ENSOLUM

January 3, 2025

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 Annual Groundwater Monitoring Report
Federal Gas Com H#1
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident Number: NDGF0000010

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *2024 Annual Groundwater Monitoring Report* to the New Mexico Oil Conservation Division (NMOCD). This report documents groundwater monitoring activities conducted at the Federal Gas Com H#1 natural gas production well (Site), located within Unit Letter C of Section 31, Township 30 North, and Range 12 West, San Juan County, New Mexico (Figure 1). The Site was previously owned and operated by Amoco and then XTO Energy, Inc. (XTO) prior to the acquisition by Hilcorp. Currently, there are three monitoring wells (MW-1, MW-2, and MW-3R) located at the Site, which are gauged quarterly for groundwater elevations. Additionally, groundwater from monitoring well MW-1 is sampled quarterly for laboratory analysis.

SITE BACKGROUND

In November 1999, XTO responded to a release of approximately 69 barrels (bbls) of produced water and condensate. The response involved excavation and disposal of 304 cubic yards of impacted soil and the collection of confirmation soil samples from the perimeter of the excavation. On January 28, 2000, Blagg Engineering, Inc. (Blagg) submitted the *Spill Cleanup Report* detailing response activities. Field and analytical data presented in the report suggested the vertical extent of the release had been established and the lateral extent of soil impacts met closure standards except for the source area. Vertical vent piping was installed in the source area to passively remediate the remaining impacted soil through bioventing.

In March 2005, while upgrading equipment on site, XTO discovered what was believed to be a historical earthen blowdown pit. Approximately 300 cubic yards of impacted soil were excavated and disposed of off-Site. Groundwater was encountered in the excavation; therefore, monitoring wells MW-1 and MW-2 were installed near the 2005 and 1999 excavations, respectively. In April 2006, monitoring well MW-3 was installed cross-gradient of the source areas. The *2006 Annual Groundwater Report* was submitted to the NMOCD proposing the removal of the passive remediation system and implementation of quarterly sampling of the three monitoring wells in accordance with the NMOCD approved *Groundwater Management Plan*, a field-wide response plan under which the original Amoco assets were operated. Between 2007 and 2009, XTO conducted regular groundwater sampling of source monitoring wells MW-1 and MW-2 and measured groundwater elevations in all existing monitoring wells. XTO submitted annual

groundwater reports comparing laboratory analytical results to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards. In June 2010, the vertical vent piping was removed.

In June 2010, monitoring well MW-3 was plugged and abandoned and replaced in January 2011 with monitoring well MW-3R. The *2010 Annual Groundwater Report* and the *2011 Annual Groundwater Report* submitted to the NMOCD by XTO recommended continued quarterly sampling of monitoring wells MW-1 and MW-2 until analytical results indicated hydrocarbon constituents were compliant with NMWQCC groundwater standards for four consecutive quarters. Additionally, XTO recommended injection of hydrogen peroxide into the groundwater aquifer using monitoring wells MW-1 and MW-2 as injection points to oxygenate the aquifer and enhance naturally occurring bioremediation.

In October 2011, XTO met with the NMOCD to present a brief history of the Site and the hydrogen peroxide injection work plan. The NMOCD did not provide comments for the hydrogen peroxide injection work plan; therefore, XTO did not proceed with the remediation, but continued to sample monitoring wells MW-1 and MW-2 and monitor groundwater elevations in the three monitoring wells quarterly through 2012. In the *2012 Annual Groundwater Report*, XTO presented laboratory analytical results of benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations in groundwater samples collected from monitoring well MW-2 for four consecutive quarters that were compliant with NMWQCC standards. As a result, XTO proposed removing monitoring well MW-2 from the sampling management plan and continued sampling monitoring well MW-1 and monitoring groundwater elevations in MW-1, MW-2, and MW-3R quarterly during 2013 and 2014.

In the *2015 Annual Groundwater Report*, XTO proposed semi-annual groundwater sampling of monitoring well MW-1 and collecting semi-annual depth to groundwater measurements of monitoring wells MW-1, MW-2, and MW-3R. In December of 2017, Hilcorp acquired the Site from XTO and continued semi-annual monitoring of groundwater elevations and sampling of MW-1 during 2017 and 2018. In 2019, the Site moved from semi-annual monitoring to quarterly sampling of MW-1 due to 2018 groundwater analytical results being compliant with NMWQCC standards during both sampling events. A summary of the relative groundwater elevations and the laboratory analytical results from historical and current groundwater monitoring events are presented in Table 1 and Table 2, respectively. All previously submitted groundwater monitoring reports are available on the NMOCD database.

SITE GROUNDWATER CLEANUP STANDARDS

The NMOCD requires groundwater-quality standards be met as presented by the NMWQCC and listed in Title 20, Chapter 6, Part 2, Section 3103 (20.6.2.3103) of the New Mexico Administrative Code (NMAC). The following standards are presented for the chemicals of concern (COCs) at the Site in micrograms per liter (µg/L).

- Benzene: 5.0 µg/L
- Toluene: 1,000 µg/L
- Ethylbenzene: 700 µg/L
- Total Xylenes: 620 µg/L

GROUNDWATER SAMPLING ACTIVITIES AND RESULTS

Depth to water measurements and samples were collected in January, April, July, and October 2024 from well MW-1. Depth to water measurements were collected from MW-2 and MW-3R in April and October 2024. Static depth-to-groundwater measurements were recorded at

each monitoring well using a Keck oil/water interface probe. The interface probe was decontaminated with Alconox™ soap and rinsed with distilled water prior to each measurement to prevent cross-contamination. Groundwater elevations measured in monitoring wells during the 2024 sampling events are presented in Table 1 and were used to develop groundwater potentiometric surface maps (shown on Figures 3 and 5). The inferred groundwater flow direction is to the southeast.

GROUNDWATER SAMPLING

Groundwater from monitoring well MW-1 was purged and sampled using a disposable bailer. Purging was accomplished by removing three casing volumes of stagnant groundwater from the monitoring well prior to collecting a sample. Following well purging, groundwater samples were placed directly into laboratory-provided containers and labeled with the date and time of collection, well designation, project name, sample collector's name, and parameters to be analyzed. Samples were immediately sealed with zero headspace and packed on ice to preserve samples. Samples were submitted to Eurofins Environmental Testing Laboratory (Eurofins) in Albuquerque, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8260B. Proper chain-of-custody procedures were followed documenting the date and time sampled, sample number, type of sample, sample collector's name, preservative used, analyses required, and sample collector's signature.

GROUNDWATER ANALYTICAL RESULTS

Benzene was detected in groundwater at MW-1 during three of the four quarterly sampling events at concentrations above the NMWQCC standard. Ethylbenzene, toluene, and total xylenes were not detected above the NMWQCC standards during the 2024 sampling events. A summary of analytical results is presented in Table 2 and depicted on Figures 2 through 5, with complete laboratory analytical reports attached as Appendix A.

CONCLUSIONS AND RECOMMENDATIONS

Based on the current and historical groundwater analytical data collected from well MW-1, benzene concentrations have fluctuated above and below the NMWQCC standard of 5.0 µg/L. Based on current groundwater conditions at the Site, Ensolum/Hilcorp recommend continued quarterly sampling from well MW-1 for BTEX analysis until eight consecutive quarters are compliant with NMWQCC standards.

Ensolum appreciates the opportunity to provide these environmental services to Hilcorp. Please contact either of the undersigned with any questions.

Sincerely,

Ensolum, LLC

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Project Geologist
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Stuart Hyde
Senior Managing Geologist
(970) 903-1607
shyde@ensolum.com

Attachments:

Figure 1	Site Location Map
Figure 2	Analytical Results (January 2024)
Figure 3	Groundwater Elevation and Analytical Results (April 2024)
Figure 4	Analytical Results (July 2004)
Figure 5	Groundwater Elevation and Analytical Results (October 2024)
Table 1	Groundwater Elevations
Table 2	Groundwater Analytical Results
Appendix A	Analytical Laboratory Reports

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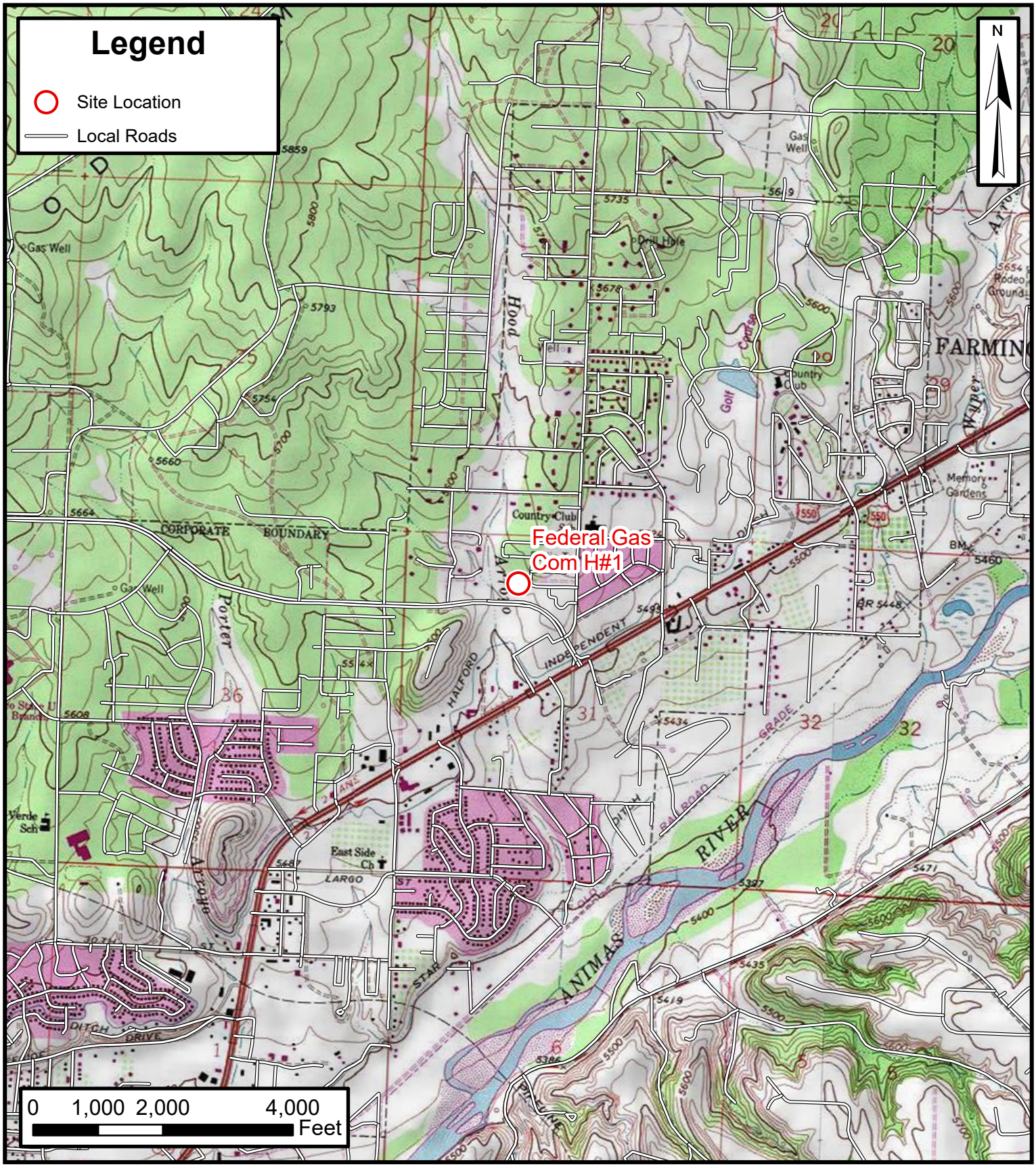
FIGURES



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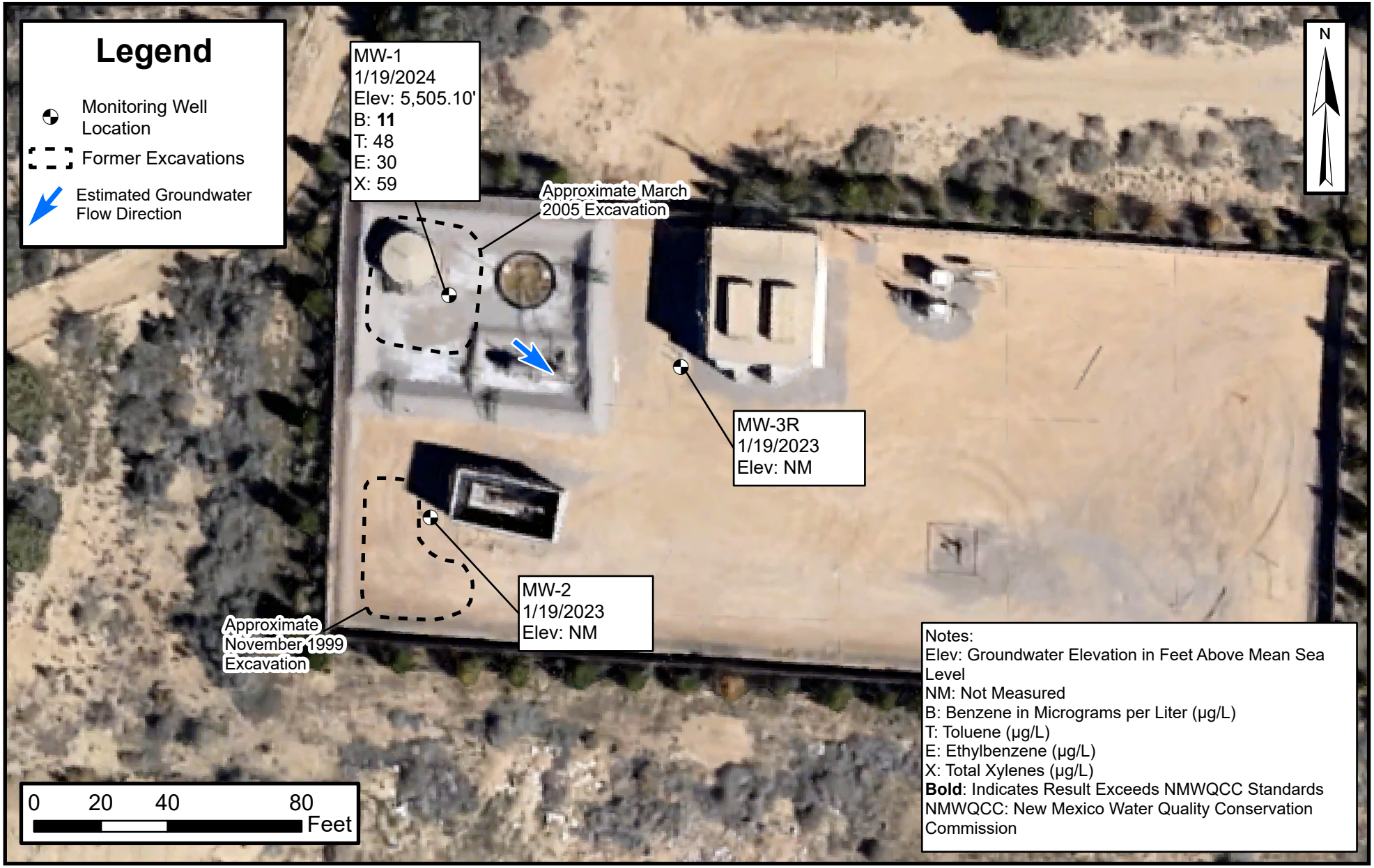
Site Location Map

Federal Gas Com H#1
Hilcorp Energy Company
36.77480, -108.14236
San Juan County, New Mexico

FIGURE
1

Sources: Environmental Systems Research Institute (ESRI), National Geographic Society, i-cubed



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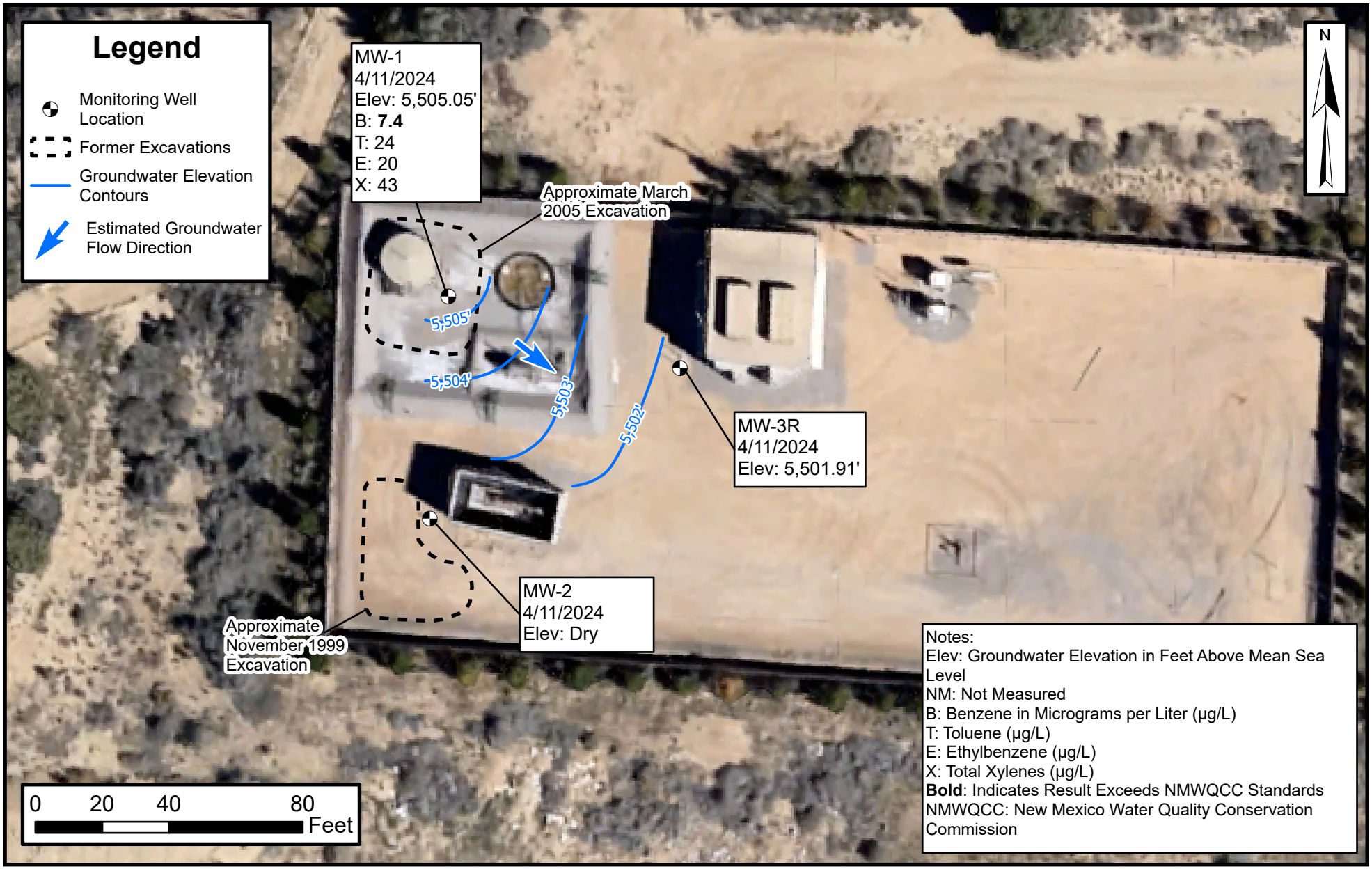
Groundwater Analytical Results (January 2024)

Federal Gas Com H#1
Hilcorp Energy Company
36.77480, -108.14236
San Juan County, New Mexico

FIGURE 2

Sources: Google Earth



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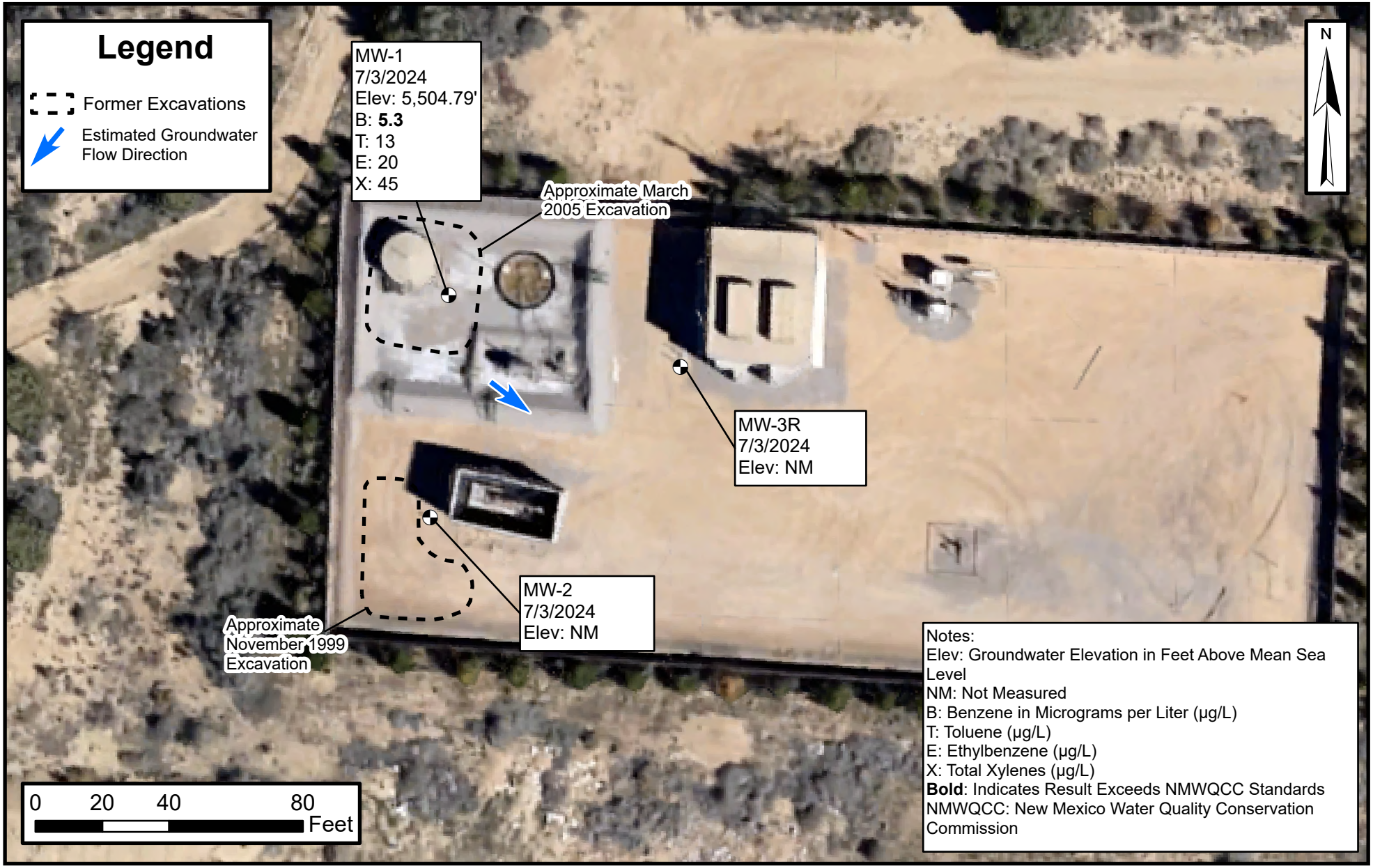
Groundwater Elevation and Analytical Results (April 2024)

Federal Gas Com H#1
Hilcorp Energy Company
36.77480, -108.14236
San Juan County, New Mexico

FIGURE 3

Sources: Google Earth



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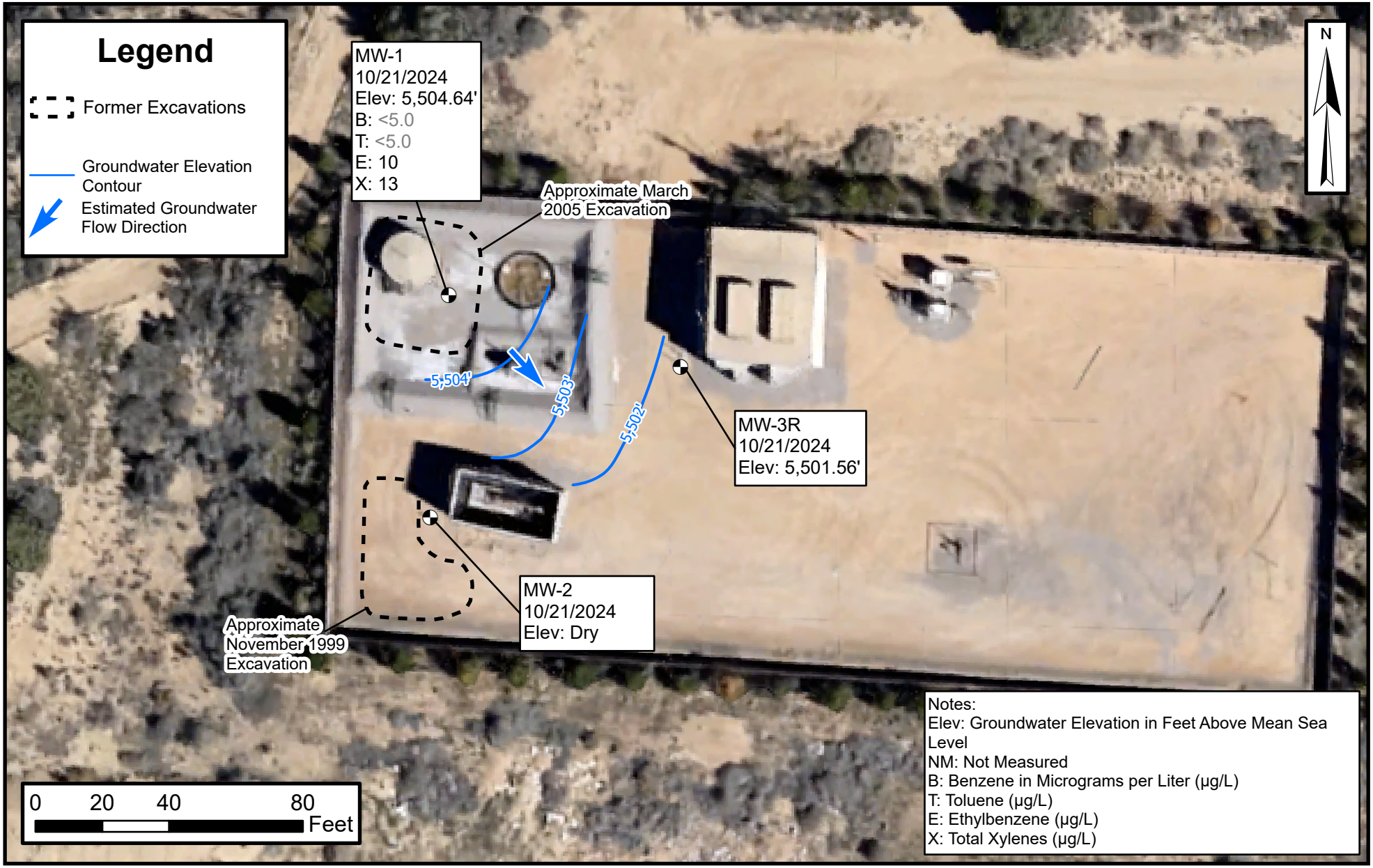
Groundwater Analytical Results (July 2024)

Federal Gas Com H#1
Hilcorp Energy Company
36.77480, -108.14236
San Juan County, New Mexico

FIGURE
4

Sources: Google Earth



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Groundwater Elevation and Analytical Results (October 2024)

Federal Gas Com H#1
Hilcorp Energy Company
36.77480, -108.14236
San Juan County, New Mexico

FIGURE
5

Sources: Google Earth

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TABLES

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TABLE 1
GROUNDWATER ELEVATIONS
Federal Gas Com H#1
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Top of Casing Elevation (feet amsl)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet amsl)
MW-1	5,535.82	3/29/2007	31.34	5,504.48
		7/23/2007	31.55	5,504.27
		10/11/2007	31.09	5,504.73
		1/8/2008	31.26	5,504.56
		7/1/2008	31.40	5,504.42
		1/20/2009	31.29	5,504.53
		7/8/2009	31.58	5,504.24
		10/20/2009	31.31	5,504.51
		1/12/2010	31.29	5,504.53
		4/7/2010	31.03	5,504.79
		7/20/2010	31.11	5,504.71
		10/7/2010	30.51	5,505.31
		1/18/2011	30.56	5,505.26
		4/12/2011	30.83	5,504.99
		8/9/2011	30.92	5,504.90
		11/9/2011	30.46	5,505.36
		3/8/2012	30.64	5,505.18
		6/14/2012	31.00	5,504.82
		9/12/2012	31.11	5,504.71
		12/12/2012	31.05	5,504.77
		3/14/2013	29.94	5,505.88
		6/17/2013	30.98	5,504.84
		9/11/2013	31.05	5,504.77
		12/16/2013	30.14	5,505.68
		3/12/2014	30.33	5,505.49
		6/11/2014	30.36	5,505.46
		9/22/2014	30.46	5,505.36
		12/9/2014	30.17	5,505.65
		3/12/2015	30.25	5,505.57
		6/11/2015	29.95	5,505.87
		9/21/2015	29.57	5,506.25
		12/21/2015	29.75	5,506.07
		6/20/2016	30.30	5,505.52
		12/14/2016	30.29	5,505.53

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TABLE 1
GROUNDWATER ELEVATIONS
Federal Gas Com H#1
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Top of Casing Elevation (feet amsl)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet amsl)
MW-1	5,535.82	6/26/2017	29.98	5,505.84
		12/12/2017	30.19	5,505.63
		6/28/2018	30.55	5,505.27
		12/10/2018	30.87	5,504.95
		3/18/2019	30.49	5,505.33
		6/19/2019	30.35	5,505.47
		7/10/2019	30.30	5,505.52
		9/26/2019	30.31	5,505.51
		12/9/2019	30.26	5,505.56
		3/13/2020	30.32	5,505.50
		6/22/2020	30.54	5,505.28
		8/31/2020	30.88	5,504.94
		11/13/2020	30.94	5,504.88
		1/22/2021	30.88	5,504.94
		6/22/2021	31.16	5,504.66
		8/26/2021	31.17	5,504.65
		10/4/2021	31.15	5,504.67
		1/21/2022	30.88	5,504.94
		4/28/2022	31.07	5,504.75
		7/28/2022	30.04	5,505.78
		10/26/2022	30.58	5,505.24
		1/13/2023	30.83	5,504.99
		5/12/2023	30.27	5,505.55
		7/24/2023	30.60	5,505.22
		10/19/2023	30.52	5,505.30
		1/19/2024	30.72	5,505.10
		4/11/2024	30.77	5,505.05
		7/3/2024	31.03	5,504.79
		10/21/2024	31.18	5,504.64
MW-2	5,534.96	3/29/2007	33.05	5,501.91
		7/23/2007	33.24	5,501.72
		10/11/2007	32.87	5,502.09
		1/8/2008	32.98	5,501.98
		7/1/2008	33.08	5,501.88

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TABLE 1
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San Juan County, New Mexico

Well Identification	Top of Casing Elevation (feet amsl)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet amsl)
MW-2	5,534.96	1/20/2009	35.34	5,499.62
		7/8/2009	33.23	5,501.73
		10/20/2009	32.94	5,502.02
		1/12/2010	32.94	5,502.02
		4/7/2010	32.71	5,502.25
		7/20/2010	32.80	5,502.16
		10/7/2010	32.30	5,502.66
		1/18/2011	32.33	5,502.63
		4/12/2011	32.55	5,502.41
		8/9/2011	32.70	5,502.26
		11/9/2011	32.28	5,502.68
		3/8/2012	32.39	5,502.57
		6/14/2012	32.74	5,502.22
		9/12/2012	32.84	5,502.12
		12/12/2012	32.78	5,502.18
		3/14/2013	32.67	5,502.29
		6/17/2013	32.68	5,502.28
		9/11/2013	32.76	5,502.20
		12/16/2013	31.90	5,503.06
		3/12/2014	32.05	5,502.91
		6/11/2014	32.15	5,502.81
		9/22/2014	32.28	5,502.68
		12/9/2014	32.03	5,502.93
		3/12/2015	31.96	5,503.00
		6/11/2015	31.82	5,503.14
		9/21/2015	31.47	5,503.49
		12/21/2015	31.61	5,503.35
		6/20/2016	32.11	5,502.85
		12/14/2016	32.14	5,502.82
		6/26/2017	31.90	5,503.06
		12/12/2017	32.03	5,502.93
		6/28/2018	32.35	5,502.61
		12/10/2018	32.62	5,502.34
		3/18/2019	32.31	5,502.65

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TABLE 1
GROUNDWATER ELEVATIONS
Federal Gas Com H#1
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Top of Casing Elevation (feet amsl)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet amsl)
MW-2	5,534.96	6/19/2019	32.22	5,502.74
		7/10/2019	32.12	5,502.84
		9/26/2019	32.12	5,502.84
		12/9/2019	32.04	5,502.92
		3/13/2020	32.09	5,502.87
		6/22/2020	32.32	5,502.64
		8/31/2020	32.60	5,502.36
		11/13/2020	Dry	Dry
		1/22/2021	35.33	5,499.63
		6/22/2021	32.80	5,502.16
		8/26/2021	32.81	5,502.15
		10/4/2021	32.79	5,502.17
		1/21/2021	32.57	5,502.39
		4/28/2022	Dry	Dry
		7/28/2022	--	--
		10/26/2022	32.13	-32.13
		5/12/2023	Dry	Dry
		10/19/2023	Dry	Dry
		1/19/2024	Dry	Dry
		4/11/2024	Dry	Dry
		7/3/2024	Dry	Dry
		10/21/2024	Dry	Dry
MW-3	5,539.55	12/6/2006	34.76	5,504.79
		3/29/2007	34.85	5,504.70
		7/23/2007	35.00	5,504.55
		10/11/2007	34.55	5,505.00
		1/8/2008	31.74	5,507.81
		7/1/2008	34.86	5,504.69
		1/20/2009	34.75	5,504.80
		7/8/2009	35.01	5,504.54
		10/20/2009	34.68	5,504.87
		1/12/2010	34.71	5,504.84
		4/7/2010	34.53	5,505.02
MW-3R	5,536.60	1/18/2011	34.69	5,501.91

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

Well Identification	Top of Casing Elevation (feet amsl)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet amsl)
MW-3R	5,536.60	4/12/2011	34.91	5,501.69
		8/9/2011	35.01	5,501.59
		11/9/2011	34.59	5,502.01
		3/8/2012	34.72	5,501.88
		6/14/2012	35.04	5,501.56
		9/12/2012	35.13	5,501.47
		12/12/2012	35.07	5,501.53
		3/14/2013	34.97	5,501.63
		6/17/2013	34.98	5,501.62
		9/11/2013	35.05	5,501.55
		12/16/2013	34.28	5,502.32
		3/12/2014	34.43	5,502.17
		6/11/2014	34.57	5,502.03
		9/22/2014	34.60	5,502.00
		12/9/2014	34.35	5,502.25
		3/12/2015	34.31	5,502.29
		6/11/2015	34.19	5,502.41
		9/21/2015	33.83	5,502.77
		12/21/2015	33.95	5,502.65
		6/20/2016	34.55	5,502.05
		12/14/2016	34.45	5,502.15
		6/26/2017	34.17	5,502.43
		12/12/2017	34.31	5,502.29
		6/28/2018	34.65	5,501.95
		12/10/2018	34.92	5,501.68
		3/18/2019	34.71	5,501.89
		6/19/2019	34.52	5,502.08
		7/10/2019	34.49	5,502.11
		9/26/2019	34.36	5,502.24
		12/9/2019	34.31	5,502.29
		3/13/2020	34.35	5,502.25
		6/22/2020	34.58	5,502.02
		8/31/2020	34.89	5,501.71
		11/13/2020	34.96	5,501.64

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TABLE 1
GROUNDWATER ELEVATIONS
Federal Gas Com H#1
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Top of Casing Elevation (feet amsl)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet amsl)
MW-3R	5,536.60	1/21/2021	34.88	5,501.72
		6/22/2021	35.06	5,501.54
		8/26/2021	35.08	5,501.52
		10/4/2021	35.07	5,501.53
		1/21/2022	34.88	5,501.72
		4/28/2022	34.97	5,501.63
		7/28/2022	--	--
		10/26/2022	34.44	5,502.16
		5/12/2023	34.45	5,502.15
		10/19/2023	34.43	5,502.17
		1/19/2024	--	--
		4/11/2024	34.69	5,501.91
		7/3/2024	34.93	5,501.67
		10/21/2024	35.04	5,501.56

Notes:

--: not measured

amsl: above mean sea level

BTOC: below top of casing

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS
Federal Gas Com H#1
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards		5.0	1,000	700	620
MW-1	3/29/2007	**39**	ND	560	**2,300**
	7/23/2007	**32**	ND	610	**2,300**
	10/11/2007	**50**	18	440	**1,500**
	1/8/2008	**47**	7.1	**730**	**3,000**
	7/1/2008	**18**	9.6	350	**980**
	1/20/2009	**30**	22	370	**910**
	7/8/2009	**16**	ND	280	530
	10/20/2009	**33**	9.7	310	**630**
	1/12/2010	**31**	<1.0	270	500
	4/7/2010	**33**	16	290	**630**
	7/20/2010	**27**	10	360	**710**
	10/7/2010	**26**	<50	320	600
	1/18/2011	**33**	50	300	600
	4/12/2011	**27**	<100	320	**700**
	8/9/2011	**20.8**	21	257	444
	11/9/2011	**17**	<250	240	390
	3/8/2012	**22**	<50	200	260
	6/14/2012	**14**	<50	170	170
	9/12/2012	**11**	<5	110	73
	12/12/2012	**23**	<25	170	270
	3/14/2013	**16**	14	130	220
	6/17/2013	**20**	16	99	160
	9/11/2013	**23**	<50	120	230
	12/16/2013	**28**	61	160	310
	3/12/2014	**26**	85	140	320
	6/11/2014	**35**	150	160	390
	9/22/2014	**34**	<100	230	530
	12/9/2014	**22**	82	96	230
	3/12/2015	**8.0**	26	72	140
	6/11/2015	**44**	220	320	**980**
	9/21/2015	**65.9**	391	212	599
	12/21/2015	**105**	105	205	**634**
	6/20/2016	**37.6**	182	239	**626**
	12/14/2016	**19.0**	118	118	323
	6/26/2017	**13.7**	85.2	87.3	250
	12/12/2017	**10.5**	20.6	31.2	65.5
	6/28/2018	**14**	160	94	290

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS
Federal Gas Com H#1
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards		5.0	1,000	700	620
MW-1	12/10/2018	3.8	17	23	53
	3/18/2019	**7.1**	72	68	150
	7/10/2019	**8.6**	92	58	150
	9/26/2019	**13**	73	67	170
	12/9/2019	**10**	60	69	140
	3/13/2020	**14**	190	71	270
	6/22/2020	**8.4**	61	50	130
	8/31/2020	**15.3**	141	94	333
	11/13/2020	**7.5**	60	86	216
	1/22/2021	**10.6**	87	68.7	179
	6/22/2021	4.1	<2.0	12	16
	8/26/2021	**9.0**	13	95	170
	10/4/2021	3.7	11	42	65
	4/28/2022	**5.0**	6	23	30
	7/28/2022	**5.4**	13	28	48
	10/26/2022	**7.1**	22	32	54
	1/13/2023	**8.5**	31	33	61
	5/12/2023	**7.3**	25	58	110
	7/24/2023	**9.2**	34	32	68
	10/19/2023	**18**	100	100	230
	1/19/2024	**11**	48	30	59
	4/11/2024	**7.4**	24	20	43
	7/3/2024	**5.3**	13	20	45
	10/21/2024	<5.0	<5.0	10	13
MW-2	3/29/2007	**55**	ND	39	60
	7/23/2007	**39**	ND	25	9.2
	10/11/2007	**86**	ND	97	140
	1/8/2008	**65**	ND	82	56
	7/1/2008	**15**	ND	22	7.3
	1/20/2009	**38**	ND	85	49
	7/8/2009	**7.5**	ND	13	3
	10/20/2009	**20**	<1.0	31	29
	1/12/2010	**22**	<1.0	54	41
	4/7/2010	**37**	1.3	110	130
	7/20/2010	**17**	<1.0	94	92
	10/7/2010	**34**	<5	120	140
	1/18/2011	**30**	<50	160	170
	4/12/2011	**25**	<25	62	100

ENSOLUM

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
Federal Gas Com H#1
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards		**5.0**	**1,000**	**700**	**620**
MW-2	8/9/2011	4	<1	9.8	33.2
	11/9/2011	**26**	<5	160	160
	3/8/2012	**9.3**	<10	79	90
	6/14/2012	2.6	<5	29	44
	9/12/2012	0.91	<5	8.8	5.2
	12/12/2012	0.71	<5	3.5	3.9
MW-3	12/6/2006	ND	ND	ND	ND
	3/29/2007	ND	ND	ND	ND
	7/23/2007	ND	ND	ND	ND
	10/11/2007	ND	ND	ND	ND
	1/8/2008	ND	ND	ND	ND

Notes:

µg/L: milligrams per liter

ND: not detected, practical quantitation limit unknown

NMWQCC: New Mexico Water Quality Control Commission

--: not analyzed

<0.037: indicates result less than the stated laboratory reporting limit (RL)

*Concentrations in **bold** exceed the New Mexico Water Quality Control Commission Standards, 20.6.2 of the New Mexico Administrative Code*

ENSOLUM

APPENDIX A

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

February 03, 2024

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

RE: Federal GC H1 OrderNo.: 2401843

Dear Mitch Killough:

Eurofins Environment Testing South Central, LLC received 1 sample(s) on 1/20/2024 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 **2401843**
Date Reported: **2/3/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-1
Project: Federal GC H1 **Collection Date:** 1/19/2024 1:15:00 PM
Lab ID: 2401843-001 **Matrix:** AQUEOUS **Received Date:** 1/20/2024 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**
Benzene	11	5.0		µg/L	5	1/23/2024 6:40:00 PM
Toluene	48	5.0		µg/L	5	1/23/2024 6:40:00 PM
Ethylbenzene	30	5.0		µg/L	5	1/23/2024 6:40:00 PM
Xylenes, Total	59	7.5		µg/L	5	1/23/2024 6:40:00 PM
Surr: 4-Bromofluorobenzene	122	70-130		%Rec	5	1/23/2024 6:40:00 PM
Surr: Toluene-d8	101	70-130		%Rec	5	1/23/2024 6:40:00 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#: **2401843**

03-Feb-24

Client: HILCORP ENERGY

Project: Federal GC H1

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **SL102628**	RunNo: **102628**
Prep Date:	Analysis Date: **1/23/2024**	SeqNo: **3791695** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	70	130			
Toluene	19	1.0	20.00	0	95.8	70	130			
Surr: 1,2-Dichloroethane-d4	13		10.00		131	70	130			S
Surr: 4-Bromofluorobenzene	12		10.00		122	70	130			
Surr: Dibromofluoromethane	12		10.00		118	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBW**	Batch ID: **SL102628**	RunNo: **102628**
Prep Date:	Analysis Date: **1/23/2024**	SeqNo: **3791707** 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	13		10.00		131	70	130			S
Surr: 4-Bromofluorobenzene	12		10.00		120	70	130			
Surr: Dibromofluoromethane	12		10.00		116	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

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.		

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

Sample Log-In Check List

Client Name: **HILCORP ENERGY** Work Order Number: **2401843** RcptNo: **1**

Received By: **Cheyenne Cason** **1/20/2024 8:05:00 AM** Chel

Completed By: **Cheyenne Cason** **1/20/2024 8:32:08 AM** Chel

Reviewed By: 1/22/24

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 ☐
	Samples not frozen		
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 ☑	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: Che 1/22/24

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

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: Federal GC H1

Project #:

Project Manager: Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☑ Yes ☐ No Tags

# 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.	BTEX Method 8260
1-19	1315	Water	MW-1	(3) 40ml VOA	HCL	001	X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1-19	1710				1/19/24	1710
1/19/24	1750					

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
				Courier	1/20/24	0805

Remarks: Special Pricing See Andy

Samples not frozen once 1/20/24

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.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/30/2024 11:05:50 AM

JOB DESCRIPTION

Federal GC H1

JOB NUMBER

885-2768-1

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
4/30/2024 11:05:50 AM

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

Client: Hilcorp Energy
Project/Site: Federal GC H1

Laboratory Job ID: 885-2768-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-2768-1

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: Federal GC H1

Job ID: 885-2768-1

Job ID: 885-2768-1 Eurofins Albuquerque

Job Narrative
885-2768-1

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 sample was received on 4/12/2024 6:50 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 3.3°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: Federal GC H1

Job ID: 885-2768-1

Client Sample ID: MW-1
Date Collected: 04/11/24 15:00
Date Received: 04/12/24 06:50

Lab Sample ID: 885-2768-1
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**7.4**		5.0		ug/L			04/24/24 16:44	5
Ethylbenzene	**20**		5.0		ug/L			04/24/24 16:44	5
Toluene	**24**		5.0		ug/L			04/24/24 16:44	5
Xylenes, Total	**43**		7.5		ug/L			04/24/24 16:44	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*04/24/24 16:44*	*5*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*04/24/24 16:44*	*5*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*04/24/24 16:44*	*5*
Toluene-d8 (Surr)	*100*		*70 - 130*		*04/24/24 16:44*	*5*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-2768-1

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

Lab Sample ID: MB 885-3896/3
Matrix: Water
Analysis Batch: 3896

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			04/24/24 14:17	1
Ethylbenzene	ND		1.0		ug/L			04/24/24 14:17	1
Toluene	ND		1.0		ug/L			04/24/24 14:17	1
Xylenes, Total	ND		1.5		ug/L			04/24/24 14:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*04/24/24 14:17*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*04/24/24 14:17*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*04/24/24 14:17*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*04/24/24 14:17*	*1*

Lab Sample ID: STOBLK 885-3896/27
Matrix: Water
Analysis Batch: 3896

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

Analyte	STOBLK Result	STOBLK Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/25/24 00:04	1
Ethylbenzene	ND		1.0		ug/L			04/25/24 00:04	1
Toluene	ND		1.0		ug/L			04/25/24 00:04	1
Xylenes, Total	ND		1.5		ug/L			04/25/24 00:04	1

Surrogate	*STOBLK %Recovery*	*STOBLK Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*04/25/24 00:04*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*04/25/24 00:04*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*04/25/24 00:04*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*04/25/24 00:04*	*1*

Lab Sample ID: STOBLK 885-3896/28
Matrix: Water
Analysis Batch: 3896

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

Analyte	STOBLK Result	STOBLK Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/25/24 00:28	1
Ethylbenzene	ND		1.0		ug/L			04/25/24 00:28	1
Toluene	ND		1.0		ug/L			04/25/24 00:28	1
Xylenes, Total	ND		1.5		ug/L			04/25/24 00:28	1

Surrogate	*STOBLK %Recovery*	*STOBLK Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*04/25/24 00:28*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*04/25/24 00:28*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*04/25/24 00:28*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*04/25/24 00:28*	*1*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-2768-1

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

Lab Sample ID: LCS 885-3896/2
Matrix: Water
Analysis Batch: 3896

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	21.0		ug/L		105	70 - 130		
Toluene			20.2	20.4		ug/L		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
Dibromofluoromethane (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-2768-1

GC/MS VOA

Analysis Batch: 3896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2768-1	MW-1	Total/NA	Water	8260B	
MB 885-3896/3	Method Blank	Total/NA	Water	8260B	
STOBLK 885-3896/27	Method Blank	Total/NA	Water	8260B	
STOBLK 885-3896/28	Method Blank	Total/NA	Water	8260B	
LCS 885-3896/2	Lab Control Sample	Total/NA	Water	8260B	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-2768-1

Client Sample ID: MW-1
Date Collected: 04/11/24 15:00
Date Received: 04/12/24 06:50

Lab Sample ID: 885-2768-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	3896	CM	EET ALB	04/24/24 16:44

Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-2768-1

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:

Federal GC H1

Project #:

Project Manager:

Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☒ Yes ☐ No yogi

# of Coolers: 1

Cooler Temp(including CF): 3.3 ± 0 = 3.3°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87 885-2768 COC
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	Analysis Request: BTEX Method 8260
4-11	1500	Water	MW-1	(3) 40ml VOA	HCL	-1	X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/11/24	1706				4/11/24	1706
Date:	Time:	Relinquished by:	Received by:	Via: courier	Date	Time
4/11/24	1800				4/12/24	6:50

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.

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-2768-1

Login Number: 2768 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Lowman, Nick

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.	True	
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 7/16/2024 9:46:19 AM

JOB DESCRIPTION

Federal GC H1

JOB NUMBER

885-7405-1

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
7/16/2024 9:46:19 AM

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

Client: Hilcorp Energy
Project/Site: Federal GC H1

Laboratory Job ID: 885-7405-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Job ID: 885-7405-1
Project/Site: Federal GC H1

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: Federal GC H1

Job ID: 885-7405-1

Job ID: 885-7405-1 Eurofins Albuquerque

Job Narrative
885-7405-1

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 sample was received on 7/4/2024 9:10 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 3.9°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: Federal GC H1

Job ID: 885-7405-1

Client Sample ID: MW-1

Date Collected: 07/03/24 13:10
Date Received: 07/04/24 09:10

Lab Sample ID: 885-7405-1

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5.3		5.0		ug/L			07/12/24 21:52	5
Ethylbenzene	20		5.0		ug/L			07/12/24 21:52	5
Toluene	13		5.0		ug/L			07/12/24 21:52	5
Xylenes, Total	45		7.5		ug/L			07/12/24 21:52	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*		*07/12/24 21:52*	*5*
Toluene-d8 (Surr)	*87*		*70 - 130*		*07/12/24 21:52*	*5*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*07/12/24 21:52*	*5*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*07/12/24 21:52*	*5*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-7405-1

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

Lab Sample ID: MB 885-8304/5
Matrix: Water
Analysis Batch: 8304

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			07/12/24 12:49	1
Ethylbenzene	ND		1.0		ug/L			07/12/24 12:49	1
Toluene	ND		1.0		ug/L			07/12/24 12:49	1
Xylenes, Total	ND		1.5		ug/L			07/12/24 12:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)					*07/12/24 12:49*	*1*
Toluene-d8 (Surr)					*07/12/24 12:49*	*1*
4-Bromofluorobenzene (Surr)					*07/12/24 12:49*	*1*
Dibromofluoromethane (Surr)					*07/12/24 12:49*	*1*

Lab Sample ID: LCS 885-8304/4
Matrix: Water
Analysis Batch: 8304

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			171	187		ug/L		109	70 - 130		
Benzene			171	198		ug/L		116	70 - 130		
Chlorobenzene			171	178		ug/L		104	70 - 130		
Toluene			171	178		ug/L		104	70 - 130		
Trichloroethene (TCE)			171	181		ug/L		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-7405-1

GC/MS VOA

Analysis Batch: 8304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-7405-1	MW-1	Total/NA	Water	8260B	
MB 885-8304/5	Method Blank	Total/NA	Water	8260B	
LCS 885-8304/4	Lab Control Sample	Total/NA	Water	8260B	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-7405-1

Client Sample ID: MW-1

Date Collected: 07/03/24 13:10
Date Received: 07/04/24 09:10

Lab Sample ID: 885-7405-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	8304	JR	EET ALB	07/12/24 21:52

Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-7405-1

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:

Federal GC H1

Project #:

Project Manager:

Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.9-0=3.9

HALL ENVIRONM
ANALYSIS LABOI
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87
Tel. 505-345-3975 Fax 505-345-4107

885-7405 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX Method 8260
7-3	1310	Water	MW-1	(3) 40ml VOA	HCL		X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7-3	1531				7/3/24	1531
7/3/24	1710				7/4/24	0910

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.

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-7405-1

Login Number: 7405 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: McQuiston, Steven

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	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kate Kaufman
Hilcorp Energy
PO BOX 4700
Farmington, New Mexico 87499

Generated 10/23/2024 12:28:14 PM

JOB DESCRIPTION

Federal GC H1

JOB NUMBER

885-14052-1

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
10/23/2024 12:28:14 PM

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

Client: Hilcorp Energy
Project/Site: Federal GC H1

Laboratory Job ID: 885-14052-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Job ID: 885-14052-1
Project/Site: Federal GC H1

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: Federal GC H1

Job ID: 885-14052-1

Job ID: 885-14052-1 Eurofins Albuquerque

Job Narrative
885-14052-1

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 10/22/2024 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 0.4°C.

GC/MS VOA
Method 8260B: The following sample was diluted due to the abundance of non-target analytes: MW-1 (885-14052-1).

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: Federal GC H1

Job ID: 885-14052-1

Client Sample ID: MW-1

Date Collected: 10/21/24 14:00
Date Received: 10/22/24 07:35

Lab Sample ID: 885-14052-1

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/L			10/22/24 12:16	5
Ethylbenzene	**10**		5.0		ug/L			10/22/24 12:16	5
Toluene	ND		5.0		ug/L			10/22/24 12:16	5
Xylenes, Total	**13**		7.5		ug/L			10/22/24 12:16	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*10/22/24 12:16*	*5*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*10/22/24 12:16*	*5*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*10/22/24 12:16*	*5*
Toluene-d8 (Surr)	*98*		*70 - 130*		*10/22/24 12:16*	*5*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-14052-1

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

Lab Sample ID: MB 885-14687/5
Matrix: Water
Analysis Batch: 14687

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			10/22/24 11:49	1
Ethylbenzene	ND		1.0		ug/L			10/22/24 11:49	1
Toluene	ND		1.0		ug/L			10/22/24 11:49	1
Xylenes, Total	ND		1.5		ug/L			10/22/24 11:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*10/22/24 11:49*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*10/22/24 11:49*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*10/22/24 11:49*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*10/22/24 11:49*	*1*

Lab Sample ID: LCS 885-14687/4
Matrix: Water
Analysis Batch: 14687

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	20.9		ug/L		104	70 - 130		
Toluene			20.2	20.0		ug/L		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
Dibromofluoromethane (Surr)	*104*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: 885-14052-1 MS
Matrix: Water
Analysis Batch: 14687

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	ND		100	107		ug/L		105	70 - 130		
Toluene	ND		101	103		ug/L		102	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
Dibromofluoromethane (Surr)	*104*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: 885-14052-1 MSD
Matrix: Water
Analysis Batch: 14687

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	ND		100	101		ug/L		99	70 - 130	6	20
Toluene	ND		101	95.7		ug/L		95	70 - 130	7	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-14052-1

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

Lab Sample ID: 885-14052-1 MSD
Matrix: Water
Analysis Batch: 14687

Client Sample ID: MW-1
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	103		70 - 130
Toluene-d8 (Surr)	97		70 - 130

QC Association Summary

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-14052-1

GC/MS VOA

Analysis Batch: 14687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-14052-1	MW-1	Total/NA	Water	8260B	
MB 885-14687/5	Method Blank	Total/NA	Water	8260B	
LCS 885-14687/4	Lab Control Sample	Total/NA	Water	8260B	
885-14052-1 MS	MW-1	Total/NA	Water	8260B	
885-14052-1 MSD	MW-1	Total/NA	Water	8260B	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-14052-1

Client Sample ID: MW-1

Date Collected: 10/21/24 14:00
Date Received: 10/22/24 07:35

Lab Sample ID: 885-14052-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	14687	JR	EET ALB	10/22/24 12:16

Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Federal GC H1

Job ID: 885-14052-1

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:

Federal GC H1

Project #:

Project Manager:

Kate Kaufman

Sampler: Brandon Sinclair

On Ice: ~~☐ Yes~~ ☐ No

# of Coolers: 1 Yeti

Cooler Temp(including CF): 0.4-0=0.4

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

885-14052 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX Method 8260
10-21	1400	Water	MW-1	(3) 40ml VOA	HCL		X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/21/24	1557				10/21/24	1557
10/21/24	1710			Courier	10/22/24	7:35

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.

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-14052-1

Login Number: 14052 **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	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 417208

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 417208
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Report approved. Continue quarterly monitoring.	6/16/2025