

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-144  
Revised April 3, 2017

**For temporary pits, below-grade tanks, and multi-well fluid management pits**, submit to the appropriate NMOC District Office.  
**For permanent pits** submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOC District Office.

Pit, Below-Grade Tank, or  
Proposed Alternative Method Permit or Closure Plan Application

BGT1

Type of action: ☐ Below grade tank registration  
☐ Permit of a pit or proposed alternative method  
☒ Closure of a pit, below-grade tank, or proposed alternative method  
☐ Modification to an existing permit/or registration  
☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

**Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request**

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.

Operator: Hilcorp Energy Company OGRID #: 372171  
Address: 382 Road 3100 Aztec, NM 87410  
Facility or well name: WITT 1  
API Number: 30-045-13211 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr N Section 33 Township 29N Range 11W County: San Juan  
Center of Proposed Design: Latitude 36.68549°N Longitude -108.0017°W NAD27  
Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.

☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC  
Temporary: ☐ Drilling ☐ Workover  
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no  
☐ Lined ☐ Unlined Liner type: Thickness \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☐ String-Reinforced  
Liner Seams: ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_ Volume: \_\_\_\_\_ bbl Dimensions: L \_\_\_\_\_ x W \_\_\_\_\_ x D \_\_\_\_\_

3.

☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC  
Volume: 120 bbl Type of fluid: Produced Water  
Tank Construction material: Metal  
☐ Secondary containment with leak detection ☒ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other \_\_\_\_\_  
Liner type: Thickness \_\_\_\_\_ mil ☐ HDPE ☐ PVC ☒ Other Unspecified

4.

☐ **Alternative Method:**  
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.

**Fencing:** Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)  
☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)  
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet  
☐ Alternate. Please specify \_\_\_\_\_

6.

**Netting:** Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- ☐ Screen ☐ Netting ☐ Other \_\_\_\_\_
- ☐ Monthly inspections (If netting or screening is not physically feasible)

7.

**Signs:** Subsection C of 19.15.17.11 NMAC

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.16.8 NMAC

8.

**Variances and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

***Please check a box if one or more of the following is requested, if not leave blank:***

- ☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.
- ☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

**Siting Criteria (regarding permitting):** 19.15.17.10 NMAC***Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.*****General siting****Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.**

- ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells

☐ Yes ☐ No  
☒ NA

**Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.**

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No  
☒ NA

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)**

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)**

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area. **(Does not apply to below grade tanks)**

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain. **(Does not apply to below grade tanks)**

- FEMA map

☐ Yes ☐ No

**Below Grade Tanks**

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☒ No

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☒ No

**Temporary Pit using Low Chloride Drilling Fluid** (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.

NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 100 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

### **Temporary Pit Non-low chloride drilling fluid**

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

### **Permanent Pit or Multi-Well Fluid Management Pit**

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

10.

#### **Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC

**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_

11.

#### **Multi-Well Fluid Management Pit Checklist:** Subsection B of 19.15.17.9 NMAC

**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ A List of wells with approved application for permit to drill associated with the pit.
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
- ☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_

12.

**Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC  
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  
☐ Climatological Factors Assessment  
☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Quality Control/Quality Assurance Construction and Installation Plan  
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  
☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan  
☐ Emergency Response Plan  
☐ Oil Field Waste Stream Characterization  
☐ Monitoring and Inspection Plan  
☐ Erosion Control Plan  
☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.

**Proposed Closure:** 19.15.17.13 NMAC**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Multi-well Fluid Management Pit  
☐ Alternative
- Proposed Closure Method: ☒ Waste Excavation and Removal  
☐ Waste Removal (Closed-loop systems only)  
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)  
☐ In-place Burial ☐ On-site Trench Burial  
☐ Alternative Closure Method

14.

**Waste Excavation and Removal Closure Plan Checklist:** (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  
☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC  
☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  
☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  
☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.

**Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC**Instructions:** Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	



adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

16.

**On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.

**Operator Application Certification:**

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

18.

**OCD Approval:** ☐ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

**OCD Representative Signature:**  **Approval Date:** 02/29/2024

**Title:** Environmental Specialist Advanced **OCD Permit Number:** \_\_\_\_\_

19.

**Closure Report (required within 60 days of closure completion):** 19.15.17.13 NMAC

*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

☒ **Closure Completion Date:** 12/18/2023

20.

**Closure Method:**

- ☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
- ☐ If different from approved plan, please explain.

21.

**Closure Report Attachment Checklist:** *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☒ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only)
- ☐ Plot Plan (for on-site closures and temporary pits)
- ☒ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on-site closure)
- ☐ Disposal Facility Name and Permit Number
- ☒ Soil Backfilling and Cover Installation
- ☒ Re-vegetation Application Rates and Seeding Technique
- ☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: ☐ 1927 ☐ 1983

22.

**Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Priscilla Shorty Title: Operations/Regulatory Technician – Sr

Signature: Priscilla Shorty Date: 2/13/2024

e-mail address: pshorty@hilcorp.com Telephone: (505) 324-5188

**Hilcorp Energy Company  
San Juan Basin  
Below Grade Tank Closure Report**

**Lease Name: WITT 1**  
**API No.: 30-045-13211**

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure of the below-grade tank referenced above. All proper documentation regarding closure activities is being included with the C-144.

General Plan:

1. HILCORP shall close a below-grade tank within 60 days of cessation of operations per Subsection G.4 of 19.15.17.13 NMAC. This will include a) below-grade tanks that do not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC; b) an earlier date that the division requires because of imminent danger to fresh water, public health or the environment. For any closure, HILCORP will file the C144 Closure Report as required.

**The below-grade tank referenced above was permitted and closed within 60 days of cessation of the below-grade tanks operation.**

2. HILCORP shall remove liquids and sludge from a below-grade tank prior to implementing a closure method and shall dispose of the liquids and sludge in a division-approved facility. The facilities to be used will be Basin Disposal (Permit #NM-01-005), JFJ Landfarm % Industrial Ecosystem Inc. (Permit # NM-01-0010B) and Envirotech Land Farm (Permit #NM-01-011). The liner after being cleaned well (Subsection D, Paragraph 1, Subparagraph (m) of 19.15.9.712 NMAC) will be disposed of at the San Juan County Regional Landfill located on CR 3100.

**All recovered liquids were disposed of at Basin Disposal (Permit #NM-01-005) and any sludge or soil required to be removed to facilitate closure was hauled to Envirotech Land Farm (Permit #NM-01-011) and JFJ Landfarm % IEI (Permit #NM-01-0010B). The liner was cleaned per Subsection D, Paragraph 1, Subparagraph (m) of 19.15.9.712 NMAC was disposed of at the San Juan County Regional Landfill located on CR 3100.**

3. HILCORP will receive prior approval to remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves.

**The below-grade tank was disposed of in a division-approved manner.**

4. If there is any on-site equipment associated with a below-grade tank, then HILCORP shall remove the equipment, unless the equipment is required for some other purpose.

**All on-site equipment associated with the below-grade tank was removed.**

5. HILCORP will test the soils beneath the below-grade tank to determine whether a release has occurred. HILCORP shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyzed for the constituents listed in Table I of 19.15.17.13 NMAC. Hilcorp shall notify the division of its results on form C-141.

2/13/2024

A five point composite sample was taken of the below-grade tank using sampling tools and all samples tested per Subsection B of 19.15.17.1 3(B)(1)(b). (Sample results attached). Form C-141 is attached.

Components	Tests Method	Limit (mg/kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	100
Chlorides	EPA 300.0	250

6. If HILCORP or the division determines that a release has occurred, then HILCORP shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

**A release was determined for the above referenced well.**

7. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Table I of 19.15.17.13 NMAC, then HILCORP shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site.

**The below-grade tank area passed all requirements of Paragraph (4) of Subsection E of 19.15.17.13 NMAC and was backfilled with compacted, non-waste containing, earthen material.**

8. Notice of Closure will be given prior to closure to the Aztec Division office between 72 hours and one week via email or verbally. The notification of closure will include the following:
- i. Operator's name
  - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.

**Notification is attached.**

9. The surface owner shall be notified of HILCORP's closing of the below-grade tank 72 hours, but not more than one week, prior to closure as per the approved closure plan via certified mail, return receipt requested.

**The closure process notification to the landowner was sent via email, certified mail. (See Attached) (Well located on Federal Land, certified mail is not required for Federal Land per BLM/OCD MOU.)**

10. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be place in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.

**The below-grade tank area was re-contoured to match fit, shape, line, form and texture of the surrounding area. Re-shaping including drainage control, to prevent ponding and erosion. Natural drainages were unimpeded and water bars and/or silt traps were placed in areas where needed to prevent erosion on a large scale. Final recontour has a uniform appearance with smooth surface, fitting the natural landscape.**

11. HILCORP shall seed the disturbed areas the first favorable growing season following closure of a below-grade tank. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM stipulated seed mixes will be used on federally regulated lands and division-approved seed mixtures (administratively approved if required) will be utilized on all State or private lands. A uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. Hilcorp will repeat seeding or planting will be continued until successful vegetative growth occurs.

2/13/2024

**Provision 13 was accomplished through complying with BLM seeding requirements as allowed by the BLM/OCD MOU.**

12. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material, with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.

**The below-grade tank area was backfilled and more than four feet of cover was achieved and the cover included one foot of suitable material to establish vegetation at the site.**

13. All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on C-144 and incorporate the following:
  - Soil Backfilling and Cover Installation **(See Report)**
  - Re-vegetation application rates and seeding techniques **(See Report)**
  - Photo documentation of the site reclamation **(Included as an attachment)**
  - Confirmation Sampling Results **(Included as an attachment)**
  - Proof of closure notice **(Included as an attachment)**

**No closure photos are attached due to determination of release. The closure photos will be submitted upon cleanup per 19.15.29 NMAC.**

2/13/2024



**Priscilla Shorty**

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**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Thursday, December 14, 2023 10:51 AM  
**To:** Priscilla Shorty; Tammy Jones; Brandon Sinclair; Clara Cardoza; Chad Perkins; Dale Crawford; Kate Kaufman; Ben Mitchell; Ramon Hancock; Lisa Jones; Mitch Killough; Samantha Grabert; Venegas, Victoria, EMNRD; Farmington Regulatory Techs; Trey Misuraca; Kelly Davidson; Roman Lucero  
**Cc:** Bratcher, Michael, EMNRD  
**Subject:** RE: [EXTERNAL] 72 hour BGT Closure Notice - WITT 1 (30.045.13211)

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

Good morning Priscilla,

The 72 hour notice for BGT removal has been received and noted in e-permitting.

Thank you,

Shelly

**Shelly Wells** \* Environmental Specialist-Advanced  
Environmental Bureau  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive | Santa Fe, NM 87505  
(505)469-7520 | [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

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**From:** Priscilla Shorty <pshorty@hilcorp.com>  
**Sent:** Wednesday, December 13, 2023 8:33 AM  
**To:** Tammy Jones <tajones@hilcorp.com>; Brandon Sinclair <Brandon.Sinclair@hilcorp.com>; Clara Cardoza <ccardoza@hilcorp.com>; Chad Perkins <cperkins@hilcorp.com>; Dale Crawford <dcrawford@hilcorp.com>; Kate Kaufman <kkaufman@hilcorp.com>; Ben Mitchell <bemitchell@hilcorp.com>; Ramon Hancock <Ramon.Hancock@hilcorp.com>; Lisa Jones <ljoness@hilcorp.com>; Mitch Killough <mkillough@hilcorp.com>; Samantha Grabert <Samantha.Grabert@hilcorp.com>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>; Venegas, Victoria, EMNRD <Victoria.Venegas@emnrd.nm.gov>; Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Kelly Davidson <mdavidson@hilcorp.com>; Priscilla Shorty <pshorty@hilcorp.com>; Roman Lucero <rlucero@hilcorp.com>  
**Subject:** [EXTERNAL] 72 hour BGT Closure Notice - WITT 1 (30.045.13211)

**CAUTION:** This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

**Subject: 72 Hour BGT Closure Notification**

**Anticipated Start Date:** **Monday, 12/18/2023 at 9:00 AM MST**

The subject well has a below-grade tank that will be permanently removed. The BGT permit is attached. Please contact me if you have any questions or concerns.

**Well Name:** WITT 1  
**API#:** 30-045-13211  
**Location:** Unit N (SE/SW), Section 33, T29N, R11W  
**Footages:** 1120' FSL & 1510' FWL  
**Operator:** Hilcorp Energy **Surface Owner:** PRIVATE  
**Reason:** Equipment Removal.

**\*\*Please Note Required Photos for Closure\*\***

- Well site placard
- Photos of the BGT prior to closure
- The sample location or, more preferred, photos of actual sample collection
- Final state of the area after closure.
- Photos will require captioning including direction of photo, date and time of photo and a description of the image contents.

Thanks,

*Priscilla Shorty*

Operations Regulatory Technician

**Hilcorp Energy Company**

505-324-5188

[pshorty@hilcorp.com](mailto:pshorty@hilcorp.com)

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The information contained in this email message is confidential and may be legally privileged and is intended only for the use of the individual or entity named above. If you are not an intended recipient or if you have received this message in error, you are hereby notified that any dissemination, distribution, or copy of this email is strictly prohibited. If you have received this email in error, please immediately notify us by return email or telephone if the sender's phone number is listed above, then promptly and permanently delete this message.

While all reasonable care has been taken to avoid the transmission of viruses, it is the responsibility of the recipient to ensure that the onward transmission, opening, or use of this message and any attachments will not adversely affect its systems or data. No responsibility is accepted by the company in this regard and the recipient should carry out such virus and other checks as it considers appropriate.

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December 13, 2023

Transmitted Via  
Certified MailTo: Johnny & Jacquelyn Tom  
1024 HWY 574  
Aztec, NM 87410Re: WITT 1  
API: 30-045-13211  
Unit N (SE/SW) Section 33, T29N, R11W  
San Juan County, New Mexico

Dear Landowner:

Pursuant to New Mexico Administrative Code § 19.15.17.13 (E) (1) operator shall provide the surface owner of the operator's proposal to close a below-grade tank.

In compliance with this requirement, please consider this letter as notification that Hilcorp San Juan, L.P. intends to close a below-grade tank on the subject well pad. The closure process will begin between 72 hours and one week from this notification.

If you have any questions regarding this work, please call within five (5) days of receiving this notice.

Sincerely,

## SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**Johnny & Jacquelyn Tom**  
1024 Hwy 574  
Aztec, NM 87410



9590 9402 7573 2098 4571 91

2. Article Number (Transfer from service label)

7022 2410 0003 1570 3373

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Registered Mail  
Registered Mail Restricted Delivery  
(over \$500)

PS Form 3811, July 2020 PSN 7530-02-000-9053

Witt 1 Bett

12/13/2023

Domestic Return Receipt

U.S. Postal Service™  
CERTIFIED MAIL® RECEIPT  
Domestic Mail OnlyFor delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

OFFICIAL USE

Certified Mail Fee

Extra Services & Fees (check box, add fee as appropriate)

- ☐ Return Receipt (hardcopy) \$
- ☐ Return Receipt (electronic) \$
- ☐ Certified Mail Restricted Delivery \$
- ☐ Adult Signature Required \$
- ☐ Adult Signature Restricted Delivery \$

Postage

Total Postage and Fees

**Johnny & Jacquelyn Tom**  
1024 Hwy 574  
Aztec, NM 87410

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

Witt 1

Postmark  
Here

Bett-S

R.H.



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
  - Print your name and address on the reverse so that we can return the card to you.
  - Attach this card to the back of the mailpiece, or on the front if space permits.
1. Article Addressed to:

**Johnny & Jacquelyn Tom**  
1024 Hwy 574  
Aztec, NM 87410



9590 9402 7573 2098 4571 91

2. Article Number (Transfer from service label)

7022 2410 0003 1570 3373

PS Form 3811, July 2020 PSN 7530-02-000-9053

With 1 Bet.

1213 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature

☒ Adult Signature

B. Received by (Printed Name)

Jacquelyn Tom

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes ☐ No  
If YES, enter delivery address below:

3. Service Type
- ☐ Adult Signature
  - ☐ Adult Signature Restricted Delivery
  - ☐ Certified Mail®
  - ☐ Certified Mail Restricted Delivery
  - ☐ Collect on Delivery
  - ☐ Collect on Delivery Restricted Delivery
  - ☐ Insured Mail
  - ☐ Insured Mail Restricted Delivery
  - ☐ Priority Mail Express®
  - ☐ Registered Mail™
  - ☐ Registered Mail Restricted Delivery
  - ☐ Signature Confirmation™
  - ☐ Signature Confirmation Restricted Delivery

U.S. Postal Service™  
**CERTIFIED MAIL® RECEIPT**  
Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®

**OFFICIAL USE**

Certified Mail Fee

Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

Postage \$

Total Postage and Fees

**Johnny & Jacquelyn Tom**  
1024 Hwy 574  
Aztec, NM 87410

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

With 1  
Postmark  
Here  
Bet - 3  
R.H.















District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	nAPP2403723976
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Hilcorp Energy Company	OGRID 372171
Contact Name Mitch Killough	Contact Telephone 713-757-5247
Contact email mkillough@hilcorp.com	Incident # nAPP2403723976
Contact mailing address 1111 Travis Street, Houston, Texas 77002	

Location of Release Source

Latitude 36.6785202 \_\_\_\_\_ Longitude -108.0009537 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Witt 1	Site Type Well
Date Release Discovered: 2/2/2024 @ 04:44pm (MT) – Date of Hall Environmental Analytical Laboratory report	API# 30-045-13211

Unit Letter	Section	Township	Range	County
N	33	29N	11W	San Juan

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 8 bbls	Volume Recovered (bbls) 0 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 8 bbls	Volume Recovered (bbls) 0 bbls
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

Historical release discovered during the permanent removal of a below-grade tank (BGT). Refer to attached memo (dated 2/12/2024) for additional information.


All future work on this project will be carried out in accordance with 19.15.29 NMAC.

Incident ID	nAPP2403723976
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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.	
Printed Name: <u>Mitch Killough</u>	Title: <u>Environmental Specialist</u>
Signature: 	Date: <u>02/12/2024</u>
email: <u>mkillough@hilcorp.com</u>	Telephone: <u>713-757-5247</u>
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____



## Memorandum

To: Shelly Wells, New Mexico Oil Conservation Division (NMOCD)

From: Mitch Killough, Hilcorp Energy Company (Hilcorp)

Date: 2/12/2024

Subject: Witt 1 – Permanent Closure of a Below-Grade Tank (BGT)

On 12/13/2023, Hilcorp submitted a 72-hour notice prior to the permanent closure of a BGT at the Witt 1, San Juan County, New Mexico. As required by Condition 5 (*found in the Closure Plan, operator certified on 12/22/2008*), Hilcorp personnel proceeded to collect a 5-pt composite soil sample on 12/18/2023 to determine if any contaminant concentrations exceeded the BGT closure criteria thresholds, per Condition 5. Upon receiving analytical results on 1/8/2024, Hilcorp determined that reported concentrations of total benzene, toluene, ethylbenzene, and xylene (BTEX), chlorides, and total petroleum hydrocarbons (TPH) exceeded the BGT closure criteria thresholds shown in Condition 5 of the closure plan. Thus, indicating that a potential release occurred (refer to table below). In addition, concentrations of total BTEX and TPH exceeded the Closure Criteria for Soils Beneath Below-Grade Tanks listed in Table I of 19.15.17.13 NMAC for groundwater depths ( $\leq 50$  ft).

SOIL ANALYTICAL RESULTS												
WITT 1												
HILCORP ENERGY COMPANY - L48 WEST												
Soil Sample Identification	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO+DRO (mg/kg)	TPH (mg/kg)
BGT 5 -Point	12/18/2023	<0.12	1.1	3.8	110	<115.02	410	1400	970	270	2370	2640
NMOCD BGT Closure Criteria		0.2	NE	NE	NE	50	250	NE	NE	NE	NE	100
Table I of 19.15.17.13 NMAC		10	NE	NE	NE	50	600	NE	NE	NE	NE	100

On 1/17/2024, Hilcorp commenced delineation activities to determine if the volume of impacted soils was at or below 12 yards. Upon receiving the latest analytical report (dated 2/2/2024), it was determined that Hilcorp successfully delineated the impacted soils. However, the impacted soils were greater than 12 yards in volume. The extent of impacted soils are assumed to amount to approximately 475 yards

In light of the latest lab results, Hilcorp is submitting this C-141 to notify the NMOCD of the results. All subsequent activities will now proceed under 19.15.29 NMAC.

Enclosures: Table 1 – Soil Sample Analytical Results  
Release Volume Estimate  
Hall Lab Reports (dated 1/8/2024, 2/2/2024)  
Initial C-141 Submittal (approved on 2/12/2024)

**Hilcorp Energy Company**  
1111 Travis Street, Houston, Texas 77002  
T 713.209.2400 F 713.289.2750





<b>TABLE 1</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> Witt 1 Hilcorp Energy Company San Juan County, New Mexico												
Sample Identification	Date	Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Closure Criteria for Soils Impacted by a Release			10	NE	NE	NE	50	NE	NE	NE	100	600
BGT 5-Point	12/18/2023	---	<0.12	1.1	3.8	110	<b>115</b>	1,400	970	270	<b>2,640</b>	410
PH01 @ 1	1/17/2024	1.0	<1.2	35	32	340	<b>407</b>	4,000	530	<50	<b>4,530</b>	160
PH01 @ 3.75	1/17/2024	3.75	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.7	<48	<48	<60
PH02 @ 3	1/17/2024	3.0	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.7	<49	<49	<60
PH02 @ 5	1/17/2024	5.0	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.4	<47	<47	<60
PH03 @ 3	1/17/2024	3.0	<0.048	<0.096	0.99	15	16	350	200	<49	<b>550</b>	<60
PH03 @ 4.5	1/17/2024	4.5	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.7	<48	<48	<60
PH04 @ 3	1/17/2024	3.0	<0.023	<0.045	0.069	0.33	0.40	26	140	<46	<b>166</b>	<60
PH04 @ 4.5	1/17/2024	4.5	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.2	<46	<46	<61
PH05 @ 3	1/17/2024	3.0	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.5	<48	<48	<60
PH05 @ 4.5	1/17/2024	4.5	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<9.5	<48	<48	<60
PH06 @ 4	1/17/2024	4.0	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<9.0	<45	<45	<b>76</b>
PH06 @ 5	1/17/2024	5.0	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.2	<46	<46	<60
PH07 @ 4	1/17/2024	4.0	<0.024	<0.048	0.90	4.3	5.2	150	740	100	<b>990</b>	<60
PH07 @ 5	1/17/2024	5.0	<0.023	<0.046	<0.046	<0.091	<0.091	<4.6	<9.2	<46	<46	<60
PH08 @ 5	1/17/2024	5.0	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<8.8	<44	<44	<b>79</b>

**Notes:**

bgs: below ground surface

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

mg/kg: milligrams per kilogram

NE: Not Established

NMOCD: New Mexico Oil Conservation Division

': feet

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon

&lt;: indicates result less than the stated laboratory reporting limit (RL)

Concentrations in **bold** and shaded exceed the New Mexico Oil Conservation Division Table 1 Closure Criteria for Soils Impacted by a Release

**ESTIMATED RELEASE VOLUME TOOL**  
**WITT 1**  
**HILCORP ENERGY COMPANY**

*This tool estimates a release volume based on the size and concentration of a dry excavation.*

**Instructions: Input the excavation parameters (dimensions) in red text, and the spreadsheet calculates a potential spill volume. Other parameters can be changed as appropriate.**

Tool Inputs	
Soil Density	99.88473696 lbs/ft <sup>3</sup>
Crude Oil Density	7.093593783 lbs/gal

Excavation Parameters	
Average Hydrocarbon Concentration	1775.20 mg/kg
Length	ft
Width	ft
Depth	ft
Expansion Factor	%
<b>Total Soil Volume</b>	<b>475 yds<sup>3</sup></b>

*Choose the appropriate column for the released product*

	Crude Oil/Condensate	Produced Water
<b>Hydrocarbon Concentration (Percent)</b>	50 %	50 %

***CALCULATED SPILL VOLUME***

<b>Hydrocarbon Mass</b>	2,274 lbs
<b>Total Release Volume</b>	641 gal <b>15.3 bbls</b>

**Notes**

% - percent      ft - feet      kg - kilograms      mg - milligrams  
bbls - barrels      gal - gallons      lbs - pounds      yd - yard

Red values are variable and can be changed according to site specific information.



Environment Testing

Eurofins Environment Testing South  
Central, LLC  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

January 08, 2024

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

RE: Witt 1

OrderNo.: 2312B48

Dear Mitch Killough:

Eurofins Environment Testing South Central, LLC received 1 sample(s) on 12/20/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2312B48

08-Jan-24

Client: HILCORP ENERGY

Project: Witt 1

Sample ID: MB-79720	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 79720	RunNo: 102238								
Prep Date: 1/3/2024	Analysis Date: 1/3/2024	SeqNo: 3774164	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-79720	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 79720	RunNo: 102238								
Prep Date: 1/3/2024	Analysis Date: 1/3/2024	SeqNo: 3774165	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.4	90	110			

- Qualifiers:
- \*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

- B

Analyte detected in the associated Method Blank
- E

Above Quantitation Range/Estimated Value
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit



QC SUMMARY REPORT  
Hall Environmental Analysis Laboratory, Inc.

WO#: 2312B48  
08-Jan-24

Client: HILCORP ENERGY  
Project: Witt 1

Sample ID: LCS-79665	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 79665	RunNo: 102162								
Prep Date: 12/29/2023	Analysis Date: 1/1/2024	SeqNo: 3771004		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	101	61.9	130			
Surr: DNOP	5.0		5.000		99.8	69	147			

Sample ID: MB-79665	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 79665	RunNo: 102162								
Prep Date: 12/29/2023	Analysis Date: 1/1/2024	SeqNo: 3771007		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		84.7	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT  
Hall Environmental Analysis Laboratory, Inc.

WO#: 2312B48  
08-Jan-24

Client: HILCORP ENERGY  
Project: Witt 1

Sample ID: Ics-79594	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 79594	RunNo: 102084								
Prep Date: 12/24/2023	Analysis Date: 12/27/2023	SeqNo: 3768473			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.6	70	130			
Surr: BFB	2100		1000		205	15	244			

Sample ID: mb-79594	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 79594	RunNo: 102084								
Prep Date: 12/24/2023	Analysis Date: 12/27/2023	SeqNo: 3768474			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		94.9	15	244			

Sample ID: Ics-79553	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 79553	RunNo: 102112								
Prep Date: 12/21/2023	Analysis Date: 12/28/2023	SeqNo: 3769854			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2000		1000		204	15	244			

Sample ID: mb-79553	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 79553	RunNo: 102112								
Prep Date: 12/21/2023	Analysis Date: 12/28/2023	SeqNo: 3769855			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		96.7	15	244			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2312B48

08-Jan-24

Client: HILCORP ENERGY

Project: Witt 1

Sample ID: <b>LCS-79594</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>79594</b>		RunNo: <b>102084</b>							
Prep Date: <b>12/24/2023</b>	Analysis Date: <b>12/27/2023</b>		SeqNo: <b>3768506</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	100	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Ethylbenzene	1.0	0.050	1.000	0	102	70	130			
Xylenes, Total	3.1	0.10	3.000	0	102	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	39.1	146			

Sample ID: <b>mb-79594</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>79594</b>		RunNo: <b>102084</b>							
Prep Date: <b>12/24/2023</b>	Analysis Date: <b>12/27/2023</b>		SeqNo: <b>3768507</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.0	39.1	146			

Sample ID: <b>LCS-79553</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>79553</b>		RunNo: <b>102112</b>							
Prep Date: <b>12/21/2023</b>	Analysis Date: <b>12/28/2023</b>		SeqNo: <b>3769868</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		91.6	39.1	146			

Sample ID: <b>mb-79553</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>79553</b>		RunNo: <b>102112</b>							
Prep Date: <b>12/21/2023</b>	Analysis Date: <b>12/28/2023</b>		SeqNo: <b>3769869</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.94		1.000		94.1	39.1	146			

### Qualifiers:

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



Environment Testin

Eurofins Environment Testing South

Central, LLC

4901 Hawkins NE

Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Hilcorp Energy

Work Order Number: 2312B48

RcptNo: 1

Received By: Tracy Casarrubias

12/20/2023 6:50:00 AM

Completed By: Tracy Casarrubias

12/20/2023 11:36:55 AM

Reviewed By: JR 12/20/23

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(&lt;2 or &gt;12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: TME 12/20/23

Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.8	Good	Yes	Morty		





Environment Testing

Eurofins Environment Testing South  
Central, LLC  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

February 02, 2024

Mitch Killough

HILCORP ENERGY

PO Box 4700

Farmington, NM 87499

TEL: (505) 564-0733

FAX:

RE: Witt 1

OrderNo.: 2401799

Dear Mitch Killough:

Eurofins Environment Testing South Central, LLC received 15 sample(s) on 1/19/2024 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

## Analytical Report

Lab Order 2401799

Date Reported: 2/2/2024

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: PH01 @1

Project: Witt 1

Collection Date: 1/17/2024 12:40:00 PM

Lab ID: 2401799-001

Matrix: SOIL

Received Date: 1/19/2024 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JKU
Diesel Range Organics (DRO)	530	9.9		mg/Kg	1	1/22/2024 4:58:11 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/22/2024 4:58:11 PM
Surr: DNOP	80.8	69-147		%Rec	1	1/22/2024 4:58:11 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: JJP
Gasoline Range Organics (GRO)	4000	230		mg/Kg	50	1/23/2024 3:36:02 AM
Surr: BFB	347	15-244	S	%Rec	50	1/23/2024 3:36:02 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: JJP
Benzene	ND	1.2		mg/Kg	50	1/23/2024 3:36:02 AM
Toluene	35	2.3		mg/Kg	50	1/23/2024 3:36:02 AM
Ethylbenzene	32	2.3		mg/Kg	50	1/23/2024 3:36:02 AM
Xylenes, Total	340	4.7		mg/Kg	50	1/23/2024 3:36:02 AM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	50	1/23/2024 3:36:02 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: RBC
Chloride	160	60		mg/Kg	20	1/19/2024 5:35:14 PM

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

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

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CLIENT: HILCORP ENERGY

Client Sample ID: PH02 @ 3

Project: Witt 1

Collection Date: 1/17/2024 12:45:00 PM

Lab ID: 2401799-003

Matrix: SOIL

Received Date: 1/19/2024 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/22/2024 5:22:12 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/22/2024 5:22:12 PM
Surr: DNOP	84.8	69-147		%Rec	1	1/22/2024 5:22:12 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/23/2024 4:23:49 AM
Surr: BFB	98.8	15-244		%Rec	1	1/23/2024 4:23:49 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	1/23/2024 4:23:49 AM
Toluene	ND	0.047		mg/Kg	1	1/23/2024 4:23:49 AM
Ethylbenzene	ND	0.047		mg/Kg	1	1/23/2024 4:23:49 AM
Xylenes, Total	ND	0.094		mg/Kg	1	1/23/2024 4:23:49 AM
Surr: 4-Bromofluorobenzene	86.6	39.1-146		%Rec	1	1/23/2024 4:23:49 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	1/19/2024 7:39:23 PM

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

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







## Analytical Report

Lab Order 2401799

Date Reported: 2/2/2024

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: PH04 @ 3

Project: Witt 1

Collection Date: 1/17/2024 12:52:00 PM

Lab ID: 2401799-007

Matrix: SOIL

Received Date: 1/19/2024 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: JKU
Diesel Range Organics (DRO)	140	9.2		mg/Kg	1	1/22/2024 6:09:54 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/22/2024 6:09:54 PM
Surr: DNOP	86.0	69-147		%Rec	1	1/22/2024 6:09:54 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: JJP
Gasoline Range Organics (GRO)	26	4.5		mg/Kg	1	1/24/2024 9:51:32 PM
Surr: BFB	410	15-244	S	%Rec	1	1/24/2024 9:51:32 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	1/24/2024 9:51:32 PM
Toluene	ND	0.045		mg/Kg	1	1/24/2024 9:51:32 PM
Ethylbenzene	0.069	0.045		mg/Kg	1	1/24/2024 9:51:32 PM
Xylenes, Total	0.33	0.091		mg/Kg	1	1/24/2024 9:51:32 PM
Surr: 4-Bromofluorobenzene	95.7	39.1-146		%Rec	1	1/24/2024 9:51:32 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: RBC
Chloride	ND	60		mg/Kg	20	1/19/2024 8:44:08 PM

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

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





CLIENT: HILCORP ENERGY

Client Sample ID: PH05 @ 4.5

Project: Witt 1

Collection Date: 1/17/2024 1:03:00 PM

Lab ID: 2401799-010

Matrix: SOIL

Received Date: 1/19/2024 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	1/22/2024 6:45:32 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/22/2024 6:45:32 PM
Surr: DNOP	90.1	69-147		%Rec	1	1/22/2024 6:45:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/23/2024 7:11:49 AM
Surr: BFB	97.4	15-244		%Rec	1	1/23/2024 7:11:49 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	1/23/2024 7:11:49 AM
Toluene	ND	0.047		mg/Kg	1	1/23/2024 7:11:49 AM
Ethylbenzene	ND	0.047		mg/Kg	1	1/23/2024 7:11:49 AM
Xylenes, Total	ND	0.094		mg/Kg	1	1/23/2024 7:11:49 AM
Surr: 4-Bromofluorobenzene	85.5	39.1-146		%Rec	1	1/23/2024 7:11:49 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	1/19/2024 9:29:36 PM

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

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





**Hall Environmental Analysis Laboratory, Inc.**

## Analytical Report

Lab Order **2401799**

Date Reported: 2/2/2024

**CLIENT: HILCORP ENERGY**

**Client Sample ID:** PH06 @ 5

**Project:** Witt 1

Collection Date: 1/17/2024 1:18:00 PM

**Lab ID:** 2401799-012

**Matrix:** SOIL

Received Date: 1/19/2024 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/23/2024 1:16:52 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/23/2024 1:16:52 PM
Surr: DNOP	102	69-147		%Rec	1	1/23/2024 1:16:52 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/24/2024 2:09:23 AM
Surr: BFB	103	15-244		%Rec	1	1/24/2024 2:09:23 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	1/24/2024 2:09:23 AM
Toluene	ND	0.049		mg/Kg	1	1/24/2024 2:09:23 AM
Ethylbenzene	ND	0.049		mg/Kg	1	1/24/2024 2:09:23 AM
Xylenes, Total	ND	0.098		mg/Kg	1	1/24/2024 2:09:23 AM
Surr: 4-Bromofluorobenzene	87.1	39.1-146		%Rec	1	1/24/2024 2:09:23 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	1/23/2024 4:04:17 PM

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

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

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CLIENT: HILCORP ENERGY  
Project: Witt 1  
Lab ID: 2401799-013

Matrix: SOIL

Client Sample ID: PH07 @ 4  
Collection Date: 1/17/2024 1:10:00 PM  
Received Date: 1/19/2024 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	740	8.9		mg/Kg	1	1/23/2024 1:38:05 PM
Motor Oil Range Organics (MRO)	100	45		mg/Kg	1	1/23/2024 1:38:05 PM
Surr: DNOP	106	69-147		%Rec	1	1/23/2024 1:38:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	150	4.8		mg/Kg	1	1/24/2024 2:32:59 AM
Surr: BFB	1700	15-244	S	%Rec	1	1/24/2024 2:32:59 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	1/24/2024 2:32:59 AM
Toluene	ND	0.048		mg/Kg	1	1/24/2024 2:32:59 AM
Ethylbenzene	0.90	0.048		mg/Kg	1	1/24/2024 2:32:59 AM
Xylenes, Total	4.3	0.096		mg/Kg	1	1/24/2024 2:32:59 AM
Surr: 4-Bromofluorobenzene	193	39.1-146	S	%Rec	1	1/24/2024 2:32:59 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	1/23/2024 4:19:27 PM

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

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

## Analytical Report

Lab Order 2401799

Date Reported: 2/2/2024

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: PH07 @ 5

Project: Witt 1

Collection Date: 1/17/2024 1:13:00 PM

Lab ID: 2401799-014

Matrix: SOIL

Received Date: 1/19/2024 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>DGH</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/23/2024 1:59:22 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/23/2024 1:59:22 PM
Surr: DNOP	105	69-147		%Rec	1	1/23/2024 1:59:22 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/24/2024 2:56:36 AM
Surr: BFB	143	15-244		%Rec	1	1/24/2024 2:56:36 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>JJP</b>
Benzene	ND	0.023		mg/Kg	1	1/24/2024 2:56:36 AM
Toluene	ND	0.046		mg/Kg	1	1/24/2024 2:56:36 AM
Ethylbenzene	ND	0.046		mg/Kg	1	1/24/2024 2:56:36 AM
Xylenes, Total	ND	0.091		mg/Kg	1	1/24/2024 2:56:36 AM
Surr: 4-Bromofluorobenzene	85.8	39.1-146		%Rec	1	1/24/2024 2:56:36 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>KCB</b>
Chloride	ND	60		mg/Kg	20	1/23/2024 4:34:36 PM

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

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

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CLIENT: HILCORP ENERGY

Client Sample ID: PH08 @ 5

Project: Witt 1

Collection Date: 1/17/2024 1:15:00 PM

Lab ID: 2401799-015

Matrix: SOIL

Received Date: 1/19/2024 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	1/23/2024 2:10:18 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	1/23/2024 2:10:18 PM
Surr: DNOP	99.3	69-147		%Rec	1	1/23/2024 2:10:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/24/2024 3:44:09 AM
Surr: BFB	96.6	15-244		%Rec	1	1/24/2024 3:44:09 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	1/24/2024 3:44:09 AM
Toluene	ND	0.049		mg/Kg	1	1/24/2024 3:44:09 AM
Ethylbenzene	ND	0.049		mg/Kg	1	1/24/2024 3:44:09 AM
Xylenes, Total	ND	0.099		mg/Kg	1	1/24/2024 3:44:09 AM
Surr: 4-Bromofluorobenzene	82.6	39.1-146		%Rec	1	1/24/2024 3:44:09 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	79	60		mg/Kg	20	1/23/2024 4:49:45 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 240179902-Feb-24

Client: HILCORP ENERGY  
Project: Witt 1

Sample ID: MB-80006	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 80006	RunNo: 102562
Prep Date: 1/19/2024	Analysis Date: 1/19/2024	SeqNo: 3790312 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-80006	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 80006	RunNo: 102562
Prep Date: 1/19/2024	Analysis Date: 1/19/2024	SeqNo: 3790313 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 94.5 90 110

Sample ID: MB-80050	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 80050	RunNo: 102622
Prep Date: 1/23/2024	Analysis Date: 1/23/2024	SeqNo: 3792208 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-80050	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 80050	RunNo: 102622
Prep Date: 1/23/2024	Analysis Date: 1/23/2024	SeqNo: 3792209 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 94.7 90 110

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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## QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2401799

02-Feb-24

Client: HILCORP ENERGY

Project: Witt 1

Sample ID: <b>LCS-80038</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>80038</b>		RunNo: <b>102621</b>							
Prep Date: <b>1/22/2024</b>	Analysis Date: <b>1/23/2024</b>		SeqNo: <b>3791172</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	109	61.9	130			
Surr: DNOP	5.6		5.000		111	69	147			

Sample ID: <b>MB-80038</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>80038</b>		RunNo: <b>102621</b>							
Prep Date: <b>1/22/2024</b>	Analysis Date: <b>1/23/2024</b>		SeqNo: <b>3791173</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		115	69	147			

Sample ID: <b>MB-80003</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>80003</b>		RunNo: <b>102589</b>							
Prep Date: <b>1/19/2024</b>	Analysis Date: <b>1/22/2024</b>		SeqNo: <b>3791240</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		85.1	69	147			

Sample ID: <b>LCS-80003</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>80003</b>		RunNo: <b>102589</b>							
Prep Date: <b>1/19/2024</b>	Analysis Date: <b>1/22/2024</b>		SeqNo: <b>3791241</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.6	61.9	130			
Surr: DNOP	4.2		5.000		83.0	69	147			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank  
E Above Quantitation Range/Estimated Value  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2401799

02-Feb-24

Client: HILCORP ENERGY  
Project: Witt 1

Sample ID: lcs-80000	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 80000	RunNo: 102587								
Prep Date: 1/19/2024	Analysis Date: 1/22/2024	SeqNo: 3790762		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	70	130			
Surr: BFB	2200		1000		219	15	244			

Sample ID: mb-80000	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 80000	RunNo: 102587								
Prep Date: 1/19/2024	Analysis Date: 1/22/2024	SeqNo: 3790763		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		96.3	15	244			

Sample ID: LCS-80027	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 80027	RunNo: 102620								
Prep Date: 1/22/2024	Analysis Date: 1/23/2024	SeqNo: 3791789		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	70	130			
Surr: BFB	2100		1000		212	15	244			

Sample ID: mb-80027	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 80027	RunNo: 102620								
Prep Date: 1/22/2024	Analysis Date: 1/23/2024	SeqNo: 3791790		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		99.1	15	244			

Qualifiers:

- \*

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of standard limits. If undiluted results may be estimated.
- B

Analyte detected in the associated Method Blank
- E

Above Quantitation Range/Estimated Value
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2401799

02-Feb-24

Client: HILCORP ENERGY

Project: Witt 1

Sample ID: <b>LCS-80000</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>80000</b>		RunNo: <b>102587</b>							
Prep Date: <b>1/19/2024</b>	Analysis Date: <b>1/22/2024</b>		SeqNo: <b>3790786</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.025	1.000	0	79.0	70	130			
Toluene	0.81	0.050	1.000	0	80.8	70	130			
Ethylbenzene	0.81	0.050	1.000	0	81.4	70	130			
Xylenes, Total	2.5	0.10	3.000	0	81.7	70	130			
Surr: 4-Bromofluorobenzene	0.92		1.000		91.5	39.1	146			

Sample ID: <b>mb-80000</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>80000</b>		RunNo: <b>102587</b>							
Prep Date: <b>1/19/2024</b>	Analysis Date: <b>1/22/2024</b>		SeqNo: <b>3790787</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.86		1.000		85.9	39.1	146			

Sample ID: <b>LCS-80027</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>80027</b>		RunNo: <b>102620</b>							
Prep Date: <b>1/22/2024</b>	Analysis Date: <b>1/23/2024</b>		SeqNo: <b>3791817</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.74	0.025	1.000	0	73.7	70	130			
Toluene	0.76	0.050	1.000	0	76.2	70	130			
Ethylbenzene	0.76	0.050	1.000	0	76.2	70	130			
Xylenes, Total	2.3	0.10	3.000	0	76.8	70	130			
Surr: 4-Bromofluorobenzene	0.87		1.000		87.4	39.1	146			

Sample ID: <b>mb-80027</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>80027</b>		RunNo: <b>102620</b>							
Prep Date: <b>1/22/2024</b>	Analysis Date: <b>1/23/2024</b>		SeqNo: <b>3791818</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.88		1.000		87.9	39.1	146			

### Qualifiers:

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



Environment Testin

Eurofins Environment Testing South  
Central, LLC  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: **HILCORP ENERGY**

Work Order Number: **2401799**

RcptNo: **1**

Received By: **Cheyenne Cason**

**1/19/2024 8:00:00 AM**

Completed By: **Cheyenne Cason**

**1/19/2024 9:13:28 AM**

Reviewed By:

*[Signature]* **1/19/24**

*[Signature]*

*[Signature]*

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted? *[Signature]*

Checked by: *M* **1/19/24**

### Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.4	Good	Not Present	Morty		

### Chain-of-Custody Record

Client: Hill Corp  
Attn: Mitch Killough  
Mailing Address: \_\_\_\_\_

Phone #: \_\_\_\_\_  
email or Fax#: mkillough@hillcorp.com  
QA/QC Package: \_\_\_\_\_  
☐ Standard ☐ Level 4 (Full Validation)  
Accreditation: ☐ Az Compliance  
☐ NELAC ☐ Other \_\_\_\_\_  
☐ EDD (Type) \_\_\_\_\_

Date	Time	Matrix	Sample Name
1/14/24	12:40	Soil	PH0101
	12:43		PH0102
	12:45		PH0203
	13:33		PH0205
	12:48		PH0303
	13:30		PH0304
	12:52		PH0403
	13:00		PH0503
	13:00		PH0504
	13:07		PH0604
	13:18		PH0605

Relinquished by: [Signature]  
Date: 1/18/24 Time: 1601  
Relinquished by: [Signature]  
Date: 1/18/24 Time: 1747

Turn-Around Time: 5-day ☒ Standard ☐ Rush  
Project Name: Witt I

Project #: \_\_\_\_\_

Project Manager: Stuart Hyle  
Sampler: Rebecca Hansen  
On Ice: ☒ Yes ☐ No Match  
# of Coolers: 1  
Cooler Temp (including CF): 0.5-0.1 = 0.4 (°C)

Container Type and #	Preservative Type	HEAL No.
1402	Cool	2401799
		001
		002
		003
		004
		005
		006
		007
		008
		009
		010
		011
		012

Received by: [Signature] Date: 1/18/24 Time: 1661  
Received by: [Signature] Date: 1/19/24 Time: 0800



4901 Hawkins NE - Albuquerque, NM 87109  
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request									
<input checked="" type="checkbox"/> BTEX MTBE / TMBs (8021)	<input checked="" type="checkbox"/> TPH:8015D(GRO / DRO / MRO)	<input checked="" type="checkbox"/> 8081 Pesticides/8082 PCBs	<input checked="" type="checkbox"/> EDB (Method 504.1)	<input checked="" type="checkbox"/> PAHs by 8310 or 8270SIMS	<input checked="" type="checkbox"/> RCRA 8 Metals	<input checked="" type="checkbox"/> Cd, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	<input checked="" type="checkbox"/> 8260 (VOA)	<input checked="" type="checkbox"/> 8270 (Semi-VOA)	<input checked="" type="checkbox"/> Total Coliform (Present/Absent)

Remarks: CC: Hansen & Engstrom  
CC: Glyde & Engstrom  
PH01 PH03 PH04 PH05 PH06



Mitch Killough

---

From: OCDOnline@state.nm.us  
Sent: Monday, February 12, 2024 4:15 PM  
To: Mitch Killough  
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has approved the application, Application ID: 313626

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

To whom it may concern (c/o Mitch Killough 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#) nAPP2403723976, with the following conditions:

- None

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,  
Shelly Wells  
Environmental Specialist-A  
505-469-7520  
Shelly.Wells@emnrd.nm.gov

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



**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 313786

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 313786
	Action Type: [C-144] Below Grade Tank Plan (C-144B)

CONDITIONS

Created By	Condition	Condition Date
joseph.kennedy	Closure approved. Hilcorp has submitted Application for administrative approval of a release notification and corrective action (C-141), for incident ID nAPP2403723976, All subsequent activities will now proceed under 19.15.29 NMAC."	2/29/2024