ENSOLUM

April 16, 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: Remediation Report and Closure Request
San Juan 27-8 B4
Hilcorp Energy Company
NMOCD Incident No: nAPP2503153589

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), submits this *Remediation Report and Closure Request* for a release at the San Juan 27-8 B4 natural gas production well (Site). The Site is located on federal land managed by the Bureau of Land Management (BLM) in San Juan County, New Mexico, Unit O, Section 13, Township 27 North, Range 08 West (Figure 1). This report summarizes excavation and confirmation soil sampling activities conducted to remediate soil impacted by the release.

SITE BACKGROUND

As part of plug and abandonment (P&A) operations of the San Juan 27-8 B4 well and associated equipment, Hilcorp personnel conducted excavation activities around the pipeline at the Site and discovered stained soil. During the pipeline excavation activities, approximately 20 cubic yards of visually impacted soil were removed and disposed off-Site. The release appeared to be historical in nature and no free fluids were present or recovered. No personal injuries or additional damage were reported as a result of the release. Once delineation soil samples were collected confirming the presence of impacted soil (further described below), Hilcorp submitted a *Notification of Release* (NOR) to the New Mexico Oil Conservation Division (NMOCD) on January 31, 2025. The NMOCD assigned the Site Incident Number nAPP2503153589.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

The Site is located within the Nacimiento Formation, which is part of the regional stratigraphy of the San Juan Basin. According to *Hydrogeology and Water Resources of San Juan Basin, New Mexico* (Stone et al., 1983), the Nacimiento Formation is composed of interbedded black carbonaceous mudstones and white, coarse-grained sandstones, with a reported thickness ranging from approximately 418 to 2,232 feet. The hydrogeologic properties of the Nacimiento Formation are highly variable and dependent on location. Where sufficient groundwater yield

exists, the formation is typically utilized for domestic and livestock water supply. The Nacimiento Formation is underlain by the Ojo Alamo Sandstone (Stone et al., 1983).

The closest significant watercourse to the Site is an unnamed dry wash located approximately 345 feet northwest of the release area. The Site is not within 200 feet of any lakebed, sinkhole, or playa lake. The nearest fresh-water well is NMOSE-permitted well SJ-02314, located approximately 7,722 feet south of the Site in Largo Canyon. The reported depth to water in this well is 320 feet below ground surface (bgs). No wellhead protection areas, springs, or domestic/stock wells are located within a ½-mile of the Site. The Site is not located within a 100-year floodplain, does not overlie a subsurface mine, and is designated as having no karst potential by the BLM. Additionally, there are no schools, hospitals, institutions, churches, or other occupied permanent residences or structures within 300 feet of the Site.

Based on the information presented above, the Closure Criteria for Soils Impacted by a Release outlined in Table I of 19.15.29.12 NMAC will be applied to the Site. Accordingly, the following Closure Criteria will be utilized for the Site constituents of concern (COCs):

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

SITE INVESTIGATION ACTIVITIES

On January 10, 2025, Ensolum conducted hand auger delineation activities at the Site to evaluate the extent of impacted soil identified during excavation activities associated with pipeline abandonment. The NMOCD was provided sampling notification prior to beginning work and is attached in Appendix A. A total of five hand auger borings (HA01 through HA05) were advanced to depths ranging from 2 feet to 9 feet below ground surface (bgs). Soil samples were collected from each boring and submitted to Eurofins Environment Testing (Eurofins) for laboratory analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B, TPH following Method 8015M/D, and chloride following EPA Method 300.0.

Based on the laboratory analytical results, TPH concentrations exceeding the NMOCD Table I Closure Criteria were identified in one sample collected from HA03 at a depth of 2 feet bgs (210 mg/kg). All other hand auger samples were below the applicable NMOCD Closure Criteria for TPH and chlorides. No exceedances of BTEX constituents were reported in any of the samples analyzed. Delineation analytical results confirmed the presence of petroleum hydrocarbons within the remaining soils. Based on the volume of soil removed during initial excavation activities and the approximate volume of impacted soil remaining at the Site, it was that approximately 22 cubic yards of soil had been impacted by the historical release. Soil analytical results are summarized in Table 1 and on Figure 2, with complete laboratory analytical reports included in Appendix B.

EXCAVATION SOIL SAMPLING ACTIVITIES

Based on the results of the delineation sampling described above, excavation and offsite disposal was selected as the appropriate remedial action for the Site. Excavation activities were completed on April 1, 2025. Notification of the planned remediation and sampling activities was provided to the NMOCD at least two business days in advance, with a copy of the notification correspondence included in Appendix A.

During excavation, Ensolum personnel utilized a calibrated photoionization detector (PID) to field screen soils for volatile organic compounds (VOCs) and guide excavation activities. Once field

screening indicated that impacted soils had been removed, confirmation soil samples were collected from the floor (FS01 through FS03) and sidewalls (SW01 through SW05) of the excavation. Samples were collected at a frequency of no greater than one sample per 200 square feet, per NMOCD requirements. Floor samples were collected from a depth of approximately 6 feet below ground surface (bgs), while sidewall samples were collected from the ground surface to a depth of 6 feet bgs.

Each confirmation sample was a five-point composite, prepared by placing equal aliquots of soil into a resealable plastic bag, homogenizing the sample, and transferring the material into laboratory-supplied containers. Samples were transported under strict chain-of-custody procedures to Eurofins for analysis of TPH, BTEX, and chloride using the methods described above.

Analytical results indicated that all confirmation samples were compliant with the NMOCD Table I Closure Criteria for TPH, BTEX, and chloride. In total, the excavation covered an aerial extent of approximately 264 square feet, with approximately 59 cubic yards of impacted soil removed and transported to the Envirotech Landfarm in San Juan County, New Mexico for disposal. A summary of the confirmation soil sample results is provided in Table 1. Complete laboratory analytical reports are provided in Appendix B, and photographs documenting excavation activities are included in Appendix C.

CLOSURE REQUEST

Excavation and confirmation soil sampling activities were completed at the Site to address the release identified on January 10, 2025. Laboratory analytical results from confirmation soil samples collected from the final excavation extent demonstrated that all COC concentrations were below the applicable NMOCD Table I Closure Criteria and satisfied the reclamation requirements. No further remedial action is warranted. Excavation of impacted soil has effectively mitigated the release and eliminated potential exposure pathways to human health, the environment, and groundwater. Accordingly, Hilcorp respectfully requests regulatory closure of Incident Number nAPP2503153589.

REFERENCES

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

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

Sincerely,
Ensolum, LLC

Wes Weichert, PG (licensed in WA & TX)
Project Geologist
(816) 266-8732
wweichert@ensolum.com

Stuart Hyde, PG (licensed in WA, WY, & TX)
Senior Managing Geologist
(970) 903-1607
shyde@ensolum.com

Attachments:

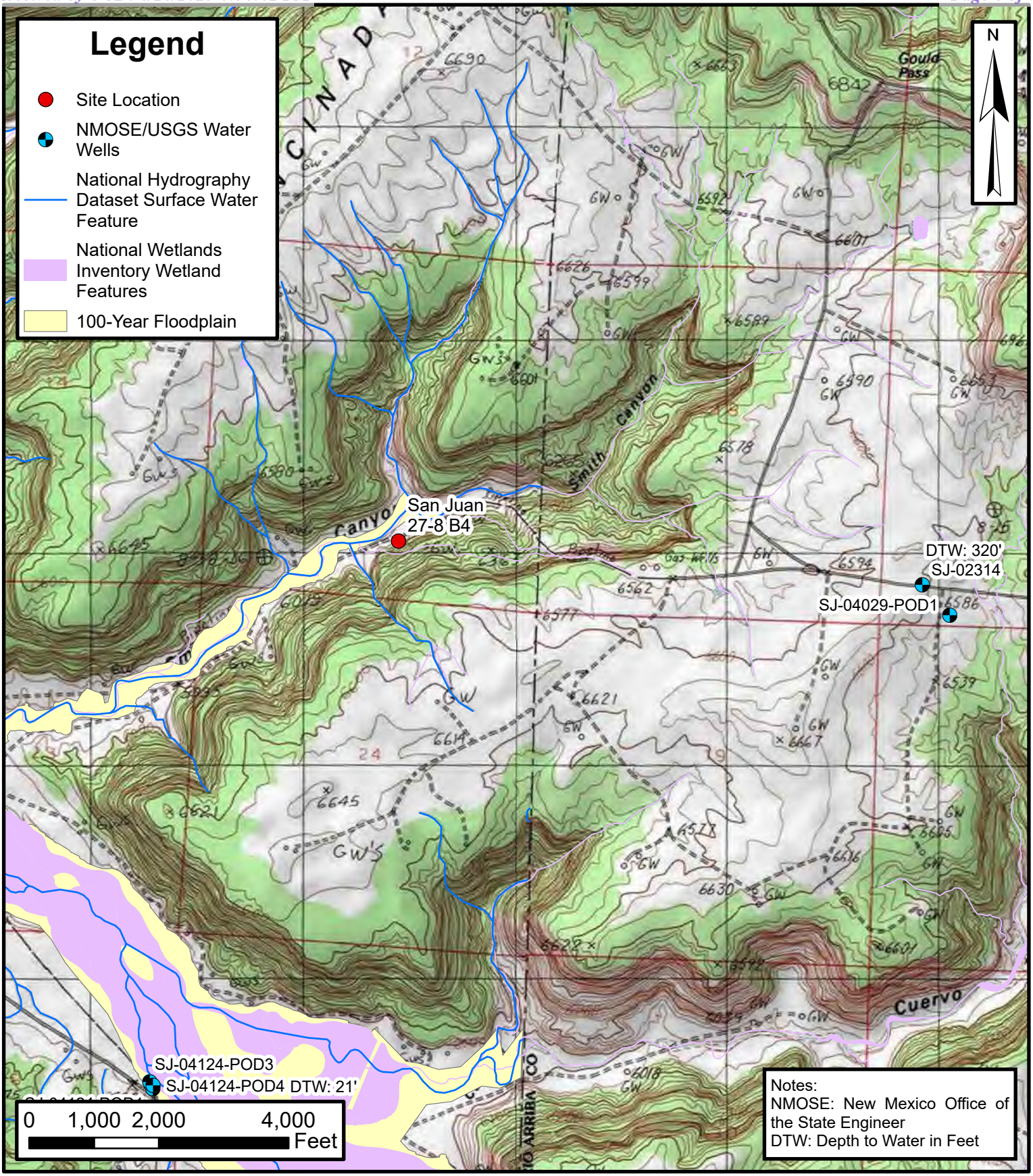
Figure 1: Site Location Map
Figure 2: Delineation Sample Locations Map
Figure 3: Excavation Soil Sample Locations

Table 1: Soil Sample Analytical Results

Appendix A: Agency Correspondence
Appendix B: Laboratory Analytical Reports
Appendix C: Photographic Log

ENSOLUM

FIGURES



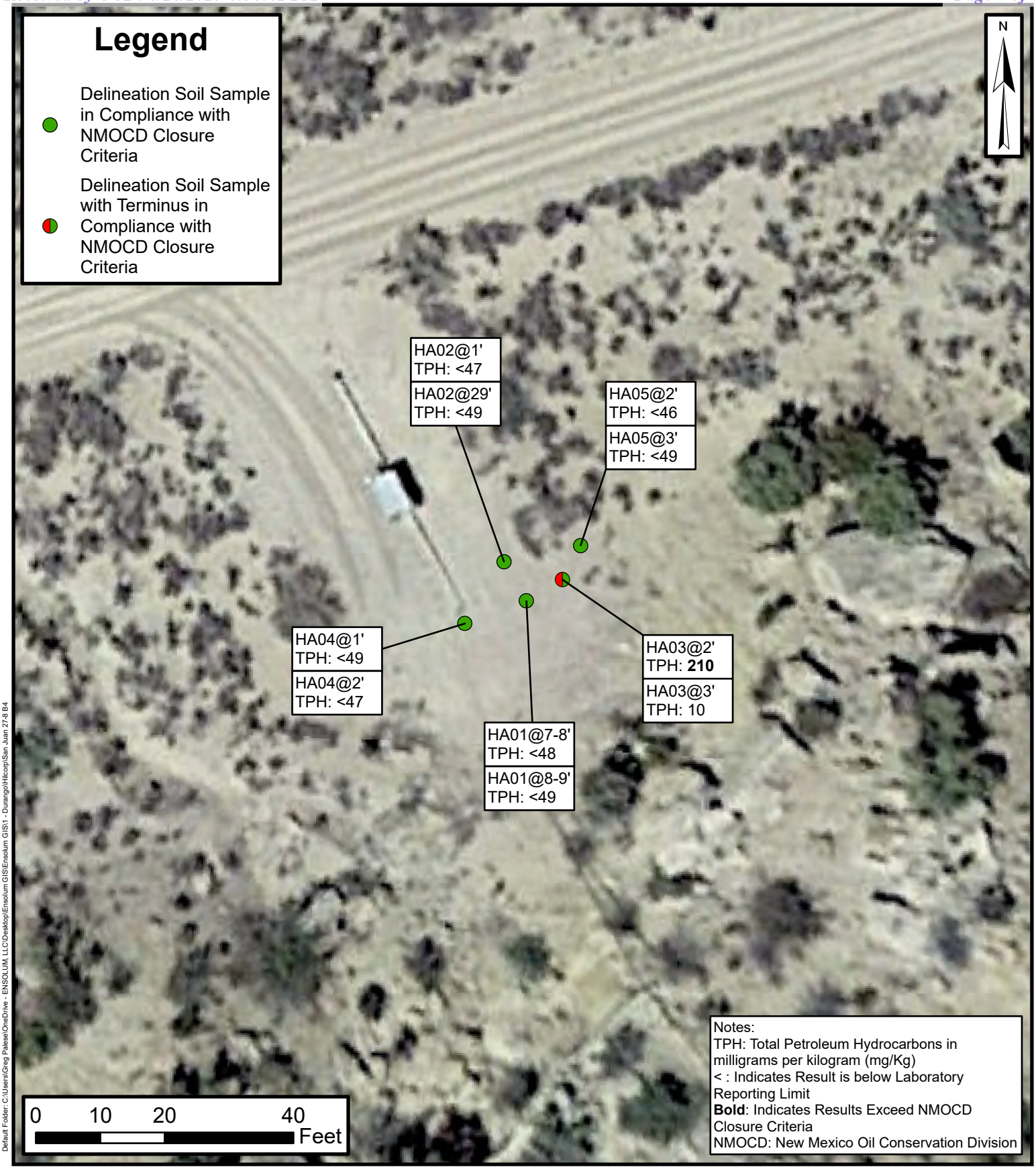
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Location Map

San Juan 27-8 B4
Hilcorp Energy Company
36.56848, -107.63147
San Juan County, New Mexico

FIGURE
1

Sources: Esri, Maxar, Environmental Systems Research Institute (ESRI), United States Geologic Survey (USGS), United States Fish and Wildlife Service (USFWS), National Geographic Society, i-cubed



Default Folder: C:\Users\Greg Pates\OneDrive - ENSOLUM, LLC\Desktop\Ensolum GIS\Ensolum GIS\1 - Durango\Hilcorp\San Juan 27-8 B4

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Sample Locations Map

San Juan 27-8 B4
Hilcorp Energy Company
36.56848, -107.63147
San Juan County, New Mexico

FIGURE
2

Sources: Google Earth (2022)

Default Folder: C:\Users\Greg Pates\OneDrive - ENSOLUM, LLC\Desktop\Ensolum GIS\Ensolum GIS\1 - Durango\Hilcorp\San Juan 27-8 B4

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Excavation Sample Locations Map

San Juan 27-8 B4
Hilcorp Energy Company
36.56848, -107.63147
San Juan County, New Mexico

FIGURE
3

Sources: Google Earth (2022)

ENSOLUM

TABLES

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
San Juan 27-8 B4
Hilcorp Energy Company
San Juan County, New Mexico

Sample Identification	Date	Depth (feet bgs)	PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Closure Criteria for Soils Impacted by a Release			NE	**10**	NE	NE	NE	**50**	NE	NE	NE	**100**	**600**
Hand Auger Delineation Soil Samples													
HA01@7-8'	1/10/2025	7 - 8	1.6	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.7	<48	<48	<60
HA01@8-9'	1/10/2025	8 - 9	77.4	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.8	<49	<49	<61
HA02@1'	1/10/2025	1	0.2	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.4	<47	<47	<60
HA02@2'	1/10/2025	2	0.4	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<9.8	<49	<49	<59
HA03@2'	1/10/2025	2	2,327	<0.023	<0.046	0.27	0.91	1.18	110	100	<47	**210**	<60
HA03@3'	1/10/2025	3	338	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	10	<48	10	<60
HA04@1'	1/10/2025	1	0.8	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.8	<49	<49	<60
HA04@2'	1/10/2025	2	0.4	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.4	<47	<47	<60
HA05@2'	1/10/2025	2	0.0	<0.023	<0.046	<0.046	<0.093	<0.093	<4.6	<9.3	<46	<46	<60
HA05@3'	1/10/2025	3	0.0	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.8	<49	<49	<60
Excavation Sidewall Confirmation Soil Samples													
SW01	4/1/2025	0 - 6	0.0	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.3	<46	<46	<60
SW02	4/1/2025	0 - 6	0.0	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.7	<48	<48	<60
SW03	4/1/2025	0 - 6	0.6	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.8	<49	<49	<60
SW04	4/1/2025	0 - 6	2.3	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.7	<48	<48	<60
SW05	4/1/2025	0 - 6	0.2	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<10	<50	<50	<60
Excavation Floor Confirmation Soil Samples													
FS01	4/1/2025	6	6.3	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.8	<49	<49	<60
FS02	4/1/2025	6	1.7	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<10	<50	<50	<60
FS03	4/1/2025	6	132.1	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.7	<49	<49	<60

Notes:

bgs: Below ground surface
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
mg/kg: Milligrams per kilogram
NE: Not Established
NMOCD: New Mexico Oil Conservation Division
PID: Photoionization detector
ppm: Parts per million
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
MRO: Motor Oil/Lube Oil Range Organics
TPH: Total Petroleum Hydrocarbon
': Feet
< : Indicates result less than the stated laboratory reporting limit (RL)
*Concentrations in **bold** and shaded exceed the New Mexico Oil Conservation Division Table I Closure Criteria for Soils Impacted by a Release*

ENSOLUM

APPENDIX A

Agency Notifications

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS

Action 446166

QUESTIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 446166
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2503153589**
Incident Name	**NAPP2503153589 SAN JUAN 27-8 B4 @ 30-045-06443**
Incident Type	**Release Other**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-045-06443] SAN JUAN 27 8 B #004**

Location of Release Source	
Site Name	**San Juan 27-8 B4**
Date Release Discovered	**01/17/2025**
Surface Owner	**Federal**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	1,000
What is the estimated number of samples that will be gathered	5
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	04/01/2025
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Contact PM Stuart Hyde, 970-903-1607
Please provide any information necessary for navigation to sampling site	San Juan 27-8 B4 pipeline, site coordinates 36.56872, -107.63278

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

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 446166
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
shyde	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/27/2025

ENSOLUM

APPENDIX B

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Samantha Grabert
Hilcorp Energy
PO BOX 61529
Houston, Texas 77208

Generated 1/17/2025 7:43:26 AM

JOB DESCRIPTION

SJ 27-8 B4

JOB NUMBER

885-18231-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 5/16/2025 8:49:11 AM

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
1/17/2025 7:43:26 AM

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

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Laboratory Job ID: 885-18231-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Hilcorp Energy
Project: SJ 27-8 B4

Job ID: 885-18231-1

Job ID: 885-18231-1 Eurofins Albuquerque

Job Narrative
885-18231-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

Receipt
The samples were received on 1/11/2025 7:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.1°C.

Receipt Exceptions
Times were swapped on bottles. Called client and bottles were accurate. Made change on COC per client request.

HA01@ 7-9' (885-18231-1) and HA01@ 8-9' (885-18231-2)

Gasoline Range Organics
Method 8015D_GRO: Surrogate recovery for the following sample was outside control limits: HA03@ 2' (885-18231-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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

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

HPLC/IC
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: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA01@ 7-9'

Date Collected: 01/10/25 10:45
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		01/13/25 11:55	01/14/25 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*35 - 166*	*01/13/25 11:55*	*01/14/25 13:05*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		01/13/25 11:55	01/14/25 13:05	1
Ethylbenzene	ND		0.047		mg/Kg		01/13/25 11:55	01/14/25 13:05	1
Toluene	ND		0.047		mg/Kg		01/13/25 11:55	01/14/25 13:05	1
Xylenes, Total	ND		0.095		mg/Kg		01/13/25 11:55	01/14/25 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*48 - 145*	*01/13/25 11:55*	*01/14/25 13:05*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		01/14/25 10:30	01/15/25 22:07	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		01/14/25 10:30	01/15/25 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*01/14/25 10:30*	*01/15/25 22:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		01/13/25 11:20	01/13/25 17:37	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA01@ 8-9'

Date Collected: 01/10/25 10:40
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		01/13/25 11:55	01/14/25 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*01/13/25 11:55*	*01/14/25 14:16*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		01/13/25 11:55	01/14/25 14:16	1
Ethylbenzene	ND		0.049		mg/Kg		01/13/25 11:55	01/14/25 14:16	1
Toluene	ND		0.049		mg/Kg		01/13/25 11:55	01/14/25 14:16	1
Xylenes, Total	ND		0.099		mg/Kg		01/13/25 11:55	01/14/25 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*	*01/13/25 11:55*	*01/14/25 14:16*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		01/14/25 10:30	01/15/25 22:17	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		01/14/25 10:30	01/15/25 22:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*116*		*62 - 134*	*01/14/25 10:30*	*01/15/25 22:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		61		mg/Kg		01/13/25 11:20	01/13/25 17:48	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA02@ 1'

Date Collected: 01/10/25 11:00
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-3

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		01/13/25 11:55	01/14/25 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*01/13/25 11:55*	*01/14/25 15:28*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		01/13/25 11:55	01/14/25 15:28	1
Ethylbenzene	ND		0.048		mg/Kg		01/13/25 11:55	01/14/25 15:28	1
Toluene	ND		0.048		mg/Kg		01/13/25 11:55	01/14/25 15:28	1
Xylenes, Total	ND		0.096		mg/Kg		01/13/25 11:55	01/14/25 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*01/13/25 11:55*	*01/14/25 15:28*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		01/14/25 10:30	01/15/25 22:28	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		01/14/25 10:30	01/15/25 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*117*		*62 - 134*	*01/14/25 10:30*	*01/15/25 22:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		01/13/25 11:20	01/13/25 17:58	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA02@ 2'

Date Collected: 01/10/25 11:05
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		01/13/25 11:55	01/14/25 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*01/13/25 11:55*	*01/14/25 15:52*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		01/13/25 11:55	01/14/25 15:52	1
Ethylbenzene	ND		0.047		mg/Kg		01/13/25 11:55	01/14/25 15:52	1
Toluene	ND		0.047		mg/Kg		01/13/25 11:55	01/14/25 15:52	1
Xylenes, Total	ND		0.094		mg/Kg		01/13/25 11:55	01/14/25 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*48 - 145*	*01/13/25 11:55*	*01/14/25 15:52*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		01/14/25 10:30	01/15/25 22:38	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		01/14/25 10:30	01/15/25 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*01/14/25 10:30*	*01/15/25 22:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59		mg/Kg		01/13/25 11:20	01/13/25 18:08	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA03@ 2'

Date Collected: 01/10/25 11:15
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-5

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	**110**		4.6		mg/Kg		01/13/25 11:55	01/14/25 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*290*	*S1+*	*35 - 166*	*01/13/25 11:55*	*01/14/25 16:15*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		01/13/25 11:55	01/14/25 16:15	1
Ethylbenzene	**0.27**		0.046		mg/Kg		01/13/25 11:55	01/14/25 16:15	1
Toluene	ND		0.046		mg/Kg		01/13/25 11:55	01/14/25 16:15	1
Xylenes, Total	**0.91**		0.092		mg/Kg		01/13/25 11:55	01/14/25 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*141*		*48 - 145*	*01/13/25 11:55*	*01/14/25 16:15*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**100**		9.5		mg/Kg		01/14/25 10:30	01/15/25 22:49	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		01/14/25 10:30	01/15/25 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*01/14/25 10:30*	*01/15/25 22:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		01/13/25 13:36	01/13/25 18:39	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA03@ 3'

Date Collected: 01/10/25 11:20
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		01/13/25 11:55	01/14/25 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*		*35 - 166*	*01/13/25 11:55*	*01/14/25 16:39*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		01/13/25 11:55	01/14/25 16:39	1
Ethylbenzene	ND		0.048		mg/Kg		01/13/25 11:55	01/14/25 16:39	1
Toluene	ND		0.048		mg/Kg		01/13/25 11:55	01/14/25 16:39	1
Xylenes, Total	ND		0.096		mg/Kg		01/13/25 11:55	01/14/25 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*48 - 145*	*01/13/25 11:55*	*01/14/25 16:39*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**10**		9.5		mg/Kg		01/14/25 10:30	01/15/25 22:59	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		01/14/25 10:30	01/15/25 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*01/14/25 10:30*	*01/15/25 22:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		01/13/25 13:36	01/13/25 19:10	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA04@ 1'

Date Collected: 01/10/25 11:30
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		01/13/25 11:55	01/14/25 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*01/13/25 11:55*	*01/14/25 17:03*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		01/13/25 11:55	01/14/25 17:03	1
Ethylbenzene	ND		0.048		mg/Kg		01/13/25 11:55	01/14/25 17:03	1
Toluene	ND		0.048		mg/Kg		01/13/25 11:55	01/14/25 17:03	1
Xylenes, Total	ND		0.097		mg/Kg		01/13/25 11:55	01/14/25 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*01/13/25 11:55*	*01/14/25 17:03*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		01/14/25 10:30	01/15/25 23:10	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		01/14/25 10:30	01/15/25 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*01/14/25 10:30*	*01/15/25 23:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		01/13/25 13:36	01/13/25 19:41	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA04@ 2'

Date Collected: 01/10/25 11:35
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		01/13/25 11:55	01/14/25 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*01/13/25 11:55*	*01/14/25 17:26*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		01/13/25 11:55	01/14/25 17:26	1
Ethylbenzene	ND		0.048		mg/Kg		01/13/25 11:55	01/14/25 17:26	1
Toluene	ND		0.048		mg/Kg		01/13/25 11:55	01/14/25 17:26	1
Xylenes, Total	ND		0.096		mg/Kg		01/13/25 11:55	01/14/25 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*48 - 145*	*01/13/25 11:55*	*01/14/25 17:26*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		01/14/25 10:30	01/15/25 23:20	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		01/14/25 10:30	01/15/25 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*01/14/25 10:30*	*01/15/25 23:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		01/13/25 13:36	01/13/25 19:52	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA05@ 2'

Date Collected: 01/10/25 12:00
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-9

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		01/13/25 11:55	01/14/25 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*01/13/25 11:55*	*01/14/25 18:37*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		01/13/25 11:55	01/14/25 18:37	1
Ethylbenzene	ND		0.046		mg/Kg		01/13/25 11:55	01/14/25 18:37	1
Toluene	ND		0.046		mg/Kg		01/13/25 11:55	01/14/25 18:37	1
Xylenes, Total	ND		0.093		mg/Kg		01/13/25 11:55	01/14/25 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*01/13/25 11:55*	*01/14/25 18:37*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		01/14/25 10:30	01/15/25 23:51	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		01/14/25 10:30	01/15/25 23:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*01/14/25 10:30*	*01/15/25 23:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		01/13/25 13:36	01/13/25 20:02	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA05@ 3'

Date Collected: 01/10/25 12:05
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-10

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		01/13/25 11:55	01/14/25 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*01/13/25 11:55*	*01/14/25 19:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		01/13/25 11:55	01/14/25 19:01	1
Ethylbenzene	ND		0.047		mg/Kg		01/13/25 11:55	01/14/25 19:01	1
Toluene	ND		0.047		mg/Kg		01/13/25 11:55	01/14/25 19:01	1
Xylenes, Total	ND		0.094		mg/Kg		01/13/25 11:55	01/14/25 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*01/13/25 11:55*	*01/14/25 19:01*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		01/14/25 10:30	01/15/25 20:11	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		01/14/25 10:30	01/15/25 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*01/14/25 10:30*	*01/15/25 20:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		01/13/25 13:36	01/13/25 20:12	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

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

Lab Sample ID: MB 885-19203/1-A
Matrix: Solid
Analysis Batch: 19266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19203

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		01/13/25 11:55	01/14/25 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*01/13/25 11:55*	*01/14/25 12:41*	*1*

Lab Sample ID: LCS 885-19203/2-A
Matrix: Solid
Analysis Batch: 19266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19203

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.8		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*200*		*35 - 166*

Lab Sample ID: 885-18231-1 MS
Matrix: Solid
Analysis Batch: 19266

Client Sample ID: HA01@ 7-9'
Prep Type: Total/NA
Prep Batch: 19203

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		23.6	24.5		mg/Kg		99	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*216*		*35 - 166*

Lab Sample ID: 885-18231-1 MSD
Matrix: Solid
Analysis Batch: 19266

Client Sample ID: HA01@ 7-9'
Prep Type: Total/NA
Prep Batch: 19203

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		23.7	27.2		mg/Kg		110	70 - 130	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*216*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-19203/1-A
Matrix: Solid
Analysis Batch: 19267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19203

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		01/13/25 11:55	01/14/25 12:41	1
Ethylbenzene	ND		0.050		mg/Kg		01/13/25 11:55	01/14/25 12:41	1
Toluene	ND		0.050		mg/Kg		01/13/25 11:55	01/14/25 12:41	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

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

Lab Sample ID: MB 885-19203/1-A
Matrix: Solid
Analysis Batch: 19267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19203

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		01/13/25 11:55	01/14/25 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*01/13/25 11:55*	*01/14/25 12:41*	*1*

Lab Sample ID: LCS 885-19203/3-A
Matrix: Solid
Analysis Batch: 19267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19203

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.12		mg/Kg		112	70 - 130		
Ethylbenzene			1.00	1.14		mg/Kg		114	70 - 130		
m&p-Xylene			2.00	2.27		mg/Kg		113	70 - 130		
o-Xylene			1.00	1.12		mg/Kg		112	70 - 130		
Toluene			1.00	1.13		mg/Kg		113	70 - 130		
Xylenes, Total			3.00	3.39		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*

Lab Sample ID: 885-18231-2 MS
Matrix: Solid
Analysis Batch: 19394

Client Sample ID: HA01@ 8-9'
Prep Type: Total/NA
Prep Batch: 19203

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.979	1.11		mg/Kg		113	70 - 130		
Ethylbenzene	ND		0.979	1.12		mg/Kg		114	70 - 130		
m&p-Xylene	ND		1.96	2.23		mg/Kg		114	70 - 130		
o-Xylene	ND		0.979	1.09		mg/Kg		111	70 - 130		
Toluene	ND		0.979	1.14		mg/Kg		116	70 - 130		
Xylenes, Total	ND		2.94	3.32		mg/Kg		113	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Lab Sample ID: 885-18231-2 MSD
Matrix: Solid
Analysis Batch: 19267

Client Sample ID: HA01@ 8-9'
Prep Type: Total/NA
Prep Batch: 19203

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.988	1.19		mg/Kg		121	70 - 130	3	20
Ethylbenzene	ND		0.988	1.25		mg/Kg		127	70 - 130	4	20
m&p-Xylene	ND		1.98	2.48		mg/Kg		126	70 - 130	4	20
o-Xylene	ND		0.988	1.22		mg/Kg		124	70 - 130	5	20
Toluene	ND		0.988	1.22		mg/Kg		124	70 - 130	4	20
Xylenes, Total	ND		2.96	3.70		mg/Kg		125	70 - 130	4	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

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

Lab Sample ID: 885-18231-2 MSD
Matrix: Solid
Analysis Batch: 19267

Client Sample ID: HA01@ 8-9'
Prep Type: Total/NA
Prep Batch: 19203

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*111*		*48 - 145*

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

Lab Sample ID: MB 885-19257/1-A
Matrix: Solid
Analysis Batch: 19335

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19257

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		01/14/25 10:30	01/15/25 21:46	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		01/14/25 10:30	01/15/25 21:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*01/14/25 10:30*	*01/15/25 21:46*	*1*

Lab Sample ID: LCS 885-19257/2-A
Matrix: Solid
Analysis Batch: 19335

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19257

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	48.7		mg/Kg		97	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*

Lab Sample ID: 885-18231-8 MS
Matrix: Solid
Analysis Batch: 19335

Client Sample ID: HA04@ 2'
Prep Type: Total/NA
Prep Batch: 19257

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		46.4	45.8		mg/Kg		99	44 - 136		

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*

Lab Sample ID: 885-18231-8 MSD
Matrix: Solid
Analysis Batch: 19335

Client Sample ID: HA04@ 2'
Prep Type: Total/NA
Prep Batch: 19257

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		46.3	45.9		mg/Kg		99	44 - 136	0	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*

QC Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 885-19195/3
Matrix: Solid
Analysis Batch: 19195

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.525		mg/L		105	50 - 150

Lab Sample ID: MB 885-19198/1-A
Matrix: Solid
Analysis Batch: 19195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19198

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		01/13/25 11:20	01/13/25 11:58	1

Lab Sample ID: LCS 885-19198/2-A
Matrix: Solid
Analysis Batch: 19195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	29.5		mg/Kg		98	90 - 110

Lab Sample ID: MB 885-19208/1-A
Matrix: Solid
Analysis Batch: 19195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19208

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		01/13/25 13:36	01/13/25 18:19	1

Lab Sample ID: LCS 885-19208/2-A
Matrix: Solid
Analysis Batch: 19195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	30.1		mg/Kg		100	90 - 110

QC Association Summary

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

GC VOA

Prep Batch: 19203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18231-1	HA01@ 7-9'	Total/NA	Solid	5030C	
885-18231-2	HA01@ 8-9'	Total/NA	Solid	5030C	
885-18231-3	HA02@ 1'	Total/NA	Solid	5030C	
885-18231-4	HA02@ 2'	Total/NA	Solid	5030C	
885-18231-5	HA03@ 2'	Total/NA	Solid	5030C	
885-18231-6	HA03@ 3'	Total/NA	Solid	5030C	
885-18231-7	HA04@ 1'	Total/NA	Solid	5030C	
885-18231-8	HA04@ 2'	Total/NA	Solid	5030C	
885-18231-9	HA05@ 2'	Total/NA	Solid	5030C	
885-18231-10	HA05@ 3'	Total/NA	Solid	5030C	
MB 885-19203/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-19203/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-19203/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-18231-1 MS	HA01@ 7-9'	Total/NA	Solid	5030C	
885-18231-1 MSD	HA01@ 7-9'	Total/NA	Solid	5030C	
885-18231-2 MS	HA01@ 8-9'	Total/NA	Solid	5030C	
885-18231-2 MSD	HA01@ 8-9'	Total/NA	Solid	5030C	

Analysis Batch: 19266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18231-1	HA01@ 7-9'	Total/NA	Solid	8015M/D	19203
885-18231-2	HA01@ 8-9'	Total/NA	Solid	8015M/D	19203
885-18231-3	HA02@ 1'	Total/NA	Solid	8015M/D	19203
885-18231-4	HA02@ 2'	Total/NA	Solid	8015M/D	19203
885-18231-5	HA03@ 2'	Total/NA	Solid	8015M/D	19203
885-18231-6	HA03@ 3'	Total/NA	Solid	8015M/D	19203
885-18231-7	HA04@ 1'	Total/NA	Solid	8015M/D	19203
885-18231-8	HA04@ 2'	Total/NA	Solid	8015M/D	19203
885-18231-9	HA05@ 2'	Total/NA	Solid	8015M/D	19203
885-18231-10	HA05@ 3'	Total/NA	Solid	8015M/D	19203
MB 885-19203/1-A	Method Blank	Total/NA	Solid	8015M/D	19203
LCS 885-19203/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	19203
885-18231-1 MS	HA01@ 7-9'	Total/NA	Solid	8015M/D	19203
885-18231-1 MSD	HA01@ 7-9'	Total/NA	Solid	8015M/D	19203

Analysis Batch: 19267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18231-1	HA01@ 7-9'	Total/NA	Solid	8021B	19203
885-18231-2	HA01@ 8-9'	Total/NA	Solid	8021B	19203
885-18231-3	HA02@ 1'	Total/NA	Solid	8021B	19203
885-18231-4	HA02@ 2'	Total/NA	Solid	8021B	19203
885-18231-5	HA03@ 2'	Total/NA	Solid	8021B	19203
885-18231-6	HA03@ 3'	Total/NA	Solid	8021B	19203
885-18231-7	HA04@ 1'	Total/NA	Solid	8021B	19203
885-18231-8	HA04@ 2'	Total/NA	Solid	8021B	19203
885-18231-9	HA05@ 2'	Total/NA	Solid	8021B	19203
885-18231-10	HA05@ 3'	Total/NA	Solid	8021B	19203
MB 885-19203/1-A	Method Blank	Total/NA	Solid	8021B	19203
LCS 885-19203/3-A	Lab Control Sample	Total/NA	Solid	8021B	19203
885-18231-2 MSD	HA01@ 8-9'	Total/NA	Solid	8021B	19203

QC Association Summary

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

GC VOA

Analysis Batch: 19394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18231-2 MS	HA01@ 8-9'	Total/NA	Solid	8021B	19203

GC Semi VOA

Prep Batch: 19257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18231-1	HA01@ 7-9'	Total/NA	Solid	SHAKE	
885-18231-2	HA01@ 8-9'	Total/NA	Solid	SHAKE	
885-18231-3	HA02@ 1'	Total/NA	Solid	SHAKE	
885-18231-4	HA02@ 2'	Total/NA	Solid	SHAKE	
885-18231-5	HA03@ 2'	Total/NA	Solid	SHAKE	
885-18231-6	HA03@ 3'	Total/NA	Solid	SHAKE	
885-18231-7	HA04@ 1'	Total/NA	Solid	SHAKE	
885-18231-8	HA04@ 2'	Total/NA	Solid	SHAKE	
885-18231-9	HA05@ 2'	Total/NA	Solid	SHAKE	
885-18231-10	HA05@ 3'	Total/NA	Solid	SHAKE	
MB 885-19257/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-19257/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-18231-8 MS	HA04@ 2'	Total/NA	Solid	SHAKE	
885-18231-8 MSD	HA04@ 2'	Total/NA	Solid	SHAKE	

Analysis Batch: 19335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18231-1	HA01@ 7-9'	Total/NA	Solid	8015M/D	19257
885-18231-2	HA01@ 8-9'	Total/NA	Solid	8015M/D	19257
885-18231-3	HA02@ 1'	Total/NA	Solid	8015M/D	19257
885-18231-4	HA02@ 2'	Total/NA	Solid	8015M/D	19257
885-18231-5	HA03@ 2'	Total/NA	Solid	8015M/D	19257
885-18231-6	HA03@ 3'	Total/NA	Solid	8015M/D	19257
885-18231-7	HA04@ 1'	Total/NA	Solid	8015M/D	19257
885-18231-8	HA04@ 2'	Total/NA	Solid	8015M/D	19257
885-18231-9	HA05@ 2'	Total/NA	Solid	8015M/D	19257
885-18231-10	HA05@ 3'	Total/NA	Solid	8015M/D	19257
MB 885-19257/1-A	Method Blank	Total/NA	Solid	8015M/D	19257
LCS 885-19257/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	19257
885-18231-8 MS	HA04@ 2'	Total/NA	Solid	8015M/D	19257
885-18231-8 MSD	HA04@ 2'	Total/NA	Solid	8015M/D	19257

HPLC/IC

Analysis Batch: 19195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18231-1	HA01@ 7-9'	Total/NA	Solid	300.0	19198
885-18231-2	HA01@ 8-9'	Total/NA	Solid	300.0	19198
885-18231-3	HA02@ 1'	Total/NA	Solid	300.0	19198
885-18231-4	HA02@ 2'	Total/NA	Solid	300.0	19198
885-18231-5	HA03@ 2'	Total/NA	Solid	300.0	19208
885-18231-6	HA03@ 3'	Total/NA	Solid	300.0	19208
885-18231-7	HA04@ 1'	Total/NA	Solid	300.0	19208
885-18231-8	HA04@ 2'	Total/NA	Solid	300.0	19208
885-18231-9	HA05@ 2'	Total/NA	Solid	300.0	19208
885-18231-10	HA05@ 3'	Total/NA	Solid	300.0	19208

QC Association Summary

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

HPLC/IC (Continued)

Analysis Batch: 19195 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-19198/1-A	Method Blank	Total/NA	Solid	300.0	19198
MB 885-19208/1-A	Method Blank	Total/NA	Solid	300.0	19208
LCS 885-19198/2-A	Lab Control Sample	Total/NA	Solid	300.0	19198
LCS 885-19208/2-A	Lab Control Sample	Total/NA	Solid	300.0	19208
MRL 885-19195/3	Lab Control Sample	Total/NA	Solid	300.0	

Prep Batch: 19198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18231-1	HA01@ 7-9'	Total/NA	Solid	300_Prep	
885-18231-2	HA01@ 8-9'	Total/NA	Solid	300_Prep	
885-18231-3	HA02@ 1'	Total/NA	Solid	300_Prep	
885-18231-4	HA02@ 2'	Total/NA	Solid	300_Prep	
MB 885-19198/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-19198/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 19208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18231-5	HA03@ 2'	Total/NA	Solid	300_Prep	
885-18231-6	HA03@ 3'	Total/NA	Solid	300_Prep	
885-18231-7	HA04@ 1'	Total/NA	Solid	300_Prep	
885-18231-8	HA04@ 2'	Total/NA	Solid	300_Prep	
885-18231-9	HA05@ 2'	Total/NA	Solid	300_Prep	
885-18231-10	HA05@ 3'	Total/NA	Solid	300_Prep	
MB 885-19208/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-19208/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA01@ 7-9'

Lab Sample ID: 885-18231-1
Matrix: Solid
Date Collected: 01/10/25 10:45
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8015M/D		1	19266	JP	EET ALB	01/14/25 13:05
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8021B		1	19267	JP	EET ALB	01/14/25 13:05
Total/NA	Prep	SHAKE			19257	EM	EET ALB	01/14/25 10:30
Total/NA	Analysis	8015M/D		1	19335	EM	EET ALB	01/15/25 22:07
Total/NA	Prep	300_Prep			19198	JT	EET ALB	01/13/25 11:20
Total/NA	Analysis	300.0		20	19195	JT	EET ALB	01/13/25 17:37

Client Sample ID: HA01@ 8-9'

Lab Sample ID: 885-18231-2
Matrix: Solid
Date Collected: 01/10/25 10:40
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8015M/D		1	19266	JP	EET ALB	01/14/25 14:16
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8021B		1	19267	JP	EET ALB	01/14/25 14:16
Total/NA	Prep	SHAKE			19257	EM	EET ALB	01/14/25 10:30
Total/NA	Analysis	8015M/D		1	19335	EM	EET ALB	01/15/25 22:17
Total/NA	Prep	300_Prep			19198	JT	EET ALB	01/13/25 11:20
Total/NA	Analysis	300.0		20	19195	JT	EET ALB	01/13/25 17:48

Client Sample ID: HA02@ 1'

Lab Sample ID: 885-18231-3
Matrix: Solid
Date Collected: 01/10/25 11:00
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8015M/D		1	19266	JP	EET ALB	01/14/25 15:28
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8021B		1	19267	JP	EET ALB	01/14/25 15:28
Total/NA	Prep	SHAKE			19257	EM	EET ALB	01/14/25 10:30
Total/NA	Analysis	8015M/D		1	19335	EM	EET ALB	01/15/25 22:28
Total/NA	Prep	300_Prep			19198	JT	EET ALB	01/13/25 11:20
Total/NA	Analysis	300.0		20	19195	JT	EET ALB	01/13/25 17:58

Client Sample ID: HA02@ 2'

Lab Sample ID: 885-18231-4
Matrix: Solid
Date Collected: 01/10/25 11:05
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8015M/D		1	19266	JP	EET ALB	01/14/25 15:52

Lab Chronicle

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA02@ 2'

Lab Sample ID: 885-18231-4
Matrix: Solid
Date Collected: 01/10/25 11:05
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8021B		1	19267	JP	EET ALB	01/14/25 15:52
Total/NA	Prep	SHAKE			19257	EM	EET ALB	01/14/25 10:30
Total/NA	Analysis	8015M/D		1	19335	EM	EET ALB	01/15/25 22:38
Total/NA	Prep	300_Prep			19198	JT	EET ALB	01/13/25 11:20
Total/NA	Analysis	300.0		20	19195	JT	EET ALB	01/13/25 18:08

Client Sample ID: HA03@ 2'

Lab Sample ID: 885-18231-5
Matrix: Solid
Date Collected: 01/10/25 11:15
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8015M/D		1	19266	JP	EET ALB	01/14/25 16:15
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8021B		1	19267	JP	EET ALB	01/14/25 16:15
Total/NA	Prep	SHAKE			19257	EM	EET ALB	01/14/25 10:30
Total/NA	Analysis	8015M/D		1	19335	EM	EET ALB	01/15/25 22:49
Total/NA	Prep	300_Prep			19208	JT	EET ALB	01/13/25 13:36
Total/NA	Analysis	300.0		20	19195	JT	EET ALB	01/13/25 18:39

Client Sample ID: HA03@ 3'

Lab Sample ID: 885-18231-6
Matrix: Solid
Date Collected: 01/10/25 11:20
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8015M/D		1	19266	JP	EET ALB	01/14/25 16:39
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8021B		1	19267	JP	EET ALB	01/14/25 16:39
Total/NA	Prep	SHAKE			19257	EM	EET ALB	01/14/25 10:30
Total/NA	Analysis	8015M/D		1	19335	EM	EET ALB	01/15/25 22:59
Total/NA	Prep	300_Prep			19208	JT	EET ALB	01/13/25 13:36
Total/NA	Analysis	300.0		20	19195	JT	EET ALB	01/13/25 19:10

Client Sample ID: HA04@ 1'

Lab Sample ID: 885-18231-7
Matrix: Solid
Date Collected: 01/10/25 11:30
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8015M/D		1	19266	JP	EET ALB	01/14/25 17:03
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8021B		1	19267	JP	EET ALB	01/14/25 17:03

Lab Chronicle

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA04@ 1'

Lab Sample ID: 885-18231-7
Matrix: Solid
Date Collected: 01/10/25 11:30
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			19257	EM	EET ALB	01/14/25 10:30
Total/NA	Analysis	8015M/D		1	19335	EM	EET ALB	01/15/25 23:10
Total/NA	Prep	300_Prep			19208	JT	EET ALB	01/13/25 13:36
Total/NA	Analysis	300.0		20	19195	JT	EET ALB	01/13/25 19:41

Client Sample ID: HA04@ 2'

Lab Sample ID: 885-18231-8
Matrix: Solid
Date Collected: 01/10/25 11:35
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8015M/D		1	19266	JP	EET ALB	01/14/25 17:26
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8021B		1	19267	JP	EET ALB	01/14/25 17:26
Total/NA	Prep	SHAKE			19257	EM	EET ALB	01/14/25 10:30
Total/NA	Analysis	8015M/D		1	19335	EM	EET ALB	01/15/25 23:20
Total/NA	Prep	300_Prep			19208	JT	EET ALB	01/13/25 13:36
Total/NA	Analysis	300.0		20	19195	JT	EET ALB	01/13/25 19:52

Client Sample ID: HA05@ 2'

Lab Sample ID: 885-18231-9
Matrix: Solid
Date Collected: 01/10/25 12:00
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8015M/D		1	19266	JP	EET ALB	01/14/25 18:37
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8021B		1	19267	JP	EET ALB	01/14/25 18:37
Total/NA	Prep	SHAKE			19257	EM	EET ALB	01/14/25 10:30
Total/NA	Analysis	8015M/D		1	19335	EM	EET ALB	01/15/25 23:51
Total/NA	Prep	300_Prep			19208	JT	EET ALB	01/13/25 13:36
Total/NA	Analysis	300.0		20	19195	JT	EET ALB	01/13/25 20:02

Client Sample ID: HA05@ 3'

Lab Sample ID: 885-18231-10
Matrix: Solid
Date Collected: 01/10/25 12:05
Date Received: 01/11/25 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8015M/D		1	19266	JP	EET ALB	01/14/25 19:01
Total/NA	Prep	5030C			19203	JP	EET ALB	01/13/25 11:55
Total/NA	Analysis	8021B		1	19267	JP	EET ALB	01/14/25 19:01
Total/NA	Prep	SHAKE			19257	EM	EET ALB	01/14/25 10:30
Total/NA	Analysis	8015M/D		1	19335	EM	EET ALB	01/15/25 20:11

Lab Chronicle

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

Client Sample ID: HA05@ 3'

Date Collected: 01/10/25 12:05
Date Received: 01/11/25 07:15

Lab Sample ID: 885-18231-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			19208	JT	EET ALB	01/13/25 13:36
Total/NA	Analysis	300.0		20	19195	JT	EET ALB	01/13/25 20:12

Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-18231-1

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
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-25-25

Released to Imaging: 5/16/2025 8:49:11 AM
Received by OCD: 4/16/2025 4:54:41 PM

Chain-of-Custody Record

Client: Hilcorp

Mitch / Kobe Kaufmann

Mailing Address:

Phone #:

email or Fax#: Kkaufmann@hilcorp.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
5 day
☒ Standard ☐ Rush

Project Name:
SJ 27-8 B4

Project #:

Project Manager:
Stuart Hyde

Sampler: E. Carroll
On Ice: ☒ Yes ☐ No mgs
# of Coolers: 1
Cooler Temp(including CF): 0.0 -0.1 = -0.1 (°C)

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 8710
Tel. 505-345-3975 Fax 505-345-4107

885-18231 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO3, NO2, PO4, SO4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1-10	1045	Soil	HA01 @ 7.9'	1 4oz	Cool		X	X					X			
	1040		HA01 @ 8.9'				X	X					X			
	1100		HA02 @ 1'				X	X					X			
	1105		HA02 @ 2'				X	X					X			
	1115		HA03 @ 2'				X	X					X			
	1120		HA03 @ 3'				X	X					X			
	1130		HA04 @ 1'				X	X					X			
	1135		HA04 @ 2'				X	X					X			
	1200		HA05 @ 2'				X	X					X			
	1205		HA05 @ 3'				X	X					X			

Date	Time	Relinquished by	Received by	Via	Date	Time
1-10	1530				1/10/25	1530
1/10/25	1731			courier	1/11/25	7:15

Remarks:
cc: shyde@ensolum.com

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-18231-1

Login Number: 18231 **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	Samples not Frozen
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/10/2025 10:29:35 AM Revision 1

JOB DESCRIPTION

SJ 27-8 B4

JOB NUMBER

885-22465-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 5/16/2025 8:49:11 AM

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
4/10/2025 10:29:35 AM
Revision 1

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

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Laboratory Job ID: 885-22465-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

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: SJ 27-8 B4

Job ID: 885-22465-1

Job ID: 885-22465-1 Eurofins Albuquerque

Job Narrative
885-22465-1

REVISION

The report being provided is a revision of the original report sent on 4/7/2025. The report (revision 1) is being revised due to Cl was not initally logged in or reported.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

Receipt
The samples were received on 4/2/2025 7:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.5°C.

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

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

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

HPLC/IC
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: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: SW01
Date Collected: 04/01/25 10:55
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-1
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/03/25 10:16	04/04/25 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*04/03/25 10:16*	*04/04/25 14:14*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/03/25 10:16	04/04/25 14:14	1
Ethylbenzene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 14:14	1
Toluene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 14:14	1
Xylenes, Total	ND		0.098		mg/Kg		04/03/25 10:16	04/04/25 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*	*04/03/25 10:16*	*04/04/25 14:14*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		04/04/25 13:58	04/04/25 18:13	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		04/04/25 13:58	04/04/25 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*120*		*62 - 134*	*04/04/25 13:58*	*04/04/25 18:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/09/25 09:07	04/09/25 18:41	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: SW02
Date Collected: 04/01/25 11:00
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-2
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/03/25 10:16	04/04/25 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*04/03/25 10:16*	*04/04/25 15:20*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/03/25 10:16	04/04/25 15:20	1
Ethylbenzene	ND		0.050		mg/Kg		04/03/25 10:16	04/04/25 15:20	1
Toluene	ND		0.050		mg/Kg		04/03/25 10:16	04/04/25 15:20	1
Xylenes, Total	ND		0.10		mg/Kg		04/03/25 10:16	04/04/25 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*04/03/25 10:16*	*04/04/25 15:20*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		04/04/25 13:58	04/04/25 18:59	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		04/04/25 13:58	04/04/25 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*126*		*62 - 134*	*04/04/25 13:58*	*04/04/25 18:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/09/25 09:07	04/09/25 19:24	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: SW03
Date Collected: 04/01/25 11:05
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-3
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/03/25 10:16	04/04/25 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*04/03/25 10:16*	*04/04/25 16:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/03/25 10:16	04/04/25 16:27	1
Ethylbenzene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 16:27	1
Toluene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 16:27	1
Xylenes, Total	ND		0.098		mg/Kg		04/03/25 10:16	04/04/25 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*04/03/25 10:16*	*04/04/25 16:27*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		04/04/25 13:58	04/04/25 19:46	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		04/04/25 13:58	04/04/25 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*114*		*62 - 134*	*04/04/25 13:58*	*04/04/25 19:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/09/25 09:07	04/09/25 19:38	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: SW04
Date Collected: 04/01/25 11:10
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-4
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/03/25 10:16	04/04/25 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*04/03/25 10:16*	*04/04/25 16:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/03/25 10:16	04/04/25 16:48	1
Ethylbenzene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 16:48	1
Toluene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 16:48	1
Xylenes, Total	ND		0.099		mg/Kg		04/03/25 10:16	04/04/25 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*	*04/03/25 10:16*	*04/04/25 16:48*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		04/04/25 13:58	04/04/25 20:09	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		04/04/25 13:58	04/04/25 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*114*		*62 - 134*	*04/04/25 13:58*	*04/04/25 20:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/09/25 09:07	04/09/25 19:52	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: SW05
Date Collected: 04/01/25 11:15
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-5
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/03/25 10:16	04/04/25 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*04/03/25 10:16*	*04/04/25 17:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/03/25 10:16	04/04/25 17:10	1
Ethylbenzene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 17:10	1
Toluene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 17:10	1
Xylenes, Total	ND		0.099		mg/Kg		04/03/25 10:16	04/04/25 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*04/03/25 10:16*	*04/04/25 17:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		04/04/25 13:58	04/04/25 20:33	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/04/25 13:58	04/04/25 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*119*		*62 - 134*	*04/04/25 13:58*	*04/04/25 20:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/09/25 09:07	04/09/25 20:06	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: FS01
Date Collected: 04/01/25 11:20
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-6
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/03/25 10:16	04/04/25 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*04/03/25 10:16*	*04/04/25 17:32*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/03/25 10:16	04/04/25 17:32	1
Ethylbenzene	ND		0.050		mg/Kg		04/03/25 10:16	04/04/25 17:32	1
Toluene	ND		0.050		mg/Kg		04/03/25 10:16	04/04/25 17:32	1
Xylenes, Total	ND		0.10		mg/Kg		04/03/25 10:16	04/04/25 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*	*04/03/25 10:16*	*04/04/25 17:32*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		04/04/25 13:58	04/04/25 21:19	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		04/04/25 13:58	04/04/25 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*121*		*62 - 134*	*04/04/25 13:58*	*04/04/25 21:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/09/25 09:07	04/09/25 20:20	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: FS02
Date Collected: 04/01/25 11:25
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-7
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/03/25 10:16	04/04/25 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*04/03/25 10:16*	*04/04/25 17:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/03/25 10:16	04/04/25 17:54	1
Ethylbenzene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 17:54	1
Toluene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 17:54	1
Xylenes, Total	ND		0.098		mg/Kg		04/03/25 10:16	04/04/25 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*04/03/25 10:16*	*04/04/25 17:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		04/04/25 13:58	04/04/25 22:06	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/04/25 13:58	04/04/25 22:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*114*		*62 - 134*	*04/04/25 13:58*	*04/04/25 22:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/09/25 09:07	04/09/25 20:34	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: FS03
Date Collected: 04/01/25 11:30
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-8
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/03/25 10:16	04/04/25 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*04/03/25 10:16*	*04/04/25 18:16*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/03/25 10:16	04/04/25 18:16	1
Ethylbenzene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 18:16	1
Toluene	ND		0.049		mg/Kg		04/03/25 10:16	04/04/25 18:16	1
Xylenes, Total	ND		0.099		mg/Kg		04/03/25 10:16	04/04/25 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*04/03/25 10:16*	*04/04/25 18:16*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		04/04/25 13:58	04/04/25 22:29	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		04/04/25 13:58	04/04/25 22:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*116*		*62 - 134*	*04/04/25 13:58*	*04/04/25 22:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/09/25 09:07	04/09/25 20:49	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

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

Lab Sample ID: MB 885-23613/1-A
Matrix: Solid
Analysis Batch: 23700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23613

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/03/25 10:16	04/04/25 13:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*04/03/25 10:16*	*04/04/25 13:51*	*1*

Lab Sample ID: LCS 885-23613/2-A
Matrix: Solid
Analysis Batch: 23700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23613

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	26.8		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*229*		*35 - 166*

Lab Sample ID: 885-22465-1 MS
Matrix: Solid
Analysis Batch: 23700

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 23613

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.6	27.8		mg/Kg		113	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*235*		*35 - 166*

Lab Sample ID: 885-22465-1 MSD
Matrix: Solid
Analysis Batch: 23700

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 23613

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.6	27.6		mg/Kg		112	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*232*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-23613/1-A
Matrix: Solid
Analysis Batch: 23701

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23613

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/03/25 10:16	04/04/25 13:51	1
Ethylbenzene	ND		0.050		mg/Kg		04/03/25 10:16	04/04/25 13:51	1
Toluene	ND		0.050		mg/Kg		04/03/25 10:16	04/04/25 13:51	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

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

Lab Sample ID: MB 885-23613/1-A
Matrix: Solid
Analysis Batch: 23701

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23613

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		04/03/25 10:16	04/04/25 13:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*	*04/03/25 10:16*	*04/04/25 13:51*	*1*

Lab Sample ID: LCS 885-23613/3-A
Matrix: Solid
Analysis Batch: 23701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23613

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.06		mg/Kg		106	70 - 130		
Ethylbenzene			1.00	1.09		mg/Kg		109	70 - 130		
m&p-Xylene			2.00	2.15		mg/Kg		107	70 - 130		
o-Xylene			1.00	1.08		mg/Kg		108	70 - 130		
Toluene			1.00	1.05		mg/Kg		105	70 - 130		
Xylenes, Total			3.00	3.23		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*

Lab Sample ID: 885-22465-2 MS
Matrix: Solid
Analysis Batch: 23701

Client Sample ID: SW02
Prep Type: Total/NA
Prep Batch: 23613

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.992	1.09		mg/Kg		110	70 - 130		
Ethylbenzene	ND		0.992	1.13		mg/Kg		114	70 - 130		
m&p-Xylene	ND		1.98	2.27		mg/Kg		114	70 - 130		
o-Xylene	ND		0.992	1.14		mg/Kg		115	70 - 130		
Toluene	ND		0.992	1.09		mg/Kg		110	70 - 130		
Xylenes, Total	ND		2.98	3.41		mg/Kg		114	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*48 - 145*

Lab Sample ID: 885-22465-2 MSD
Matrix: Solid
Analysis Batch: 23701

Client Sample ID: SW02
Prep Type: Total/NA
Prep Batch: 23613

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.994	1.09		mg/Kg		109	70 - 130	0	20
Ethylbenzene	ND		0.994	1.14		mg/Kg		115	70 - 130	1	20
m&p-Xylene	ND		1.99	2.29		mg/Kg		115	70 - 130	1	20
o-Xylene	ND		0.994	1.16		mg/Kg		117	70 - 130	2	20
Toluene	ND		0.994	1.09		mg/Kg		109	70 - 130	0	20
Xylenes, Total	ND		2.98	3.45		mg/Kg		116	70 - 130	1	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

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

Lab Sample ID: 885-22465-2 MSD
Matrix: Solid
Analysis Batch: 23701

Client Sample ID: SW02
Prep Type: Total/NA
Prep Batch: 23613

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*

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

Lab Sample ID: MB 885-23726/1-A
Matrix: Solid
Analysis Batch: 23661

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23726

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		04/04/25 13:58	04/04/25 15:52	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/04/25 13:58	04/04/25 15:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*108*		*62 - 134*	*04/04/25 13:58*	*04/04/25 15:52*	*1*

Lab Sample ID: LCS 885-23726/2-A
Matrix: Solid
Analysis Batch: 23661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23726

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	42.7		mg/Kg		85	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-23901/1-A
Matrix: Solid
Analysis Batch: 23904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23901

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		04/09/25 09:07	04/09/25 17:16	1

Lab Sample ID: LCS 885-23901/2-A
Matrix: Solid
Analysis Batch: 23904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23901

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	14.9		mg/Kg		99	90 - 110		

Lab Sample ID: 885-22465-1 MS
Matrix: Solid
Analysis Batch: 23904

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 23901

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		29.9	ND		mg/Kg		NC	50 - 150		

QC Sample Results

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 885-22465-1 MSD
Matrix: Solid
Analysis Batch: 23904

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 23901

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		29.7	ND		mg/Kg		NC	50 - 150	NC	20

QC Association Summary

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

GC VOA

Prep Batch: 23613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22465-1	SW01	Total/NA	Solid	5030C	
885-22465-2	SW02	Total/NA	Solid	5030C	
885-22465-3	SW03	Total/NA	Solid	5030C	
885-22465-4	SW04	Total/NA	Solid	5030C	
885-22465-5	SW05	Total/NA	Solid	5030C	
885-22465-6	FS01	Total/NA	Solid	5030C	
885-22465-7	FS02	Total/NA	Solid	5030C	
885-22465-8	FS03	Total/NA	Solid	5030C	
MB 885-23613/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-23613/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-23613/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-22465-1 MS	SW01	Total/NA	Solid	5030C	
885-22465-1 MSD	SW01	Total/NA	Solid	5030C	
885-22465-2 MS	SW02	Total/NA	Solid	5030C	
885-22465-2 MSD	SW02	Total/NA	Solid	5030C	

Analysis Batch: 23700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22465-1	SW01	Total/NA	Solid	8015M/D	23613
885-22465-2	SW02	Total/NA	Solid	8015M/D	23613
885-22465-3	SW03	Total/NA	Solid	8015M/D	23613
885-22465-4	SW04	Total/NA	Solid	8015M/D	23613
885-22465-5	SW05	Total/NA	Solid	8015M/D	23613
885-22465-6	FS01	Total/NA	Solid	8015M/D	23613
885-22465-7	FS02	Total/NA	Solid	8015M/D	23613
885-22465-8	FS03	Total/NA	Solid	8015M/D	23613
MB 885-23613/1-A	Method Blank	Total/NA	Solid	8015M/D	23613
LCS 885-23613/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23613
885-22465-1 MS	SW01	Total/NA	Solid	8015M/D	23613
885-22465-1 MSD	SW01	Total/NA	Solid	8015M/D	23613

Analysis Batch: 23701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22465-1	SW01	Total/NA	Solid	8021B	23613
885-22465-2	SW02	Total/NA	Solid	8021B	23613
885-22465-3	SW03	Total/NA	Solid	8021B	23613
885-22465-4	SW04	Total/NA	Solid	8021B	23613
885-22465-5	SW05	Total/NA	Solid	8021B	23613
885-22465-6	FS01	Total/NA	Solid	8021B	23613
885-22465-7	FS02	Total/NA	Solid	8021B	23613
885-22465-8	FS03	Total/NA	Solid	8021B	23613
MB 885-23613/1-A	Method Blank	Total/NA	Solid	8021B	23613
LCS 885-23613/3-A	Lab Control Sample	Total/NA	Solid	8021B	23613
885-22465-2 MS	SW02	Total/NA	Solid	8021B	23613
885-22465-2 MSD	SW02	Total/NA	Solid	8021B	23613

GC Semi VOA

Analysis Batch: 23661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22465-1	SW01	Total/NA	Solid	8015M/D	23726

QC Association Summary

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

GC Semi VOA (Continued)

Analysis Batch: 23661 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22465-2	SW02	Total/NA	Solid	8015M/D	23726
885-22465-3	SW03	Total/NA	Solid	8015M/D	23726
885-22465-4	SW04	Total/NA	Solid	8015M/D	23726
885-22465-5	SW05	Total/NA	Solid	8015M/D	23726
885-22465-6	FS01	Total/NA	Solid	8015M/D	23726
885-22465-7	FS02	Total/NA	Solid	8015M/D	23726
885-22465-8	FS03	Total/NA	Solid	8015M/D	23726
MB 885-23726/1-A	Method Blank	Total/NA	Solid	8015M/D	23726
LCS 885-23726/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23726

Prep Batch: 23726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22465-1	SW01	Total/NA	Solid	SHAKE	
885-22465-2	SW02	Total/NA	Solid	SHAKE	
885-22465-3	SW03	Total/NA	Solid	SHAKE	
885-22465-4	SW04	Total/NA	Solid	SHAKE	
885-22465-5	SW05	Total/NA	Solid	SHAKE	
885-22465-6	FS01	Total/NA	Solid	SHAKE	
885-22465-7	FS02	Total/NA	Solid	SHAKE	
885-22465-8	FS03	Total/NA	Solid	SHAKE	
MB 885-23726/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-23726/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 23901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22465-1	SW01	Total/NA	Solid	300_Prep	
885-22465-2	SW02	Total/NA	Solid	300_Prep	
885-22465-3	SW03	Total/NA	Solid	300_Prep	
885-22465-4	SW04	Total/NA	Solid	300_Prep	
885-22465-5	SW05	Total/NA	Solid	300_Prep	
885-22465-6	FS01	Total/NA	Solid	300_Prep	
885-22465-7	FS02	Total/NA	Solid	300_Prep	
885-22465-8	FS03	Total/NA	Solid	300_Prep	
MB 885-23901/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-23901/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-22465-1 MS	SW01	Total/NA	Solid	300_Prep	
885-22465-1 MSD	SW01	Total/NA	Solid	300_Prep	

Analysis Batch: 23904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22465-1	SW01	Total/NA	Solid	300.0	23901
885-22465-2	SW02	Total/NA	Solid	300.0	23901
885-22465-3	SW03	Total/NA	Solid	300.0	23901
885-22465-4	SW04	Total/NA	Solid	300.0	23901
885-22465-5	SW05	Total/NA	Solid	300.0	23901
885-22465-6	FS01	Total/NA	Solid	300.0	23901
885-22465-7	FS02	Total/NA	Solid	300.0	23901
885-22465-8	FS03	Total/NA	Solid	300.0	23901
MB 885-23901/1-A	Method Blank	Total/NA	Solid	300.0	23901

QC Association Summary

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

HPLC/IC (Continued)

Analysis Batch: 23904 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-23901/2-A	Lab Control Sample	Total/NA	Solid	300.0	23901
885-22465-1 MS	SW01	Total/NA	Solid	300.0	23901
885-22465-1 MSD	SW01	Total/NA	Solid	300.0	23901

Lab Chronicle

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: SW01
Date Collected: 04/01/25 10:55
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8015M/D		1	23700	AT	EET ALB	04/04/25 14:14
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8021B		1	23701	AT	EET ALB	04/04/25 14:14
Total/NA	Prep	SHAKE			23726	MI	EET ALB	04/04/25 13:58
Total/NA	Analysis	8015M/D		1	23661	MI	EET ALB	04/04/25 18:13
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 09:07
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 18:41

Client Sample ID: SW02
Date Collected: 04/01/25 11:00
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8015M/D		1	23700	AT	EET ALB	04/04/25 15:20
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8021B		1	23701	AT	EET ALB	04/04/25 15:20
Total/NA	Prep	SHAKE			23726	MI	EET ALB	04/04/25 13:58
Total/NA	Analysis	8015M/D		1	23661	MI	EET ALB	04/04/25 18:59
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 09:07
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 19:24

Client Sample ID: SW03
Date Collected: 04/01/25 11:05
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8015M/D		1	23700	AT	EET ALB	04/04/25 16:27
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8021B		1	23701	AT	EET ALB	04/04/25 16:27
Total/NA	Prep	SHAKE			23726	MI	EET ALB	04/04/25 13:58
Total/NA	Analysis	8015M/D		1	23661	MI	EET ALB	04/04/25 19:46
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 09:07
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 19:38

Client Sample ID: SW04
Date Collected: 04/01/25 11:10
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8015M/D		1	23700	AT	EET ALB	04/04/25 16:48

Lab Chronicle

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: SW04
Date Collected: 04/01/25 11:10
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8021B		1	23701	AT	EET ALB	04/04/25 16:48
Total/NA	Prep	SHAKE			23726	MI	EET ALB	04/04/25 13:58
Total/NA	Analysis	8015M/D		1	23661	MI	EET ALB	04/04/25 20:09
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 09:07
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 19:52

Client Sample ID: SW05
Date Collected: 04/01/25 11:15
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8015M/D		1	23700	AT	EET ALB	04/04/25 17:10
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8021B		1	23701	AT	EET ALB	04/04/25 17:10
Total/NA	Prep	SHAKE			23726	MI	EET ALB	04/04/25 13:58
Total/NA	Analysis	8015M/D		1	23661	MI	EET ALB	04/04/25 20:33
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 09:07
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 20:06

Client Sample ID: FS01
Date Collected: 04/01/25 11:20
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8015M/D		1	23700	AT	EET ALB	04/04/25 17:32
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8021B		1	23701	AT	EET ALB	04/04/25 17:32
Total/NA	Prep	SHAKE			23726	MI	EET ALB	04/04/25 13:58
Total/NA	Analysis	8015M/D		1	23661	MI	EET ALB	04/04/25 21:19
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 09:07
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 20:20

Client Sample ID: FS02
Date Collected: 04/01/25 11:25
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8015M/D		1	23700	AT	EET ALB	04/04/25 17:54
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8021B		1	23701	AT	EET ALB	04/04/25 17:54

Lab Chronicle

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

Client Sample ID: FS02
Date Collected: 04/01/25 11:25
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			23726	MI	EET ALB	04/04/25 13:58
Total/NA	Analysis	8015M/D		1	23661	MI	EET ALB	04/04/25 22:06
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 09:07
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 20:34

Client Sample ID: FS03
Date Collected: 04/01/25 11:30
Date Received: 04/02/25 07:10

Lab Sample ID: 885-22465-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8015M/D		1	23700	AT	EET ALB	04/04/25 18:16
Total/NA	Prep	5030C			23613	AT	EET ALB	04/03/25 10:16
Total/NA	Analysis	8021B		1	23701	AT	EET ALB	04/04/25 18:16
Total/NA	Prep	SHAKE			23726	MI	EET ALB	04/04/25 13:58
Total/NA	Analysis	8015M/D		1	23661	MI	EET ALB	04/04/25 22:29
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 09:07
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 20:49

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: SJ 27-8 B4

Job ID: 885-22465-1

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	02-27-26

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
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-26

Released to Imaging: 5/16/2025 8:49:11 AM
Received by OCD: 4/16/2025 4:54:41 PM

Chain-of-Custody Record

Client: HilCorp Energy Co.
Attn - KateKaufman
Mailing Address:
Phone #:
email or Fax#: KKaufman@hilcorp.com
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☒ EDD (Type) Excel

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SJ 27-8 B4
Project #:
Project Manager: Stuart Hyde 970-903-1607 shyde@ensolum.com
Sampler: Tracy DemBROWSKI
On Ice: ☒ Yes ☐ No
# of Coolers: 1 Mojo
Cooler Temp(including CF): 4.3+0.2=4.5 (°C)

HALL ENVIRONMEI
ANALYSIS LABORA
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107
885-22465 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
4/1/25	10:55	SOIL	SW01	(1-4oz jar)	COOL	
	11:00		SW02			
	11:05		SW03			
	11:10		SW04			
	11:15		SW05			
	11:20		FS01			
	11:25		FS02			
↓	11:30	↓	FS03	↓	↓	

Analysis Request

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

Date	Time	Relinquished by	Received by	Via	Date	Time
4/1/25	13:30	Tracy DemBROWSKI				
4/1/25	1815				4/1/25	1330
				courier	4/2/25	7:10

Remarks: cc: shyde@ensolum.com
tdembrowski@ensolum.com
ecarroll@ensolum.com

If necessary samples submitted to Hall Environmental may be subcontracted to other accredited laboratories This serves as notice of this possibility Any sub-contracted data will be clearly notated on the analytical report

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-22465-1

Login Number: 22465 **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	

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
Hilcorp Energy Company
San Juan 27-8 B4
San Juan County, New Mexico

Photograph: 1 Date: 1/10/2025
Description: Initial Excavation Extent
View: Northeast

Photograph: 2 Date: 4/1/2025
Description: Excavation activities
View: North

Photograph: 3 Date: 4/1/2025
Description: Confirmation Sampling
View: West

Photograph: 4 Date: 4/1/2025
Description: Final Excavation Extent
View: Southeast

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS

Action 452929

QUESTIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 452929
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2503153589**
Incident Name	**NAPP2503153589 SAN JUAN 27-8 B4 @ 30-045-06443**
Incident Type	**Release Other**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-045-06443] SAN JUAN 27 8 B #004**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	San Juan 27-8 B4
Date Release Discovered	01/17/2025
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Release Other
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Cause: Other | Pipeline (Any) | Condensate | Released: 9 BBL | Recovered: 0 BBL | Lost: 9 BBL.
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 452929
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not applicable
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Stuart Hyde Title: Senior Geologist Email: shyde@ensolum.com Date: 04/16/2025

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 452929
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 300 and 500 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Zero feet, overlying, or within area
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 300 and 500 (ft.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	0
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	210
GRO+DRO (EPA SW-846 Method 8015M)	210
BTEX (EPA SW-846 Method 8021B or 8260B)	1.2
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	01/17/2025
On what date will (or did) the final sampling or liner inspection occur	04/01/2025
On what date will (or was) the remediation complete(d)	04/01/2025
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	264
What is the estimated volume (in cubic yards) that will be remediated	59
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 452929
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	ENVIROTECH [fSC00000000048]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Stuart Hyde Title: Senior Geologist Email: shyde@ensolum.com Date: 04/16/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 452929
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 452929
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**446166**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**04/01/2025**
What was the (estimated) number of samples that were to be gathered	**5**
What was the sampling surface area in square feet	**1000**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	264
What was the total volume (cubic yards) remediated	59
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	. Laboratory analytical results from confirmation soil samples collected from the final excavation extent demonstrated that all COC concentrations were below the applicable NMOCD Table I Closure Criteria and satisfied the reclamation requirements. No further remedial action is warranted. Excavation of impacted soil has effectively mitigated the release and eliminated potential exposure pathways to human health, the environment, and groundwater.
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Stuart Hyde Title: Senior Geologist Email: shyde@ensolum.com Date: 04/16/2025

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 452929
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 452929
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2503153589 SAN JUAN 27-8 B4, thank you. This Remediation Closure Report is approved.	5/16/2025