - Offsite
1535 - D/O Samples
1605 - D/O Eagle 20 GBR
1700 - SR

Location Hare 15 Date 9/4/24

Project / Client Hilcorp 09M Aaron L

Truck/tools, 4gas, PID, 6gas, HVAC

0730- Travel to GBR/Hare 15

0830- Big O, TPMS check, "Low Air" on tire

0930- P/U 6gas/HVAC @ GBR

1050- Onsite @ Hare 15

Fill JSA. check PPE, set up equipment

Calibrate PID & Bafter2

Reset HVAC

Mercury ~~Bob~~ Vacuum board and hose for HVAC

1340- Vernon @ pit

Well	VAC mHg	PID PPM	Oxy vol%	CO_2 vol%	CH_4 %LEL
MW01	5.0	344	20.4	0.20	0
06	6.0	144	20.9	0.14	7
08	7.5	35.1	20.4	0.14	~~0~~ 2
09	5.5	86.8	20.4	0.24	0
10	5.0	1112	20.8	0.38	7
11	7.5	977	20.6	0.31	6
13	5.0	122	20.9	0.02	3
14	6.5	210	20.9	0.40	3
15	7.0	975	20.7	0.72	5
16	7.0	1810	20.8	0.51	4

Pit ½ full

Location Here 15 Date 9/4/24

Project / Client Hilcorp

O&M CONT'D

Readings @ 1330

Blower Hours - 520.3

Transfer Pump Hrs - 23.6

VFD Hz 60.0 Amps - ~20

Pre KO Vac - 10.0 inHg

Post KO Vac - 10.5 inHg

Fresh Air Bypass - Fully Closed

Post Filter Vac - 10.5 inHg

Exhaust Temp: 175°F

Pressure: 0

Flow: ~300 scfm

EAGLE 2 BATTRIES LOW/DEAD @ 1340

PID: 408.0

CH4 vol% 0.25 CO ppm 0.0

Oxy vol% 20.4 CO_2 vol% 0.28

H_2S ppm 0.0 CH4 %LEL 4

Influent PID: 494.9

CH4 vol% 0.26 CO ppm 0

Oxy vol% 20.4 CO_2 vol% 0.34

H_2S ppm 0.0 CH4 %LEL 5

CONT'D →

Location Hare 15 Date 9/11/24

Project / Client Hilcorp

O&M CONT'D

Readings @

Well	VOC	FLOW	Liquids
MW01	9.0	45	yes
06	9.5	50	yes
08	7.5	30	yes
09	9.0	46	yes
10	9.0	70	yes
11	9.5	80	yes
13	9.0	NA/Build Up	yes
14	11.0	45	yes
15	9.0	60	yes
16	8.0	30	yes

Totalizer - 18092.75

1320 - Finished, offsite

1400 - Dropped off Ea/kz @ GWTC
Haul B-G to S/R

1500 - S/R

Location Hare 15 Cloudy 70°F Date 9/11/24

Project / Client Hilcorp OIM

Truck/tools, 4 gas, PID, Eagle 2, HVAS

0800 Travel to Hare 15/GBR
0850 P/U Eagle 2 @ GBR
0930 Onsite @ Hare 15
Follow JSA, PPE, set up equipment
Calibrate PID & Eagle 2
1030 Start OIM

Well	VAC inHg	PID PPM	Oxy vol%	CO_2 vol%	CH_4 %LEL
MW01	4.5	210.9	20.8	0.24	1
06	6.0	56.3	20.8	0.10	2
08	7.5	68.8	20.9	0.12	2
09	6.0	49.6	20.9	0.24	0
10	5.5	703.6	20.8	0.40	8
11	7.5	422.7	20.9	0.26	3
13	4.0	63.2	20.9	0.04	2
14	6.5	150.0	20.9	0.32	2
15	7.5	555.2	20.8	0.54	4
16	7.5	1335	20.7	0.42	28

22

Location Hare 15 Date 9/11/24

Project / Client Hilcorp

O&M CONT'D

Readings @ - 1200

Blower Hours - 687.4

Transfer Pump Hours - 29.6

VFD Hz - 60.0 Amps - ~19

Pre KO Vac - 10.0

Post KO Vac - 11.0

Fresh Air Bypass - Fully open

Post Filter Vac - 11.0

Exhaust Temp: 200°F

Pressure: 0.0

Flow: 300 scfm

PID: 777.5

CH_4 vol%	0.25	CO ppm	0.0
OXY vol%	20.9	CO_2 vol%	0.30
H_2S ppm	0.0	CH_4 %LEL	8

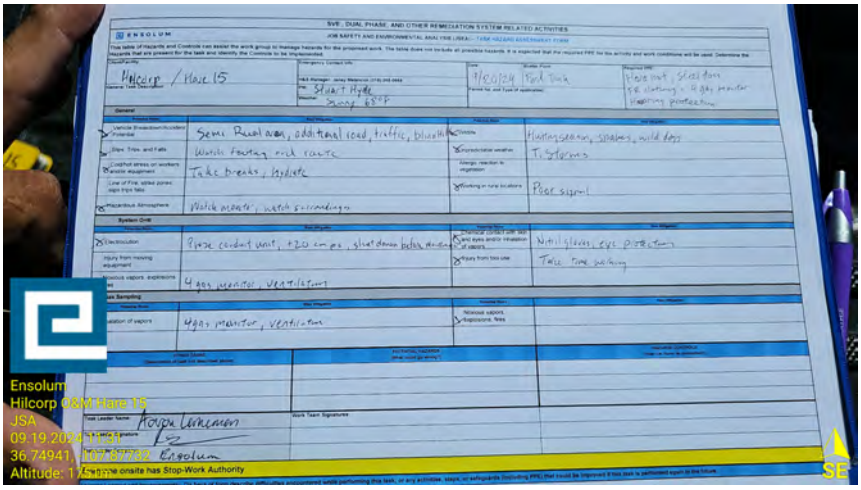
Influent PID: 690.6

CH_4 vol%	0.26	CO ppm	0.0
OXY vol%	20.9	CO_2 vol%	0.34
H_2S ppm	0.0	CH_4 %LEL	8

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 11:08
Notes: BGT; half full
Coordinates: 36.74915, -107.87744
Direction: NE (47°)
Address: Bloomfield, NM



Date & time: 09.19.2024 11:31
Notes: JSA
Coordinates: 36.74941, -107.87732
Direction: SE (147°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 11:51
Notes: Pre KO Vac
Coordinates: 36.74931, -107.87747
Direction: SW (218°)
Address: Bloomfield, NM

Date & time: 09.19.2024 11:51
Notes: Post KO Vac
Coordinates: 36.74932, -107.87748
Direction: SE (121°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 11:52
Notes: Post Filter Vac
Coordinates: 36.74931, -107.87748
Direction: W (274°)
Address: Bloomfield, NM

Date & time: 09.19.2024 11:52
Notes: Exhaust Temp
Coordinates: 36.74932, -107.87751
Direction: N (19°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 11:53
Notes: Exhaust Pressure
Coordinates: 36.74932, -107.87751
Direction: N (11°)
Address: Bloomfield, NM

Date & time: 09.19.2024 11:53
Notes: Exhaust Flow
Coordinates: 36.74932, -107.87751
Direction: E (78°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 11:53
Notes: MW01
Coordinates: 36.74931, -107.87751
Direction: SW (227°)
Address: Bloomfield, NM

Date & time: 09.19.2024 11:54
Notes: MW06
Coordinates: 36.74931, -107.87749
Direction: SW (243°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 11:55
Notes: MW08
Coordinates: 36.7493, -107.87748
Direction: SW (214°)
Address: Bloomfield, NM

Date & time: 09.19.2024 11:55
Notes: MW09
Coordinates: 36.74931, -107.87748
Direction: NW (309°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 11:55
Notes: MW10
Coordinates: 36.7493, -107.87747
Direction: W (263°)
Address: Bloomfield, NM

Date & time: 09.19.2024 11:56
Notes: MW11
Coordinates: 36.7493, -107.87747
Direction: SW (245°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 11:56
Notes: MW13
Coordinates: 36.7493, -107.87748
Direction: SW (238°)
Address: Bloomfield, NM

Date & time: 09.19.2024 11:56
Notes: MW14
Coordinates: 36.74931, -107.87748
Direction: W (254°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 11:57
Notes: MW15
Coordinates: 36.74931, -107.87748
Direction: NW (298°)
Address: Bloomfield, NM

Date & time: 09.19.2024 11:58
Notes: MW16
Coordinates: 36.74931, -107.87747
Direction: W (283°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 12:03
Notes: Totalizer
Coordinates: 36.74931, -107.87747
Direction: SW (242°)
Address: Bloomfield, NM

Date & time: 09.19.2024 12:04
Notes: Stem tube
Coordinates: 36.74933, -107.87747
Direction: N (11°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 12:29
Notes: MW16 after maintenance
Coordinates: 36.7493, -107.87749
Direction: SW (245°)
Address: Bloomfield, NM

Date & time: 09.19.2024 12:45
Notes: MW01 debris
Coordinates: 36.74932, -107.87754
Direction: SE (119°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

Date & time: 09.19.2024 12:48
Notes: Flush MW01
Coordinates: 36.74926, -107.87753
Direction: SW (223°)
Address: Bloomfield, NM

Date & time: 09.19.2024 12:49
Coordinates: 36.74929, -107.8775
Direction: SW (213°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

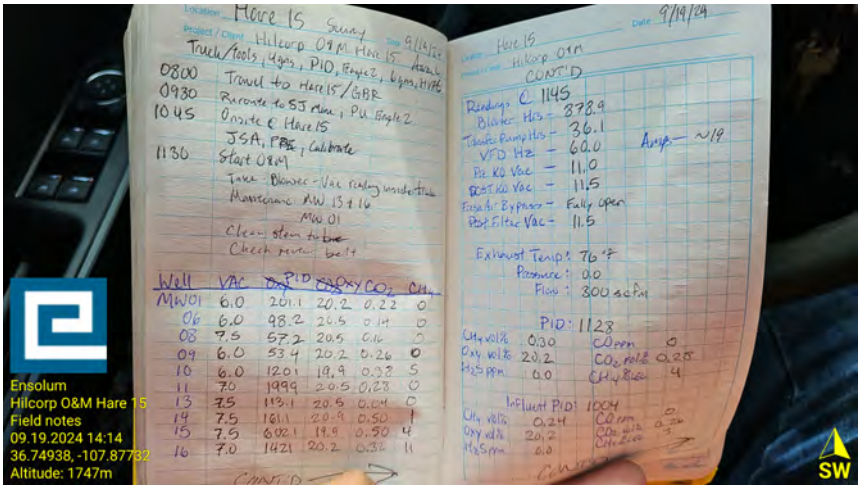
Date & time: 09.19.2024 12:49
Coordinates: 36.74929, -107.87749
Direction: SW (208°)
Address: Bloomfield, NM

Date & time: 09.19.2024 13:37
Notes: Eagle 2 batteries
Coordinates: 36.74941, -107.87739
Direction: S (194°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16

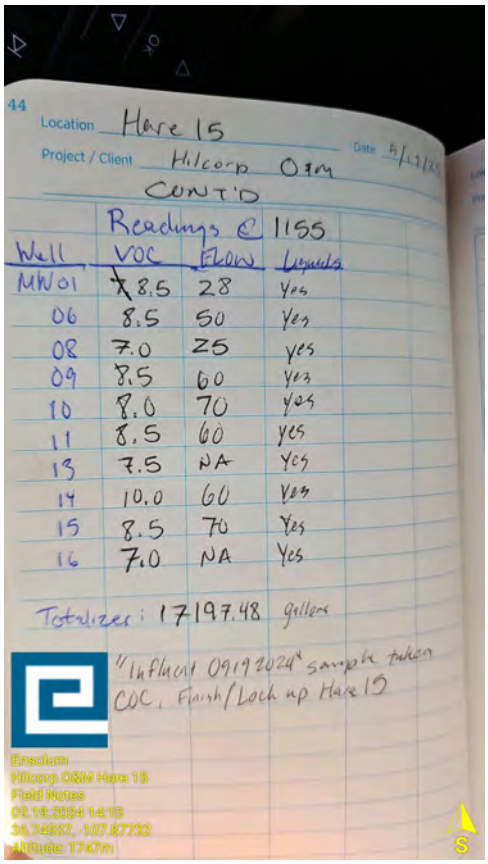
Date & time: 09.19.2024 14:01
Notes: Y strainer
Coordinates: 36.74932, -107.87748
Direction: SE (119°)
Address: Bloomfield, NM



Date & time: 09.19.2024 14:14
Notes: Field notes
Coordinates: 36.74938, -107.87732
Direction: SW (221°)
Address: Bloomfield, NM

Hilcorp O&M Hare 15

Project: Hilcorp O&M Hare 15
Company: Ensolum
Report date: 09.19.2024 14:16



Date & time: 09.19.2024 14:15
Notes: Field Notes
Coordinates: 36.74937, -107.87732
Direction: SW (212°)
Address: Bloomfield, NM

Location Hare 15 Date 9/25/24

Project / Client Hilcorp O&M Aaron L

Truck/tools, 4gas, PID, Eagle 2, HVAS

0915 Onsite, system not running
JSA, PPE,

0930 Start O&M, troubleshoot
Reverse from KO water pump, screen, drain
KO tank, flush & clean stem tube. Reset &
restart system, Ran 2 mins and "0.4"
code on inverter. Went through system again
cleaned flow tubes, tightened belts. Reset
1140 and restarted system again @1142
Let run for 30 mins before rechecking
stem tube ½ full @ 1210

Well	VAC	PID	Oxy	CO_2	CH_4
MW01	6.0	91.7	19.0	0.18	0
06	5.5	2544	19.4	0.08	1
08	6.0	28.1	19.5	0.10	0
09	4.5	52.4	19.3	0.18	0
10	5.0	555.9	17.0	0.64	9
11	6.0	461.2	17.3	0.46	6
13	7.5	464.1	17.4	0.26	4
14	6.0	203.4	19.5	0.20	2
15	6.0	393.3	18.2	0.62	5
16	6.0	187.7	19.9	0.04	1

CONT'D →

Date 9/25/24

Project Name Hilcorp O&M

Hose 15

CONT'D

Readings @ 1240

Blower Hrs - 970.3

Transfer pump Hrs - 56.2

VFD Hz - 60.0 Amps ~19

Pre KO Vac - 11.0

Post KO Vac - 12.0

Fresh Air Bypass - 2 turns open

Post Filter Vac - 12.0

Exhaust Temp - 75°C

Pressure - 0.0

Flow - 300 scfm

PID: 432.3

CH_4 vol%	0.16	CO ppm	0
Oxy vol%	18.5	CO_2 vol%	0.33
H_2S ppm	0.0	CH_4 %LEL	3

Influent PID: 420.8

CH_4 vol%	0.15	CO ppm	0
Oxy vol%	18.8	CO_2 vol%	0.26
H_2S ppm	0.0	CH_4 %LEL	3

CONT'D →

Location Hare 15 Date 9/23/24

Project / Client Hilcorp O&M CONT'D

Readings @ 1245

Well	Vac inHg	Flow scfm	Fluids
MW01	~~80~~	50	yes
06	~~8.0~~	45	yes a lot
08	6.75	40	yes a lot
09	8.0	~60	yes
10	7.5	65	yes
11	7.0	70	yes
13	8.0	NA	NA / reduced
14	10.0	60	yes a lot
15	8.0	60	yes
16	6.5	30	yes

Totalizer: 20510.71 gallons @ 1358

1305 Stopped system, cleaned out KO tank

1330 System back on. Will let run for 1 hr before leaving

1430 Offsite

Location Flare 15 Date 9-29-24 49

Project / Client

DB, Truck/4 gas

1310- Onsite to trouble shoot transfer pump + of M.

System down since 9-28 afternoon when Vernon shut it off.

-cleaned wye strainer

-checked piping, not a ton of scale.

-Clean out KO tank, floats + tube

-Pump runs @ ~ 9 gal/min.

-Leaving off until further trouble shooting on Monday

1600 - off site

50 Location: Hare 15 Date: 9-30-24

Project Client: HEC

DB Truck/tools, HVAS, PID

1100 - Onsite to troubleshoot system + transfer pump issues.

- System off

- Gauging remediation wells since system off.

Well	DTP	DTW	
MW01	—	—	
06	—	26.65	
08	—	34.82	
09	—	28.75	-clear, grainy stuff on probe
10	—	28.85	
11	—	27.21	
13	25.52	25.59	
14	—	—	
15	—	29.77.	
16	—	28.85.	

- Took apart rotor + stator on transfer pump. Cleaned w/ muriatic acid.
  - Need 7/16 stubby wrench + one more body screw.
- Need to Replace pressure gauge on transfer pump. 0-60 psi 1/4 MPT filled with oil
- Need spare wye strainer screens

O+M cont'd →

Location Flare 15 Date 9-30-24

Project HEC DTM

- More muriatic acid - white board
- Fresh water storage.
- Magnetic cover for peep holes on trailer
- Magnetic work tray. - pipe stand for discharge pipe
- Light bulbs

- Added ~10 gal to KO tank until liquids visible in sight tube.

- Some belt/grease residue in motor/blower area.

- Prime pump, check outlet pipe for clogs.

1600 - Test run, turn back on system to auto. 100% open fresh air bypass ~5 in Hg. Closed bypass 5 rotations of gate valve to 6.5 in Hg 7.5 rotations closed ~ 8.5 in Hg - post KO area 5 in Hg

Rear 1700 - KO tank has gone up ~1.5"

Ran transfer pump for 15 sec. Sight tube ~7" from floor

Start - 22,453.52 gal

End - 22,453.59 2¼" from tee

52

Location Hare 15 Date 9-30-24

Project / Client O+M

Manifold Notes

MW08 - weird white globules

MW01 - black globes

MW13 - mod. amt. of scale

MW06 - white globs & some scale

MW11 - small white globs + scale, gray.

MW14 - SAA, Lt gray scale

MW16 - brown scale, stiffening flex tube

MW10 - white globs, brownscale, stiff tube

MW15 - SAA.

MW09 - gray scale, some white globs.

17.05 - SVE - 1013.9 hrs TP - 68.1 hrs

- Ran TP for 30 sec

Start - 22453.54

End - 22455.66 Δ 2.12 gal/30 sec

Another 60 sec - 22459.23

KO Tank level went down to 5¾" from floor

1" from tee.

Left on for evening, w/ ~~ball~~ bypass

~~straight~~ 7.5 rotations closed.

17:25 - Offsite.

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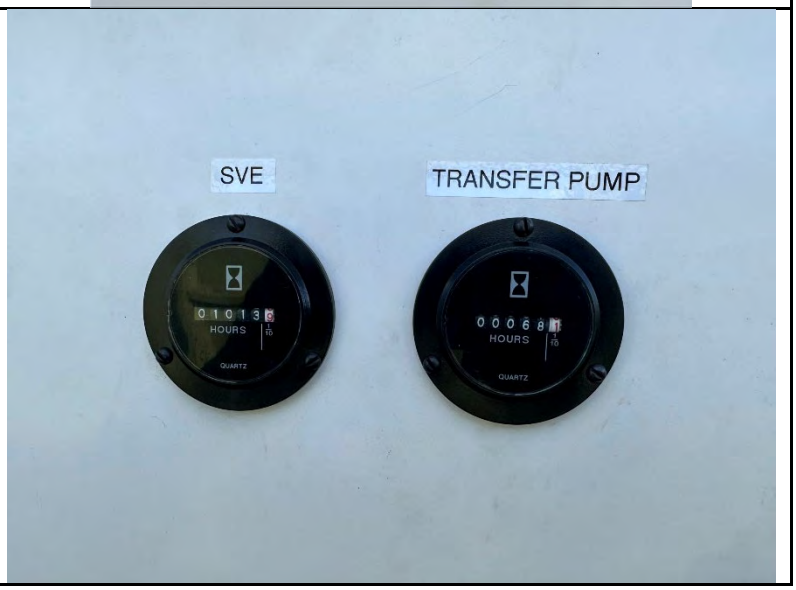
APPENDIX B

Project Photographs

PROJECT PHOTOGRAPHS
Hare 15
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 1 Runtime meter taken on August 13, 2024 at 10:45 PM Hours = 0.7	
Photograph 2 Runtime meter taken on September 30, 2024 at 5:05 PM Hours = 1,013.6	

Ensolum, LLC | Environmental & Hydrogeologic Consultants
Durango, Colorado | info@ensolum.com

PROJECT PHOTOGRAPHS
Hare 15
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 3 Runtime meter taken on August 20, 2024, following installation Gallons = 0.0	
Photograph 4 Totalizer taken on September 30, 2024 at 5:05 PM Gallons = 22,453.54	

Ensolum, LLC | Environmental & Hydrogeologic Consultants
Durango, Colorado | info@ensolum.com

ENSOLUM

APPENDIX C

Correspondence

From: Velez, Nelson, EMNRD
To: Mitch Killough; Adeloye, Abiodun A
Cc: Danny Burns; Brandon Sinclair; Hannah Mishriki; Bratcher, Michael, EMNRD; Stuart Hyde
Subject: Re: [EXTERNAL] NRM2020945060 - Hare 15 Dual Phase Extraction Runtime Issue
Date: Tuesday, October 1, 2024 1:16:54 PM
Attachments: image005.png
image006.png
image007.png
image008.png
image009.jpg
Outlook-hzek4hmi.png

[**EXTERNAL EMAIL**]
Good afternoon Mitch,

Thank you for the update. Please calculate the approximate downtime and negate it from the overall runtime on the next quarterly report. Please provide the reason for the downtime as you just did.

Have a safe and pleasant day!

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.nm.gov/ocd

From: Mitch Killough <mkillough@hilcorp.com>
Sent: Tuesday, October 1, 2024 11:44 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Adeloye, Abiodun A <aadeloye@blm.gov>
Cc: Danny Burns <dburns@ensolum.com>; Brandon Sinclair <Brandon.Sinclair@hilcorp.com>; Hannah Mishriki <hmishriki@ensolum.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Stuart Hyde <shyde@ensolum.com>
Subject: RE: [EXTERNAL] NRM2020945060 - Hare 15 Dual Phase Extraction Runtime Issue

Hi Nelson and Emmanuel.

I wanted to follow up on an issue we experienced at the Hare 15 DPE unit in San Juan County, NM. Following our last correspondence below, the DPE unit ran consistently *(with the exception of shutting down the unit during required O&M)* between 8/13/2024 – 9/21/2024. However, between 9/22/2024 – 9/30/2024, the DPE began shutting down automatically on consecutive OFF alarms. On each occurrence, operators in the field would re-start the unit, but each attempt would be followed by an automatic shut-off of the unit anywhere between 4 – 24 hours later. During this period of time, Ensolum made several visits to the unit in order to diagnose the cause for the consistent OFF alarms. It became evident that the transfer pump for the knockout tank was not able to keep up with the rate at which the knockout tank was filling up due to suspected scaling or clogging of the pipe between the knockout tank and transfer pump. When the liquid level in the knockout tank triggered the high level alarm, the unit would be automatically shutdown. On 9/30/2024, Ensolum cleaned out the segment of piping between the knockout tank and transfer pump. This included removing sediment and debris that had built up during the initial startup phase. As of 9/30/2024 at 4:35 pm (MT), the unit was placed back online and has been running successfully since re-start. We will continue to monitor the unit closely.

Note that Ensolum has also been in contact with the manufacturer of the unit to discuss further corrective actions in the event the unit experiences additional downtime. I will keep you both in the loop as we continue to work through the initial quarter of operation.

Please let myself or Ensolum know if either of you have any questions or concerns.

Thanks.

Mitch Killough
Hilcorp Energy Company
713-757-5247 (Office)
281-851-2338 (Mobile)

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Tuesday, August 13, 2024 8:21 AM
To: Stuart Hyde <shyde@ensolum.com>
Cc: Mitch Killough <mkillough@hilcorp.com>; Danny Burns <dburns@ensolum.com>; Chad Perkins <cperkins@hilcorp.com>; Bryan Hall <bhall@hilcorp.com>; Cary Green <cgreen@hilcorp.com>; Wayne Peace <wpeace@hilcorp.com>; Brandon Sinclair <Brandon.Sinclair@hilcorp.com>; Hannah Mishriki <hmishriki@ensolum.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Adeloye, Abiodun A <aadeloye@blm.gov>
Subject: Re: [EXTERNAL] NRM2020945060 - Hare 15 Dual Phase Extraction Startup Notification

Good morning Stuart,

Thank you for the update. Please proceed and keep OCD abreast of the current water accumulation condition and Hilcorp's final system set up.

Have a safe and productive day!

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.nm.gov/ocd

From: Stuart Hyde <shyde@ensolum.com>
Sent: Monday, August 12, 2024 4:46 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Mitch Killough <mkillough@hilcorp.com>; Danny Burns <dburns@ensolum.com>; Chad Perkins <cperkins@hilcorp.com>; Bryan Hall <bhall@hilcorp.com>; Cary Green <cgreen@hilcorp.com>; Wayne Peace <wpeace@hilcorp.com>; Brandon Sinclair <Brandon.Sinclair@hilcorp.com>; Hannah Mishriki <hmishriki@ensolum.com>; Adeloye, Abiodun A <aadeloye@blm.gov>
Subject: [EXTERNAL] NRM2020945060 - Hare 15 Dual Phase Extraction Startup Notification

Nelson and Emmanuel,

On behalf of Hilcorp Energy Company, I am writing to inform you that the dual phase extraction system has been installed and successfully started at the Hare 15 site. The system was just turned on this afternoon and verified that everything was working properly. However, because we do not yet know how much water the system will produce, we plan to turn the system off overnight and back on tomorrow morning. We will monitor the volume of water that the system produces tomorrow throughout the day to make sure that we have the capacity to store the volume produced and that everything is functioning without leaks or other issues. We anticipate that the system will be able to remain running 24 hours/day after tomorrow.

Please reach out with any questions or comments and we will keep you posted if there are any issues and or delays. Thanks and have a good afternoon.

Stuart Hyde, PG
(Licensed in WA/TX)
Senior Managing Geologist
970-903-1607
Ensolum, LLC

"If you want to go fast, go alone. If you want to go far, go together." – African Proverb

ENSOLUM

APPENDIX D

DPE Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 9/18/2024 12:08:12 PM

JOB DESCRIPTION

HARE 15

JOB NUMBER

885-9934-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

my EOL

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

Generated
9/18/2024 12:08:12 PM

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

Client: Hilcorp Energy
Project/Site: HARE 15

Laboratory Job ID: 885-9934-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
S1+	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
%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)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
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
Project: HARE 15

Job ID: 885-9934-1

Job ID: 885-9934-1 Eurofins Albuquerque

Job Narrative
885-9934-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 method.
- 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 8/15/2024 6:10 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 19.5°C.

Subcontract Work
Method Fixed Gases: This method was subcontracted to Energy Laboratories, Inc. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Gasoline Range Organics
Method 8015D_GRO_MS: The following sample was diluted to maximum practical limits to bring the concentration of target analytes close to the calibration range: Influent 08132024 (885-9934-1) at 50. Results are reported with an E flag.

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

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Client Sample ID: Influent 08132024

Lab Sample ID: 885-9934-1
Matrix: Air
Date Collected: 08/13/24 15:55
Date Received: 08/15/24 06:10
Sample Container: Tedlar Bag 1L

Method: SW846 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	**45000**	**E**	250		ug/L			08/26/24 14:52	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*52 - 172*		*08/26/24 14:52*	*50*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			08/26/24 14:52	50
1,1,1-Trichloroethane	ND		5.0		ug/L			08/26/24 14:52	50
1,1,2,2-Tetrachloroethane	ND		10		ug/L			08/26/24 14:52	50
1,1,2-Trichloroethane	ND		5.0		ug/L			08/26/24 14:52	50
1,1-Dichloroethane	ND		5.0		ug/L			08/26/24 14:52	50
1,1-Dichloroethene	ND		5.0		ug/L			08/26/24 14:52	50
1,1-Dichloropropene	ND		5.0		ug/L			08/26/24 14:52	50
1,2,3-Trichlorobenzene	ND		5.0		ug/L			08/26/24 14:52	50
1,2,3-Trichloropropane	ND		10		ug/L			08/26/24 14:52	50
1,2,4-Trichlorobenzene	ND		5.0		ug/L			08/26/24 14:52	50
1,2,4-Trimethylbenzene	**11**		5.0		ug/L			08/26/24 14:52	50
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			08/26/24 14:52	50
1,2-Dibromoethane (EDB)	ND		5.0		ug/L			08/26/24 14:52	50
1,2-Dichlorobenzene	ND		5.0		ug/L			08/26/24 14:52	50
1,2-Dichloroethane (EDC)	ND		5.0		ug/L			08/26/24 14:52	50
1,2-Dichloropropane	ND		5.0		ug/L			08/26/24 14:52	50
1,3,5-Trimethylbenzene	**18**		5.0		ug/L			08/26/24 14:52	50
1,3-Dichlorobenzene	ND		5.0		ug/L			08/26/24 14:52	50
1,3-Dichloropropane	ND		5.0		ug/L			08/26/24 14:52	50
1,4-Dichlorobenzene	ND		5.0		ug/L			08/26/24 14:52	50
1-Methylnaphthalene	ND		20		ug/L			08/26/24 14:52	50
2,2-Dichloropropane	ND		10		ug/L			08/26/24 14:52	50
2-Butanone	ND		50		ug/L			08/26/24 14:52	50
2-Chlorotoluene	ND		5.0		ug/L			08/26/24 14:52	50
2-Hexanone	ND	E	50		ug/L			08/26/24 14:52	50
2-Methylnaphthalene	ND		20		ug/L			08/26/24 14:52	50
4-Chlorotoluene	ND		5.0		ug/L			08/26/24 14:52	50
4-Isopropyltoluene	ND		5.0		ug/L			08/26/24 14:52	50
4-Methyl-2-pentanone	ND		50		ug/L			08/26/24 14:52	50
Acetone	ND		50		ug/L			08/26/24 14:52	50
Benzene	**310**		5.0		ug/L			08/26/24 14:52	50
Bromobenzene	ND		5.0		ug/L			08/26/24 14:52	50
Bromodichloromethane	ND		5.0		ug/L			08/26/24 14:52	50
Dibromochloromethane	ND		5.0		ug/L			08/26/24 14:52	50
Bromoform	ND		5.0		ug/L			08/26/24 14:52	50
Bromomethane	ND		15		ug/L			08/26/24 14:52	50
Carbon disulfide	ND		50		ug/L			08/26/24 14:52	50
Carbon tetrachloride	ND		5.0		ug/L			08/26/24 14:52	50
Chlorobenzene	ND		5.0		ug/L			08/26/24 14:52	50
Chloroethane	ND		10		ug/L			08/26/24 14:52	50
Chloroform	ND		5.0		ug/L			08/26/24 14:52	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Client Sample ID: Influent 08132024
Date Collected: 08/13/24 15:55
Date Received: 08/15/24 06:10
Sample Container: Tedlar Bag 1L

Lab Sample ID: 885-9934-1
Matrix: Air

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		15		ug/L			08/26/24 14:52	50
cis-1,2-Dichloroethene	ND		5.0		ug/L			08/26/24 14:52	50
cis-1,3-Dichloropropene	ND		5.0		ug/L			08/26/24 14:52	50
Dibromomethane	ND		5.0		ug/L			08/26/24 14:52	50
Dichlorodifluoromethane	ND		5.0		ug/L			08/26/24 14:52	50
Ethylbenzene	**36**		5.0		ug/L			08/26/24 14:52	50
Hexachlorobutadiene	ND		5.0		ug/L			08/26/24 14:52	50
Isopropylbenzene	ND		5.0		ug/L			08/26/24 14:52	50
Methyl-tert-butyl Ether (MTBE)	ND		5.0		ug/L			08/26/24 14:52	50
Methylene Chloride	ND		15		ug/L			08/26/24 14:52	50
n-Butylbenzene	ND		15		ug/L			08/26/24 14:52	50
N-Propylbenzene	ND		5.0		ug/L			08/26/24 14:52	50
Naphthalene	ND		10		ug/L			08/26/24 14:52	50
sec-Butylbenzene	ND		5.0		ug/L			08/26/24 14:52	50
Styrene	ND		5.0		ug/L			08/26/24 14:52	50
tert-Butylbenzene	ND		5.0		ug/L			08/26/24 14:52	50
Tetrachloroethene (PCE)	ND		5.0		ug/L			08/26/24 14:52	50
Toluene	**240**		5.0		ug/L			08/26/24 14:52	50
trans-1,2-Dichloroethene	ND		5.0		ug/L			08/26/24 14:52	50
trans-1,3-Dichloropropene	ND		5.0		ug/L			08/26/24 14:52	50
Trichloroethene (TCE)	ND		5.0		ug/L			08/26/24 14:52	50
Trichlorofluoromethane	ND		5.0		ug/L			08/26/24 14:52	50
Vinyl chloride	ND		5.0		ug/L			08/26/24 14:52	50
Xylenes, Total	**530**		7.5		ug/L			08/26/24 14:52	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/26/24 14:52*	*50*
Toluene-d8 (Surr)	*143*	*S1+*	*70 - 130*		*08/26/24 14:52*	*50*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*08/26/24 14:52*	*50*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*08/26/24 14:52*	*50*

Client Sample Results

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Client Sample ID: Influent 8/14/24

Lab Sample ID: 885-9934-2

Date Collected: 08/14/24 11:50
Matrix: Air
Date Received: 08/15/24 06:10
Sample Container: Tedlar Bag 1L

Method: SW846 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	28000		250		ug/L			08/26/24 15:17	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*52 - 172*		*08/26/24 15:17*	*50*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			08/26/24 15:17	50
1,1,1-Trichloroethane	ND		5.0		ug/L			08/26/24 15:17	50
1,1,2,2-Tetrachloroethane	ND		10		ug/L			08/26/24 15:17	50
1,1,2-Trichloroethane	ND		5.0		ug/L			08/26/24 15:17	50
1,1-Dichloroethane	ND		5.0		ug/L			08/26/24 15:17	50
1,1-Dichloroethene	ND		5.0		ug/L			08/26/24 15:17	50
1,1-Dichloropropene	ND		5.0		ug/L			08/26/24 15:17	50
1,2,3-Trichlorobenzene	ND		5.0		ug/L			08/26/24 15:17	50
1,2,3-Trichloropropane	ND		10		ug/L			08/26/24 15:17	50
1,2,4-Trichlorobenzene	ND		5.0		ug/L			08/26/24 15:17	50
1,2,4-Trimethylbenzene	8.1		5.0		ug/L			08/26/24 15:17	50
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			08/26/24 15:17	50
1,2-Dibromoethane (EDB)	ND		5.0		ug/L			08/26/24 15:17	50
1,2-Dichlorobenzene	ND		5.0		ug/L			08/26/24 15:17	50
1,2-Dichloroethane (EDC)	ND		5.0		ug/L			08/26/24 15:17	50
1,2-Dichloropropane	ND		5.0		ug/L			08/26/24 15:17	50
1,3,5-Trimethylbenzene	12		5.0		ug/L			08/26/24 15:17	50
1,3-Dichlorobenzene	ND		5.0		ug/L			08/26/24 15:17	50
1,3-Dichloropropane	ND		5.0		ug/L			08/26/24 15:17	50
1,4-Dichlorobenzene	ND		5.0		ug/L			08/26/24 15:17	50
1-Methylnaphthalene	ND		20		ug/L			08/26/24 15:17	50
2,2-Dichloropropane	ND		10		ug/L			08/26/24 15:17	50
2-Butanone	ND		50		ug/L			08/26/24 15:17	50
2-Chlorotoluene	ND		5.0		ug/L			08/26/24 15:17	50
2-Hexanone	ND		50		ug/L			08/26/24 15:17	50
2-Methylnaphthalene	ND		20		ug/L			08/26/24 15:17	50
4-Chlorotoluene	ND		5.0		ug/L			08/26/24 15:17	50
4-Isopropyltoluene	ND		5.0		ug/L			08/26/24 15:17	50
4-Methyl-2-pentanone	ND		50		ug/L			08/26/24 15:17	50
Acetone	ND		50		ug/L			08/26/24 15:17	50
Benzene	180		5.0		ug/L			08/26/24 15:17	50
Bromobenzene	ND		5.0		ug/L			08/26/24 15:17	50
Bromodichloromethane	ND		5.0		ug/L			08/26/24 15:17	50
Dibromochloromethane	ND		5.0		ug/L			08/26/24 15:17	50
Bromoform	ND		5.0		ug/L			08/26/24 15:17	50
Bromomethane	ND		15		ug/L			08/26/24 15:17	50
Carbon disulfide	ND		50		ug/L			08/26/24 15:17	50
Carbon tetrachloride	ND		5.0		ug/L			08/26/24 15:17	50
Chlorobenzene	ND		5.0		ug/L			08/26/24 15:17	50
Chloroethane	ND		10		ug/L			08/26/24 15:17	50
Chloroform	ND		5.0		ug/L			08/26/24 15:17	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Client Sample ID: Influent 8/14/24

Lab Sample ID: 885-9934-2

Date Collected: 08/14/24 11:50
Matrix: Air
Date Received: 08/15/24 06:10
Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		15		ug/L			08/26/24 15:17	50
cis-1,2-Dichloroethene	ND		5.0		ug/L			08/26/24 15:17	50
cis-1,3-Dichloropropene	ND		5.0		ug/L			08/26/24 15:17	50
Dibromomethane	ND		5.0		ug/L			08/26/24 15:17	50
Dichlorodifluoromethane	ND		5.0		ug/L			08/26/24 15:17	50
Ethylbenzene	**30**		5.0		ug/L			08/26/24 15:17	50
Hexachlorobutadiene	ND		5.0		ug/L			08/26/24 15:17	50
Isopropylbenzene	ND		5.0		ug/L			08/26/24 15:17	50
Methyl-tert-butyl Ether (MTBE)	ND		5.0		ug/L			08/26/24 15:17	50
Methylene Chloride	ND		15		ug/L			08/26/24 15:17	50
n-Butylbenzene	ND		15		ug/L			08/26/24 15:17	50
N-Propylbenzene	ND		5.0		ug/L			08/26/24 15:17	50
Naphthalene	ND		10		ug/L			08/26/24 15:17	50
sec-Butylbenzene	ND		5.0		ug/L			08/26/24 15:17	50
Styrene	ND		5.0		ug/L			08/26/24 15:17	50
tert-Butylbenzene	ND		5.0		ug/L			08/26/24 15:17	50
Tetrachloroethene (PCE)	ND		5.0		ug/L			08/26/24 15:17	50
Toluene	**250**		5.0		ug/L			08/26/24 15:17	50
trans-1,2-Dichloroethene	ND		5.0		ug/L			08/26/24 15:17	50
trans-1,3-Dichloropropene	ND		5.0		ug/L			08/26/24 15:17	50
Trichloroethene (TCE)	ND		5.0		ug/L			08/26/24 15:17	50
Trichlorofluoromethane	ND		5.0		ug/L			08/26/24 15:17	50
Vinyl chloride	ND		5.0		ug/L			08/26/24 15:17	50
Xylenes, Total	**390**		7.5		ug/L			08/26/24 15:17	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*		*08/26/24 15:17*	*50*
Toluene-d8 (Surr)	*134*	*S1+*	*70 - 130*		*08/26/24 15:17*	*50*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*08/26/24 15:17*	*50*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*08/26/24 15:17*	*50*

QC Sample Results

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Method: 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Lab Sample ID: MB 885-11096/4
Matrix: Air
Analysis Batch: 11096

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		ug/L			08/26/24 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*52 - 172*		*08/26/24 13:14*	*1*

Lab Sample ID: LCS 885-11096/3
Matrix: Air
Analysis Batch: 11096

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			4250	4350		ug/L		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*52 - 172*

Lab Sample ID: 885-9934-2 DU
Matrix: Air
Analysis Batch: 11096

Client Sample ID: Influent 8/14/24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	28000			27700		ug/L				3	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*52 - 172*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-10962/1005
Matrix: Air
Analysis Batch: 10962

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10		ug/L			08/26/24 13:14	1
1,1,1-Trichloroethane	ND		0.10		ug/L			08/26/24 13:14	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			08/26/24 13:14	1
1,1,2-Trichloroethane	ND		0.10		ug/L			08/26/24 13:14	1
1,1-Dichloroethane	ND		0.10		ug/L			08/26/24 13:14	1
1,1-Dichloroethene	ND		0.10		ug/L			08/26/24 13:14	1
1,1-Dichloropropene	ND		0.10		ug/L			08/26/24 13:14	1
1,2,3-Trichlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,2,3-Trichloropropane	ND		0.20		ug/L			08/26/24 13:14	1
1,2,4-Trichlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,2,4-Trimethylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,2-Dibromo-3-Chloropropane	ND		0.20		ug/L			08/26/24 13:14	1
1,2-Dibromoethane (EDB)	ND		0.10		ug/L			08/26/24 13:14	1
1,2-Dichlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-10962/1005
Matrix: Air
Analysis Batch: 10962

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane (EDC)	ND		0.10		ug/L			08/26/24 13:14	1
1,2-Dichloropropane	ND		0.10		ug/L			08/26/24 13:14	1
1,3,5-Trimethylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,3-Dichlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,3-Dichloropropane	ND		0.10		ug/L			08/26/24 13:14	1
1,4-Dichlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
1-Methylnaphthalene	ND		0.40		ug/L			08/26/24 13:14	1
2,2-Dichloropropane	ND		0.20		ug/L			08/26/24 13:14	1
2-Butanone	ND		1.0		ug/L			08/26/24 13:14	1
2-Chlorotoluene	ND		0.10		ug/L			08/26/24 13:14	1
2-Hexanone	ND		1.0		ug/L			08/26/24 13:14	1
2-Methylnaphthalene	ND		0.40		ug/L			08/26/24 13:14	1
4-Chlorotoluene	ND		0.10		ug/L			08/26/24 13:14	1
4-Isopropyltoluene	ND		0.10		ug/L			08/26/24 13:14	1
4-Methyl-2-pentanone	ND		1.0		ug/L			08/26/24 13:14	1
Acetone	ND		1.0		ug/L			08/26/24 13:14	1
Benzene	ND		0.10		ug/L			08/26/24 13:14	1
Bromobenzene	ND		0.10		ug/L			08/26/24 13:14	1
Bromodichloromethane	ND		0.10		ug/L			08/26/24 13:14	1
Dibromochloromethane	ND		0.10		ug/L			08/26/24 13:14	1
Bromoform	ND		0.10		ug/L			08/26/24 13:14	1
Bromomethane	ND		0.30		ug/L			08/26/24 13:14	1
Carbon disulfide	ND		1.0		ug/L			08/26/24 13:14	1
Carbon tetrachloride	ND		0.10		ug/L			08/26/24 13:14	1
Chlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
Chloroethane	ND		0.20		ug/L			08/26/24 13:14	1
Chloroform	ND		0.10		ug/L			08/26/24 13:14	1
Chloromethane	ND		0.30		ug/L			08/26/24 13:14	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			08/26/24 13:14	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			08/26/24 13:14	1
Dibromomethane	ND		0.10		ug/L			08/26/24 13:14	1
Dichlorodifluoromethane	ND		0.10		ug/L			08/26/24 13:14	1
Ethylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
Hexachlorobutadiene	ND		0.10		ug/L			08/26/24 13:14	1
Isopropylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10		ug/L			08/26/24 13:14	1
Methylene Chloride	ND		0.30		ug/L			08/26/24 13:14	1
n-Butylbenzene	ND		0.30		ug/L			08/26/24 13:14	1
N-Propylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
Naphthalene	ND		0.20		ug/L			08/26/24 13:14	1
sec-Butylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
Styrene	ND		0.10		ug/L			08/26/24 13:14	1
tert-Butylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
Tetrachloroethene (PCE)	ND		0.10		ug/L			08/26/24 13:14	1
Toluene	ND		0.10		ug/L			08/26/24 13:14	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			08/26/24 13:14	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			08/26/24 13:14	1
Trichloroethene (TCE)	ND		0.10		ug/L			08/26/24 13:14	1
Trichlorofluoromethane	ND		0.10		ug/L			08/26/24 13:14	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-10962/1005
Matrix: Air
Analysis Batch: 10962

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.10		ug/L			08/26/24 13:14	1
Xylenes, Total	ND		0.15		ug/L			08/26/24 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)					*08/26/24 13:14*	*1*
Toluene-d8 (Surr)					*08/26/24 13:14*	*1*
4-Bromofluorobenzene (Surr)					*08/26/24 13:14*	*1*
Dibromofluoromethane (Surr)					*08/26/24 13:14*	*1*

Lab Sample ID: MB 885-10962/5
Matrix: Air
Analysis Batch: 10962

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/26/24 13:14	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/26/24 13:14	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			08/26/24 13:14	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/26/24 13:14	1
1,1-Dichloroethane	ND		1.0		ug/L			08/26/24 13:14	1
1,1-Dichloroethene	ND		1.0		ug/L			08/26/24 13:14	1
1,1-Dichloropropene	ND		1.0		ug/L			08/26/24 13:14	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,2,3-Trichloropropane	ND		2.0		ug/L			08/26/24 13:14	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			08/26/24 13:14	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			08/26/24 13:14	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			08/26/24 13:14	1
1,2-Dichloropropane	ND		1.0		ug/L			08/26/24 13:14	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,3-Dichloropropane	ND		1.0		ug/L			08/26/24 13:14	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
1-Methylnaphthalene	ND		4.0		ug/L			08/26/24 13:14	1
2,2-Dichloropropane	ND		2.0		ug/L			08/26/24 13:14	1
2-Butanone	ND		10		ug/L			08/26/24 13:14	1
2-Chlorotoluene	ND		1.0		ug/L			08/26/24 13:14	1
2-Hexanone	ND		10		ug/L			08/26/24 13:14	1
2-Methylnaphthalene	ND		4.0		ug/L			08/26/24 13:14	1
4-Chlorotoluene	ND		1.0		ug/L			08/26/24 13:14	1
4-Isopropyltoluene	ND		1.0		ug/L			08/26/24 13:14	1
4-Methyl-2-pentanone	ND		10		ug/L			08/26/24 13:14	1
Acetone	ND		10		ug/L			08/26/24 13:14	1
Benzene	ND		1.0		ug/L			08/26/24 13:14	1
Bromobenzene	ND		1.0		ug/L			08/26/24 13:14	1
Bromodichloromethane	ND		1.0		ug/L			08/26/24 13:14	1
Dibromochloromethane	ND		1.0		ug/L			08/26/24 13:14	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-10962/5
Matrix: Air
Analysis Batch: 10962

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0		ug/L			08/26/24 13:14	1
Bromomethane	ND		3.0		ug/L			08/26/24 13:14	1
Carbon disulfide	ND		10		ug/L			08/26/24 13:14	1
Carbon tetrachloride	ND		1.0		ug/L			08/26/24 13:14	1
Chlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
Chloroethane	ND		2.0		ug/L			08/26/24 13:14	1
Chloroform	ND		1.0		ug/L			08/26/24 13:14	1
Chloromethane	ND		3.0		ug/L			08/26/24 13:14	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/26/24 13:14	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			08/26/24 13:14	1
Dibromomethane	ND		1.0		ug/L			08/26/24 13:14	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/26/24 13:14	1
Ethylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
Hexachlorobutadiene	ND		1.0		ug/L			08/26/24 13:14	1
Isopropylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			08/26/24 13:14	1
Methylene Chloride	ND		3.0		ug/L			08/26/24 13:14	1
n-Butylbenzene	ND		3.0		ug/L			08/26/24 13:14	1
N-Propylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
Naphthalene	ND		2.0		ug/L			08/26/24 13:14	1
sec-Butylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
Styrene	ND		1.0		ug/L			08/26/24 13:14	1
tert-Butylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			08/26/24 13:14	1
Toluene	ND		1.0		ug/L			08/26/24 13:14	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/26/24 13:14	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			08/26/24 13:14	1
Trichloroethene (TCE)	ND		1.0		ug/L			08/26/24 13:14	1
Trichlorofluoromethane	ND		1.0		ug/L			08/26/24 13:14	1
Vinyl chloride	ND		1.0		ug/L			08/26/24 13:14	1
Xylenes, Total	ND		1.5		ug/L			08/26/24 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)					*08/26/24 13:14*	*1*
Toluene-d8 (Surr)					*08/26/24 13:14*	*1*
4-Bromofluorobenzene (Surr)					*08/26/24 13:14*	*1*
Dibromofluoromethane (Surr)					*08/26/24 13:14*	*1*

Lab Sample ID: LCS 885-10962/4
Matrix: Air
Analysis Batch: 10962

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			20.1	20.8		ug/L					
Benzene			20.1	22.7		ug/L					
Chlorobenzene			20.1	19.7		ug/L					
Toluene			20.2	19.8		ug/L					
Trichloroethene (TCE)			20.2	21.9		ug/L					

QC Sample Results

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 885-10962/4
Matrix: Air
Analysis Batch: 10962

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)			
Toluene-d8 (Surr)			
4-Bromofluorobenzene (Surr)			
Dibromofluoromethane (Surr)			

Lab Sample ID: 885-9934-2 DU
Matrix: Air
Analysis Batch: 10962

Client Sample ID: Influent 8/14/24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND			ND		ug/L				NC	20
1,1,1-Trichloroethane	ND			ND		ug/L				NC	20
1,1,2,2-Tetrachloroethane	ND			ND		ug/L				NC	20
1,1,2-Trichloroethane	ND			ND		ug/L				NC	20
1,1-Dichloroethane	ND			ND		ug/L				NC	20
1,1-Dichloroethene	ND			ND		ug/L				NC	20
1,1-Dichloropropene	ND			ND		ug/L				NC	20
1,2,3-Trichlorobenzene	ND			ND		ug/L				NC	20
1,2,3-Trichloropropane	ND			ND		ug/L				NC	20
1,2,4-Trichlorobenzene	ND			ND		ug/L				NC	20
1,2,4-Trimethylbenzene	8.1			6.57		ug/L				20	20
1,2-Dibromo-3-Chloropropane	ND			ND		ug/L				NC	20
1,2-Dibromoethane (EDB)	ND			ND		ug/L				NC	20
1,2-Dichlorobenzene	ND			ND		ug/L				NC	20
1,2-Dichloroethane (EDC)	ND			ND		ug/L				NC	20
1,2-Dichloropropane	ND			ND		ug/L				NC	20
1,3,5-Trimethylbenzene	12			9.51		ug/L				19	20
1,3-Dichlorobenzene	ND			ND		ug/L				NC	20
1,3-Dichloropropane	ND			ND		ug/L				NC	20
1,4-Dichlorobenzene	ND			ND		ug/L				NC	20
1-Methylnaphthalene	ND			ND		ug/L				NC	20
2,2-Dichloropropane	ND			ND		ug/L				NC	20
2-Butanone	ND			ND		ug/L				NC	20
2-Chlorotoluene	ND			ND		ug/L				NC	20
2-Hexanone	ND			ND		ug/L				NC	20
2-Methylnaphthalene	ND			ND		ug/L				NC	20
4-Chlorotoluene	ND			ND		ug/L				NC	20
4-Isopropyltoluene	ND			ND		ug/L				NC	20
4-Methyl-2-pentanone	ND			ND		ug/L				NC	20
Benzene	180			182		ug/L				1	20
Bromobenzene	ND			ND		ug/L				NC	20
Bromodichloromethane	ND			ND		ug/L				NC	20
Dibromochloromethane	ND			ND		ug/L				NC	20
Bromoform	ND			ND		ug/L				NC	20
Bromomethane	ND			ND		ug/L				NC	20
Carbon disulfide	ND			ND		ug/L				NC	20
Carbon tetrachloride	ND			ND		ug/L				NC	20
Chlorobenzene	ND			ND		ug/L				NC	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 885-9934-2 DU
Matrix: Air
Analysis Batch: 10962

Client Sample ID: Influent 8/14/24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloroethane	ND			ND		ug/L				NC	20
Chloroform	ND			ND		ug/L				NC	20
Chloromethane	ND			ND		ug/L				NC	20
cis-1,2-Dichloroethene	ND			ND		ug/L				NC	20
cis-1,3-Dichloropropene	ND			ND		ug/L				NC	20
Dibromomethane	ND			ND		ug/L				NC	20
Dichlorodifluoromethane	ND			ND		ug/L				NC	20
Ethylbenzene	30			27.5		ug/L				10	20
Hexachlorobutadiene	ND			ND		ug/L				NC	20
Isopropylbenzene	ND			ND		ug/L				NC	20
Methyl-tert-butyl Ether (MTBE)	ND			ND		ug/L				NC	20
Methylene Chloride	ND			ND		ug/L				NC	20
n-Butylbenzene	ND			ND		ug/L				NC	20
N-Propylbenzene	ND			ND		ug/L				NC	20
Naphthalene	ND			ND		ug/L				NC	20
sec-Butylbenzene	ND			ND		ug/L				NC	20
Styrene	ND			ND		ug/L				NC	20
tert-Butylbenzene	ND			ND		ug/L				NC	20
Tetrachloroethene (PCE)	ND			ND		ug/L				NC	20
Toluene	250			241		ug/L				5	20
trans-1,2-Dichloroethene	ND			ND		ug/L				NC	20
trans-1,3-Dichloropropene	ND			ND		ug/L				NC	20
Trichloroethene (TCE)	ND			ND		ug/L				NC	20
Trichlorofluoromethane	ND			ND		ug/L				NC	20
Vinyl chloride	ND			ND		ug/L				NC	20
Xylenes, Total	390			342		ug/L				12	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
Toluene-d8 (Surr)	*132*	*S1+*	*70 - 130*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
Dibromofluoromethane (Surr)	*104*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

GC/MS VOA

Analysis Batch: 10962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9934-1	Influent 08132024	Total/NA	Air	8260B	
885-9934-2	Influent 8/14/24	Total/NA	Air	8260B	
MB 885-10962/1005	Method Blank	Total/NA	Air	8260B	
MB 885-10962/5	Method Blank	Total/NA	Air	8260B	
LCS 885-10962/4	Lab Control Sample	Total/NA	Air	8260B	
885-9934-2 DU	Influent 8/14/24	Total/NA	Air	8260B	

Analysis Batch: 11096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9934-1	Influent 08132024	Total/NA	Air	8015M/D	
885-9934-2	Influent 8/14/24	Total/NA	Air	8015M/D	
MB 885-11096/4	Method Blank	Total/NA	Air	8015M/D	
LCS 885-11096/3	Lab Control Sample	Total/NA	Air	8015M/D	
885-9934-2 DU	Influent 8/14/24	Total/NA	Air	8015M/D	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Client Sample ID: Influent 08132024

Lab Sample ID: 885-9934-1

Date Collected: 08/13/24 15:55
Matrix: Air
Date Received: 08/15/24 06:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		50	11096	CM	EET ALB	08/26/24 14:52
Total/NA	Analysis	8260B		50	10962	CM	EET ALB	08/26/24 14:52

Client Sample ID: Influent 8/14/24

Lab Sample ID: 885-9934-2

Date Collected: 08/14/24 11:50
Matrix: Air
Date Received: 08/15/24 06:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		50	11096	CM	EET ALB	08/26/24 15:17
Total/NA	Analysis	8260B		50	10962	CM	EET ALB	08/26/24 15:17

Laboratory References:

= , 1120 South 27th Street, Billings, MT 59101, TEL (406)252-6325

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

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 in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015M/D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015M/D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: HARE 15

Job ID: 885-9934-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

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ANALYTICAL SUMMARY REPORT

September 04, 2024

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: B24081698 Quote ID: B15626
Project Name: Hare 15, 88501698

Energy Laboratories Inc Billings MT received the following 2 samples for Hall Environmental on 8/16/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24081698-001	Influent 08132021 (885-9934-1)	08/13/24 15:55	08/16/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond,/1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60
B24081698-002	Inlfuent 8/14/24 (885-9934-2)	08/14/24 11:50	08/16/24	Air	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 So. 27th Street, Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Hare 15, 88501698
Lab ID: B24081698-001
Client Sample ID: Influent 08132021 (885-9934-1)

Report Date: 09/04/24
Collection Date: 08/13/24 15:55
DateReceived: 08/16/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	12.01	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
Nitrogen	79.54	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
Carbon Dioxide	7.68	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
Isopentane	0.02	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
n-Pentane	0.01	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
Hexanes plus	0.74	Mol %		0.01		GPA 2261-95	08/20/24 01:14 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	08/20/24 01:14 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	08/20/24 01:14 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	08/20/24 01:14 / jrj
Isopentane	0.007	gpm		0.001		GPA 2261-95	08/20/24 01:14 / jrj
n-Pentane	0.004	gpm		0.001		GPA 2261-95	08/20/24 01:14 / jrj
Hexanes plus	0.312	gpm		0.001		GPA 2261-95	08/20/24 01:14 / jrj
GPM Total	0.323	gpm		0.001		GPA 2261-95	08/20/24 01:14 / jrj
GPM Pentanes plus	0.323	gpm		0.001		GPA 2261-95	08/20/24 01:14 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	37			1		GPA 2261-95	08/20/24 01:14 / jrj
Net BTU per cu ft @ std cond. (LHV)	34			1		GPA 2261-95	08/20/24 01:14 / jrj
Pseudo-critical Pressure, psia	565			1		GPA 2261-95	08/20/24 01:14 / jrj
Pseudo-critical Temperature, deg R	263			1		GPA 2261-95	08/20/24 01:14 / jrj
Specific Gravity @ 60/60F	1.04			0.001		D3588-81	08/20/24 01:14 / jrj
Air, %	54.88			0.01		GPA 2261-95	08/20/24 01:14 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	08/20/24 01:14 / jrj

- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior.
- GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions.
- To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825.
- Standard conditions: 60 F & 14.73 psi on a dry basis

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Hare 15, 88501698
Lab ID: B24081698-002
Client Sample ID: Inlfuent 8/14/24 (885-9934-2)

Report Date: 09/04/24
Collection Date: 08/14/24 11:50
DateReceived: 08/16/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	16.73	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
Nitrogen	79.73	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
Carbon Dioxide	3.02	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
Hexanes plus	0.52	Mol %		0.01		GPA 2261-95	08/20/24 11:34 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	08/20/24 11:34 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	08/20/24 11:34 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	08/20/24 11:34 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	08/20/24 11:34 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	08/20/24 11:34 / jrj
Hexanes plus	0.219	gpm		0.001		GPA 2261-95	08/20/24 11:34 / jrj
GPM Total	0.219	gpm		0.001		GPA 2261-95	08/20/24 11:34 / jrj
GPM Pentanes plus	0.219	gpm		0.001		GPA 2261-95	08/20/24 11:34 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	25			1		GPA 2261-95	08/20/24 11:34 / jrj
Net BTU per cu ft @ std cond. (LHV)	23			1		GPA 2261-95	08/20/24 11:34 / jrj
Pseudo-critical Pressure, psia	550			1		GPA 2261-95	08/20/24 11:34 / jrj
Pseudo-critical Temperature, deg R	249			1		GPA 2261-95	08/20/24 11:34 / jrj
Specific Gravity @ 60/60F	1.02			0.001		D3588-81	08/20/24 11:34 / jrj
Air, %	76.45			0.01		GPA 2261-95	08/20/24 11:34 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	08/20/24 11:34 / jrj

- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior.
- GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions.
- To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825.
- Standard conditions: 60 F & 14.73 psi on a dry basis

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental **Work Order:** B24081698 **Report Date:** 09/04/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-95**										Batch: R427393
Lab ID: **B24081698-002ADUP**	12	Sample Duplicate				Run: GCNGA-B_240820A				08/20/24 12:23
Oxygen		16.8	Mol %	0.01				0.4	20	
Nitrogen		79.7	Mol %	0.01				0.1	20	
Carbon Dioxide		3.03	Mol %	0.01				0.3	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		<0.01	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		0.51	Mol %	0.01				1.9	20	
Lab ID: **LCS082024**	11	Laboratory Control Sample				Run: GCNGA-B_240820A				08/20/24 10:43
Oxygen		0.65	Mol %	0.01	130	70	130			
Nitrogen		6.37	Mol %	0.01	106	70	130			
Carbon Dioxide		1.00	Mol %	0.01	101	70	130			
Methane		74.7	Mol %	0.01	100	70	130			
Ethane		5.80	Mol %	0.01	97	70	130			
Propane		5.04	Mol %	0.01	102	70	130			
Isobutane		1.61	Mol %	0.01	80	70	130			
n-Butane		2.01	Mol %	0.01	100	70	130			
Isopentane		1.01	Mol %	0.01	101	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.81	Mol %	0.01	101	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B24081698

Login completed by: Danielle N. Harris
Date Received: 8/16/2024
Reviewed by: cindy
Received by: KLP
Reviewed Date: 8/22/2024
Carrier name: FedEx NDA

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	20.9°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

None

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Garcia, Michelle	Carrier Tracking No(s):	COC No: 885-1649.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-9934-1
Address: 1120 South 27th Street, ,	Due Date Requested: 8/27/2024			
City: Billings	TAT Requested (days):			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #:			
Email:	WO #:			
Project Name: HARE 15	Project #: 88501698			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
-

Other: B24081698

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Influent 08132024 (885-9934-1)	8/13/24	15:55 Mountain		Air			X	1	See Attached Instructions
Influent 8/14/24 (885-9934-2)	8/14/24	11:50 Mountain		Air			X	1	See Attached Instructions

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	8.15.24 16:12			8-16-24 1020	ELI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

Chain-of-Custody Record

Client: Hilcorp

Attn: Mitch Killough

Mailing Address:

Phone #:

email or Fax#: mKillough@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

10 Day TAT

☒ Standard ☐ Rush

Project Name:

HARE 15

Project #:

Project Manager:

Stuart Hyde

Sampler: DB/RH

On Ice: ☐ Yes ☒ No mgp

# of Coolers: 1

Cooler Temp(including CF): 19.2+0.3=19.5(°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 871 [illegible]-3934 COC

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) Full List	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed gas CO_2 & O_2
8-13 2024	15:55	Air	Influent 08132024	2-Teflar	—			X						X			X
8/14/24	11:50	Air	Influent 8/14/24	2-Teflar	—			X						X			X

Analysis Request

Relinquished by:	Date	Time	Received by:	Via:	Date	Time
	8/14/24	1500			8/14/24	1500
	8/14/24	1800		Via: courier	8/15/24	6:10

Remarks: shyde

cc: dburns rhanson ecarroll @ensolum.com

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-9934-1

Login Number: 9934 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	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.	False	Thermal preservation not required.
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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ANALYTICAL REPORT

PREPARED FOR

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

Generated 9/19/2024 5:17:17 PM

JOB DESCRIPTION

Hare 15

JOB NUMBER

885-10359-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

my EOL

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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9/19/2024 5:17:17 PM

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

Client: Hilcorp Energy
Project/Site: Hare 15

Laboratory Job ID: 885-10359-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

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
%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)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
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
Project: Hare 15

Job ID: 885-10359-1

Job ID: 885-10359-1 Eurofins Albuquerque

Job Narrative
885-10359-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 method.
- 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 sample was received on 8/22/2024 6:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 21.8°C.

Subcontract Work
Method Fixed Gases: This method was subcontracted to Energy Laboratories, Inc. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

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

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

Client Sample ID: Influent 08212024

Lab Sample ID: 885-10359-1
Matrix: Air
Date Collected: 08/21/24 13:20
Date Received: 08/22/24 06:15
Sample Container: Tedlar Bag 1L

Method: SW846 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	**18000**		250		ug/L			08/26/24 15:41	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*52 - 172*		*08/26/24 15:41*	*50*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			08/26/24 15:41	50
1,1,1-Trichloroethane	ND		5.0		ug/L			08/26/24 15:41	50
1,1,2,2-Tetrachloroethane	ND		10		ug/L			08/26/24 15:41	50
1,1,2-Trichloroethane	ND		5.0		ug/L			08/26/24 15:41	50
1,1-Dichloroethane	ND		5.0		ug/L			08/26/24 15:41	50
1,1-Dichloroethene	ND		5.0		ug/L			08/26/24 15:41	50
1,1-Dichloropropene	ND		5.0		ug/L			08/26/24 15:41	50
1,2,3-Trichlorobenzene	ND		5.0		ug/L			08/26/24 15:41	50
1,2,3-Trichloropropane	ND		10		ug/L			08/26/24 15:41	50
1,2,4-Trichlorobenzene	ND		5.0		ug/L			08/26/24 15:41	50
1,2,4-Trimethylbenzene	**21**		5.0		ug/L			08/26/24 15:41	50
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			08/26/24 15:41	50
1,2-Dibromoethane (EDB)	ND		5.0		ug/L			08/26/24 15:41	50
1,2-Dichlorobenzene	ND		5.0		ug/L			08/26/24 15:41	50
1,2-Dichloroethane (EDC)	ND		5.0		ug/L			08/26/24 15:41	50
1,2-Dichloropropane	ND		5.0		ug/L			08/26/24 15:41	50
1,3,5-Trimethylbenzene	**24**		5.0		ug/L			08/26/24 15:41	50
1,3-Dichlorobenzene	ND		5.0		ug/L			08/26/24 15:41	50
1,3-Dichloropropane	ND		5.0		ug/L			08/26/24 15:41	50
1,4-Dichlorobenzene	ND		5.0		ug/L			08/26/24 15:41	50
1-Methylnaphthalene	ND		20		ug/L			08/26/24 15:41	50
2,2-Dichloropropane	ND		10		ug/L			08/26/24 15:41	50
2-Butanone	ND		50		ug/L			08/26/24 15:41	50
2-Chlorotoluene	ND		5.0		ug/L			08/26/24 15:41	50
2-Hexanone	ND		50		ug/L			08/26/24 15:41	50
2-Methylnaphthalene	ND		20		ug/L			08/26/24 15:41	50
4-Chlorotoluene	ND		5.0		ug/L			08/26/24 15:41	50
4-Isopropyltoluene	ND		5.0		ug/L			08/26/24 15:41	50
4-Methyl-2-pentanone	ND		50		ug/L			08/26/24 15:41	50
Acetone	ND		50		ug/L			08/26/24 15:41	50
Benzene	**54**		5.0		ug/L			08/26/24 15:41	50
Bromobenzene	ND		5.0		ug/L			08/26/24 15:41	50
Bromodichloromethane	ND		5.0		ug/L			08/26/24 15:41	50
Dibromochloromethane	ND		5.0		ug/L			08/26/24 15:41	50
Bromoform	ND		5.0		ug/L			08/26/24 15:41	50
Bromomethane	ND		15		ug/L			08/26/24 15:41	50
Carbon disulfide	ND		50		ug/L			08/26/24 15:41	50
Carbon tetrachloride	ND		5.0		ug/L			08/26/24 15:41	50
Chlorobenzene	ND		5.0		ug/L			08/26/24 15:41	50
Chloroethane	ND		10		ug/L			08/26/24 15:41	50
Chloroform	ND		5.0		ug/L			08/26/24 15:41	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

Client Sample ID: Influent 08212024

Lab Sample ID: 885-10359-1
Matrix: Air
Date Collected: 08/21/24 13:20
Date Received: 08/22/24 06:15
Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		15		ug/L			08/26/24 15:41	50
cis-1,2-Dichloroethene	ND		5.0		ug/L			08/26/24 15:41	50
cis-1,3-Dichloropropene	ND		5.0		ug/L			08/26/24 15:41	50
Dibromomethane	ND		5.0		ug/L			08/26/24 15:41	50
Dichlorodifluoromethane	ND		5.0		ug/L			08/26/24 15:41	50
Ethylbenzene	**37**		5.0		ug/L			08/26/24 15:41	50
Hexachlorobutadiene	ND		5.0		ug/L			08/26/24 15:41	50
Isopropylbenzene	**5.6**		5.0		ug/L			08/26/24 15:41	50
Methyl-tert-butyl Ether (MTBE)	ND		5.0		ug/L			08/26/24 15:41	50
Methylene Chloride	ND		15		ug/L			08/26/24 15:41	50
n-Butylbenzene	ND		15		ug/L			08/26/24 15:41	50
N-Propylbenzene	ND		5.0		ug/L			08/26/24 15:41	50
Naphthalene	ND		10		ug/L			08/26/24 15:41	50
sec-Butylbenzene	ND		5.0		ug/L			08/26/24 15:41	50
Styrene	ND		5.0		ug/L			08/26/24 15:41	50
tert-Butylbenzene	ND		5.0		ug/L			08/26/24 15:41	50
Tetrachloroethene (PCE)	ND		5.0		ug/L			08/26/24 15:41	50
Toluene	**280**		5.0		ug/L			08/26/24 15:41	50
trans-1,2-Dichloroethene	ND		5.0		ug/L			08/26/24 15:41	50
trans-1,3-Dichloropropene	ND		5.0		ug/L			08/26/24 15:41	50
Trichloroethene (TCE)	ND		5.0		ug/L			08/26/24 15:41	50
Trichlorofluoromethane	ND		5.0		ug/L			08/26/24 15:41	50
Vinyl chloride	ND		5.0		ug/L			08/26/24 15:41	50
Xylenes, Total	**480**		7.5		ug/L			08/26/24 15:41	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*		*08/26/24 15:41*	*50*
Toluene-d8 (Surr)	*122*		*70 - 130*		*08/26/24 15:41*	*50*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*		*08/26/24 15:41*	*50*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*08/26/24 15:41*	*50*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

Method: 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Lab Sample ID: MB 885-11096/4
Matrix: Air
Analysis Batch: 11096

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		ug/L			08/26/24 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*52 - 172*		*08/26/24 13:14*	*1*

Lab Sample ID: LCS 885-11096/3
Matrix: Air
Analysis Batch: 11096

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			4250	4350		ug/L		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*52 - 172*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-10962/1005
Matrix: Air
Analysis Batch: 10962

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10		ug/L			08/26/24 13:14	1
1,1,1-Trichloroethane	ND		0.10		ug/L			08/26/24 13:14	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			08/26/24 13:14	1
1,1,2-Trichloroethane	ND		0.10		ug/L			08/26/24 13:14	1
1,1-Dichloroethane	ND		0.10		ug/L			08/26/24 13:14	1
1,1-Dichloroethene	ND		0.10		ug/L			08/26/24 13:14	1
1,1-Dichloropropene	ND		0.10		ug/L			08/26/24 13:14	1
1,2,3-Trichlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,2,3-Trichloropropane	ND		0.20		ug/L			08/26/24 13:14	1
1,2,4-Trichlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,2,4-Trimethylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,2-Dibromo-3-Chloropropane	ND		0.20		ug/L			08/26/24 13:14	1
1,2-Dibromoethane (EDB)	ND		0.10		ug/L			08/26/24 13:14	1
1,2-Dichlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,2-Dichloroethane (EDC)	ND		0.10		ug/L			08/26/24 13:14	1
1,2-Dichloropropane	ND		0.10		ug/L			08/26/24 13:14	1
1,3,5-Trimethylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,3-Dichlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
1,3-Dichloropropane	ND		0.10		ug/L			08/26/24 13:14	1
1,4-Dichlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
1-Methylnaphthalene	ND		0.40		ug/L			08/26/24 13:14	1
2,2-Dichloropropane	ND		0.20		ug/L			08/26/24 13:14	1
2-Butanone	ND		1.0		ug/L			08/26/24 13:14	1
2-Chlorotoluene	ND		0.10		ug/L			08/26/24 13:14	1
2-Hexanone	ND		1.0		ug/L			08/26/24 13:14	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-10962/1005
Matrix: Air
Analysis Batch: 10962

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.40		ug/L			08/26/24 13:14	1
4-Chlorotoluene	ND		0.10		ug/L			08/26/24 13:14	1
4-Isopropyltoluene	ND		0.10		ug/L			08/26/24 13:14	1
4-Methyl-2-pentanone	ND		1.0		ug/L			08/26/24 13:14	1
Acetone	ND		1.0		ug/L			08/26/24 13:14	1
Benzene	ND		0.10		ug/L			08/26/24 13:14	1
Bromobenzene	ND		0.10		ug/L			08/26/24 13:14	1
Bromodichloromethane	ND		0.10		ug/L			08/26/24 13:14	1
Dibromochloromethane	ND		0.10		ug/L			08/26/24 13:14	1
Bromoform	ND		0.10		ug/L			08/26/24 13:14	1
Bromomethane	ND		0.30		ug/L			08/26/24 13:14	1
Carbon disulfide	ND		1.0		ug/L			08/26/24 13:14	1
Carbon tetrachloride	ND		0.10		ug/L			08/26/24 13:14	1
Chlorobenzene	ND		0.10		ug/L			08/26/24 13:14	1
Chloroethane	ND		0.20		ug/L			08/26/24 13:14	1
Chloroform	ND		0.10		ug/L			08/26/24 13:14	1
Chloromethane	ND		0.30		ug/L			08/26/24 13:14	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			08/26/24 13:14	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			08/26/24 13:14	1
Dibromomethane	ND		0.10		ug/L			08/26/24 13:14	1
Dichlorodifluoromethane	ND		0.10		ug/L			08/26/24 13:14	1
Ethylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
Hexachlorobutadiene	ND		0.10		ug/L			08/26/24 13:14	1
Isopropylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10		ug/L			08/26/24 13:14	1
Methylene Chloride	ND		0.30		ug/L			08/26/24 13:14	1
n-Butylbenzene	ND		0.30		ug/L			08/26/24 13:14	1
N-Propylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
Naphthalene	ND		0.20		ug/L			08/26/24 13:14	1
sec-Butylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
Styrene	ND		0.10		ug/L			08/26/24 13:14	1
tert-Butylbenzene	ND		0.10		ug/L			08/26/24 13:14	1
Tetrachloroethene (PCE)	ND		0.10		ug/L			08/26/24 13:14	1
Toluene	ND		0.10		ug/L			08/26/24 13:14	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			08/26/24 13:14	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			08/26/24 13:14	1
Trichloroethene (TCE)	ND		0.10		ug/L			08/26/24 13:14	1
Trichlorofluoromethane	ND		0.10		ug/L			08/26/24 13:14	1
Vinyl chloride	ND		0.10		ug/L			08/26/24 13:14	1
Xylenes, Total	ND		0.15		ug/L			08/26/24 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)					*08/26/24 13:14*	*1*
Toluene-d8 (Surr)					*08/26/24 13:14*	*1*
4-Bromofluorobenzene (Surr)					*08/26/24 13:14*	*1*
Dibromofluoromethane (Surr)					*08/26/24 13:14*	*1*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-10962/5
Matrix: Air
Analysis Batch: 10962

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/26/24 13:14	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/26/24 13:14	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			08/26/24 13:14	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/26/24 13:14	1
1,1-Dichloroethane	ND		1.0		ug/L			08/26/24 13:14	1
1,1-Dichloroethene	ND		1.0		ug/L			08/26/24 13:14	1
1,1-Dichloropropene	ND		1.0		ug/L			08/26/24 13:14	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,2,3-Trichloropropane	ND		2.0		ug/L			08/26/24 13:14	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			08/26/24 13:14	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			08/26/24 13:14	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			08/26/24 13:14	1
1,2-Dichloropropane	ND		1.0		ug/L			08/26/24 13:14	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
1,3-Dichloropropane	ND		1.0		ug/L			08/26/24 13:14	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
1-Methylnaphthalene	ND		4.0		ug/L			08/26/24 13:14	1
2,2-Dichloropropane	ND		2.0		ug/L			08/26/24 13:14	1
2-Butanone	ND		10		ug/L			08/26/24 13:14	1
2-Chlorotoluene	ND		1.0		ug/L			08/26/24 13:14	1
2-Hexanone	ND		10		ug/L			08/26/24 13:14	1
2-Methylnaphthalene	ND		4.0		ug/L			08/26/24 13:14	1
4-Chlorotoluene	ND		1.0		ug/L			08/26/24 13:14	1
4-Isopropyltoluene	ND		1.0		ug/L			08/26/24 13:14	1
4-Methyl-2-pentanone	ND		10		ug/L			08/26/24 13:14	1
Acetone	ND		10		ug/L			08/26/24 13:14	1
Benzene	ND		1.0		ug/L			08/26/24 13:14	1
Bromobenzene	ND		1.0		ug/L			08/26/24 13:14	1
Bromodichloromethane	ND		1.0		ug/L			08/26/24 13:14	1
Dibromochloromethane	ND		1.0		ug/L			08/26/24 13:14	1
Bromoform	ND		1.0		ug/L			08/26/24 13:14	1
Bromomethane	ND		3.0		ug/L			08/26/24 13:14	1
Carbon disulfide	ND		10		ug/L			08/26/24 13:14	1
Carbon tetrachloride	ND		1.0		ug/L			08/26/24 13:14	1
Chlorobenzene	ND		1.0		ug/L			08/26/24 13:14	1
Chloroethane	ND		2.0		ug/L			08/26/24 13:14	1
Chloroform	ND		1.0		ug/L			08/26/24 13:14	1
Chloromethane	ND		3.0		ug/L			08/26/24 13:14	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/26/24 13:14	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			08/26/24 13:14	1
Dibromomethane	ND		1.0		ug/L			08/26/24 13:14	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/26/24 13:14	1
Ethylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
Hexachlorobutadiene	ND		1.0		ug/L			08/26/24 13:14	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-10962/5
Matrix: Air
Analysis Batch: 10962

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			08/26/24 13:14	1
Methylene Chloride	ND		3.0		ug/L			08/26/24 13:14	1
n-Butylbenzene	ND		3.0		ug/L			08/26/24 13:14	1
N-Propylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
Naphthalene	ND		2.0		ug/L			08/26/24 13:14	1
sec-Butylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
Styrene	ND		1.0		ug/L			08/26/24 13:14	1
tert-Butylbenzene	ND		1.0		ug/L			08/26/24 13:14	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			08/26/24 13:14	1
Toluene	ND		1.0		ug/L			08/26/24 13:14	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/26/24 13:14	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			08/26/24 13:14	1
Trichloroethene (TCE)	ND		1.0		ug/L			08/26/24 13:14	1
Trichlorofluoromethane	ND		1.0		ug/L			08/26/24 13:14	1
Vinyl chloride	ND		1.0		ug/L			08/26/24 13:14	1
Xylenes, Total	ND		1.5		ug/L			08/26/24 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)					*08/26/24 13:14*	*1*
Toluene-d8 (Surr)					*08/26/24 13:14*	*1*
4-Bromofluorobenzene (Surr)					*08/26/24 13:14*	*1*
Dibromofluoromethane (Surr)					*08/26/24 13:14*	*1*

Lab Sample ID: LCS 885-10962/4
Matrix: Air
Analysis Batch: 10962

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			20.1	20.8		ug/L					
Benzene			20.1	22.7		ug/L					
Chlorobenzene			20.1	19.7		ug/L					
Toluene			20.2	19.8		ug/L					
Trichloroethene (TCE)			20.2	21.9		ug/L					

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)			
Toluene-d8 (Surr)			
4-Bromofluorobenzene (Surr)			
Dibromofluoromethane (Surr)			

QC Association Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

GC/MS VOA

Analysis Batch: 10962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-10359-1	Influent 08212024	Total/NA	Air	8260B	
MB 885-10962/1005	Method Blank	Total/NA	Air	8260B	
MB 885-10962/5	Method Blank	Total/NA	Air	8260B	
LCS 885-10962/4	Lab Control Sample	Total/NA	Air	8260B	

Analysis Batch: 11096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-10359-1	Influent 08212024	Total/NA	Air	8015M/D	
MB 885-11096/4	Method Blank	Total/NA	Air	8015M/D	
LCS 885-11096/3	Lab Control Sample	Total/NA	Air	8015M/D	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

Client Sample ID: Influent 08212024

Date Collected: 08/21/24 13:20
Date Received: 08/22/24 06:15

Lab Sample ID: 885-10359-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		50	11096	CM	EET ALB	08/26/24 15:41
Total/NA	Analysis	8260B		50	10962	CM	EET ALB	08/26/24 15:41

Laboratory References:

= , 1120 South 27th Street, Billings, MT 59101, TEL (406)252-6325

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

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 in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015M/D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015M/D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10359-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

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ANALYTICAL SUMMARY REPORT

September 03, 2024

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: B24082478 Quote ID: B15626

Project Name: 88501698, Hare 15

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 8/26/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24082478-001	Influent 08212024 (885-10359-1)	08/21/24 13:20	08/26/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond,/1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 So. 27th Street, Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: 88501698, Hare 15
Lab ID: B24082478-001
Client Sample ID: Influent 08212024 (885-10359-1)

Report Date: 09/03/24
Collection Date: 08/21/24 13:20
DateReceived: 08/26/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	20.46	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
Nitrogen	78.34	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
Carbon Dioxide	0.95	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
Hexanes plus	0.24	Mol %		0.01		GPA 2261-95	08/27/24 10:45 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	08/27/24 10:45 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	08/27/24 10:45 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	08/27/24 10:45 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	08/27/24 10:45 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	08/27/24 10:45 / jrj
Hexanes plus	0.101	gpm		0.001		GPA 2261-95	08/27/24 10:45 / jrj
GPM Total	0.101	gpm		0.001		GPA 2261-95	08/27/24 10:45 / jrj
GPM Pentanes plus	0.101	gpm		0.001		GPA 2261-95	08/27/24 10:45 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	12			1		GPA 2261-95	08/27/24 10:45 / jrj
Net BTU per cu ft @ std cond. (LHV)	11			1		GPA 2261-95	08/27/24 10:45 / jrj
Pseudo-critical Pressure, psia	547			1		GPA 2261-95	08/27/24 10:45 / jrj
Pseudo-critical Temperature, deg R	243			1		GPA 2261-95	08/27/24 10:45 / jrj
Specific Gravity @ 60/60F	1.01			0.001		D3588-81	08/27/24 10:45 / jrj
Air, %	93.47			0.01		GPA 2261-95	08/27/24 10:45 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	08/27/24 10:45 / jrj

- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior.
- GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions.
- To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825.
- Standard conditions: 60 F & 14.73 psi on a dry basis

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental **Work Order:** B24082478 **Report Date:** 09/03/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-95**										Batch: R427787
Lab ID: **B24082478-001ADUP**	12	Sample Duplicate				Run: GCNGA-B_240827A				08/27/24 11:39
Oxygen		20.5	Mol %	0.01				0.3	20	
Nitrogen		78.3	Mol %	0.01				0.1	20	
Carbon Dioxide		0.95	Mol %	0.01				0.0	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		<0.01	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		0.27	Mol %	0.01				12	20	
Lab ID: **LCS082724**	11	Laboratory Control Sample				Run: GCNGA-B_240827A				08/27/24 01:32
Oxygen		0.62	Mol %	0.01	124	70	130			
Nitrogen		6.18	Mol %	0.01	103	70	130			
Carbon Dioxide		1.07	Mol %	0.01	108	70	130			
Methane		74.9	Mol %	0.01	100	70	130			
Ethane		5.81	Mol %	0.01	97	70	130			
Propane		5.07	Mol %	0.01	103	70	130			
Isobutane		1.49	Mol %	0.01	74	70	130			
n-Butane		2.01	Mol %	0.01	100	70	130			
Isopentane		1.04	Mol %	0.01	104	70	130			
n-Pentane		1.01	Mol %	0.01	101	70	130			
Hexanes plus		0.80	Mol %	0.01	100	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B24082478

Login completed by: Crystal M. Jones
Date Received: 8/26/2024

Reviewed by: darcy
Received by: KLP

Reviewed Date: 9/3/2024
Carrier name: FedEx NDA

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	21.3°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

None

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Garcia, Michelle	Carrier Tracking No(s):	COC No: 885-1703.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-10359-1
Address: 1120 South 27th Street, ,	Due Date Requested: 9/4/2024			
City: Billings	TAT Requested (days):			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #:			
Email:	WO #:			
Project Name: Hare 15	Project #: 88501698			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Influent 08212024 (885-10359-1)	8/21/24	13:20 Mountain	G	Air			X	1	See Attached Instructions
									B240824478

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
John McCutcheon	8/22/24 @ 1425				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Kylie Black	Date/Time: 8-26-24 0905	Company ELI

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

ICOC No:
885-1703

Containers

Count	Container Type	Preservative
1	Tedlar Bag 1L	None

Subcontract Method Instructions

Sample IDs	Method	Method Description	Method Comments
1	SUBCONTRACT	SUB (Fixed Gases)/ Fixed Gases	Fixed Gases

Chain-of-Custody Record

Client: Hilcorp

Attn: Mitch Killough

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

10 Day TAT

☒ Standard ☐ Rush

Project Name: Hare 15

Project #:

Project Manager: Stuart Hyde

Sampler: Danny Burns

On Ice: ☐ Yes ☑ No mojo

# of Coolers: 1

Cooler Temp(including CF): 21.7 +0.1 = 21.8 (°C)

HALL ENVIRONMENTAL ANALYSIS LABO

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 8

Tel. 505-345-3975 Fax 505-345-41

885-10359 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) Full List	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed Gas O_2 + CO_2
8-21 2024	13:20	Air	Influent 08212024	2-Tedlar	—	1		X						X			X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
8-21 2024	15:40				8/21/24	1540
8/21/24	1752			courier	8/22/24	0:15

Remarks: shyde

CC: dburns @ensolum.com

dhencmann

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.

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-10359-1

Login Number: 10359 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mitch Killough
Hilcorp Energy
PO BOX 4700
Farmington, New Mexico 87499
Generated 9/20/2024 11:06:00 AM

JOB DESCRIPTION

Hare 15

JOB NUMBER

885-10812-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

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

Generated
9/20/2024 11:06:00 AM

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

Client: Hilcorp Energy
Project/Site: Hare 15

Laboratory Job ID: 885-10812-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit

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
%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)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
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
Project: Hare 15

Job ID: 885-10812-1

Job ID: 885-10812-1 Eurofins Albuquerque

Job Narrative
885-10812-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 method.
- 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 sample was received on 8/29/2024 6:25 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 22.4°C.

Subcontract Work
Method Fixed Gases: This method was subcontracted to Energy Laboratories, Inc. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

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

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Client Sample ID: Influent 08282024

Lab Sample ID: 885-10812-1
Matrix: Air
Date Collected: 08/28/24 14:05
Date Received: 08/29/24 06:25
Sample Container: Tedlar Bag 1L

Method: SW846 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	**12000**		250		ug/L			09/06/24 15:16	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*52 - 172*		*09/06/24 15:16*	*50*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			09/06/24 15:16	50
1,1,1-Trichloroethane	ND		5.0		ug/L			09/06/24 15:16	50
1,1,2,2-Tetrachloroethane	ND		10		ug/L			09/06/24 15:16	50
1,1,2-Trichloroethane	ND		5.0		ug/L			09/06/24 15:16	50
1,1-Dichloroethane	ND		5.0		ug/L			09/06/24 15:16	50
1,1-Dichloroethene	ND		5.0		ug/L			09/06/24 15:16	50
1,1-Dichloropropene	ND		5.0		ug/L			09/06/24 15:16	50
1,2,3-Trichlorobenzene	ND		5.0		ug/L			09/06/24 15:16	50
1,2,3-Trichloropropane	ND		10		ug/L			09/06/24 15:16	50
1,2,4-Trichlorobenzene	ND		5.0		ug/L			09/06/24 15:16	50
1,2,4-Trimethylbenzene	**25**		5.0		ug/L			09/06/24 15:16	50
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			09/06/24 15:16	50
1,2-Dibromoethane (EDB)	ND		5.0		ug/L			09/06/24 15:16	50
1,2-Dichlorobenzene	ND		5.0		ug/L			09/06/24 15:16	50
1,2-Dichloroethane (EDC)	ND		5.0		ug/L			09/06/24 15:16	50
1,2-Dichloropropane	ND		5.0		ug/L			09/06/24 15:16	50
1,3,5-Trimethylbenzene	**27**		5.0		ug/L			09/06/24 15:16	50
1,3-Dichlorobenzene	ND		5.0		ug/L			09/06/24 15:16	50
1,3-Dichloropropane	ND		5.0		ug/L			09/06/24 15:16	50
1,4-Dichlorobenzene	ND		5.0		ug/L			09/06/24 15:16	50
1-Methylnaphthalene	ND		20		ug/L			09/06/24 15:16	50
2,2-Dichloropropane	ND		10		ug/L			09/06/24 15:16	50
2-Butanone	ND		50		ug/L			09/06/24 15:16	50
2-Chlorotoluene	ND		5.0		ug/L			09/06/24 15:16	50
2-Hexanone	ND		50		ug/L			09/06/24 15:16	50
2-Methylnaphthalene	ND		20		ug/L			09/06/24 15:16	50
4-Chlorotoluene	ND		5.0		ug/L			09/06/24 15:16	50
4-Isopropyltoluene	ND		5.0		ug/L			09/06/24 15:16	50
4-Methyl-2-pentanone	ND		50		ug/L			09/06/24 15:16	50
Acetone	ND		50		ug/L			09/06/24 15:16	50
Benzene	**20**		5.0		ug/L			09/06/24 15:16	50
Bromobenzene	ND		5.0		ug/L			09/06/24 15:16	50
Bromodichloromethane	ND		5.0		ug/L			09/06/24 15:16	50
Dibromochloromethane	ND		5.0		ug/L			09/06/24 15:16	50
Bromoform	ND		5.0		ug/L			09/06/24 15:16	50
Bromomethane	ND		15		ug/L			09/06/24 15:16	50
Carbon disulfide	ND		50		ug/L			09/06/24 15:16	50
Carbon tetrachloride	ND		5.0		ug/L			09/06/24 15:16	50
Chlorobenzene	ND		5.0		ug/L			09/06/24 15:16	50
Chloroethane	ND		10		ug/L			09/06/24 15:16	50
Chloroform	ND		5.0		ug/L			09/06/24 15:16	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Client Sample ID: Influent 08282024

Lab Sample ID: 885-10812-1
Matrix: Air
Date Collected: 08/28/24 14:05
Date Received: 08/29/24 06:25
Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		15		ug/L			09/06/24 15:16	50
cis-1,2-Dichloroethene	ND		5.0		ug/L			09/06/24 15:16	50
cis-1,3-Dichloropropene	ND		5.0		ug/L			09/06/24 15:16	50
Dibromomethane	ND		5.0		ug/L			09/06/24 15:16	50
Dichlorodifluoromethane	ND		5.0		ug/L			09/06/24 15:16	50
Ethylbenzene	**28**		5.0		ug/L			09/06/24 15:16	50
Hexachlorobutadiene	ND		5.0		ug/L			09/06/24 15:16	50
Isopropylbenzene	**5.1**		5.0		ug/L			09/06/24 15:16	50
Methyl-tert-butyl Ether (MTBE)	ND		5.0		ug/L			09/06/24 15:16	50
Methylene Chloride	ND		15		ug/L			09/06/24 15:16	50
n-Butylbenzene	ND		15		ug/L			09/06/24 15:16	50
N-Propylbenzene	**5.0**		5.0		ug/L			09/06/24 15:16	50
Naphthalene	ND		10		ug/L			09/06/24 15:16	50
sec-Butylbenzene	ND		5.0		ug/L			09/06/24 15:16	50
Styrene	ND		5.0		ug/L			09/06/24 15:16	50
tert-Butylbenzene	ND		5.0		ug/L			09/06/24 15:16	50
Tetrachloroethene (PCE)	ND		5.0		ug/L			09/06/24 15:16	50
Toluene	**160**		5.0		ug/L			09/06/24 15:16	50
trans-1,2-Dichloroethene	ND		5.0		ug/L			09/06/24 15:16	50
trans-1,3-Dichloropropene	ND		5.0		ug/L			09/06/24 15:16	50
Trichloroethene (TCE)	ND		5.0		ug/L			09/06/24 15:16	50
Trichlorofluoromethane	ND		5.0		ug/L			09/06/24 15:16	50
Vinyl chloride	ND		5.0		ug/L			09/06/24 15:16	50
Xylenes, Total	**380**		7.5		ug/L			09/06/24 15:16	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*70 - 130*		*09/06/24 15:16*	*50*
Toluene-d8 (Surr)	*124*		*70 - 130*		*09/06/24 15:16*	*50*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*09/06/24 15:16*	*50*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*09/06/24 15:16*	*50*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Method: 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Lab Sample ID: MB 885-11861/3
Matrix: Air
Analysis Batch: 11861

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		ug/L			09/06/24 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*52 - 172*		*09/06/24 12:50*	*1*

Lab Sample ID: LCS 885-11861/1
Matrix: Air
Analysis Batch: 11861

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			500	535		ug/L		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*52 - 172*

Lab Sample ID: 885-10812-1 DU
Matrix: Air
Analysis Batch: 11861

Client Sample ID: Influent 08282024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	12000			10800		ug/L				7	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*52 - 172*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-11742/1004
Matrix: Air
Analysis Batch: 11742

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10		ug/L			09/06/24 12:50	1
1,1,1-Trichloroethane	ND		0.10		ug/L			09/06/24 12:50	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			09/06/24 12:50	1
1,1,2-Trichloroethane	ND		0.10		ug/L			09/06/24 12:50	1
1,1-Dichloroethane	ND		0.10		ug/L			09/06/24 12:50	1
1,1-Dichloroethene	ND		0.10		ug/L			09/06/24 12:50	1
1,1-Dichloropropene	ND		0.10		ug/L			09/06/24 12:50	1
1,2,3-Trichlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,2,3-Trichloropropane	ND		0.20		ug/L			09/06/24 12:50	1
1,2,4-Trichlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,2,4-Trimethylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,2-Dibromo-3-Chloropropane	ND		0.20		ug/L			09/06/24 12:50	1
1,2-Dibromoethane (EDB)	ND		0.10		ug/L			09/06/24 12:50	1
1,2-Dichlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-11742/1004
Matrix: Air
Analysis Batch: 11742

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane (EDC)	ND		0.10		ug/L			09/06/24 12:50	1
1,2-Dichloropropane	ND		0.10		ug/L			09/06/24 12:50	1
1,3,5-Trimethylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,3-Dichlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,3-Dichloropropane	ND		0.10		ug/L			09/06/24 12:50	1
1,4-Dichlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
1-Methylnaphthalene	ND		0.40		ug/L			09/06/24 12:50	1
2,2-Dichloropropane	ND		0.20		ug/L			09/06/24 12:50	1
2-Butanone	ND		1.0		ug/L			09/06/24 12:50	1
2-Chlorotoluene	ND		0.10		ug/L			09/06/24 12:50	1
2-Hexanone	ND		1.0		ug/L			09/06/24 12:50	1
2-Methylnaphthalene	ND		0.40		ug/L			09/06/24 12:50	1
4-Chlorotoluene	ND		0.10		ug/L			09/06/24 12:50	1
4-Isopropyltoluene	ND		0.10		ug/L			09/06/24 12:50	1
4-Methyl-2-pentanone	ND		1.0		ug/L			09/06/24 12:50	1
Acetone	ND		1.0		ug/L			09/06/24 12:50	1
Benzene	ND		0.10		ug/L			09/06/24 12:50	1
Bromobenzene	ND		0.10		ug/L			09/06/24 12:50	1
Bromodichloromethane	ND		0.10		ug/L			09/06/24 12:50	1
Dibromochloromethane	ND		0.10		ug/L			09/06/24 12:50	1
Bromoform	ND		0.10		ug/L			09/06/24 12:50	1
Bromomethane	ND		0.30		ug/L			09/06/24 12:50	1
Carbon disulfide	ND		1.0		ug/L			09/06/24 12:50	1
Carbon tetrachloride	ND		0.10		ug/L			09/06/24 12:50	1
Chlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
Chloroethane	ND		0.20		ug/L			09/06/24 12:50	1
Chloroform	ND		0.10		ug/L			09/06/24 12:50	1
Chloromethane	ND		0.30		ug/L			09/06/24 12:50	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			09/06/24 12:50	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			09/06/24 12:50	1
Dibromomethane	ND		0.10		ug/L			09/06/24 12:50	1
Dichlorodifluoromethane	ND		0.10		ug/L			09/06/24 12:50	1
Ethylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
Hexachlorobutadiene	ND		0.10		ug/L			09/06/24 12:50	1
Isopropylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10		ug/L			09/06/24 12:50	1
Methylene Chloride	ND		0.30		ug/L			09/06/24 12:50	1
n-Butylbenzene	ND		0.30		ug/L			09/06/24 12:50	1
N-Propylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
Naphthalene	ND		0.20		ug/L			09/06/24 12:50	1
sec-Butylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
Styrene	ND		0.10		ug/L			09/06/24 12:50	1
tert-Butylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
Tetrachloroethene (PCE)	ND		0.10		ug/L			09/06/24 12:50	1
Toluene	ND		0.10		ug/L			09/06/24 12:50	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			09/06/24 12:50	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			09/06/24 12:50	1
Trichloroethene (TCE)	ND		0.10		ug/L			09/06/24 12:50	1
Trichlorofluoromethane	ND		0.10		ug/L			09/06/24 12:50	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-11742/1004
Matrix: Air
Analysis Batch: 11742

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.10		ug/L			09/06/24 12:50	1
Xylenes, Total	ND		0.15		ug/L			09/06/24 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*		*09/06/24 12:50*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*09/06/24 12:50*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*09/06/24 12:50*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*09/06/24 12:50*	*1*

Lab Sample ID: MB 885-11742/4
Matrix: Air
Analysis Batch: 11742

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/06/24 12:50	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/06/24 12:50	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			09/06/24 12:50	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/06/24 12:50	1
1,1-Dichloroethane	ND		1.0		ug/L			09/06/24 12:50	1
1,1-Dichloroethene	ND		1.0		ug/L			09/06/24 12:50	1
1,1-Dichloropropene	ND		1.0		ug/L			09/06/24 12:50	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/06/24 12:50	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/06/24 12:50	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			09/06/24 12:50	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			09/06/24 12:50	1
1,2-Dichloropropane	ND		1.0		ug/L			09/06/24 12:50	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,3-Dichloropropane	ND		1.0		ug/L			09/06/24 12:50	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
1-Methylnaphthalene	ND		4.0		ug/L			09/06/24 12:50	1
2,2-Dichloropropane	ND		2.0		ug/L			09/06/24 12:50	1
2-Butanone	ND		10		ug/L			09/06/24 12:50	1
2-Chlorotoluene	ND		1.0		ug/L			09/06/24 12:50	1
2-Hexanone	ND		10		ug/L			09/06/24 12:50	1
2-Methylnaphthalene	ND		4.0		ug/L			09/06/24 12:50	1
4-Chlorotoluene	ND		1.0		ug/L			09/06/24 12:50	1
4-Isopropyltoluene	ND		1.0		ug/L			09/06/24 12:50	1
4-Methyl-2-pentanone	ND		10		ug/L			09/06/24 12:50	1
Acetone	ND		10		ug/L			09/06/24 12:50	1
Benzene	ND		1.0		ug/L			09/06/24 12:50	1
Bromobenzene	ND		1.0		ug/L			09/06/24 12:50	1
Bromodichloromethane	ND		1.0		ug/L			09/06/24 12:50	1
Dibromochloromethane	ND		1.0		ug/L			09/06/24 12:50	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-11742/4
Matrix: Air
Analysis Batch: 11742

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0		ug/L			09/06/24 12:50	1
Bromomethane	ND		3.0		ug/L			09/06/24 12:50	1
Carbon disulfide	ND		10		ug/L			09/06/24 12:50	1
Carbon tetrachloride	ND		1.0		ug/L			09/06/24 12:50	1
Chlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
Chloroethane	ND		2.0		ug/L			09/06/24 12:50	1
Chloroform	ND		1.0		ug/L			09/06/24 12:50	1
Chloromethane	ND		3.0		ug/L			09/06/24 12:50	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/06/24 12:50	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/06/24 12:50	1
Dibromomethane	ND		1.0		ug/L			09/06/24 12:50	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/06/24 12:50	1
Ethylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
Hexachlorobutadiene	ND		1.0		ug/L			09/06/24 12:50	1
Isopropylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			09/06/24 12:50	1
Methylene Chloride	ND		3.0		ug/L			09/06/24 12:50	1
n-Butylbenzene	ND		3.0		ug/L			09/06/24 12:50	1
N-Propylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
Naphthalene	ND		2.0		ug/L			09/06/24 12:50	1
sec-Butylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
Styrene	ND		1.0		ug/L			09/06/24 12:50	1
tert-Butylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			09/06/24 12:50	1
Toluene	ND		1.0		ug/L			09/06/24 12:50	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/06/24 12:50	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/06/24 12:50	1
Trichloroethene (TCE)	ND		1.0		ug/L			09/06/24 12:50	1
Trichlorofluoromethane	ND		1.0		ug/L			09/06/24 12:50	1
Vinyl chloride	ND		1.0		ug/L			09/06/24 12:50	1
Xylenes, Total	ND		1.5		ug/L			09/06/24 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*		*09/06/24 12:50*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*09/06/24 12:50*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*09/06/24 12:50*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*09/06/24 12:50*	*1*

Lab Sample ID: LCS 885-11742/3
Matrix: Air
Analysis Batch: 11742

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			20.1	17.5		ug/L		87	70 - 130		
Benzene			20.1	19.8		ug/L		99	70 - 130		
Chlorobenzene			20.1	20.7		ug/L		103	70 - 130		
Toluene			20.2	20.3		ug/L		101	70 - 130		
Trichloroethene (TCE)			20.2	19.2		ug/L		95	70 - 130		

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 885-11742/3
Matrix: Air
Analysis Batch: 11742

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*

Lab Sample ID: 885-10812-1 DU
Matrix: Air
Analysis Batch: 11742

Client Sample ID: Influent 08282024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND			ND		ug/L				NC	20
1,1,1-Trichloroethane	ND			ND		ug/L				NC	20
1,1,2,2-Tetrachloroethane	ND			ND		ug/L				NC	20
1,1,2-Trichloroethane	ND			ND		ug/L				NC	20
1,1-Dichloroethane	ND			ND		ug/L				NC	20
1,1-Dichloroethene	ND			ND		ug/L				NC	20
1,1-Dichloropropene	ND			ND		ug/L				NC	20
1,2,3-Trichlorobenzene	ND			ND		ug/L				NC	20
1,2,3-Trichloropropane	ND			ND		ug/L				NC	20
1,2,4-Trichlorobenzene	ND			ND		ug/L				NC	20
1,2,4-Trimethylbenzene	25			19.7	F3	ug/L				23	20
1,2-Dibromo-3-Chloropropane	ND			ND		ug/L				NC	20
1,2-Dibromoethane (EDB)	ND			ND		ug/L				NC	20
1,2-Dichlorobenzene	ND			ND		ug/L				NC	20
1,2-Dichloroethane (EDC)	ND			ND		ug/L				NC	20
1,2-Dichloropropane	ND			ND		ug/L				NC	20
1,3,5-Trimethylbenzene	27			21.5	F3	ug/L				24	20
1,3-Dichlorobenzene	ND			ND		ug/L				NC	20
1,3-Dichloropropane	ND			ND		ug/L				NC	20
1,4-Dichlorobenzene	ND			ND		ug/L				NC	20
1-Methylnaphthalene	ND			ND		ug/L				NC	20
2,2-Dichloropropane	ND			ND		ug/L				NC	20
2-Butanone	ND			ND		ug/L				NC	20
2-Chlorotoluene	ND			ND		ug/L				NC	20
2-Hexanone	ND			ND		ug/L				NC	20
2-Methylnaphthalene	ND			ND		ug/L				NC	20
4-Chlorotoluene	ND			ND		ug/L				NC	20
4-Isopropyltoluene	ND			ND		ug/L				NC	20
4-Methyl-2-pentanone	ND			ND		ug/L				NC	20
Acetone	ND			ND		ug/L				NC	20
Benzene	20			19.9		ug/L				3	20
Bromobenzene	ND			ND		ug/L				NC	20
Bromodichloromethane	ND			ND		ug/L				NC	20
Dibromochloromethane	ND			ND		ug/L				NC	20
Bromoform	ND			ND		ug/L				NC	20
Bromomethane	ND			ND		ug/L				NC	20
Carbon disulfide	ND			ND		ug/L				NC	20
Carbon tetrachloride	ND			ND		ug/L				NC	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 885-10812-1 DU
Matrix: Air
Analysis Batch: 11742

Client Sample ID: Influent 08282024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chlorobenzene	ND			ND		ug/L				NC	20
Chloroethane	ND			ND		ug/L				NC	20
Chloroform	ND			ND		ug/L				NC	20
Chloromethane	ND			ND		ug/L				NC	20
cis-1,2-Dichloroethene	ND			ND		ug/L				NC	20
cis-1,3-Dichloropropene	ND			ND		ug/L				NC	20
Dibromomethane	ND			ND		ug/L				NC	20
Dichlorodifluoromethane	ND			ND		ug/L				NC	20
Ethylbenzene	28			24.6		ug/L				12	20
Hexachlorobutadiene	ND			ND		ug/L				NC	20
Isopropylbenzene	5.1			ND		ug/L				NC	20
Methyl-tert-butyl Ether (MTBE)	ND			ND		ug/L				NC	20
Methylene Chloride	ND			ND		ug/L				NC	20
n-Butylbenzene	ND			ND		ug/L				NC	20
N-Propylbenzene	5.0			ND		ug/L				NC	20
Naphthalene	ND			ND		ug/L				NC	20
sec-Butylbenzene	ND			ND		ug/L				NC	20
Styrene	ND			ND		ug/L				NC	20
tert-Butylbenzene	ND			ND		ug/L				NC	20
Tetrachloroethene (PCE)	ND			ND		ug/L				NC	20
Toluene	160			152		ug/L				6	20
trans-1,2-Dichloroethene	ND			ND		ug/L				NC	20
trans-1,3-Dichloropropene	ND			ND		ug/L				NC	20
Trichloroethene (TCE)	ND			ND		ug/L				NC	20
Trichlorofluoromethane	ND			ND		ug/L				NC	20
Vinyl chloride	ND			ND		ug/L				NC	20
Xylenes, Total	380			339		ug/L				12	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*70 - 130*
Toluene-d8 (Surr)	*121*		*70 - 130*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

GC/MS VOA

Analysis Batch: 11742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-10812-1	Influent 08282024	Total/NA	Air	8260B	
MB 885-11742/1004	Method Blank	Total/NA	Air	8260B	
MB 885-11742/4	Method Blank	Total/NA	Air	8260B	
LCS 885-11742/3	Lab Control Sample	Total/NA	Air	8260B	
885-10812-1 DU	Influent 08282024	Total/NA	Air	8260B	

Analysis Batch: 11861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-10812-1	Influent 08282024	Total/NA	Air	8015M/D	
MB 885-11861/3	Method Blank	Total/NA	Air	8015M/D	
LCS 885-11861/1	Lab Control Sample	Total/NA	Air	8015M/D	
885-10812-1 DU	Influent 08282024	Total/NA	Air	8015M/D	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Client Sample ID: Influent 08282024

Lab Sample ID: 885-10812-1

Date Collected: 08/28/24 14:05

Matrix: Air

Date Received: 08/29/24 06:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		50	11861	CM	EET ALB	09/06/24 15:16
Total/NA	Analysis	8260B		50	11742	CM	EET ALB	09/06/24 15:16

Laboratory References:

= , 1120 South 27th Street, Billings, MT 59101, TEL (406)252-6325

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

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 in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015M/D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015M/D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-10812-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

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ANALYTICAL SUMMARY REPORT

September 18, 2024

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: B24090072 Quote ID: B15626
Project Name: Hare 15, 88501698

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 9/3/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24090072-001	Influent 08282024 (885-10812-1)	08/28/24 14:05	09/03/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond,/1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 So. 27th Street, Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Hare 15, 88501698
Lab ID: B24090072-001
Client Sample ID: Influent 08282024 (885-10812-1)

Report Date: 09/18/24
Collection Date: 08/28/24 14:05
DateReceived: 09/03/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.20	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
Nitrogen	77.97	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
Carbon Dioxide	0.64	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
Hexanes plus	0.19	Mol %		0.01		GPA 2261-95	09/09/24 10:22 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	09/09/24 10:22 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	09/09/24 10:22 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	09/09/24 10:22 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	09/09/24 10:22 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	09/09/24 10:22 / jrj
Hexanes plus	0.080	gpm		0.001		GPA 2261-95	09/09/24 10:22 / jrj
GPM Total	0.080	gpm		0.001		GPA 2261-95	09/09/24 10:22 / jrj
GPM Pentanes plus	0.080	gpm		0.001		GPA 2261-95	09/09/24 10:22 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	9			1		GPA 2261-95	09/09/24 10:22 / jrj
Net BTU per cu ft @ std cond. (LHV)	8			1		GPA 2261-95	09/09/24 10:22 / jrj
Pseudo-critical Pressure, psia	547			1		GPA 2261-95	09/09/24 10:22 / jrj
Pseudo-critical Temperature, deg R	242			1		GPA 2261-95	09/09/24 10:22 / jrj
Specific Gravity @ 60/60F	1.00			0.001		D3588-81	09/09/24 10:22 / jrj
Air, %	96.88			0.01		GPA 2261-95	09/09/24 10:22 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	09/09/24 10:22 / jrj

- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior.
- GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions.
- To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825.
- Standard conditions: 60 F & 14.73 psi on a dry basis

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental **Work Order:** B24090072 **Report Date:** 09/18/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-95**										Batch: R428457
Lab ID: **B24090533-001ADUP**	12	Sample Duplicate				Run: GCNGA-B_240909A				09/09/24 12:06
Oxygen		21.7	Mol %	0.01				0.6	20	
Nitrogen		77.9	Mol %	0.01				0.2	20	
Carbon Dioxide		0.34	Mol %	0.01				3.0	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		<0.01	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		0.11	Mol %	0.01				9.5	20	
Lab ID: **LCS090924**	11	Laboratory Control Sample				Run: GCNGA-B_240909A				09/09/24 02:41
Oxygen		0.65	Mol %	0.01	130	70	130			
Nitrogen		6.35	Mol %	0.01	106	70	130			
Carbon Dioxide		1.03	Mol %	0.01	104	70	130			
Methane		74.7	Mol %	0.01	100	70	130			
Ethane		6.03	Mol %	0.01	100	70	130			
Propane		5.01	Mol %	0.01	101	70	130			
Isobutane		1.41	Mol %	0.01	70	70	130			
n-Butane		2.00	Mol %	0.01	100	70	130			
Isopentane		1.02	Mol %	0.01	102	70	130			
n-Pentane		1.01	Mol %	0.01	101	70	130			
Hexanes plus		0.80	Mol %	0.01	100	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B24090072

Login completed by: Danielle N. Harris
Date Received: 9/3/2024

Reviewed by: rshular
Received by: DNH

Reviewed Date: 9/9/2024
Carrier name: FedEx NDA

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	24.2°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

None

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Garcia, Michelle	Carrier Tracking No(s):	COC No: 885-1803.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-10812-1
Address: 1120 South 27th Street, ,	Due Date Requested: 9/6/2024			Preservation Codes: -
City: Billings	TAT Requested (days):			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #:			Other:
Email:	WO #:			
Project Name: Hare 15	Project #: 88501698			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Influent 08282024 (885-10812-1)	8/28/24	14:05 Mountain	G	Air			X	1	See Attached Instructions
									B240900772

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 8/29/24 1800	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Danielle Hayes	Date/Time: 9/3/24 0915	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

Chain-of-Custody Record

Client: Hilcorp

Attn: Mitch Killough

Mailing Address:

Phone #:

email or Fax#: mkillough@hilcorp.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
10-Day TAT
☒ Standard ☐ Rush

Project Name: Hare 15

Project #:

Project Manager: Stuart Hyde

Sampler: AL

On Ice: ☐ Yes ☒ No chucky

# of Coolers: 1

Cooler Temp(including CF): 22.4 ± 0 = 22.4 (°C)

HALL ENVIRONM
ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 871
Tel. 505-345-3975 Fax 505-345-4107

885-10812 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) Full List	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed Gas CO_2+O_2
8/28/24	1405	Air	Influent 08282024	2-Teller	—			X						X			X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
8/28/24	1519				8/28/24	1515
8/28/24	1715	Christen Wade		Courier	8/29/24	10:25

Remarks:
CC: shycle dburns rhanson erarroll @ensolum.com

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.

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-10812-1

Login Number: 10812 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	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.	False	Thermal preservation not required.
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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ANALYTICAL REPORT

PREPARED FOR

Attn: Mitch Killough
Hilcorp Energy
PO BOX 4700
Farmington, New Mexico 87499
Generated 9/20/2024 10:54:02 AM

JOB DESCRIPTION

Hare 15

JOB NUMBER

885-11192-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

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

Generated
9/20/2024 10:54:02 AM

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

Client: Hilcorp Energy
Project/Site: Hare 15

Laboratory Job ID: 885-11192-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

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
%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)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
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
Project: Hare 15

Job ID: 885-11192-1

Job ID: 885-11192-1 Eurofins Albuquerque

Job Narrative
885-11192-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 method.
- 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 sample was received on 9/5/2024 7:35 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 18.7°C.

Subcontract Work
Method Fixed Gases: This method was subcontracted to Energy Laboratories, Inc. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

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

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Client Sample ID: Infuent 09042024

Lab Sample ID: 885-11192-1

Date Collected: 09/04/24 15:10
Matrix: Air
Date Received: 09/05/24 07:35
Sample Container: Tedlar Bag 1L

Method: SW846 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	6600		250		ug/L			09/06/24 16:05	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*52 - 172*		*09/06/24 16:05*	*50*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			09/06/24 16:05	50
1,1,1-Trichloroethane	ND		5.0		ug/L			09/06/24 16:05	50
1,1,2,2-Tetrachloroethane	ND		10		ug/L			09/06/24 16:05	50
1,1,2-Trichloroethane	ND		5.0		ug/L			09/06/24 16:05	50
1,1-Dichloroethane	ND		5.0		ug/L			09/06/24 16:05	50
1,1-Dichloroethene	ND		5.0		ug/L			09/06/24 16:05	50
1,1-Dichloropropene	ND		5.0		ug/L			09/06/24 16:05	50
1,2,3-Trichlorobenzene	ND		5.0		ug/L			09/06/24 16:05	50
1,2,3-Trichloropropane	ND		10		ug/L			09/06/24 16:05	50
1,2,4-Trichlorobenzene	ND		5.0		ug/L			09/06/24 16:05	50
1,2,4-Trimethylbenzene	7.8		5.0		ug/L			09/06/24 16:05	50
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			09/06/24 16:05	50
1,2-Dibromoethane (EDB)	ND		5.0		ug/L			09/06/24 16:05	50
1,2-Dichlorobenzene	ND		5.0		ug/L			09/06/24 16:05	50
1,2-Dichloroethane (EDC)	ND		5.0		ug/L			09/06/24 16:05	50
1,2-Dichloropropane	ND		5.0		ug/L			09/06/24 16:05	50
1,3,5-Trimethylbenzene	9.4		5.0		ug/L			09/06/24 16:05	50
1,3-Dichlorobenzene	ND		5.0		ug/L			09/06/24 16:05	50
1,3-Dichloropropane	ND		5.0		ug/L			09/06/24 16:05	50
1,4-Dichlorobenzene	ND		5.0		ug/L			09/06/24 16:05	50
1-Methylnaphthalene	ND		20		ug/L			09/06/24 16:05	50
2,2-Dichloropropane	ND		10		ug/L			09/06/24 16:05	50
2-Butanone	ND		50		ug/L			09/06/24 16:05	50
2-Chlorotoluene	ND		5.0		ug/L			09/06/24 16:05	50
2-Hexanone	ND		50		ug/L			09/06/24 16:05	50
2-Methylnaphthalene	ND		20		ug/L			09/06/24 16:05	50
4-Chlorotoluene	ND		5.0		ug/L			09/06/24 16:05	50
4-Isopropyltoluene	ND		5.0		ug/L			09/06/24 16:05	50
4-Methyl-2-pentanone	ND		50		ug/L			09/06/24 16:05	50
Acetone	ND		50		ug/L			09/06/24 16:05	50
Benzene	14		5.0		ug/L			09/06/24 16:05	50
Bromobenzene	ND		5.0		ug/L			09/06/24 16:05	50
Bromodichloromethane	ND		5.0		ug/L			09/06/24 16:05	50
Dibromochloromethane	ND		5.0		ug/L			09/06/24 16:05	50
Bromoform	ND		5.0		ug/L			09/06/24 16:05	50
Bromomethane	ND		15		ug/L			09/06/24 16:05	50
Carbon disulfide	ND		50		ug/L			09/06/24 16:05	50
Carbon tetrachloride	ND		5.0		ug/L			09/06/24 16:05	50
Chlorobenzene	ND		5.0		ug/L			09/06/24 16:05	50
Chloroethane	ND		10		ug/L			09/06/24 16:05	50
Chloroform	ND		5.0		ug/L			09/06/24 16:05	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Client Sample ID: Infuent 09042024
Date Collected: 09/04/24 15:10
Date Received: 09/05/24 07:35
Sample Container: Tedlar Bag 1L

Lab Sample ID: 885-11192-1
Matrix: Air

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		15		ug/L			09/06/24 16:05	50
cis-1,2-Dichloroethene	ND		5.0		ug/L			09/06/24 16:05	50
cis-1,3-Dichloropropene	ND		5.0		ug/L			09/06/24 16:05	50
Dibromomethane	ND		5.0		ug/L			09/06/24 16:05	50
Dichlorodifluoromethane	ND		5.0		ug/L			09/06/24 16:05	50
Ethylbenzene	**14**		5.0		ug/L			09/06/24 16:05	50
Hexachlorobutadiene	ND		5.0		ug/L			09/06/24 16:05	50
Isopropylbenzene	ND		5.0		ug/L			09/06/24 16:05	50
Methyl-tert-butyl Ether (MTBE)	ND		5.0		ug/L			09/06/24 16:05	50
Methylene Chloride	ND		15		ug/L			09/06/24 16:05	50
n-Butylbenzene	ND		15		ug/L			09/06/24 16:05	50
N-Propylbenzene	ND		5.0		ug/L			09/06/24 16:05	50
Naphthalene	ND		10		ug/L			09/06/24 16:05	50
sec-Butylbenzene	ND		5.0		ug/L			09/06/24 16:05	50
Styrene	ND		5.0		ug/L			09/06/24 16:05	50
tert-Butylbenzene	ND		5.0		ug/L			09/06/24 16:05	50
Tetrachloroethene (PCE)	ND		5.0		ug/L			09/06/24 16:05	50
Toluene	**100**		5.0		ug/L			09/06/24 16:05	50
trans-1,2-Dichloroethene	ND		5.0		ug/L			09/06/24 16:05	50
trans-1,3-Dichloropropene	ND		5.0		ug/L			09/06/24 16:05	50
Trichloroethene (TCE)	ND		5.0		ug/L			09/06/24 16:05	50
Trichlorofluoromethane	ND		5.0		ug/L			09/06/24 16:05	50
Vinyl chloride	ND		5.0		ug/L			09/06/24 16:05	50
Xylenes, Total	**190**		7.5		ug/L			09/06/24 16:05	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*79*		*70 - 130*		*09/06/24 16:05*	*50*
Toluene-d8 (Surr)	*130*		*70 - 130*		*09/06/24 16:05*	*50*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*09/06/24 16:05*	*50*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*09/06/24 16:05*	*50*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Method: 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Lab Sample ID: MB 885-11861/3
Matrix: Air
Analysis Batch: 11861

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		ug/L			09/06/24 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*52 - 172*		*09/06/24 12:50*	*1*

Lab Sample ID: LCS 885-11861/1
Matrix: Air
Analysis Batch: 11861

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			500	535		ug/L		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*52 - 172*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-11742/1004
Matrix: Air
Analysis Batch: 11742

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10		ug/L			09/06/24 12:50	1
1,1,1-Trichloroethane	ND		0.10		ug/L			09/06/24 12:50	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			09/06/24 12:50	1
1,1,2-Trichloroethane	ND		0.10		ug/L			09/06/24 12:50	1
1,1-Dichloroethane	ND		0.10		ug/L			09/06/24 12:50	1
1,1-Dichloroethene	ND		0.10		ug/L			09/06/24 12:50	1
1,1-Dichloropropene	ND		0.10		ug/L			09/06/24 12:50	1
1,2,3-Trichlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,2,3-Trichloropropane	ND		0.20		ug/L			09/06/24 12:50	1
1,2,4-Trichlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,2,4-Trimethylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,2-Dibromo-3-Chloropropane	ND		0.20		ug/L			09/06/24 12:50	1
1,2-Dibromoethane (EDB)	ND		0.10		ug/L			09/06/24 12:50	1
1,2-Dichlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,2-Dichloroethane (EDC)	ND		0.10		ug/L			09/06/24 12:50	1
1,2-Dichloropropane	ND		0.10		ug/L			09/06/24 12:50	1
1,3,5-Trimethylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,3-Dichlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
1,3-Dichloropropane	ND		0.10		ug/L			09/06/24 12:50	1
1,4-Dichlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
1-Methylnaphthalene	ND		0.40		ug/L			09/06/24 12:50	1
2,2-Dichloropropane	ND		0.20		ug/L			09/06/24 12:50	1
2-Butanone	ND		1.0		ug/L			09/06/24 12:50	1
2-Chlorotoluene	ND		0.10		ug/L			09/06/24 12:50	1
2-Hexanone	ND		1.0		ug/L			09/06/24 12:50	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-11742/1004
Matrix: Air
Analysis Batch: 11742

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.40		ug/L			09/06/24 12:50	1
4-Chlorotoluene	ND		0.10		ug/L			09/06/24 12:50	1
4-Isopropyltoluene	ND		0.10		ug/L			09/06/24 12:50	1
4-Methyl-2-pentanone	ND		1.0		ug/L			09/06/24 12:50	1
Acetone	ND		1.0		ug/L			09/06/24 12:50	1
Benzene	ND		0.10		ug/L			09/06/24 12:50	1
Bromobenzene	ND		0.10		ug/L			09/06/24 12:50	1
Bromodichloromethane	ND		0.10		ug/L			09/06/24 12:50	1
Dibromochloromethane	ND		0.10		ug/L			09/06/24 12:50	1
Bromoform	ND		0.10		ug/L			09/06/24 12:50	1
Bromomethane	ND		0.30		ug/L			09/06/24 12:50	1
Carbon disulfide	ND		1.0		ug/L			09/06/24 12:50	1
Carbon tetrachloride	ND		0.10		ug/L			09/06/24 12:50	1
Chlorobenzene	ND		0.10		ug/L			09/06/24 12:50	1
Chloroethane	ND		0.20		ug/L			09/06/24 12:50	1
Chloroform	ND		0.10		ug/L			09/06/24 12:50	1
Chloromethane	ND		0.30		ug/L			09/06/24 12:50	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			09/06/24 12:50	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			09/06/24 12:50	1
Dibromomethane	ND		0.10		ug/L			09/06/24 12:50	1
Dichlorodifluoromethane	ND		0.10		ug/L			09/06/24 12:50	1
Ethylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
Hexachlorobutadiene	ND		0.10		ug/L			09/06/24 12:50	1
Isopropylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10		ug/L			09/06/24 12:50	1
Methylene Chloride	ND		0.30		ug/L			09/06/24 12:50	1
n-Butylbenzene	ND		0.30		ug/L			09/06/24 12:50	1
N-Propylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
Naphthalene	ND		0.20		ug/L			09/06/24 12:50	1
sec-Butylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
Styrene	ND		0.10		ug/L			09/06/24 12:50	1
tert-Butylbenzene	ND		0.10		ug/L			09/06/24 12:50	1
Tetrachloroethene (PCE)	ND		0.10		ug/L			09/06/24 12:50	1
Toluene	ND		0.10		ug/L			09/06/24 12:50	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			09/06/24 12:50	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			09/06/24 12:50	1
Trichloroethene (TCE)	ND		0.10		ug/L			09/06/24 12:50	1
Trichlorofluoromethane	ND		0.10		ug/L			09/06/24 12:50	1
Vinyl chloride	ND		0.10		ug/L			09/06/24 12:50	1
Xylenes, Total	ND		0.15		ug/L			09/06/24 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*		*09/06/24 12:50*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*09/06/24 12:50*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*09/06/24 12:50*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*09/06/24 12:50*	*1*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-11742/4
Matrix: Air
Analysis Batch: 11742

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/06/24 12:50	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/06/24 12:50	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			09/06/24 12:50	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/06/24 12:50	1
1,1-Dichloroethane	ND		1.0		ug/L			09/06/24 12:50	1
1,1-Dichloroethene	ND		1.0		ug/L			09/06/24 12:50	1
1,1-Dichloropropene	ND		1.0		ug/L			09/06/24 12:50	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/06/24 12:50	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/06/24 12:50	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			09/06/24 12:50	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			09/06/24 12:50	1
1,2-Dichloropropane	ND		1.0		ug/L			09/06/24 12:50	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
1,3-Dichloropropane	ND		1.0		ug/L			09/06/24 12:50	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
1-Methylnaphthalene	ND		4.0		ug/L			09/06/24 12:50	1
2,2-Dichloropropane	ND		2.0		ug/L			09/06/24 12:50	1
2-Butanone	ND		10		ug/L			09/06/24 12:50	1
2-Chlorotoluene	ND		1.0		ug/L			09/06/24 12:50	1
2-Hexanone	ND		10		ug/L			09/06/24 12:50	1
2-Methylnaphthalene	ND		4.0		ug/L			09/06/24 12:50	1
4-Chlorotoluene	ND		1.0		ug/L			09/06/24 12:50	1
4-Isopropyltoluene	ND		1.0		ug/L			09/06/24 12:50	1
4-Methyl-2-pentanone	ND		10		ug/L			09/06/24 12:50	1
Acetone	ND		10		ug/L			09/06/24 12:50	1
Benzene	ND		1.0		ug/L			09/06/24 12:50	1
Bromobenzene	ND		1.0		ug/L			09/06/24 12:50	1
Bromodichloromethane	ND		1.0		ug/L			09/06/24 12:50	1
Dibromochloromethane	ND		1.0		ug/L			09/06/24 12:50	1
Bromoform	ND		1.0		ug/L			09/06/24 12:50	1
Bromomethane	ND		3.0		ug/L			09/06/24 12:50	1
Carbon disulfide	ND		10		ug/L			09/06/24 12:50	1
Carbon tetrachloride	ND		1.0		ug/L			09/06/24 12:50	1
Chlorobenzene	ND		1.0		ug/L			09/06/24 12:50	1
Chloroethane	ND		2.0		ug/L			09/06/24 12:50	1
Chloroform	ND		1.0		ug/L			09/06/24 12:50	1
Chloromethane	ND		3.0		ug/L			09/06/24 12:50	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/06/24 12:50	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/06/24 12:50	1
Dibromomethane	ND		1.0		ug/L			09/06/24 12:50	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/06/24 12:50	1
Ethylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
Hexachlorobutadiene	ND		1.0		ug/L			09/06/24 12:50	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-11742/4
Matrix: Air
Analysis Batch: 11742

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			09/06/24 12:50	1
Methylene Chloride	ND		3.0		ug/L			09/06/24 12:50	1
n-Butylbenzene	ND		3.0		ug/L			09/06/24 12:50	1
N-Propylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
Naphthalene	ND		2.0		ug/L			09/06/24 12:50	1
sec-Butylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
Styrene	ND		1.0		ug/L			09/06/24 12:50	1
tert-Butylbenzene	ND		1.0		ug/L			09/06/24 12:50	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			09/06/24 12:50	1
Toluene	ND		1.0		ug/L			09/06/24 12:50	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/06/24 12:50	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/06/24 12:50	1
Trichloroethene (TCE)	ND		1.0		ug/L			09/06/24 12:50	1
Trichlorofluoromethane	ND		1.0		ug/L			09/06/24 12:50	1
Vinyl chloride	ND		1.0		ug/L			09/06/24 12:50	1
Xylenes, Total	ND		1.5		ug/L			09/06/24 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*		*09/06/24 12:50*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*09/06/24 12:50*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*09/06/24 12:50*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*09/06/24 12:50*	*1*

Lab Sample ID: STOBLK 885-11742/24
Matrix: Air
Analysis Batch: 11742

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

Analyte	STOBLK Result	STOBLK Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/06/24 20:57	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/06/24 20:57	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			09/06/24 20:57	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/06/24 20:57	1
1,1-Dichloroethane	ND		1.0		ug/L			09/06/24 20:57	1
1,1-Dichloroethene	ND		1.0		ug/L			09/06/24 20:57	1
1,1-Dichloropropene	ND		1.0		ug/L			09/06/24 20:57	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/06/24 20:57	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/06/24 20:57	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/06/24 20:57	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/06/24 20:57	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/06/24 20:57	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			09/06/24 20:57	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/06/24 20:57	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			09/06/24 20:57	1
1,2-Dichloropropane	ND		1.0		ug/L			09/06/24 20:57	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/06/24 20:57	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/06/24 20:57	1
1,3-Dichloropropane	ND		1.0		ug/L			09/06/24 20:57	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: STOBLK 885-11742/24
Matrix: Air
Analysis Batch: 11742

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

Analyte	STOBLK Result	STOBLK Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.0		ug/L			09/06/24 20:57	1
1-Methylnaphthalene	ND		4.0		ug/L			09/06/24 20:57	1
2,2-Dichloropropane	ND		2.0		ug/L			09/06/24 20:57	1
2-Butanone	ND		10		ug/L			09/06/24 20:57	1
2-Chlorotoluene	ND		1.0		ug/L			09/06/24 20:57	1
2-Hexanone	ND		10		ug/L			09/06/24 20:57	1
2-Methylnaphthalene	ND		4.0		ug/L			09/06/24 20:57	1
4-Chlorotoluene	ND		1.0		ug/L			09/06/24 20:57	1
4-Isopropyltoluene	ND		1.0		ug/L			09/06/24 20:57	1
4-Methyl-2-pentanone	ND		10		ug/L			09/06/24 20:57	1
Acetone	ND		10		ug/L			09/06/24 20:57	1
Benzene	ND		1.0		ug/L			09/06/24 20:57	1
Bromobenzene	ND		1.0		ug/L			09/06/24 20:57	1
Bromodichloromethane	ND		1.0		ug/L			09/06/24 20:57	1
Dibromochloromethane	ND		1.0		ug/L			09/06/24 20:57	1
Bromoform	ND		1.0		ug/L			09/06/24 20:57	1
Bromomethane	ND		3.0		ug/L			09/06/24 20:57	1
Carbon disulfide	ND		10		ug/L			09/06/24 20:57	1
Carbon tetrachloride	ND		1.0		ug/L			09/06/24 20:57	1
Chlorobenzene	ND		1.0		ug/L			09/06/24 20:57	1
Chloroethane	ND		2.0		ug/L			09/06/24 20:57	1
Chloroform	ND		1.0		ug/L			09/06/24 20:57	1
Chloromethane	ND		3.0		ug/L			09/06/24 20:57	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/06/24 20:57	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/06/24 20:57	1
Dibromomethane	ND		1.0		ug/L			09/06/24 20:57	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/06/24 20:57	1
Ethylbenzene	ND		1.0		ug/L			09/06/24 20:57	1
Hexachlorobutadiene	ND		1.0		ug/L			09/06/24 20:57	1
Isopropylbenzene	ND		1.0		ug/L			09/06/24 20:57	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			09/06/24 20:57	1
Methylene Chloride	ND		3.0		ug/L			09/06/24 20:57	1
n-Butylbenzene	ND		3.0		ug/L			09/06/24 20:57	1
N-Propylbenzene	ND		1.0		ug/L			09/06/24 20:57	1
Naphthalene	ND		2.0		ug/L			09/06/24 20:57	1
sec-Butylbenzene	ND		1.0		ug/L			09/06/24 20:57	1
Styrene	ND		1.0		ug/L			09/06/24 20:57	1
tert-Butylbenzene	ND		1.0		ug/L			09/06/24 20:57	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			09/06/24 20:57	1
Toluene	ND		1.0		ug/L			09/06/24 20:57	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/06/24 20:57	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/06/24 20:57	1
Trichloroethene (TCE)	ND		1.0		ug/L			09/06/24 20:57	1
Trichlorofluoromethane	ND		1.0		ug/L			09/06/24 20:57	1
Vinyl chloride	ND		1.0		ug/L			09/06/24 20:57	1
Xylenes, Total	ND		1.5		ug/L			09/06/24 20:57	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: STOBLK 885-11742/24
Matrix: Air
Analysis Batch: 11742

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

Surrogate	STOBLK %Recovery	STOBLK Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*		*09/06/24 20:57*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*09/06/24 20:57*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*09/06/24 20:57*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*09/06/24 20:57*	*1*

Lab Sample ID: LCS 885-11742/3
Matrix: Air
Analysis Batch: 11742

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.1	17.5		ug/L		87	70 - 130
Benzene	20.1	19.8		ug/L		99	70 - 130
Chlorobenzene	20.1	20.7		ug/L		103	70 - 130
Toluene	20.2	20.3		ug/L		101	70 - 130
Trichloroethene (TCE)	20.2	19.2		ug/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

GC/MS VOA

Analysis Batch: 11742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11192-1	Infuent 09042024	Total/NA	Air	8260B	
MB 885-11742/1004	Method Blank	Total/NA	Air	8260B	
MB 885-11742/4	Method Blank	Total/NA	Air	8260B	
STOBLK 885-11742/24	Method Blank	Total/NA	Air	8260B	
LCS 885-11742/3	Lab Control Sample	Total/NA	Air	8260B	

Analysis Batch: 11861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11192-1	Infuent 09042024	Total/NA	Air	8015M/D	
MB 885-11861/3	Method Blank	Total/NA	Air	8015M/D	
LCS 885-11861/1	Lab Control Sample	Total/NA	Air	8015M/D	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Client Sample ID: Infuent 09042024
Date Collected: 09/04/24 15:10
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11192-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		50	11861	CM	EET ALB	09/06/24 16:05
Total/NA	Analysis	8260B		50	11742	CM	EET ALB	09/06/24 16:05

Laboratory References:

= , 1120 South 27th Street, Billings, MT 59101, TEL (406)252-6325

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

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 in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015M/D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015M/D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-11192-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

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ANALYTICAL SUMMARY REPORT

September 19, 2024

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: B24090533 Quote ID: B15626
Project Name: 88501698

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 9/6/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24090533-001	Influent 09042024 (885-11192-1)	09/04/24 15:10	09/06/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond,/1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 So. 27th Street, Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: 88501698
Lab ID: B24090533-001
Client Sample ID: Influent 09042024 (885-11192-1)

Report Date: 09/19/24
Collection Date: 09/04/24 15:10
DateReceived: 09/06/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.57	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
Nitrogen	78.00	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
Carbon Dioxide	0.33	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
Hexanes plus	0.10	Mol %		0.01		GPA 2261-95	09/09/24 11:10 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	09/09/24 11:10 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	09/09/24 11:10 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	09/09/24 11:10 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	09/09/24 11:10 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	09/09/24 11:10 / jrj
Hexanes plus	0.042	gpm		0.001		GPA 2261-95	09/09/24 11:10 / jrj
GPM Total	0.042	gpm		0.001		GPA 2261-95	09/09/24 11:10 / jrj
GPM Pentanes plus	0.042	gpm		0.001		GPA 2261-95	09/09/24 11:10 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	5			1		GPA 2261-95	09/09/24 11:10 / jrj
Net BTU per cu ft @ std cond. (LHV)	4			1		GPA 2261-95	09/09/24 11:10 / jrj
Pseudo-critical Pressure, psia	546			1		GPA 2261-95	09/09/24 11:10 / jrj
Pseudo-critical Temperature, deg R	240			1		GPA 2261-95	09/09/24 11:10 / jrj
Specific Gravity @ 60/60F	1.00			0.001		D3588-81	09/09/24 11:10 / jrj
Air, %	98.57			0.01		GPA 2261-95	09/09/24 11:10 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	09/09/24 11:10 / jrj

- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior.
- GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions.
- To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825.
- Standard conditions: 60 F & 14.73 psi on a dry basis

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental **Work Order:** B24090533 **Report Date:** 09/19/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-95**										Batch: R428457
Lab ID: **B24090533-001ADUP**	12	Sample Duplicate				Run: GCNGA-B_240909A				09/09/24 12:06
Oxygen		21.7	Mol %	0.01				0.6	20	
Nitrogen		77.9	Mol %	0.01				0.2	20	
Carbon Dioxide		0.34	Mol %	0.01				3.0	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		<0.01	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		0.11	Mol %	0.01				9.5	20	
Lab ID: **LCS090924**	11	Laboratory Control Sample				Run: GCNGA-B_240909A				09/09/24 02:41
Oxygen		0.65	Mol %	0.01	130	70	130			
Nitrogen		6.35	Mol %	0.01	106	70	130			
Carbon Dioxide		1.03	Mol %	0.01	104	70	130			
Methane		74.7	Mol %	0.01	100	70	130			
Ethane		6.03	Mol %	0.01	100	70	130			
Propane		5.01	Mol %	0.01	101	70	130			
Isobutane		1.41	Mol %	0.01	70	70	130			
n-Butane		2.00	Mol %	0.01	100	70	130			
Isopentane		1.02	Mol %	0.01	102	70	130			
n-Pentane		1.01	Mol %	0.01	101	70	130			
Hexanes plus		0.80	Mol %	0.01	100	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B24090533

Login completed by: Crystal M. Jones
Date Received: 9/6/2024
Reviewed by: jmiller
Received by: KLP
Reviewed Date: 9/12/2024
Carrier name: FedEx NDA

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	20.1°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The collection time indicated on the container is 14:30 and on the chain of custody it is 15:10. Proceeded with the collection time as indicated on the chain of custody. CJ 9/12/24

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Garcia, Michelle	Carrier Tracking No(s):	COC No: 885-1869.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-11192-1
Address: 1120 South 27th Street, ,	Due Date Requested: 9/11/2024	Analysis Requested		Preservation Codes: -
City: Billings	TAT Requested (days):			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #:			
Email:	WO #:			
Project Name: Hare 15	Project #: 88501698			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Infuent 09042024 (885-11192-1)	9/4/24	15:10 Mountain	G	Air			X	1	See Attached Instructions
									B24090533

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	9/5/24 @ 1450				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9-6-24 0915	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

ICOC No:
885-1869

Containers

Count	Container Type	Preservative
1	Tedlar Bag 1L	None

Subcontract Method Instructions

Sample IDs	Method	Method Description	Method Comments
1	SUBCONTRACT	SUB (Fixed Gases)/ Fixed Gases	Fixed Gases

Chain-of-Custody Record

Client: Hilcorp

Attn: Mitch Killough

Mailing Address:

Phone #:

email or Fax#: mkillough@hilcorp.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
10-Day TAT
☑ Standard ☐ Rush

Project Name:
Hare 15

Project #:

Project Manager:
Stuart Hyde

Sampler: AL

On Ice: ☐ Yes ☑ No chucky

# of Coolers: 1

Cooler Temp(Including CF): 18.8-0.1=18.7 (°C)

HALL ENVIRONMI
ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

885-11192 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed Gas CO_2+O_2					
~~8/26/24~~																						
9/4/24	1510	Air	Influent 09042024	2-Tedlar	—	1		X						Full List			X						

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/4/24	1535	Aaron				
9/4/24	1800	Chad Walk		courier	9/5/24	7:35

Remarks:
CC: shyde @burns rhanson eraicroft @ ensolum.com

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.

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-11192-1

Login Number: 11192 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	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.	False	Thermal preservation not required.
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.	False	IDs on containers do not match the COC. Logged in per COC.
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	

ENSOLUM

APPENDIX E

Groundwater Laboratory Analytical Reports

eurofins | Environment Testing

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 02, 2024

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

RE: Hare 15 OrderNo.: 2402A15

Dear Mitch Killough:

Eurofins Environment Testing South Central, LLC received 22 sample(s) on 2/21/2024 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 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
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-1
Project: Hare 15
Collection Date: 2/15/2024 1:00:00 PM
Lab ID: 2402A15-001 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	2200	50		µg/L	50	2/27/2024 2:52:00 AM
Toluene	ND	50		µg/L	50	2/27/2024 2:52:00 AM
Ethylbenzene	330	50		µg/L	50	2/27/2024 2:52:00 AM
Xylenes, Total	3100	75		µg/L	50	2/27/2024 2:52:00 AM
Surr: 1,2-Dichloroethane-d4	99.6	70-130		%Rec	50	2/27/2024 2:52:00 AM
Surr: 4-Bromofluorobenzene	99.1	70-130		%Rec	50	2/27/2024 2:52:00 AM
Surr: Dibromofluoromethane	105	70-130		%Rec	50	2/27/2024 2:52:00 AM
Surr: Toluene-d8	97.0	70-130		%Rec	50	2/27/2024 2:52:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-6
Project: Hare 15
Collection Date: 2/16/2024 2:30:00 PM
Lab ID: 2402A15-002 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	6.5	5.0		µg/L	5	2/27/2024 4:30:00 AM
Toluene	ND	5.0		µg/L	5	2/27/2024 4:30:00 AM
Ethylbenzene	ND	5.0		µg/L	5	2/27/2024 4:30:00 AM
Xylenes, Total	ND	7.5		µg/L	5	2/27/2024 4:30:00 AM
Surr: 1,2-Dichloroethane-d4	99.3	70-130		%Rec	5	2/27/2024 4:30:00 AM
Surr: 4-Bromofluorobenzene	98.9	70-130		%Rec	5	2/27/2024 4:30:00 AM
Surr: Dibromofluoromethane	103	70-130		%Rec	5	2/27/2024 4:30:00 AM
Surr: Toluene-d8	91.7	70-130		%Rec	5	2/27/2024 4:30:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-7
Project: Hare 15
Collection Date: 2/15/2024 12:20:00 PM
Lab ID: 2402A15-003 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	4400	500		µg/L	500	2/27/2024 4:54:00 AM
Toluene	10000	500		µg/L	500	2/27/2024 4:54:00 AM
Ethylbenzene	1400	500		µg/L	500	2/27/2024 4:54:00 AM
Xylenes, Total	32000	750		µg/L	500	2/27/2024 4:54:00 AM
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	500	2/27/2024 4:54:00 AM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	500	2/27/2024 4:54:00 AM
Surr: Dibromofluoromethane	100	70-130		%Rec	500	2/27/2024 4:54:00 AM
Surr: Toluene-d8	97.1	70-130		%Rec	500	2/27/2024 4:54:00 AM

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
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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-8
Project: Hare 15 **Collection Date:** 2/15/2024 1:25:00 PM
Lab ID: 2402A15-004 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	20	5.0	D	µg/L	5	2/27/2024 5:19:00 AM
Toluene	ND	5.0	D	µg/L	5	2/27/2024 5:19:00 AM
Ethylbenzene	13	5.0	D	µg/L	5	2/27/2024 5:19:00 AM
Xylenes, Total	ND	7.5	D	µg/L	5	2/27/2024 5:19:00 AM
Surr: 1,2-Dichloroethane-d4	105	70-130	D	%Rec	5	2/27/2024 5:19:00 AM
Surr: 4-Bromofluorobenzene	100	70-130	D	%Rec	5	2/27/2024 5:19:00 AM
Surr: Dibromofluoromethane	104	70-130	D	%Rec	5	2/27/2024 5:19:00 AM
Surr: Toluene-d8	90.8	70-130	D	%Rec	5	2/27/2024 5:19:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-9
Project: Hare 15
Collection Date: 2/15/2024 11:45:00 AM
Lab ID: 2402A15-005 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	13	5.0	D	µg/L	5	2/27/2024 5:44:00 AM
Toluene	ND	5.0	D	µg/L	5	2/27/2024 5:44:00 AM
Ethylbenzene	68	5.0	D	µg/L	5	2/27/2024 5:44:00 AM
Xylenes, Total	90	7.5	D	µg/L	5	2/27/2024 5:44:00 AM
Surr: 1,2-Dichloroethane-d4	106	70-130	D	%Rec	5	2/27/2024 5:44:00 AM
Surr: 4-Bromofluorobenzene	97.4	70-130	D	%Rec	5	2/27/2024 5:44:00 AM
Surr: Dibromofluoromethane	105	70-130	D	%Rec	5	2/27/2024 5:44:00 AM
Surr: Toluene-d8	91.6	70-130	D	%Rec	5	2/27/2024 5:44:00 AM

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
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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-10
Project: Hare 15
Collection Date: 2/15/2024 2:10:00 PM
Lab ID: 2402A15-006 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	6900	500		µg/L	500	2/27/2024 5:01:00 PM
Toluene	15000	500		µg/L	500	2/27/2024 5:01:00 PM
Ethylbenzene	1500	500		µg/L	500	2/27/2024 5:01:00 PM
Xylenes, Total	28000	750		µg/L	500	2/27/2024 5:01:00 PM
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	500	2/27/2024 5:01:00 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	500	2/27/2024 5:01:00 PM
Surr: Dibromofluoromethane	97.8	70-130		%Rec	500	2/27/2024 5:01:00 PM
Surr: Toluene-d8	96.5	70-130		%Rec	500	2/27/2024 5:01:00 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-14
Project: Hare 15 **Collection Date:** 2/16/2024 2:15:00 PM
Lab ID: 2402A15-007 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	12	2.0	P	µg/L	2	2/27/2024 4:36:00 PM
Toluene	15	2.0	P	µg/L	2	2/27/2024 4:36:00 PM
Ethylbenzene	2.6	2.0	P	µg/L	2	2/27/2024 4:36:00 PM
Xylenes, Total	99	3.0	P	µg/L	2	2/27/2024 4:36:00 PM
Surr: 1,2-Dichloroethane-d4	97.3	70-130	P	%Rec	2	2/27/2024 4:36:00 PM
Surr: 4-Bromofluorobenzene	98.6	70-130	P	%Rec	2	2/27/2024 4:36:00 PM
Surr: Dibromofluoromethane	96.5	70-130	P	%Rec	2	2/27/2024 4:36:00 PM
Surr: Toluene-d8	93.2	70-130	P	%Rec	2	2/27/2024 4:36:00 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-15
Project: Hare 15
Collection Date: 2/16/2024 1:50:00 PM
Lab ID: 2402A15-008 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	1400	50		µg/L	50	2/27/2024 7:22:00 AM
Toluene	3800	50		µg/L	50	2/27/2024 7:22:00 AM
Ethylbenzene	580	50		µg/L	50	2/27/2024 7:22:00 AM
Xylenes, Total	22000	750		µg/L	500	2/27/2024 6:58:00 AM
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%Rec	50	2/27/2024 7:22:00 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	50	2/27/2024 7:22:00 AM
Surr: Dibromofluoromethane	98.2	70-130		%Rec	50	2/27/2024 7:22:00 AM
Surr: Toluene-d8	96.2	70-130		%Rec	50	2/27/2024 7:22:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-18
Project: Hare 15 **Collection Date:** 2/16/2024 2:50:00 PM
Lab ID: 2402A15-009 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	2.0		µg/L	2	2/27/2024 8:12:00 AM
Toluene	ND	2.0		µg/L	2	2/27/2024 8:12:00 AM
Ethylbenzene	ND	2.0		µg/L	2	2/27/2024 8:12:00 AM
Xylenes, Total	ND	3.0		µg/L	2	2/27/2024 8:12:00 AM
Surr: 1,2-Dichloroethane-d4	97.5	70-130		%Rec	2	2/27/2024 8:12:00 AM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	2	2/27/2024 8:12:00 AM
Surr: Dibromofluoromethane	98.8	70-130		%Rec	2	2/27/2024 8:12:00 AM
Surr: Toluene-d8	91.2	70-130		%Rec	2	2/27/2024 8:12:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-19
Project: Hare 15
Collection Date: 2/16/2024 1:30:00 PM
Lab ID: 2402A15-010 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	640	20		µg/L	20	2/27/2024 8:36:00 AM
Toluene	310	20		µg/L	20	2/27/2024 8:36:00 AM
Ethylbenzene	640	20		µg/L	20	2/27/2024 8:36:00 AM
Xylenes, Total	2300	30		µg/L	20	2/27/2024 8:36:00 AM
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%Rec	20	2/27/2024 8:36:00 AM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	20	2/27/2024 8:36:00 AM
Surr: Dibromofluoromethane	99.1	70-130		%Rec	20	2/27/2024 8:36:00 AM
Surr: Toluene-d8	94.6	70-130		%Rec	20	2/27/2024 8:36:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-20
Project: Hare 15
Collection Date: 2/15/2024 3:05:00 PM
Lab ID: 2402A15-011 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	12000	500		µg/L	500	2/27/2024 9:01:00 AM
Toluene	14000	500		µg/L	500	2/27/2024 9:01:00 AM
Ethylbenzene	1200	500		µg/L	500	2/27/2024 9:01:00 AM
Xylenes, Total	11000	750		µg/L	500	2/27/2024 9:01:00 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	500	2/27/2024 9:01:00 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	500	2/27/2024 9:01:00 AM
Surr: Dibromofluoromethane	98.7	70-130		%Rec	500	2/27/2024 9:01:00 AM
Surr: Toluene-d8	92.8	70-130		%Rec	500	2/27/2024 9:01:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-22
Project: Hare 15 **Collection Date:** 2/15/2024 3:25:00 PM
Lab ID: 2402A15-012 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	920	20		µg/L	20	2/27/2024 9:25:00 AM
Toluene	480	20		µg/L	20	2/27/2024 9:25:00 AM
Ethylbenzene	770	20		µg/L	20	2/27/2024 9:25:00 AM
Xylenes, Total	1200	30		µg/L	20	2/27/2024 9:25:00 AM
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	20	2/27/2024 9:25:00 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	20	2/27/2024 9:25:00 AM
Surr: Dibromofluoromethane	102	70-130		%Rec	20	2/27/2024 9:25:00 AM
Surr: Toluene-d8	92.5	70-130		%Rec	20	2/27/2024 9:25:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-23
Project: Hare 15 **Collection Date:** 2/16/2024 12:45:00 PM
Lab ID: 2402A15-013 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	2.0		µg/L	2	2/27/2024 10:15:00 AM
Toluene	ND	2.0		µg/L	2	2/27/2024 10:15:00 AM
Ethylbenzene	ND	2.0		µg/L	2	2/27/2024 10:15:00 AM
Xylenes, Total	ND	3.0		µg/L	2	2/27/2024 10:15:00 AM
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	2	2/27/2024 10:15:00 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	2	2/27/2024 10:15:00 AM
Surr: Dibromofluoromethane	104	70-130		%Rec	2	2/27/2024 10:15:00 AM
Surr: Toluene-d8	90.9	70-130		%Rec	2	2/27/2024 10:15:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-24
Project: Hare 15 **Collection Date:** 2/16/2024 1:05:00 PM
Lab ID: 2402A15-014 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	2.0	P	µg/L	2	2/27/2024 10:39:00 AM
Toluene	ND	2.0	P	µg/L	2	2/27/2024 10:39:00 AM
Ethylbenzene	ND	2.0	P	µg/L	2	2/27/2024 10:39:00 AM
Xylenes, Total	ND	3.0	P	µg/L	2	2/27/2024 10:39:00 AM
Surr: 1,2-Dichloroethane-d4	101	70-130	P	%Rec	2	2/27/2024 10:39:00 AM
Surr: 4-Bromofluorobenzene	99.4	70-130	P	%Rec	2	2/27/2024 10:39:00 AM
Surr: Dibromofluoromethane	103	70-130	P	%Rec	2	2/27/2024 10:39:00 AM
Surr: Toluene-d8	91.2	70-130	P	%Rec	2	2/27/2024 10:39:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-26
Project: Hare 15 **Collection Date:** 2/15/2024 4:20:00 PM
Lab ID: 2402A15-015 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	11000	500		µg/L	500	2/27/2024 11:04:00 AM
Toluene	26000	500		µg/L	500	2/27/2024 11:04:00 AM
Ethylbenzene	740	500		µg/L	500	2/27/2024 11:04:00 AM
Xylenes, Total	11000	750		µg/L	500	2/27/2024 11:04:00 AM
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	500	2/27/2024 11:04:00 AM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	500	2/27/2024 11:04:00 AM
Surr: Dibromofluoromethane	103	70-130		%Rec	500	2/27/2024 11:04:00 AM
Surr: Toluene-d8	91.9	70-130		%Rec	500	2/27/2024 11:04:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-29
Project: Hare 15
Collection Date: 2/15/2024 3:45:00 PM
Lab ID: 2402A15-016 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	2.0		µg/L	2	2/27/2024 11:29:00 AM
Toluene	ND	2.0		µg/L	2	2/27/2024 11:29:00 AM
Ethylbenzene	32	2.0		µg/L	2	2/27/2024 11:29:00 AM
Xylenes, Total	ND	3.0		µg/L	2	2/27/2024 11:29:00 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	2	2/27/2024 11:29:00 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	2	2/27/2024 11:29:00 AM
Surr: Dibromofluoromethane	101	70-130		%Rec	2	2/27/2024 11:29:00 AM
Surr: Toluene-d8	92.4	70-130		%Rec	2	2/27/2024 11:29:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-30
Project: Hare 15
Collection Date: 2/16/2024 11:50:00 AM
Lab ID: 2402A15-017
Matrix: AQUEOUS
Received Date: 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	50	25		µg/L	50	2/27/2024 11:54:00 AM
Toluene	ND	50		µg/L	50	2/27/2024 11:54:00 AM
Ethylbenzene	85	50		µg/L	50	2/27/2024 11:54:00 AM
Xylenes, Total	570	75		µg/L	50	2/27/2024 11:54:00 AM
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	50	2/27/2024 11:54:00 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	50	2/27/2024 11:54:00 AM
Surr: Dibromofluoromethane	101	70-130		%Rec	50	2/27/2024 11:54:00 AM
Surr: Toluene-d8	91.2	70-130		%Rec	50	2/27/2024 11:54:00 AM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-31
Project: Hare 15 **Collection Date:** 2/16/2024 12:20:00 PM
Lab ID: 2402A15-018 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	2.0		µg/L	2	2/27/2024 12:18:00 PM
Toluene	ND	2.0		µg/L	2	2/27/2024 12:18:00 PM
Ethylbenzene	ND	2.0		µg/L	2	2/27/2024 12:18:00 PM
Xylenes, Total	ND	3.0		µg/L	2	2/27/2024 12:18:00 PM
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	2	2/27/2024 12:18:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	2	2/27/2024 12:18:00 PM
Surr: Dibromofluoromethane	104	70-130		%Rec	2	2/27/2024 12:18:00 PM
Surr: Toluene-d8	90.3	70-130		%Rec	2	2/27/2024 12:18:00 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-33
Project: Hare 15 **Collection Date:** 2/16/2024 4:50:00 PM
Lab ID: 2402A15-019 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	2.1	1.0		µg/L	1	2/27/2024 12:43:00 PM
Toluene	ND	1.0		µg/L	1	2/27/2024 12:43:00 PM
Ethylbenzene	ND	1.0		µg/L	1	2/27/2024 12:43:00 PM
Xylenes, Total	ND	1.5		µg/L	1	2/27/2024 12:43:00 PM
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	2/27/2024 12:43:00 PM
Surr: 4-Bromofluorobenzene	98.0	70-130		%Rec	1	2/27/2024 12:43:00 PM
Surr: Dibromofluoromethane	103	70-130		%Rec	1	2/27/2024 12:43:00 PM
Surr: Toluene-d8	90.7	70-130		%Rec	1	2/27/2024 12:43:00 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-34
Project: Hare 15 **Collection Date:** 2/16/2024 4:10:00 PM
Lab ID: 2402A15-020 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	2/27/2024 5:26:00 PM
Toluene	ND	1.0		µg/L	1	2/27/2024 5:26:00 PM
Ethylbenzene	ND	1.0		µg/L	1	2/27/2024 5:26:00 PM
Xylenes, Total	ND	1.5		µg/L	1	2/27/2024 5:26:00 PM
Surr: 1,2-Dichloroethane-d4	99.1	70-130		%Rec	1	2/27/2024 5:26:00 PM
Surr: 4-Bromofluorobenzene	96.9	70-130		%Rec	1	2/27/2024 5:26:00 PM
Surr: Dibromofluoromethane	100	70-130		%Rec	1	2/27/2024 5:26:00 PM
Surr: Toluene-d8	91.1	70-130		%Rec	1	2/27/2024 5:26:00 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-35
Project: Hare 15 **Collection Date:** 2/16/2024 3:40:00 PM
Lab ID: 2402A15-021 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	2/27/2024 6:39:00 PM
Toluene	ND	1.0		µg/L	1	2/27/2024 6:39:00 PM
Ethylbenzene	ND	1.0		µg/L	1	2/27/2024 6:39:00 PM
Xylenes, Total	ND	1.5		µg/L	1	2/27/2024 6:39:00 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	2/27/2024 6:39:00 PM
Surr: 4-Bromofluorobenzene	97.9	70-130		%Rec	1	2/27/2024 6:39:00 PM
Surr: Dibromofluoromethane	102	70-130		%Rec	1	2/27/2024 6:39:00 PM
Surr: Toluene-d8	90.4	70-130		%Rec	1	2/27/2024 6:39:00 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2402A15**
Date Reported: **3/2/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-38
Project: Hare 15 **Collection Date:** 2/16/2024 11:15:00 AM
Lab ID: 2402A15-022 **Matrix:** AQUEOUS **Received Date:** 2/21/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	2/27/2024 7:03:00 PM
Toluene	ND	1.0		µg/L	1	2/27/2024 7:03:00 PM
Ethylbenzene	ND	1.0		µg/L	1	2/27/2024 7:03:00 PM
Xylenes, Total	ND	1.5		µg/L	1	2/27/2024 7:03:00 PM
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%Rec	1	2/27/2024 7:03:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	2/27/2024 7:03:00 PM
Surr: Dibromofluoromethane	99.9	70-130		%Rec	1	2/27/2024 7:03:00 PM
Surr: Toluene-d8	88.9	70-130		%Rec	1	2/27/2024 7:03:00 PM

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2402A15**

02-Mar-24

Client: HILCORP ENERGY

Project: Hare 15

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **A103317**	RunNo: **103317**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3822174** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	19	1.0	20.00	0	93.8	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.4		10.00		93.6	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **A103317**	RunNo: **103317**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3822175** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	9.2		10.00		92.1	70	130			

Sample ID: **2402A15-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MW-1**	Batch ID: **A103317**	RunNo: **103317**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3822178** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3200	50	1000	2175	99.5	70	130			
Toluene	940	50	1000	0	93.6	70	130			
Surr: 1,2-Dichloroethane-d4	520		500.0		103	70	130			
Surr: 4-Bromofluorobenzene	510		500.0		103	70	130			
Surr: Dibromofluoromethane	510		500.0		103	70	130			
Surr: Toluene-d8	470		500.0		93.7	70	130			

Sample ID: **2402A15-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MW-1**	Batch ID: **A103317**	RunNo: **103317**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3822179** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3000	50	1000	2175	86.5	70	130	4.19	20	
Toluene	890	50	1000	0	89.2	70	130	4.83	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2402A15**

02-Mar-24

Client: HILCORP ENERGY

Project: Hare 15

Sample ID: **2402A15-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MW-1**	Batch ID: **A103317**	RunNo: **103317**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3822179** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	520		500.0		104	70	130	0	0	
Surr: 4-Bromofluorobenzene	500		500.0		100	70	130	0	0	
Surr: Dibromofluoromethane	520		500.0		103	70	130	0	0	
Surr: Toluene-d8	470		500.0		94.3	70	130	0	0	

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R103357**	RunNo: **103357**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3824063** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.0	70	130			
Toluene	18	1.0	20.00	0	89.8	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.2		10.00		91.7	70	130			

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R103357**	RunNo: **103357**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3824066** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.8	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	9.0		10.00		90.2	70	130			

Sample ID: **2402A15-020ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MW-34**	Batch ID: **R103357**	RunNo: **103357**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3824071** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.8	70	130			
Toluene	18	1.0	20.00	0	91.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.9	70	130			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2402A15**

02-Mar-24

Client: HILCORP ENERGY

Project: Hare 15

Sample ID: **2402A15-020ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MW-34**	Batch ID: **R103357**	RunNo: **103357**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3824071** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		99.5	70	130			
Surr: Toluene-d8	9.1		10.00		91.4	70	130			

Sample ID: **2402A15-020amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MW-34**	Batch ID: **R103357**	RunNo: **103357**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3824072** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.2	70	130	3.84	20	
Toluene	18	1.0	20.00	0	89.1	70	130	2.36	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	9.9		10.00		99.1	70	130	0	0	
Surr: Toluene-d8	9.2		10.00		91.6	70	130	0	0	

Qualifiers:

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

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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

Sample Log-In Check List

Client Name: **Hilcorp Energy** Work Order Number: **2402A15** RcptNo: **1**

Received By: **Tracy Casarrubias** **2/21/2024 7:00:00 AM**

Completed By: **Tracy Casarrubias** **2/21/2024 10:31:57 AM**

Reviewed By: SCM 2/21/24

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑ tme 2/21/24	No ☑	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: Tme 2/21/24

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☑	No ☐	NA ☑ tme 2/21/24

Person Notified: Christine W. Date: 2/21/24

By Whom: Tracy Casarrubias Via: ☐ eMail ☑ Phone ☐ Fax ☐ In Person

Regarding: Duplicate sample "MW-30"

Client Instructions: Sample with the time of "12:20" to be changed to "MW-31" per client-tme 2/21/24

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.4	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Hilcorp Farmington NM

Mailing Address: 382 Road 3100 Aztec, NM 87410

Billing Address: PO Box 61529 Houston, TX 77208

Phone #: 505-486-9543

email or Fax#: Brandon.Sinclair@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

Hare 15

Project #:

Project Manager:

Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☒ Yes ☐ No 4ogi

# of Coolers: 1

Cooler Temp(including CF): 0.4 +0 = 0.4 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2402A15	BTEX Method 8260
2-15	1300	Water	MW-1	(3) 40ml VOA	HCL	001	X
2-16	1430		MW-6			002	
2-15	1320		MW-7			003	
2-15	1325		MW-8			004	
2-15	1145		MW-9			005	
2-15	1410		MW-10			006	
2-16	1415		MW-14			007	
2-16	1350		MW-15			008	
2-16	1450		MW-18			009	
2-16	1330		MW-19			010	
2-15	1505		MW-20			011	
2-15	1525		MW-22			012	

Date	Time	Relinquished by	Received by	Via	Date	Time
2/20/24	1535	Brandon Sinclair	Matt Walters		2/20/24	1535
2/20/24	1740	Matt Walters		courier	2/21/24	720

Remarks: Special Pricing See Andy

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.

Chain-of-Custody Record

Client: Hilcorp Farmington NM

Mailing Address: 382 Road 3100 Aztec, NM 87410

Billing Address: PO Box 61529 Houston, TX 77208

Phone #: 505-486-9543

email or Fax#: Brandon.Sinclair@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

Hare 15

Project #:

Project Manager:

Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☒ Yes ☐ No 4oqi

# of Coolers: 1

Cooler Temp(including CF): 0.4 ± 0 = 0.4 -

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2402A15	BTEX Method 8260
2-16	1245	Water	MW-23	(3) 40ml VOA	HCL	013	X
2-16	1305		MW-24			014	
2-15	1620		MW-26			015	
2-15	1545		MW-29			016	
2-16	1150		MW-30			017	
2-16	1220		MW-31			018	
2-16	1650		MW-33			019	
2-16	1610		MW-34			020	
2-16	1540		MW-35			021	
2-16	1115		MW-38			022	

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
2/20/24	1535				2/20/24	1535
2/20/24	1740			courier	2/21/24	7:00

Remarks: Special Pricing See Andy

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.

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/17/2024 4:14:27 PM

JOB DESCRIPTION

Hare 15

JOB NUMBER

885-5745-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

my EOL

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

Generated
6/17/2024 4:14:27 PM

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

Client: Hilcorp Energy
Project/Site: Hare 15

Laboratory Job ID: 885-5745-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
P2	The sample was received with pH>2

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
%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)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
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
Project: Hare 15

Job ID: 885-5745-1

Job ID: 885-5745-1 Eurofins Albuquerque

Job Narrative
885-5745-1

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 method.
- 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 6/6/2024 6:35 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 3.2°C.

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-1

Date Collected: 06/03/24 15:30
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-1

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1700**		50		ug/L			06/11/24 12:44	50
Ethylbenzene	**220**		50		ug/L			06/11/24 12:44	50
Toluene	ND		50		ug/L			06/11/24 12:44	50
Xylenes, Total	**3500**		75		ug/L			06/11/24 12:44	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/11/24 12:44*	*50*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*06/11/24 12:44*	*50*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*06/11/24 12:44*	*50*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/11/24 12:44*	*50*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-6

Date Collected: 05/31/24 11:00
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-2

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**51**		5.0		ug/L			06/11/24 14:09	5
Ethylbenzene	ND		5.0		ug/L			06/11/24 14:09	5
Toluene	ND		5.0		ug/L			06/11/24 14:09	5
Xylenes, Total	**7.7**		7.5		ug/L			06/11/24 14:09	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/11/24 14:09*	*5*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*06/11/24 14:09*	*5*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*06/11/24 14:09*	*5*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/11/24 14:09*	*5*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-8

Date Collected: 06/03/24 15:00
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-3

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**74**		2.0		ug/L			06/11/24 14:38	2
Ethylbenzene	**58**		2.0		ug/L			06/11/24 14:38	2
Toluene	ND		2.0		ug/L			06/11/24 14:38	2
Xylenes, Total	**35**		3.0		ug/L			06/11/24 14:38	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*06/11/24 14:38*	*2*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*06/11/24 14:38*	*2*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*06/11/24 14:38*	*2*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/11/24 14:38*	*2*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-9

Lab Sample ID: 885-5745-4

Date Collected: 06/03/24 14:10
Matrix: Water
Date Received: 06/06/24 06:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**36**		5.0		ug/L			06/11/24 15:07	5
Ethylbenzene	**100**		5.0		ug/L			06/11/24 15:07	5
Toluene	ND		5.0		ug/L			06/11/24 15:07	5
Xylenes, Total	**170**		7.5		ug/L			06/11/24 15:07	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*06/11/24 15:07*	*5*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*06/11/24 15:07*	*5*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*06/11/24 15:07*	*5*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/11/24 15:07*	*5*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-10

Date Collected: 06/03/24 13:45
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-5

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	6400		500		ug/L			06/11/24 15:35	500
Ethylbenzene	1600		500		ug/L			06/11/24 15:35	500
Toluene	13000		500		ug/L			06/11/24 15:35	500
Xylenes, Total	29000		750		ug/L			06/11/24 15:35	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/11/24 15:35*	*500*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*06/11/24 15:35*	*500*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*06/11/24 15:35*	*500*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/11/24 15:35*	*500*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-11

Date Collected: 06/03/24 16:25
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-6

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2300	P2	100		ug/L			06/11/24 16:04	100
Ethylbenzene	290	P2	100		ug/L			06/11/24 16:04	100
Toluene	3900	P2	100		ug/L			06/11/24 16:04	100
Xylenes, Total	14000		1500		ug/L			06/12/24 16:42	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/11/24 16:04*	*100*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*06/12/24 16:42*	*1000*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*06/11/24 16:04*	*100*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*		*06/12/24 16:42*	*1000*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*06/11/24 16:04*	*100*
Dibromofluoromethane (Surr)	*88*		*70 - 130*		*06/12/24 16:42*	*1000*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/11/24 16:04*	*100*
Toluene-d8 (Surr)	*94*		*70 - 130*		*06/12/24 16:42*	*1000*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-14

Date Collected: 05/30/24 17:20
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-7

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3.6**		1.0		ug/L			06/12/24 16:17	1
Ethylbenzene	**2.0**		1.0		ug/L			06/12/24 16:17	1
Toluene	**9.8**		1.0		ug/L			06/12/24 16:17	1
Xylenes, Total	**130**		1.5		ug/L			06/12/24 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*70 - 130*		*06/12/24 16:17*	*1*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*		*06/12/24 16:17*	*1*
Dibromofluoromethane (Surr)	*86*		*70 - 130*		*06/12/24 16:17*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*06/12/24 16:17*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-15

Date Collected: 06/03/24 13:00
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-8

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1400		100		ug/L			06/11/24 17:01	100
Ethylbenzene	1200		100		ug/L			06/11/24 17:01	100
Toluene	4100		100		ug/L			06/11/24 17:01	100
Xylenes, Total	28000		1500		ug/L			06/12/24 17:07	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*06/11/24 17:01*	*100*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/12/24 17:07*	*1000*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*06/11/24 17:01*	*100*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*		*06/12/24 17:07*	*1000*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*06/11/24 17:01*	*100*
Dibromofluoromethane (Surr)	*86*		*70 - 130*		*06/12/24 17:07*	*1000*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/11/24 17:01*	*100*
Toluene-d8 (Surr)	*95*		*70 - 130*		*06/12/24 17:07*	*1000*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-19

Date Collected: 05/30/24 16:05
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-9

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	410		20		ug/L			06/11/24 17:30	20
Ethylbenzene	530		20		ug/L			06/11/24 17:30	20
Toluene	260		20		ug/L			06/11/24 17:30	20
Xylenes, Total	2000		30		ug/L			06/11/24 17:30	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*06/11/24 17:30*	*20*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*06/11/24 17:30*	*20*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*06/11/24 17:30*	*20*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/11/24 17:30*	*20*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-20

Date Collected: 05/31/24 15:15
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-10

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	14000		500		ug/L			06/11/24 17:58	500
Ethylbenzene	670		500		ug/L			06/11/24 17:58	500
Toluene	19000		500		ug/L			06/11/24 17:58	500
Xylenes, Total	13000		750		ug/L			06/11/24 17:58	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*06/11/24 17:58*	*500*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*06/11/24 17:58*	*500*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*06/11/24 17:58*	*500*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/11/24 17:58*	*500*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-22

Date Collected: 05/31/24 13:45
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-11

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	560		10		ug/L			06/11/24 18:27	10
Ethylbenzene	860		10		ug/L			06/11/24 18:27	10
Toluene	230		10		ug/L			06/11/24 18:27	10
Xylenes, Total	690		15		ug/L			06/11/24 18:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/11/24 18:27*	*10*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*06/11/24 18:27*	*10*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*06/11/24 18:27*	*10*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/11/24 18:27*	*10*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-23

Lab Sample ID: 885-5745-12

Date Collected: 05/30/24 14:50

Matrix: Water

Date Received: 06/06/24 06:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/11/24 18:56	2
Ethylbenzene	ND		2.0		ug/L			06/11/24 18:56	2
Toluene	ND		2.0		ug/L			06/11/24 18:56	2
Xylenes, Total	ND		3.0		ug/L			06/11/24 18:56	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*06/11/24 18:56*	*2*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*06/11/24 18:56*	*2*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*06/11/24 18:56*	*2*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/11/24 18:56*	*2*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-24

Date Collected: 05/30/24 15:30
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-13

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/11/24 19:24	1
Ethylbenzene	ND		1.0		ug/L			06/11/24 19:24	1
Toluene	ND		1.0		ug/L			06/11/24 19:24	1
Xylenes, Total	ND		1.5		ug/L			06/11/24 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*06/11/24 19:24*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*06/11/24 19:24*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*06/11/24 19:24*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*06/11/24 19:24*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-26

Date Collected: 05/31/24 14:20
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-14

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	13000		500		ug/L			06/11/24 19:53	500
Ethylbenzene	970		500		ug/L			06/11/24 19:53	500
Toluene	32000		500		ug/L			06/11/24 19:53	500
Xylenes, Total	13000		750		ug/L			06/11/24 19:53	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*06/11/24 19:53*	*500*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*06/11/24 19:53*	*500*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*06/11/24 19:53*	*500*
Toluene-d8 (Surr)	*98*		*70 - 130*		*06/11/24 19:53*	*500*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-29

Date Collected: 05/30/24 14:25
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-15

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/11/24 20:21	1
Ethylbenzene	**45**		1.0		ug/L			06/11/24 20:21	1
Toluene	ND		1.0		ug/L			06/11/24 20:21	1
Xylenes, Total	ND		1.5		ug/L			06/11/24 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*06/11/24 20:21*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*06/11/24 20:21*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*06/11/24 20:21*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/11/24 20:21*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-30

Date Collected: 05/30/24 13:05
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-16

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**760**		100		ug/L			06/11/24 20:50	100
Ethylbenzene	**1200**		100		ug/L			06/11/24 20:50	100
Toluene	**200**		100		ug/L			06/11/24 20:50	100
Xylenes, Total	**9600**		150		ug/L			06/11/24 20:50	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*06/11/24 20:50*	*100*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*06/11/24 20:50*	*100*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*06/11/24 20:50*	*100*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/11/24 20:50*	*100*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-31

Date Collected: 05/30/24 12:45
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-17

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/11/24 23:12	1
Ethylbenzene	ND		1.0		ug/L			06/11/24 23:12	1
Toluene	ND		1.0		ug/L			06/11/24 23:12	1
Xylenes, Total	ND		1.5		ug/L			06/11/24 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*06/11/24 23:12*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*06/11/24 23:12*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*06/11/24 23:12*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*06/11/24 23:12*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-33
Date Collected: 05/31/24 11:55
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-18
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/11/24 23:41	1
Ethylbenzene	ND		1.0		ug/L			06/11/24 23:41	1
Toluene	ND		1.0		ug/L			06/11/24 23:41	1
Xylenes, Total	ND		1.5		ug/L			06/11/24 23:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*06/11/24 23:41*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*06/11/24 23:41*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*06/11/24 23:41*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*06/11/24 23:41*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-34

Date Collected: 05/31/24 12:35
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-19

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/12/24 00:09	1
Ethylbenzene	ND		1.0		ug/L			06/12/24 00:09	1
Toluene	ND		1.0		ug/L			06/12/24 00:09	1
Xylenes, Total	ND		1.5		ug/L			06/12/24 00:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*06/12/24 00:09*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*06/12/24 00:09*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*06/12/24 00:09*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*06/12/24 00:09*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-35

Lab Sample ID: 885-5745-20

Date Collected: 05/31/24 13:15

Matrix: Water

Date Received: 06/06/24 06:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/12/24 00:38	1
Ethylbenzene	ND		1.0		ug/L			06/12/24 00:38	1
Toluene	ND		1.0		ug/L			06/12/24 00:38	1
Xylenes, Total	ND		1.5		ug/L			06/12/24 00:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*06/12/24 00:38*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*06/12/24 00:38*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*06/12/24 00:38*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*06/12/24 00:38*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-38

Date Collected: 05/30/24 13:50
Date Received: 06/06/24 06:35

Lab Sample ID: 885-5745-21

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/12/24 17:31	1
Ethylbenzene	ND		1.0		ug/L			06/12/24 17:31	1
Toluene	ND		1.0		ug/L			06/12/24 17:31	1
Xylenes, Total	ND		1.5		ug/L			06/12/24 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/12/24 17:31*	*1*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*06/12/24 17:31*	*1*
Dibromofluoromethane (Surr)	*90*		*70 - 130*		*06/12/24 17:31*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*06/12/24 17:31*	*1*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-6530/3
Matrix: Water
Analysis Batch: 6530

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/11/24 09:52	1
Ethylbenzene	ND		1.0		ug/L			06/11/24 09:52	1
Toluene	ND		1.0		ug/L			06/11/24 09:52	1
Xylenes, Total	ND		1.5		ug/L			06/11/24 09:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*06/11/24 09:52*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*06/11/24 09:52*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*06/11/24 09:52*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/11/24 09:52*	*1*

Lab Sample ID: LCS 885-6530/2
Matrix: Water
Analysis Batch: 6530

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			20.1	21.7		ug/L		108	70 - 130		
Toluene			20.2	22.1		ug/L		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*95*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: 885-5745-1 MS
Matrix: Water
Analysis Batch: 6530

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	1700		1000	2700		ug/L		100	70 - 130		
Toluene	ND		1010	1060		ug/L		105	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
Dibromofluoromethane (Surr)	*94*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: 885-5745-1 MSD
Matrix: Water
Analysis Batch: 6530

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	1700		1000	2590		ug/L		89	70 - 130	4	20
Toluene	ND		1010	1170		ug/L		116	70 - 130	9	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 885-5745-1 MSD
Matrix: Water
Analysis Batch: 6530

Client Sample ID: MW-1
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	93		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: MB 885-6640/3
Matrix: Water
Analysis Batch: 6640

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/12/24 12:59	1
Ethylbenzene	ND		1.0		ug/L			06/12/24 12:59	1
Toluene	ND		1.0		ug/L			06/12/24 12:59	1
Xylenes, Total	ND		1.5		ug/L			06/12/24 12:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/12/24 12:59	1
4-Bromofluorobenzene (Surr)	109		70 - 130		06/12/24 12:59	1
Dibromofluoromethane (Surr)	92		70 - 130		06/12/24 12:59	1
Toluene-d8 (Surr)	89		70 - 130		06/12/24 12:59	1

Lab Sample ID: LCS 885-6640/2
Matrix: Water
Analysis Batch: 6640

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			20.1	20.5		ug/L		102	70 - 130		
Toluene			20.2	19.2		ug/L		95	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		70 - 130
4-Bromofluorobenzene (Surr)	112		70 - 130
Dibromofluoromethane (Surr)	89		70 - 130
Toluene-d8 (Surr)	89		70 - 130

Lab Sample ID: 885-5745-21 MS
Matrix: Water
Analysis Batch: 6640

Client Sample ID: MW-38
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		20.1	20.4		ug/L		102	70 - 130		
Toluene	ND		20.2	19.5		ug/L		97	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		70 - 130
4-Bromofluorobenzene (Surr)	114		70 - 130
Dibromofluoromethane (Surr)	87		70 - 130

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 885-5745-21 MS
Matrix: Water
Analysis Batch: 6640

Client Sample ID: MW-38
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	*90*		*70 - 130*

Lab Sample ID: 885-5745-21 MSD
Matrix: Water
Analysis Batch: 6640

Client Sample ID: MW-38
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		20.1	19.9		ug/L		99	70 - 130	3	20
Toluene	ND		20.2	18.9		ug/L		94	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*88*		*70 - 130*
Toluene-d8 (Surr)	*89*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

GC/MS VOA

Analysis Batch: 6530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5745-1	MW-1	Total/NA	Water	8260B	
885-5745-2	MW-6	Total/NA	Water	8260B	
885-5745-3	MW-8	Total/NA	Water	8260B	
885-5745-4	MW-9	Total/NA	Water	8260B	
885-5745-5	MW-10	Total/NA	Water	8260B	
885-5745-6	MW-11	Total/NA	Water	8260B	
885-5745-8	MW-15	Total/NA	Water	8260B	
885-5745-9	MW-19	Total/NA	Water	8260B	
885-5745-10	MW-20	Total/NA	Water	8260B	
885-5745-11	MW-22	Total/NA	Water	8260B	
885-5745-12	MW-23	Total/NA	Water	8260B	
885-5745-13	MW-24	Total/NA	Water	8260B	
885-5745-14	MW-26	Total/NA	Water	8260B	
885-5745-15	MW-29	Total/NA	Water	8260B	
885-5745-16	MW-30	Total/NA	Water	8260B	
885-5745-17	MW-31	Total/NA	Water	8260B	
885-5745-18	MW-33	Total/NA	Water	8260B	
885-5745-19	MW-34	Total/NA	Water	8260B	
885-5745-20	MW-35	Total/NA	Water	8260B	
MB 885-6530/3	Method Blank	Total/NA	Water	8260B	
LCS 885-6530/2	Lab Control Sample	Total/NA	Water	8260B	
885-5745-1 MS	MW-1	Total/NA	Water	8260B	
885-5745-1 MSD	MW-1	Total/NA	Water	8260B	

Analysis Batch: 6640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5745-6	MW-11	Total/NA	Water	8260B	
885-5745-7	MW-14	Total/NA	Water	8260B	
885-5745-8	MW-15	Total/NA	Water	8260B	
885-5745-21	MW-38	Total/NA	Water	8260B	
MB 885-6640/3	Method Blank	Total/NA	Water	8260B	
LCS 885-6640/2	Lab Control Sample	Total/NA	Water	8260B	
885-5745-21 MS	MW-38	Total/NA	Water	8260B	
885-5745-21 MSD	MW-38	Total/NA	Water	8260B	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-1
Lab Sample ID: 885-5745-1
Date Collected: 06/03/24 15:30
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		50	6530	JR	EET ALB	06/11/24 12:44

Client Sample ID: MW-6
Lab Sample ID: 885-5745-2
Date Collected: 05/31/24 11:00
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	6530	JR	EET ALB	06/11/24 14:09

Client Sample ID: MW-8
Lab Sample ID: 885-5745-3
Date Collected: 06/03/24 15:00
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	6530	JR	EET ALB	06/11/24 14:38

Client Sample ID: MW-9
Lab Sample ID: 885-5745-4
Date Collected: 06/03/24 14:10
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	6530	JR	EET ALB	06/11/24 15:07

Client Sample ID: MW-10
Lab Sample ID: 885-5745-5
Date Collected: 06/03/24 13:45
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		500	6530	JR	EET ALB	06/11/24 15:35

Client Sample ID: MW-11
Lab Sample ID: 885-5745-6
Date Collected: 06/03/24 16:25
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1000	6640	CM	EET ALB	06/12/24 16:42
Total/NA	Analysis	8260B		100	6530	JR	EET ALB	06/11/24 16:04

Client Sample ID: MW-14
Lab Sample ID: 885-5745-7
Date Collected: 05/30/24 17:20
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6640	CM	EET ALB	06/12/24 16:17

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-15
Lab Sample ID: 885-5745-8
Date Collected: 06/03/24 13:00
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1000	6640	CM	EET ALB	06/12/24 17:07
Total/NA	Analysis	8260B		100	6530	JR	EET ALB	06/11/24 17:01

Client Sample ID: MW-19
Lab Sample ID: 885-5745-9
Date Collected: 05/30/24 16:05
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		20	6530	JR	EET ALB	06/11/24 17:30

Client Sample ID: MW-20
Lab Sample ID: 885-5745-10
Date Collected: 05/31/24 15:15
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		500	6530	JR	EET ALB	06/11/24 17:58

Client Sample ID: MW-22
Lab Sample ID: 885-5745-11
Date Collected: 05/31/24 13:45
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		10	6530	JR	EET ALB	06/11/24 18:27

Client Sample ID: MW-23
Lab Sample ID: 885-5745-12
Date Collected: 05/30/24 14:50
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	6530	JR	EET ALB	06/11/24 18:56

Client Sample ID: MW-24
Lab Sample ID: 885-5745-13
Date Collected: 05/30/24 15:30
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6530	JR	EET ALB	06/11/24 19:24

Client Sample ID: MW-26
Lab Sample ID: 885-5745-14
Date Collected: 05/31/24 14:20
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		500	6530	JR	EET ALB	06/11/24 19:53

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

Client Sample ID: MW-29
Lab Sample ID: 885-5745-15
Date Collected: 05/30/24 14:25
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6530	JR	EET ALB	06/11/24 20:21

Client Sample ID: MW-30
Lab Sample ID: 885-5745-16
Date Collected: 05/30/24 13:05
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		100	6530	JR	EET ALB	06/11/24 20:50

Client Sample ID: MW-31
Lab Sample ID: 885-5745-17
Date Collected: 05/30/24 12:45
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6530	JR	EET ALB	06/11/24 23:12

Client Sample ID: MW-33
Lab Sample ID: 885-5745-18
Date Collected: 05/31/24 11:55
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6530	JR	EET ALB	06/11/24 23:41

Client Sample ID: MW-34
Lab Sample ID: 885-5745-19
Date Collected: 05/31/24 12:35
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6530	JR	EET ALB	06/12/24 00:09

Client Sample ID: MW-35
Lab Sample ID: 885-5745-20
Date Collected: 05/31/24 13:15
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6530	JR	EET ALB	06/12/24 00:38

Client Sample ID: MW-38
Lab Sample ID: 885-5745-21
Date Collected: 05/30/24 13:50
Matrix: Water
Date Received: 06/06/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6640	CM	EET ALB	06/12/24 17:31

Laboratory References:

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

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-5745-1

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 in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	Benzene
8260B		Water	Ethylbenzene
8260B		Water	Toluene
8260B		Water	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record

Client: Hilcorp Farmington NM

Mailing Address: 382 Road 3100 Aztec, NM 87410

Billing Address: PO Box 61529 Houston, TX 77208

Phone #: 505-486-9543

email or Fax#: Brandon.Sinclair@hilcorp.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
X Standard ☐ Rush

Project Name: Hare 15

Project #:

Project Manager: Mitch Killough

Sampler: Brandon Sinclair

On Ice: ~~☐~~ Yes ☐ No

# of Coolers: 1 90°

Cooler Temp(including CF): 3.1+0.1=3.2

HALL ENVIRONM
ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 871(
Tel. 505-345-3975 Fax 505-345-4107

885-5745 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX Method 8260
6-3	1530	Water	MW-1	(3) 40ml VOA	$HgCl_2$ ~~HCl~~	1	X
5-31	1100		MW-6		HCl	2	
6-3	1500		MW-8		$HgCl_2$	3	
6-3	1410		MW-9		$HgCl_2$	4	
6-3	1345		MW-10		$HgCl_2$	5	
6-3	1625		MW-11		none ~~Cool~~	6	
5-30	1720		MW-14		HCl	7	
6-3	1300		MW-15		$HgCl_2$	8	
5-30	1605		MW-19		$HgCl_2$	9	
5-31	1515		MW-20		$HgCl_2$	10	
5-31	1345		MW-22		HCl	11	
5-30	1450		MW-23		HCl	12	

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
6/5/24	1633				6/5/24	1633
6/5/24	1745			courier	6/6/24	6:35

Remarks: Special Pricing See Andy

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.

Chain-of-Custody Record

Client: Hilcorp

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Hare 1S

Project #:

Project Manager: Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☑ Yes ☐ No

# of Coolers: 1 (09:40)

Cooler Temp(Including CF): 3.1+0.1=3.2 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

5745

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	BTEX 8260
5-30	1530	Water	MW-24	(3) 40ml VOA	HCl	13											✓
5-31	1420		MW-26		H_2SO_4	14											
5-30	1425		MW-29		HCl	15											
5-30	1305		MW-30		HCl	16											
5-30	1245		MW-31		HCl	17											
5-31	1155		MW-33		HCl	18											
5-31	1235		MW-34		HCl	19											
5-31	1315		MW-35		HCl	20											
5-30	1350		MW-38		HCl	21											

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
6/5/24	1633			Walk	6/5/24	1633
6/5/24	1745			Courier	6/6/24	6:35

Remarks:

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Chain-of-Custody Record

Client: Hilcorp Farmington NM

Mailing Address: 382 Road 3100 Aztec, NM 87410

Billing Address: PO Box 61529 Houston, TX 77208

Phone #: 505-486-9543

email or Fax#: Brandon.Sinclair@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

Hare 15

Project #:

Project Manager:

Mitch Killough

Sampler: Brandon Sinclair

On Ice: ~~☐~~ Yes ☐ No

# of Coolers: 1 90%

Cooler Temp(including CF): 3.1+0.1=3.2

HALL ENVIRONM
ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 871
Tel. 505-345-3975 Fax 505-345-4107

885-5745 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX Method 8260
6-3	1530	Water	MW-1	(3) 40ml VOA	~~HgCl2 HCl~~	1	X
5-31	1100		MW-6		~~HCl~~	2	
6-3	1500		MW-8		$HgCl_2$	3	
6-3	1410		MW-9		$HgCl_2$	4	
6-3	1345		MW-10		$HgCl_2$	5	
6-3	1625		MW-11		none ~~Cool~~	6	
5-30	1720		MW-14		HCl	7	
6-3	1300		MW-15		$HgCl_2$	8	
5-30	1605		MW-19		$HgCl_2$	9	
5-31	1515		MW-20		$HgCl_2$	10	
5-31	1345		MW-22		HCl	11	
5-30	1450		MW-23		HCl	12	

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
6/5/24	1633		Chris Walls		6/5/24	1633
6/5/24	1745	Chris Walls		courier	6/6/24	6:35

Remarks: Special Pricing See Andy

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Chain-of-Custody Record

Client: Hilcorp

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Hare 1S

Project #:

Project Manager: Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☑ Yes ☐ No

# of Coolers: 1 (Yes)

Cooler Temp(including CF): 3.1+0.1=3.2 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

5745

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	BTEX 8260
5-30	1530	Water	MW-24	(3) 40ml VOA	HCl	13											✓
5-31	1420		MW-26		H_2Cl_2	14											
5-30	1425		MW-29		HCl	15											
5-30	1305		MW-30		HCl	16											
5-30	1245		MW-31		HCl	17											
5-31	1155		MW-33		HCl	18											
5-31	1235		MW-34		HCl	19											
5-31	1315		MW-35		HCl	20											
5-30	1350		MW-38		HCl	21											

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
6/5/24	1633			Walk	6/5/24	1633
6/5/24	1745			Courier	6/6/24	6:35

Remarks:

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Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-5745-1

Login Number: 5745 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Dominguez, Desiree

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 392549

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 392549
	Action Type: [REPORT] Alternative Remediation Report (C-141AR)

CONDITIONS

Created By	Condition	Condition Date
nvelez	1. Continue O&M & sampling as stated in report. 2. Submit next quarterly report by January 15, 2025.	10/25/2024