By NVelez at 11:09 am, Aug 05, 2024



ENSOLUM

1. Continue monthly O&M schedule as stated in the recommendations section of report.

2. Submit next bi-annual report by January 15, 2025.

July 15, 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: Second Quarter 2024 – SVE System Update OH Randel #5 San Juan County, New Mexico Hilcorp Energy Company NMOCD Incident Number: NVF1602039091

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Second Quarter 2024 – SVE System Update* report summarizing the soil vapor extraction (SVE) system performance at the OH Randel #5 natural gas production well (Site), located in Unit D of Section 10, Township 26 North, and Range 11 West in San Juan County, New Mexico (Figure 1). Specifically, this report summarizes Site activities performed in April, May, and June 2024 to the New Mexico Oil Conservation Division (NMOCD).

SVE SYSTEM SPECIFICATIONS

The current operation at the Site consists of two SVE systems, each with a dedicated blower, knockout tank, and control panel. The original SVE system ("SVE Skid 1") was installed at the Site in 2016 by XTO Energy (the previous owner and operator of the Site) and subsequently upgraded by Hilcorp in 2019. This SVE system consists of a 2 horsepower Atlantic Blower AB-301 blower capable of producing 110 standard cubic feet per minute (scfm) of flow and 72 inches of water column (IWC) vacuum. A second SVE system ("SVE Skid 2") was installed at the Site and became operational on March 11, 2022, in order to more efficiently address residual soil impacts at the Site. Specifically, the new system was built with a 3.4 horsepower Republic Manufacturing HRC501 blower capable of producing 221 scfm of flow and 72 IWC vacuum. When operated concurrently, the two SVE systems are able to induce the necessary flow and vacuum on all SVE wells at the Site simultaneously without the need to cycle extraction on subsets of wells.

SVE wells are located and screened in the "Secondary" and "Tertiary" Source Zones, as identified in the WSP USA Inc. *Site Summary Report,* dated October 1, 2021. Once the new SVE Skid 2 was installed at the Site, new manifolds were constructed so SVE Skid 1 operated wells located in the Secondary Source Zone (SVE-5, SVE-8, and SVE-9) and Tertiary Zone (SVE-7, SVE-10, and SVE-12). SVE Skid 2 operated wells located in the Tertiary Source Zone (SVE-13, SVE-14, SVE-15, SVE-16, SVE-17, SVE-18, SVE-19, SVE-20, SVE-21, and SVE-22). SVE wells SVE-6 and SVE-11 are screened at depths shallower than the remaining soil impacts at the Site and have been turned off in order for the SVE system to induce a higher flow and vacuum on the remaining open wells. However, in the first quarter of 2024, the number of wells operating on each of the two skids were balanced and wells SVE-5, SVE-

Hilcorp Energy Company Second Quarter 2024 – SVE System Update OH Randel #5

7, SVE-8, SVE-9, SVE-10, and SVE-12 were taken offline. The SVE well locations are shown on Figure 2.

SECOND QUARTER 2024 ACTIVITIES

During the second quarter of 2024, Ensolum and Hilcorp personnel performed bi-weekly operation and maintenance (O&M) visits to verify the system was operating as designed and to perform any required maintenance. Field notes taken during O&M visits are presented in Appendix A.

Between March 18, 2024, and June 26, 2024, SVE Skid 1 operated for 2,086 hours with a runtime efficiency of 86.9 percent (%) and Skid 2 operated for 2,393 hours with a runtime efficiency of 99.7%. Skid 1 downtime was due to a broken blower motor that was identified via telemetry on June 17, 2024. After troubleshooting and evaluating possible alternative, quicker solutions, a replacement motor was purchased and installed following receipt of the replacement on June 28, 2024. Skid 1 immediately resumed operation following the blower motor replacement. Table 1 presents the SVE system operational hours and percentage runtime. Appendix B presents photographs of the runtime meter for calculating the second quarter runtime efficiency.

Vapor samples were collected from sample ports located between the SVE piping manifold and the SVE blower using a high vacuum air sampler. Prior to collection, the vapor samples were field screened with a photoionization detector (PID) for organic vapor monitoring (OVM). Second quarter 2024 vapor samples were collected from both SVE skids on June 11, 2024. The vapor samples were collected directly into two 1-Liter Tedlar[®] bags and submitted to Eurofins Environment Testing (Eurofins, formerly Hall Environmental Analysis Laboratory) in Albuquerque, New Mexico for analysis of total volatile petroleum hydrocarbons (TVPH – also known as total petroleum hydrocarbons – gasoline range organics (TPH-GRO)) following United States Environmental Protection Agency (EPA) Method 8015D, volatile organic compounds (VOCs) following EPA Method 8260B, and fixed gas analysis of oxygen and carbon dioxide following Gas Processors Association (GPA) Method 2261.

Table 2 presents a summary of analytical data collected during the second quarter 2024 sampling event and from historical sampling events, with the full laboratory analytical report included as Appendix C. Vapor sample data and measured stack flow rates are used to estimate total mass recovered and estimated total emissions generated by the SVE systems (Tables 3 and 4). Based on these estimates, a total of 757,529 pounds (379 tons) of TVPH have been removed by the systems to date.

RECOMMENDATIONS

Monthly O&M visits, at a minimum, will continue to be performed by Ensolum and/or Hilcorp personnel to verify the SVE systems are 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 semiannual report, per the conditions issued by the NMOCD on April 9, 2024. Hilcorp will continue operating the SVE systems until asymptotic mass removal rates are observed. At that time, an evaluation of residual petroleum hydrocarbons will be assessed and further recommendations for remedial actions, if any, will be provided to NMOCD.

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.

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Hilcorp Energy Company Second Quarter 2024 – SVE System Update OH Randel #5

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ENSOLUM

Sincerely, Ensolum, LLC

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Daniel R. Moir, PG (licensed in WY & TX) Senior Managing Geologist (303) 887-2946 dmoir@ensolum.com

Attachments:

Figure 1	Site Location Map

- Figure 2 SVE System Layout
- Table 1
 Soil Vapor Extraction System Runtime Calculations
- Table 2Soil Vapor Extraction System Emissions Analytical Results
- Table 3
 Soil Vapor Extraction System Mass Removal and Emissions Skid 1
- Table 4
 Soil Vapor Extraction System Mass Removal and Emissions Skid 2
- Appendix A Field Notes
- Appendix B Project Photographs
- Appendix C Laboratory Analytical Reports



Figures

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Tables

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TABLE 1SOIL VAPOR EXTRACTION SYSTEM RUNTIME CALCULATIONSOH Randel #5Hilcorp Energy CompanySan Juan County, New Mexico

SVE Skid 1 - Original System Runtime Operation

Date	Total Operational Hours	tal Operational Hours Delta Hours		Percent Runtime
3/18/2024	49,399.75			
6/26/2024 ⁽¹⁾	51,485.52	2,086	100	86.9%

SVE Skid 2 - New System Runtime Operation

Date	Total Operational Hours	Delta Hours	Available Runtime Days	Percent Runtime
3/18/2024	17,065.8			
6/26/2024	19,459.0	2,393	100	99.7%

(1): Downtime due to unit going down on 6/17/24 due to a broken blower motor. A new motor was ordered & installed upon receipt on 6/28/24, and the unit returned to operation immediately thereafter.

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TABLE 2 SOIL VAPOR EXTRACTION SYSTEM EMISSIONS ANALYTICAL RESULTS OH Randel #5 Hilcorp Energy Company San Juan County, New Mexico

	SVE Skid 1 - Original System Analytical Results											
Date	PID (ppm)	Benzene (μg/L)	Toluene (μg/L)	Ethylbenzene (μg/L)	Total Xylenes (μg/L)	TVPH/GRO (μg/L)	Oxygen (%)	Carbon Dioxide (%)				
8/11/2016	4,072	160	1,700	61	500	46,000						
8/17/2018	719	130	230	10	110	8,900						
6/28/2019	1,257	7,200	15,000	360	3,000	460,000						
12/16/2019	1,685	1,800	4,400	83	660	170,000						
3/10/2020	897	1,700	3,300	89	700	130,000						
4/30/2020	1,853	2,440	4,737	128	1,005	186,592						
6/24/2020 (1)												
11/10/2020	1,385	320	1,100	43	380	43,000	21.45%	0.35%				
2/10/2021	865	360	950	35	250	32,000						
6/11/2021	400	170	390	11	110	18,000	22.05%	0.15%				
9/29/2021	505	99	190	7.0	55	8,200						
12/15/2021	1,163	130	290	6.9	62	37,137	22.21%	0.092%				
3/21/2022	274	6.5	23	0.98	11	550	22.38%	0.041%				
6/17/2022	88	5.5	19	0.69	7.0	650	21.83%	0.060%				
9/22/2022	55	9.0	42	1.9	20	670	21.84%	0.10%				
12/7/2022	28	5.2	34	1.5	15	480	21.92%	0.05%				
3/10/2023	87	2.5	8.2	<1.0	4.2	260	21.85%	0.06%				
6/23/2023	290	4.8	31	2.0	24	670	21.82%	0.07%				
8/21/2023	92	22	63	3.1	31	1,900	21.54%	0.13%				
11/21/2023	235	2.6	9.6	<0.50	4.8	380	21.61%	0.12%				
3/4/2024	1,897	330	600	45	350	43,000	20.65%	0.73%				
6/11/2024	1,783	270	880 E	23	200	30,000	20.98%	0.70%				

SVE Skid 2 - New System Analytical Results

Date	PID (ppm)	Benzene (μg/L)	Toluene (μg/L)	Ethylbenzene (μg/L)	Total Xylenes (μg/L)	TVPH (μg/L)	Oxygen (%)	Carbon Dioxide (%)
3/21/2022	1,354	310	510	13	120	35,000	21.81%	0.31%
6/17/2022	1,058	200	410	<10	66	33,000	21.27%	0.39%
9/8/2022	1,258	479	1,190	26	1,041	31,900	20.10%	0.50%
12/7/2022	918	230	370	9.1	65	18,000	21.53%	0.36%
3/10/2023	1,790	140	230	7.5	60	12,000	21.71%	0.17%
6/23/2023	1,450	160	430	12	100	18,000	21.29%	0.39%
8/21/2023	1,477	180	400	9.6	78	15,000	21.00%	0.40%
11/21/2023	1,352	160	420	9.5	72	15,000	21.21%	0.35%
3/4/2024	605	39	100	<5.0	18	3,400	21.82%	0.11%
6/11/2024	403	20	63	<5.0	14	2,000	21.27%	0.12%

Notes:

(1) - blower not operational for sampling in May and June 2020

GRO: gasoline range organics

µg/L: microgram per liter

PID: photoionization detector

ppm: parts per million

TVPH: total volatile petroleum hydrocarbons

%: percent

--: not sampled/analyzed

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

E: result exceeded calibration range

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IABLE 3
SOIL VAPOR EXTRACTION SYSTEM MASS REMOVAL AND EMISSIONS - SKID 1
OH Pandal #5

Hilcorp Energy Company San Juan County, New Mexico

		I	Laboratory Analysi	s		
Date	PID (ppm)	Benzene (μg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Total Xylenes (μg/L)	TVPH (μg/L)
8/11/2016	4,072	160	1,700	61	500	46,000
8/17/2018	719	130	230	10	110	8,900
12/16/2019	1,902	1,800	4,400	83	660	170,000
3/10/2020	897	1,700	3,300	89	700	130,000
4/30/2020	1,853	2,440	4,737	128	1,005	186,592
6/24/2020 ⁽¹⁾		•	Blower Not	Operational		
11/10/2021	1,385	320	1,100	43	380	43,000
2/10/2021	865	360	950	35	250	32,000
6/11/2021	400	170	390	11	110	18,000
9/29/2021	505	99	190	7.0	55	8,200
12/15/2021	1,163	130	290	6.9	62	37,137
3/21/2022	274	6.5	23	1.0	11	550
6/17/2022	88	5.5	19	0.7	7.0	650
9/22/2022	55	9.0	42	1.9	20	670
12/7/2022	28	5.2	34	1.5	15	480
3/10/2023	87	2.5	8.2	1.0	4.2	260
6/23/2023	290	4.8	31	2.0	24	670
8/21/2023	92	22	63	3.1	31	1,900
11/21/2023	235	2.6	9.6	0.50	4.8	380
3/4/2024	1,897	330	600	45	350	43,000
6/11/2024 ⁽²⁾	1,783	270	880	23	200	30,000
Average	930	398	950	28	225	37,919

Vapor Extraction Summary											
Date	Flow Rate (cfm)	Total System Flow (cf)	Delta Flow (cf)	Benzene (Ib/hr)	Toluene (lb/hr)	Ethylbenzene (lb/hr)	Total Xylenes (lb/hr)	TVPH (lb/hr)			
8/11/2016	105	31,500	31,500	0.063	0.67	0.024	0.20	18			
8/17/2018	100	59,647,500	59,616,000	0.054	0.36	0.013	0.11	10			
12/16/2019	110	109,635,900	49,988,400	0.40	0.95	0.019	0.16	37			
3/10/2020	110	121,707,300	12,071,400	0.72	1.6	0.035	0.28	62			
4/30/2020 (1)	105	130,917,900	9,210,600	0.81	1.6	0.043	0.33	62			
6/24/2020 (1)				Blower Not	Operational						
11/10/2021	105	130,917,900	0	0	0	0	0	0			
2/10/2021	92	143,580,780	12,662,880	0.12	0.35	0.013	0.11	13			
6/11/2021	90	158,657,580	15,076,800	0.0892	0.2255	0.00774	0.0606	8.4			
9/29/2021	69	168,249,960	9,592,380	0.0347	0.0748	0.00232	0.0213	3.4			
12/15/2021	90	178,207,560	9,957,600	0.0385	0.0808	0.00234	0.0197	7.6			
3/16/2022	70	187,343,904	9,136,344	0.0179	0.0410	0.00103	0.0096	4.9			
6/17/2022	70	196,703,520	9,359,616	0.0016	0.0055	0.00022	0.0024	0.2			
9/21/2022	65	205,627,890	8,924,370	0.0018	0.0074	0.00031	0.0033	0.2			
12/7/2022	70	213,411,456	7,783,566	0.0019	0.0099	0.00045	0.0046	0.2			
3/10/2023	73	223,160,241	9,748,785	0.0011	0.0058	0.00034	0.0026	0.1			
6/23/2023	60	231,228,093	8,067,852	0.0008	0.0044	0.00034	0.0032	0.1			
8/21/2023	62	236,382,227	5,154,134	0.0031	0.0109	0.00059	0.0064	0.3			
11/21/2023	50	242,847,707	6,465,480	0.0023	0.0068	0.00034	0.0033	0.2			
3/4/2024 (3)	24	246,402,333	3,554,626	0.0149	0.0274	0.00204	0.0159	1.9			
6/11/2024 ⁽³⁾	24	249,670,370	3,268,037	0.0269	0.0664	0.00305	0.0247	3.3			
			Average	0.12	0.30	0.0084	0.068	12			

Mass	Recovery

Date	Total SVE System Hours	Delta Hours	Benzene (pounds)	Toluene (pounds)	Ethylbenzene (pounds)	Total Xylenes (pounds)	TVPH (pounds)	TVPH (tons)
8/11/2016	5	5	0.31	3.3	0.12	1.0	90	0.045
8/17/2018	9,941	9,936	539	3,586	132	1,133	102,008	51
12/16/2019	17,515	7,574	3,007	7,214	145	1,200	278,728	139
3/10/2020	19,344	1,829	1,317	2,897	65	512	112,870	56
4/30/2020	20,806	1,462	1,188	2,307	62	489	90,884	45
6/24/2020 ⁽¹⁾				Blower Not	Operational			
11/10/2021	20,806	0	0	0	0	0	0	0
2/10/2021	23,100	2,294	268	809	31	249	29,600	15
6/11/2021	25,892	2,792	249	630	22	169	23,495	12
9/29/2021	28,209	2,317	80	173	5.4	49	7,833	3.9
12/15/2021	30,053	1,844	71	149	4.3	36	14,070	7.0
3/16/2022	32,228	2,175	39	89	2.2	21	10,732	5.4
6/17/2022	34,457	2,228	3.5	12	0.49	5.3	350	0.18
9/21/2022	36,745	2,288	4.0	17	0.72	7.5	367	0.18
12/7/2022	38,598	1,853	3.4	18	0.82	8.5	279	0.14
3/10/2023	40,824	2,226	2.3	13	0.76	5.8	225	0.11
6/23/2023	43,065	2,241	1.8	10	0.75	7.1	234	0.12
8/21/2023	44,451	1,386	4.3	15	0.82	8.8	413	0.21
11/21/2023	46,606	2,155	5.0	15	0.73	7.2	459	0.23
3/4/2024	49,074	2,468	36.8	68	5.04	39.3	4,806	2.40
6/11/2024	51,344	2,269	61.1	151	6.93	56.0	7,436	3.72
	Total Mass	Recovery to Date	6,882	18,176	485	4,005	684,880	342

Notes: (1): blower not operational for sampling in May and June 2020 (2): toluene result exceeded calibration range (3): flow rate estimated based on previous data following reconfiguration cf. cubic feet cfm: cubic feet per minute und undirection per perifere

µg/L: micrograms per liter Ib/hr: pounds per hour

--: not sampled PID: photoionization detector ppm: parts per million TVPH: total volatile petroleum hydrocarbons gray: Indicates result less than the stated laboratory reporting limit (RL); RL used for calculating emissions.

🖻 E N S O L U M

TABLE 4 SOIL VAPOR EXTRACTION SYSTEM MASS REMOVAL AND EMISSIONS - SKID 2 OH Randel #5 Hilcorp Energy Company San Juan County, New Mexico

		L	_aboratory Analys	sis		
Date	PID (ppm)	Benzene (μg/L)	Toluene (μg/L)	Ethylbenzene (μg/L)	Total Xylenes (μg/L)	TVPH (μg/L)
3/21/2022	1,354	310	510	13	120	35,000
6/17/2022	1,058	200	410	10	66	33,000
9/8/2022	1,258	479	1,190	26	1,041	31,900
12/7/2022	918	230	370	9.0	65	18,000
3/10/2023	1,790	140	230	7.5	60	12,000
6/23/2023	1,450	160	430	12	100	18,000
8/21/2023	1,477	180	400	9.6	78	15,000
11/21/2023	1,352	160	420	9.5	72	15,000
3/4/2024	605	39	100	5.0	18	3,400
6/11/2024	403	20	63	5.0	14	2,000
Average	1,166	192	412	11	163	18,330

Vapor Extraction Summary

Date	Flow Rate (cfm)	Total System Flow (cf)	Delta Flow (cf)	Benzene (lb/hr)	Toluene (lb/hr)	Ethylbenzene (lb/hr)	Total Xylenes (lb/hr)	TVPH (lb/hr)
3/16/2022	70	499,800	499,800	0.081	0.134	0.0034	0.031	9.2
6/17/2022	60	8,533,560	8,033,760	0.057	0.103	0.0026	0.021	7.6
9/8/2022	56	15,138,648	6,605,088	0.071	0.168	0.0038	0.116	6.8
12/7/2022 ⁽¹⁾	56	22,499,736	7,361,088	0.074	0.163	0.0037	0.116	5.2
3/10/2023	58	30,214,896	7,715,160	0.040	0.065	0.0018	0.014	3.3
6/23/2023	64	37,670,256	7,455,360	0.036	0.079	0.0023	0.019	3.6
8/21/2023	51	42,004,746	4,334,490	0.032	0.079	0.0021	0.017	3.1
11/21/2023	52	48,892,458	6,887,712	0.033	0.080	0.0019	0.015	2.9
3/4/2024 (2)	43	55,189,464	6,297,006	0.016	0.042	0.0012	0.007	1.5
6/11/2024 ⁽²⁾	43	61,302,774	6,113,310	0.005	0.013	0.0008	0.003	0.4
			Average	0.045	0.09	0.0023	0.036	4.4

				Mass Recovery				
Date	Total SVE System Hours	Delta Hours	Benzene (pounds)	Toluene (pounds)	Ethylbenzene (pounds)	Total Xylenes (pounds)	TVPH (pounds)	TVPH (tons)
3/16/2022	119	119	10	16	0.41	3.7	1,090	0.55
6/17/2022	2,351	2,232	128	230	5.8	47	17,027	8.5
9/8/2022	4,316	1,966	140	329	7.4	228	13,361	6.7
12/7/2022 (1)	6,507	2,191	163	358	8.0	254	11,448	5.7
3/10/2023	8,724	2,217	89	144	4.0	30	7,214	3.6
6/23/2023	10,666	1,942	70	153	4.5	37	6,971	3.5
8/21/2023	12,082	1,417	46	112	2.9	24	4,458	2.2
11/21/2023	14,290	2,208	73	176	4.1	32	6,440	3.2
3/4/2024	16,731	2,441	39	102	2.8	18	3,611	1.8
6/11/2024	19,100	2,370	11	31	1.9	6	1,029	0.5
	Total Mass	Recovery to Date	768	1,652	42	679	72,649	36

Notes:

(1): rotameter float frozen in place, flow rate based on 11/16/2022 site visit flow rate and similar applied vacuum recorded during 11/16/2022 and 12/7/2022 site visits

(2): flow rate estimated based on previous data following reconfiguration

cf: cubic feet

cfm: cubic feet per minute

µg/L: micrograms per liter

lb/hr: pounds per hour

PID: photoionization detector

ppm: parts per million

TVPH: total volatile petroleum hydrocarbons

gray: indicates result less than the stated laboratory reporting limit (RL); RL used for calculating emissions.



APPENDIX A

Field Notes

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OH RANDEL #5 SVE SYSTEM BIWEEKLY O&M FORM

DATE: TIME ONSITE: 4-2

O&M PERSONNEL: TIME OFFSITE:

B Sinclair

	S	VE SYSTEM - MONTHLY O&M	
SVE ALARMS:		KO TANK HIGH LEVEL	
SVE SYSTEM	Skid 1	Skid 2	
Blower Hours (take photo)	49756 58	17474 3	
Inlet Vacuum (IWC)	72	60	
nlet Flow from Rotameter (SCFM)	23	46	
Exhaust Vacuum (IWC)	-76	- 74	
Inlet PID	1781	480.7	
Exhaust PID	2179	6131	
K/O Tank Liquid Level			7
K/O Liquid Drained (gallons)			
and the second se			

	SVE SYSTEM - QUARTERLY SAMPLING	
SAMPLE ID:	SAMPLE TIME:	A State of the second of the second state of the
Analytes: TVPH (8015)), VOCs (8260), Fixed Gas (CO/CO2/O2)	
ODED ATING WELLS		

ZONES

Change in Well Operation:

Zone A - Secondary Impacts

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	ADJUSTMENTS
SVE 5			
SVE-8			

Zone B - Tertiary Impacts		PID HEADSPACE (PDM)	
LOCATION	VACUUM (IWC)	TID TIEADSTACE (FFM)	ADJUSIMENTS
SVE-6			
-SVE-7	The share is the second second	A state of the second	
SVE 10	a stand and the second stand and		
SVE-11			a the second
SVE-12	- TU	1815	
SVE-13	51.7	1764	
SVE-14	00.5	8761	
SVE-15	20.0	1797	
SVE-16	00.0	644.9	
SVE-17	77.0	8574	
SVE-18	6/.3	2135	
SVE-19	00.	1523	
SVE-20	00.1	335.9	
SVE-21		829.3	
SVE-22	10,0	the state of the s	

46

COMMENTS/OTHER MAINTENANCE:



Received	' by	OCD:	7/15/2024	2:33:00 PM
----------	------	------	-----------	------------

OH RANDEL #5 SVE SYSTEM BIWEEKLY O&M FORM

1-15 DATE: TIME ONSITE:

O&M PERSONNEL: TIME OFFSITE:

Sinclair

	SVI	E SYSTEM - MONTHLY O&M	
SVE ALARMS:	K	O TANK HIGH LEVEL	
SVE SYSTEM	Skid 1	Skid 2	
Blower Hours (take photo)	50000 28	177353	
Inlet Vacuum (IWC)	73	58	
Inlet Flow from Rotameter (SCFM)	32	50	
Exhaust Vacuum (IWC)	~ 76	-74	
Inlet PID	1196	789.4	
Exhaust PID	1285	489.7	
K/O Tank Liquid Level		and the second	
K/O Liquid Drained (gallons)	1.5	q	

	SVE SYSTEM - QUARTERLY SAMPLING	
SAMPLE ID:	SAMPLE TIME:	
Analytes: TVPH (8015),	VOCs (8260), Fixed Gas (CO/CO2/O2)	

OPERATING WELLS

ZONES

Change in Well Operation:

Zone A - Secondary Impacts			
LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	ADJUSTMENTS
-SVE-5			
SVE-8			

Lone B - Tertiary Impacts	VACUUM (IWC)	PID HEADSPACE (PPM)	ADJUSTMENTS
LOCATION	VACCOM (INC)		
SVE-6			Carter States and States and States
-SVE-7-			
SVE-10			
SVE-11			
SVE-12	512	7018	
SVE-13	172	23.57	
SVE-14	61.2	TU93	
SVE-15	160	7185	
SVE-16	50.9	3571	A Contraction of the second
SVE-17	154	33/2	
SVE-18	66.4	1870	
SVE-19	66.6	8513	
SVE-20	51.4	336.8	
SVE-21	48.1	370.6	
SVE-22		J#1/D	and the second

COMMENTS/OTHER MAINTENANCE: skid 1 off on arrival





	SVE SYSTEM - QUARTERLY SAMPLING	and the second
SAMPLE ID:	SAMPLE TIME:	and the second of the second
Analytes: TVPH (8015), V	OCs (8260), Fixed Gas (CO/CO2/O2)	
OPERATING WELLS		
STATES AND		

ZONES

LUCATION	VACUUM (IWC)	VELOCITY (fpm)	PID HEADSPACE (PPM)	ADILICTMENTO
SVE-5				ADJUSTMENTS
-SVE-8-			and the state of the state	
B - Tertiary Impacts				
LOCATION	VACUUM (IWC)	VELOCITY (fpm)	PID HEADSPACE (PPM)	
SVE-6	Maria Carlo and a series			ADJUSTMENTS
SVF-7		and the second second second second		
SVE-10	a service and the service of the ser			
SVE-11		The second second second second		
SVE-12	613			and and a second of the
SVE-13	21.6		1782	
SVE-14	66.0		2083	
SVE-15	39.9	- hat a	1348	
SVE-10 SVE 17	06.0		2177	Service and the service of the servi
SVE-17	2000		693:2	
SVE-10	65.0		626.6	
SVE-19	P7.E		2272	
SVE-20	20.3		1506	
SVE-22	442		624.3	

Replaced MW-14 well cap

exhaust vacuum (Iwc) -75 -73



		OH RANDEL #5 SV BIWEEKLY O&N	E SYSTEM A FORM	
DATE: TIME ONSITE:	5-20	O&M PERSONNEI TIME OFFSITE	B Sinclair	
SVE ALARMS.		SVE SYSTEM - MONT	THLY O&M	
SVE SYSTEM	READING	Skid 2		
Inlet Thermal Anemometer Velocity	50817.42	18573.6.	- The second s	
Exhaust Thermal Anemometer Velocity (fpm)				
Inlet PID Exhaust PID K/O Tank Liquid Level K/O Liquid Drained (aplls -)	1729	384.7		
(galions)]	

CANEN E TE I	SVE SYSTEM - QUARTERLY SAI	MPLING	Ward & States In a state of	
Analytes: TVPH (8015), V	SAMPLE TIME: OCs (8260), Fixed Gas (CO/CO2/O2)			A STURY
OPERATING WELLS	and the second		a series that the series of	* -
ZONES				

Change in Well Operation:					
ne A - Secondary Impacts LOCATION	VACUUM (IWC)	VELOCITY (fpm)	PID HEADSPACE (PPM)	ADIUSTMENTS	
SVE-5				ADJOSTMENTS	
			En la companya de la		
LOCATION	VACUUM (IWC)	VELOCITY (fpm)	PID HEADSPACE (PPM)	ADIUSTMENTS	
SVE-6				MESUSTIMENTS	
-SVE-10		The Allow and Allow Allow			
SVE-11					
SVE-12 SVE-13	50.7		1824		
SVE-14	66.9	the state of the second se	1326		
SVE-15	66.6		1210	and the second	
SVE-10 SVE-17	50,7/	all all and all all all all all all all all all al	593.7		
SVE-18	63.8		1860		
SVE-19 SVE-20	66.9		1454		
SVE-21	50.6		386,	The second s	
SVE-22	11.0	and the second second second			
MENTS/OTHER MAINTEN	ANCE: 7			the second s	
r	1 4				
sctm	24 40				
	- 17				
	and the second second second				
and the second second	All and the second second second second			And the second sec	
The support of the second				and the second second second	

Released to Imaging: 8/5/2024 11:20:00 AM



ZONES

Change in Well Operation:

Zone A - Secondary Impacts

LOCATION	VACUUM (IWC)	VELOCITY (fpm)	PID HEADSPACE (PPM)	ADIUSTMENTS
-SVE-5-	Salar and a star star and a			The comments
SVE 8	and the second second second second		12 Carrier and Carrier and	A sector many sector and
Zono P. Tortiary Impacts				
LOCATION	VACUUM (IWC)	VELOCITY (fpm)	PID HEADSPACE (PPM)	ADILISTMENTS
SVE-6	and the second	and the second		ABJUSTMENTS
-SVE-7-	Real and the second		Read Marchine Constraints - States	
-SVE-10	- and a strand and the second			the second s
SVE-11				and the second
-SVE-12	110 0		10000	
SVE-13	49.7		1880	and the second second second
SVE-14	67.1		1761	
SVE-15	79.0		413.0	The second second second
SVE-16	69.0		1725	
SVE-17	13.6	A CONTRACT OF A CONTRACT OF A CONTRACT OF	742.8	A States of the state of the
SVE-18	24 2		370.0	Marken and a second second
SVE-19	24.2		190	
SVE-20	49.6	and the second	338	
SVE-21	46.5	-	1040	
SVE-22		and the second	1870	

COMMENTS/OTHER MAINTENANCE:



		is m		
		OH RANDEL #5 SVE	SYSTEM	
		BIWEEKLY O&M	FORM	
DATE: _	6-26	O&M PERSONNEL:	B Sinclair	
TIME ONSITE: _		TIME OFFSITE:	- P O JACIAII	
		SVE SVSTEM - MONTH	IV O&M	and the second second
	and the the set of the	STE BIBIEM - MONTH	LI Oalvi	and the second second
SVE ALARMS:	K	O TANK HIGH LEVEL		
SVE SYSTEM	READING	JA: Q L	A Start Brite Start Start Start Start	
Blower Hours (take photo)	51485.52	194500		
Inlet Vacuum (IWC)		58		
Inlet Thermal Anemometer Velocity			· · · · · · · · · · · · · · · · · · ·	
Exhaust Thermal Anemometer				
Velocity (fpm)	Configuration in the second of the			
Inlet PID		478.2		
Exhaust PID		360.1		
K/O Tank Liquid Level				
K/O Liquid Drained (gallons)				
	- A A CAR AND A CAR AND A CAR AND A CAR			

ZONES

Change in Well Operation:

LOCATION	VACUUM (IWC)	VELOCITY (fpm)	PID HEADSPACE (PPM)	ADIUSTMENTS
-SVE-S	1			
SVE-8		and the second second second second		1. +
e B - Tertiary Impacts				
LOCATION	VACUUM (IWC)	VELOCITY (fpm)	PID HEADSPACE (PPM)	ADJUSTMENTS
SVE-6				
SVE-7	a second and the second se	a share the second second		A State of the second second
SVE-10				In the second second
SVE-11		a second s	and the state of the second	
SVE-12		and the second second		Charles and States
SVE-13	49.7	Products - Antonio P	1671	and the second second
SVE-14			and the second	
SVE-15	49.6		1272	Statistics Property
-SVE-16-				A state of the second
SVE-17	49.6	1 August 12	435.8	
-SVE-18-		and the set of the set		
-SVE-19	The second se			
-SVE-20_		and the second		
SVE-21	49.7	The second s	314.4	And the second second
SVE-22	464		213 3	

COMMENTS/OTHER MAINTENANCE:

Skid 1 blower inoperable, waiting for replacement





APPENDIX B

Project Photographs

Released to Imaging: 8/5/2024 11:20:00 AM



Ensolum, LLC | Environmental & Hydrogeologic Consultants





APPENDIX C

Laboratory Analytical Reports

Released to Imaging: 8/5/2024 11:20:00 AM

Received by OCD: 7/15/2024 2:33:00 PM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Samantha Grabert Hilcorp Energy PO BOX 4700 Farmington, New Mexico 87499 Generated 6/21/2024 1:58:25 PM

JOB DESCRIPTION

O H Randel 5

JOB NUMBER

885-6149-1

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

Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com

Authorized for release by

(505)345-3975

Generated 6/21/2024 1:58:25 PM

Laboratory Job ID: 885-6149-1

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Lab Chronicle	16
Certification Summary	17
Subcontract Data	20
Chain of Custody	26
Receipt Checklists	27

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	Deminions/Clossery		
Client: Hilcorp	Energy	Job ID: 885-6149-1	
Quaimers			
GC/MS VOA			
Qualifier	Qualifier Description		
E	Result exceeded calibration range.		
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		6
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

TEF

TEQ

TNTC

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

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Job ID: 885-6149-1

Client: Hilcorp Energy Project: O H Randel 5

Job ID: 885-6149-1

Eurofins Albuquerque

Job Narrative 885-6149-1

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 6/13/2024 6:55 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 26.1°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.

Page 27 of 50

Lab Sample ID: 885-6149-1

Matrix: Air

5

Client Sample ID: Skid 1

Project/Site: O H Randel 5

Client: Hilcorp Energy

Date Collected: 06/11/24 13:00 Date Received: 06/13/24 06:55

Dute ne		10/24 00.00	
Sample	Container:	Tedlar Bag 1	

Method: SW846 8015M/D - Nonhalogenated Or	ganics using	g GC/MS -Modifie	d (Gasoline Rar	n <mark>ge Org</mark> a	anics)		
Analyte Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - 30000		250	ug/L			06/14/24 15:55	50
C10]							
Surrogate %Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr) 99		52 - 172		-		06/14/24 15:55	50
Method: SW846 8260B - Volatile Organic Comp	ounds (GC/	MS)					
Analyte Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane ND		5.0	ug/L			06/14/24 15:55	50
1,1,1-Trichloroethane ND		5.0	ug/L			06/14/24 15:55	50
1,1,2,2-Tetrachloroethane ND		10	ug/L			06/14/24 15:55	50
1,1,2-Trichloroethane ND		5.0	ug/L			06/14/24 15:55	50
1,1-Dichloroethane ND		5.0	ug/L			06/14/24 15:55	50
1,1-Dichloroethene ND		5.0	ug/L			06/14/24 15:55	50
1,1-Dichloropropene ND		5.0	ug/L			06/14/24 15:55	50
1,2,3-Trichlorobenzene ND		5.0	ug/L			06/14/24 15:55	50
1,2,3-Trichloropropane ND		10	ug/L			06/14/24 15:55	50
1,2,4-Trichlorobenzene ND		5.0	ug/L			06/14/24 15:55	50
1,2,4-Trimethylbenzene ND		5.0	ug/L			06/14/24 15:55	50
1,2-Dibromo-3-Chloropropane ND		10	ug/L			06/14/24 15:55	50
1,2-Dibromoethane (EDB) ND		5.0	ug/L			06/14/24 15:55	50
1,2-Dichlorobenzene ND		5.0	ug/L			06/14/24 15:55	50
1,2-Dichloroethane (EDC) ND		5.0	ug/L			06/14/24 15:55	50
1,2-Dichloropropane ND		5.0	ug/L			06/14/24 15:55	50
1,3,5-Trimethylbenzene ND		5.0	ug/L			06/14/24 15:55	50
1,3-Dichlorobenzene ND		5.0	ug/L			06/14/24 15:55	50
1,3-Dichloropropane ND		5.0	ug/L			06/14/24 15:55	50
1,4-Dichlorobenzene ND		5.0	ug/L			06/14/24 15:55	50
1-Methylnaphthalene ND		20	ug/L			06/14/24 15:55	50
2,2-Dichloropropane ND		10	ug/L			06/14/24 15:55	50
2-Butanone ND		50	ug/L			06/14/24 15:55	50
2-Chlorotoluene ND		5.0	ug/L			06/14/24 15:55	50
2-Hexanone ND		50	ug/L			06/14/24 15:55	50
2-Methylnaphthalene ND		20	ug/L			06/14/24 15:55	50
4-Chlorotoluene ND		5.0	ug/L			06/14/24 15:55	50
4-Isopropyltoluene ND		5.0	ug/L			06/14/24 15:55	50
4-Methyl-2-pentanone ND		50	ug/L			06/14/24 15:55	50
Acetone ND		50	ug/L			06/14/24 15:55	50
Benzene 270		5.0	ug/L			06/14/24 15:55	50
Bromobenzene ND		5.0	ug/L			06/14/24 15:55	50
Bromodichloromethane ND		5.0	ug/L			06/14/24 15:55	50
Dibromochloromethane ND		5.0	ug/L			06/14/24 15:55	50
Bromoform ND		5.0	ug/L			06/14/24 15:55	50
Bromomethane ND		15	ug/L			06/14/24 15:55	50
Carbon disulfide ND		50	ug/L			06/14/24 15:55	50
Carbon tetrachloride ND		5.0	ug/L			06/14/24 15:55	50
Chlorobenzene ND		5.0	ug/L			06/14/24 15:55	50
Chloroethane ND		10	ug/L			06/14/24 15:55	50
Chloroform ND		5.0	ug/L			06/14/24 15:55	50

Lab Sample ID: 885-6149-1

Matrix: Air

5

Client Sample ID: Skid 1 Date Collected: 06/11/24 13:00 Date Received: 06/13/24 06:55

Client: Hilcorp Energy

Project/Site: O H Randel 5

Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volati	le Organic Comp	ounds (GC	MS) (Continued)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		15	ug/L			06/14/24 15:55	50
cis-1,2-Dichloroethene	ND		5.0	ug/L			06/14/24 15:55	50
cis-1,3-Dichloropropene	ND		5.0	ug/L			06/14/24 15:55	50
Dibromomethane	ND		5.0	ug/L			06/14/24 15:55	50
Dichlorodifluoromethane	ND		5.0	ug/L			06/14/24 15:55	50
Ethylbenzene	23		5.0	ug/L			06/14/24 15:55	50
Hexachlorobutadiene	ND		5.0	ug/L			06/14/24 15:55	50
Isopropylbenzene	ND		5.0	ug/L			06/14/24 15:55	50
Methyl-tert-butyl Ether (MTBE)	ND		5.0	ug/L			06/14/24 15:55	50
Methylene Chloride	ND		15	ug/L			06/14/24 15:55	50
n-Butylbenzene	ND		15	ug/L			06/14/24 15:55	50
N-Propylbenzene	ND		5.0	ug/L			06/14/24 15:55	50
Naphthalene	ND		10	ug/L			06/14/24 15:55	50
sec-Butylbenzene	ND		5.0	ug/L			06/14/24 15:55	50
Styrene	ND		5.0	ug/L			06/14/24 15:55	50
tert-Butylbenzene	ND		5.0	ug/L			06/14/24 15:55	50
Tetrachloroethene (PCE)	ND		5.0	ug/L			06/14/24 15:55	50
Toluene	880	E	5.0	ug/L			06/14/24 15:55	50
trans-1,2-Dichloroethene	ND		5.0	ug/L			06/14/24 15:55	50
trans-1,3-Dichloropropene	ND		5.0	ug/L			06/14/24 15:55	50
Trichloroethene (TCE)	ND		5.0	ug/L			06/14/24 15:55	50
Trichlorofluoromethane	ND		5.0	ug/L			06/14/24 15:55	50
Vinyl chloride	ND		5.0	ug/L			06/14/24 15:55	50
Xylenes, Total	200		7.5	ug/L			06/14/24 15:55	50
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		70 - 130		-		06/14/24 15:55	50
Toluene-d8 (Surr)	121		70 - 130				06/14/24 15:55	50
4-Bromofluorobenzene (Surr)	117		70 - 130				06/14/24 15:55	50
Dibromofluoromethane (Surr)	80		70 - 130				06/14/24 15:55	50

Lab Sample ID: 885-6149-2

Matrix: Air

5

Client Sample ID: Skid 2 Date Collected: 06/11/24 13:15

Project/Site: O H Randel 5

Client: Hilcorp Energy

Date Received: 06/1	13/24 06:55
Sample Container:	Tedlar Bag 1L

Method: SW846 8015M/D - Non	halogenated Or	ganics usin	g GC/MS -Modifie	d (Gasoline Ra	nge Orga	anics)		
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 -	2000		250	ug/L			06/13/24 17:09	50
C10]								
Surrogate	%Recoverv	Qualifier	Limits			Prepared	Analvzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		52 - 172		-		06/13/24 17:09	50
Method: SW846 8260B - Volatile	e Organic Comp	ounds (GC	/MS)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	ug/L			06/13/24 17:09	50
1,1,1-Trichloroethane	ND		5.0	ug/L			06/13/24 17:09	50
1,1,2,2-Tetrachloroethane	ND		10	ug/L			06/13/24 17:09	50
1,1,2-Trichloroethane	ND		5.0	ug/L			06/13/24 17:09	50
1,1-Dichloroethane	ND		5.0	ug/L			06/13/24 17:09	50
1,1-Dichloroethene	ND		5.0	ug/L			06/13/24 17:09	50
1,1-Dichloropropene	ND		5.0	ug/L			06/13/24 17:09	50
1,2,3-Trichlorobenzene	ND		5.0	ug/L			06/13/24 17:09	50
1,2,3-Trichloropropane	ND		10	ug/L			06/13/24 17:09	50
1,2,4-Trichlorobenzene	ND		5.0	ug/L			06/13/24 17:09	50
1,2,4-Trimethylbenzene	ND		5.0	ug/L			06/13/24 17:09	50
1,2-Dibromo-3-Chloropropane	ND		10	ug/L			06/13/24 17:09	50
1,2-Dibromoethane (EDB)	ND		5.0	ug/L			06/13/24 17:09	50
1,2-Dichlorobenzene	ND		5.0	ug/L			06/13/24 17:09	50
1,2-Dichloroethane (EDC)	ND		5.0	ug/L			06/13/24 17:09	50
1,2-Dichloropropane	ND		5.0	ug/L			06/13/24 17:09	50
1,3,5-Trimethylbenzene	ND		5.0	ug/L			06/13/24 17:09	50
1,3-Dichlorobenzene	ND		5.0	ug/L			06/13/24 17:09	50
1,3-Dichloropropane	ND		5.0	ug/L			06/13/24 17:09	50
1,4-Dichlorobenzene	ND		5.0	ug/L			06/13/24 17:09	50
1-Methylnaphthalene	ND		20	ug/L			06/13/24 17:09	50
2,2-Dichloropropane	ND		10	ug/L			06/13/24 17:09	50
2-Butanone	ND		50	ug/L			06/13/24 17:09	50
2-Chlorotoluene	ND		5.0	ug/L			06/13/24 17:09	50
2-Hexanone	ND		50	ug/L			06/13/24 17:09	50
2-Methylnaphthalene	ND		20	ug/L			06/13/24 17:09	50
4-Chlorotoluene	ND		5.0	ug/L			06/13/24 17:09	50
4-Isopropyltoluene	ND		5.0	ug/L			06/13/24 17:09	50
4-Methyl-2-pentanone	ND		50	ug/L			06/13/24 17:09	50
Acetone	ND		50	ug/L			06/13/24 17:09	50
Benzene	20		5.0	ug/L			06/13/24 17:09	50
Bromobenzene	ND		5.0	ug/L			06/13/24 17:09	50
Bromodichloromethane	ND		5.0	ug/L			06/13/24 17:09	50
Dibromochloromethane	ND		5.0	ug/L			06/13/24 17:09	50
Bromoform	ND		5.0	ug/L			06/13/24 17:09	50
Bromomethane	ND		15	ug/L			06/13/24 17:09	50
Carbon disulfide	ND		50	ug/L			06/13/24 17:09	50
Carbon tetrachloride	ND		5.0	ug/L			06/13/24 17:09	50
Chlorobenzene	ND		5.0	ug/L			06/13/24 17:09	50
Chloroethane	ND		10	ug/L			06/13/24 17:09	50
Chloroform	ND		5.0	ua/L			06/13/24 17:09	50
				-3				

Lab Sample ID: 885-6149-2

Matrix: Air

5

Client Sample ID: Skid 2 Date Collected: 06/11/24 13:15 Date Received: 06/13/24 06:55

Client: Hilcorp Energy

Project/Site: O H Randel 5

Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volati	le Organic Comp	ounds (GC)	MS) (Continued)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		15	ug/L			06/13/24 17:09	50
cis-1,2-Dichloroethene	ND		5.0	ug/L			06/13/24 17:09	50
cis-1,3-Dichloropropene	ND		5.0	ug/L			06/13/24 17:09	50
Dibromomethane	ND		5.0	ug/L			06/13/24 17:09	50
Dichlorodifluoromethane	ND		5.0	ug/L			06/13/24 17:09	50
Ethylbenzene	ND		5.0	ug/L			06/13/24 17:09	50
Hexachlorobutadiene	ND		5.0	ug/L			06/13/24 17:09	50
Isopropylbenzene	ND		5.0	ug/L			06/13/24 17:09	50
Methyl-tert-butyl Ether (MTBE)	ND		5.0	ug/L			06/13/24 17:09	50
Methylene Chloride	ND		15	ug/L			06/13/24 17:09	50
n-Butylbenzene	ND		15	ug/L			06/13/24 17:09	50
N-Propylbenzene	ND		5.0	ug/L			06/13/24 17:09	50
Naphthalene	ND		10	ug/L			06/13/24 17:09	50
sec-Butylbenzene	ND		5.0	ug/L			06/13/24 17:09	50
Styrene	ND		5.0	ug/L			06/13/24 17:09	50
tert-Butylbenzene	ND		5.0	ug/L			06/13/24 17:09	50
Tetrachloroethene (PCE)	ND		5.0	ug/L			06/13/24 17:09	50
Toluene	63		5.0	ug/L			06/13/24 17:09	50
trans-1,2-Dichloroethene	ND		5.0	ug/L			06/13/24 17:09	50
trans-1,3-Dichloropropene	ND		5.0	ug/L			06/13/24 17:09	50
Trichloroethene (TCE)	ND		5.0	ug/L			06/13/24 17:09	50
Trichlorofluoromethane	ND		5.0	ug/L			06/13/24 17:09	50
Vinyl chloride	ND		5.0	ug/L			06/13/24 17:09	50
Xylenes, Total	14		7.5	ug/L			06/13/24 17:09	50
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		70 - 130		-		06/13/24 17:09	50
Toluene-d8 (Surr)	97		70 - 130				06/13/24 17:09	50
4-Bromofluorobenzene (Surr)	116		70 - 130				06/13/24 17:09	50
Dibromofluoromethane (Surr)	85		70 - 130				06/13/24 17:09	50

Released to Imaging: 8/5/2024 11:20:00 AM

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		Q	C Sampl	e Ro	esul	ts					
lient: Hilcorp Energy										Job ID: 885	5-6149-1
roject/Site: O H Randel 5											
lethod: 8015M/D - Nonhalo	genated Or	ganics u	sina GC/N	1S -N	Modi	fied (Ga	soline	Ranc	le Organ	ics)	
	gonatoa o.	gamee a							,• • · gui		
Lab Sample ID: MB 885-6752/3									Client S	Sample ID: Metho	d Blank
Matrix: Air										Prep Type:	Total/NA
Analysis Batch: 6752											
	N	IB MB									
Analyte	Resu	ult Qualifier		RL _		Unit		_ <u>D</u>	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	Ν	ID		5.0		ug/L				06/13/24 13:26	1
	N	IB MB									
Surrogate	%Recove	ry Qualifier	Limits						Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		04	52 - 17	2						06/13/24 13:26	1
Lab Sample ID: LCS 885-6752/2								Clie	ent Sample	D: Lab Control	Sample
Matrix: Air										Prep Type: 7	Total/NA
Analysis Batch: 6752											
			Spike		LCS	LCS				%Rec	
Analyte			Added	F	Result	Qualifier	Unit	[Limits	
Gasoline Range Organics [C6 - C10]			500		519		ug/L		104		
	LCS L	cs									
Surrogate	%Recovery Q	ualifier	Limits								
4-Bromofluorobenzene (Surr)	108		52 - 172								
Analysis Batch: 6821	N	IB MB								гер туре.	IOLAI/INA
Analyte	Resu	ult Qualifier		RL		Unit		D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	N	ID		5.0		ug/L				06/14/24 14:21	1
	N	IB MB									
Surrogate	%Recove	rv Qualifier	Limits						Prepared	Analvzed	Dil Fac
4-Bromofluorobenzene (Surr)		94	52 - 17	2						06/14/24 14:21	1
Lab Sample ID: LCS 885-6821/3								Clie	nt Sample	ID: Lab Control	Sample
Matrix: Air										Prep Type: 7	Total/NA
Analysis Batch: 6821											
			Spike		LCS	LCS				%Rec	
Analyte			Added	F	Result	Qualifier	Unit		D %Rec	Limits	
Gasoline Range Organics [C6 - C10]			500		524		ug/L		105		
	LCS L	cs									
Surrogate	%Recovery Q	ualifier	Limits								
4-Bromofluorobenzene (Surr)	101		52 - 172								
Aethod: 8260B - Volatile Ord	nanic Com	oounds (GC/MS)								
Lab Sample ID: MR 895 6750/2		<u> </u>							Client	ample ID: Mothe	d Blank
Matrix: Air									Gnerit a	Pron Type	
Analysis Batch: 6750										Teb Type.	
Analysis Buton. 0100	N	В МВ									
Analyte	Resi	It Qualifier		RL		Unit		D	Prepared	Analvzed	Dil Fac
1,1,1,2-Tetrachloroethane	N	ID	0	.10		<u>ua/L</u>				06/13/24 13:26	1
1,1,1-Trichloroethane	N	ID	0	.10		ug/L				06/13/24 13:26	1
1,1,2,2-Tetrachloroethane	N	ID	0	.20		ua/L				06/13/24 13:26	1
.,.,_,	1	-	0			ag/L				00,10,2110.20	

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06/13/24 13:26

1,1,2-Trichloroethane

0.10

ug/L

ND

1

Client: Hilcorp Energy Project/Site: O H Randel 5

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

Lab Sample ID: MB 885-6750/3

Matrix: Air Analysis Batch: 6750

	MB	MB					
Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		0.10	ug/L		06/13/24 13:26	1
1,1-Dichloroethene	ND		0.10	ug/L		06/13/24 13:26	1
1,1-Dichloropropene	ND		0.10	ug/L		06/13/24 13:26	1
1,2,3-Trichlorobenzene	ND		0.10	ug/L		06/13/24 13:26	1
1,2,3-Trichloropropane	ND		0.20	ug/L		06/13/24 13:26	1
1,2,4-Trichlorobenzene	ND		0.10	ug/L		06/13/24 13:26	1
1,2,4-Trimethylbenzene	ND		0.10	ug/L		06/13/24 13:26	1
1,2-Dibromo-3-Chloropropane	ND		0.20	ug/L		06/13/24 13:26	1
1,2-Dibromoethane (EDB)	ND		0.10	ug/L		06/13/24 13:26	1
1,2-Dichlorobenzene	ND		0.10	ug/L		06/13/24 13:26	1
1,2-Dichloroethane (EDC)	ND		0.10	ug/L		06/13/24 13:26	1
1.2-Dichloropropane	ND		0.10	ua/L		06/13/24 13:26	1
1,3,5-Trimethylbenzene	ND		0.10	ug/L		06/13/24 13:26	1
1,3-Dichlorobenzene	ND		0.10	ug/L		06/13/24 13:26	1
1.3-Dichloropropane	ND		0.10	ua/L		06/13/24 13:26	1
1.4-Dichlorobenzene	ND		0.10	ua/L		06/13/24 13:26	1
1-Methylnaphthalene	ND		0.40	ua/L		06/13/24 13:26	1
2 2-Dichloropropane	ND		0.20	<u>-</u> g/		06/13/24 13:26	1
2-Butanone	ND		1.0	ug/L		06/13/24 13:26	1
2-Chlorotoluene	ND		0.10	ug/L		06/13/24 13:26	1
2-Hexanone	ND		1.0	ug/L		06/13/24 13:26	
2-Methylnaphthalene	ND		0.40	ug/L		06/13/24 13:26	1
4-Chlorotoluene	ND		0.10	ug/L		06/13/24 13:26	1
4-lsopropyltoluene	ND		0.10	ug/L		06/13/24 13:26	
4-Methyl-2-pentanone	ND		1.0	ug/L		06/13/24 13:26	1
Acetone	ND		1.0	ug/L		06/13/24 13:26	1
Benzene	ND		0.10	ug/L		06/13/24 13:26	
Bromohenzene			0.10	ug/L		06/13/24 13:26	1
Bromodichloromethane			0.10	ug/L		06/13/24 13:26	1
Dibromochloromethane			0.10	ug/L		06/13/24 13:26	
Bromoform			0.10	ug/L		06/13/24 13:26	1
Bromomothana			0.10	ug/L		06/13/24 13:26	1
Carbon disulfide			1.0	ug/L		06/13/24 13:26	
			0.10	ug/L		06/13/24 13:26	1
			0.10	ug/L		06/13/24 13:26	1
Chloroothana			0.10	ug/L		06/13/24 13:26	1
Chloroform			0.20	ug/L		06/13/24 13:20	1
Chloromothana			0.10	ug/L		06/13/24 13.20	1
			0.30	ug/L		06/12/24 13:20	
	ND		0.10	ug/L		06/13/24 13.20	1
			0.10	ug/L		06/13/24 13:20	1
			0.10	ug/L		00/13/24 13.20	
	ND		0.10	ug/L		06/13/24 13:26	1
	ND		0.10	ug/L		06/13/24 13:26	1
	ND		0.10	ug/L		06/13/24 13:20	1
Isopropyidenzene	ND		0.10	ug/L		06/13/24 13:26	1
	ND		0.10	ug/L		06/13/24 13:26	1
	ND		0.30	ug/L		06/13/24 13:26	1
п-витуренzene	ND		0.30	ug/L		06/13/24 13:26	1
N-Propylbenzene	ND		0.10	ug/L		06/13/24 13:26	1

Job ID: 885-6149-1

Prep Type: Total/NA

Client Sample ID: Method Blank

0.10

0.10

0.10

0.10

0.15

Limits

70 - 130

70 - 130

70 - 130

70 - 130

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

ND

ND

ND

ND

ND

94

89

108

92

~~ . ~~

%Recovery

MB MB

Qualifier

Lab Sample ID: MB 885-6750/3

Matrix: Air Analysis Batch: 6750

trans-1,2-Dichloroethene

trans-1,3-Dichloropropene

Trichloroethene (TCE)

Trichlorofluoromethane

Vinyl chloride

Xylenes, Total

Surrogate

Toluene-d8 (Surr)

Analyte Naphthalene sec-Butylbenzene

Styrene tert-Butylbenzene Tetrachloroethene (PCE)

Toluene

МВ	МВ							5
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
 ND		0.20	ug/L			06/13/24 13:26	1	6
ND		0.10	ug/L			06/13/24 13:26	1	
ND		0.10	ug/L			06/13/24 13:26	1	
ND		0.10	ug/L			06/13/24 13:26	1	
ND		0.10	ug/L			06/13/24 13:26	1	0
ND		0.10	ug/L			06/13/24 13:26	1	0
ND		0.10	ug/L			06/13/24 13:26	1	

ug/L

ug/L

ug/L

ug/L

ug/L

Lab Sample ID: LCS 885-6750/2	
Matrix: Air	

Analysis Batch: 6750

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1-Dichloroethene	20.1	20.3		ug/L		101		
Benzene	20.1	21.0		ug/L		105		
Chlorobenzene	20.1	20.1		ug/L		100		
Toluene	20.2	19.8		ug/L		98		
Trichloroethene (TCE)	20.2	19.2		ug/L		95		

	LCS	LUS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
Toluene-d8 (Surr)	90		70 - 130
4-Bromofluorobenzene (Surr)	112		70 - 130
Dibromofluoromethane (Surr)	91		70 - 130

Lab Sample ID: MB 885-6822/3 Matrix: Air Analysis Batch: 6822

1,'

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10	ug/L			06/14/24 14:21	1
1,1,1-Trichloroethane	ND		0.10	ug/L			06/14/24 14:21	1
1,1,2,2-Tetrachloroethane	ND		0.20	ug/L			06/14/24 14:21	1
1,1,2-Trichloroethane	ND		0.10	ug/L			06/14/24 14:21	1
1,1-Dichloroethane	ND		0.10	ug/L			06/14/24 14:21	1
1,1-Dichloroethene	ND		0.10	ug/L			06/14/24 14:21	1
1.1-Dichloropropene	ND		0.10	ua/L			06/14/24 14:21	1

06/13/24 13:26 06/13/24 13:26

06/13/24 13:26

06/13/24 13:26

06/13/24 13:26

Analyzed

06/13/24 13:26

Prep Type: Total/NA

Job ID: 885-6149-1

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06/13/24 13:26 1 06/13/24 13:26 1 06/13/24 13:26 1

Client Sample ID: Lab Control Sample

Prepared

1

1

1

Dil Fac

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

Client: Hilcorp Energy Project/Site: O H Randel 5

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

Lab Sample ID: MB 885-6822/3

Matrix: Air Analysis Batch: 6822

	MB	МВ					
Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		0.10	ug/L		06/14/24 14:21	1
1,2,3-Trichloropropane	ND		0.20	ug/L		06/14/24 14:21	1
1,2,4-Trichlorobenzene	ND		0.10	ug/L		06/14/24 14:21	1
1,2,4-Trimethylbenzene	ND		0.10	ug/L		06/14/24 14:21	1
1,2-Dibromo-3-Chloropropane	ND		0.20	ug/L		06/14/24 14:21	1
1,2-Dibromoethane (EDB)	ND		0.10	ug/L		06/14/24 14:21	1
1,2-Dichlorobenzene	ND		0.10	ug/L		06/14/24 14:21	1
1,2-Dichloroethane (EDC)	ND		0.10	ug/L		06/14/24 14:21	1
1,2-Dichloropropane	ND		0.10	ug/L		06/14/24 14:21	1
1,3,5-Trimethylbenzene	ND		0.10	ug/L		06/14/24 14:21	1
1,3-Dichlorobenzene	ND		0.10	ug/L		06/14/24 14:21	1
1,3-Dichloropropane	ND		0.10	ug/L		06/14/24 14:21	1
1,4-Dichlorobenzene	ND		0.10	ug/L		06/14/24 14:21	1
1-Methylnaphthalene	ND		0.40	ug/L		06/14/24 14:21	1
2,2-Dichloropropane	ND		0.20	ug/L		06/14/24 14:21	1
2-Butanone	ND		1.0	ug/L		06/14/24 14:21	1
2-Chlorotoluene	ND		0.10	ug/L		06/14/24 14:21	1
2-Hexanone	ND		1.0	ua/L		06/14/24 14:21	1
2-Methylnaphthalene	ND		0.40	ua/L		06/14/24 14:21	1
4-Chlorotoluene	ND		0.10	ug/l		06/14/24 14.21	1
4-lsopropyltoluene	ND		0.10	ug/L		06/14/24 14:21	
4-Methyl-2-pentanone	ND		1.0	ug/L		06/14/24 14:21	1
			1.0	ug/L		06/14/24 14:21	1
Benzene	ND		0.10	ug/L		06/14/24 14:21	
Bromobenzene			0.10	ug/L		06/14/24 14:21	1
Bromodichloromethane			0.10	ug/L		06/14/24 14:21	1
Dibromochloromethane			0.10	ug/L		06/14/24 14:21	
Bromoform			0.10	ug/L		06/14/24 14:21	1
Bromomethane			0.10	ug/L		06/14/24 14:21	1
Carbon disulfide			1.0	ug/L		06/14/24 14:21	
			0.10	ug/L		06/14/24 14:21	1
			0.10	ug/L		06/14/24 14:21	1
Chloroothana			0.10	ug/L		06/14/24 14:21	
Chloroform			0.20	ug/L		06/14/24 14:21	1
Chloromothana			0.10	ug/L		06/14/24 14:21	1
cis 1.2 Dichloroothono			0.10	ug/L		06/14/24 14:21	1
			0.10	ug/L		06/14/24 14:21	1
Dibromomothana			0.10	ug/L		06/14/24 14.21	1
Diplomomethane			0.10	ug/L		06/14/24 14:21	
Ethylhonzono			0.10	ug/L		06/14/24 14:21	1
Havaphlarabutadiana			0.10	ug/L		06/14/24 14.21	1
			0.10	ug/L		06/14/24 14.21	
Nothyl tort butyl Ether (MTPE)			0.10	ug/L		06/14/24 14:21	1
Methylone Chloride			0.10	ug/L		06/14/24 14:21	1
			0.30	ug/L		06/14/24 14:21	1
			0.30	ug/L		06/14/24 14:21	1
Nerthelene			0.10	ug/L		06/14/24 14:21	1
	ND		0.20	ug/L		06/14/24 14:21	
Sec-Dulyidenzene			0.10	ug/L		06/14/24 14:21	1
Styrene	ND		0.10	ug/L		00/14/24 14:21	1

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5

6

Prep Type: Total/NA

Client Sample ID: Method Blank

Client: Hilcorp Energy Project/Site: O H Randel 5

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

Lab Sample ID: MB 885-6822/3

Matrix: Air Analysis Batch: 6822

Client Sample ID: Method Blank	¢
Prep Type: Total/NA	١

-	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		0.10	ug/L			06/14/24 14:21	1
Tetrachloroethene (PCE)	ND		0.10	ug/L			06/14/24 14:21	1
Toluene	ND		0.10	ug/L			06/14/24 14:21	1
trans-1,2-Dichloroethene	ND		0.10	ug/L			06/14/24 14:21	1
trans-1,3-Dichloropropene	ND		0.10	ug/L			06/14/24 14:21	1
Trichloroethene (TCE)	ND		0.10	ug/L			06/14/24 14:21	1
Trichlorofluoromethane	ND		0.10	ug/L			06/14/24 14:21	1
Vinyl chloride	ND		0.10	ug/L			06/14/24 14:21	1
Xylenes, Total	ND		0.15	ug/L			06/14/24 14:21	1
	MB	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

1,2-Dichloroethane-d4 (Surr)	92	70 - 130	06/14/24 14:2	1 1
Toluene-d8 (Surr)	96	70 - 130	06/14/24 14:2	1 1
4-Bromofluorobenzene (Surr)	109	70 - 130	06/14/24 14:2	1 1
Dibromofluoromethane (Surr)	85	70 - 130	06/14/24 14:2	1 1

Lab Sample ID: LCS 885-6822/2 Matrix: Air

Analysis Batch: 6822

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1-Dichloroethene	20.1	17.3		ug/L		86		
Benzene	20.1	18.2		ug/L		90		
Chlorobenzene	20.1	20.5		ug/L		102		
Toluene	20.2	20.6		ug/L		102		
Trichloroethene (TCE)	20.2	16.7		ug/L		83		

	LCS	LCS		
Surrogate	%Recovery	Qualifier	Limits	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130	
Toluene-d8 (Surr)	96		70 - 130	
4-Bromofluorobenzene (Surr)	110		70 - 130	
Dibromofluoromethane (Surr)	86		70 - 130	

Job ID: 885-6149-1

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

QC Association Summary

Client: Hilcorp Energy Project/Site: O H Randel 5 Job ID: 885-6149-1

GC/MS VOA Analysis Batch: 6750

GC/NIS VUA						
Analysis Batch: 675	0					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
885-6149-2	Skid 2	Total/NA	Air	8260B		-
MB 885-6750/3	Method Blank	Total/NA	Air	8260B		5
LCS 885-6750/2	Lab Control Sample	Total/NA	Air	8260B		
Analysis Batch: 675	2					<u> </u>
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	7
885-6149-2	Skid 2	Total/NA	Air	8015M/D		
MB 885-6752/3	Method Blank	Total/NA	Air	8015M/D		8
LCS 885-6752/2	Lab Control Sample	Total/NA	Air	8015M/D		
Analysis Batch: 682	1					9
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	
885-6149-1	Skid 1	Total/NA	Air	8015M/D		
MB 885-6821/5	Method Blank	Total/NA	Air	8015M/D		
LCS 885-6821/3	Lab Control Sample	Total/NA	Air	8015M/D		
Analysis Batch: 6822	2					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	
885-6149-1	Skid 1	Total/NA	Air	8260B		
MB 885-6822/3	Method Blank	Total/NA	Air	8260B		
LCS 885-6822/2	Lab Control Sample	Total/NA	Air	8260B		

Lab Chronicle

Job ID: 885-6149-1

Client: Hilcorp Energy Project/Site: O H Randel 5

Client Sample ID: Skid 1 Date Collected: 06/11/24 13:00 Date Received: 06/13/24 06:55

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015M/D		50	6821	СМ	EET ALB	06/14/24 15:55
Total/NA	Analysis	8260B		50	6822	CM	EET ALB	06/14/24 15:55

Client Sample ID: Skid 2 Date Collected: 06/11/24 13:15 Date Received: 06/13/24 06:55

—	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015M/D		50	6752	СМ	EET ALB	06/13/24 17:09
Total/NA	Analysis	8260B		50	6750	СМ	EET ALB	06/13/24 17:09

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

- 12.000-0140-1

Matrix: Air

Lab Sample ID: 885-6149-1 Matrix: Air

Lab Sample ID: 885-6149-2

Accreditation/Certification Summary

Client: Hilcorp Energy Project/Site: O H Randel 5 Job ID: 885-6149-1

Laboratory: Eurofins Albuquerque

rity	Progr	am	Identification Number	Expiration Date	
1exico	State		NM9425, NM0901	02-26-25	
The following analytes	are included in this report, bu	ut the laboratory is not certif	ied by the governing authority. This lis	t may include analytes	
for which the agency do	Des not offer certification.	Mantain	A		
			Analyte	IC6_C101	
8015M/D		All			
0200D		All			
8260B		All	1,1,2,2 Totrachloroothano		
8260B		Air	1,1,2,2- Tetrachioroethane		
0200D		All	1.1 Disbloreethane		
0200D		All	1.1 Dichloroothono		
0200B		All			
0200B		All	1, 1-Dichloropropene		
0200D		All			
0200D		All			
0200B		All			
0200B		All	1,2,4- Minethylbenzene		
0200B		All		ane	
8260B		Air	1,2-Dibromoetnane (EDB)		
8260B		Air	1,2-Dichlorobenzene		
8260B		Air	1,2-Dichloroethane (EDC)		
8260B		Air			
8260B		Air	1,3,5-Trimetnyibenzene		
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		
8060B		A :	Dibasassablassastbass		

Accreditation/Certification Summary

Client: Hilcorp Energy Project/Site: O H Randel 5

Laboratory: Eurofins Albuquerque (Continued)

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

rity	Progr	am	Identification Number Expiration Date
The following analytes	are included in this report, b	ut the laboratory is not certi	ied by the governing authority. This list may include analytes
for which the agency do	pes 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
n	NELA	P	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

Job ID: 885-6149-1

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Accreditation/Certification Summary

Client: Hilcorp Energy Project/Site: O H Randel 5 Job ID: 885-6149-1

Laboratory: Eurofins Albuquerque (Continued)

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

у	Progra	am	Identification Number Expiration Date
he following analytes a or which the agency do	are included in this report, bu bes not offer certification.	t the laboratory is not certi	fied by the governing authority. This list may include analytes
nalysis Method	Prep Method	Matrix	Analyte
260B		Air	1-Methylnaphthalene
260B		Air	2,2-Dichloropropane
260B		Air	2-Butanone
260B		Air	2-Chlorotoluene
260B		Air	2-Hexanone
260B		Air	2-Methylnaphthalene
260B		Air	4-Chlorotoluene
260B		Air	4-Isopropyltoluene
260B		Air	4-Methyl-2-pentanone
260B		Air	Acetone
260B		Air	Benzene
260B		Air	Bromobenzene
260B		Air	Bromodichloromethane
260B		Air	Bromoform
260B		Air	Bromomethane
260B		Air	Carbon disulfide
260B		Air	Carbon tetrachloride
260B		Air	Chlorobenzene
260B		Air	Chloroethane
260B		Air	Chloroform
260B		Air	Chloromethane
260B		Air	cis-1,2-Dichloroethene
260B		Air	cis-1,3-Dichloropropene
260B		Air	Dibromochloromethane
260B		Air	Dibromomethane
260B		Air	Dichlorodifluoromethane
260B		Air	Ethylbenzene
260B		Air	Hexachlorobutadiene
260B		Air	Isopropylbenzene
260B		Air	Methylene Chloride
260B		Air	Methyl-tert-butyl Ether (MTBE)
260B		Air	Naphthalene
260B		Air	n-Butylbenzene
260B		Air	N-Propylbenzene
260B		Air	sec-Butylbenzene
260B		Air	Styrene
260B		Air	tert-Butylbenzene
260B		Air	Tetrachloroethene (PCE)
260B		Air	Toluene
260B		Air	trans-1,2-Dichloroethene
260B		Air	trans-1,3-Dichloropropene
260B		Air	Trichloroethene (TCE)
260B		Air	Trichlorofluoromethane
260B		Air	Vinyl chloride
260B		Air	Xvlenes Total

9



ANALYTICAL SUMMARY REPORT

June 21, 2024

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

Work Order: B24061400 Quote ID: B15626

Project Name: O H Randel 5, 88501698

Energy Laboratories Inc Billings MT received the following 2 samples for Hall Environmental on 6/14/2024 for analysis.

Lab ID	Client Sample ID	Collect Date Re	eceive Date	Matrix	Test
B24061400-001	Skid 1 (885-6149-1)	06/11/24 13:00	06/14/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond,/1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60
B24061400-002	Skid 2 (885-6149-2)	06/11/24 13:15	06/14/24	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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Billings, MT 406.252.6325 • Casper, WY 307.235.0515 Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Prepared by Billings, MT Branch

 Client:
 Hall Environmental

 Project:
 O H Randel 5, 88501698

 Lab ID:
 B24061400-001

 Client Sample ID:
 Skid 1 (885-6149-1)

 Report Date:
 06/21/24

 Collection Date:
 06/11/24 13:00

 DateReceived:
 06/14/24

 Matrix:
 Air

	MCL/								
Analyses	Result	Units	Qualifiers	RL	QCL	Method	Analysis Date / By		
GAS CHROMATOGRAPHY ANALYSIS	REPORT								
Oxvaen	20.98	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / iri		
Nitrogen	77.73	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / iri		
Carbon Dioxide	0.70	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / iri		
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / jrj		
Methane	0.01	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / jrj		
Ethane	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / jrj		
Propane	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / jrj		
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / jrj		
n-Butane	0.02	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / jrj		
Isopentane	0.04	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / jrj		
n-Pentane	0.05	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / jrj		
Hexanes plus	0.47	Mol %		0.01		GPA 2261-95	06/17/24 11:55 / jrj		
Propane	< 0.001	gpm		0.001		GPA 2261-95	06/17/24 11:55 / jrj		
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	06/17/24 11:55 / jrj		
n-Butane	0.006	gpm		0.001		GPA 2261-95	06/17/24 11:55 / jrj		
Isopentane	0.015	gpm		0.001		GPA 2261-95	06/17/24 11:55 / jrj		
n-Pentane	0.018	gpm		0.001		GPA 2261-95	06/17/24 11:55 / jrj		
Hexanes plus	0.198	gpm		0.001		GPA 2261-95	06/17/24 11:55 / jrj		
GPM Total	0.237	gpm		0.001		GPA 2261-95	06/17/24 11:55 / jrj		
GPM Pentanes plus	0.231	gpm		0.001		GPA 2261-95	06/17/24 11:55 / jrj		
CALCULATED PROPERTIES									
Gross BTU per cu ft @ Std Cond. (HHV)	27			1		GPA 2261-95	06/17/24 11:55 / jrj		
Net BTU per cu ft @ std cond. (LHV)	25			1		GPA 2261-95	06/17/24 11:55 / jrj		
Pseudo-critical Pressure, psia	546			1		GPA 2261-95	06/17/24 11:55 / jrj		
Pseudo-critical Temperature, deg R	244			1		GPA 2261-95	06/17/24 11:55 / jrj		
Specific Gravity @ 60/60F	1.01			0.001		D3588-81	06/17/24 11:55 / jrj		
Air, % - The analysis was not corrected for air	95.85			0.01		GPA 2261-95	06/17/24 11:55 / jrj		

COMMENTS

06/17/24 11:55 / 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

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Billings, MT 406.252.6325 • Casper, WY 307.235.0515 Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Prepared by Billings, MT Branch

 Client:
 Hall Environmental

 Project:
 O H Randel 5, 88501698

 Lab ID:
 B24061400-002

 Client Sample ID:
 Skid 2 (885-6149-2)

Report Date: 06/21/24 Collection Date: 06/11/24 13:15 DateReceived: 06/14/24 Matrix: Air

					MCL/		
Analyses	Result	Units	Qualifiers	RL	QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS	REPORT						
Oxvaen	21.27	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / iri
Nitrogen	78.52	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / iri
Carbon Dioxide	0.12	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / jrj
Hexanes plus	0.09	Mol %		0.01		GPA 2261-95	06/17/24 12:45 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	06/17/24 12:45 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	06/17/24 12:45 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	06/17/24 12:45 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	06/17/24 12:45 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	06/17/24 12:45 / jrj
Hexanes plus	0.038	gpm		0.001		GPA 2261-95	06/17/24 12:45 / jrj
GPM Total	0.038	gpm		0.001		GPA 2261-95	06/17/24 12:45 / jrj
GPM Pentanes plus	0.038	gpm		0.001		GPA 2261-95	06/17/24 12:45 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	4			1		GPA 2261-95	06/17/24 12:45 / jrj
Net BTU per cu ft @ std cond. (LHV)	4			1		GPA 2261-95	06/17/24 12:45 / jrj
Pseudo-critical Pressure, psia	544			1		GPA 2261-95	06/17/24 12:45 / jrj
Pseudo-critical Temperature, deg R	239			1		GPA 2261-95	06/17/24 12:45 / jrj
Specific Gravity @ 60/60F	0.999			0.001		D3588-81	06/17/24 12:45 / jrj
Air, % - The analysis was not corrected for air	97.16			0.01		GPA 2261-95	06/17/24 12:45 / jrj

COMMENTS

06/17/24 12:45 / 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

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QA/QC Summary Report

Prepared by Billings, MT Branch

				•	5						
Client:	Hall Environmental				Work Order:	B2406	1400	Repor	rt Date:	06/21/24	
Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	GPA 2261-95									Batch:	R422955
Lab ID:	B24061400-001ADUP	• 12 Sam	ple Duplic	ate			Run: GCNG	GA-B_240617A		06/17/	/24 01:36
Oxygen			20.9	Mol %	0.01				0.2	20	
Nitrogen			77.7	Mol %	0.01				0.1	20	
Carbon D	Dioxide		0.70	Mol %	0.01				0.0	20	
Hydroger	n 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	e		<0.01	Mol %	0.01					20	
n-Butane			0.02	Mol %	0.01				0.0	20	
Isopentar	ne		0.04	Mol %	0.01				0.0	20	
n-Pentan	e		0.05	Mol %	0.01				0.0	20	
Hexanes	plus		0.56	Mol %	0.01				17	20	
Lab ID:	LCS061724	11 Labo	oratory Co	ntrol Sample	9		Run: GCNG	GA-B_240617A		06/17/	/24 02:26
Oxygen			0.65	Mol %	0.01	130	70	130			
Nitrogen			5.88	Mol %	0.01	98	70	130			
Carbon D	Dioxide		0.99	Mol %	0.01	100	70	130			
Methane			74.8	Mol %	0.01	100	70	130			
Ethane			6.03	Mol %	0.01	100	70	130			
Propane			5.00	Mol %	0.01	101	70	130			
Isobutane	e		1.90	Mol %	0.01	95	70	130			
n-Butane			1.99	Mol %	0.01	99	70	130			
Isopentar	ne		1.00	Mol %	0.01	100	70	130			
n-Pentan	e		1.00	Mol %	0.01	100	70	130			
Hexanes	plus		0.80	Mol %	0.01	100	70	130			

ND - Not detected at the Reporting Limit (RL)

5	
8	
9	
10	

LABORATORIES	www.energy

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B24061400

Work Order Receipt Checklist

Hall Environmental

Login completed by:	Danielle N. Harris		Date F	Received: 6/14/2024
Reviewed by: rshular			Rec	eived by: CMJ
Reviewed Date:	6/20/2024		Carri	er name: FedEx NDA
Shipping container/cooler in	good condition?	Yes 🗸	No 🗌	Not Present
Custody seals intact on all sh	nipping container(s)/cooler(s)?	Yes 🗹	No 🗌	Not Present
Custody seals intact on all sa	ample bottles?	Yes	No 🗌	Not Present 🗹
Chain of custody present?		Yes 🗹	No 🗌	
Chain of custody signed whe	en relinquished and received?	Yes 🗹	No 🗌	
Chain of custody agrees with	n 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 h (Exclude analyses that are co such as pH, DO, Res Cl, Su	olding time? onsidered field parameters Ifite, Ferrous Iron, etc.)	Yes 🗹	No 🗌	
Temp Blank received in all sl	hipping container(s)/cooler(s)?	Yes	No 🗹	Not Applicable
Container/Temp Blank tempe	erature:	19.2°C No Ice		
Containers requiring zero hea bubble that is <6mm (1/4").	adspace have no headspace or	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: 565-345-375 Fax: 505-345-4107	Chair	n of Cus	tody Ree	sord	29142			💸 eurofins Environmen	t Testing
Client Information (Sub Contract Lab)	Sampler.		Lab PM: Freema	n, Andy	0	arrier Tracking No(s		COC No: 885-936.1	
Client Contact: Shipping/Receiving	Phone:		E-Mail: andy.fre	eman@et.eurofinsus.com	02	tate of Origin: lew Mexico		Page: Page 1 of 1	
Company: Energy Laboratories, Inc.			Acc	reditations Required (See note): LAP - Oregon; State - New	Mexico			Job #: 885-6149-1	
Address: 1120 South 27th Street,	Due Date Requested: 6/25/2024			Analys	sis Requ	lested		Preservation Codes:	
City: Billings	TAT Requested (days):								
State, Zlp: MT, 59101									
Phone: 406-252-6325(Tel)	PO#		(*						
Email:	:# OM		or No	səs (ON	_				
Project Name: O H Randel 5	Project #. 88501698		sə) ə	sed Gas			anist.		
Site:	SSOW#:		gmsS	KIT ((25)) FIX			003 10	Other:	
Samule Identification - Client ID (Lab ID)	Sample Date Time	Sample Type Ie (C=comp, G=orab)	Matrix (w=water, s=solid, O=watedit, 0=wated	Mi2M more Gass BUB (Fixed Gass			reforming lefo	Social Instituctions (No	į
	X	Preservi	ation Code: X	;					
Skid 1 (885-6149-1)	6/11/24 13:00	- i	Air	×				Control 1400	
Skid 2 (885-6149-2)	6/11/24 13:15 Mounts		Air	×					
		_				-			
		_							
Note: Since laboratory accentations are subject to shange. Euroffins Environment laboratory does not currently maintain accenditation in the State of Origin listed abo accreditation status should be brought to Eurofins Environment Testing South Cen	t Testing South Central, LLC pla ove for analysis/tests/matrix beil htral, LLC attention immediately.	ices the ownership ng analyzed, the s If all requested a	of method, analyte amples must be ship ccreditations are cur	a accreditation compliance upon ou ped back to the Eurofins Environmi- ent to date, return the signed Chail	IT subcontrac ent Testing S n of Custody	it laboratories. This it outh Central, LLC la attesting to said com	sample shipmer boratory or othe ipliance to Euro	It is forwarded under chain-of-custody. If instructions will be provided. Any chang ofins Environment Testing South Central, I.	the jes to LC.
Possible Hazard Identification				Sample Disposal (A fee n	ay be as:	sessed if sampl	es are retair	red longer than 1 month)	
Unconfirmed				Return To Client]]	posal By Lab	Arc	hive For Months	
Deliverable Requested: 1, 11, 11, 11, 1V, Other (specify)	Primary Deliverable Kan	K: 2		Special Instructions/QC Rec	quirements				
Empty Kit Relinguished by: //	Date:		Tin	le:		Method of Shipn	lent:		
Relinquished by MUCMAN	Date/Ind B/ 134	1408	Company	Received by:		Date	(Time:	Company	
ReInquished by:	Date/Time:		Company	Received by:		Date	Time:	Company	
Relinquished by	Date/Time:		Company	Received by	n stal	Heres Date	Typy	APO CONTRACT	
Custody Seals Intact: Custody Seal No.:				Cooler Temperature(s) °C and	other Rema	irks			
							1	Ver: 04/02/202	4

Released to Imaging: 8/5/2024 11:20:00 AM

5
8
9
11

-Custody Record	Turn-Around Time: Turn-Around Time:	Md 00:55:7 Md 00:55:7 Poliect Manager: Poliect Manager: Poliec	2 Tedlar 2 Tedlar 2 Tedlar 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Received by: Via: Courter Date Time Received by: Via: Courter Date
-Culstoody Kecord	Project #:	 Project Manager: Sampler: Brehder Grab Sampler: Brehder Sampler: Brehder Sampler: Zonders: Cooler Temp(Induding cF): 2U Container Type and # Type 	2 Tellar 2 Tedlar 2 Tedlar	Received by: Via: Redeived by: Via:

Login Sample Receipt Checklist

Client: Hilcorp Energy

Login Number: 6149 List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	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	

Job Number: 885-6149-1

List Source: Eurofins Albuquerque

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

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	364161
	Action Type:
	[REPORT] Alternative Remediation Report (C-141AR)

CONDITIONS

Created By	Condition	Condition Date
nvelez	1. Continue monthly O&M schedule as stated in the recommendations section of report. 2. Submit next bi-annual report by January 15, 2025.	8/5/2024

Action 364161