



November 20, 2024

New Mexico Oil Conservation Division

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

Re: Remediation Report and Closure Request

Brookhaven Com B 3A
Hilcorp Energy Company
NMOCD Incident No: nAPP2404715996

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Remediation Report and Closure Request* for a release at the Brookhaven Com B 3A natural gas production well (Site). The Site is located on New Mexico State Trust Land (STL), managed by the New Mexico State Land Office (NMSLO), in San Juan County, New Mexico, Unit O, Section 16, Township 31 North, Range 11 West (Figure 1). This report describes the excavation and confirmation soil sampling activities performed at the Site to remediate impacted soil originating from the release.

SITE BACKGROUND

On February 15, 2024, Hilcorp personnel discovered a release of 22 barrels (bbls) of condensate and 15 bbls of produced water at the Site. Specifically, while conducting a routine Site inspection, a Hilcorp operator observed a visibly impacted area (measuring approximately 5 feet by 10 feet) adjacent to a 286-bbl condensate aboveground storage tank (AST). Upon further inspection, it was determined two pinhole leaks had formed near the bottom weld on the west side of the AST due to corrosion. At that time, the AST was removed from service. The spilled fluids did not migrate horizontally outside of secondary containment; however, fluids were not recovered. The AST was subsequently recoated before placing back into service. Hilcorp submitted the *Notification of Release* to the New Mexico Oil Conservation Division (NMOCD) on February 16, 2024. The NMOCD has assigned the Site Incident Number nAPP2404715996.

SITE CLOSURE CRITERIA

As part of the initial Site investigation described in the *Remediation Work Plan* dated June 14, 2024, 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). In accordance with the *Table I, Closure Criteria for Soils Impacted by a Release* (19.15.29.12 NMAC), the following Closure Criteria for constituents of concern (COCs) should be applied to the Site:

- 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

Upon discovery of the release, Hilcorp retained Ensolum to conduct pothole delineation activities on February 22, 2024. In total, eight potholes (PH01 through PH08) were advanced at the Site to depths up to 10 feet below ground surface (bgs). Several soil samples were submitted to Eurofins Environment Testing (Eurofins) for 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, BTEX and TPH concentrations exceeding the NMOCD Closure Criteria in the area of the AST and within the secondary containment berm at the Site. Additional details regarding the initial Site investigation and delineation activities are provided in the *Remediation Work Plan* dated June 14, 2024.

EXCAVATION SOIL SAMPLING ACTIVITIES

Based on the delineation sampling activities described above, Hilcorp originally proposed to excavate impacted soil from the Site and remediate through small landfarming at an off-Site location; however, approval to use the proposed landfarm location was denied by the surface owner in October 2024. Because of this, the NMOCD approved remediation through excavation and off-Site soil disposal at the Envirotech Landfarm in San Juan County, New Mexico via email on October 4, 2024 (attached as Appendix A). As such, excavation activities were conducted between October 22 and 25, 2024. Notification to the NMOCD was provided at least two business days prior to conducting remediation and sampling work, with correspondence also attached in Appendix A. To direct excavation activities, Ensolum personnel field screened soil for volatile organic compounds (VOCs) using a calibrated photoionization detector.

Once field screening indicated impacted soil had been removed, five-point composite soil samples were collected from the floor (FS01 through FS16) and sidewalls (SW01 through SW14) of the excavation at a frequency not exceeding one sample per 200 square feet. All initial floor samples were collected at a depth of 9.5 feet bgs and all sidewall samples were collected at depths from the ground surface to 9.5 feet bgs. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The soil samples were placed into laboratory provided containers and transported under proper chain of custody procedures to Envirotech Analytical Laboratory (Envirotech) for analysis of TPH, BTEX, and chloride using the methods described above.

Analytical results from the excavation indicated concentrations of TPH, BTEX, and chloride were compliant with NMOCD Table I Closure Criteria and the reclamation requirement in all confirmation samples. In total, approximately 2,100 cubic yards of impacted soil was removed and transported to the Envirotech Landfarm located in San Juan County, New Mexico. Soil sample results are summarized in Table 1, with complete laboratory analytical reports attached as Appendix B. Photographs taken by Ensolum during the excavation work are presented in Appendix C.

CLOSURE REQUEST

Site excavation and sampling activities were conducted at the Site to address the release discovered on February 15, 2024, at the Site. Laboratory analytical results for the excavation confirmation soil samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria and the reclamation requirement, and no further remediation is required. Excavation of impacted soil has mitigated impacts at this

Hilcorp Energy Company
Remediation Report and Closure Request
Brookhaven Com B 3A

Page 3

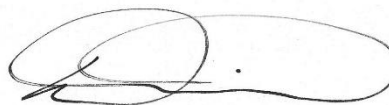
Site and these remedial actions have been protective of human health, the environment, and groundwater. As such, Hilcorp respectfully requests closure for Incident Number nAPP2404715996.

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

Sincerely,
Ensolum, LLC



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



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

Attachments:

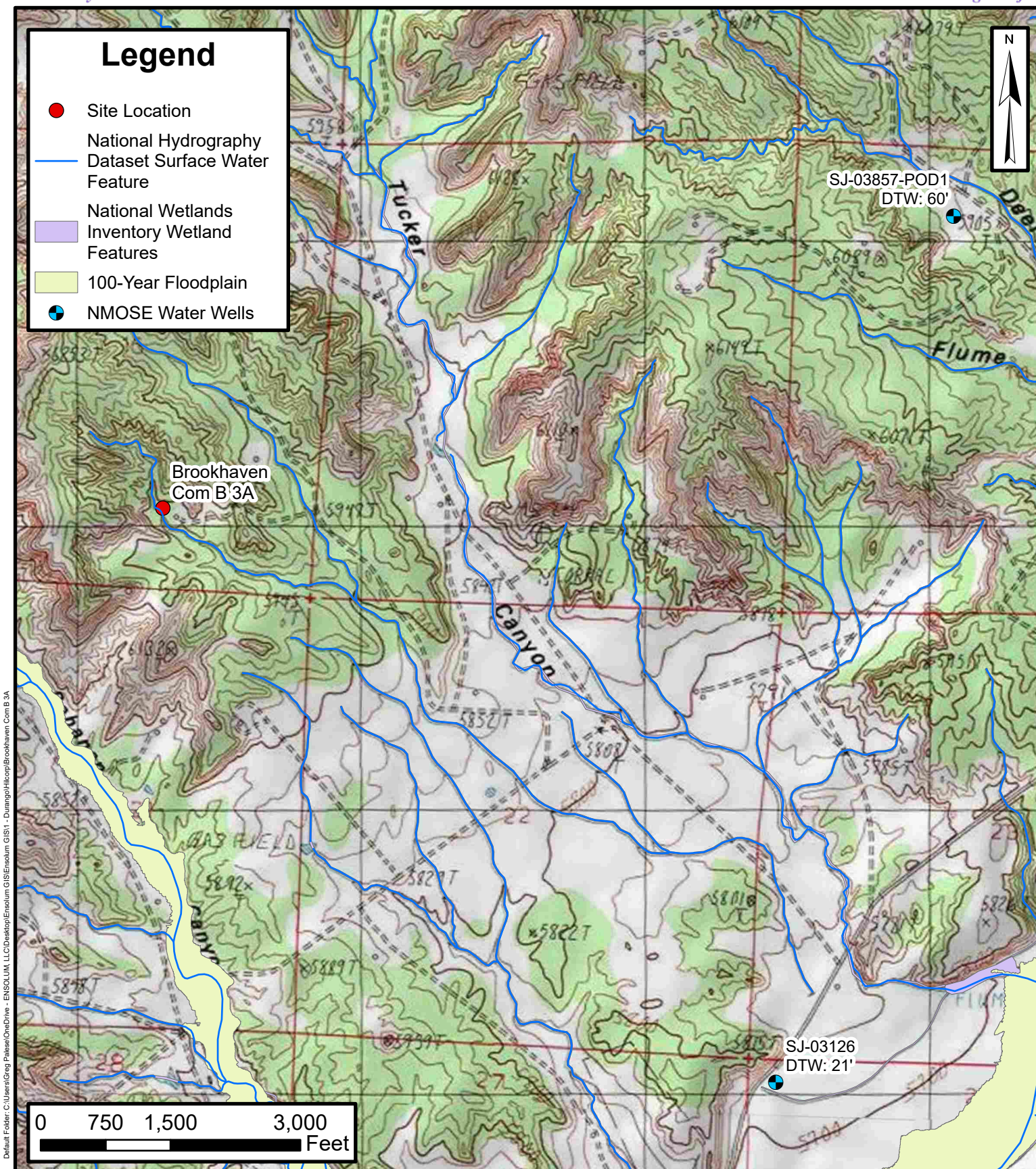
- Figure 1: Site Receptor Map
Figure 2: Excavation Soil Sample Locations

Table 1: Excavation Soil Sample Analytical Results

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



FIGURES



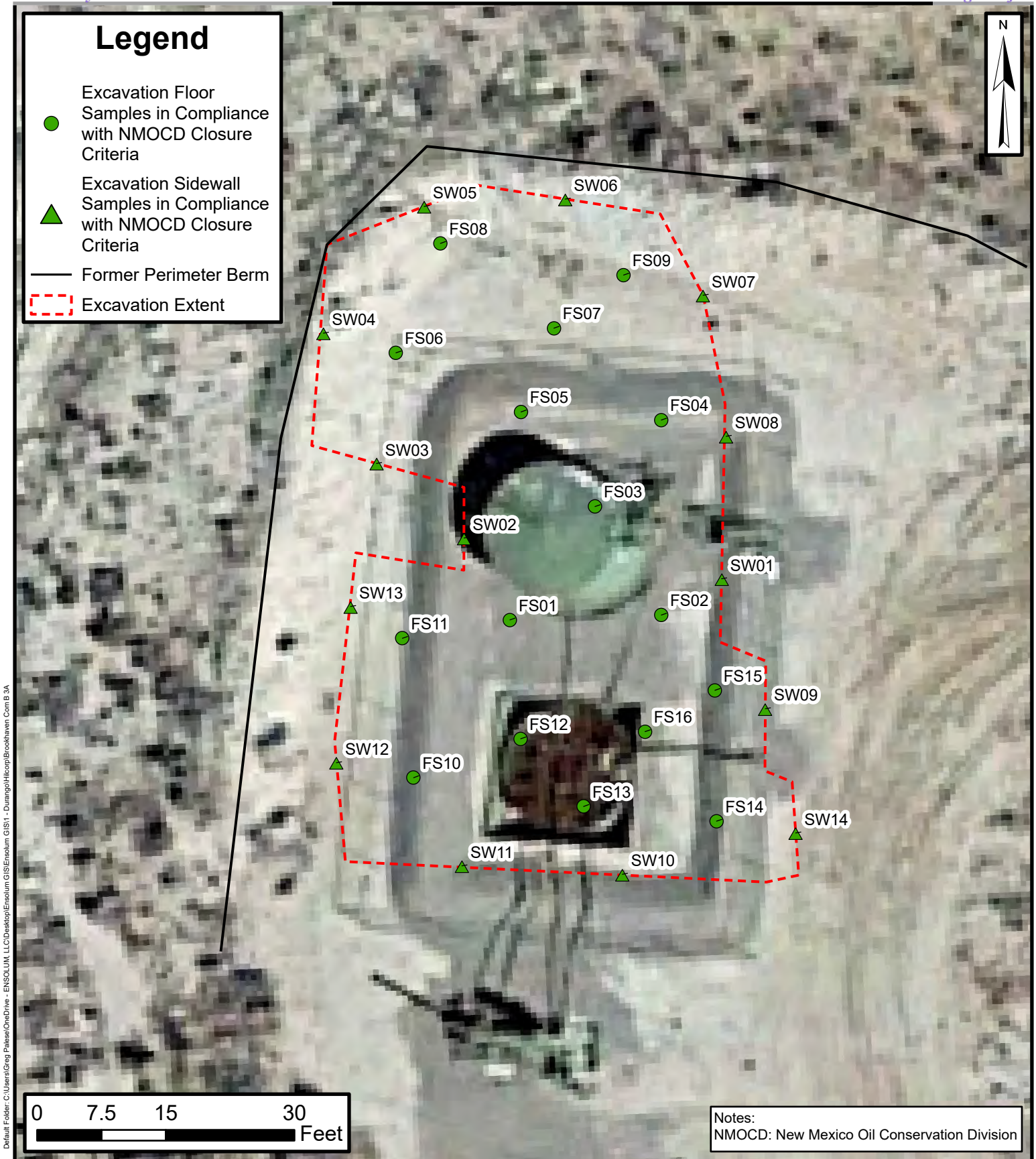
Site Receptor Map

Brookhaven Com B 3A
Hilcorp Energy Company

36.893573°, -107.993591°
San Juan County, New Mexico

FIGURE
1





Excavation Soil Sample Locations

Brookhaven Com B 3A
Hilcorp Energy Company

36.893573°, -107.993591°
San Juan County, New Mexico

FIGURE
2



TABLES

TABLE 1
EXCAVATION SOIL SAMPLE ANALYTICAL RESULTS
 Brookhaven Com B 3A
 Hilcorp Energy Company
 San Juan County, New Mexico

Sample Identification	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCDClosure Criteria for Soils Impacted by a Release			10	NE	NE	NE	50	NE	NE	NE	100	600
Excavation Floor Sample Analytical Results												
FS01	10/22/2024	9.5	0.0461	1.11	0.314	3.74	5.21	53.7	27.1	<50.0	80.8	<40.0
FS02	10/22/2024	9.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<50.0	<20.0
FS03	10/22/2024	9.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<50.0	<20.0
FS04	10/22/2024	9.5	0.199	0.850	0.129	1.55	2.73	22.8	<25.0	<50.0	22.8	<20.0
FS05	10/22/2024	9.5	0.0633	0.514	0.0728	1.00	1.65	<20.0	<25.0	<50.0	<50.0	<40.0
FS06	10/23/2024	9.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<50.0	<20.0
FS07	10/23/2024	9.5	<0.0250	0.0702	<0.0250	0.232	0.302	<20.0	<25.0	<50.0	<50.0	<20.0
FS08	10/23/2024	9.5	<0.0250	0.0309	<0.0250	<0.0250	0.0309	<20.0	<25.0	<50.0	<50.0	<40.0
FS09	10/23/2024	9.5	<0.0250	0.0913	<0.0250	0.232	0.323	<20.0	<25.0	<50.0	<50.0	<100
FS10	10/24/2024	9.5	<0.0250	0.0339	<0.0250	0.186	0.220	<20.0	<25.0	<50.0	<50.0	<200
FS11	10/24/2024	9.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<50.0	<40.0
FS12	10/24/2024	9.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<50.0	<20.0
FS13	10/24/2024	9.5	<0.0250	0.0764	<0.0250	0.244	0.320	<20.0	<25.0	<50.0	<50.0	<40.0
FS14	10/25/2024	9.5	0.0252	0.0751	<0.0250	0.0562	0.157	<20.0	<25.0	<50.0	<50.0	<20.0
FS15	10/25/2024	9.5	<0.0250	0.0357	<0.0250	<0.0250	0.0357	<20.0	<25.0	<50.0	<50.0	<20.0
FS16	10/25/2024	9.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<50.0	<20.0
Excavation Sidewall Sample Analytical Results												
SW01	10/22/2024	0 - 9.5	0.0300	0.155	<0.0250	0.0759	0.261	<20.0	<25.0	<50.0	<50.0	<20.0
SW02	10/22/2024	0 - 9.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<50.0	<40.0
SW03	10/23/2024	0 - 9.5	0.0324	0.224	0.0259	0.405	0.687	<20.0	<25.0	<50.0	<50.0	<40.0
SW04	10/23/2024	0 - 9.5	<0.0250	0.0555	<0.0250	0.0739	0.129	<20.0	<25.0	<50.0	<50.0	<40.0
SW05	10/23/2024	0 - 9.5	<0.0250	0.467	0.158	2.06	2.69	22.2	<25.0	<50.0	22.2	<40.0
SW06	10/23/2024	0 - 9.5	<0.0250	0.202	0.0306	0.341	0.574	<20.0	<25.0	<50.0	<50.0	<40.0
SW07	10/23/2024	0 - 9.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<50.0	<40.0
SW08	10/23/2024	0 - 9.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<50.0	<20.0
SW09	10/24/2024	0 - 9.5	0.0276	0.231	0.0810	1.16	1.50	23.5	<25.0	<50.0	23.5	<100
SW10	10/24/2024	0 - 9.5	<0.0250	0.187	0.182	1.89	2.26	46.6	<25.0	<50.0	46.6	<100
SW11	10/24/2024	0 - 9.5	<0.0250	0.260	0.0827	1.05	1.39	20.0	<25.0	<50.0	20.0	<200
SW12	10/24/2024	0 - 9.5	0.0275	0.186	<0.0250	0.286	0.500	<20.0	<25.0	<50.0	<50.0	<40.0
SW13	10/24/2024	0 - 9.5	<0.0250	0.137	<0.0250	0.372	0.509	<20.0	<25.0	<50.0	<50.0	<40.0
SW14	10/25/2024	0 - 9.5	<0.0250	0.0623	<0.0250	0.124	0.186	<20.0	<25.0	<50.0	<50.0	<40.0

Notes:

bgs: Below Ground Surface

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

mg/kg: Milligrams per kilogram

NE: Not Established

NMOCDC: New Mexico Oil Conservation Division

PID: Photoionization detector

ppm: Parts per million

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil Range Organics

TPH: Total Petroleum Hydrocarbon

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



APPENDIX A

Agency Correspondence

From: [Velez, Nelson, EMNRD](#)
To: [Stuart Hyde](#)
Cc: [tknight](#); [Mitch Killough](#); [Devin Hencmann](#)
Subject: Re: [EXTERNAL] napp2404715996 - Brookhaven Com B 3A Reporting Extension Request
Date: Friday, May 10, 2024 3:16:32 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[Outlook-kraanf2t.png](#)

[**EXTERNAL EMAIL**]

Stuart,

Your time extension request is approved. Remediation Due date has been updated to June 14, 2024.

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

Regards,

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



From: Stuart Hyde <shyde@ensolum.com>
Sent: Friday, May 10, 2024 3:06 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: tknight <tknight@slo.state.nm.us>; Mitch Killough <mkillough@hilcorp.com>; Devin Hencmann <dhencmann@ensolum.com>
Subject: [EXTERNAL] napp2404715996 - Brookhaven Com B 3A Reporting Extension Request

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Nelson,

On behalf of Hilcorp Energy Company, Ensolum is requesting an extension to the May 15, 2024

reporting deadline for the Brookhaven Com B 3A site located in San Juan County (coordinates 36.893573, -107993596). To date, Hilcorp has conducted pothole activities to delineate impacts at the site (see attached figure). Based on the soil volumes and location of the site, Ensolum and Hilcorp have been evaluating potential small landfarm options in the area to treat impacted soil. At this time, we have identified several potential options that we plan to register with the NMOCD through Brad Jones and the Environmental Permitting Group. As such, we are requesting a 14-day extension to the reporting deadline in order to finalize the Remediation Work Plan. If approved, the new reporting deadline would be Wednesday May 29, 2024.

Please reach out with any questions regarding the site or work that has been performed. Thanks.



Stuart Hyde, PG

(Licensed in WA/TX)

Senior Managing Geologist

970-903-1607

[Ensolum, LLC](#)

in f X

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

From: OCDOnline@state.nm.us
To: [Stuart Hyde](#)
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 354325
Date: Monday, June 24, 2024 9:01:28 AM

[**EXTERNAL EMAIL**]

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

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2404715996, with the following conditions:

- **Remediation plan is approved as written. Hilcorp has 90-days (September 23, 2024) to submit to OCD its appropriate or final remediation closure report.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Nelson Velez
Environmental Specialist - Advanced
505-469-6146
Nelson.Velez@emnrd.nm.gov

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

From: [Velez, Nelson, EMNRD](#)
To: [Mitch Killough](#)
Cc: [Stuart Hyde](#); [Bratcher, Michael, EMNRD](#)
Subject: Re: [EXTERNAL] napp2404715996 - Brookhaven Com B 3A Extension Request
Date: Friday, October 4, 2024 11:13:46 AM
Attachments: [image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[Outlook-aif4uovd.png](#)

[**EXTERNAL EMAIL**]

Good afternoon Mitch,

Given what you stated below, I would agree that this email would suffice to alter the remediation plan to a dig and haul method (since OCD does allow it without pre-approval). Within the appropriate or final remediation closure report, please record this remedial activity within the summary write up segment.

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

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

Regards,

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



From: Mitch Killough <mkillough@hilcorp.com>
Sent: Friday, October 4, 2024 9:51 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Stuart Hyde <shyde@ensolum.com>
Subject: RE: [EXTERNAL] napp2404715996 - Brookhaven Com B 3A Extension Request

Morning Nelson.

Please refer to the email attached regarding the Brookhaven Com B 3A remediation project. As indicated in our most recent NMOCD-approved RWP (dated 6/14/2024), Hilcorp intended to work towards a small permitted landfarm. One component of this was gaining permission from the BLM to bring impacted soils from the Brookhaven Com B 3A to the offsite Grenier 1B. However, the BLM denied our request since this would involve bringing impacted soils from state trust lands to the Grenier 1B, which is on federal surface. In addition, SLO has also indicated that no small landfarms will be permitted on state trust lands. In light of this, Hilcorp plans to proceed with dig/haul as the only viable remediation strategy at this time. Do you want to see a revised RWP to reflect this change or will this email suffice?

Again, apologies for the back and forth. I'll be around should you have any questions or concerns.

Thanks!

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

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Monday, September 23, 2024 2:05 PM
To: Stuart Hyde <shyde@ensolum.com>
Cc: Mitch Killough <mkillough@hilcorp.com>
Subject: Re: [EXTERNAL] napp2404715996 - Brookhaven Com B 3A Extension Request

CAUTION: External sender. DO NOT open links or attachments from UNKNOWN senders.

Hi Stuart,

Thank you for the correspondence.

Your 90-day time extension request is approved. Remediation Due date has been updated to December 23, 2024.

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

Regards,

Nelson Velez • Environmental Specialist - Adv

Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
<http://www.emnrd.nm.gov/oed>



From: Stuart Hyde <shyde@ensolum.com>
Sent: Friday, September 20, 2024 10:35 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Mitch Killough <mkillough@hilcorp.com>
Subject: [EXTERNAL] napp2404715996 - Brookhaven Com B 3A Extension Request

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Nelson,

On behalf of Hilcorp Energy Company, we are requesting a 90-day extension to the 9/23/2024 reporting deadline for the Brookhaven Com B 3A site. At this time, the Remediation Work Plan has been submitted to the BLM and we are awaiting approval of the small landfarm prior to beginning remediation work. If approved, the new reporting deadline would be Monday December 23, 2024.

Please reach out with any questions. Thanks and have a great weekend.



Stuart Hyde, PG

(Licensed in WA/TX)

Senior Managing Geologist

970-903-1607

[Ensolum, LLC](http://www.ensolum.com)

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

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From: OCDOnline@state.nm.us
To: [Stuart Hyde](#)
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 393052
Date: Wednesday, October 16, 2024 10:56:08 AM

[**EXTERNAL EMAIL**]

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

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2404715996.

The sampling event is expected to take place:

When: 10/21/2024 @ 09:00

Where: O-16-31N-11W 799 FSL 1780 FEL (36.89336,-107.99287)

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

Site excavation and confirmation sampling will be conducted between 10/21/2024 and 10/25/2024.

Additional Instructions: Brookhaven Com B 3A well pad, coordinates 36.893573, -107.993596

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

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

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

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

From: [Mitch Killough](#)
To: spills@nmslo.gov
Cc: [Stuart Hyde](#)
Subject: RE: Hilcorp Energy Company - Spill Notification - Brookhaven Com B 3A
Date: Thursday, October 17, 2024 6:50:57 AM
Attachments: [EXTERNAL FW The Oil Conservation Division \(OCD\) has accepted the application Application ID 393052.msg](#)

[**EXTERNAL EMAIL**]

Good morning.

Hilcorp Energy Company (Hilcorp) is providing follow-up correspondence concerning the Brookhaven Com B 3A in San Juan County, NM (refer below). Hilcorp plans to commence excavation operations (with sample collection) during the week of October 21. Note that our intention is to begin remediation actions on Tuesday, 10/22. However, there is a chance that we begin on Monday, 10/21.

If you have any questions or concerns, please don't hesitate to reach out.

Thanks.

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

From: Mitch Killough
Sent: Friday, February 16, 2024 5:12 AM
To: SLO Spills <spills@slo.state.nm.us>
Subject: Hilcorp Energy Company - Spill Notification - Brookhaven Com B 3A

Good morning.

Hilcorp Energy Company (Hilcorp) is providing the NM-SLO spill notifications that were recently filed with the NMOCD for the Brookhaven Com B 3A. On 2/15/2024, Hilcorp operations discovered a 37-bbl condensate/produced water release (22 bbls condensate, 15 bbls produced water) at the Brookhaven Com B 3A in San Juan County, NM. While conducting a routine site inspection, an operator observed a visibly-impacted area (measuring 5' x 10') adjacent to a 286-bbl condensate storage tank. Upon further inspection, it was determined that two (2) pinhole leaks had formed near the bottom weld on the west side of the condensate storage tank, due to internal corrosion. At this time, the storage tank has been removed from service and all dumps to the tank have been shut-off. The spilled fluids did not migrate horizontally outside of secondary containment. However, none of the fluids could be recovered since the secondary containment area is unlined. Hilcorp operations will work with Integrity to assess the tank and re-coat before placing back into service.

All sampling and remediation is expected to occur on the existing pad and is TBD at the moment.

Thanks.

Mitch Killough

Environmental Specialist
Hilcorp Energy Company
1111 Travis Street
Houston, TX 77002
713-757-5247 (office)
281-851-2338 (cell)
mkillough@hilcorp.com

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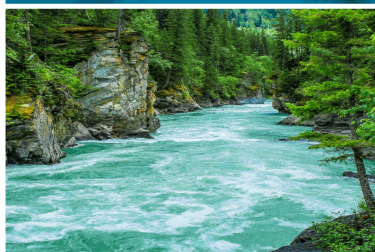
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APPENDIX B

Laboratory Analytical Reports

Report to:
Stuart Hyde



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Hilcorp Energy Co

Project Name: Brookhaven

Work Order: E410278

Job Number: 17051-0002

Received: 10/22/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/24/24

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 10/24/24

Stuart Hyde
PO Box 61529
Houston, TX 77208



Project Name: Brookhaven
Workorder: E410278
Date Received: 10/22/2024 4:29:00PM

Stuart Hyde,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/22/2024 4:29:00PM, under the Project Name: Brookhaven.

The analytical test results summarized in this report with the Project Name: Brookhaven apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
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Cell: 775-287-1762
whinchman@envirotech-inc.com

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Sample Summary

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	10/24/24 09:34

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS01	E410278-01A	Soil	10/22/24	10/22/24	Glass Jar, 4 oz.
FS04	E410278-02A	Soil	10/22/24	10/22/24	Glass Jar, 4 oz.
FS05	E410278-03A	Soil	10/22/24	10/22/24	Glass Jar, 4 oz.
SW02	E410278-04A	Soil	10/22/24	10/22/24	Glass Jar, 4 oz.



Sample Data

Hilcorp Energy Co PO Box 61529 Houston TX, 77208	Project Name: Brookhaven Project Number: 17051-0002 Project Manager: Stuart Hyde	Reported: 10/24/2024 9:34:53AM
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FS01
E410278-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2443028	
Benzene	0.0461	0.0250	1	10/22/24	10/23/24	
Ethylbenzene	0.314	0.0250	1	10/22/24	10/23/24	
Toluene	1.11	0.0250	1	10/22/24	10/23/24	
o-Xylene	0.821	0.0250	1	10/22/24	10/23/24	
p,m-Xylene	2.92	0.0500	1	10/22/24	10/23/24	
Total Xylenes	3.74	0.0250	1	10/22/24	10/23/24	
Surrogate: 4-Bromochlorobenzene-PID	107 %	70-130		10/22/24	10/23/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2443028	
Gasoline Range Organics (C6-C10)	53.7	20.0	1	10/22/24	10/23/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.4 %	70-130		10/22/24	10/23/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2443074	
Diesel Range Organics (C10-C28)	27.1	25.0	1	10/22/24	10/22/24	T17
Oil Range Organics (C28-C36)	ND	50.0	1	10/22/24	10/22/24	
Surrogate: n-Nonane	104 %	50-200		10/22/24	10/22/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2443055	
Chloride	ND	40.0	2	10/23/24	10/23/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 10/24/2024 9:34:53AM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS04

E410278-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2443028	
Benzene	0.199	0.0250	1	10/22/24	10/23/24	
Ethylbenzene	0.129	0.0250	1	10/22/24	10/23/24	
Toluene	0.850	0.0250	1	10/22/24	10/23/24	
o-Xylene	0.295	0.0250	1	10/22/24	10/23/24	
p,m-Xylene	1.25	0.0500	1	10/22/24	10/23/24	
Total Xylenes	1.55	0.0250	1	10/22/24	10/23/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		105 %	70-130	10/22/24	10/23/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2443028	
Gasoline Range Organics (C6-C10)	22.8	20.0	1	10/22/24	10/23/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		92.2 %	70-130	10/22/24	10/23/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2443074	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/22/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/22/24	10/22/24	
<i>Surrogate: n-Nonane</i>						
		103 %	50-200	10/22/24	10/22/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2443055	
Chloride	ND	20.0	1	10/23/24	10/23/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 10/24/2024 9:34:53AM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS05

E410278-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2443028	
Benzene	0.0633	0.0250	1	10/22/24	10/23/24	
Ethylbenzene	0.0728	0.0250	1	10/22/24	10/23/24	
Toluene	0.514	0.0250	1	10/22/24	10/23/24	
o-Xylene	0.215	0.0250	1	10/22/24	10/23/24	
p,m-Xylene	0.788	0.0500	1	10/22/24	10/23/24	
Total Xylenes	1.00	0.0250	1	10/22/24	10/23/24	
Surrogate: 4-Bromochlorobenzene-PID		105 %	70-130	10/22/24	10/23/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2443028	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/22/24	10/23/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		90.5 %	70-130	10/22/24	10/23/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2443074	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/22/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/22/24	10/22/24	
Surrogate: n-Nonane		107 %	50-200	10/22/24	10/22/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2443055	
Chloride	ND	40.0	2	10/23/24	10/23/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 10/24/2024 9:34:53AM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

SW02

E410278-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2443028	
Benzene	ND	0.0250	1	10/22/24	10/23/24	
Ethylbenzene	ND	0.0250	1	10/22/24	10/23/24	
Toluene	ND	0.0250	1	10/22/24	10/23/24	
o-Xylene	ND	0.0250	1	10/22/24	10/23/24	
p,m-Xylene	ND	0.0500	1	10/22/24	10/23/24	
Total Xylenes	ND	0.0250	1	10/22/24	10/23/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	10/22/24	10/23/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2443028	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/22/24	10/23/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.9 %	70-130	10/22/24	10/23/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2443074	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/22/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/22/24	10/22/24	
<i>Surrogate: n-Nonane</i>		102 %	50-200	10/22/24	10/22/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2443055	
Chloride	ND	40.0	2	10/23/24	10/23/24	



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	10/24/2024 9:34:53AM

Volatile Organics by EPA 8021B

Analyst: CG

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443028-BLK1) Prepared: 10/22/24 Analyzed: 10/22/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.12		8.00		101	70-130			

LCS (2443028-BS1) Prepared: 10/22/24 Analyzed: 10/22/24

Benzene	4.10	0.0250	5.00		81.9	70-130			
Ethylbenzene	3.96	0.0250	5.00		79.2	70-130			
Toluene	4.05	0.0250	5.00		81.0	70-130			
o-Xylene	3.97	0.0250	5.00		79.4	70-130			
p,m-Xylene	8.08	0.0500	10.0		80.8	70-130			
Total Xylenes	12.1	0.0250	15.0		80.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.17		8.00		102	70-130			

Matrix Spike (2443028-MS1) Source: E410238-07 Prepared: 10/22/24 Analyzed: 10/23/24

Benzene	5.43	0.0250	5.00	ND	109	54-133			
Ethylbenzene	5.30	0.0250	5.00	ND	106	61-133			
Toluene	5.39	0.0250	5.00	ND	108	61-130			
o-Xylene	5.33	0.0250	5.00	ND	107	63-131			
p,m-Xylene	10.8	0.0500	10.0	ND	108	63-131			
Total Xylenes	16.1	0.0250	15.0	ND	107	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.05		8.00		101	70-130			

Matrix Spike Dup (2443028-MSD1) Source: E410238-07 Prepared: 10/22/24 Analyzed: 10/22/24

Benzene	5.21	0.0250	5.00	ND	104	54-133	4.10	20	
Ethylbenzene	5.07	0.0250	5.00	ND	101	61-133	4.37	20	
Toluene	5.16	0.0250	5.00	ND	103	61-130	4.34	20	
o-Xylene	5.10	0.0250	5.00	ND	102	63-131	4.35	20	
p,m-Xylene	10.3	0.0500	10.0	ND	103	63-131	4.44	20	
Total Xylenes	15.4	0.0250	15.0	ND	103	63-131	4.41	20	
Surrogate: 4-Bromochlorobenzene-PID	8.14		8.00		102	70-130			



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	10/24/2024 9:34:53AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: CG

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443028-BLK1) Prepared: 10/22/24 Analyzed: 10/22/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.21		8.00		90.2	70-130			

LCS (2443028-BS2) Prepared: 10/22/24 Analyzed: 10/22/24

Gasoline Range Organics (C6-C10)	35.0	20.0	50.0		70.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.29		8.00		91.1	70-130			

Matrix Spike (2443028-MS2) Source: E410238-07 Prepared: 10/22/24 Analyzed: 10/23/24

Gasoline Range Organics (C6-C10)	43.1	20.0	50.0	ND	86.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.29		8.00		91.1	70-130			

Matrix Spike Dup (2443028-MSD2) Source: E410238-07 Prepared: 10/22/24 Analyzed: 10/22/24

Gasoline Range Organics (C6-C10)	40.5	20.0	50.0	ND	80.9	70-130	6.39	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.20		8.00		90.0	70-130			



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	10/24/2024 9:34:53AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443074-BLK1) Prepared: 10/22/24 Analyzed: 10/22/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	53.2		50.0		106	50-200			

LCS (2443074-BS1) Prepared: 10/22/24 Analyzed: 10/22/24

Diesel Range Organics (C10-C28)	270	25.0	250		108	38-132			
Surrogate: n-Nonane	50.9		50.0		102	50-200			

LCS Dup (2443074-BSD1) Prepared: 10/22/24 Analyzed: 10/22/24

Diesel Range Organics (C10-C28)	263	25.0	250		105	38-132	2.48	20	
Surrogate: n-Nonane	50.1		50.0		100	50-200			



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	10/24/2024 9:34:53AM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443055-BLK1)					Prepared: 10/22/24 Analyzed: 10/22/24				
Chloride	ND	20.0							
LCS (2443055-BS1)					Prepared: 10/22/24 Analyzed: 10/22/24				
Chloride	254	20.0	250		102	90-110			
Matrix Spike (2443055-MS1)					Source: E410242-02		Prepared: 10/22/24 Analyzed: 10/22/24		
Chloride	345	20.0	250	81.7	105	80-120			
Matrix Spike Dup (2443055-MSD1)					Source: E410242-02		Prepared: 10/22/24 Analyzed: 10/22/24		
Chloride	346	20.0	250	81.7	106	80-120	0.295	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Hilcorp Energy Co	Project Name:	Brookhaven	
PO Box 61529	Project Number:	17051-0002	Reported:
Houston TX, 77208	Project Manager:	Stuart Hyde	10/24/24 09:34

- T17 The sample chromatographic pattern does not resemble the typical fuel standard used for quantitation.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Client Information				Invoice Information				Lab Use Only				TAT				State											
Client: Hicorp				Company:				Lab WO#				1D				NM											
Project Name: Brookhaven				Address:				E41027817051-002				2D				CO											
Project Manager: Stuart H				City, State, Zip:								3D				UT											
Address:				Phone:								Std				TX											
City, State, Zip:				Email:																							
Phone:				Miscellaneous:																							
Email: shayde@ensolum.com																											
Sample Information												Analysis and Method												EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Pig	SDWA	CWA	RCRA								
1450	10-22	Soil	1	F501			1	X	X	X		X															
1530	10-22	Soil	1	F504			2	X	X	X		X															
1510	10-22	Soil	1	F505			3	X	X	X		X															
1515	10-22	Soil	1	S1002			4	X	X	X		X															
Additional Instructions:																											
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																											
Sampled by: Grey Palese																											
Relinquished by: (Signature)				Date		Time		Received by: (Signature)				Date		Time		Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: Y/N T1 T2 T3 AVG Temp °C 4											
Relinquished by: (Signature)				Date		Time		Received by: (Signature)				Date		Time													
Relinquished by: (Signature)				Date		Time		Received by: (Signature)				Date		Time													
Relinquished by: (Signature)				Date		Time		Received by: (Signature)				Date		Time													
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other												Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA															
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																											



Envirotech Analytical Laboratory

Printed: 10/22/2024 4:33:59PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Hilcorp Energy Co	Date Received:	10/22/24 16:29	Work Order ID:	E410278
Phone:	-	Date Logged In:	10/22/24 16:30	Logged In By:	Caitlin Mars
Email:	shyde@ensolum.com	Due Date:	10/23/24 17:00 (1 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: GP

Comments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

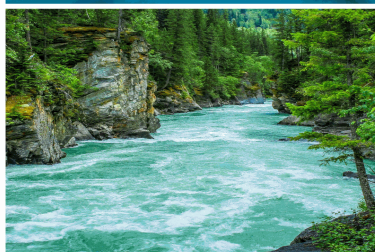
Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Stuart Hyde



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Hilcorp Energy Co

Project Name: Brookhaven

Work Order: E410282

Job Number: 17051-0002

Received: 10/22/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/30/24

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 10/30/24

Stuart Hyde
PO Box 61529
Houston, TX 77208



Project Name: Brookhaven
Workorder: E410282
Date Received: 10/22/2024 4:25:00PM

Stuart Hyde,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/22/2024 4:25:00PM, under the Project Name: Brookhaven.

The analytical test results summarized in this report with the Project Name: Brookhaven apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
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Cell: 775-287-1762
whinchman@envirotech-inc.com

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Sample Summary

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	10/30/24 15:44

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW01	E410282-01A	Soil	10/22/24	10/22/24	Glass Jar, 4 oz.
FS02	E410282-02A	Soil	10/22/24	10/22/24	Glass Jar, 4 oz.
FS03	E410282-03A	Soil	10/22/24	10/22/24	Glass Jar, 4 oz.



Sample Data

Hilcorp Energy Co PO Box 61529 Houston TX, 77208	Project Name: Brookhaven Project Number: 17051-0002 Project Manager: Stuart Hyde	Reported: 10/30/2024 3:44:04PM
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SW01
E410282-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2443113	
Benzene	0.0300	0.0250	1	10/23/24	10/29/24	
Ethylbenzene	ND	0.0250	1	10/23/24	10/29/24	
Toluene	0.155	0.0250	1	10/23/24	10/29/24	
o-Xylene	ND	0.0250	1	10/23/24	10/29/24	
p,m-Xylene	0.0759	0.0500	1	10/23/24	10/29/24	
Total Xylenes	0.0759	0.0250	1	10/23/24	10/29/24	
Surrogate: 4-Bromochlorobenzene-PID	103 %	70-130		10/23/24	10/29/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2443113	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/23/24	10/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	87.9 %	70-130		10/23/24	10/29/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2443122	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/23/24	10/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/23/24	10/28/24	
Surrogate: n-Nonane	120 %	50-200		10/23/24	10/28/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2443134	
Chloride	ND	20.0	1	10/24/24	10/27/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 10/30/2024 3:44:04PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS02

E410282-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2443113	
Benzene	ND	0.0250	1	10/23/24	10/29/24	
Ethylbenzene	ND	0.0250	1	10/23/24	10/29/24	
Toluene	ND	0.0250	1	10/23/24	10/29/24	
o-Xylene	ND	0.0250	1	10/23/24	10/29/24	
p,m-Xylene	ND	0.0500	1	10/23/24	10/29/24	
Total Xylenes	ND	0.0250	1	10/23/24	10/29/24	
Surrogate: 4-Bromochlorobenzene-PID	102 %	70-130		10/23/24	10/29/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2443113	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/23/24	10/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	87.2 %	70-130		10/23/24	10/29/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2443122	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/23/24	10/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/23/24	10/28/24	
Surrogate: n-Nonane	108 %	50-200		10/23/24	10/28/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2443134	
Chloride	ND	20.0	1	10/24/24	10/27/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 10/30/2024 3:44:04PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS03

E410282-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2443113	
Benzene	ND	0.0250	1	10/23/24	10/29/24	
Ethylbenzene	ND	0.0250	1	10/23/24	10/29/24	
Toluene	ND	0.0250	1	10/23/24	10/29/24	
o-Xylene	ND	0.0250	1	10/23/24	10/29/24	
p,m-Xylene	ND	0.0500	1	10/23/24	10/29/24	
Total Xylenes	ND	0.0250	1	10/23/24	10/29/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/23/24	10/29/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2443113	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/23/24	10/29/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		87.0 %	70-130	10/23/24	10/29/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2443122	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/23/24	10/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/23/24	10/28/24	
<i>Surrogate: n-Nonane</i>						
		109 %	50-200	10/23/24	10/28/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2443134	
Chloride	ND	20.0	1	10/24/24	10/27/24	



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	10/30/2024 3:44:04PM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443113-BLK1)

Prepared: 10/23/24 Analyzed: 10/29/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.84		8.00		98.0	70-130			

LCS (2443113-BS1)

Prepared: 10/23/24 Analyzed: 10/30/24

Benzene	5.58	0.0250	5.00		112	70-130			
Ethylbenzene	5.36	0.0250	5.00		107	70-130			
Toluene	5.49	0.0250	5.00		110	70-130			
o-Xylene	5.34	0.0250	5.00		107	70-130			
p,m-Xylene	10.9	0.0500	10.0		109	70-130			
Total Xylenes	16.2	0.0250	15.0		108	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.49		8.00		93.7	70-130			

LCS Dup (2443113-BS1)

Prepared: 10/23/24 Analyzed: 10/30/24

Benzene	6.15	0.0250	5.00		123	70-130	9.72	20	
Ethylbenzene	5.93	0.0250	5.00		119	70-130	10.0	20	
Toluene	6.06	0.0250	5.00		121	70-130	9.90	20	
o-Xylene	5.90	0.0250	5.00		118	70-130	9.98	20	
p,m-Xylene	12.0	0.0500	10.0		120	70-130	10.0	20	
Total Xylenes	18.0	0.0250	15.0		120	70-130	10.0	20	
Surrogate: 4-Bromochlorobenzene-PID	7.71		8.00		96.4	70-130			



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	10/30/2024 3:44:04PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443113-BLK1)					Prepared: 10/23/24 Analyzed: 10/29/24				
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.06		8.00		88.3	70-130			
LCS Dup (2443113-BSD1)					Prepared: 10/23/24 Analyzed: 10/30/24				
Gasoline Range Organics (C6-C10)	65.8	20.0				70-130	200	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.16		8.00		89.5	70-130			
LCS (2443113-BS2)					Prepared: 10/23/24 Analyzed: 10/30/24				
Gasoline Range Organics (C6-C10)	40.4	20.0	50.0		80.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.21		8.00		90.2	70-130			
LCS Dup (2443113-BSD2)					Prepared: 10/23/24 Analyzed: 10/29/24				
Gasoline Range Organics (C6-C10)	42.0	20.0	50.0		83.9	70-130	3.76	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.16		8.00		89.5	70-130			



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	10/30/2024 3:44:04PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443122-BLK1) Prepared: 10/23/24 Analyzed: 10/28/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	51.5		50.0		103	50-200			

LCS (2443122-BS1) Prepared: 10/23/24 Analyzed: 10/28/24

Diesel Range Organics (C10-C28)	316	25.0	250		127	38-132			
Surrogate: n-Nonane	52.4		50.0		105	50-200			

Matrix Spike (2443122-MS1) Source: E410275-08 Prepared: 10/23/24 Analyzed: 10/28/24

Diesel Range Organics (C10-C28)	315	25.0	250	ND	126	38-132			
Surrogate: n-Nonane	52.3		50.0		105	50-200			

Matrix Spike Dup (2443122-MSD1) Source: E410275-08 Prepared: 10/23/24 Analyzed: 10/28/24

Diesel Range Organics (C10-C28)	315	25.0	250	ND	126	38-132	0.216	20	
Surrogate: n-Nonane	53.1		50.0		106	50-200			



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	10/30/2024 3:44:04PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443134-BLK1)					Prepared: 10/24/24 Analyzed: 10/27/24				
Chloride	ND	20.0							
LCS (2443134-BS1)					Prepared: 10/24/24 Analyzed: 10/27/24				
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2443134-MS1)					Source: E410264-24		Prepared: 10/24/24 Analyzed: 10/27/24		
Chloride	262	20.0	250	ND	105	80-120			
Matrix Spike Dup (2443134-MSD1)					Source: E410264-24		Prepared: 10/24/24 Analyzed: 10/27/24		
Chloride	260	20.0	250	ND	104	80-120	0.728	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Hilcorp Energy Co	Project Name:	Brookhaven	
PO Box 61529	Project Number:	17051-0002	Reported:
Houston TX, 77208	Project Manager:	Stuart Hyde	10/30/24 15:44

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Page 1 of 1

Client Information				Invoice Information				Lab Use Only				TAT				State											
Client: <u>Hilcorp</u>				Company: _____				Lab WO# <u>E410282</u>				Job Number <u>17051-002</u>				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>1D</td><td>2D</td><td>3D</td><td>Std</td> </tr> <tr> <td></td><td></td><td></td><td><u>X</u></td> </tr> </table>				1D	2D	3D	Std				<u>X</u>
1D	2D	3D	Std																								
			<u>X</u>																								
Project Name: <u>Brookhaven</u>				Address: _____								<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>NM</td><td>CO</td><td>UT</td><td>TX</td> </tr> <tr> <td></td><td></td><td></td><td></td> </tr> </table>				NM	CO	UT	TX								
NM	CO	UT	TX																								
Project Manager: <u>Stuart H.</u>				City, State, Zip: _____																							
Address: _____				Phone: _____																							
City, State, Zip: _____				Email: _____																							
Phone: _____				Miscellaneous: _____																							
Email: <u>shyde@ensolum.com</u>																											

Sample Information										Analysis and Method										EPA Program		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Pkg	SDWA	CWA	RCRA				
1440	10-22	Soil	1	SW01		<u>1</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>												
1500	10-22	Soil	1	FS02		<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>												
1505	10-22	Soil	1	FS03		<u>3</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>												

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Greg Palase

Relinquished by: (Signature) <u>Greg Palase</u>	Date <u>10-22</u>	Time <u>1625</u>	Received by: (Signature) <u>Rachael Henry</u>	Date <u>10/22/24</u>	Time <u>16:25</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Lab Use Only
Received on ice: (Y) / N

T1 _____ T2 _____ T3 _____

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



envirotech

Envirotech Analytical Laboratory

Printed: 10/23/2024 9:47:29AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Hilcorp Energy Co	Date Received:	10/22/24 16:25	Work Order ID:	E410282
Phone:	-	Date Logged In:	10/23/24 09:45	Logged In By:	Caitlin Mars
Email:	shyde@ensolum.com	Due Date:	10/29/24 17:00 (5 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: GP

Comments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

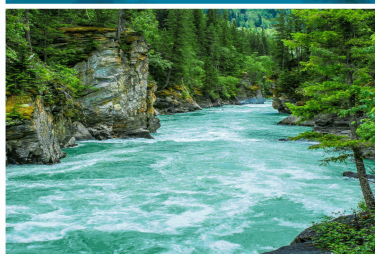
Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Stuart Hyde



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Hilcorp Energy Co

Project Name: Brookhaven

Work Order: E410318

Job Number: 17051-0002

Received: 10/25/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/1/24

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/1/24

Stuart Hyde
PO Box 61529
Houston, TX 77208



Project Name: Brookhaven
Workorder: E410318
Date Received: 10/25/2024 12:16:00PM

Stuart Hyde,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/25/2024 12:16:00PM, under the Project Name: Brookhaven.

The analytical test results summarized in this report with the Project Name: Brookhaven apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
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Field Offices:

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ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
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Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	11/01/24 08:03

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW14	E410318-01A	Soil	10/25/24	10/25/24	Glass Jar, 4 oz.
FS14	E410318-02A	Soil	10/25/24	10/25/24	Glass Jar, 4 oz.
FS15	E410318-03A	Soil	10/25/24	10/25/24	Glass Jar, 4 oz.
FS16	E410318-04A	Soil	10/25/24	10/25/24	Glass Jar, 4 oz.



Sample Data

Hilcorp Energy Co PO Box 61529 Houston TX, 77208	Project Name: Brookhaven Project Number: 17051-0002 Project Manager: Stuart Hyde	Reported: 11/1/2024 8:03:10AM
--	--	----------------------------------

SW14
E410318-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443187	
Benzene	ND	0.0250	1	10/25/24	11/01/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/01/24	
Toluene	0.0623	0.0250	1	10/25/24	11/01/24	
o-Xylene	0.0273	0.0250	1	10/25/24	11/01/24	
p,m-Xylene	0.0969	0.0500	1	10/25/24	11/01/24	
Total Xylenes	0.124	0.0250	1	10/25/24	11/01/24	
Surrogate: 4-Bromochlorobenzene-PID	101 %	70-130		10/25/24	11/01/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443187	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/01/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	87.4 %	70-130		10/25/24	11/01/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2443227	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	115 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444063	
Chloride	ND	40.0	2	10/30/24	10/30/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/1/2024 8:03:10AM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS14

E410318-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443187	
Benzene	0.0252	0.0250	1	10/25/24	11/01/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/01/24	
Toluene	0.0751	0.0250	1	10/25/24	11/01/24	
o-Xylene	ND	0.0250	1	10/25/24	11/01/24	
p,m-Xylene	0.0562	0.0500	1	10/25/24	11/01/24	
Total Xylenes	0.0562	0.0250	1	10/25/24	11/01/24	
Surrogate: 4-Bromochlorobenzene-PID	102 %	70-130		10/25/24	11/01/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443187	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/01/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.7 %	70-130		10/25/24	11/01/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2443227	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	110 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444063	
Chloride	ND	20.0	1	10/30/24	10/30/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/1/2024 8:03:10AM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS15

E410318-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443187	
Benzene	ND	0.0250	1	10/25/24	11/01/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/01/24	
Toluene	0.0357	0.0250	1	10/25/24	11/01/24	
o-Xylene	ND	0.0250	1	10/25/24	11/01/24	
p,m-Xylene	ND	0.0500	1	10/25/24	11/01/24	
Total Xylenes	ND	0.0250	1	10/25/24	11/01/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/25/24	11/01/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443187	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/01/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		88.8 %	70-130	10/25/24	11/01/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2443227	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
<i>Surrogate: n-Nonane</i>						
		111 %	50-200	10/26/24	10/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2444063	
Chloride	ND	20.0	1	10/30/24	10/30/24	



Sample Data

Hilcorp Energy Co
PO Box 61529
Houston TX, 77208

Project Name: Brookhaven
Project Number: 17051-0002
Project Manager: Stuart Hyde

Reported:
11/1/2024 8:03:10AM

FS16

E410318-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443187	
Benzene	ND	0.0250	1	10/25/24	11/01/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/01/24	
Toluene	ND	0.0250	1	10/25/24	11/01/24	
o-Xylene	ND	0.0250	1	10/25/24	11/01/24	
p,m-Xylene	ND	0.0500	1	10/25/24	11/01/24	
Total Xylenes	ND	0.0250	1	10/25/24	11/01/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/25/24	11/01/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443187	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/01/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		87.6 %	70-130	10/25/24	11/01/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2443227	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
<i>Surrogate: n-Nonane</i>						
		111 %	50-200	10/26/24	10/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2444063	
Chloride	ND	20.0	1	10/30/24	10/30/24	



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	11/1/2024 8:03:10AM

Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443187-BLK1) Prepared: 10/25/24 Analyzed: 10/31/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.99		8.00		99.9	70-130			

LCS (2443187-BS1) Prepared: 10/25/24 Analyzed: 10/31/24

Benzene	5.32	0.0250	5.00		106	70-130			
Ethylbenzene	5.17	0.0250	5.00		103	70-130			
Toluene	5.28	0.0250	5.00		106	70-130			
o-Xylene	5.19	0.0250	5.00		104	70-130			
p,m-Xylene	10.5	0.0500	10.0		105	70-130			
Total Xylenes	15.7	0.0250	15.0		105	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.07		8.00		101	70-130			

LCS Dup (2443187-BSD1) Prepared: 10/25/24 Analyzed: 10/31/24

Benzene	5.24	0.0250	5.00		105	70-130	1.58	20	
Ethylbenzene	5.10	0.0250	5.00		102	70-130	1.48	20	
Toluene	5.20	0.0250	5.00		104	70-130	1.58	20	
o-Xylene	5.12	0.0250	5.00		102	70-130	1.35	20	
p,m-Xylene	10.4	0.0500	10.0		104	70-130	1.45	20	
Total Xylenes	15.5	0.0250	15.0		103	70-130	1.42	20	
Surrogate: 4-Bromochlorobenzene-PID	8.10		8.00		101	70-130			



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	11/1/2024 8:03:10AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443187-BLK1)

Prepared: 10/25/24 Analyzed: 10/31/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.11		8.00		88.9	70-130			

LCS (2443187-BS2)

Prepared: 10/25/24 Analyzed: 10/31/24

Gasoline Range Organics (C6-C10)	39.8	20.0	50.0		79.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.21		8.00		90.2	70-130			

LCS Dup (2443187-BSD2)

Prepared: 10/25/24 Analyzed: 10/31/24

Gasoline Range Organics (C6-C10)	42.0	20.0	50.0		84.0	70-130	5.33	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.21		8.00		90.2	70-130			

QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	11/1/2024 8:03:10AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443227-BLK1) Prepared: 10/26/24 Analyzed: 10/29/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	52.4		50.0		105	50-200			

LCS (2443227-BS1) Prepared: 10/26/24 Analyzed: 10/29/24

Diesel Range Organics (C10-C28)	273	25.0	250		109	38-132			
Surrogate: n-Nonane	56.5		50.0		113	50-200			

LCS Dup (2443227-BSD1) Prepared: 10/26/24 Analyzed: 10/29/24

Diesel Range Organics (C10-C28)	254	25.0	250		101	38-132	7.37	20	
Surrogate: n-Nonane	53.9		50.0		108	50-200			



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	11/1/2024 8:03:10AM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2444063-BLK1)					Prepared: 10/30/24 Analyzed: 10/30/24				
Chloride	ND	20.0							
LCS (2444063-BS1)					Prepared: 10/30/24 Analyzed: 10/30/24				
Chloride	257	20.0	250		103	90-110			
LCS Dup (2444063-BSD1)					Prepared: 10/30/24 Analyzed: 10/30/24				
Chloride	257	20.0	250		103	90-110	0.0307	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Hilcorp Energy Co	Project Name:	Brookhaven	
PO Box 61529	Project Number:	17051-0002	Reported:
Houston TX, 77208	Project Manager:	Stuart Hyde	11/01/24 08:03

- ND Analyte NOT DETECTED at or above the reporting limit
 - NR Not Reported
 - RPD Relative Percent Difference
 - DNI Did Not Ignite
 - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

envirotech

Envirotech Analytical Laboratory

Printed: 10/25/2024 2:41:05PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Hilcorp Energy Co	Date Received:	10/25/24 12:16	Work Order ID:	E410318
Phone:	-	Date Logged In:	10/25/24 13:09	Logged In By:	Caitlin Mars
Email:	shyde@ensolum.com	Due Date:	11/01/24 17:00 (5 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: GP

Comments/Resolution

Sampled by not provided on COC.

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

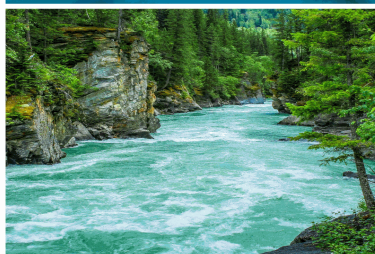
Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Stuart Hyde



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Hilcorp Energy Co

Project Name: Brookhaven

Work Order: E410320

Job Number: 17051-0002

Received: 10/25/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/4/24

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/4/24

Stuart Hyde
PO Box 61529
Houston, TX 77208



Project Name: Brookhaven
Workorder: E410320
Date Received: 10/25/2024 12:28:00PM

Stuart Hyde,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/25/2024 12:28:00PM, under the Project Name: Brookhaven.

The analytical test results summarized in this report with the Project Name: Brookhaven apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

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If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
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Michelle Gonzales
Client Representative
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Cell: 505-947-8222
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Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	11/04/24 16:08

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW03	E410320-01A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
SW04	E410320-02A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
SW05	E410320-03A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
SW06	E410320-04A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
SW07	E410320-05A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
SW08	E410320-06A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
FS06	E410320-07A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
FS07	E410320-08A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
FS08	E410320-09A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
FS09	E410320-10A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
FS10	E410320-11A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
FS11	E410320-12A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
FS12	E410320-13A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
FS13	E410320-14A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
SW13	E410320-15A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
SW11	E410320-16A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
SW12	E410320-17A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
SW10	E410320-18A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.
SW09	E410320-19A	Soil	10/23/24	10/25/24	Glass Jar, 4 oz.



Sample Data

Hilcorp Energy Co PO Box 61529 Houston TX, 77208	Project Name: Brookhaven Project Number: 17051-0002 Project Manager: Stuart Hyde	Reported: 11/4/2024 4:08:52PM
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SW03
E410320-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	0.0324	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	0.0259	0.0250	1	10/25/24	11/02/24	
Toluene	0.224	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.0995	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.306	0.0500	1	10/25/24	11/02/24	
Total Xylenes	0.405	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	103 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.9 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	124 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	40.0	2	10/29/24	10/29/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

SW04

E410320-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	0.0555	0.0250	1	10/25/24	11/02/24	
o-Xylene	ND	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.0739	0.0500	1	10/25/24	11/02/24	
Total Xylenes	0.0739	0.0250	1	10/25/24	11/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		88.6 %	70-130	10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
<i>Surrogate: n-Nonane</i>						
		124 %	50-200	10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	40.0	2	10/29/24	10/29/24	



Sample Data

Hilcorp Energy Co
PO Box 61529
Houston TX, 77208

Project Name: Brookhaven
Project Number: 17051-0002
Project Manager: Stuart Hyde

Reported:
11/4/2024 4:08:52PM

SW05

E410320-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	0.158	0.0250	1	10/25/24	11/02/24	
Toluene	0.467	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.408	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	1.65	0.0500	1	10/25/24	11/02/24	
Total Xylenes	2.06	0.0250	1	10/25/24	11/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	105 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	22.2	20.0	1	10/25/24	11/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.2 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
<i>Surrogate: n-Nonane</i>						
	138 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	40.0	2	10/29/24	10/29/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

SW06

E410320-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	0.0306	0.0250	1	10/25/24	11/02/24	
Toluene	0.202	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.0954	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.246	0.0500	1	10/25/24	11/02/24	
Total Xylenes	0.341	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	103 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.2 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	135 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	40.0	2	10/29/24	10/29/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

SW07

E410320-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	ND	0.0250	1	10/25/24	11/02/24	
o-Xylene	ND	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	ND	0.0500	1	10/25/24	11/02/24	
Total Xylenes	ND	0.0250	1	10/25/24	11/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	100 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	88.7 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
<i>Surrogate: n-Nonane</i>						
	124 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	40.0	2	10/29/24	10/29/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

SW08

E410320-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	ND	0.0250	1	10/25/24	11/02/24	
o-Xylene	ND	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	ND	0.0500	1	10/25/24	11/02/24	
Total Xylenes	ND	0.0250	1	10/25/24	11/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %	70-130	10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.9 %	70-130	10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
<i>Surrogate: n-Nonane</i>		137 %	50-200	10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	20.0	1	10/29/24	10/29/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS06
E410320-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	ND	0.0250	1	10/25/24	11/02/24	
o-Xylene	ND	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	ND	0.0500	1	10/25/24	11/02/24	
Total Xylenes	ND	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	100 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.3 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	130 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	20.0	1	10/29/24	10/29/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS07

E410320-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	0.0702	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.0643	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.168	0.0500	1	10/25/24	11/02/24	
Total Xylenes	0.232	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	102 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.2 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	125 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	20.0	1	10/29/24	10/29/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS08
E410320-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	0.0309	0.0250	1	10/25/24	11/02/24	
o-Xylene	ND	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	ND	0.0500	1	10/25/24	11/02/24	
Total Xylenes	ND	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	99.2 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	87.8 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	125 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	40.0	2	10/29/24	10/29/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS09

E410320-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	0.0913	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.0841	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.148	0.0500	1	10/25/24	11/02/24	
Total Xylenes	0.232	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	102 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.8 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	124 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	100	5	10/29/24	10/29/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS10

E410320-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	0.0339	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.0405	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.146	0.0500	1	10/25/24	11/02/24	
Total Xylenes	0.186	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	102 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.9 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	132 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	200	10	10/29/24	10/29/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS11

E410320-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	ND	0.0250	1	10/25/24	11/02/24	
o-Xylene	ND	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	ND	0.0500	1	10/25/24	11/02/24	
Total Xylenes	ND	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	100 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.3 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	129 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	40.0	2	10/29/24	10/29/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS12
E410320-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	ND	0.0250	1	10/25/24	11/02/24	
o-Xylene	ND	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	ND	0.0500	1	10/25/24	11/02/24	
Total Xylenes	ND	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	99.7 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.2 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	131 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	20.0	1	10/29/24	10/29/24	

Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

FS13

E410320-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	0.0764	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.0524	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.192	0.0500	1	10/25/24	11/02/24	
Total Xylenes	0.244	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	102 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.1 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	140 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	40.0	2	10/29/24	10/29/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

SW13

E410320-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	0.137	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.0888	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.284	0.0500	1	10/25/24	11/02/24	
Total Xylenes	0.372	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID		101 %	70-130	10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		88.9 %	70-130	10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane		131 %	50-200	10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	40.0	2	10/29/24	10/29/24	



Sample Data

Hilcorp Energy Co
PO Box 61529
Houston TX, 77208

Project Name: Brookhaven
Project Number: 17051-0002
Project Manager: Stuart Hyde

Reported:
11/4/2024 4:08:52PM

SW11

E410320-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	0.0827	0.0250	1	10/25/24	11/02/24	
Toluene	0.260	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.185	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.865	0.0500	1	10/25/24	11/02/24	
Total Xylenes	1.05	0.0250	1	10/25/24	11/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		103 %	70-130	10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	20.0	20.0	1	10/25/24	11/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		90.8 %	70-130	10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
<i>Surrogate: n-Nonane</i>						
		125 %	50-200	10/26/24	10/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	200	10	10/29/24	10/29/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

SW12

E410320-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	0.0275	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	ND	0.0250	1	10/25/24	11/02/24	
Toluene	0.186	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.0632	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.223	0.0500	1	10/25/24	11/02/24	
Total Xylenes	0.286	0.0250	1	10/25/24	11/02/24	
Surrogate: 4-Bromochlorobenzene-PID	101 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/25/24	11/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.3 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
Surrogate: n-Nonane	127 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	40.0	2	10/29/24	10/29/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

SW10

E410320-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	ND	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	0.182	0.0250	1	10/25/24	11/02/24	
Toluene	0.187	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.403	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	1.49	0.0500	1	10/25/24	11/02/24	
Total Xylenes	1.89	0.0250	1	10/25/24	11/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		107 %	70-130	10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	46.6	20.0	1	10/25/24	11/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		94.8 %	70-130	10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
<i>Surrogate: n-Nonane</i>						
		126 %	50-200	10/26/24	10/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	100	5	10/29/24	10/29/24	



Sample Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported: 11/4/2024 4:08:52PM
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	

SW09

E410320-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Benzene	0.0276	0.0250	1	10/25/24	11/02/24	
Ethylbenzene	0.0810	0.0250	1	10/25/24	11/02/24	
Toluene	0.231	0.0250	1	10/25/24	11/02/24	
o-Xylene	0.247	0.0250	1	10/25/24	11/02/24	
p,m-Xylene	0.917	0.0500	1	10/25/24	11/02/24	
Total Xylenes	1.16	0.0250	1	10/25/24	11/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	103 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2443198	
Gasoline Range Organics (C6-C10)	23.5	20.0	1	10/25/24	11/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.5 %	70-130		10/25/24	11/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2443228	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/29/24	
<i>Surrogate: n-Nonane</i>						
	122 %	50-200		10/26/24	10/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2444048	
Chloride	ND	100	5	10/29/24	10/29/24	

QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	11/4/2024 4:08:52PM

Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2443198-BLK1)Prepared: 10/25/24 Analyzed: 11/02/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.96		8.00		99.5	70-130			

LCS (2443198-BS1)Prepared: 10/25/24 Analyzed: 11/02/24

Benzene	5.01	0.0250	5.00		100	70-130			
Ethylbenzene	4.93	0.0250	5.00		98.5	70-130			
Toluene	5.01	0.0250	5.00		100	70-130			
o-Xylene	4.93	0.0250	5.00		98.5	70-130			
p,m-Xylene	10.0	0.0500	10.0		100	70-130			
Total Xylenes	15.0	0.0250	15.0		99.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.93		8.00		99.1	70-130			

LCS Dup (2443198-BSD1)Prepared: 10/25/24 Analyzed: 11/02/24

Benzene	5.12	0.0250	5.00		102	70-130	2.17	20	
Ethylbenzene	5.04	0.0250	5.00		101	70-130	2.32	20	
Toluene	5.12	0.0250	5.00		102	70-130	2.31	20	
o-Xylene	5.06	0.0250	5.00		101	70-130	2.68	20	
p,m-Xylene	10.3	0.0500	10.0		103	70-130	2.19	20	
Total Xylenes	15.3	0.0250	15.0		102	70-130	2.35	20	
Surrogate: 4-Bromochlorobenzene-PID	7.99		8.00		99.9	70-130			

QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	11/4/2024 4:08:52PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443198-BLK1) Prepared: 10/25/24 Analyzed: 11/02/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.05		8.00		88.1	70-130			

LCS (2443198-BS2) Prepared: 10/25/24 Analyzed: 11/02/24

Gasoline Range Organics (C6-C10)	43.8	20.0	50.0		87.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.21		8.00		90.1	70-130			

LCS Dup (2443198-BSD2) Prepared: 10/25/24 Analyzed: 11/02/24

Gasoline Range Organics (C6-C10)	43.9	20.0	50.0		87.8	70-130	0.199	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.29		8.00		91.1	70-130			



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	11/4/2024 4:08:52PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2443228-BLK1)					Prepared: 10/26/24 Analyzed: 10/29/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	63.8		50.0		128	50-200			

LCS (2443228-BS1)					Prepared: 10/26/24 Analyzed: 10/29/24				
Diesel Range Organics (C10-C28)	275	25.0	250		110	38-132			
Surrogate: n-Nonane	60.5		50.0		121	50-200			

LCS Dup (2443228-BSD1)					Prepared: 10/26/24 Analyzed: 10/29/24				
Diesel Range Organics (C10-C28)	288	25.0	250		115	38-132	4.81	20	
Surrogate: n-Nonane	61.0		50.0		122	50-200			



QC Summary Data

Hilcorp Energy Co	Project Name:	Brookhaven	Reported:
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	11/4/2024 4:08:52PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2444048-BLK1)					Prepared: 10/29/24 Analyzed: 10/29/24				
Chloride	ND	20.0							
LCS (2444048-BS1)					Prepared: 10/29/24 Analyzed: 10/29/24				
Chloride	251	20.0	250		101	90-110			
LCS Dup (2444048-BSD1)					Prepared: 10/29/24 Analyzed: 10/29/24				
Chloride	251	20.0	250		100	90-110	0.261	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.

Definitions and Notes

Hilcorp Energy Co	Project Name:	Brookhaven	
PO Box 61529	Project Number:	17051-0002	Reported:
Houston TX, 77208	Project Manager:	Stuart Hyde	11/04/24 16:08

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

E410320 on 10/25/24

Page 1 of 2

Client Information				Invoice Information		Lab Use Only		TAT				State						
Client: HHC Corp				Company:		Lab WO#		1D 2D 3D Std				NM CO UT TX						
Project Name: Brookhaven				Address:		E410320		Job Number				1051-0002						
Project Manager: Stuart H				City, State, Zip:														
Address:				Phone:														
City, State, Zip:				Email:														
Phone:				Miscellaneous:														
Email: shyde@ensolum.com																		
Sample Information						Analysis and Method								EPA Program				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	
1515	10-23	Soil	1	SW03		1	X	X	X									
1525				SW04		2												
1535				SW05		3												
1545				SW06		4												
1555				SW07		5												
1605				SW08		6												
1615				FS06		7												
1625				FS07		8												
1635				FS08		9												
1645	✓	✓	✓	FS09		10	✓	✓	✓									
Additional Instructions: CC: gjelese@ensolum.com																		
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																		
Sampled by:																		
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: Y / N T1 T2 T3 AVG Temp °C 4						
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time								
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time								
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time								
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other												Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA						
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																		



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Client Information				Invoice Information		Lab Use Only		TAT				State											
Client: <u>Hilcorp</u>				Company:		Lab WO# <u>E410320</u>		Job Number <u>11051-0002</u>				1D	2D	3D	Std	NM	CO	UT	TX				
Project Name: <u>Brookhaven</u>				Address:																			
Project Manager: <u>Stuart H</u>				City, State, Zip:																			
Address:				Phone:																			
City, State, Zip:				Email:																			
Phone:				Miscellaneous:																			
Email: <u>shyde@ensolum.com</u>																							
Sample Information										Analysis and Method								EPA Program					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	Compliance	Y	or	N	PWSID #	Remarks
1440	10-24	Soil	1	FS10		11	X	X	X														
1450				FS11		12																	
1500				FS12		13																	
1510				FS13		14																	
1520				SW13		15																	
1530				SW11		16																	
1540				SW12		17																	
1550				SW10		18																	
1600	✓	✓	✓	SW09		19																	
Additional Instructions: <u>cc: ypalese@ensolum.com</u>																							
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																							
Sampled by:																							
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <u>Y</u> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>											
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time													
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time													
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time													
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other												Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA											
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																							



Chain of Custody

E410320 on 10/25/24

Page 1 of 2

Client Information				Invoice Information		Lab Use Only		TAT				State										
Client: <u>Hill Corp</u>				Company: _____		Lab WO# <u>E410320</u>		Job Number <u>17051-0002</u>				1D	2D	3D	Std	NM	CO	UT	TX			
Project Name: <u>Brookhaven</u>				Address: _____																		
Project Manager: <u>Stuart H</u>				City, State, Zip: _____																		
Address: _____				Phone: _____																		
City, State, Zip: _____				Email: _____																		
Phone: _____				Miscellaneous: _____																		
Email: <u>shyde@ensolum.com</u>																						
Sample Information										Analysis and Method										EPA Program		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA					
1515	10-23	Soil	1	SW03		1	X	X	X													
1525				SW04		2																
1535				SW05		3																
1545				SW06		4																
1555				SW07		5																
1605				SW08		6																
1615				FS06		7																
1625				FS07		8																
1635				FS08		9																
1645	↓	↓	↓	FS09		10	↓	↓	↓													
Additional Instructions: <u>cc: gjoelrese@ensolum.com</u>																						
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Sampled by: _____																						
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <u>Y</u> / N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>										
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time												
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time												
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time												
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____												Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____										
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																						



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Chain of Custody

E410320 CM 10/25/24

Page 2 of 2

Client Information				Invoice Information		Lab Use Only		TAT				State							
Client: <u>Hilcorp</u>				Company:		Lab WO# <u>E410320</u>		Job Number <u>11051-0002</u>				1D	2D	3D	Std	NM	CO	UT	TX
Project Name: <u>Brookhaven</u>				Address:															
Project Manager: <u>Stuart H</u>				City, State, Zip:															
Address:				Phone:															
City, State, Zip:				Email:															
Phone:				Miscellaneous:															
Email: <u>shyde@ensolum.com</u>																			

Sample Information						Analysis and Method										EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA		
1440	10-24	Soil	1	FS10		11	X	X	X										
1450				FS11		12													
1500				FS12		13													
1510				FS13		14													
1520				SW13		15													
1530				SW11		16													
1540				SW12		17													
1550				SW10		18													
1600	✓	✓	✓	SW09		19													

Additional Instructions: cc: ypalese@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: _____

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<u>[Signature]</u>	<u>10-25</u>	<u>12:28</u>	<u>[Signature]</u>	<u>10/25/24</u>	<u>12:28</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



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Envirotech Analytical Laboratory

Printed: 10/25/2024 1:38:17PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Hilcorp Energy Co	Date Received:	10/25/24 12:28	Work Order ID:	E410320
Phone:	-	Date Logged In:	10/25/24 13:27	Logged In By:	Caitlin Mars
Email:	shyde@ensolum.com	Due Date:	11/01/24 17:00 (5 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: GP

Comments/Resolution

Sampled by not provided on COC.

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



APPENDIX C

Photographic Log



Photographic Log

Hilcorp Energy Company

Brookhaven Com B 3A

San Juan County, NM



Photograph: 1 Date: 10/22/24
Description: Excavating soil at release point
View: North



Photograph: 2 Date: 10/22/24
Description: Excavation extent at end of 10/22/24
View: South



Photograph: 3 Date: 10/24/24
Description: Excavation extent on 10/24/24
View: Northwest



Photograph: 4 Date: 10/25/24
Description: Excavation extent at end of 10/25/24
View: Southeast

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

QUESTIONS

Action 405650

QUESTIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 405650
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2404715996
Incident Name	NAPP2404715996 BROOKHAVEN COM B 3A @ 30-045-23575
Incident Type	Release Other
Incident Status	Remediation Closure Report Received
Incident Well	[30-045-23575] BROOKHAVEN COM B #003A

Location of Release Source	
Please answer all the questions in this group.	
Site Name	BROOKHAVEN COM B 3A
Date Release Discovered	02/15/2024
Surface Owner	State

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	Cause: Equipment Failure Production Tank Produced Water Released: 15 BBL Recovered: 0 BBL Lost: 15 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Cause: Equipment Failure Production Tank Condensate Released: 22 BBL Recovered: 0 BBL Lost: 22 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)	On 2/15/2024, Hilcorp operations discovered a 37-bbl condensate/produced water release (22 bbls condensate, 15 bbls produced water) at the Brookhaven Com B 3A in San Juan County, NM. While conducting a routine site inspection, an operator observed a visibly-impacted area (measuring 5' x 10') adjacent to a 286-bbl condensate storage tank. Upon further inspection, it was determined that two (2) pinhole leaks had formed near the bottom weld on the west side of the condensate storage tank, due to corrosion. At this time, the storage tank has been removed from service. The spilled fluids did not migrate horizontally outside of secondary containment. However, none of the fluids could be recovered since the secondary containment area is unlined. Area 3 operations will work with Integrity to assess the tank and re-coat before placing back into service.

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QUESTIONS, Page 2

Action 405650

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 405650
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. 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 answered.

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: 06/14/2024
--	--

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QUESTIONS, Page 3

Action 405650

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 405650
	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 1 and 100 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 100 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>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.</i>	
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)	1500
GRO+DRO (EPA SW-846 Method 8015M)	1500
BTEX (EPA SW-846 Method 8021B or 8260B)	126
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	09/01/2024
On what date will (or did) the final sampling or liner inspection occur	09/05/2024
On what date will (or was) the remediation complete(d)	09/05/2024
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	3200
What is the estimated volume (in cubic yards) that will be remediated	1000

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.

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QUESTIONS, Page 4

Action 405650

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 405650
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
<i>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.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	No
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Yes
Which OCD approved facility will be used for on-site disposal	Not answered.
OR which OCD approved well (API) will be used for on-site disposal	30-045-30240 GRENIER #001B
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
<i>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>	
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: 06/14/2024
<i>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.</i>	

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QUESTIONS, Page 5

Action 405650

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 405650
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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

QUESTIONS, Page 6

Action 405650

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 405650
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	393052
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/21/2024
What was the (estimated) number of samples that were to be gathered	27
What was the sampling surface area in square feet	3200

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	3200
What was the total volume (cubic yards) remediated	2100
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)	not applicable

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: 11/21/2024
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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>

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QUESTIONS, Page 7

Action 405650

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 405650
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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CONDITIONS

Action 405650

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 405650
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
nvez	None	1/8/2025