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 NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

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

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: SALTY DOG SWD 1
API Number: 30-045-29946 OCD Permit Number: BGT1
U/L or Qtr/Qtr B Section 01 Township 29N Range 15W County: San Juan
Center of Proposed Design: Latitude 36.76018 Longitude -108.36444 NAD83
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: 47 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_2S, 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	☐ Yes ☐ No ☐ 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	☐ Yes ☐ No ☐ 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	☐ Yes ☐ No ☐ 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	☐ 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 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	☐ Yes ☐ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ 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
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: Jeffrey S Harrison **Approval Date:** 12/26/2024

Title: Environmental Specialist A **OCD Permit Number:** BGT1

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:** 7/23/2024

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: 12/26/2024

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

Hilcorp Energy Company

BGT Modification

Hilcorp Energy Company is requesting to modify the below grade permit for the Salty Dog SWD 1 (30.045.22946) as follows:

- The previous closure plan included Table I of 19.15.17.13 showing estimated water depth to be less than 50 ft. During closure, it was found that the water depth was estimated to be greater than 51 feet. The modified table is included showing an update to the depth. Also, attached is the Analytical Report providing an interpretation of the water depth.

Hilcorp Energy Company
San Juan Basin: New Mexico Assets
Below Grade Tank Closure Report

Lease Name: SALTY DOG SWD 1
API No.: 30-045-29946

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 Requirements:

1. Prior to initiating any BGT closure, except in the case of an emergency, HILCORP will notify the surface owner of the intent to close the BGT by certified mail no later than 72 hours or one week before closure and a copy of this notification will be included in the closure report. In the case of an emergency, the surface owner will be notified as soon as practical.

   The surface owner was notified by email of the closure process and the notification is attached.

2. Notice of closure will be given to the District Division office between 72 hours and one week of the scheduled closure via email or phone. The notification of closure will include the following:
   a. Operators Name
   b. Well Name and API Number
   c. Location

   Notification is attached.

3. All liquids will be removed from the BGT following cessation of operation. Produced water will be disposed of at one of HILCORP's approved Salt Water Disposal facilities or at a District Division approved facility.

   All recovered liquids were disposed of at an approved SWD facility or an approved District Division facility within 60 days of cessation of operation.

4. Solids and sludge's will be shoveled and/or vacuumed out for disposal at one of the District Division approved facilities, depending on the proximity of the BGT site: Envirotech Land Farm (Permit #NM-01-011), JFJ Land Farm % Industrial Ecosystems Inc. (Permit #NM-01-0010B), and Basin Disposal (Permit #NM-01-005).

   Any sludge or soil required to be removed to facilitate closure was transported to Envirotech Land Farm (Permit # NM-01-011) and/or JFJ Landfarm % IEI (Permit# NM-01-0010B).

5. HILCORP will obtain prior approval from District Division to dispose, recycle, reuse, or reclaim the BGT and provide documentation of the disposition of the BGT in the closure report. Steel materials will be recycled or reused as approved by the District Division. Fiberglass tanks will be empty, cut up or shredded, and EPA cleaned for disposal as solid waste. Liner materials will be cleaned without soils or contaminated material for disposal as solid waste. Fiberglass tanks and liner materials will meet the conditions of 19.15.35 NMAC. Disposal will be at a licensed disposal facility, presently San Juan County Landfill operated by Waste Management under NMED Permit SWM-052426.

   The below-grade tank was disposed of in a division-approved manner. The liner was cleaned per 19.15.35.8.C(1)(m) NMAC and disposed of at the San Juan County Regional Landfill located on CR 3100.

6. Any equipment associated with the BGT that is no longer required for some other purpose, following the closure, will be removed.

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

7. Following removal of the tank and any liner material, HILCORP will test the soils beneath the BGT as follows:
   a. At a minimum, a five-point composite sample will be taken to include any obvious stained or wet soils or any other evidence of contamination.
   b. The laboratory sample shall be analyzed for the constituents listed in Table I of 19.15.17.13.

   A five point composite sample was taken of the below-grade tank using sampling tools and all samples tested per Table I of 19.15.17.13 and the results are attached.

8. If the District Division and/or HILCORP determine there is a release, HILCORP will comply with 19.15.17.13.C.3b.

   A release was determined for the above referenced well.

9. Upon completion of the tank removal, pursuant to 19.15.17.13.C.3c, if all contaminant concentrations are less than or equal to the parameters listed in Table I of 19.15.17.13 NMAC, the excavation will be backfilled with non-waste earthen material compacted and covered with a minimum of one foot top soil or background thickness whichever is greater and to existing grade. The surface will be re-contoured to match the native grade and to prevent ponding.

   Historical release was discovered during the permanent removal of the BGT. The release was reported on a Form C-141 on 10/29/2024, nAPP2430352742. Hilcorp will work with NMOCD's Incident group to clean-up the site and conduct remediation activities. Below is the modified Table I to reflect the findings, see attached.

Table I Closure Criteria for Soils Beneath Below-Grade Tanks, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed			
Depth below bottom of pit to groundwater less than 10,000 mg/l TDS	**Constituent**	**Method***	**Limit****
≤50 feet	Chloride	EPA 300.0	600 mg/kg
	TPH	EPA SW-846 Method 418.1	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
51 feet-100 feet	Chloride	EPA 300.0	10,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

10. For those portions of the former BGT area no longer required for production activities, HILCORP will seed the disturbed area the first favorable growing season after the BGT is covered. Seeding will be accomplished via drilling on the contour whenever practical, or by other District Division-approved methods. HILCORP will notify the District Division when reclamation and re-vegetation is complete.

    Reclamation of the BGT shall be considered complete when:
    - Vegetative cover reflects a life form ratio of +/- 50% of pre disturbance levels.
    - Total percent plant cover of at least 70% of pre-disturbance levels (Excluding noxious weeds) OR
    - Pursuant to 19.15.17.13.H.5d HILCORP will comply with obligations imposed by other applicable federal or tribal agencies in which there re-vegetation and reclamation requirements provide equal or better protection of fresh water, human health and the environment.

    Provision 10 will be accomplished pursuant to 19.15.17.H.5d and notification will be submitted upon completion.

11. For those portions of the former BGT area required for production activities, reseeding will be done at well abandonment, and following the procedure noted above.

Revised 10/14/2015

The former BGT area is required for production activities and reseeding will be completed upon plug and abandonment, per the procedure noted above.

Closure Report:
All closure activities will include proper documentation and will be submitted to OCD within 60 days of the BGT closure on a Closure Report using District Division Form C-144. The Report will include the following:

- Proof of Closure Notice (surface owner and District Division) **(Attached)**
- Backfilling & cover installation **(See Report)**
- Confirmation Sampling Analytical Results **(Attached)**
- Application Rate & Seeding techniques **(See Report)**
- Photo Documentation of Reclamation **(Attached)**

Revised 10/14/2015

Priscilla Shorty

From: Priscilla Shorty
Sent: Thursday, July 18, 2024 9:58 AM
To: Chad Perkins; Dale Crawford; Mitch Killough; Brandon Sinclair; Ben Mitchell; Ramon Hancock; Lisa Jones; Victoria Venegas (Victoria.Venegas@emnrd.nm.gov); Farmington Regulatory Techs; Samantha Grabert; Kate Kaufman; Alex Rios; Christopher Bramwell; Ray Shelby; Tammy Jones; Max Lopez; joel.stone@emnrd.nm.gov; Abiodun Adeloye
Subject: 72 Hour BGT Closure Notification – SALTY DOG SWD 1 (30.045.29946)
Attachments: SALTY DOG SWD 1_BGT CP ONLY_OCD Appvd.pdf

Subject: 72 Hour BGT Closure Notification

Anticipated Start Date: **Tuesday, July 23, 2024 at 9:00 AM**

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

Well Name: **SALTY DOG SWD 1**

API#: 30-045-29946

Location: Unit B (NW/NE), Section 01, T29N, R15W

Footages: 1200' FNL & 1380' FEL

Operator: Hilcorp Energy **Surface Owner:** PRIVATE

Reason: **SWD was P&A'd**

****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

7022 2410 0003 1570 5100

U.S. Postal Service™
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OFFICIAL USE

Certified Mail Fee
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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
$

BGT

Postmark Here

SAHY DOG SWD 1

R.H. 7/18/24

Sent To
CC1 Sandman LLC
Street and Apt. No., or PO Box No.
1900 DalRoc RD.
City, State, ZIP+4
Rowlett, TX 75088

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

---

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:

CC1 Sandman LLC
1900 DalRoc Rd
Rowlett, TX 75088

9590 9402 7573 2098 4579 24

2. Article Number (Transfer from service label)
7022 2410 0003 1570 5100

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

RE Andrews
2424 Ridge Rd.
Rockwall, TX 75087

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Registered Mail
- ☐ Registered Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

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

Hilcorp

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF THE RETURN ADDRESS, FOLD AT DOTTED LINE

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7022 2410 0003 1570 5100

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

Postage
$

Total Postage and Fees
$

Postmark Here
BGT
SALTY DOG SWD 1
R.H. 7/18/24

Sent To
CCI San Juan LLC
Street and Apt. No., or PO Box No.
1900 Dalroc RD.
City, State, ZIP+4
Rowlett, TX 75088

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

July 18, 2024

Transmitted Via
Certified Mail 7022 2410 0003

To: CCI San Juan LLC
1900 Dalroc Rd.
Rowlett, TX 75088

Re: **SALTY DOG SWD 1**
API: 30-045-29946
Unit B (NW/NE) Section 1, T29N, R15W
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

Ram

North L

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:
CCI San Juan LLC
1900 Dalroc Rd
Rowlett, TX 75088

9590 9402 7573 2098 4579 24

2. Article Number (Transfer from service label)
7022 2410 0003 1570 5100

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

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


DIRECTION
10 deg(T)
36.75980°N
108.36501°W
ACCURACY 4 m
DATUM WGS84
Hilcorp Energy Company
EMERGENCY NUMBER: 505-324-5170
SALTY DOG SWD #001
1200' FNL 1380' FEL
NW/NE SEC 01B T29N R15W
LATITUDE 36° .73113
LONGITUDE 108° .31002
LEASE # NMNM-10758
API #30-045-29946
SAN JUAN COUNTY, NEW MEXICO
HEARING PROTECTION
Salty Dog SWD #001
Placard
2024-07-23 09:05:13-06:00


DIRECTION
12 deg(T)
36.76022°N
108.36433°W
ACCURACY 4 m
DATUM WGS84
47BBL
Salty Dog SWD
#001
Tank Information
2024-07-23
09:28:37-06:00


DIRECTION
331 deg(T)
36.76015°N
108.36438°W
ACCURACY 4 m
DATUM WGS84
Salty Dog SWD
#001
Before Removal
2024-07-23
08:59:01-06:00


DIRECTION
240 deg(T)
36.76019°N
108.36440°W
ACCURACY 5 m
DATUM WGS84
Salty Dog SWD
#001
Pit Depth
2024-07-23
09:42:52-06:00


DIRECTION
204 deg(T)
36.76022°N
108.36441°W
ACCURACY 4 m
DATUM WGS84
Salty Dog SWD
#001
Sampling
2024-07-23
09:36:04-06:00


DIRECTION
321 deg(T)
36.76016°N
108.36439°W
ACCURACY 4 m
DATUM WGS84
Salty Dog SWD
#001
After Removal
2024-07-23
09:22:10-06:00

Priscilla Shorty

From: OCDOnline@state.nm.us
Sent: Thursday, October 31, 2024 2:49 PM
To: Mitch Killough
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has approved the application, Application ID: 396875

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#) nAPP2430352742,
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,
Scott Rodgers
Environmental Specialist - A
505-469-1830
scott.rodgers@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
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	
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 #
Contact mailing address 1111 Travis Street, Houston, Texas 77002	

Location of Release Source

Latitude 36.760096 Longitude -108.363714
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Salty Dog SWD 1	Site Type Well
Date Release Discovered: 10/28/2024 – *Date of Envirotech laboratory report*	API# 30-045-29946

Unit Letter	Section	Township	Range	County
B	01	29N	15W	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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ 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 11/18/2024) for additional information.

Per the memo attached, all future work on this project will be carried out in accordance with 19.15.29 NMAC. A Form C-141 was submitted to the NMOCD on 10/29/2024.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? This is a major release since soil delineation attempts proved that the total impacted soil volume exceeded 60 yards. The estimated spill volume is unknown.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Yes, immediate notice was provided to the NMOCD via an online C-141 submittal on 10/29/2024.

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: Mitch Killough Title: Environmental Specialist

Signature: _____ Date: 11/18/2024

email: mkillough@hilcorp.com Telephone: 713-757-5247

OCD Only

Received by: _____ Date: _____

Memorandum

To: New Mexico Oil Conservation Division (NMOCD)

From: Mitch Killough, Hilcorp Energy Company (Hilcorp)

Date: 11/18/2024

Subject: Salty Dog SWD 1 – Permanent Closure of a Below-Grade Tank (BGT)

On 7/18/2024, Hilcorp submitted a 72-hour notice prior to the permanent closure of a BGT at the Salty Dog SWD 1, San Juan County, New Mexico. As required by Condition 7 *(found in the Closure Plan, approved by the NMOCD on 5/15/2023)*, Hilcorp personnel proceeded to collect a 5-pt composite soil sample on 7/23/2024 to determine if any contaminant concentrations exceeded the BGT closure criteria thresholds, per Condition 7. Upon receiving analytical results on 7/31/2024, Hilcorp determined that total petroleum hydrocarbons (TPH) exceeded the BGT closure criteria thresholds shown in Condition 7 of the closure plan. Thus, indicating that a potential release occurred (refer to table below). In addition, TPH exceeded the Closure Criteria for Soils Impacted by a Release listed in Table I of 19.15.29.12 NMAC for groundwater depths (51 ft - 100 ft).

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)
Bottom Comp 7'	7/23/2024	<0.024	<0.047	<0.047	<0.095	<0.213	<60	<4.7	1700	11000	1700	12700
NMOCD BGT Closure Criteria		0.2	NE	NE	NE	50	250	NE	NE	NE	NE	100
Table I of 19.15.29.12 NMAC		10	NE	NE	NE	50	10,000	NE	NE	NE	1,000	2,500

Between August through October 2024, Hilcorp commenced soil delineation activities in order to determine the extent of impacted soils immediately adjacent and beneath the former BGT location. Upon receiving the latest analytical report (dated 10/28/2024), Hilcorp was able to determine the full extent of impacted soils and the total impacted soil volume. The estimated total impacted soil volume is 347 cubic yards. Note that while conducting soil delineation activities, Hilcorp proved that depth to groundwater was greater than 50 ft below ground surface. Additional supporting material can be made available upon request.

In light of the latest lab results, Hilcorp submitted a C-141 to notify the NMOCD of the results on 10/29/2024. The Incident ID is nAPP2430352742. All future work on this project will be carried out in accordance with 19.15.29 NMAC.

Enclosures: Table 1 – Soil Sample Analytical Results
Estimated Volume Tool
Notification of Release (dated 10/29/2024)
Initial Lab Report (dated 7/31/2024)

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

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Salty Dog SWD #1 BGT
Hilcorp Energy Company
San Juan County, New Mexico

Sample Identification	Date	Depth (feet bgs)	PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Closure Criteria for Soils Impacted by a Release			NE	**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**10,000**
Bottom Comp 7'	7/23/2024	7'	--	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	1,700	11,000	**1,700**	**12,700**	<60
PH01 @ 10'	8/8/2024	10'	0.1	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.8	<49	<9.8	<49	180
PH01 @ 12'	9/4/2024	12'	0.3	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	35	140	35	175	410
PH02 @ 4'	8/8/2024	4'	11.2	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	150	560	150	710	890
PH02 @ 7'	8/8/2024	7'	1.9	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	51	220	51	271	1,700
PH02 @ 10'	8/8/2024	10'	0.8	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	780	4,800	780	**5,580**	310
PH03 @ 4'	8/8/2024	4'	1.4	--	--	--	--	--	--	--	--	--	--	--
PH03 @ 7'	8/8/2024	7'	2.5	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	320	1,000	320	1,320	2,100
PH03 @ 10'	8/8/2024	10'	12.2	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	490	1,300	490	1,790	380
PH04 @ 4'	8/8/2024	4'	0.1	--	--	--	--	--	--	--	--	--	--	--
PH04 @ 7'	8/8/2024	7'	0.4	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	1,200	4,700	**1,200**	**5,900**	340
PH04 @ 10'	8/8/2024	10'	0.7	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	920	6,100	920	**7,020**	340
PH05 @ 9'	9/4/2024	9'	0.1	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.0	<45	<9.0	<45	1,400
PH05 @ 12'	9/4/2024	12'	0.7	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.9	<50	<9.9	<50	940
PH07 @ 6'	9/4/2024	6'	2.7	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	430	880	430	1,310	1,500
PH07 @ 12'	9/4/2024	12'	2.5	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	45	95	45	110	1,100
PH07 @ 15'	9/19/2024	15'	7.9	<0.025	<0.050	<0.050	<0.010	<0.010	<5.0	31	61	31	92	860
PH07 @ 18'	9/19/2024	18'	2.6	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.8	<49	<9.8	<49	780
PH08 @ 3'	9/4/2024	3'	1.3	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	18	<48	18	18	1,100
PH08 @ 6'	9/4/2024	6'	1.6	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.9	<50	<9.9	<50	790
PH08 @ 12'	9/4/2024	12'	0.7	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.5	<48	<9.5	<48	900
PH09 @ 3'	9/19/2024	3'	1.9	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	150	<490 D	150	150	500
PH09 @ 12'	9/19/2024	12'	2.4	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.9	<50	<9.9	<50	770
PH10 @ 3'	9/19/2024	3'	8.4	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	92	410	92	502	1,700
PH10 @ 12'	9/19/2024	12'	1.7	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.8	<49	<9.8	<49	1,600
PH11 @ 3'	9/19/2024	3'	3.3	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.9	<49	<9.9	<50	1,800
PH11 @ 6'	9/19/2024	6'	9.4	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.7	<48	<9.7	<48	2,100
PH11 @ 12'	9/19/2024	12'	2.2	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.8	<49	<9.8	<49	530
PH12 @ 6'	9/19/2024	6'	15.1	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<9.9	<50	<9.9	<50	1,800
PH12 @ 12'	9/19/2024	12'	0.4	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<10	<50	<10	<50	1,300
PH13 @ 6'	9/19/2024	6'	12.7	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.6	<48	<9.6	<48	790
PH13 @ 12'	9/19/2024	12'	1.7	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.9	<49	<9.9	<49	910
BH03 @ 20-21.5'	10/22/2024	20-21.5'	0.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	763
BH03 @ 25-26.5'	10/22/2024	25-26.5'	0.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	590

Notes:

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

ESTIMATED VOLUME TOOL
SALTY DOG SWD #1 BGT
HILCORP ENERGY COMPANY

This tool estimates the approximate volume of soil to be removed from an excavation based on dimensions and soil expansion factor.

EXCAVATION PARAMETERS	
Average TPH Concentration (7-10 ft bgs)	7800.00 *mg/kg*
Length (E-W)	26 *ft*
Width (N-S)	20 *ft*
Depth/Thickness	15 *ft*
Expansion Factor	20 *%*
Total Soil Volume	**347 *yds³***

ASSUMPTIONS

- Lateral delineation to the E, W, and N. Assume ~5 foot buffer between impacts and clean sample locations.
E-W: 5 ft beyond PH04 (E) TPH exceedance and clean sample PH05 to 5 ft beyond PH02 (E) TPH exceedance and clean sample PH07 (W) = **~26ft**
N-S: from the in place infrastructure/edge of containment berm (S) to 5 feet beyond TPH exceedance and within clean sample PH03 (N) = **~ 20ft**
- Vertically delineated by PH01 at 12 ft bgs proximal to source, PH08 (N) & PH05 (E) at 12 ft bgs, and PH07 (W) at 18ft bgs. = **~ 15 ft bgs**
- Onsite groundwater is deeper than 50 ft bgs per the BH02 boring log results.
- Chloride concentrations did not exceed applicable NMOCD Closure Criteria

NOTES

% - percent	ft - feet	kg - kilograms	mg - milligrams
N - north	S - south	E - east	W - west
bgs - below ground surface		TPH- Total Petroleum Hydrocarbons	
yds³- cubic yards			

Mitch Killough

From: OCDOnline@state.nm.us
Sent: Tuesday, October 29, 2024 2:39 PM
To: Mitch Killough
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has accepted the application, Application ID: 396872

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 accepted the submitted *Notification of a release* (NOR), for incident ID (n#) nAPP2430352742,
with the following conditions:

- **When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.**

Please reference nAPP2430352742, on all subsequent C-141 submissions and communications regarding the remediation of this release.
NOTE: As of December 2019, NMOCD has discontinued the use of the “RP” number.
If you have any questions regarding this application, or don't know why you have received this email, please contact us.

ocd.enviro@state.nm.us

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

Salty Dog SWD #001

JOB NUMBER

885-8503-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

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Authorized for release by
Michelle Garcia, Project Manager
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(505)345-3975

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Laboratory Job ID: 885-8503-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy Job ID: 885-8503-1
Project/Site: Salty Dog SWD #001

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Salty Dog SWD #001

Job ID: 885-8503-1

Job ID: 885-8503-1 Eurofins Albuquerque

Job Narrative
885-8503-1

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

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

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

Receipt
The sample was received on 7/24/2024 6:25 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C.

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

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

Diesel Range Organics
Method 8015D_DRO: The following sample required a dilution due to the nature of the sample matrix: Bottom Comp 7' (885-8503-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Job ID: 885-8503-1

Client Sample ID: Bottom Comp 7'

Date Collected: 07/23/24 09:40
Date Received: 07/24/24 06:25

Lab Sample ID: 885-8503-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/25/24 11:50	07/27/24 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/25/24 11:50*	*07/27/24 02:56*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/25/24 11:50	07/27/24 02:56	1
Ethylbenzene	ND		0.047		mg/Kg		07/25/24 11:50	07/27/24 02:56	1
Toluene	ND		0.047		mg/Kg		07/25/24 11:50	07/27/24 02:56	1
Xylenes, Total	ND		0.095		mg/Kg		07/25/24 11:50	07/27/24 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/25/24 11:50*	*07/27/24 02:56*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**1700**		920		mg/Kg		07/25/24 17:22	07/29/24 21:43	100
Motor Oil Range Organics [C28-C40]	**11000**		4600		mg/Kg		07/25/24 17:22	07/29/24 21:43	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*0*	*D S1-*	*62 - 134*	*07/25/24 17:22*	*07/29/24 21:43*	*100*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/26/24 08:31	07/26/24 15:57	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Job ID: 885-8503-1

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

Lab Sample ID: MB 885-9166/1-A
Matrix: Solid
Analysis Batch: 9320

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9166

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/25/24 11:50	07/26/24 18:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/25/24 11:50*	*07/26/24 18:13*	*1*

Lab Sample ID: LCS 885-9166/2-A
Matrix: Solid
Analysis Batch: 9320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9166

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.1		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*202*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-9166/1-A
Matrix: Solid
Analysis Batch: 9321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9166

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/25/24 11:50	07/26/24 18:13	1
Ethylbenzene	ND		0.050		mg/Kg		07/25/24 11:50	07/26/24 18:13	1
Toluene	ND		0.050		mg/Kg		07/25/24 11:50	07/26/24 18:13	1
Xylenes, Total	ND		0.10		mg/Kg		07/25/24 11:50	07/26/24 18:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/25/24 11:50*	*07/26/24 18:13*	*1*

Lab Sample ID: LCS 885-9166/3-A
Matrix: Solid
Analysis Batch: 9321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9166

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.900		mg/Kg		90	70 - 130		
Ethylbenzene			1.00	0.905		mg/Kg		91	70 - 130		
m&p-Xylene			2.00	1.80		mg/Kg		90	70 - 130		
o-Xylene			1.00	0.910		mg/Kg		91	70 - 130		
Toluene			1.00	0.894		mg/Kg		89	70 - 130		
Xylenes, Total			3.00	2.71		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Job ID: 885-8503-1

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

Lab Sample ID: MB 885-9219/1-A
Matrix: Solid
Analysis Batch: 9331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9219

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/25/24 17:22	07/29/24 20:53	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/25/24 17:22	07/29/24 20:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*122*		*62 - 134*	*07/25/24 17:22*	*07/29/24 20:53*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-9230/1-A
Matrix: Solid
Analysis Batch: 9280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9230

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/26/24 08:31	07/26/24 12:34	1

Lab Sample ID: LCS 885-9230/2-A
Matrix: Solid
Analysis Batch: 9280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9230

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	27.0		mg/Kg		90	90 - 110		

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Job ID: 885-8503-1

GC VOA

Prep Batch: 9166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	5030C	
MB 885-9166/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9166/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9166/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 9320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	8015M/D	9166
MB 885-9166/1-A	Method Blank	Total/NA	Solid	8015M/D	9166
LCS 885-9166/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9166

Analysis Batch: 9321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	8021B	9166
MB 885-9166/1-A	Method Blank	Total/NA	Solid	8021B	9166
LCS 885-9166/3-A	Lab Control Sample	Total/NA	Solid	8021B	9166

GC Semi VOA

Prep Batch: 9219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	SHAKE	
MB 885-9219/1-A	Method Blank	Total/NA	Solid	SHAKE	

Analysis Batch: 9331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	8015M/D	9219
MB 885-9219/1-A	Method Blank	Total/NA	Solid	8015M/D	9219

HPLC/IC

Prep Batch: 9230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	300_Prep	
MB 885-9230/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9230/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 9280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	300.0	9230
MB 885-9230/1-A	Method Blank	Total/NA	Solid	300.0	9230
LCS 885-9230/2-A	Lab Control Sample	Total/NA	Solid	300.0	9230

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Job ID: 885-8503-1

Client Sample ID: Bottom Comp 7'

Date Collected: 07/23/24 09:40
Date Received: 07/24/24 06:25

Lab Sample ID: 885-8503-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9166	JP	EET ALB	07/25/24 11:50
Total/NA	Analysis	8015M/D		1	9320	RA	EET ALB	07/27/24 02:56
Total/NA	Prep	5030C			9166	JP	EET ALB	07/25/24 11:50
Total/NA	Analysis	8021B		1	9321	RA	EET ALB	07/27/24 02:56
Total/NA	Prep	SHAKE			9219	DH	EET ALB	07/25/24 17:22
Total/NA	Analysis	8015M/D		100	9331	KR	EET ALB	07/29/24 21:43
Total/NA	Prep	300_Prep			9230	RC	EET ALB	07/26/24 08:31
Total/NA	Analysis	300.0		20	9280	RC	EET ALB	07/26/24 15:57

Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Job ID: 885-8503-1
Project/Site: Salty Dog SWD #001

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

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

Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record

Client: Hilcorp

Mailing Address:

Phone #:

email or Fax#: brandon.sinclair@hilcorp.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard (5day) ☐ Rush

Project Name: Salty Dog SWD #001

Project #:

Project Manager: Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☒ Yes ☐ No (Yogi)

# of Coolers: 1

Cooler Temp (including CF): 4.1 ± 0 = 4.1 (°C)

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

885-8503 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	(BTEX / MTBE / TMB's (8021))	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
7-23	940	soil	Bottom Comp 7'	4 oz jar	cool	1	✓	✓					✓								

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
7/23/24	1643				7/23/24	1613
7/23/24		Kristen Walters		Via: courier	7/24/24	6 25

Remarks:

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-8503-1

Login Number: 8503 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ENSOLUM

December 19, 2024

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

Re: **Site Summary Report**
Salty Dog SWD 1 BGT
San Juan County, New Mexico
Hilcorp Energy Company

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Site Summary Report* associated with a release discovered at the Salty Dog #1 SWD BGT natural gas production well pad (Site). The Site is located on private land in Unit B, Section 1, Township 29 North, Range 15 West in San Juan County, New Mexico.

SITE BACKGROUND

On July 23, 2024, Hilcorp began to decomission on-Site infrastructure which included a below grade tank (BGT). To satisfy BGT closure requirements per the Site closure plan submitted by Hilcorp on Form C-144 (dated May 15, 2023), one 5-point composite sample was collected from beneath the BGT following removal and analyzed for total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and xylenes (BTEX), and chloride. This sample (Bottom Comp 7') contained TPH concentrations exceeding all applicable closure criteria in *Table I Closure Criteria for Soils Beneath Below-Grade Tanks, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed* of Title 19, Chapter 15, Part 17 of the New Mexico Administrative Code (NMAC). As such, Hilcorp conducted a subsurface investigation at the Site to assess Site-specific depth to groundwater determination and delineate impacts discovered during the BGT closure sampling.

SITE CHARACTERIZATION

The Site is located on private land within the municipal boundaries of the Town of Kirtland, New Mexico. As part of the site characterization, local geology/hydrogeology and nearby sensitive receptors were assessed in accordance with Title 19, Chapter 15, Part 29, Sections 12 and 13 of the New Mexico Administrative Code (NMAC). This information is further discussed below.

GEOLOGY AND HYDROGEOLOGY

The geology underlying the Site is the Late Cretaceous Fruitland Formation-Kirtland Shale. These two formations are difficult to distinguish and are often treated as a single unit (Stone, et. al., 1983). The Fruitland Formation consists of interbedded sandy shale, carbonaceous shale, clayey sandstone, coal, and sandstone." The Kirtland Shale is characterized by a lower shale member, a middle sandstone member, and an upper shale member. These combined units' thickness ranges from 100 feet to 2,000

feet. Water bearing units within the Fruitland Formation-Kirtland Shale are largely untested and display variable hydrologic properties dependent on location (Stone, et. al., 1983). These formations contain the main coal reserves within the San Juan Basin. The primary aquifer within these formations typically yields small quantities of water and is not widely used for domestic and/or livestock supply. The Fruitland Formation-Kirtland Shale is underlain by the Pictured Cliffs Formation.

POTENTIAL SENSITIVE RECEPTORS

Potential nearby receptors were assessed through desktop reviews of United States Geological Survey (USGS) topographic maps, Federal Emergency Management Administration (FEMA) Geographic Information System (GIS) maps, New Mexico Office of the State Engineer (NMOSE) database, aerial photographs, and site-specific observations.

The nearest significant watercourse to the Site is Stevens Arroyo located approximately 0.5 miles northwest of the Site. The depth of groundwater was established with a dry boring advanced to 51.5 feet below ground surface (bgs) at the Site. This boring indicates that the shallowest groundwater is greater than 50 feet bgs in this area. The Site is greater than 200 feet from any lakebed, sinkhole, or playa lake, and greater than 300 feet from any wetland. Of note, three former evaporation ponds and two raw water ponds associated with the adjacent San Juan River Gas Plant were located just north of the Site. It is understood that these ponds were removed in the 1990s and are not classified as surface water bodies and/or wetlands.

No wellhead protection areas, springs, or domestic/stock wells are located within a ½-mile from the Site. The Site is not within a 100-year floodplain, overlying a subsurface mine, or located within an area underlain by unstable geology (area not designated as high potential karst by the Bureau of Land Management). Schools, hospitals, institutions, churches, and/or other occupied permanent residence or structures are not located within 300 feet of the Site. A Site receptor map is shown on Figure 1.

SITE CLOSURE CRITERIA

Based on the information presented above and in accordance with the *Table I, Closure Criteria for Soils Impacted by a Release* (19.15.29.12 NMAC), the following contaminants of concern (COC) and closure criteria should be applied to the Site. Because the Site is located within the Town of Kirtland, New Mexico municipal boundaries, the closure criteria listed below are contingent on the approval from the Town of Kirtland.

- Chloride: 10,000 milligrams per kilogram (mg/kg)
- Total Petroleum Hydrocarbons (TPH) as a combination of gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO): 2,500 mg/kg
- A combination of GRO and DRO: 1,000 mg/kg
- A combination of benzene, toluene, ethylbenzene, and xylenes (BTEX): 50 mg/kg
- Benzene: 10 mg/kg

SITE INVESTIGATION ACTIVITIES

To investigate potential impacts, Hilcorp retained Ensolum to perform delineation activities at the Site. On August 8, 2024, initial investigation efforts were performed utilizing a backhoe to advance four potholes (PH01 through PH04) in close proximity to the former BGT location (Figure 2). Soil was field screened during the delineation effort and at least two samples from each pothole were collected for laboratory analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B, TPH following EPA Method 8015M/D, and chloride following EPA Method 300.

Based on elevated TPH results detected during the initial effort, eight additional potholes (PH05 through PH13) were advanced on September 4 and September 19, 2024. These potholes were advanced using an excavator to depths up to the maximum reach of the equipment of 18 feet bgs. During the investigation, an Ensolum geologist assessed the soil for petroleum hydrocarbon staining and odors. Soil samples were field screened for the presence of organic vapors using a calibrated photoionization detector (PID) and chloride concentrations with Hach® chloride test strips. Based on field screening results, at least two soil samples were collected from each pothole directly into laboratory-provided jars and immediately placed on ice. Soil samples were collected from depth intervals indicating the greatest impacts based on field screening results and from the terminal depth of the boring. Samples were submitted for laboratory analysis of BTEX, TPH, and chloride using the methods described above. Based on analytical results, all analyzed samples from potholes PH05 through PH13 were in compliance with the NMOCD Table I Closure Criteria for Site COCs.

In addition, four hand auger locations (HA01 through HA04) were advanced up to 4 feet bgs on November 21, 2024 in attempts to laterally delineate COCs for the Reclamation Requirement of 100 mg/kg of TPH and 600 mg/kg of chloride (19.15.29.13(D)(1) NMAC). During hand auguring activities, an Ensolum geologist field screened using a PID and chloride test strips as described above. Soil samples were collected from depth intervals indicating the greatest impacts based on field screening results and from the terminal depth of the boring. Soil samples were collected directly into laboratory-provided jars and immediately placed on ice. Samples were submitted laboratory analysis of TPH, BTEX, and chloride. Detected chloride concentrations at HA01, HA02, HA03, and HA04 were above the Reclamation Requirement in all locations but below NMOCD Table I Closure Criteria.

Laboratory analytical results from delineation activities are summarized in Table 1 and on Figure 2. Complete laboratory analytical reports are attached as Appendix A. Photographs taken during delineation activities are included in Appendix B.

DRILLING AND DEPTH TO WATER DETERMINATION

Based on the initial field screening and pothole sample results, drilling was required to determine depth to water at the Site and confirm delineation results near the former BGT. Drilling activities took place between October 21 to October 23, 2024 utilizing a hollow-stem auger drill rig operated by Enviro-Drill, Inc. A total of three borings (BH01 through BH03) were advanced to depths between 26 feet and 51 feet bgs. BH01 encountered shallow refusal at 26.5 feet bgs and was subsequently not sampled. BH02 was advanced to assess depth to groundwater and was advanced to 51.5 feet bgs. Lastly, boring BH03 was advanced through the previously excavated BGT footprint to vertically delineate soil impacts at pothole PH01. Soil samples were collected from 20 to 21.5 feet bgs and 26 to 26.5 feet bgs for laboratory analysis.

During drilling, an Ensolum geologist logged lithology and field screened in the manner described above. Soil samples were collected from depth intervals indicating the greatest impacts based on field screening results and from the terminal depth of boring BH03. Soil samples were collected directly into laboratory-provided jars and immediately placed on ice. Samples were also submitted for laboratory analysis of TPH, BTEX, and chloride. Concentrations of these constituents did not exceed the NMOCD Table I Closure Criteria and confirms vertical delineation at the Site.

Boring BH02 was advanced to 51.5 feet bgs and the boring was left open for approximately 72 hours to allow for any potential groundwater present to recharge into the open hole. Ensolum revisited the Site on October 24 and confirmed that no groundwater had accumulated within the noted timeframe using an oil/water interface probe. As such, groundwater was confirmed to be deeper than 51.5 bgs at the Site. Pothole, boring, and hand auger locations are presented in Figure 2 and analytical results are summarized in Table 1. Field boring logs and drillers logs are attached as Appendix C.

Based on the activities and analytical results described above, impacted soil resulting from the historical impacts identified during BGT removal have been laterally and vertically delineated.

REFERENCES

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

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

Sincerely,

Ensolum, LLC

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Project Geologist
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Senior Managing Geologist
(970) 903-1607
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Attachments:

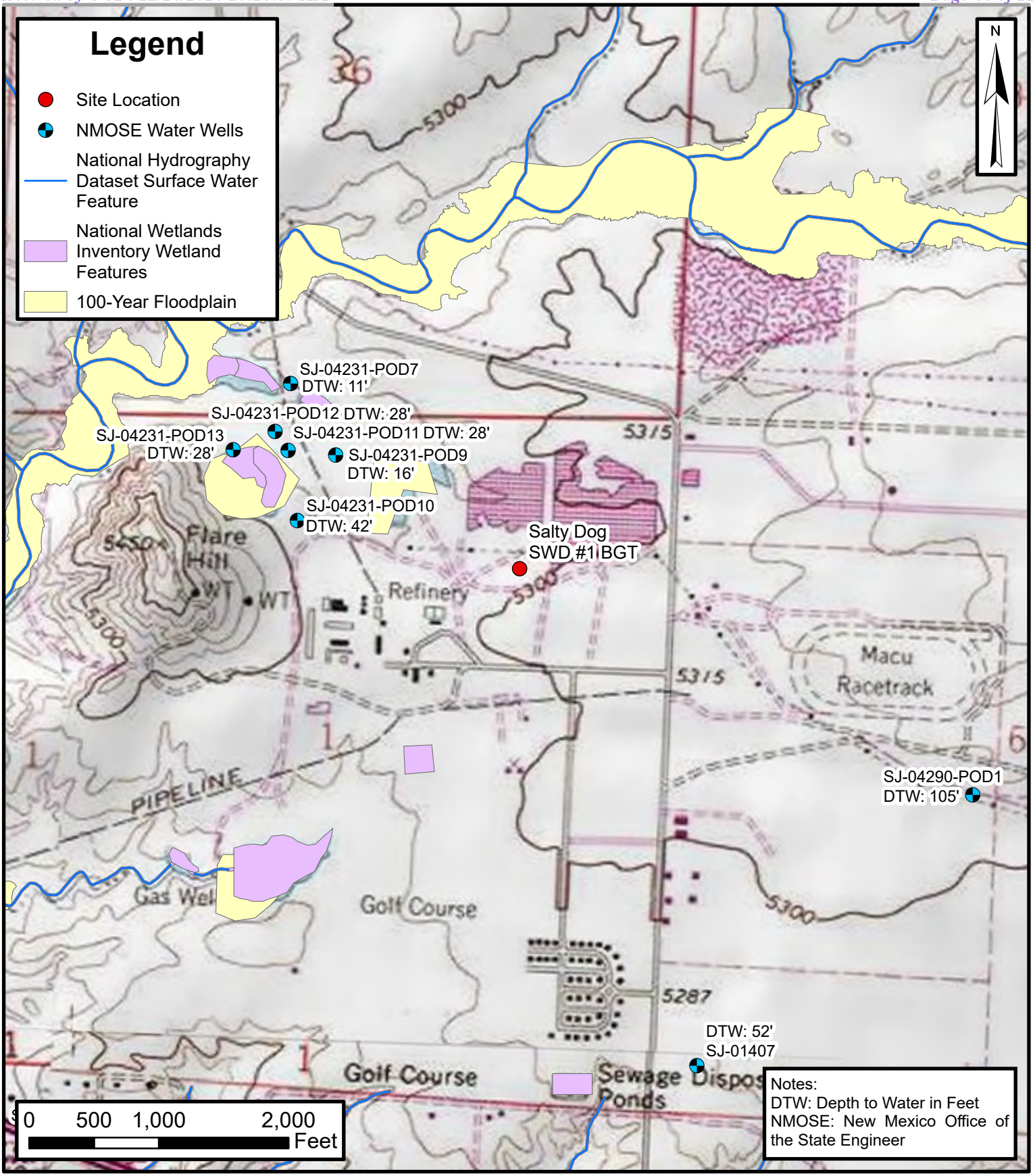
Figure 1: Site Location Map
Figure 2: Soil Sample Analytical Results

Table 1: Soil Sample Analytical Results

Appendix A: Laboratory Analytical Reports
Appendix B: Photographic Log
Appendix C: Field Boring Logs and Drilling Reports

ENSOLUM

FIGURES



Default Folder: C:\Users\Greg Pates\OneDrive - ENSOLUM, LLC\Desktop\Ensolum GIS\Ensolum GIS\1 - Durango\Hilcorp\Salty Dog SWD #1

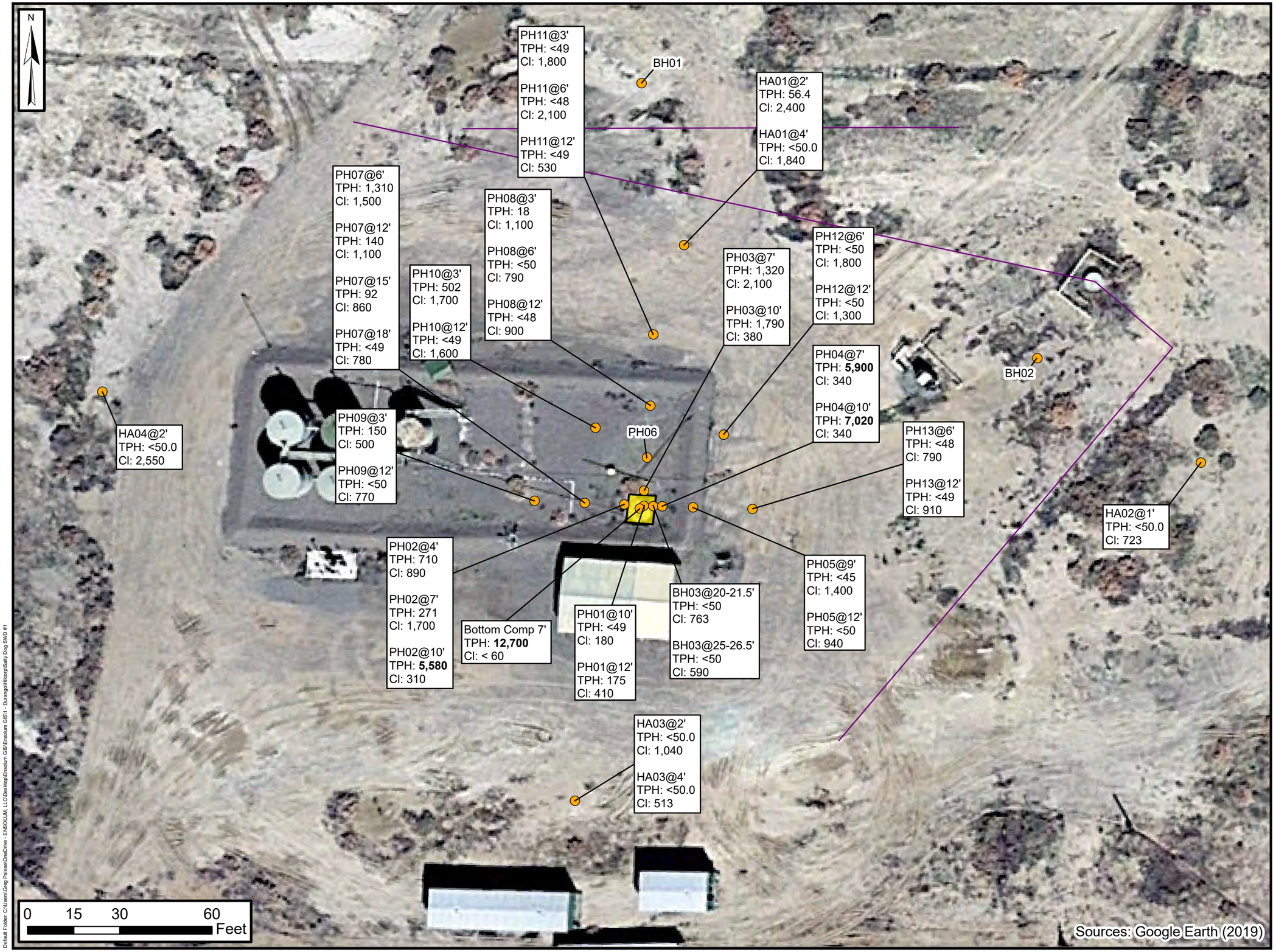
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Location Map

Salty Dog SWD 1 BGT
Hilcorp Energy Company

36.760242, -108.364499
San Juan County, New Mexico

FIGURE
1



Legend

- Sample Location
- Pipeline Line Utility
- Bellow Grade Tank Cellar

Notes:
TPH: Total Petroleum Hydrocarbons milligrams per kilogram (mg/kg)
Cl: Chloride (mg/kg)
< : Indicates Result is below Laboratory Reporting Limit
Bold: Indicates Results Exceed NMOCD Closure Criteria
NMOCD: New Mexico Oil Conservation Division

Soil Sample Analytical Results

Salty Dog SWD 1 BGT
Hilcorp Energy Company

36.760242, -108.364499
San Juan County, New Mexico

Figure 2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Salty Dog SWD 1 BGT
Hilcorp Energy Company
San Juan County, New Mexico

Sample Identification	Date	Depth (feet bgs)	PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Closure Criteria for Soils Impacted by a Release			NE	**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**10,000**
Bottom Comp 7'	7/23/2024	7'	--	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	1,700	11,000	**1,700**	**12,700**	<60
PH01 @ 10'	8/8/2024	10'	0.1	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.8	<49	<9.8	<49	180
PH01 @ 12'	9/4/2024	12'	0.3	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	35	140	35	175	410
PH02 @ 4'	8/8/2024	4'	11.2	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	150	560	150	710	890
PH02 @ 7'	8/8/2024	7'	1.9	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	51	220	51	271	1,700 F2
PH02 @ 10'	8/8/2024	10'	0.8	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	780	4,800	780	**5,580**	310
PH03 @ 4'	8/8/2024	4'	1.4	--	--	--	--	--	--	--	--	--	--	--
PH03 @ 7'	8/8/2024	7'	2.5	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	320	1,000	320	1,320	2,100
PH03 @ 10'	8/8/2024	10'	12.2	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	490	1,300	490	1,790	380
PH04 @ 4'	8/8/2024	4'	0.1	--	--	--	--	--	--	--	--	--	--	--
PH04 @ 7'	8/8/2024	7'	0.4	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	1,200	4,700	**1,200**	**5,900**	340
PH04 @ 10'	8/8/2024	10'	0.7	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	920	6,100	920	**7,020**	340
PH05 @ 9'	9/4/2024	9'	0.1	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.0	<45	<9.0	<45	1,400
PH05 @ 12'	9/4/2024	12'	0.7	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.9	<50	<9.9	<50	940
PH07 @ 6'	9/4/2024	6'	2.7	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	430	880	430	1,310	1,500
PH07 @ 12'	9/4/2024	12'	2.5	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	45	95	45	140	1,100
PH07 @ 15'	9/19/2024	15'	7.9	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	31	61	31	92	860
PH07 @ 18'	9/19/2024	18'	2.6	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.8	<49	<9.8	<49	780
PH08 @ 3'	9/4/2024	3'	1.3	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	18	<48	18	18	1,100
PH08 @ 6'	9/4/2024	6'	1.6	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.9	<50	<9.9	<50	790
PH08 @ 12'	9/4/2024	12'	0.7	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.5	<48	<9.5	<48	900
PH09 @ 3'	9/19/2024	3'	1.9	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	150	<490 D	150	150	500
PH09 @ 12'	9/19/2024	12'	2.4	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.9	<50	<9.9	<50	770
PH10 @ 3'	9/19/2024	3'	8.4	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	92	410	92	502	1,700
PH10 @ 12'	9/19/2024	12'	1.7	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.8	<49	<9.8	<49	1,600
PH11 @ 3'	9/19/2024	3'	3.3	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.9	<49	<9.9	<49	1,800 F1
PH11 @ 6'	9/19/2024	6'	9.4	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.7	<48	<9.7	<48	2,100
PH11 @ 12'	9/19/2024	12'	2.2	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.8	<49	<9.8	<49	530
PH12 @ 6'	9/19/2024	6'	15.1	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<9.9	<50	<9.9	<50	1,800
PH12 @ 12'	9/19/2024	12'	0.4	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<10	<50	<10	<50	1,300
PH13 @ 6'	9/19/2024	6'	12.7	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.6	<48	<9.6	<48	790
PH13 @ 12'	9/19/2024	12'	1.7	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.9	<49	<9.9	<49	910
BH03 @ 20-21.5'	10/22/2024	20-21.5'	0.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	763
BH03 @ 25-26.5'	10/22/2024	25-26.5'	0.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	590
HA01 @ 2'	11/21/2024	2'	1.5	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	56.4	<25.0	56.4	2,400
HA01 @ 4'	11/21/2024	4'	1.2	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	1,840
HA02 @1'	11/21/2024	1'	1.1	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	723
HA03 @ 2'	11/21/2024	2'	2.7	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	1,040
HA03 @ 4'	11/21/2024	4'	3.4	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	513
HA04 @ 2'	11/21/2024	2'	2.9	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	2,550

Notes:

bgs: Below ground surface
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
F1: MS and/or MSD recovery exceeds control limits
F2: MS/MSD RPD exceeds control limits
mg/kg: Milligrams per kilogram
NE: Not Established
NMOCD: New Mexico Oil Conservation Division
PID: Photoionization detector
ppm: Parts per million
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
MRO: Motor Oil/Lube Oil Range Organics
TPH: Total Petroleum Hydrocarbon
': Feet
< : Indicates result less than the stated laboratory reporting limit (RL)
*Concentrations in **bold** and shaded exceed the New Mexico Oil Conservation Division Table I Closure Criteria for Soils Impacted by a Release*

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APPENDIX A

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 7/31/2024 2:39:06 PM

JOB DESCRIPTION

Salty Dog SWD #001

JOB NUMBER

885-8503-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

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7/31/2024 2:39:06 PM

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

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Laboratory Job ID: 885-8503-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy Job ID: 885-8503-1
Project/Site: Salty Dog SWD #001

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Salty Dog SWD #001

Job ID: 885-8503-1

Job ID: 885-8503-1 Eurofins Albuquerque

Job Narrative
885-8503-1

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

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

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

Receipt
The sample was received on 7/24/2024 6:25 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C.

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

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

Diesel Range Organics
Method 8015D_DRO: The following sample required a dilution due to the nature of the sample matrix: Bottom Comp 7' (885-8503-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Job ID: 885-8503-1

Client Sample ID: Bottom Comp 7'

Date Collected: 07/23/24 09:40
Date Received: 07/24/24 06:25

Lab Sample ID: 885-8503-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		07/25/24 11:50	07/27/24 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*07/25/24 11:50*	*07/27/24 02:56*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		07/25/24 11:50	07/27/24 02:56	1
Ethylbenzene	ND		0.047		mg/Kg		07/25/24 11:50	07/27/24 02:56	1
Toluene	ND		0.047		mg/Kg		07/25/24 11:50	07/27/24 02:56	1
Xylenes, Total	ND		0.095		mg/Kg		07/25/24 11:50	07/27/24 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*07/25/24 11:50*	*07/27/24 02:56*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**1700**		920		mg/Kg		07/25/24 17:22	07/29/24 21:43	100
Motor Oil Range Organics [C28-C40]	**11000**		4600		mg/Kg		07/25/24 17:22	07/29/24 21:43	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*0*	*D S1-*	*62 - 134*	*07/25/24 17:22*	*07/29/24 21:43*	*100*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		07/26/24 08:31	07/26/24 15:57	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Job ID: 885-8503-1

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

Lab Sample ID: MB 885-9166/1-A
Matrix: Solid
Analysis Batch: 9320

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9166

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		07/25/24 11:50	07/26/24 18:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*35 - 166*	*07/25/24 11:50*	*07/26/24 18:13*	*1*

Lab Sample ID: LCS 885-9166/2-A
Matrix: Solid
Analysis Batch: 9320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9166

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	21.1		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*202*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-9166/1-A
Matrix: Solid
Analysis Batch: 9321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9166

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		07/25/24 11:50	07/26/24 18:13	1
Ethylbenzene	ND		0.050		mg/Kg		07/25/24 11:50	07/26/24 18:13	1
Toluene	ND		0.050		mg/Kg		07/25/24 11:50	07/26/24 18:13	1
Xylenes, Total	ND		0.10		mg/Kg		07/25/24 11:50	07/26/24 18:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*07/25/24 11:50*	*07/26/24 18:13*	*1*

Lab Sample ID: LCS 885-9166/3-A
Matrix: Solid
Analysis Batch: 9321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9166

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.900		mg/Kg		90	70 - 130		
Ethylbenzene			1.00	0.905		mg/Kg		91	70 - 130		
m&p-Xylene			2.00	1.80		mg/Kg		90	70 - 130		
o-Xylene			1.00	0.910		mg/Kg		91	70 - 130		
Toluene			1.00	0.894		mg/Kg		89	70 - 130		
Xylenes, Total			3.00	2.71		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Job ID: 885-8503-1

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

Lab Sample ID: MB 885-9219/1-A
Matrix: Solid
Analysis Batch: 9331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9219

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		07/25/24 17:22	07/29/24 20:53	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		07/25/24 17:22	07/29/24 20:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*122*		*62 - 134*	*07/25/24 17:22*	*07/29/24 20:53*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-9230/1-A
Matrix: Solid
Analysis Batch: 9280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9230

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		07/26/24 08:31	07/26/24 12:34	1

Lab Sample ID: LCS 885-9230/2-A
Matrix: Solid
Analysis Batch: 9280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9230

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	27.0		mg/Kg		90	90 - 110		

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Job ID: 885-8503-1

GC VOA

Prep Batch: 9166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	5030C	
MB 885-9166/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-9166/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-9166/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 9320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	8015M/D	9166
MB 885-9166/1-A	Method Blank	Total/NA	Solid	8015M/D	9166
LCS 885-9166/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	9166

Analysis Batch: 9321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	8021B	9166
MB 885-9166/1-A	Method Blank	Total/NA	Solid	8021B	9166
LCS 885-9166/3-A	Lab Control Sample	Total/NA	Solid	8021B	9166

GC Semi VOA

Prep Batch: 9219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	SHAKE	
MB 885-9219/1-A	Method Blank	Total/NA	Solid	SHAKE	

Analysis Batch: 9331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	8015M/D	9219
MB 885-9219/1-A	Method Blank	Total/NA	Solid	8015M/D	9219

HPLC/IC

Prep Batch: 9230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	300_Prep	
MB 885-9230/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-9230/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 9280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-8503-1	Bottom Comp 7'	Total/NA	Solid	300.0	9230
MB 885-9230/1-A	Method Blank	Total/NA	Solid	300.0	9230
LCS 885-9230/2-A	Lab Control Sample	Total/NA	Solid	300.0	9230

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #001

Job ID: 885-8503-1

Client Sample ID: Bottom Comp 7'

Lab Sample ID: 885-8503-1

Date Collected: 07/23/24 09:40

Matrix: Solid

Date Received: 07/24/24 06:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			9166	JP	EET ALB	07/25/24 11:50
Total/NA	Analysis	8015M/D		1	9320	RA	EET ALB	07/27/24 02:56
Total/NA	Prep	5030C			9166	JP	EET ALB	07/25/24 11:50
Total/NA	Analysis	8021B		1	9321	RA	EET ALB	07/27/24 02:56
Total/NA	Prep	SHAKE			9219	DH	EET ALB	07/25/24 17:22
Total/NA	Analysis	8015M/D		100	9331	KR	EET ALB	07/29/24 21:43
Total/NA	Prep	300_Prep			9230	RC	EET ALB	07/26/24 08:31
Total/NA	Analysis	300.0		20	9280	RC	EET ALB	07/26/24 15:57

Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Job ID: 885-8503-1
Project/Site: Salty Dog SWD #001

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

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

Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record

Client: Hilcorp

Mailing Address:

Phone #:

email or Fax#: brandon.sinclair@hilcorp.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard (5day) ☐ Rush

Project Name: Salty Dog SWD #001

Project #:

Project Manager: Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☒ Yes ☐ No (Yogi)

# of Coolers: 1

Cooler Temp (including CF): 4.1 ± 0 = 4.1 (°C)

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

885-8503 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
7-23	940	soil	Bottom Comp 7'	4 oz jar	cool	1	✓	✓					✓									

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
7/23/24	1643				7/23/24	1613
7/23/24				Via: courier	7/24/24	6 25

Remarks:

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-8503-1

Login Number: 8503 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 8/31/2024 10:03:08 PM

JOB DESCRIPTION

Salty Dog SWD

JOB NUMBER

885-9544-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

Generated
8/31/2024 10:03:08 PM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
Designee for
Michelle Garcia, Project Manager
michelle.garcia@et.eurofinsus.com
(505)345-3975

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Laboratory Job ID: 885-9544-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Salty Dog SWD

Job ID: 885-9544-1

Job ID: 885-9544-1 Eurofins Albuquerque

Job Narrative
885-9544-1

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

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

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

Receipt
The samples were received on 8/9/2024 6:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C.

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

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

Diesel Range Organics
Method 8015D_DRO: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 885-10121 and analytical batch 885-10172 recovered outside control limits for the following analytes: Diesel Range Organics [C10-C28]. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8015D_DRO: The following samples were diluted due to the nature of the sample matrix PH02@10' (885-9544-4) and PH04@10' (885-9544-10). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method 8015D_DRO: The following samples required a dilution due to the nature of the sample matrix: PH02@4' (885-9544-2), PH03@7' (885-9544-6), PH03@10' (885-9544-7) and PH04@7' (885-9544-9). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH01@10'

Date Collected: 08/08/24 14:15
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		08/12/24 10:39	08/13/24 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*08/12/24 10:39*	*08/13/24 20:49*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/12/24 10:39	08/13/24 20:49	1
Ethylbenzene	ND		0.050		mg/Kg		08/12/24 10:39	08/13/24 20:49	1
Toluene	ND		0.050		mg/Kg		08/12/24 10:39	08/13/24 20:49	1
Xylenes, Total	ND		0.099		mg/Kg		08/12/24 10:39	08/13/24 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*08/12/24 10:39*	*08/13/24 20:49*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.8		mg/Kg		08/12/24 15:45	08/13/24 12:29	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		08/12/24 15:45	08/13/24 12:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*08/12/24 15:45*	*08/13/24 12:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		08/12/24 17:05	08/13/24 16:42	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH02@4'

Date Collected: 08/08/24 14:25
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		08/12/24 10:39	08/13/24 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*08/12/24 10:39*	*08/13/24 21:59*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/12/24 10:39	08/13/24 21:59	1
Ethylbenzene	ND		0.050		mg/Kg		08/12/24 10:39	08/13/24 21:59	1
Toluene	ND		0.050		mg/Kg		08/12/24 10:39	08/13/24 21:59	1
Xylenes, Total	ND		0.10		mg/Kg		08/12/24 10:39	08/13/24 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*08/12/24 10:39*	*08/13/24 21:59*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**150**		94		mg/Kg		08/19/24 14:25	08/20/24 10:27	10
Motor Oil Range Organics [C28-C40]	**560**		470		mg/Kg		08/19/24 14:25	08/20/24 10:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*0*	*S1- D*	*62 - 134*	*08/19/24 14:25*	*08/20/24 10:27*	*10*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**890**		60		mg/Kg		08/12/24 17:05	08/13/24 16:58	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH02@7'

Date Collected: 08/08/24 15:10
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		08/12/24 10:39	08/13/24 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*08/12/24 10:39*	*08/13/24 23:10*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/12/24 10:39	08/13/24 23:10	1
Ethylbenzene	ND		0.048		mg/Kg		08/12/24 10:39	08/13/24 23:10	1
Toluene	ND		0.048		mg/Kg		08/12/24 10:39	08/13/24 23:10	1
Xylenes, Total	ND		0.096		mg/Kg		08/12/24 10:39	08/13/24 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*08/12/24 10:39*	*08/13/24 23:10*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**51**		9.7		mg/Kg		08/20/24 12:52	08/21/24 13:57	1
Motor Oil Range Organics [C28-C40]	**220**		48		mg/Kg		08/20/24 12:52	08/21/24 13:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*08/20/24 12:52*	*08/21/24 13:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1700**	**F2**	60		mg/Kg		08/12/24 17:05	08/13/24 17:13	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH02@10'

Date Collected: 08/08/24 14:35
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		08/12/24 10:39	08/13/24 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*08/12/24 10:39*	*08/13/24 23:33*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/12/24 10:39	08/13/24 23:33	1
Ethylbenzene	ND		0.050		mg/Kg		08/12/24 10:39	08/13/24 23:33	1
Toluene	ND		0.050		mg/Kg		08/12/24 10:39	08/13/24 23:33	1
Xylenes, Total	ND		0.099		mg/Kg		08/12/24 10:39	08/13/24 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*08/12/24 10:39*	*08/13/24 23:33*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**780**		190		mg/Kg		08/16/24 12:02	08/16/24 18:00	20
Motor Oil Range Organics [C28-C40]	**4800**		970		mg/Kg		08/16/24 12:02	08/16/24 18:00	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*0*	*S1- D*	*62 - 134*	*08/16/24 12:02*	*08/16/24 18:00*	*20*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**310**		60		mg/Kg		08/12/24 17:05	08/13/24 17:58	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH03@7'

Date Collected: 08/08/24 14:45
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-6

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		08/12/24 10:39	08/13/24 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*08/12/24 10:39*	*08/13/24 23:57*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/12/24 10:39	08/13/24 23:57	1
Ethylbenzene	ND		0.049		mg/Kg		08/12/24 10:39	08/13/24 23:57	1
Toluene	ND		0.049		mg/Kg		08/12/24 10:39	08/13/24 23:57	1
Xylenes, Total	ND		0.097		mg/Kg		08/12/24 10:39	08/13/24 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*08/12/24 10:39*	*08/13/24 23:57*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**320**		190		mg/Kg		08/16/24 12:02	08/20/24 13:00	20
Motor Oil Range Organics [C28-C40]	**1000**		970		mg/Kg		08/16/24 12:02	08/20/24 13:00	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*0*	*D S1-*	*62 - 134*	*08/16/24 12:02*	*08/20/24 13:00*	*20*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2100**		150		mg/Kg		08/12/24 17:05	08/14/24 11:04	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH03@10'

Date Collected: 08/08/24 14:48
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-7

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		08/12/24 10:39	08/14/24 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*08/12/24 10:39*	*08/14/24 00:20*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/12/24 10:39	08/14/24 00:20	1
Ethylbenzene	ND		0.048		mg/Kg		08/12/24 10:39	08/14/24 00:20	1
Toluene	ND		0.048		mg/Kg		08/12/24 10:39	08/14/24 00:20	1
Xylenes, Total	ND		0.097		mg/Kg		08/12/24 10:39	08/14/24 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*08/12/24 10:39*	*08/14/24 00:20*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**490**		200		mg/Kg		08/16/24 12:02	08/20/24 13:30	20
Motor Oil Range Organics [C28-C40]	**1300**		990		mg/Kg		08/16/24 12:02	08/20/24 13:30	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*0*	*D S1-*	*62 - 134*	*08/16/24 12:02*	*08/20/24 13:30*	*20*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**380**		60		mg/Kg		08/12/24 17:05	08/13/24 19:29	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH04@7'

Date Collected: 08/08/24 14:55
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-9

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		08/12/24 10:39	08/14/24 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*08/12/24 10:39*	*08/14/24 00:43*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		08/12/24 10:39	08/14/24 00:43	1
Ethylbenzene	ND		0.048		mg/Kg		08/12/24 10:39	08/14/24 00:43	1
Toluene	ND		0.048		mg/Kg		08/12/24 10:39	08/14/24 00:43	1
Xylenes, Total	ND		0.096		mg/Kg		08/12/24 10:39	08/14/24 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*	*08/12/24 10:39*	*08/14/24 00:43*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**1200**		190		mg/Kg		08/16/24 12:02	08/20/24 14:01	20
Motor Oil Range Organics [C28-C40]	**4700**		970		mg/Kg		08/16/24 12:02	08/20/24 14:01	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*0*	*D S1-*	*62 - 134*	*08/16/24 12:02*	*08/20/24 14:01*	*20*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**340**		60		mg/Kg		08/12/24 17:05	08/13/24 19:44	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH04@10'

Date Collected: 08/08/24 15:00
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-10

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		08/12/24 10:39	08/14/24 01:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*08/12/24 10:39*	*08/14/24 01:07*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/12/24 10:39	08/14/24 01:07	1
Ethylbenzene	ND		0.049		mg/Kg		08/12/24 10:39	08/14/24 01:07	1
Toluene	ND		0.049		mg/Kg		08/12/24 10:39	08/14/24 01:07	1
Xylenes, Total	ND		0.098		mg/Kg		08/12/24 10:39	08/14/24 01:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*08/12/24 10:39*	*08/14/24 01:07*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**920**		190		mg/Kg		08/16/24 12:02	08/16/24 19:31	20
Motor Oil Range Organics [C28-C40]	**6100**		970		mg/Kg		08/16/24 12:02	08/16/24 19:31	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*0*	*S1- D*	*62 - 134*	*08/16/24 12:02*	*08/16/24 19:31*	*20*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**340**		60		mg/Kg		08/12/24 17:05	08/13/24 19:59	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

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

Lab Sample ID: MB 885-10075/1-A
Matrix: Solid
Analysis Batch: 10255

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10075

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		08/12/24 10:39	08/13/24 19:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*08/12/24 10:39*	*08/13/24 19:39*	*1*

Lab Sample ID: LCS 885-10075/2-A
Matrix: Solid
Analysis Batch: 10255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10075

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.0		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*207*		*35 - 166*

Lab Sample ID: 885-9544-1 MS
Matrix: Solid
Analysis Batch: 10255

Client Sample ID: PH01@10'
Prep Type: Total/NA
Prep Batch: 10075

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.9	25.7		mg/Kg		103	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*215*		*35 - 166*

Lab Sample ID: 885-9544-1 MSD
Matrix: Solid
Analysis Batch: 10255

Client Sample ID: PH01@10'
Prep Type: Total/NA
Prep Batch: 10075

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.9	24.1		mg/Kg		97	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*206*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-10075/1-A
Matrix: Solid
Analysis Batch: 10256

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10075

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		08/12/24 10:39	08/13/24 19:39	1
Ethylbenzene	ND		0.050		mg/Kg		08/12/24 10:39	08/13/24 19:39	1
Toluene	ND		0.050		mg/Kg		08/12/24 10:39	08/13/24 19:39	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

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

Lab Sample ID: MB 885-10075/1-A
Matrix: Solid
Analysis Batch: 10256

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10075

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		08/12/24 10:39	08/13/24 19:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*08/12/24 10:39*	*08/13/24 19:39*	*1*

Lab Sample ID: LCS 885-10075/3-A
Matrix: Solid
Analysis Batch: 10256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10075

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.841		mg/Kg		84	70 - 130		
Ethylbenzene			1.00	0.783		mg/Kg		78	70 - 130		
m&p-Xylene			2.00	1.56		mg/Kg		78	70 - 130		
o-Xylene			1.00	0.752		mg/Kg		75	70 - 130		
Toluene			1.00	0.791		mg/Kg		79	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*

Lab Sample ID: 885-9544-2 MS
Matrix: Solid
Analysis Batch: 10256

Client Sample ID: PH02@4'
Prep Type: Total/NA
Prep Batch: 10075

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		1.00	0.876		mg/Kg		88	70 - 130		
Ethylbenzene	ND		1.00	0.829		mg/Kg		83	70 - 130		
m&p-Xylene	ND		2.00	1.65		mg/Kg		81	70 - 130		
o-Xylene	ND		1.00	0.790		mg/Kg		79	70 - 130		
Toluene	ND		1.00	0.839		mg/Kg		83	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*

Lab Sample ID: 885-9544-2 MSD
Matrix: Solid
Analysis Batch: 10256

Client Sample ID: PH02@4'
Prep Type: Total/NA
Prep Batch: 10075

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.999	0.892		mg/Kg		89	70 - 130	2	20
Ethylbenzene	ND		0.999	0.844		mg/Kg		84	70 - 130	2	20
m&p-Xylene	ND		2.00	1.68		mg/Kg		83	70 - 130	1	20
o-Xylene	ND		0.999	0.810		mg/Kg		81	70 - 130	3	20
Toluene	ND		0.999	0.852		mg/Kg		84	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

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

Lab Sample ID: MB 885-10121/1-A
Matrix: Solid
Analysis Batch: 10172

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10121

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		08/12/24 15:45	08/13/24 12:07	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		08/12/24 15:45	08/13/24 12:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*128*		*62 - 134*	*08/12/24 15:45*	*08/13/24 12:07*	*1*

Lab Sample ID: LCS 885-10121/2-A
Matrix: Solid
Analysis Batch: 10172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10121

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	74.4	*+	mg/Kg		149	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*161*	*S1+*	*62 - 134*

Lab Sample ID: MB 885-10424/1-A
Matrix: Solid
Analysis Batch: 10409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10424

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		08/16/24 12:02	08/16/24 17:38	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		08/16/24 12:02	08/16/24 17:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*08/16/24 12:02*	*08/16/24 17:38*	*1*

Lab Sample ID: LCS 885-10424/2-A
Matrix: Solid
Analysis Batch: 10409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10424

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	46.8		mg/Kg		94	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*

Lab Sample ID: MB 885-10622/1-A
Matrix: Solid
Analysis Batch: 10682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10622

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		08/20/24 12:52	08/21/24 13:36	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		08/20/24 12:52	08/21/24 13:36	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

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

Lab Sample ID: MB 885-10622/1-A
Matrix: Solid
Analysis Batch: 10682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10622

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	95		62 - 134	08/20/24 12:52	08/21/24 13:36	1

Lab Sample ID: LCS 885-10622/2-A
Matrix: Solid
Analysis Batch: 10682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	45.8		mg/Kg		92	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	95		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-10129/1-A
Matrix: Solid
Analysis Batch: 10165

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10129

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		08/12/24 17:05	08/13/24 16:12	1

Lab Sample ID: LCS 885-10129/2-A
Matrix: Solid
Analysis Batch: 10165

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10129

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	30.7		mg/Kg		102	90 - 110

Lab Sample ID: MB 885-10576/12
Matrix: Solid
Analysis Batch: 10576

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	mg/Kg			08/14/24 11:41	1

Lab Sample ID: MRL 885-10576/11
Matrix: Solid
Analysis Batch: 10576

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.521		mg/L		104	50 - 150

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

GC VOA

Prep Batch: 10075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-1	PH01@10'	Total/NA	Solid	5030C	
885-9544-2	PH02@4'	Total/NA	Solid	5030C	
885-9544-3	PH02@7'	Total/NA	Solid	5030C	
885-9544-4	PH02@10'	Total/NA	Solid	5030C	
885-9544-6	PH03@7'	Total/NA	Solid	5030C	
885-9544-7	PH03@10'	Total/NA	Solid	5030C	
885-9544-9	PH04@7'	Total/NA	Solid	5030C	
885-9544-10	PH04@10'	Total/NA	Solid	5030C	
MB 885-10075/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-10075/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-10075/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-9544-1 MS	PH01@10'	Total/NA	Solid	5030C	
885-9544-1 MSD	PH01@10'	Total/NA	Solid	5030C	
885-9544-2 MS	PH02@4'	Total/NA	Solid	5030C	
885-9544-2 MSD	PH02@4'	Total/NA	Solid	5030C	

Analysis Batch: 10255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-1	PH01@10'	Total/NA	Solid	8015M/D	10075
885-9544-2	PH02@4'	Total/NA	Solid	8015M/D	10075
885-9544-3	PH02@7'	Total/NA	Solid	8015M/D	10075
885-9544-4	PH02@10'	Total/NA	Solid	8015M/D	10075
885-9544-6	PH03@7'	Total/NA	Solid	8015M/D	10075
885-9544-7	PH03@10'	Total/NA	Solid	8015M/D	10075
885-9544-9	PH04@7'	Total/NA	Solid	8015M/D	10075
885-9544-10	PH04@10'	Total/NA	Solid	8015M/D	10075
MB 885-10075/1-A	Method Blank	Total/NA	Solid	8015M/D	10075
LCS 885-10075/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	10075
885-9544-1 MS	PH01@10'	Total/NA	Solid	8015M/D	10075
885-9544-1 MSD	PH01@10'	Total/NA	Solid	8015M/D	10075

Analysis Batch: 10256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-1	PH01@10'	Total/NA	Solid	8021B	10075
885-9544-2	PH02@4'	Total/NA	Solid	8021B	10075
885-9544-3	PH02@7'	Total/NA	Solid	8021B	10075
885-9544-4	PH02@10'	Total/NA	Solid	8021B	10075
885-9544-6	PH03@7'	Total/NA	Solid	8021B	10075
885-9544-7	PH03@10'	Total/NA	Solid	8021B	10075
885-9544-9	PH04@7'	Total/NA	Solid	8021B	10075
885-9544-10	PH04@10'	Total/NA	Solid	8021B	10075
MB 885-10075/1-A	Method Blank	Total/NA	Solid	8021B	10075
LCS 885-10075/3-A	Lab Control Sample	Total/NA	Solid	8021B	10075
885-9544-2 MS	PH02@4'	Total/NA	Solid	8021B	10075
885-9544-2 MSD	PH02@4'	Total/NA	Solid	8021B	10075

GC Semi VOA

Prep Batch: 10121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-1	PH01@10'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

GC Semi VOA (Continued)

Prep Batch: 10121 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-10121/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-10121/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 10172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-1	PH01@10'	Total/NA	Solid	8015M/D	10121
MB 885-10121/1-A	Method Blank	Total/NA	Solid	8015M/D	10121
LCS 885-10121/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	10121

Analysis Batch: 10409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-4	PH02@10'	Total/NA	Solid	8015M/D	10424
885-9544-10	PH04@10'	Total/NA	Solid	8015M/D	10424
MB 885-10424/1-A	Method Blank	Total/NA	Solid	8015M/D	10424
LCS 885-10424/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	10424

Prep Batch: 10424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-4	PH02@10'	Total/NA	Solid	SHAKE	
885-9544-6	PH03@7'	Total/NA	Solid	SHAKE	
885-9544-7	PH03@10'	Total/NA	Solid	SHAKE	
885-9544-9	PH04@7'	Total/NA	Solid	SHAKE	
885-9544-10	PH04@10'	Total/NA	Solid	SHAKE	
MB 885-10424/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-10424/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Prep Batch: 10525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-2	PH02@4'	Total/NA	Solid	SHAKE	

Prep Batch: 10622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-3	PH02@7'	Total/NA	Solid	SHAKE	
MB 885-10622/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-10622/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 10647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-2	PH02@4'	Total/NA	Solid	8015M/D	10525
885-9544-6	PH03@7'	Total/NA	Solid	8015M/D	10424
885-9544-7	PH03@10'	Total/NA	Solid	8015M/D	10424
885-9544-9	PH04@7'	Total/NA	Solid	8015M/D	10424

Analysis Batch: 10682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-3	PH02@7'	Total/NA	Solid	8015M/D	10622
MB 885-10622/1-A	Method Blank	Total/NA	Solid	8015M/D	10622
LCS 885-10622/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	10622

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

HPLC/IC

Prep Batch: 10129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-1	PH01@10'	Total/NA	Solid	300_Prep	
885-9544-2	PH02@4'	Total/NA	Solid	300_Prep	
885-9544-3	PH02@7'	Total/NA	Solid	300_Prep	
885-9544-4	PH02@10'	Total/NA	Solid	300_Prep	
885-9544-6	PH03@7'	Total/NA	Solid	300_Prep	
885-9544-7	PH03@10'	Total/NA	Solid	300_Prep	
885-9544-9	PH04@7'	Total/NA	Solid	300_Prep	
885-9544-10	PH04@10'	Total/NA	Solid	300_Prep	
MB 885-10129/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-10129/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 10165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-1	PH01@10'	Total/NA	Solid	300.0	10129
885-9544-2	PH02@4'	Total/NA	Solid	300.0	10129
885-9544-3	PH02@7'	Total/NA	Solid	300.0	10129
885-9544-4	PH02@10'	Total/NA	Solid	300.0	10129
885-9544-7	PH03@10'	Total/NA	Solid	300.0	10129
885-9544-9	PH04@7'	Total/NA	Solid	300.0	10129
885-9544-10	PH04@10'	Total/NA	Solid	300.0	10129
MB 885-10129/1-A	Method Blank	Total/NA	Solid	300.0	10129
LCS 885-10129/2-A	Lab Control Sample	Total/NA	Solid	300.0	10129

Analysis Batch: 10576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9544-6	PH03@7'	Total/NA	Solid	300.0	10129
MB 885-10576/12	Method Blank	Total/NA	Solid	300.0	
MRL 885-10576/11	Lab Control Sample	Total/NA	Solid	300.0	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH01@10'
Lab Sample ID: 885-9544-1
Date Collected: 08/08/24 14:15
Matrix: Solid
Date Received: 08/09/24 06:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8015M/D		1	10255	JP	EET ALB	08/13/24 20:49
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8021B		1	10256	JP	EET ALB	08/13/24 20:49
Total/NA	Prep	SHAKE			10121	EM	EET ALB	08/12/24 15:45
Total/NA	Analysis	8015M/D		1	10172	EM	EET ALB	08/13/24 12:29
Total/NA	Prep	300_Prep			10129	KB	EET ALB	08/12/24 17:05
Total/NA	Analysis	300.0		20	10165	RC	EET ALB	08/13/24 16:42

Client Sample ID: PH02@4'
Lab Sample ID: 885-9544-2
Date Collected: 08/08/24 14:25
Matrix: Solid
Date Received: 08/09/24 06:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8015M/D		1	10255	JP	EET ALB	08/13/24 21:59
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8021B		1	10256	JP	EET ALB	08/13/24 21:59
Total/NA	Prep	SHAKE			10525	EM	EET ALB	08/19/24 14:25
Total/NA	Analysis	8015M/D		10	10647	EM	EET ALB	08/20/24 10:27
Total/NA	Prep	300_Prep			10129	KB	EET ALB	08/12/24 17:05
Total/NA	Analysis	300.0		20	10165	RC	EET ALB	08/13/24 16:58

Client Sample ID: PH02@7'
Lab Sample ID: 885-9544-3
Date Collected: 08/08/24 15:10
Matrix: Solid
Date Received: 08/09/24 06:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8015M/D		1	10255	JP	EET ALB	08/13/24 23:10
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8021B		1	10256	JP	EET ALB	08/13/24 23:10
Total/NA	Prep	SHAKE			10622	EM	EET ALB	08/20/24 12:52
Total/NA	Analysis	8015M/D		1	10682	EM	EET ALB	08/21/24 13:57
Total/NA	Prep	300_Prep			10129	KB	EET ALB	08/12/24 17:05
Total/NA	Analysis	300.0		20	10165	RC	EET ALB	08/13/24 17:13

Client Sample ID: PH02@10'
Lab Sample ID: 885-9544-4
Date Collected: 08/08/24 14:35
Matrix: Solid
Date Received: 08/09/24 06:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8015M/D		1	10255	JP	EET ALB	08/13/24 23:33

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH02@10'
Date Collected: 08/08/24 14:35
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8021B		1	10256	JP	EET ALB	08/13/24 23:33
Total/NA	Prep	SHAKE			10424	EM	EET ALB	08/16/24 12:02
Total/NA	Analysis	8015M/D		20	10409	DH	EET ALB	08/16/24 18:00
Total/NA	Prep	300_Prep			10129	KB	EET ALB	08/12/24 17:05
Total/NA	Analysis	300.0		20	10165	RC	EET ALB	08/13/24 17:58

Client Sample ID: PH03@7'
Date Collected: 08/08/24 14:45
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8015M/D		1	10255	JP	EET ALB	08/13/24 23:57
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8021B		1	10256	JP	EET ALB	08/13/24 23:57
Total/NA	Prep	SHAKE			10424	EM	EET ALB	08/16/24 12:02
Total/NA	Analysis	8015M/D		20	10647	EM	EET ALB	08/20/24 13:00
Total/NA	Prep	300_Prep			10129	KB	EET ALB	08/12/24 17:05
Total/NA	Analysis	300.0		50	10576	MA	EET ALB	08/14/24 11:04

Client Sample ID: PH03@10'
Date Collected: 08/08/24 14:48
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8015M/D		1	10255	JP	EET ALB	08/14/24 00:20
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8021B		1	10256	JP	EET ALB	08/14/24 00:20
Total/NA	Prep	SHAKE			10424	EM	EET ALB	08/16/24 12:02
Total/NA	Analysis	8015M/D		20	10647	EM	EET ALB	08/20/24 13:30
Total/NA	Prep	300_Prep			10129	KB	EET ALB	08/12/24 17:05
Total/NA	Analysis	300.0		20	10165	RC	EET ALB	08/13/24 19:29

Client Sample ID: PH04@7'
Date Collected: 08/08/24 14:55
Date Received: 08/09/24 06:15

Lab Sample ID: 885-9544-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8015M/D		1	10255	JP	EET ALB	08/14/24 00:43
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8021B		1	10256	JP	EET ALB	08/14/24 00:43

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Client Sample ID: PH04@7'

Lab Sample ID: 885-9544-9
Matrix: Solid
Date Collected: 08/08/24 14:55
Date Received: 08/09/24 06:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			10424	EM	EET ALB	08/16/24 12:02
Total/NA	Analysis	8015M/D		20	10647	EM	EET ALB	08/20/24 14:01
Total/NA	Prep	300_Prep			10129	KB	EET ALB	08/12/24 17:05
Total/NA	Analysis	300.0		20	10165	RC	EET ALB	08/13/24 19:44

Client Sample ID: PH04@10'

Lab Sample ID: 885-9544-10
Matrix: Solid
Date Collected: 08/08/24 15:00
Date Received: 08/09/24 06:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8015M/D		1	10255	JP	EET ALB	08/14/24 01:07
Total/NA	Prep	5030C			10075	AT	EET ALB	08/12/24 10:39
Total/NA	Analysis	8021B		1	10256	JP	EET ALB	08/14/24 01:07
Total/NA	Prep	SHAKE			10424	EM	EET ALB	08/16/24 12:02
Total/NA	Analysis	8015M/D		20	10409	DH	EET ALB	08/16/24 19:31
Total/NA	Prep	300_Prep			10129	KB	EET ALB	08/12/24 17:05
Total/NA	Analysis	300.0		20	10165	RC	EET ALB	08/13/24 19:59

Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD

Job ID: 885-9544-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

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

Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record

Client: Hilcorp Energy
Mitch Killough
Mailing Address: 1111 Travis St
Houston, TX
Phone #:
email or Fax#: mkillough@hilcorp.com
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☒ EDD (Type) Excel

Turn-Around Time:
5-Day
☒ Standard ☐ Rush
Project Name: Salty Dog SWD 1
Project #:
Project Manager: Stuart Hyde
shyde@ensolum.com
Sampler: Stuart Hyde
On Ice: ☒ Yes ☐ No yes
# of Coolers: 1
Cooler Temp(including CF): 3.6 + 0.2 = 3.8 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 8710 885-9544 COC
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	HOLD
8/8/24		soil	PH01@10'	4oz 1415	cool	1	X	X					X				
			PH02@4'	1425		2	X	X					X				
			PH02@7'	1510		3	X	X					X				
			PH02@10'	1435		4	X	X					X				
			PH03@4'	1440		5											X
			PH03@7'	1445		6	X	X					X				
			PH03@10'	1448		7	X	X					X				
			PH04@4'	1450		8											X
			PH04@7'	1455		9	X	X					X				
			PH04@10'	1500		10	X	X					X				

Analysis Request

Date	Time	Relinquished by	Received by	Via	Date	Time
8/8/24	1620				8/8/24	1620
8/8/24	1720			courier	8/9/24	6:15

Remarks: (1) 4-oz jar

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-9544-1

Login Number: 9544 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 9/17/2024 4:14:28 PM

JOB DESCRIPTION

Salty Dog SWD #1

JOB NUMBER

885-11196-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

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9/17/2024 4:14:28 PM

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

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Laboratory Job ID: 885-11196-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Salty Dog SWD #1

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Job Narrative
885-11196-1

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

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

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

Receipt
The samples were received on 9/5/2024 7:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.3°C.

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

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

Diesel Range Organics
Method 8015D_DRO: The following sample required a dilution due to the nature of the sample matrix: PH07@6' (885-11196-5). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH05@9'

Date Collected: 09/04/24 11:12
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11196-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/05/24 14:21	09/11/24 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*09/05/24 14:21*	*09/11/24 12:36*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/05/24 14:21	09/11/24 12:36	1
Ethylbenzene	ND		0.048		mg/Kg		09/05/24 14:21	09/11/24 12:36	1
Toluene	ND		0.048		mg/Kg		09/05/24 14:21	09/11/24 12:36	1
Xylenes, Total	ND		0.095		mg/Kg		09/05/24 14:21	09/11/24 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*09/05/24 14:21*	*09/11/24 12:36*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		09/06/24 10:28	09/10/24 23:42	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		09/06/24 10:28	09/10/24 23:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*09/06/24 10:28*	*09/10/24 23:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1400**		60		mg/Kg		09/09/24 09:17	09/09/24 16:52	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH05@12'

Date Collected: 09/04/24 11:25
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11196-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/05/24 14:21	09/11/24 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/05/24 14:21*	*09/11/24 13:46*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/05/24 14:21	09/11/24 13:46	1
Ethylbenzene	ND		0.048		mg/Kg		09/05/24 14:21	09/11/24 13:46	1
Toluene	ND		0.048		mg/Kg		09/05/24 14:21	09/11/24 13:46	1
Xylenes, Total	ND		0.097		mg/Kg		09/05/24 14:21	09/11/24 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*09/05/24 14:21*	*09/11/24 13:46*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/06/24 10:28	09/11/24 00:06	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/06/24 10:28	09/11/24 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*09/06/24 10:28*	*09/11/24 00:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**940**		60		mg/Kg		09/09/24 09:17	09/09/24 17:05	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH07@6'

Date Collected: 09/04/24 12:04
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11196-5

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/05/24 14:21	09/11/24 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/05/24 14:21*	*09/11/24 14:57*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/05/24 14:21	09/11/24 14:57	1
Ethylbenzene	ND		0.049		mg/Kg		09/05/24 14:21	09/11/24 14:57	1
Toluene	ND		0.049		mg/Kg		09/05/24 14:21	09/11/24 14:57	1
Xylenes, Total	ND		0.097		mg/Kg		09/05/24 14:21	09/11/24 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*09/05/24 14:21*	*09/11/24 14:57*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**430**		96		mg/Kg		09/06/24 10:28	09/11/24 00:30	10
Motor Oil Range Organics [C28-C40]	**880**		480		mg/Kg		09/06/24 10:28	09/11/24 00:30	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*0*	*S1- D*	*62 - 134*	*09/06/24 10:28*	*09/11/24 00:30*	*10*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1500**		60		mg/Kg		09/09/24 09:17	09/09/24 17:18	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH07@12'

Date Collected: 09/04/24 12:14
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11196-6

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/05/24 14:21	09/11/24 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*09/05/24 14:21*	*09/11/24 15:20*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/05/24 14:21	09/11/24 15:20	1
Ethylbenzene	ND		0.049		mg/Kg		09/05/24 14:21	09/11/24 15:20	1
Toluene	ND		0.049		mg/Kg		09/05/24 14:21	09/11/24 15:20	1
Xylenes, Total	ND		0.098		mg/Kg		09/05/24 14:21	09/11/24 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*09/05/24 14:21*	*09/11/24 15:20*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**45**		10		mg/Kg		09/06/24 10:28	09/11/24 00:54	1
Motor Oil Range Organics [C28-C40]	**95**		50		mg/Kg		09/06/24 10:28	09/11/24 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*09/06/24 10:28*	*09/11/24 00:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1100**		60		mg/Kg		09/09/24 09:17	09/09/24 17:31	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH08@3'
Date Collected: 09/04/24 12:22
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11196-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/05/24 14:21	09/11/24 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/05/24 14:21*	*09/11/24 15:43*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/05/24 14:21	09/11/24 15:43	1
Ethylbenzene	ND		0.047		mg/Kg		09/05/24 14:21	09/11/24 15:43	1
Toluene	ND		0.047		mg/Kg		09/05/24 14:21	09/11/24 15:43	1
Xylenes, Total	ND		0.093		mg/Kg		09/05/24 14:21	09/11/24 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*	*09/05/24 14:21*	*09/11/24 15:43*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**18**		9.6		mg/Kg		09/06/24 10:28	09/11/24 01:18	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/06/24 10:28	09/11/24 01:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*09/06/24 10:28*	*09/11/24 01:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1100**		60		mg/Kg		09/09/24 09:17	09/09/24 17:44	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH08@6'

Date Collected: 09/04/24 12:24
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11196-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/05/24 14:21	09/11/24 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/05/24 14:21*	*09/11/24 16:07*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/05/24 14:21	09/11/24 16:07	1
Ethylbenzene	ND		0.047		mg/Kg		09/05/24 14:21	09/11/24 16:07	1
Toluene	ND		0.047		mg/Kg		09/05/24 14:21	09/11/24 16:07	1
Xylenes, Total	ND		0.093		mg/Kg		09/05/24 14:21	09/11/24 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*09/05/24 14:21*	*09/11/24 16:07*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/06/24 10:28	09/11/24 01:42	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/06/24 10:28	09/11/24 01:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*09/06/24 10:28*	*09/11/24 01:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**790**		60		mg/Kg		09/09/24 09:17	09/09/24 17:56	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH08@12'

Date Collected: 09/04/24 12:37
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11196-9

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/05/24 14:21	09/11/24 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/05/24 14:21*	*09/11/24 16:30*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/05/24 14:21	09/11/24 16:30	1
Ethylbenzene	ND		0.048		mg/Kg		09/05/24 14:21	09/11/24 16:30	1
Toluene	ND		0.048		mg/Kg		09/05/24 14:21	09/11/24 16:30	1
Xylenes, Total	ND		0.097		mg/Kg		09/05/24 14:21	09/11/24 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*09/05/24 14:21*	*09/11/24 16:30*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		09/06/24 10:28	09/11/24 02:06	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/06/24 10:28	09/11/24 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*107*		*62 - 134*	*09/06/24 10:28*	*09/11/24 02:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**900**		60		mg/Kg		09/09/24 09:17	09/09/24 18:09	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH01@12'

Date Collected: 09/04/24 12:51
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11196-10

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/05/24 14:21	09/11/24 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/05/24 14:21*	*09/11/24 16:54*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/05/24 14:21	09/11/24 16:54	1
Ethylbenzene	ND		0.048		mg/Kg		09/05/24 14:21	09/11/24 16:54	1
Toluene	ND		0.048		mg/Kg		09/05/24 14:21	09/11/24 16:54	1
Xylenes, Total	ND		0.097		mg/Kg		09/05/24 14:21	09/11/24 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*	*09/05/24 14:21*	*09/11/24 16:54*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**35**		10		mg/Kg		09/06/24 10:28	09/11/24 02:30	1
Motor Oil Range Organics [C28-C40]	**140**		50		mg/Kg		09/06/24 10:28	09/11/24 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*110*		*62 - 134*	*09/06/24 10:28*	*09/11/24 02:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**410**		60		mg/Kg		09/09/24 09:17	09/09/24 19:14	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

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

Lab Sample ID: MB 885-11689/1-A
Matrix: Solid
Analysis Batch: 12117

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11689

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/05/24 14:21	09/11/24 12:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/05/24 14:21*	*09/11/24 12:13*	*1*

Lab Sample ID: LCS 885-11689/2-A
Matrix: Solid
Analysis Batch: 12117

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11689

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.0		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*203*		*35 - 166*

Lab Sample ID: 885-11196-1 MS
Matrix: Solid
Analysis Batch: 12117

Client Sample ID: PH05@9'
Prep Type: Total/NA
Prep Batch: 11689

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		23.6	22.7		mg/Kg		96	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*207*		*35 - 166*

Lab Sample ID: 885-11196-1 MSD
Matrix: Solid
Analysis Batch: 12117

Client Sample ID: PH05@9'
Prep Type: Total/NA
Prep Batch: 11689

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		23.6	22.8		mg/Kg		96	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*207*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-11689/1-A
Matrix: Solid
Analysis Batch: 12126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11689

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/05/24 14:21	09/11/24 12:13	1
Ethylbenzene	ND		0.050		mg/Kg		09/05/24 14:21	09/11/24 12:13	1
Toluene	ND		0.050		mg/Kg		09/05/24 14:21	09/11/24 12:13	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

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

Lab Sample ID: MB 885-11689/1-A
Matrix: Solid
Analysis Batch: 12126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11689

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		09/05/24 14:21	09/11/24 12:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*09/05/24 14:21*	*09/11/24 12:13*	*1*

Lab Sample ID: LCS 885-11689/3-A
Matrix: Solid
Analysis Batch: 12126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11689

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.925		mg/Kg		93	70 - 130		
Ethylbenzene			1.00	0.853		mg/Kg		85	70 - 130		
m&p-Xylene			2.00	1.72		mg/Kg		86	70 - 130		
o-Xylene			1.00	0.817		mg/Kg		82	70 - 130		
Toluene			1.00	0.874		mg/Kg		87	70 - 130		
Xylenes, Total			3.00	2.54		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

Lab Sample ID: 885-11196-2 MS
Matrix: Solid
Analysis Batch: 12126

Client Sample ID: PH05@12'
Prep Type: Total/NA
Prep Batch: 11689

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.969	0.859		mg/Kg		89	70 - 130		
Ethylbenzene	ND		0.969	0.799		mg/Kg		82	70 - 130		
m&p-Xylene	ND		1.94	1.62		mg/Kg		82	70 - 130		
o-Xylene	ND		0.969	0.775		mg/Kg		80	70 - 130		
Toluene	ND		0.969	0.821		mg/Kg		83	70 - 130		
Xylenes, Total	ND		2.91	2.39		mg/Kg		81	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*

Lab Sample ID: 885-11196-2 MSD
Matrix: Solid
Analysis Batch: 12126

Client Sample ID: PH05@12'
Prep Type: Total/NA
Prep Batch: 11689

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.970	0.850		mg/Kg		88	70 - 130	1	20
Ethylbenzene	ND		0.970	0.790		mg/Kg		81	70 - 130	1	20
m&p-Xylene	ND		1.94	1.60		mg/Kg		81	70 - 130	1	20
o-Xylene	ND		0.970	0.749		mg/Kg		77	70 - 130	3	20
Toluene	ND		0.970	0.800		mg/Kg		81	70 - 130	3	20
Xylenes, Total	ND		2.91	2.35		mg/Kg		80	70 - 130	2	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

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

Lab Sample ID: 885-11196-2 MSD
Matrix: Solid
Analysis Batch: 12126

Client Sample ID: PH05@12'
Prep Type: Total/NA
Prep Batch: 11689

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*

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

Lab Sample ID: MB 885-11750/1-A
Matrix: Solid
Analysis Batch: 11911

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11750

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/06/24 10:28	09/10/24 22:05	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/06/24 10:28	09/10/24 22:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*09/06/24 10:28*	*09/10/24 22:05*	*1*

Lab Sample ID: LCS 885-11750/2-A
Matrix: Solid
Analysis Batch: 11911

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11750

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	57.4		mg/Kg		115	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-11827/1-A
Matrix: Solid
Analysis Batch: 11864

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11827

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/09/24 09:17	09/09/24 14:44	1

Lab Sample ID: LCS 885-11827/2-A
Matrix: Solid
Analysis Batch: 11864

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11827

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	31.1		mg/Kg		104	90 - 110		

Lab Sample ID: 885-11196-9 MS
Matrix: Solid
Analysis Batch: 11864

Client Sample ID: PH08@12'
Prep Type: Total/NA
Prep Batch: 11827

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	900		30.1	902	4	mg/Kg		13	50 - 150		

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 885-11196-9 MSD
Matrix: Solid
Analysis Batch: 11864

Client Sample ID: PH08@12'
Prep Type: Total/NA
Prep Batch: 11827

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	900		30.1	931	4	mg/Kg		110	50 - 150	3	20

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

GC VOA

Prep Batch: 11689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11196-1	PH05@9'	Total/NA	Solid	5030C	
885-11196-2	PH05@12'	Total/NA	Solid	5030C	
885-11196-5	PH07@6'	Total/NA	Solid	5030C	
885-11196-6	PH07@12'	Total/NA	Solid	5030C	
885-11196-7	PH08@3'	Total/NA	Solid	5030C	
885-11196-8	PH08@6'	Total/NA	Solid	5030C	
885-11196-9	PH08@12'	Total/NA	Solid	5030C	
885-11196-10	PH01@12'	Total/NA	Solid	5030C	
MB 885-11689/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-11689/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-11689/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-11196-1 MS	PH05@9'	Total/NA	Solid	5030C	
885-11196-1 MSD	PH05@9'	Total/NA	Solid	5030C	
885-11196-2 MS	PH05@12'	Total/NA	Solid	5030C	
885-11196-2 MSD	PH05@12'	Total/NA	Solid	5030C	

Analysis Batch: 12117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11196-1	PH05@9'	Total/NA	Solid	8015M/D	11689
885-11196-2	PH05@12'	Total/NA	Solid	8015M/D	11689
885-11196-5	PH07@6'	Total/NA	Solid	8015M/D	11689
885-11196-6	PH07@12'	Total/NA	Solid	8015M/D	11689
885-11196-7	PH08@3'	Total/NA	Solid	8015M/D	11689
885-11196-8	PH08@6'	Total/NA	Solid	8015M/D	11689
885-11196-9	PH08@12'	Total/NA	Solid	8015M/D	11689
885-11196-10	PH01@12'	Total/NA	Solid	8015M/D	11689
MB 885-11689/1-A	Method Blank	Total/NA	Solid	8015M/D	11689
LCS 885-11689/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	11689
885-11196-1 MS	PH05@9'	Total/NA	Solid	8015M/D	11689
885-11196-1 MSD	PH05@9'	Total/NA	Solid	8015M/D	11689

Analysis Batch: 12126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11196-1	PH05@9'	Total/NA	Solid	8021B	11689
885-11196-2	PH05@12'	Total/NA	Solid	8021B	11689
885-11196-5	PH07@6'	Total/NA	Solid	8021B	11689
885-11196-6	PH07@12'	Total/NA	Solid	8021B	11689
885-11196-7	PH08@3'	Total/NA	Solid	8021B	11689
885-11196-8	PH08@6'	Total/NA	Solid	8021B	11689
885-11196-9	PH08@12'	Total/NA	Solid	8021B	11689
885-11196-10	PH01@12'	Total/NA	Solid	8021B	11689
MB 885-11689/1-A	Method Blank	Total/NA	Solid	8021B	11689
LCS 885-11689/3-A	Lab Control Sample	Total/NA	Solid	8021B	11689
885-11196-2 MS	PH05@12'	Total/NA	Solid	8021B	11689
885-11196-2 MSD	PH05@12'	Total/NA	Solid	8021B	11689

GC Semi VOA

Prep Batch: 11750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11196-1	PH05@9'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

GC Semi VOA (Continued)

Prep Batch: 11750 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11196-2	PH05@12'	Total/NA	Solid	SHAKE	
885-11196-5	PH07@6'	Total/NA	Solid	SHAKE	
885-11196-6	PH07@12'	Total/NA	Solid	SHAKE	
885-11196-7	PH08@3'	Total/NA	Solid	SHAKE	
885-11196-8	PH08@6'	Total/NA	Solid	SHAKE	
885-11196-9	PH08@12'	Total/NA	Solid	SHAKE	
885-11196-10	PH01@12'	Total/NA	Solid	SHAKE	
MB 885-11750/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-11750/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 11911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11196-1	PH05@9'	Total/NA	Solid	8015M/D	11750
885-11196-2	PH05@12'	Total/NA	Solid	8015M/D	11750
885-11196-5	PH07@6'	Total/NA	Solid	8015M/D	11750
885-11196-6	PH07@12'	Total/NA	Solid	8015M/D	11750
885-11196-7	PH08@3'	Total/NA	Solid	8015M/D	11750
885-11196-8	PH08@6'	Total/NA	Solid	8015M/D	11750
885-11196-9	PH08@12'	Total/NA	Solid	8015M/D	11750
885-11196-10	PH01@12'	Total/NA	Solid	8015M/D	11750
MB 885-11750/1-A	Method Blank	Total/NA	Solid	8015M/D	11750
LCS 885-11750/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	11750

HPLC/IC

Prep Batch: 11827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11196-1	PH05@9'	Total/NA	Solid	300_Prep	
885-11196-2	PH05@12'	Total/NA	Solid	300_Prep	
885-11196-5	PH07@6'	Total/NA	Solid	300_Prep	
885-11196-6	PH07@12'	Total/NA	Solid	300_Prep	
885-11196-7	PH08@3'	Total/NA	Solid	300_Prep	
885-11196-8	PH08@6'	Total/NA	Solid	300_Prep	
885-11196-9	PH08@12'	Total/NA	Solid	300_Prep	
885-11196-10	PH01@12'	Total/NA	Solid	300_Prep	
MB 885-11827/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-11827/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-11196-9 MS	PH08@12'	Total/NA	Solid	300_Prep	
885-11196-9 MSD	PH08@12'	Total/NA	Solid	300_Prep	

Analysis Batch: 11864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11196-1	PH05@9'	Total/NA	Solid	300.0	11827
885-11196-2	PH05@12'	Total/NA	Solid	300.0	11827
885-11196-5	PH07@6'	Total/NA	Solid	300.0	11827
885-11196-6	PH07@12'	Total/NA	Solid	300.0	11827
885-11196-7	PH08@3'	Total/NA	Solid	300.0	11827
885-11196-8	PH08@6'	Total/NA	Solid	300.0	11827
885-11196-9	PH08@12'	Total/NA	Solid	300.0	11827
885-11196-10	PH01@12'	Total/NA	Solid	300.0	11827
MB 885-11827/1-A	Method Blank	Total/NA	Solid	300.0	11827

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

HPLC/IC (Continued)

Analysis Batch: 11864 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-11827/2-A	Lab Control Sample	Total/NA	Solid	300.0	11827
885-11196-9 MS	PH08@12'	Total/NA	Solid	300.0	11827
885-11196-9 MSD	PH08@12'	Total/NA	Solid	300.0	11827

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH05@9'
Lab Sample ID: 885-11196-1
Date Collected: 09/04/24 11:12
Matrix: Solid
Date Received: 09/05/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8015M/D		1	12117	RA	EET ALB	09/11/24 12:36
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8021B		1	12126	RA	EET ALB	09/11/24 12:36
Total/NA	Prep	SHAKE			11750	KR	EET ALB	09/06/24 10:28
Total/NA	Analysis	8015M/D		1	11911	KR	EET ALB	09/10/24 23:42
Total/NA	Prep	300_Prep			11827	EH	EET ALB	09/09/24 09:17
Total/NA	Analysis	300.0		20	11864	EH	EET ALB	09/09/24 16:52

Client Sample ID: PH05@12'
Lab Sample ID: 885-11196-2
Date Collected: 09/04/24 11:25
Matrix: Solid
Date Received: 09/05/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8015M/D		1	12117	RA	EET ALB	09/11/24 13:46
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8021B		1	12126	RA	EET ALB	09/11/24 13:46
Total/NA	Prep	SHAKE			11750	KR	EET ALB	09/06/24 10:28
Total/NA	Analysis	8015M/D		1	11911	KR	EET ALB	09/11/24 00:06
Total/NA	Prep	300_Prep			11827	EH	EET ALB	09/09/24 09:17
Total/NA	Analysis	300.0		20	11864	EH	EET ALB	09/09/24 17:05

Client Sample ID: PH07@6'
Lab Sample ID: 885-11196-5
Date Collected: 09/04/24 12:04
Matrix: Solid
Date Received: 09/05/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8015M/D		1	12117	RA	EET ALB	09/11/24 14:57
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8021B		1	12126	RA	EET ALB	09/11/24 14:57
Total/NA	Prep	SHAKE			11750	KR	EET ALB	09/06/24 10:28
Total/NA	Analysis	8015M/D		10	11911	KR	EET ALB	09/11/24 00:30
Total/NA	Prep	300_Prep			11827	EH	EET ALB	09/09/24 09:17
Total/NA	Analysis	300.0		20	11864	EH	EET ALB	09/09/24 17:18

Client Sample ID: PH07@12'
Lab Sample ID: 885-11196-6
Date Collected: 09/04/24 12:14
Matrix: Solid
Date Received: 09/05/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8015M/D		1	12117	RA	EET ALB	09/11/24 15:20

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH07@12'

Lab Sample ID: 885-11196-6
Matrix: Solid
Date Collected: 09/04/24 12:14
Date Received: 09/05/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8021B		1	12126	RA	EET ALB	09/11/24 15:20
Total/NA	Prep	SHAKE			11750	KR	EET ALB	09/06/24 10:28
Total/NA	Analysis	8015M/D		1	11911	KR	EET ALB	09/11/24 00:54
Total/NA	Prep	300_Prep			11827	EH	EET ALB	09/09/24 09:17
Total/NA	Analysis	300.0		20	11864	EH	EET ALB	09/09/24 17:31

Client Sample ID: PH08@3'

Lab Sample ID: 885-11196-7
Matrix: Solid
Date Collected: 09/04/24 12:22
Date Received: 09/05/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8015M/D		1	12117	RA	EET ALB	09/11/24 15:43
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8021B		1	12126	RA	EET ALB	09/11/24 15:43
Total/NA	Prep	SHAKE			11750	KR	EET ALB	09/06/24 10:28
Total/NA	Analysis	8015M/D		1	11911	KR	EET ALB	09/11/24 01:18
Total/NA	Prep	300_Prep			11827	EH	EET ALB	09/09/24 09:17
Total/NA	Analysis	300.0		20	11864	EH	EET ALB	09/09/24 17:44

Client Sample ID: PH08@6'

Lab Sample ID: 885-11196-8
Matrix: Solid
Date Collected: 09/04/24 12:24
Date Received: 09/05/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8015M/D		1	12117	RA	EET ALB	09/11/24 16:07
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8021B		1	12126	RA	EET ALB	09/11/24 16:07
Total/NA	Prep	SHAKE			11750	KR	EET ALB	09/06/24 10:28
Total/NA	Analysis	8015M/D		1	11911	KR	EET ALB	09/11/24 01:42
Total/NA	Prep	300_Prep			11827	EH	EET ALB	09/09/24 09:17
Total/NA	Analysis	300.0		20	11864	EH	EET ALB	09/09/24 17:56

Client Sample ID: PH08@12'

Lab Sample ID: 885-11196-9
Matrix: Solid
Date Collected: 09/04/24 12:37
Date Received: 09/05/24 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8015M/D		1	12117	RA	EET ALB	09/11/24 16:30
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8021B		1	12126	RA	EET ALB	09/11/24 16:30

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Client Sample ID: PH08@12'
Date Collected: 09/04/24 12:37
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11196-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			11750	KR	EET ALB	09/06/24 10:28
Total/NA	Analysis	8015M/D		1	11911	KR	EET ALB	09/11/24 02:06
Total/NA	Prep	300_Prep			11827	EH	EET ALB	09/09/24 09:17
Total/NA	Analysis	300.0		20	11864	EH	EET ALB	09/09/24 18:09

Client Sample ID: PH01@12'
Date Collected: 09/04/24 12:51
Date Received: 09/05/24 07:35

Lab Sample ID: 885-11196-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8015M/D		1	12117	RA	EET ALB	09/11/24 16:54
Total/NA	Prep	5030C			11689	JP	EET ALB	09/05/24 14:21
Total/NA	Analysis	8021B		1	12126	RA	EET ALB	09/11/24 16:54
Total/NA	Prep	SHAKE			11750	KR	EET ALB	09/06/24 10:28
Total/NA	Analysis	8015M/D		1	11911	KR	EET ALB	09/11/24 02:30
Total/NA	Prep	300_Prep			11827	EH	EET ALB	09/09/24 09:17
Total/NA	Analysis	300.0		20	11864	EH	EET ALB	09/09/24 19:14

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-11196-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

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

Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record

Client: Hilcorp @ attn: Mitch Killough

Mailing Address:

Phone #:

email or Fax#: mkillough@hilcorp.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Salty Dog SWD #1

Project #:

Project Manager: Stuart Hyde
shyde@ensolum.com

Sampler: Zach Myers

On Ice: ☑ Yes ☐ No cubes

# of Coolers: 1

Cooler Temp(including CF): 4.4-0.1=4.3 (°C)

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

885-11196 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX/ MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl) F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)		Hold				
9-4	1112	soil	PH05@9'	4oz jar	cool	1	X	X					X									
	1125		PH05@12'			2																
	1135		PH06@6'			3												X				
	1143		PH06@12'			4												X				
	1204		PH07@6'			5																
	1214		PH07@12'			6																
	1222		PH08@3'			7																
	1224		PH08@6'			8																
	1237		PH08@12'			9																
	1251		PH01@12'			10																

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/4/24	1500				9/4/24	1500
9/4/24	1800			courier	9/5/24	7:35

Remarks:
cc: Zmyers@ensolum.com
Jcook

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-11196-1

Login Number: 11196 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 10/2/2024 4:35:21 PM

JOB DESCRIPTION

Salty Dog SWD #1

JOB NUMBER

885-12212-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

Generated
10/2/2024 4:35:21 PM

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

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Laboratory Job ID: 885-12212-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Job ID: 885-12212-1
Project/Site: Salty Dog SWD #1

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Salty Dog SWD #1

Job ID: 885-12212-1

Job ID: 885-12212-1 Eurofins Albuquerque

Job Narrative
885-12212-1

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

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

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

Receipt
The samples were received on 9/20/2024 7:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.7°C.

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

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

Diesel Range Organics
Method 8015D_DRO: The following sample was diluted due to the nature of the sample matrix: PH09@3' (885-12212-3). Elevated reporting limits (RLs) are provided.

Method 8015D_DRO: The following sample required a dilution due to the nature of the sample matrix: PH09@3' (885-12212-3). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

HPLC/IC
Method 300_OF_28D_PREC: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 885-12959 and analytical batch 885-13028 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Client Sample ID: PH07@15'

Date Collected: 09/19/24 10:15
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12212-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/20/24 14:22	09/24/24 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*09/20/24 14:22*	*09/24/24 03:21*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/20/24 14:22	09/24/24 03:21	1
Ethylbenzene	ND		0.050		mg/Kg		09/20/24 14:22	09/24/24 03:21	1
Toluene	ND		0.050		mg/Kg		09/20/24 14:22	09/24/24 03:21	1
Xylenes, Total	ND		0.10		mg/Kg		09/20/24 14:22	09/24/24 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*09/20/24 14:22*	*09/24/24 03:21*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**31**		10		mg/Kg		09/24/24 07:58	09/25/24 13:13	1
Motor Oil Range Organics [C28-C40]	**61**		50		mg/Kg		09/24/24 07:58	09/25/24 13:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*	*09/24/24 07:58*	*09/25/24 13:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**860**		61		mg/Kg		09/24/24 19:04	09/25/24 14:22	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Client Sample ID: PH07@18'

Date Collected: 09/19/24 10:20
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12212-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/20/24 14:22	09/24/24 03:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/20/24 14:22*	*09/24/24 03:45*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/20/24 14:22	09/24/24 03:45	1
Ethylbenzene	ND		0.049		mg/Kg		09/20/24 14:22	09/24/24 03:45	1
Toluene	ND		0.049		mg/Kg		09/20/24 14:22	09/24/24 03:45	1
Xylenes, Total	ND		0.098		mg/Kg		09/20/24 14:22	09/24/24 03:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*48 - 145*	*09/20/24 14:22*	*09/24/24 03:45*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/24/24 07:58	09/25/24 13:25	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/24/24 07:58	09/25/24 13:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*82*		*62 - 134*	*09/24/24 07:58*	*09/25/24 13:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**780**		60		mg/Kg		09/24/24 19:04	09/25/24 14:35	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Client Sample ID: PH09@3'

Date Collected: 09/19/24 10:24
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12212-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/23/24 11:46	09/25/24 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/23/24 11:46*	*09/25/24 13:00*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/23/24 11:46	09/25/24 13:00	1
Ethylbenzene	ND		0.048		mg/Kg		09/23/24 11:46	09/25/24 13:00	1
Toluene	ND		0.048		mg/Kg		09/23/24 11:46	09/25/24 13:00	1
Xylenes, Total	ND		0.097		mg/Kg		09/23/24 11:46	09/25/24 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*09/23/24 11:46*	*09/25/24 13:00*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**150**		97		mg/Kg		09/24/24 07:58	09/25/24 13:37	10
Motor Oil Range Organics [C28-C40]	ND	D	490		mg/Kg		09/24/24 07:58	09/25/24 13:37	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*0*	*D S1-*	*62 - 134*	*09/24/24 07:58*	*09/25/24 13:37*	*10*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**500**		60		mg/Kg		09/24/24 19:04	09/25/24 14:48	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Client Sample ID: PH09@12'

Date Collected: 09/19/24 10:33
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12212-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/23/24 11:46	09/25/24 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/23/24 11:46*	*09/25/24 13:22*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/23/24 11:46	09/25/24 13:22	1
Ethylbenzene	ND		0.048		mg/Kg		09/23/24 11:46	09/25/24 13:22	1
Toluene	ND		0.048		mg/Kg		09/23/24 11:46	09/25/24 13:22	1
Xylenes, Total	ND		0.096		mg/Kg		09/23/24 11:46	09/25/24 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*09/23/24 11:46*	*09/25/24 13:22*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/24/24 07:58	09/25/24 14:01	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/24/24 07:58	09/25/24 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*09/24/24 07:58*	*09/25/24 14:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**770**		60		mg/Kg		09/24/24 19:04	09/25/24 15:01	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Client Sample ID: PH10@3'

Date Collected: 09/19/24 10:40
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12212-5

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/23/24 11:46	09/25/24 13:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*35 - 166*	*09/23/24 11:46*	*09/25/24 13:44*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/23/24 11:46	09/25/24 13:44	1
Ethylbenzene	ND		0.048		mg/Kg		09/23/24 11:46	09/25/24 13:44	1
Toluene	ND		0.048		mg/Kg		09/23/24 11:46	09/25/24 13:44	1
Xylenes, Total	ND		0.095		mg/Kg		09/23/24 11:46	09/25/24 13:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*09/23/24 11:46*	*09/25/24 13:44*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**92**		10		mg/Kg		09/24/24 07:58	09/26/24 15:31	1
Motor Oil Range Organics [C28-C40]	**410**		50		mg/Kg		09/24/24 07:58	09/26/24 15:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*09/24/24 07:58*	*09/26/24 15:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1700**		60		mg/Kg		09/24/24 19:04	09/25/24 15:13	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Client Sample ID: PH10@12'

Date Collected: 09/19/24 10:48
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12212-6

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/23/24 11:46	09/25/24 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*35 - 166*	*09/23/24 11:46*	*09/25/24 14:05*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/23/24 11:46	09/25/24 14:05	1
Ethylbenzene	ND		0.047		mg/Kg		09/23/24 11:46	09/25/24 14:05	1
Toluene	ND		0.047		mg/Kg		09/23/24 11:46	09/25/24 14:05	1
Xylenes, Total	ND		0.093		mg/Kg		09/23/24 11:46	09/25/24 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*09/23/24 11:46*	*09/25/24 14:05*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/24/24 07:58	09/25/24 14:38	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/24/24 07:58	09/25/24 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*09/24/24 07:58*	*09/25/24 14:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1600**		60		mg/Kg		09/24/24 19:04	09/25/24 15:26	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Client Sample ID: PH11@3'

Date Collected: 09/19/24 09:56
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12212-7

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/23/24 11:46	09/25/24 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*09/23/24 11:46*	*09/25/24 14:27*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/23/24 11:46	09/25/24 14:27	1
Ethylbenzene	ND		0.047		mg/Kg		09/23/24 11:46	09/25/24 14:27	1
Toluene	ND		0.047		mg/Kg		09/23/24 11:46	09/25/24 14:27	1
Xylenes, Total	ND		0.095		mg/Kg		09/23/24 11:46	09/25/24 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*09/23/24 11:46*	*09/25/24 14:27*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/24/24 09:27	09/25/24 16:50	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/24/24 09:27	09/25/24 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*09/24/24 09:27*	*09/25/24 16:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1800**	**F1**	60		mg/Kg		09/24/24 19:25	09/25/24 10:15	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Client Sample ID: PH11@6'

Date Collected: 09/19/24 09:59
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12212-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/23/24 11:46	09/25/24 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*09/23/24 11:46*	*09/25/24 14:49*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/23/24 11:46	09/25/24 14:49	1
Ethylbenzene	ND		0.049		mg/Kg		09/23/24 11:46	09/25/24 14:49	1
Toluene	ND		0.049		mg/Kg		09/23/24 11:46	09/25/24 14:49	1
Xylenes, Total	ND		0.099		mg/Kg		09/23/24 11:46	09/25/24 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*48 - 145*	*09/23/24 11:46*	*09/25/24 14:49*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		09/24/24 09:27	09/25/24 17:02	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/24/24 09:27	09/25/24 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*09/24/24 09:27*	*09/25/24 17:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2100**		150		mg/Kg		09/24/24 19:25	09/25/24 16:31	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Client Sample ID: PH11@12'

Date Collected: 09/19/24 10:05
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12212-9

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/23/24 11:46	09/25/24 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*09/23/24 11:46*	*09/25/24 15:11*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/23/24 11:46	09/25/24 15:11	1
Ethylbenzene	ND		0.049		mg/Kg		09/23/24 11:46	09/25/24 15:11	1
Toluene	ND		0.049		mg/Kg		09/23/24 11:46	09/25/24 15:11	1
Xylenes, Total	ND		0.097		mg/Kg		09/23/24 11:46	09/25/24 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*09/23/24 11:46*	*09/25/24 15:11*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		09/24/24 09:27	09/25/24 17:14	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/24/24 09:27	09/25/24 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*09/24/24 09:27*	*09/25/24 17:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**530**		60		mg/Kg		09/24/24 19:25	09/25/24 11:32	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

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

Lab Sample ID: MB 885-12663/1-A
Matrix: Solid
Analysis Batch: 12849

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12663

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/20/24 14:22	09/23/24 17:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*09/20/24 14:22*	*09/23/24 17:56*	*1*

Lab Sample ID: LCS 885-12663/2-A
Matrix: Solid
Analysis Batch: 12849

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12663

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.3		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*212*		*35 - 166*

Lab Sample ID: MB 885-12766/1-A
Matrix: Solid
Analysis Batch: 13001

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12766

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/23/24 11:46	09/25/24 03:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*09/23/24 11:46*	*09/25/24 03:56*	*1*

Lab Sample ID: LCS 885-12766/2-A
Matrix: Solid
Analysis Batch: 13001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12766

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	24.4		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*224*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-12663/1-A
Matrix: Solid
Analysis Batch: 12850

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12663

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/20/24 14:22	09/23/24 17:56	1
Ethylbenzene	ND		0.050		mg/Kg		09/20/24 14:22	09/23/24 17:56	1
Toluene	ND		0.050		mg/Kg		09/20/24 14:22	09/23/24 17:56	1
Xylenes, Total	ND		0.10		mg/Kg		09/20/24 14:22	09/23/24 17:56	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

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

Lab Sample ID: MB 885-12663/1-A
Matrix: Solid
Analysis Batch: 12850

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12663

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		48 - 145	09/20/24 14:22	09/23/24 17:56	1

Lab Sample ID: LCS 885-12663/3-A
Matrix: Solid
Analysis Batch: 12850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12663

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.939		mg/Kg		94	70 - 130
Ethylbenzene	1.00	0.984		mg/Kg		98	70 - 130
m&p-Xylene	2.00	1.96		mg/Kg		98	70 - 130
o-Xylene	1.00	0.955		mg/Kg		95	70 - 130
Toluene	1.00	0.964		mg/Kg		96	70 - 130
Xylenes, Total	3.00	2.91		mg/Kg		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		48 - 145

Lab Sample ID: MB 885-12766/1-A
Matrix: Solid
Analysis Batch: 13002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12766

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		09/23/24 11:46	09/25/24 03:56	1
Ethylbenzene	ND		0.050	mg/Kg		09/23/24 11:46	09/25/24 03:56	1
Toluene	ND		0.050	mg/Kg		09/23/24 11:46	09/25/24 03:56	1
Xylenes, Total	ND		0.10	mg/Kg		09/23/24 11:46	09/25/24 03:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		48 - 145	09/23/24 11:46	09/25/24 03:56	1

Lab Sample ID: LCS 885-12766/3-A
Matrix: Solid
Analysis Batch: 13037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12766

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.50	1.55		mg/Kg		103	70 - 130
Ethylbenzene	1.50	1.55		mg/Kg		103	70 - 130
m&p-Xylene	3.00	3.07		mg/Kg		102	70 - 130
o-Xylene	1.50	1.52		mg/Kg		102	70 - 130
Toluene	1.50	1.54		mg/Kg		103	70 - 130
Xylenes, Total	4.50	4.59		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		48 - 145

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

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

Lab Sample ID: 885-12212-6 MS
Matrix: Solid
Analysis Batch: 12967

Client Sample ID: PH10@12'
Prep Type: Total/NA
Prep Batch: 12828

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		49.8	46.8		mg/Kg		94	44 - 136

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*

Lab Sample ID: 885-12212-6 MSD
Matrix: Solid
Analysis Batch: 12967

Client Sample ID: PH10@12'
Prep Type: Total/NA
Prep Batch: 12828

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		49.9	46.6		mg/Kg		93	44 - 136	0	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*

Lab Sample ID: MB 885-12847/1-A
Matrix: Solid
Analysis Batch: 12967

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12847

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/24/24 09:27	09/25/24 15:26	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/24/24 09:27	09/25/24 15:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*09/24/24 09:27*	*09/25/24 15:26*	*1*

Lab Sample ID: LCS 885-12847/2-A
Matrix: Solid
Analysis Batch: 12967

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12847

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]			50.0	46.5		mg/Kg		93	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-12958/1-A
Matrix: Solid
Analysis Batch: 13000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12958

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/24/24 19:04	09/25/24 09:00	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-12958/2-A
Matrix: Solid
Analysis Batch: 13000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12958

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	30.6		mg/Kg		102	90 - 110		

Lab Sample ID: MB 885-12959/1-A
Matrix: Solid
Analysis Batch: 13028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12959

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/24/24 19:25	09/25/24 09:42	1

Lab Sample ID: LCS 885-12959/2-A
Matrix: Solid
Analysis Batch: 13028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12959

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	32.6		mg/Kg		109	90 - 110		

Lab Sample ID: 885-12212-7 MS
Matrix: Solid
Analysis Batch: 13028

Client Sample ID: PH11@3'
Prep Type: Total/NA
Prep Batch: 12959

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1800	F1	624	1480	F1	mg/Kg		-46	50 - 150		

Lab Sample ID: 885-12212-7 MSD
Matrix: Solid
Analysis Batch: 13028

Client Sample ID: PH11@3'
Prep Type: Total/NA
Prep Batch: 12959

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1800	F1	624	1490	F1	mg/Kg		-44	50 - 150	1	20

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

GC VOA

Prep Batch: 12663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-1	PH07@15'	Total/NA	Solid	5030C	
885-12212-2	PH07@18'	Total/NA	Solid	5030C	
MB 885-12663/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-12663/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-12663/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 12766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-3	PH09@3'	Total/NA	Solid	5030C	
885-12212-4	PH09@12'	Total/NA	Solid	5030C	
885-12212-5	PH10@3'	Total/NA	Solid	5030C	
885-12212-6	PH10@12'	Total/NA	Solid	5030C	
885-12212-7	PH11@3'	Total/NA	Solid	5030C	
885-12212-8	PH11@6'	Total/NA	Solid	5030C	
885-12212-9	PH11@12'	Total/NA	Solid	5030C	
MB 885-12766/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-12766/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-12766/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 12849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-1	PH07@15'	Total/NA	Solid	8015M/D	12663
885-12212-2	PH07@18'	Total/NA	Solid	8015M/D	12663
MB 885-12663/1-A	Method Blank	Total/NA	Solid	8015M/D	12663
LCS 885-12663/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12663

Analysis Batch: 12850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-1	PH07@15'	Total/NA	Solid	8021B	12663
885-12212-2	PH07@18'	Total/NA	Solid	8021B	12663
MB 885-12663/1-A	Method Blank	Total/NA	Solid	8021B	12663
LCS 885-12663/3-A	Lab Control Sample	Total/NA	Solid	8021B	12663

Analysis Batch: 13001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-12766/1-A	Method Blank	Total/NA	Solid	8015M/D	12766
LCS 885-12766/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12766

Analysis Batch: 13002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-12766/1-A	Method Blank	Total/NA	Solid	8021B	12766

Analysis Batch: 13036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-3	PH09@3'	Total/NA	Solid	8015M/D	12766
885-12212-4	PH09@12'	Total/NA	Solid	8015M/D	12766
885-12212-5	PH10@3'	Total/NA	Solid	8015M/D	12766
885-12212-6	PH10@12'	Total/NA	Solid	8015M/D	12766
885-12212-7	PH11@3'	Total/NA	Solid	8015M/D	12766
885-12212-8	PH11@6'	Total/NA	Solid	8015M/D	12766
885-12212-9	PH11@12'	Total/NA	Solid	8015M/D	12766

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

GC VOA

Analysis Batch: 13037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-3	PH09@3'	Total/NA	Solid	8021B	12766
885-12212-4	PH09@12'	Total/NA	Solid	8021B	12766
885-12212-5	PH10@3'	Total/NA	Solid	8021B	12766
885-12212-6	PH10@12'	Total/NA	Solid	8021B	12766
885-12212-7	PH11@3'	Total/NA	Solid	8021B	12766
885-12212-8	PH11@6'	Total/NA	Solid	8021B	12766
885-12212-9	PH11@12'	Total/NA	Solid	8021B	12766
LCS 885-12766/3-A	Lab Control Sample	Total/NA	Solid	8021B	12766

GC Semi VOA

Prep Batch: 12828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-1	PH07@15'	Total/NA	Solid	SHAKE	
885-12212-2	PH07@18'	Total/NA	Solid	SHAKE	
885-12212-3	PH09@3'	Total/NA	Solid	SHAKE	
885-12212-4	PH09@12'	Total/NA	Solid	SHAKE	
885-12212-5	PH10@3'	Total/NA	Solid	SHAKE	
885-12212-6	PH10@12'	Total/NA	Solid	SHAKE	
885-12212-6 MS	PH10@12'	Total/NA	Solid	SHAKE	
885-12212-6 MSD	PH10@12'	Total/NA	Solid	SHAKE	

Prep Batch: 12847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-7	PH11@3'	Total/NA	Solid	SHAKE	
885-12212-8	PH11@6'	Total/NA	Solid	SHAKE	
885-12212-9	PH11@12'	Total/NA	Solid	SHAKE	
MB 885-12847/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-12847/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 12967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-1	PH07@15'	Total/NA	Solid	8015M/D	12828
885-12212-2	PH07@18'	Total/NA	Solid	8015M/D	12828
885-12212-3	PH09@3'	Total/NA	Solid	8015M/D	12828
885-12212-4	PH09@12'	Total/NA	Solid	8015M/D	12828
885-12212-6	PH10@12'	Total/NA	Solid	8015M/D	12828
885-12212-7	PH11@3'	Total/NA	Solid	8015M/D	12847
885-12212-8	PH11@6'	Total/NA	Solid	8015M/D	12847
885-12212-9	PH11@12'	Total/NA	Solid	8015M/D	12847
MB 885-12847/1-A	Method Blank	Total/NA	Solid	8015M/D	12847
LCS 885-12847/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12847
885-12212-6 MS	PH10@12'	Total/NA	Solid	8015M/D	12828
885-12212-6 MSD	PH10@12'	Total/NA	Solid	8015M/D	12828

Analysis Batch: 13085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-5	PH10@3'	Total/NA	Solid	8015M/D	12828

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

HPLC/IC

Prep Batch: 12958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-1	PH07@15'	Total/NA	Solid	300_Prep	
885-12212-2	PH07@18'	Total/NA	Solid	300_Prep	
885-12212-3	PH09@3'	Total/NA	Solid	300_Prep	
885-12212-4	PH09@12'	Total/NA	Solid	300_Prep	
885-12212-5	PH10@3'	Total/NA	Solid	300_Prep	
885-12212-6	PH10@12'	Total/NA	Solid	300_Prep	
MB 885-12958/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12958/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 12959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-7	PH11@3'	Total/NA	Solid	300_Prep	
885-12212-8	PH11@6'	Total/NA	Solid	300_Prep	
885-12212-9	PH11@12'	Total/NA	Solid	300_Prep	
MB 885-12959/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12959/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-12212-7 MS	PH11@3'	Total/NA	Solid	300_Prep	
885-12212-7 MSD	PH11@3'	Total/NA	Solid	300_Prep	

Analysis Batch: 13000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-1	PH07@15'	Total/NA	Solid	300.0	12958
885-12212-2	PH07@18'	Total/NA	Solid	300.0	12958
885-12212-3	PH09@3'	Total/NA	Solid	300.0	12958
885-12212-4	PH09@12'	Total/NA	Solid	300.0	12958
885-12212-5	PH10@3'	Total/NA	Solid	300.0	12958
885-12212-6	PH10@12'	Total/NA	Solid	300.0	12958
885-12212-8	PH11@6'	Total/NA	Solid	300.0	12959
MB 885-12958/1-A	Method Blank	Total/NA	Solid	300.0	12958
LCS 885-12958/2-A	Lab Control Sample	Total/NA	Solid	300.0	12958

Analysis Batch: 13028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12212-7	PH11@3'	Total/NA	Solid	300.0	12959
885-12212-9	PH11@12'	Total/NA	Solid	300.0	12959
MB 885-12959/1-A	Method Blank	Total/NA	Solid	300.0	12959
LCS 885-12959/2-A	Lab Control Sample	Total/NA	Solid	300.0	12959
885-12212-7 MS	PH11@3'	Total/NA	Solid	300.0	12959
885-12212-7 MSD	PH11@3'	Total/NA	Solid	300.0	12959

Lab Chronicle

Client: Hilcorp Energy
Job ID: 885-12212-1
Project/Site: Salty Dog SWD #1

Client Sample ID: PH07@15'
Lab Sample ID: 885-12212-1
Date Collected: 09/19/24 10:15
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12663	JR	EET ALB	09/20/24 14:22
Total/NA	Analysis	8015M/D		1	12849	JP	EET ALB	09/24/24 03:21
Total/NA	Prep	5030C			12663	JR	EET ALB	09/20/24 14:22
Total/NA	Analysis	8021B		1	12850	JP	EET ALB	09/24/24 03:21
Total/NA	Prep	SHAKE			12828	KR	EET ALB	09/24/24 07:58
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 13:13
Total/NA	Prep	300_Prep			12958	JT	EET ALB	09/24/24 19:04
Total/NA	Analysis	300.0		20	13000	EH	EET ALB	09/25/24 14:22

Client Sample ID: PH07@18'
Lab Sample ID: 885-12212-2
Date Collected: 09/19/24 10:20
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12663	JR	EET ALB	09/20/24 14:22
Total/NA	Analysis	8015M/D		1	12849	JP	EET ALB	09/24/24 03:45
Total/NA	Prep	5030C			12663	JR	EET ALB	09/20/24 14:22
Total/NA	Analysis	8021B		1	12850	JP	EET ALB	09/24/24 03:45
Total/NA	Prep	SHAKE			12828	KR	EET ALB	09/24/24 07:58
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 13:25
Total/NA	Prep	300_Prep			12958	JT	EET ALB	09/24/24 19:04
Total/NA	Analysis	300.0		20	13000	EH	EET ALB	09/25/24 14:35

Client Sample ID: PH09@3'
Lab Sample ID: 885-12212-3
Date Collected: 09/19/24 10:24
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8015M/D		1	13036	AT	EET ALB	09/25/24 13:00
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8021B		1	13037	AT	EET ALB	09/25/24 13:00
Total/NA	Prep	SHAKE			12828	KR	EET ALB	09/24/24 07:58
Total/NA	Analysis	8015M/D		10	12967	KR	EET ALB	09/25/24 13:37
Total/NA	Prep	300_Prep			12958	JT	EET ALB	09/24/24 19:04
Total/NA	Analysis	300.0		20	13000	EH	EET ALB	09/25/24 14:48

Client Sample ID: PH09@12'
Lab Sample ID: 885-12212-4
Date Collected: 09/19/24 10:33
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8015M/D		1	13036	AT	EET ALB	09/25/24 13:22

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Client Sample ID: PH09@12'

Lab Sample ID: 885-12212-4
Matrix: Solid
Date Collected: 09/19/24 10:33
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8021B		1	13037	AT	EET ALB	09/25/24 13:22
Total/NA	Prep	SHAKE			12828	KR	EET ALB	09/24/24 07:58
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 14:01
Total/NA	Prep	300_Prep			12958	JT	EET ALB	09/24/24 19:04
Total/NA	Analysis	300.0		20	13000	EH	EET ALB	09/25/24 15:01

Client Sample ID: PH10@3'

Lab Sample ID: 885-12212-5
Matrix: Solid
Date Collected: 09/19/24 10:40
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8015M/D		1	13036	AT	EET ALB	09/25/24 13:44
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8021B		1	13037	AT	EET ALB	09/25/24 13:44
Total/NA	Prep	SHAKE			12828	KR	EET ALB	09/24/24 07:58
Total/NA	Analysis	8015M/D		1	13085	EM	EET ALB	09/26/24 15:31
Total/NA	Prep	300_Prep			12958	JT	EET ALB	09/24/24 19:04
Total/NA	Analysis	300.0		20	13000	EH	EET ALB	09/25/24 15:13

Client Sample ID: PH10@12'

Lab Sample ID: 885-12212-6
Matrix: Solid
Date Collected: 09/19/24 10:48
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8015M/D		1	13036	AT	EET ALB	09/25/24 14:05
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8021B		1	13037	AT	EET ALB	09/25/24 14:05
Total/NA	Prep	SHAKE			12828	KR	EET ALB	09/24/24 07:58
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 14:38
Total/NA	Prep	300_Prep			12958	JT	EET ALB	09/24/24 19:04
Total/NA	Analysis	300.0		20	13000	EH	EET ALB	09/25/24 15:26

Client Sample ID: PH11@3'

Lab Sample ID: 885-12212-7
Matrix: Solid
Date Collected: 09/19/24 09:56
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8015M/D		1	13036	AT	EET ALB	09/25/24 14:27
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8021B		1	13037	AT	EET ALB	09/25/24 14:27

Lab Chronicle

Client: Hilcorp Energy
Job ID: 885-12212-1
Project/Site: Salty Dog SWD #1

Client Sample ID: PH11@3'
Lab Sample ID: 885-12212-7
Date Collected: 09/19/24 09:56
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			12847	KR	EET ALB	09/24/24 09:27
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 16:50
Total/NA	Prep	300_Prep			12959	JT	EET ALB	09/24/24 19:25
Total/NA	Analysis	300.0		20	13028	EH	EET ALB	09/25/24 10:15

Client Sample ID: PH11@6'
Lab Sample ID: 885-12212-8
Date Collected: 09/19/24 09:59
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8015M/D		1	13036	AT	EET ALB	09/25/24 14:49
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8021B		1	13037	AT	EET ALB	09/25/24 14:49
Total/NA	Prep	SHAKE			12847	KR	EET ALB	09/24/24 09:27
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 17:02
Total/NA	Prep	300_Prep			12959	JT	EET ALB	09/24/24 19:25
Total/NA	Analysis	300.0		50	13000	EH	EET ALB	09/25/24 16:31

Client Sample ID: PH11@12'
Lab Sample ID: 885-12212-9
Date Collected: 09/19/24 10:05
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8015M/D		1	13036	AT	EET ALB	09/25/24 15:11
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8021B		1	13037	AT	EET ALB	09/25/24 15:11
Total/NA	Prep	SHAKE			12847	KR	EET ALB	09/24/24 09:27
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 17:14
Total/NA	Prep	300_Prep			12959	JT	EET ALB	09/24/24 19:25
Total/NA	Analysis	300.0		20	13028	EH	EET ALB	09/25/24 11:32

Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12212-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

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

Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record

Client: Hilcorp attn: Mitch Killough

Mailing Address:

Phone #:

email or Fax#: mkillough@hilcorp.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 3-day
☐ Standard ☑ Rush

Project Name: Salty Dog SWD #1

Project #:

Project Manager: Stuart Hyde
shyde@ensolum.com

Sampler: Zach Myers

On Ice: ☑ Yes ☐ No chucky

# of Coolers: 1

Cooler Temp(including CF): 5.8-0.1=5.7 (°C)

HALL ENVIRONME
ANALYSIS LABORA
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 8710
Tel. 505-345-3975 Fax 505-345-4107
885-12212 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMBs (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9-19	1015	soil	PH07@15	4oz jar	cool	1	X	X					X			
	1020		PH07@18			2										
	1024		PH09@3'			3										
	1033		PH09@12'			4										
	1040		PH10@3'			5										
	1048		PH10@12'			6										
	956		PH11@3'			7										
	959		PH11@6'			8										
	1005		PH11@12'			9										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/19/24	1522		Chris Waeler		9/19/24	1522
9/19/24	1724	Chris Waeler		courier	9/20/24	7:5

Remarks:
cc: smahanay@ensolum.com
zmyers

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-12212-1

Login Number: 12212 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 10/4/2024 9:44:02 AM

JOB DESCRIPTION

Salty Dog SWD #1

JOB NUMBER

885-12213-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

Generated
10/4/2024 9:44:02 AM

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Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Laboratory Job ID: 885-12213-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Job ID: 885-12213-1
Project/Site: Salty Dog SWD #1

Qualifiers

GC VOA

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

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Salty Dog SWD #1

Job ID: 885-12213-1

Job ID: 885-12213-1 Eurofins Albuquerque

Job Narrative
885-12213-1

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

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

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

Receipt
The samples were received on 9/20/2024 7:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.7°C.

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

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

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

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12213-1

Client Sample ID: PH12@6'

Date Collected: 09/19/24 09:48
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12213-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		09/23/24 11:46	09/25/24 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*35 - 166*	*09/23/24 11:46*	*09/25/24 15:32*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		09/23/24 11:46	09/25/24 15:32	1
Ethylbenzene	ND		0.047		mg/Kg		09/23/24 11:46	09/25/24 15:32	1
Toluene	ND		0.047		mg/Kg		09/23/24 11:46	09/25/24 15:32	1
Xylenes, Total	ND		0.094		mg/Kg		09/23/24 11:46	09/25/24 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*09/23/24 11:46*	*09/25/24 15:32*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/24/24 09:27	09/25/24 17:26	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/24/24 09:27	09/25/24 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*09/24/24 09:27*	*09/25/24 17:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1800**		60		mg/Kg		09/24/24 19:25	09/25/24 11:45	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12213-1

Client Sample ID: PH12@12'

Date Collected: 09/19/24 09:53
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12213-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/23/24 11:46	09/25/24 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*09/23/24 11:46*	*09/25/24 15:54*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/23/24 11:46	09/25/24 15:54	1
Ethylbenzene	ND		0.049		mg/Kg		09/23/24 11:46	09/25/24 15:54	1
Toluene	ND		0.049		mg/Kg		09/23/24 11:46	09/25/24 15:54	1
Xylenes, Total	ND		0.097		mg/Kg		09/23/24 11:46	09/25/24 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*09/23/24 11:46*	*09/25/24 15:54*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/24/24 09:27	09/25/24 17:38	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/24/24 09:27	09/25/24 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*09/24/24 09:27*	*09/25/24 17:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1300**		60		mg/Kg		09/24/24 19:25	09/25/24 12:23	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12213-1

Client Sample ID: PH13@6'

Date Collected: 09/19/24 09:33
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12213-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		09/23/24 11:46	09/25/24 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*09/23/24 11:46*	*09/25/24 16:16*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/23/24 11:46	09/25/24 16:16	1
Ethylbenzene	ND		0.049		mg/Kg		09/23/24 11:46	09/25/24 16:16	1
Toluene	ND		0.049		mg/Kg		09/23/24 11:46	09/25/24 16:16	1
Xylenes, Total	ND		0.099		mg/Kg		09/23/24 11:46	09/25/24 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*09/23/24 11:46*	*09/25/24 16:16*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		09/24/24 09:27	09/25/24 17:50	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		09/24/24 09:27	09/25/24 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*09/24/24 09:27*	*09/25/24 17:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**790**		60		mg/Kg		09/24/24 19:25	09/25/24 12:36	20

Client Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12213-1

Client Sample ID: PH13@12'

Date Collected: 09/19/24 09:40
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12213-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		09/23/24 16:02	09/25/24 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*35 - 166*	*09/23/24 16:02*	*09/25/24 16:05*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		09/23/24 16:02	09/25/24 16:05	1
Ethylbenzene	ND		0.048		mg/Kg		09/23/24 16:02	09/25/24 16:05	1
Toluene	ND		0.048		mg/Kg		09/23/24 16:02	09/25/24 16:05	1
Xylenes, Total	ND		0.096		mg/Kg		09/23/24 16:02	09/25/24 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*09/23/24 16:02*	*09/25/24 16:05*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		09/24/24 09:27	09/25/24 18:03	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		09/24/24 09:27	09/25/24 18:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*09/24/24 09:27*	*09/25/24 18:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**910**		60		mg/Kg		09/24/24 19:25	09/25/24 12:49	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12213-1

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

Lab Sample ID: MB 885-12766/1-A
Matrix: Solid
Analysis Batch: 13001

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12766

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/23/24 11:46	09/25/24 03:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*35 - 166*	*09/23/24 11:46*	*09/25/24 03:56*	*1*

Lab Sample ID: LCS 885-12766/2-A
Matrix: Solid
Analysis Batch: 13001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12766

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	24.4		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*224*	*S1+*	*35 - 166*

Lab Sample ID: MB 885-12803/1-A
Matrix: Solid
Analysis Batch: 13061

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12803

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		09/23/24 16:02	09/25/24 14:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*09/23/24 16:02*	*09/25/24 14:31*	*1*

Lab Sample ID: LCS 885-12803/2-A
Matrix: Solid
Analysis Batch: 13061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12803

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	22.7		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*203*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-12766/1-A
Matrix: Solid
Analysis Batch: 13002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12766

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		09/23/24 11:46	09/25/24 03:56	1
Ethylbenzene	ND		0.050		mg/Kg		09/23/24 11:46	09/25/24 03:56	1
Toluene	ND		0.050		mg/Kg		09/23/24 11:46	09/25/24 03:56	1
Xylenes, Total	ND		0.10		mg/Kg		09/23/24 11:46	09/25/24 03:56	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12213-1

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

Lab Sample ID: MB 885-12766/1-A
Matrix: Solid
Analysis Batch: 13002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12766

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		48 - 145	09/23/24 11:46	09/25/24 03:56	1

Lab Sample ID: LCS 885-12766/3-A
Matrix: Solid
Analysis Batch: 13037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12766

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.50	1.55		mg/Kg		103	70 - 130
Ethylbenzene	1.50	1.55		mg/Kg		103	70 - 130
m&p-Xylene	3.00	3.07		mg/Kg		102	70 - 130
o-Xylene	1.50	1.52		mg/Kg		102	70 - 130
Toluene	1.50	1.54		mg/Kg		103	70 - 130
Xylenes, Total	4.50	4.59		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		48 - 145

Lab Sample ID: MB 885-12803/1-A
Matrix: Solid
Analysis Batch: 13063

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12803

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		09/23/24 16:02	09/25/24 14:31	1
Ethylbenzene	ND		0.050	mg/Kg		09/23/24 16:02	09/25/24 14:31	1
Toluene	ND		0.050	mg/Kg		09/23/24 16:02	09/25/24 14:31	1
Xylenes, Total	ND		0.10	mg/Kg		09/23/24 16:02	09/25/24 14:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		48 - 145	09/23/24 16:02	09/25/24 14:31	1

Lab Sample ID: LCS 885-12803/3-A
Matrix: Solid
Analysis Batch: 13063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	1.04		mg/Kg		104	70 - 130
Ethylbenzene	1.00	1.04		mg/Kg		104	70 - 130
m&p-Xylene	2.00	2.08		mg/Kg		104	70 - 130
o-Xylene	1.00	1.03		mg/Kg		103	70 - 130
Toluene	1.00	1.03		mg/Kg		103	70 - 130
Xylenes, Total	3.00	3.11		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		48 - 145

QC Sample Results

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12213-1

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

Lab Sample ID: MB 885-12847/1-A
Matrix: Solid
Analysis Batch: 12967

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12847

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		09/24/24 09:27	09/25/24 15:26	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		09/24/24 09:27	09/25/24 15:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*09/24/24 09:27*	*09/25/24 15:26*	*1*

Lab Sample ID: LCS 885-12847/2-A
Matrix: Solid
Analysis Batch: 12967

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12847

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	46.5		mg/Kg		93	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-12959/1-A
Matrix: Solid
Analysis Batch: 13028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12959

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		09/24/24 19:25	09/25/24 09:42	1

Lab Sample ID: LCS 885-12959/2-A
Matrix: Solid
Analysis Batch: 13028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12959

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	32.6		mg/Kg		109	90 - 110		

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12213-1

GC VOA

Prep Batch: 12766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12213-1	PH12@6'	Total/NA	Solid	5030C	
885-12213-2	PH12@12'	Total/NA	Solid	5030C	
885-12213-3	PH13@6'	Total/NA	Solid	5030C	
MB 885-12766/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-12766/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-12766/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 12803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12213-4	PH13@12'	Total/NA	Solid	5030C	
MB 885-12803/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-12803/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-12803/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 13001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-12766/1-A	Method Blank	Total/NA	Solid	8015M/D	12766
LCS 885-12766/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12766

Analysis Batch: 13002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-12766/1-A	Method Blank	Total/NA	Solid	8021B	12766

Analysis Batch: 13036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12213-1	PH12@6'	Total/NA	Solid	8015M/D	12766
885-12213-2	PH12@12'	Total/NA	Solid	8015M/D	12766
885-12213-3	PH13@6'	Total/NA	Solid	8015M/D	12766

Analysis Batch: 13037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12213-1	PH12@6'	Total/NA	Solid	8021B	12766
885-12213-2	PH12@12'	Total/NA	Solid	8021B	12766
885-12213-3	PH13@6'	Total/NA	Solid	8021B	12766
LCS 885-12766/3-A	Lab Control Sample	Total/NA	Solid	8021B	12766

Analysis Batch: 13061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12213-4	PH13@12'	Total/NA	Solid	8015M/D	12803
MB 885-12803/1-A	Method Blank	Total/NA	Solid	8015M/D	12803
LCS 885-12803/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12803

Analysis Batch: 13063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12213-4	PH13@12'	Total/NA	Solid	8021B	12803
MB 885-12803/1-A	Method Blank	Total/NA	Solid	8021B	12803
LCS 885-12803/3-A	Lab Control Sample	Total/NA	Solid	8021B	12803

QC Association Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12213-1

GC Semi VOA

Prep Batch: 12847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12213-1	PH12@6'	Total/NA	Solid	SHAKE	
885-12213-2	PH12@12'	Total/NA	Solid	SHAKE	
885-12213-3	PH13@6'	Total/NA	Solid	SHAKE	
885-12213-4	PH13@12'	Total/NA	Solid	SHAKE	
MB 885-12847/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-12847/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 12967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12213-1	PH12@6'	Total/NA	Solid	8015M/D	12847
885-12213-2	PH12@12'	Total/NA	Solid	8015M/D	12847
885-12213-3	PH13@6'	Total/NA	Solid	8015M/D	12847
885-12213-4	PH13@12'	Total/NA	Solid	8015M/D	12847
MB 885-12847/1-A	Method Blank	Total/NA	Solid	8015M/D	12847
LCS 885-12847/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	12847

HPLC/IC

Prep Batch: 12959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12213-1	PH12@6'	Total/NA	Solid	300_Prep	
885-12213-2	PH12@12'	Total/NA	Solid	300_Prep	
885-12213-3	PH13@6'	Total/NA	Solid	300_Prep	
885-12213-4	PH13@12'	Total/NA	Solid	300_Prep	
MB 885-12959/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-12959/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 13028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12213-1	PH12@6'	Total/NA	Solid	300.0	12959
885-12213-2	PH12@12'	Total/NA	Solid	300.0	12959
885-12213-3	PH13@6'	Total/NA	Solid	300.0	12959
885-12213-4	PH13@12'	Total/NA	Solid	300.0	12959
MB 885-12959/1-A	Method Blank	Total/NA	Solid	300.0	12959
LCS 885-12959/2-A	Lab Control Sample	Total/NA	Solid	300.0	12959

Lab Chronicle

Client: Hilcorp Energy
Job ID: 885-12213-1
Project/Site: Salty Dog SWD #1

Client Sample ID: PH12@6'
Lab Sample ID: 885-12213-1
Date Collected: 09/19/24 09:48
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8015M/D		1	13036	AT	EET ALB	09/25/24 15:32
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8021B		1	13037	AT	EET ALB	09/25/24 15:32
Total/NA	Prep	SHAKE			12847	KR	EET ALB	09/24/24 09:27
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 17:26
Total/NA	Prep	300_Prep			12959	JT	EET ALB	09/24/24 19:25
Total/NA	Analysis	300.0		20	13028	EH	EET ALB	09/25/24 11:45

Client Sample ID: PH12@12'
Lab Sample ID: 885-12213-2
Date Collected: 09/19/24 09:53
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8015M/D		1	13036	AT	EET ALB	09/25/24 15:54
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8021B		1	13037	AT	EET ALB	09/25/24 15:54
Total/NA	Prep	SHAKE			12847	KR	EET ALB	09/24/24 09:27
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 17:38
Total/NA	Prep	300_Prep			12959	JT	EET ALB	09/24/24 19:25
Total/NA	Analysis	300.0		20	13028	EH	EET ALB	09/25/24 12:23

Client Sample ID: PH13@6'
Lab Sample ID: 885-12213-3
Date Collected: 09/19/24 09:33
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8015M/D		1	13036	AT	EET ALB	09/25/24 16:16
Total/NA	Prep	5030C			12766	JP	EET ALB	09/23/24 11:46
Total/NA	Analysis	8021B		1	13037	AT	EET ALB	09/25/24 16:16
Total/NA	Prep	SHAKE			12847	KR	EET ALB	09/24/24 09:27
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 17:50
Total/NA	Prep	300_Prep			12959	JT	EET ALB	09/24/24 19:25
Total/NA	Analysis	300.0		20	13028	EH	EET ALB	09/25/24 12:36

Client Sample ID: PH13@12'
Lab Sample ID: 885-12213-4
Date Collected: 09/19/24 09:40
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12803	JP	EET ALB	09/23/24 16:02
Total/NA	Analysis	8015M/D		1	13061	JP	EET ALB	09/25/24 16:05

Lab Chronicle

Client: Hilcorp Energy
Job ID: 885-12213-1
Project/Site: Salty Dog SWD #1

Client Sample ID: PH13@12'
Lab Sample ID: 885-12213-4
Date Collected: 09/19/24 09:40
Matrix: Solid
Date Received: 09/20/24 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			12803	JP	EET ALB	09/23/24 16:02
Total/NA	Analysis	8021B		1	13063	JP	EET ALB	09/25/24 16:05
Total/NA	Prep	SHAKE			12847	KR	EET ALB	09/24/24 09:27
Total/NA	Analysis	8015M/D		1	12967	KR	EET ALB	09/25/24 18:03
Total/NA	Prep	300_Prep			12959	JT	EET ALB	09/24/24 19:25
Total/NA	Analysis	300.0		20	13028	EH	EET ALB	09/25/24 12:49

Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Salty Dog SWD #1

Job ID: 885-12213-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

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

Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record

Client: Hilcorp attn: Mitch Killough

Mailing Address:

Phone #:

email or Fax#: mkillough@hilcorp.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 3-day

Project Name: Salty Dog SWD #1

Project #:

Project Manager: Stuart Hyde
shyde@ensolum.com

Sampler: Zach Myers

On Ice: ☐ Yes ☐ No chucky

# of Coolers: 1

Cooler Temp (Including CF): 5.8 - 0.1 = 5.7 (°C)

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

885-12213 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / ~~MTBE~~ / ~~TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, ~~Br~~, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9-19	948	soil	PH12@6'	4oz jar	cool	1	X	X					X			
	953		PH12@12'			2										
	933		PH13@6'			3										
	940		PH13@12'			4										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9/19/24	1522					
9/19/24	1724			Courier	9/20/24	7:15

Remarks:
cc: smahanay@ensolum.com
Zmyers

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

Login Sample Receipt Checklist

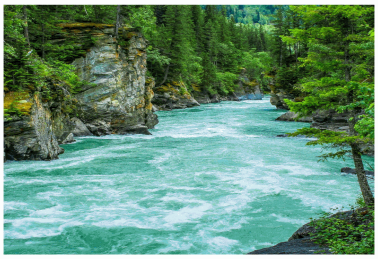
Client: Hilcorp Energy Job Number: 885-12213-1

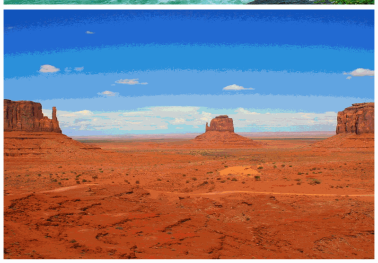
Login Number: 12213 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Report to:

Mitch Killough





5796 U.S. Hwy 64
Farmington, NM 87401

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

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Hilcorp Energy Co

Project Name: Salty Dog #1 BGT

Work Order: E410271

Job Number: 17051-0002

Received: 10/22/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/24/24

Date Reported: 10/24/24

Mitch Killough
PO Box 61529
Houston, TX 77208

Project Name: Salty Dog #1 BGT
Workorder: E410271
Date Received: 10/22/2024 2:50:00PM

Mitch Killough,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/22/2024 2:50:00PM, under the Project Name: Salty Dog #1 BGT.

The analytical test results summarized in this report with the Project Name: Salty Dog #1 BGT apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

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

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

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
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ljarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
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mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/24/24 10:56

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH03@ 20-21.5	E410271-01A	Soil	10/22/24	10/22/24	Glass Jar, 4 oz.

Case Narative:

Project Name: Salty Dog #1 BGT
Workorder:E410271
Date Received: 10/22/24 14:50

The client requested the following sample(s) to be re-extracted and re-analyzed:

Sample Name	Laboratory ID	Analysis
BH03@20-21.5	E410271-01	300.0 Chloride

The analytical test results summarized in this revised report represent this re-extration and re-analysis.

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

Respectfully,

Walter Hinchman

Sample Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Mitch Killough	10/24/2024 10:56:15AM

BH03@ 20-21.5

E410271-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2443020
Benzene	ND	0.0250	1	10/22/24	10/22/24	
Ethylbenzene	ND	0.0250	1	10/22/24	10/22/24	
Toluene	ND	0.0250	1	10/22/24	10/22/24	
o-Xylene	ND	0.0250	1	10/22/24	10/22/24	
p,m-Xylene	ND	0.0500	1	10/22/24	10/22/24	
Total Xylenes	ND	0.0250	1	10/22/24	10/22/24	
Surrogate: 4-Bromochlorobenzene-PID		*92.6 %*	*70-130*	*10/22/24*	*10/22/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2443020
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/22/24	10/22/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.2 %*	*70-130*	*10/22/24*	*10/22/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2443074
Diesel Range Organics (C10-C28)	ND	25.0	1	10/22/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/22/24	10/22/24	
Surrogate: n-Nonane		*115 %*	*50-200*	*10/22/24*	*10/22/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2443062
Chloride	**763**	20.0	1	10/23/24	10/23/24	

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/24/2024 10:56:15AM

Volatile Organics by EPA 8021B

Analyst: CG

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2443020-BLK1)									Prepared: 10/21/24 Analyzed: 10/22/24
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.34*		*8.00*		*91.8*	*70-130*			
LCS (2443020-BS1)									Prepared: 10/21/24 Analyzed: 10/22/24
Benzene	4.68	0.0250	5.00		93.5	70-130			
Ethylbenzene	4.47	0.0250	5.00		89.3	70-130			
Toluene	4.59	0.0250	5.00		91.8	70-130			
o-Xylene	4.48	0.0250	5.00		89.7	70-130			
p,m-Xylene	9.05	0.0500	10.0		90.5	70-130			
Total Xylenes	13.5	0.0250	15.0		90.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.44*		*8.00*		*93.0*	*70-130*			
Matrix Spike (2443020-MS1)				**Source: E410229-06**					Prepared: 10/21/24 Analyzed: 10/22/24
Benzene	4.93	0.0250	5.00	ND	98.7	54-133			
Ethylbenzene	4.75	0.0250	5.00	ND	95.0	61-133			
Toluene	4.85	0.0250	5.00	ND	97.1	61-130			
o-Xylene	4.76	0.0250	5.00	ND	95.3	63-131			
p,m-Xylene	9.64	0.0500	10.0	ND	96.4	63-131			
Total Xylenes	14.4	0.0250	15.0	ND	96.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.42*		*8.00*		*92.7*	*70-130*			
Matrix Spike Dup (2443020-MSD1)				**Source: E410229-06**					Prepared: 10/21/24 Analyzed: 10/22/24
Benzene	5.22	0.0250	5.00	ND	104	54-133	5.58	20	
Ethylbenzene	5.01	0.0250	5.00	ND	100	61-133	5.38	20	
Toluene	5.13	0.0250	5.00	ND	103	61-130	5.52	20	
o-Xylene	5.02	0.0250	5.00	ND	100	63-131	5.25	20	
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131	5.24	20	
Total Xylenes	15.2	0.0250	15.0	ND	101	63-131	5.24	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.38*		*8.00*		*92.3*	*70-130*			

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/24/2024 10:56:15AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: CG

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2443020-BLK1)									Prepared: 10/21/24 Analyzed: 10/22/24
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.46*		*8.00*		*93.3*	*70-130*			
LCS (2443020-BS2)									Prepared: 10/21/24 Analyzed: 10/22/24
Gasoline Range Organics (C6-C10)	44.6	20.0	50.0		89.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.60*		*8.00*		*95.0*	*70-130*			
Matrix Spike (2443020-MS2)				**Source: E410229-06**					Prepared: 10/21/24 Analyzed: 10/22/24
Gasoline Range Organics (C6-C10)	40.7	20.0	50.0	ND	81.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.55*		*8.00*		*94.4*	*70-130*			
Matrix Spike Dup (2443020-MSD2)				**Source: E410229-06**					Prepared: 10/21/24 Analyzed: 10/22/24
Gasoline Range Organics (C6-C10)	40.8	20.0	50.0	ND	81.5	70-130	0.0811	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.46*		*8.00*		*93.3*	*70-130*			

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/24/2024 10:56:15AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2443074-BLK1)									Prepared: 10/22/24 Analyzed: 10/22/24
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*53.2*		*50.0*		*106*	*50-200*			
LCS (2443074-BS1)									Prepared: 10/22/24 Analyzed: 10/22/24
Diesel Range Organics (C10-C28)	270	25.0	250		108	38-132			
Surrogate: n-Nonane	*50.9*		*50.0*		*102*	*50-200*			
LCS Dup (2443074-BSD1)									Prepared: 10/22/24 Analyzed: 10/22/24
Diesel Range Organics (C10-C28)	263	25.0	250		105	38-132	2.48	20	
Surrogate: n-Nonane	*50.1*		*50.0*		*100*	*50-200*			

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/24/2024 10:56:15AM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2443062-BLK1)									Prepared: 10/22/24 Analyzed: 10/22/24
Chloride	ND	20.0							
LCS (2443062-BS1)									Prepared: 10/22/24 Analyzed: 10/22/24
Chloride	259	20.0	250		104	90-110			
Matrix Spike (2443062-MS1)				**Source: E410243-06**					Prepared: 10/22/24 Analyzed: 10/22/24
Chloride	316	20.0	250	50.5	106	80-120			
Matrix Spike Dup (2443062-MSD1)				**Source: E410243-06**					Prepared: 10/22/24 Analyzed: 10/22/24
Chloride	310	20.0	250	50.5	104	80-120	1.74	20	

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

Definitions and Notes

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Mitch Killough	10/24/24 10:56

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

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

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

Chain of Custody

Client Information		Invoice Information		Lab Use Only		TAT				State				
Client:	Hilcorp Energy Company	Company:	same as client	Lab WO#	Job Number	1D	2D	3D	Std	NM	CO	UT	TX	
Project Name:	Salty Dog #1 BGT	Address:		E410271	17051-0002				X Next day					
Project Manager:	Mitch Killough	City, State, Zip:												
Address:	—	Phone:												
City, State, Zip:	—	Email:												
Phone:	281-851-2338	Miscellaneous:	for results include shyde@envirotech.com											
Email:	MKillough@hilcorp.com													

Sample Information							Analysis and Method										EPA Program				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals			SDWA	CWA	RCRA		
1300	10/22/24	soil	1	BH03@ 20-21.5	N	1	X	X	X		X						Compliance	Y	or	N	
																	PWSID #				
																	Remarks				
																	Please due the grouped pricing of TPH (GRO, DRO, MRO), BTEX, & Cl				

SM 10/22/24

Additional Instructions:

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

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
SM	10/22/24	1450	Raina Schumacher	10/22/24	1450
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

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

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

T1 _____ T2 _____ T3 _____

AVG Temp °C 4

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

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

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

envirotech

Envirotech Analytical Laboratory

Printed: 10/22/2024 3:01:28PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Hilcorp Energy Co	Date Received:	10/22/24 14:50	Work Order ID:	E410271
Phone:	-	Date Logged In:	10/22/24 14:58	Logged In By:	Caitlin Mars
Email:	mkillough@hilcorp.com	Due Date:	10/23/24 17:00 (1 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: S.Mahoney
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

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

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

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

Field Label

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

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

Client called 10-22-24 requesting preliminary data same day for samples 1 through 3 and placed samples 4 through 6 on hold.

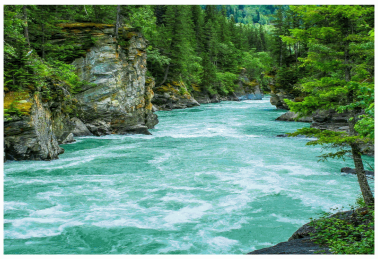
Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Mitch Killough



5796 U.S. Hwy 64
Farmington, NM 87401

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

NELAP ACCREDITED TNI LABORATORY

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Hilcorp Energy Co

Project Name: Salty Dog #1 BGT

Work Order: E410272

Job Number: 17051-0002

Received: 10/22/2024

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/28/24

Date Reported: 10/28/24

Mitch Killough
PO Box 61529
Houston, TX 77208

Project Name: Salty Dog #1 BGT
Workorder: E410272
Date Received: 10/22/2024 2:50:00PM

Mitch Killough,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/22/2024 2:50:00PM, under the Project Name: Salty Dog #1 BGT.

The analytical test results summarized in this report with the Project Name: Salty Dog #1 BGT apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

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

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

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/28/24 12:50

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH03@ 25-26.5	E410272-01A	Soil	10/22/24	10/22/24	Glass Jar, 4 oz.

Case Narative:

Project Name: Salty Dog #1 BGT
Workorder:E410272
Date Received: 10/22/24 14:50

The client requested the following sample(s) to be re-extracted and re-analyzed:

Sample Name	Laboratory ID	Analysis
BH03@25-26.5	E410272-01	300.0 Choride

The analytical test results summarized in this revised report represents a second re-extration and re-analysis.

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

Respectfully,

Walter Hinchman

Sample Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Mitch Killough	10/28/2024 12:50:37PM

BH03@ 25-26.5

E410272-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2443020
Benzene	ND	0.0250	1	10/22/24	10/22/24	
Ethylbenzene	ND	0.0250	1	10/22/24	10/22/24	
Toluene	ND	0.0250	1	10/22/24	10/22/24	
o-Xylene	ND	0.0250	1	10/22/24	10/22/24	
p,m-Xylene	ND	0.0500	1	10/22/24	10/22/24	
Total Xylenes	ND	0.0250	1	10/22/24	10/22/24	
Surrogate: 4-Bromochlorobenzene-PID		*93.2 %*	*70-130*	*10/22/24*	*10/22/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2443020
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/22/24	10/22/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.3 %*	*70-130*	*10/22/24*	*10/22/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2443074
Diesel Range Organics (C10-C28)	ND	25.0	1	10/22/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/22/24	10/22/24	
Surrogate: n-Nonane		*110 %*	*50-200*	*10/22/24*	*10/22/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2443207
Chloride	**590**	20.0	1	10/26/24	10/27/24	

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/28/2024 12:50:37PM

Volatile Organics by EPA 8021B

Analyst: CG

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2443020-BLK1)									Prepared: 10/21/24 Analyzed: 10/22/24
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.34*		*8.00*		*91.8*	*70-130*			
LCS (2443020-BS1)									Prepared: 10/21/24 Analyzed: 10/22/24
Benzene	4.68	0.0250	5.00		93.5	70-130			
Ethylbenzene	4.47	0.0250	5.00		89.3	70-130			
Toluene	4.59	0.0250	5.00		91.8	70-130			
o-Xylene	4.48	0.0250	5.00		89.7	70-130			
p,m-Xylene	9.05	0.0500	10.0		90.5	70-130			
Total Xylenes	13.5	0.0250	15.0		90.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.44*		*8.00*		*93.0*	*70-130*			
Matrix Spike (2443020-MS1)				**Source: E410229-06**					Prepared: 10/21/24 Analyzed: 10/22/24
Benzene	4.93	0.0250	5.00	ND	98.7	54-133			
Ethylbenzene	4.75	0.0250	5.00	ND	95.0	61-133			
Toluene	4.85	0.0250	5.00	ND	97.1	61-130			
o-Xylene	4.76	0.0250	5.00	ND	95.3	63-131			
p,m-Xylene	9.64	0.0500	10.0	ND	96.4	63-131			
Total Xylenes	14.4	0.0250	15.0	ND	96.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.42*		*8.00*		*92.7*	*70-130*			
Matrix Spike Dup (2443020-MSD1)				**Source: E410229-06**					Prepared: 10/21/24 Analyzed: 10/22/24
Benzene	5.22	0.0250	5.00	ND	104	54-133	5.58	20	
Ethylbenzene	5.01	0.0250	5.00	ND	100	61-133	5.38	20	
Toluene	5.13	0.0250	5.00	ND	103	61-130	5.52	20	
o-Xylene	5.02	0.0250	5.00	ND	100	63-131	5.25	20	
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131	5.24	20	
Total Xylenes	15.2	0.0250	15.0	ND	101	63-131	5.24	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.38*		*8.00*		*92.3*	*70-130*			

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/28/2024 12:50:37PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: CG

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2443020-BLK1)									Prepared: 10/21/24 Analyzed: 10/22/24
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.46*		*8.00*		*93.3*	*70-130*			
LCS (2443020-BS2)									Prepared: 10/21/24 Analyzed: 10/22/24
Gasoline Range Organics (C6-C10)	44.6	20.0	50.0		89.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.60*		*8.00*		*95.0*	*70-130*			
Matrix Spike (2443020-MS2)				**Source: E410229-06**					Prepared: 10/21/24 Analyzed: 10/22/24
Gasoline Range Organics (C6-C10)	40.7	20.0	50.0	ND	81.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.55*		*8.00*		*94.4*	*70-130*			
Matrix Spike Dup (2443020-MSD2)				**Source: E410229-06**					Prepared: 10/21/24 Analyzed: 10/22/24
Gasoline Range Organics (C6-C10)	40.8	20.0	50.0	ND	81.5	70-130	0.0811	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.46*		*8.00*		*93.3*	*70-130*			

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/28/2024 12:50:37PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2443074-BLK1)									Prepared: 10/22/24 Analyzed: 10/22/24
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*53.2*		*50.0*		*106*	*50-200*			
LCS (2443074-BS1)									Prepared: 10/22/24 Analyzed: 10/22/24
Diesel Range Organics (C10-C28)	270	25.0	250		108	38-132			
Surrogate: n-Nonane	*50.9*		*50.0*		*102*	*50-200*			
LCS Dup (2443074-BSD1)									Prepared: 10/22/24 Analyzed: 10/22/24
Diesel Range Organics (C10-C28)	263	25.0	250		105	38-132	2.48	20	
Surrogate: n-Nonane	*50.1*		*50.0*		*100*	*50-200*			

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/28/2024 12:50:37PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2443062-BLK1)									Prepared: 10/22/24 Analyzed: 10/22/24
Chloride	ND	20.0							
LCS (2443062-BS1)									Prepared: 10/22/24 Analyzed: 10/22/24
Chloride	259	20.0	250		104	90-110			
Matrix Spike (2443062-MS1)				**Source: E410243-06**					Prepared: 10/22/24 Analyzed: 10/22/24
Chloride	316	20.0	250	50.5	106	80-120			
Matrix Spike Dup (2443062-MSD1)				**Source: E410243-06**					Prepared: 10/22/24 Analyzed: 10/22/24
Chloride	310	20.0	250	50.5	104	80-120	1.74	20	

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Mitch Killough	10/28/2024 12:50:37PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2443207-BLK1)									Prepared: 10/26/24 Analyzed: 10/27/24
Chloride	ND	20.0							
LCS (2443207-BS1)									Prepared: 10/26/24 Analyzed: 10/27/24
Chloride	257	20.0	250		103	90-110			
LCS Dup (2443207-BSD1)									Prepared: 10/26/24 Analyzed: 10/27/24
Chloride	259	20.0	250		104	90-110	0.642	20	

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

Definitions and Notes

Hilcorp Energy Co	Project Name:	Salty Dog #1 BGT	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Mitch Killough	10/28/24 12:50

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

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

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

Chain-of-Custody Record

Client: Hilcorp Energy Company

Mailing Address: —

—

Phone #: 281-851-2338

email or Fax#: mkillough@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☑ Rush Next day

Project Name: Salty Dog #1 BGT

Project #: E410272

Job # 17051-0002

Project Manager:

Mitch Killough - mkillough@hilcorp.com

Stuart Hyde - shyde@envirotech.com

Sampler: S. Mahaney

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 4 (°C)

Envirotech

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMBs (8021)	TPH:8015D GRO / DRO / MRO	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10/22/24	1305	Soil	BH03@ 25-26.5	4oz glass jar x1	None		X	X					X			

SM 10/22/24

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/22/24	1450	Sidney Mahaney	Raina Schwanz		10/22/24	14:50
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time

Remarks: Please charge the grouped pricing of TPH (GRO, DRO, MRO), BTEX, & Cl.

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

Envirotech Analytical Laboratory

Printed: 10/22/2024 3:08:18PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Hilcorp Energy Co	Date Received:	10/22/24 14:50	Work Order ID:	E410272
Phone:	-	Date Logged In:	10/22/24 15:04	Logged In By:	Caitlin Mars
Email:	mkillough@hilcorp.com	Due Date:	10/23/24 17:00 (1 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: S.Mahoney
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

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

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	No	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

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

Field Label

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

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

Client called 10-22-24 requesting preliminary data same day for samples 1 through 3 and placed samples 4 through 6 on hold.

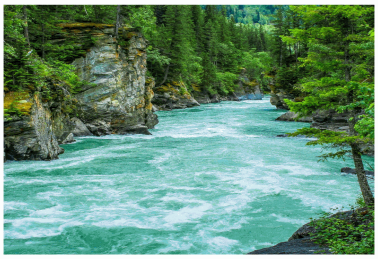
Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Stuart Hyde



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Farmington, NM 87401

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

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Hilcorp Energy Co

Project Name:	Salty Dog SWD 1
Work Order:	E411240
Job Number:	17051-0002
Received:	11/22/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
12/3/24

Date Reported: 12/3/24

Stuart Hyde
PO Box 61529
Houston, TX 77208

Project Name: Salty Dog SWD 1
Workorder: E411240
Date Received: 11/22/2024 10:37:00AM

Stuart Hyde,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/22/2024 10:37:00AM, under the Project Name: Salty Dog SWD 1.

The analytical test results summarized in this report with the Project Name: Salty Dog SWD 1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
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mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	12/03/24 06:55

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
HA01 @ 2	E411240-01A	Soil	11/21/24	11/22/24	Glass Jar, 4 oz.
HA01 @ 4	E411240-02A	Soil	11/21/24	11/22/24	Glass Jar, 4 oz.
HA02 @ 1	E411240-03A	Soil	11/21/24	11/22/24	Glass Jar, 4 oz.
HA03 @ 2	E411240-04A	Soil	11/21/24	11/22/24	Glass Jar, 4 oz.
HA03 @ 4	E411240-05A	Soil	11/21/24	11/22/24	Glass Jar, 4 oz.
HA04 @ 2	E411240-06A	Soil	11/21/24	11/22/24	Glass Jar, 4 oz.

Sample Data

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Stuart Hyde	12/3/2024 6:55:27AM

HA01 @ 2

E411240-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Benzene	ND	0.0250	1	11/25/24	11/26/24	
Ethylbenzene	ND	0.0250	1	11/25/24	11/26/24	
Toluene	ND	0.0250	1	11/25/24	11/26/24	
o-Xylene	ND	0.0250	1	11/25/24	11/26/24	
p,m-Xylene	ND	0.0500	1	11/25/24	11/26/24	
Total Xylenes	ND	0.0250	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*106 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*94.5 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*104 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*106 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*94.5 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*104 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF			Batch: 2448006
Diesel Range Organics (C10-C28)	ND	25.0	1	11/25/24	11/25/24	
Oil Range Organics (C28-C36)	**56.4**	50.0	1	11/25/24	11/25/24	
Surrogate: n-Nonane		*98.4 %*	*50-200*	*11/25/24*	*11/25/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2448011
Chloride	**2400**	40.0	2	11/25/24	11/26/24	

Sample Data

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Stuart Hyde	12/3/2024 6:55:27AM

HA01 @ 4

E411240-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Benzene	ND	0.0250	1	11/25/24	11/26/24	
Ethylbenzene	ND	0.0250	1	11/25/24	11/26/24	
Toluene	ND	0.0250	1	11/25/24	11/26/24	
o-Xylene	ND	0.0250	1	11/25/24	11/26/24	
p,m-Xylene	ND	0.0500	1	11/25/24	11/26/24	
Total Xylenes	ND	0.0250	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*106 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*92.5 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*104 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*106 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*92.5 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*104 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF			Batch: 2448006
Diesel Range Organics (C10-C28)	ND	25.0	1	11/25/24	11/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/25/24	11/26/24	
Surrogate: n-Nonane		*100 %*	*50-200*	*11/25/24*	*11/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2448011
Chloride	**1840**	40.0	2	11/25/24	11/26/24	

Sample Data

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Stuart Hyde	12/3/2024 6:55:27AM

HA02 @ 1

E411240-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Benzene	ND	0.0250	1	11/25/24	11/26/24	
Ethylbenzene	ND	0.0250	1	11/25/24	11/26/24	
Toluene	ND	0.0250	1	11/25/24	11/26/24	
o-Xylene	ND	0.0250	1	11/25/24	11/26/24	
p,m-Xylene	ND	0.0500	1	11/25/24	11/26/24	
Total Xylenes	ND	0.0250	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*95.7 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*107 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*95.7 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*107 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF			Batch: 2448006
Diesel Range Organics (C10-C28)	ND	25.0	1	11/25/24	11/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/25/24	11/26/24	
Surrogate: n-Nonane		*103 %*	*50-200*	*11/25/24*	*11/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2448011
Chloride	**723**	40.0	2	11/25/24	11/26/24	

Sample Data

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Stuart Hyde	12/3/2024 6:55:27AM

HA03 @ 2

E411240-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Benzene	ND	0.0250	1	11/25/24	11/26/24	
Ethylbenzene	ND	0.0250	1	11/25/24	11/26/24	
Toluene	ND	0.0250	1	11/25/24	11/26/24	
o-Xylene	ND	0.0250	1	11/25/24	11/26/24	
p,m-Xylene	ND	0.0500	1	11/25/24	11/26/24	
Total Xylenes	ND	0.0250	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*107 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*92.8 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*105 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*107 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*92.8 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*105 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF			Batch: 2448006
Diesel Range Organics (C10-C28)	ND	25.0	1	11/25/24	11/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/25/24	11/26/24	
Surrogate: n-Nonane		*100 %*	*50-200*	*11/25/24*	*11/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2448011
Chloride	**1040**	20.0	1	11/25/24	11/26/24	

Sample Data

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Stuart Hyde	12/3/2024 6:55:27AM

HA03 @ 4

E411240-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Benzene	ND	0.0250	1	11/25/24	11/26/24	
Ethylbenzene	ND	0.0250	1	11/25/24	11/26/24	
Toluene	ND	0.0250	1	11/25/24	11/26/24	
o-Xylene	ND	0.0250	1	11/25/24	11/26/24	
p,m-Xylene	ND	0.0500	1	11/25/24	11/26/24	
Total Xylenes	ND	0.0250	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*107 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*92.0 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*105 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*107 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*92.0 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*105 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF			Batch: 2448006
Diesel Range Organics (C10-C28)	ND	25.0	1	11/25/24	11/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/25/24	11/26/24	
Surrogate: n-Nonane		*95.3 %*	*50-200*	*11/25/24*	*11/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2448011
Chloride	**513**	20.0	1	11/25/24	11/26/24	

Sample Data

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Stuart Hyde	12/3/2024 6:55:27AM

HA04 @ 2

E411240-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Benzene	ND	0.0250	1	11/25/24	11/26/24	
Ethylbenzene	ND	0.0250	1	11/25/24	11/26/24	
Toluene	ND	0.0250	1	11/25/24	11/26/24	
o-Xylene	ND	0.0250	1	11/25/24	11/26/24	
p,m-Xylene	ND	0.0500	1	11/25/24	11/26/24	
Total Xylenes	ND	0.0250	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*110 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*94.6 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*106 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2448005
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/25/24	11/26/24	
Surrogate: Bromofluorobenzene		*110 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: 1,2-Dichloroethane-d4		*94.6 %*	*70-130*	*11/25/24*	*11/26/24*	
Surrogate: Toluene-d8		*106 %*	*70-130*	*11/25/24*	*11/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF			Batch: 2448006
Diesel Range Organics (C10-C28)	ND	25.0	1	11/25/24	11/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/25/24	11/26/24	
Surrogate: n-Nonane		*99.9 %*	*50-200*	*11/25/24*	*11/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2448011
Chloride	**2550**	40.0	2	11/25/24	11/26/24	

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	12/3/2024 6:55:27AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2448005-BLK1)									Prepared: 11/25/24 Analyzed: 11/26/24
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.520*		*0.500*		*104*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.475*		*0.500*		*95.0*	*70-130*			
Surrogate: Toluene-d8	*0.537*		*0.500*		*107*	*70-130*			
LCS (2448005-BS1)									Prepared: 11/25/24 Analyzed: 12/02/24
Benzene	2.35	0.0250	2.50		94.2	70-130			
Ethylbenzene	2.29	0.0250	2.50		91.7	70-130			
Toluene	2.31	0.0250	2.50		92.3	70-130			
o-Xylene	2.39	0.0250	2.50		95.6	70-130			
p,m-Xylene	4.74	0.0500	5.00		94.9	70-130			
Total Xylenes	7.13	0.0250	7.50		95.1	70-130			
Surrogate: Bromofluorobenzene	*0.579*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.472*		*0.500*		*94.4*	*70-130*			
Surrogate: Toluene-d8	*0.526*		*0.500*		*105*	*70-130*			
LCS Dup (2448005-BSD1)									Prepared: 11/25/24 Analyzed: 11/26/24
Benzene	2.38	0.0250	2.50		95.2	70-130	1.14	23	
Ethylbenzene	2.36	0.0250	2.50		94.3	70-130	2.80	27	
Toluene	2.38	0.0250	2.50		95.1	70-130	3.05	24	
o-Xylene	2.36	0.0250	2.50		94.5	70-130	1.14	27	
p,m-Xylene	4.69	0.0500	5.00		93.9	70-130	1.08	27	
Total Xylenes	7.06	0.0250	7.50		94.1	70-130	1.10	27	
Surrogate: Bromofluorobenzene	*0.528*		*0.500*		*106*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.500*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.528*		*0.500*		*106*	*70-130*			

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	12/3/2024 6:55:27AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2448005-BLK1)									Prepared: 11/25/24 Analyzed: 11/26/24
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.520*		*0.500*		*104*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.475*		*0.500*		*95.0*	*70-130*			
Surrogate: Toluene-d8	*0.537*		*0.500*		*107*	*70-130*			
LCS (2448005-BS2)									Prepared: 11/25/24 Analyzed: 11/26/24
Gasoline Range Organics (C6-C10)	43.2	20.0	50.0		86.4	70-130			
Surrogate: Bromofluorobenzene	*0.541*		*0.500*		*108*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.469*		*0.500*		*93.7*	*70-130*			
Surrogate: Toluene-d8	*0.522*		*0.500*		*104*	*70-130*			
LCS Dup (2448005-BSD2)									Prepared: 11/25/24 Analyzed: 11/26/24
Gasoline Range Organics (C6-C10)	47.1	20.0	50.0		94.2	70-130	8.63	20	
Surrogate: Bromofluorobenzene	*0.568*		*0.500*		*114*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.471*		*0.500*		*94.1*	*70-130*			
Surrogate: Toluene-d8	*0.546*		*0.500*		*109*	*70-130*			

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	12/3/2024 6:55:27AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2448006-BLK1)									Prepared: 11/25/24 Analyzed: 11/25/24
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.7*		*50.0*		*95.4*	*50-200*			
LCS (2448006-BS1)									Prepared: 11/25/24 Analyzed: 11/25/24
Diesel Range Organics (C10-C28)	251	25.0	250		100	38-132			
Surrogate: n-Nonane	*51.3*		*50.0*		*103*	*50-200*			
Matrix Spike (2448006-MS1)				**Source: E411241-02**					Prepared: 11/25/24 Analyzed: 11/25/24
Diesel Range Organics (C10-C28)	2670	125	250	3090	NR	38-132			M4
Surrogate: n-Nonane	*54.4*		*50.0*		*109*	*50-200*			
Matrix Spike Dup (2448006-MSD1)				**Source: E411241-02**					Prepared: 11/25/24 Analyzed: 11/25/24
Diesel Range Organics (C10-C28)	2660	125	250	3090	NR	38-132	0.374	20	M4
Surrogate: n-Nonane	*49.5*		*50.0*		*99.1*	*50-200*			

QC Summary Data

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	**Reported:**
PO Box 61529	Project Number:	17051-0002	
Houston TX, 77208	Project Manager:	Stuart Hyde	12/3/2024 6:55:27AM

Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2448011-BLK1)									Prepared: 11/25/24 Analyzed: 11/26/24
Chloride	ND	20.0							
LCS (2448011-BS1)									Prepared: 11/25/24 Analyzed: 11/26/24
Chloride	251	20.0	250		101	90-110			
Matrix Spike (2448011-MS1)				**Source: E411240-04**					Prepared: 11/25/24 Analyzed: 11/26/24
Chloride	1370	20.0	250	1040	131	80-120			M4
Matrix Spike Dup (2448011-MSD1)				**Source: E411240-04**					Prepared: 11/25/24 Analyzed: 11/26/24
Chloride	1390	20.0	250	1040	140	80-120	1.64	20	M4

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

Definitions and Notes

Hilcorp Energy Co	Project Name:	Salty Dog SWD 1	
PO Box 61529	Project Number:	17051-0002	**Reported:**
Houston TX, 77208	Project Manager:	Stuart Hyde	12/03/24 06:55

M4	Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

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

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

Chain of Custody

Client Information	Invoice Information	Lab Use Only	TAT	State
Client: HEC	Company: HEC	Lab WO# E411240	Job Number 17051.0002	1D 2D 3D Std	NM CO UT TX
Project Name: Salty Dog SWD 1	Address:			
Project Manager: Stuart Hyde	City, State, Zip:			
Address:	Phone:			
City, State, Zip:	Email: MKillough@hilcorp.com			
Phone:	Miscellaneous: Attn: Mitch or Killough			
Email: Shyde@envirotech-inc.com				
CC: Smahanay@envirotech-inc.com				

Sample Information

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Pkg			Remarks
1205	11/21/24	Soil	1,402	HA01@2		1	↓	↓	↓		↓							
1210				HA01@4		2												
1610				HA02@1		3												
1612				HA03@2		4												
1615				HA03@4		5												
1618	↓	↓	↓	HA04@2		6	↓	↓	↓		↓							

Analysis and Method

EPA Program: SDWA | CWA | RCRA

Compliance Y or N

PWSID #

Additional Instructions:

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

Sampled by: Peter Anderson

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10-22-24	10:37		11.22.24	10:37
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

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

Lab Use Only

Received on ice: (Y) N

T1 _____ T2 _____ T3 _____

AVG Temp °C 4

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

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

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

envirotech

Envirotech Analytical Laboratory

Printed: 11/22/2024 10:47:58AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Hilcorp Energy Co	Date Received:	11/22/24 10:37	Work Order ID:	E411240
Phone:	-	Date Logged In:	11/22/24 10:41	Logged In By:	Caitlin Mars
Email:	shyde@ensolum.com	Due Date:	12/02/24 17:00 (5 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Peter Anderson
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

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

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

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

Field Label

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

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date

envirotech Inc.

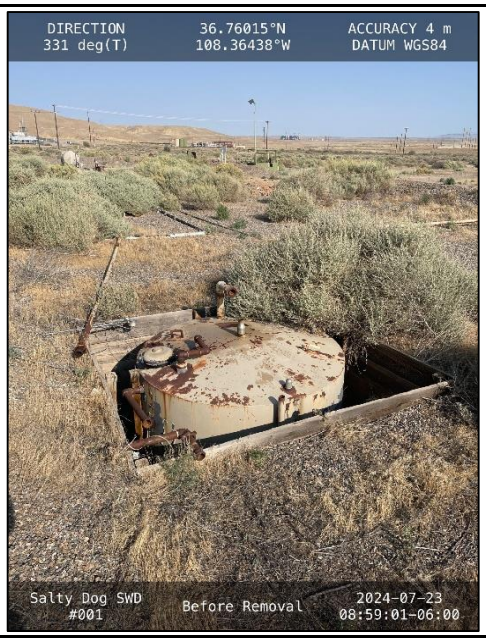
ENSOLUM

APPENDIX B

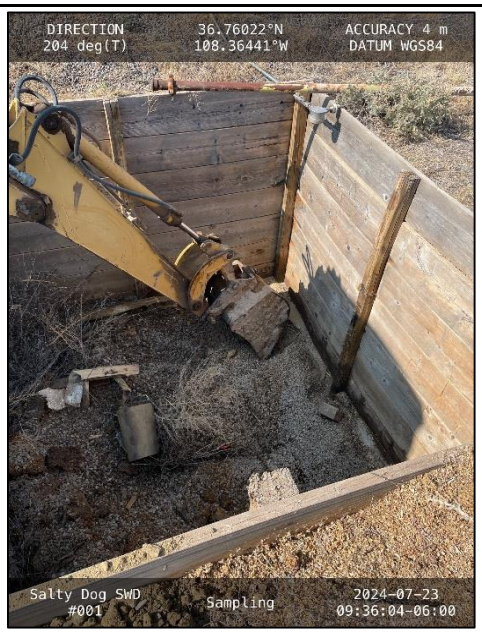
Photographic Log

ENSOLUM

Photographic Log
Hilcorp Energy Company
Salty Dog SWD 1 BGT
Kirtland, New Mexico



Photograph: 1 Date: 7/23/2024
Description: BGT prior to removal
View: Northwest



Photograph: 2 Date: 7/23/2024
Description: Initial BGT confirmation sampling
View: Southwest

Photograph: 3 Date: 8/8/2024
Description: BGT cribbing after removal
View: East

Photograph: 4 Date: 8/8/2024
Description: Site access road and locate markings
View: Southeast

ENSOLUM

Photographic Log
Hilcorp Energy Company
Salty Dog SWD 1 BGT
Kirtland, New Mexico

Photograph: 5 Date: 8/8/2024
Description: Engineered berm on South Side of pad
View: West

Photograph: 6 Date: 8/8/2024
Description: Initial potholing activities
View: South

Photograph: 7 Date: 8/8/2024
Description: Initial potholing activities
View: East

Photograph: 8 Date: 9/4/2024
Description: Additional pothole activities
View: West

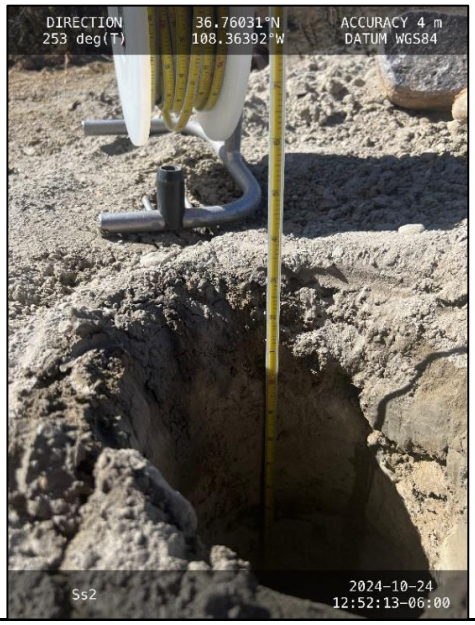
ENSOLUM

Photographic Log
Hilcorp Energy Company
Salty Dog SWD 1 BGT
Kirtland, New Mexico

Photograph: 9 Date: 9/4/2024
Description: Pothole activities
View: East

Photograph: 10 Date: 10/21/2024
Description: Drilling boring BH02
View: South

Photograph: 11 Date: 10/22/2024
Description: BH03 20-21.5 feet below ground surface
View: NA

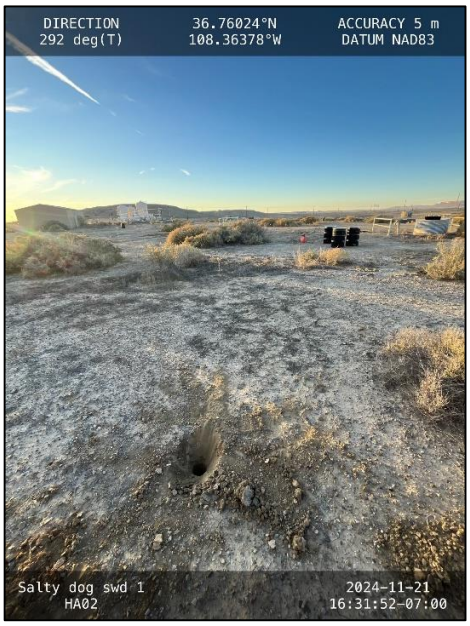


Photograph: 12 Date: 10/24/2024
Description: BH02 dry hole total depth
View: South

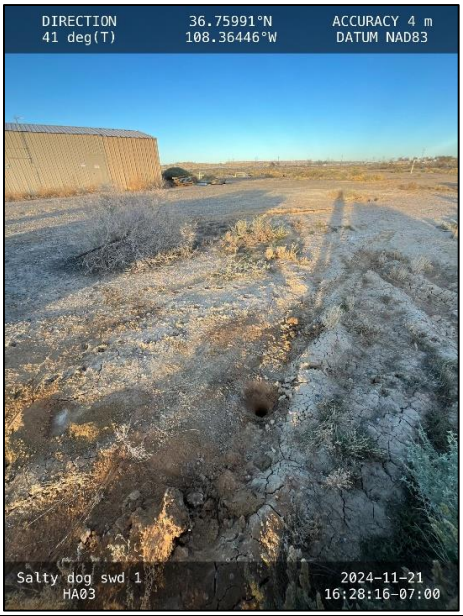
ENSOLUM

Photographic Log
Hilcorp Energy Company
Salty Dog SWD 1 BGT
Kirtland, New Mexico

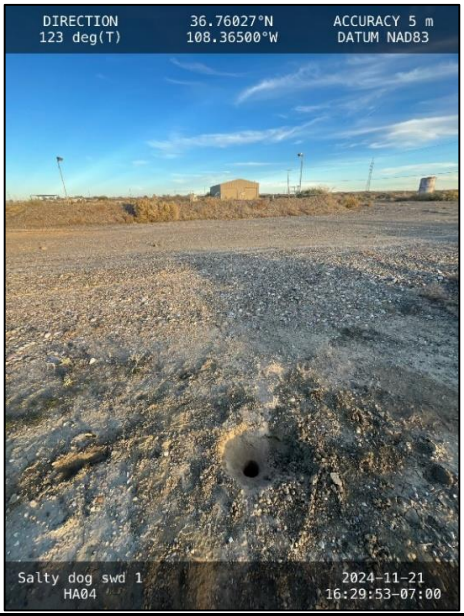
Photograph: 13 Date: 11/21/2024
Description: Hand auger boring HA01
View: Southwest



Photograph: 14 Date: 11/21/2024
Description: Hand auger boring HA02
View: West



Photograph: 15 Date: 11/21/2024
Description: Hand auger boring HA04
View: Northeast



Photograph: 16 Date: 11/21/2024
Description: Hand auger boring HA04
View: Southeast

ENSOLUM

APPENDIX C

Field Borehole Logs and Drilling Reports

ENSOLUM

	Client: HEC	BOREHOLE ID: BH01
	Project Name: Salty Dog #1 BGT	
	Project Location: 36.760096, -108.363714	
	Project Manager: S. Hyde	Date: 10/21/24
Project No.:	Borehole Diameter:	Ground Surface Elevation:
Drilling Company: EnvrioDrill	Casing Diameter: NA	Top of Casing Elevation:
Driller: Rodney & Tyler	Well Materials: NA	Latitude: See above/Field Map
Drilling Equip:	Surface Completion: NA	Longitude:
Logged By: S. Mahaney	Drilling Method: HSA	Total Depth:

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
0							Note: 18 in split spoon sampled @ end of each 5' interval	
1								
2								
3			No Recovery					
4								
5							> Rock in shoe	
6								
7								
8								
9								
10	10-11.5					CL	> Hard dry, yellow brown, silty clay with very fine sand, high plasticity, dry, no odor	
11								
12								
13								
14								
15	15-16.5							
16						ML	> soft, brown, ~~silty~~ sandy fine silt, no plasticity	
17						CL	→ high plasticity clay @ 16" with oxd/red. laminations, dry, no odor	
18								
19								
20	20-21.5							
21							> Hard silty clay, high plasticity in upper half with a little higher silt in lower, oxidation staining throughout, dry, no odor	
22								
23								
24								
25								

ENSOLUM

	Client:	BOREHOLE ID	BH01
	Project Name:		
	Project Location:		
	Project Manager:	Date:	10/21/24 1300
Project No.:	Borehole Diameter:	Ground Surface Elevation:	
Drilling Company:	Casing Diameter:	Top of Casing Elevation:	
Driller:	Well Materials:	Latitude:	
Drilling Equip:	Surface Completion:	Longitude:	
Logged By:	Drilling Method:	Total Depth:	

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
25								
26		25.0-26.5				ML	Dark brown with black organics present, hard laminated sandy (very fine) silt, no plasticity, oxidation staining no odor, dry	
27								
28							Bottom — No GW encountered	
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								

ENSOLUM

	Client: HEC	BOREHOLE ID
	Project Name: Salty Dog #1 BGT	BH02
	Project Location: 36.760096, -108.363714	
	Project Manager: S. Hyde	Date: 10/21/24 1430
Project No.:	Borehole Diameter:	Ground Surface Elevation:
Drilling Company: EnvrioDrill	Casing Diameter: NA	Top of Casing Elevation:
Driller:	Well Materials: NA	Latitude:
Drilling Equip:	Surface Completion: NA	Longitude:
Logged By:	Drilling Method: HSA	Total Depth:

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
5	5-6.5'		100			ML	> sandy (fine) silt with minor clay, yellowbrown, non plastic, soft, dry, mottled oxy/red staining	
10	10-11.5		100			ML/CL	> same as above (sand silt). Clay layer encountered @ 11' bgs Hard high plasticity brown clay with white nodules/grains, no odor & dry	
15	15-16.5		100			CL	> Hard brown clay with silt, low to moderate plasticity, dry no mottled appearance as above. visible salt crystalization No odor	
20	20-21.5		50			ML	> Hard sandy silt, no plasticity, dry, gray/w oxidation staining and laminated texture no odor & dry	

Page:

ENSOLUM

	Client:	BOREHOLE ID	BH02
	Project Name:		
	Project Location:	Date:	10/21/24
	Project Manager:		
Project No.:	Borehole Diameter:	Ground Surface Elevation:	
Drilling Company:	Casing Diameter:	Top of Casing Elevation:	
Driller:	Well Materials:	Latitude:	
Drilling Equip:	Surface Completion:	Longitude:	
Logged By:	Drilling Method:	Total Depth:	

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
25								
26		25-26.5	30			ML	> hard silt with laminated texture, oxidation staining yellow/tan, medium to hard density dry no odor	
27								
28								
29						ML		
30			hard drilling			GP	> same as above hard silt. contact @ ~31' bgs with grey well consolidated/tight ~~sandstone~~ hard clay with gravel poorly sorted cobble - granular, dry, no odor.	
31		30-31.5	30					
32								
33								
34						ML	> ~~saturated~~ odor, slight odor in grey	
35		35-36.5	hard drilling			GP	Sand, silt well cemented/hard (lower half) dry,	
36			100				upper half - clayey silt brown, slight plasticity, hard, dry, no odor	
37								
38								
39								
40			hard drilling			GP	> same as grey above	
41		40-41.5	10%					
42								
43								
44			hard drilling			GP	> same as above	
45		45-46.5	50%					
46								
47								
48								
49								
50			hard drilling				> Same siltstone as above	
		50-51.5						
51								

Page:

- Bottom

ENSOLUM

	Client: HEC	BOREHOLE ID
	Project Name: Salty Dog #1 BGT	BH03
	Project Location: 36.760096, -108.363714	
	Project Manager: S. Hyde	Date: 10/22/24
Project No.:	Borehole Diameter:	Ground Surface Elevation:
Drilling Company: EnvrioDrill	Casing Diameter: NA	Top of Casing Elevation:
Driller:	Well Materials: NA	Latitude:
Drilling Equip:	Surface Completion: NA	Longitude:
Logged By:	Drilling Method: HSA	Total Depth:

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
0–18							Backfill; No screening or sampling	
20	20-21.5'		100				Dark brown friable silt with oxidation staining with minor clay, moderate plasticity to friable, laminated texture in silt, dry, no odor	

ENSOLUM

	Client:	BOREHOLE ID: BH03
	Project Name:	
	Project Location:	
	Project Manager:	Date:
Project No.:	Borehole Diameter:	Ground Surface Elevation:
Drilling Company:	Casing Diameter:	Top of Casing Elevation:
Driller:	Well Materials:	Latitude:
Drilling Equip:	Surface Completion:	Longitude:
Logged By:	Drilling Method:	Total Depth:

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
25								
26		25-26.5					Massive sandy silt. fine sand, yellow/tan with oxidation staining, hard, dry no odor.	
27								
28							-Bottom-	
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								

DAILY DRILLING REPORT

JOB COMPLETED ☐ YES ☑ NO

NO. JOBS THIS DAY 1

Client Ensolum Date 10-21-24 Start: 7:00 End: 6:00

Project Salty Dog SWD + BGT Job No. 23424 468

Location San Juan County City Bloomfield NM

Project Type: ☐ Contract ☐ WT ☐ Enviro ☑ Geotech ☐ Labor Only ☐ Other

DRILLING

CLIENT HOLE NO.	DRILL DEPTH FROM –	DRILL DEPTH TO –	PERCOLATION	BIT SIZE	BIT TYPE	NO. OF SAMPLES RING	SPLIT	CA	BN
1	0	25'							
2	0	45'							

FOOTAGE DRILLED | DRILL RATE PER HOUR | TOTAL SAMPLES

FORMATION DRILLED AND DEPTH

- ☑ SAND
- ☑ SILT
- ☑ CLAY
- ☐ CALICHE
- ☑ GRAVEL
- ☐ COBBLES
- ☑ MEDIUM SOFT
- ☑ MEDIUM HARD
- ☐ EXTREMELY HARD
- ☐ REFUSAL

GROUNDWATER TABLE ENCOUNTERED ☐ YES ☐ NO

GROUNDWATER DEPTH

FUNCTION	SERVICE PERFORMED	QTY.	RATE	CHARGE
262	MAKE READY / DECONTAMINATION – BEFORE / AFTER JOB	1.5		
212	MOBILIZE / DEMOBILIZE EQUIPMENT	4.0		
212	DRILLING INCLUDES: SAFETY MEETING			
	DRILL OPERATIONS	5.0		
	REAMING HOLE(S)			
	MOVING BETWEEN SITE(S)			
	GROUTING, HOURS ____ FEET ____			
	SITE CLEANUP			
212	MISCELLANEOUS LABOR INCLUDES: DECONTAMINATION SERVICES			
	MOVING DRUMS			
	CREW TRAVEL WITHOUT RIG	.5		
212	LABORER			
212	WELL INSTALLATION			
212	WELL DEVELOPMENT			
212	WELL ABANDONMENT			
250	STANDBY & DELAYS (EXPLAIN)			
212	CREW OVERTIME			
–	PER DIEM			
212	MEAL / MISC. BREAKS (DOT REQUIRED)			
278	CREW BREAK			
276	PERMITS / REPORTS			
277	SUPERVISORY TIME			

REMARKS:

MAN-HOUR ALLOCATION		HOURS
OPERATOR	Rod B	11.0
ASSISTANT	Tyler H	11.0
LABORER		

– SIGNATURE APPROVING WORK CONTENT –

CLIENT SIGNATURE:

P.O./W.O./JOB NO.:

RENTALS / SUPPLIES	QTY.	RATE	CHARGE
SUPPORT VEHICLE / TRAILER	1		
GENERATOR			
TRAILER(S)			
CORING MACHINE / SAW CUT			
BULLET TEETH			
PORTLAND CEMENT	2		
PRE-MIX			
ASPHALT			
VISQUEEN			
DRUMS	4		
BRASS SLEEVES, SIZE:			
PVC CASING IN. X 5 FT.			
PVC CASING IN. X 10 FT.			
SCREEN .0 ____ 0 SLOT IN. X 5 FT.			
SCREEN .0 ____ 0 SLOT IN. X 10 FT.			
TOP LOCKING CAP			
BOTTOM CAP			
SAND-SACKS, GRADE NO.:			
WELL VAULT, SIZE: IN.			
BENTONITE PELLETS, PAILS:			
BENTONITE POWDER, SACKS:	1		
JACK HAMMER			
AIR COMPRESSOR, SIZE:			

EQUIPMENT	UNIT NO.	STARTING MILEAGE	ENDING MILEAGE	TOTAL MILES	RATE	CHARGE
RIG	1158					
SUPPORT VEHICLE	1084					

RIG / TRUCK DOWN TIME, HOURS (EXPLAIN BELOW)

DAMAGED OR LOST EQUIPMENT:

White – Invoicing; Yellow – Client

Enviro-Drill

E10 – 1994

DAILY DRILLING REPORT

JOB COMPLETED ☑ YES ☐ NO

NO. JOBS THIS DAY 2

Client Ensolum Date 10-22-24 Start: 7:00 End: 3:00

Project Salty Dog SWD + BGT Job No. 23-821 468

Location San Juan County City Kirtland NM

Project Type: ☐ Contract ☐ WT ☐ Enviro ☐ Geotech ☐ Labor Only ☐ Other

DRILLING

CLIENT HOLE NO.	DRILL DEPTH FROM –	DRILL DEPTH TO –	PERCOLATION	BIT SIZE	BIT TYPE	NO. OF SAMPLES RING	SPLIT	CA	BN
2	45'	50'							
3	0	25'							

FORMATION DRILLED AND DEPTH

- ☑ SAND
- ☑ SILT
- ☑ CLAY
- ☐ CALICHE
- ☑ GRAVEL
- ☑ COBBLES
- ☑ MEDIUM SOFT
- ☑ MEDIUM HARD
- ☐ EXTREMELY HARD
- ☐ REFUSAL

FOOTAGE DRILLED | DRILL RATE PER HOUR | TOTAL SAMPLES

GROUNDWATER TABLE ENCOUNTERED ☐ YES ☐ NO

GROUNDWATER DEPTH

FUNCTION	SERVICE PERFORMED	QTY.	RATE	CHARGE
262	MAKE READY / DECONTAMINATION – BEFORE / AFTER JOB	.5		
212	MOBILIZE / DEMOBILIZE EQUIPMENT	.5		
212	DRILLING INCLUDES: SAFETY MEETING			
	DRILL OPERATIONS			
	REAMING HOLE(S)			
	MOVING BETWEEN SITE(S)			
	GROUTING, HOURS ____ FEET ____			
	SITE CLEANUP			
212	MISCELLANEOUS LABOR INCLUDES: DECONTAMINATION SERVICES			
	MOVING DRUMS			
	CREW TRAVEL WITHOUT RIG	.5		
212	LABORER			
212	WELL INSTALLATION			
212	WELL DEVELOPMENT			
212	WELL ABANDONMENT			
250	STANDBY & DELAYS (EXPLAIN)	2.0		
212	CREW OVERTIME			
–	PER DIEM			
212	MEAL / MISC. BREAKS (DOT REQUIRED)			
278	CREW BREAK			
276	PERMITS / REPORTS			
277	SUPERVISORY TIME			

REMARKS: Waiting on Backhoe to fill in Holes

MAN-HOUR ALLOCATION		HOURS
OPERATOR	Rob B	8.0
ASSISTANT	Tyler H	8.0
LABORER		

– SIGNATURE APPROVING WORK CONTENT –

CLIENT SIGNATURE:

P.O./W.O./JOB NO.:

RENTALS / SUPPLIES	QTY.	RATE	CHARGE
SUPPORT VEHICLE / TRAILER	1		
GENERATOR			
TRAILER(S)			
CORING MACHINE / SAW CUT			
BULLET TEETH			
PORTLAND CEMENT	2		
PRE-MIX			
ASPHALT			
VISQUEEN			
DRUMS	1		
BRASS SLEEVES, SIZE:			
PVC CASING IN. X 5 FT.			
PVC CASING IN. X 10 FT.			
SCREEN .0 ____ 0 SLOT IN. X 5 FT.			
SCREEN .0 ____ 0 SLOT IN. X 10 FT.			
TOP LOCKING CAP			
BOTTOM CAP			
SAND-SACKS, GRADE NO.:			
WELL VAULT, SIZE: IN.			
BENTONITE PELLETS, PAILS:	1		
BENTONITE POWDER, SACKS:			
JACK HAMMER			
AIR COMPRESSOR, SIZE:			

EQUIPMENT	UNIT NO.	STARTING MILEAGE	ENDING MILEAGE	TOTAL MILES	RATE	CHARGE
RIG	1113					
SUPPORT VEHICLE	1084					

RIG / TRUCK DOWN TIME, HOURS (EXPLAIN BELOW)

DAMAGED OR LOST EQUIPMENT:

White – Invoicing; Yellow – Client

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DAILY DRILLING REPORT

JOB COMPLETED ☐ YES ☐ NO

NO. JOBS THIS DAY 3

Client Enrolum Date 10-23-24 Start: 7:00 End: 12:00

Project Salty Dog SWD & BGT Job No. 22-824 468

Location San Juan County City Kirtland NM

Project Type: ☐ Contract ☐ WT ☐ Enviro ☐ Geotech ☐ Labor Only ☐ Other

DRILLING

CLIENT HOLE NO.	DRILL DEPTH FROM –	DRILL DEPTH TO –	PERCOLATION	BIT SIZE	BIT TYPE	NO. OF SAMPLES RING	SPLIT	CA	BN

FORMATION DRILLED AND DEPTH

- ☐ SAND
- ☐ SILT
- ☐ CLAY
- ☐ CALICHE
- ☐ GRAVEL
- ☐ COBBLES
- ☐ MEDIUM SOFT
- ☐ MEDIUM HARD
- ☐ EXTREMELY HARD
- ☐ REFUSAL

GROUNDWATER TABLE ENCOUNTERED ☐ YES ☐ NO

GROUNDWATER DEPTH

FOOTAGE DRILLED | DRILL RATE PER HOUR | TOTAL SAMPLES

FUNCTION	SERVICE PERFORMED	QTY.	RATE	CHARGE
262	MAKE READY / DECONTAMINATION – BEFORE / AFTER JOB	1.0		
212	MOBILIZE / DEMOBILIZE EQUIPMENT	4.0		
212	DRILLING INCLUDES: SAFETY MEETING			
	DRILL OPERATIONS			
	REAMING HOLE(S)			
	MOVING BETWEEN SITE(S)			
	GROUTING, HOURS ____ FEET ____			
	SITE CLEANUP			
212	MISCELLANEOUS LABOR INCLUDES: DECONTAMINATION SERVICES			
	MOVING DRUMS			
	CREW TRAVEL WITHOUT RIG			
212	LABORER			
212	WELL INSTALLATION			
212	WELL DEVELOPMENT			
212	WELL ABANDONMENT			
250	STANDBY & DELAYS (EXPLAIN)			
212	CREW OVERTIME			
–	PER DIEM			
212	MEAL / MISC. BREAKS (DOT REQUIRED)			
278	CREW BREAK			
276	PERMITS / REPORTS			
277	SUPERVISORY TIME			

RENTALS / SUPPLIES	QTY.	RATE	CHARGE
SUPPORT VEHICLE / TRAILER	1		
GENERATOR			
TRAILER(S)			
CORING MACHINE / SAW CUT			
BULLET TEETH			
PORTLAND CEMENT			
PRE-MIX			
ASPHALT			
VISQUEEN			
DRUMS			
BRASS SLEEVES, SIZE:			
PVC CASING IN. X 5 FT.			
PVC CASING IN. X 10 FT.			
SCREEN .0 ____ 0 SLOT IN. X 5 FT.			
SCREEN .0 ____ 0 SLOT IN. X 10 FT.			
TOP LOCKING CAP			
BOTTOM CAP			
SAND-SACKS, GRADE NO.:			
WELL VAULT, SIZE: IN.			
BENTONITE PELLETS, PAILS:			
BENTONITE POWDER, SACKS:			
JACK HAMMER			
AIR COMPRESSOR, SIZE:			

REMARKS:

MAN-HOUR ALLOCATION	HOURS
OPERATOR Rod B	5.0
ASSISTANT Tyler H	5.0
LABORER	

EQUIPMENT	UNIT NO.	STARTING MILEAGE	ENDING MILEAGE	TOTAL MILES	RATE	CHARGE
RIG	113					
SUPPORT VEHICLE	1084					

RIG / TRUCK DOWN TIME, HOURS (EXPLAIN BELOW)

DAMAGED OR LOST EQUIPMENT:

– SIGNATURE APPROVING WORK CONTENT –

CLIENT SIGNATURE:

P.O./W.O./JOB NO.:

White – Invoicing; Yellow – Client

Enviro-Drill

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

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

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 415123
	Action Type: [C-144] Below Grade Tank Plan (C-144B)

CONDITIONS

Created By	Condition	Condition Date
jeffrey.harrison	The closure report and modification of the estimate to the depth of groundwater to greater than 51 feet below ground surface for the below ground tank (BGT1) for the Salty Dog SWD 1 (30-045-29946) has been approved. Please note that at the time of approval, however, closure and remediation activities for the site remain ongoing from a historical release that was discovered after removing and sampling under the tank that was reported to the division under incident number nAPP2430352742. The operator will continue to work with the NMOCD's incident group to ensure successful remediation and closure requirements for the location.	12/26/2024