

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	

I Release Notification

Responsible Party

Responsible Party Hilcorp Energy	OGRID 372171
Contact Name Billy Ginn	Contact Telephone 346-237-2073
Contact email William.ginn@hilcorp.com	Incident # (assigned by OCD) nCS2129551635
Contact mailing address 382 CR 3100 Aztec NM 87410	

Location of Release Source

Latitude 36.510195 _____ Longitude -107.189962 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Tribal C 1	Site Type Well Site (Plugged)
Date Release Discovered 10/8/2021	API# (if applicable) 30-039-06655

Unit Letter	Section	Township	Range	County
M	06	26N	3W	Rio Arriba

Surface Owner: ☐ State ☐ Federal ☒ Tribal ☐ Private (Name: _____)

Nature and Volume of Release (Updated)

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input checked="" type="checkbox"/> Other (describe) Historic Hydrocarbon	Volume/Weight Released (provide units) Unknown	Volume/Weight Recovered (provide units) <1 bbl

Cause of Release

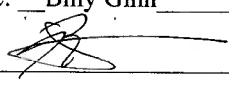
During BGT closure activities of a P&A well on October 8, 2021, Hilcorp Energy Company (Hilcorp) discovered a release of <1 bbl of historic hydrocarbons at the Tribal C 1 (API No. 30-039-06655). The release was due historic contamination. The release was isolated to only surface staining within the BGT pit. The visibly-impacted surface area measured approximately 14 ft x 14 ft (196 ft²) on the surface. No fluids were recovered at the time of the incident.

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

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: This is a historic release and there was no active source at the time of discovery.	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Billy Ginn</u>	Title: <u>Environmental Specialist</u>
Signature: 	Date: <u>10/20/2021</u>
email: <u>William.ginn@hilcorp.com</u>	Telephone: <u>346-237-2073</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

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Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>693</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

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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: Billy Ginn Title: Environmental SpecialistSignature:  Date: 11/30/2021email: William.ginn@hilcorp.com Telephone: 346-237-2073**OCD Only**

Received by: _____ Date: _____

Incident ID	
District RP	
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Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Billy Ginn Title: Environmental Specialist


Signature:  Date: 11/30/2021

email: William.ginn@hilcorp.com Telephone: 346-237-2073

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: 01/06/2022

Printed Name: Nelson Velez Title: Environmental Specialist - Adv

Executive Summary

During BGT closure activities of a P&A well on October 8, 2021, Hilcorp Energy Company (Hilcorp) discovered a release of <1 bbl of historic hydrocarbons at the Tribal C 1 (API No. 30-039-06655). The release was due historic contamination. The release was isolated to only surface staining within the BGT pit. The visibly-impacted surface area measured approximately 14 ft x 14 ft (196 ft²) on the surface. No fluids were recovered at the time of the incident.

Following the initial investigation, Hilcorp chose to assess soil impacts by taking samples of the impacted area. Lab samples confirmed that the impacts were limited to staining at the surface of the BGT pit. Hilcorp chose to remediate the site via dig/haul with the use of a backhoe. Prior to commencing any excavation activities, a one-call was made. One excavation event occurred on Wednesday, November 10th, 2021. A total of 19 cubic yards (yd³) was excavated from the release area.

Confirmation sampling was scheduled for the same day on Wednesday, November 10th, 2021 at 10:00 am in accordance with NMAC 19.15.29.12.D. However, no representation from NMOCD was present at the time of the scheduled sampling. Hilcorp's Kurt Hoekstra proceeded with the confirmation sampling event as scheduled. Due to its' proximity to a significant watercourse, this site is ranked ≤ 50 ft per NMAC 19.15.29.12.E. One (1) five-point composite sample was collected from the base of the pit of the excavated area, along with two (2) discrete samples. Results for all soil samples were shown to be below the applicable clean up action levels. Approximately 20 yd³ of clean, compacted non-waste containing earthen material, already residing at the well pad, was used for backfilling the excavation in accordance with NMAC 19.15.29.12.D.2. Refer to sample field notes for additional excavation information.

Supporting Calculations for Volume Estimate

Average TPH Concentration throughout impacted area: 7945 mg/kg (historic hydrocarbons)

Soil Density: 1800 kg/m³ (average high)

TPH Density: 14.391 kg/m³

Area of Impact: 8.3 m³ (converted from 294 ft³ impacted area)

Historic Hydrocarbon Contamination Density: 900 kg/m³

Soil Density: 1800 kg/m³ (average high)

Total Mass of TPH in Soil: 118.7 kg

$$\frac{(7945 \text{ mg})(1800 \text{ kg})(1 \text{ kg})}{(1 \text{ kg soil})(1 \text{ m}^3 \text{ soil})(1000000 \text{ mg})} = 14.301 \text{ kg/m}^3 \text{ TPH Density}$$

$$\frac{(14.301 \text{ kg})(8.3 \text{ m}^3)}{1 \text{ m}^3} = 118.7 \text{ kg Total Mass of TPH in Soil}$$

$$\frac{(118.7 \text{ kg})(6.29 \text{ bbls})}{(900 \text{ kg})(1 \text{ m}^3)} = \mathbf{0.82 \text{ bbls TPH}}$$

Scaled Map






Note 1: The surface extent of the Tribal C 1 release is represented by the red square shown in image above. Note that all spilled liquids remained within secondary containment.

Scaled Map – Close-up

N
↑



-  Area of Release
-  5-pt Composite Sample Location
-  Discrete Samples

Note 1: The total impacted material excavated was approximately 19 cubic yards.

Determination of water sources and significant watercourses within ½ mile of the lateral extent of the release



Note 1: Release point shown to be within 300 ft of a significant water course; therefore, the most stringent Table 1 Closure Criteria will be utilized.

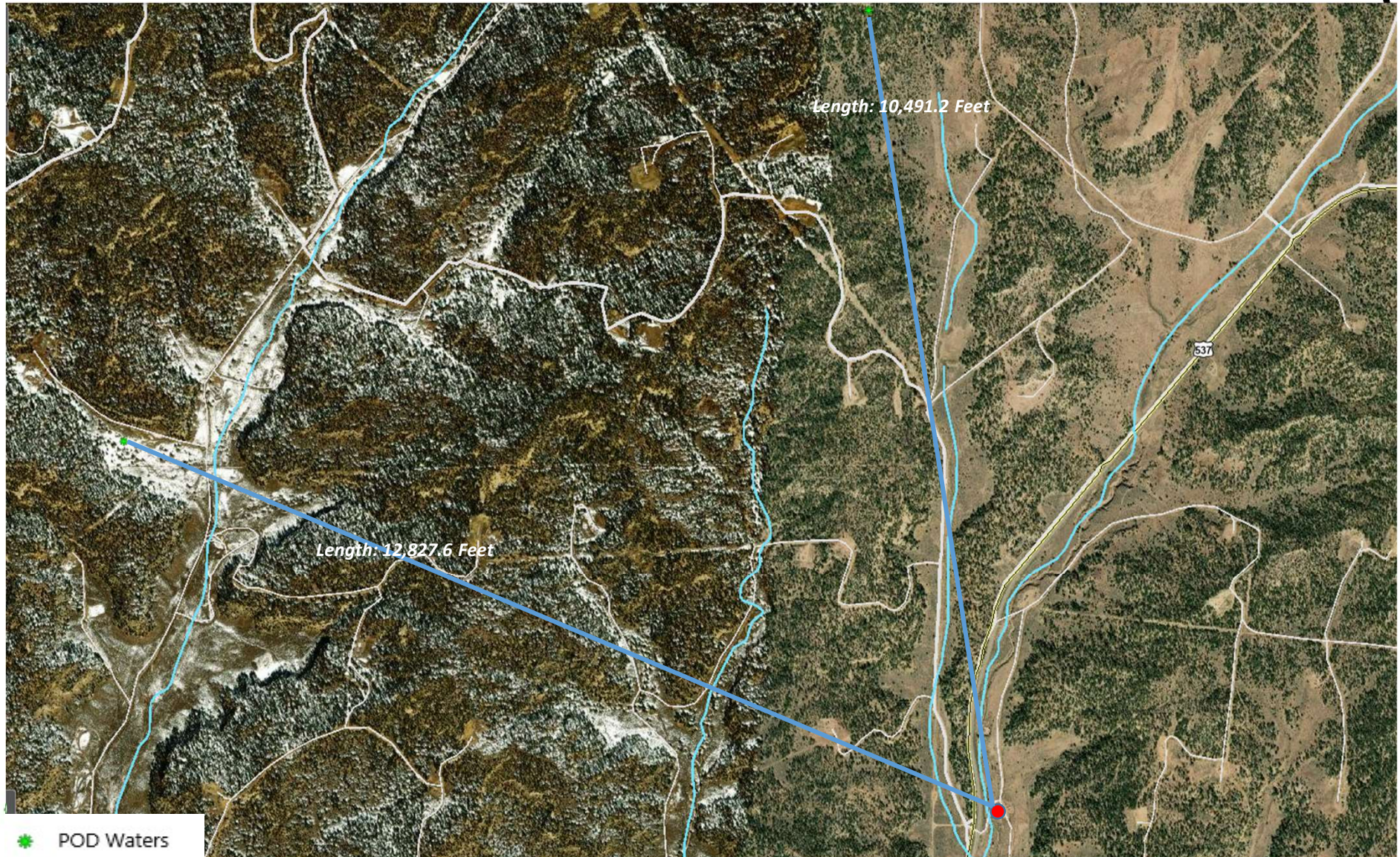
Note 2: The lateral extents of the release point are not shown to be within 300 feet of a mapped wetland.

Determination of water sources and significant watercourses within
 $\frac{1}{2}$ mile of the lateral extent of the release



Note: Release point is shown to be within 300 ft of a significant water course.

Distance to mapped water wells



Note: The lateral extents of the release point are not shown to be within 500 ft of a spring or domestic freshwater well used by less than 5 households (or stock watering) or within 1,000 ft of any freshwater water well or spring.

Depth to groundwater

Noble Energy, Inc.
Below-grade Tank
Hydrogeologic Report
(Item 11)
San Juan Basin Locations

The below-grade tank described in this application is located within the planning area of the Farmington Field Office of the Bureau of Land Management. This office prepared a Resource Management Plan and Environmental Impact Statement in March 2003 (USDI 2003). Geology of the region was analyzed in this document. A summary of this section (Geology and Minerals pages 3-4 -3-9 in Farmington Proposed Resource Management Plan and Final Environmental Impact Statement 2003) is included below as relevant to the below-grade tank for which a C-144 form is being submitted. Additional sources of information for this resource are listed in the original text

The San Juan Basin, an asymmetrical syncline roughly 200 miles long and 130 miles wide (including the portion that extends north into Colorado), is the dominant geological feature of northwestern New Mexico. The San Juan Basin reached its current structural arrangement upon completion of downwarping of Cretaceous-aged rocks at the end of the Laramide uplift. Later, deeply buried organic matter was heated and gas and oil were formed in stratigraphic traps in the basin. Epicontinental sea deposition that occurred between periods of major uplift created the Cambrian to Quaternary sedimentary rocks that are found over Precambrian rocks. Depositional environments for rock units included deep marine, shoreline, continental, and fluvial. Wind-blown sand also contributed to the depositional environment in the Triassic-Jurassic interval. Tertiary sediments arrived in the San Juan Basin when the San Juan Mountains and southern Rocky Mountains began to erode and these sediments were transported and deposited in the basin (in the Tertiary period).

Rocks of the San Juan Basin include predominately shales and sandstones that range in age from Cambrian to Quaternary. Coals, carbonates, and igneous rocks are also found in the basin to a lesser degree. Together, the sedimentary rocks are more than 14,000 feet thick at the New Mexico/Colorado state line. Six thousand feet of Cretaceous sandstones, siltstones, shales, and coals form the top layers in the basin. The hydrocarbon reservoirs in the basin are all within these Cretaceous layers where plants and animals decomposed. These include the Fruitland Formation, Pictured Cliffs Sandstone, Mesa Verde Group, and Dakota Sandstone. Shales and sandstones from the Permian through the Pennsylvanian periods (1,700 – 2,900 feet thick) are found below these layers. The oldest layer of rocks, the Precambrian basement rocks, are located more than 7,500 feet below sea level in the basin's deepest part.

Understanding the geology of the San Juan Basin sets the stage for understanding its hydrology. As with geology, hydrology of the basin was researched and described in the Farmington Proposed RMP and Final EIS (USDI 2003). The following is a summary of this report as pertains to the below-grade tank that is being permitted through the Oil Conservation District.

Note: Groundwater information taken from the registered Form C-144 for Below-Grade Tank at the Tribal C 1. The estimated groundwater depth is shown to be 693 ft.

Source: Page extracted from Registered Pit Closure Permit (Form C-144) for the Tribal C 1. Found on OCD's website under Tribal C 1(30-039-06655) – Associated Images – Well File Search (10/13/2021).

Depth to groundwater (Cont.)

Note: Groundwater information taken from the registered Form C-144 for Below-Grade Tank at the Tribal C 1. The estimated groundwater depth is shown to be 693 ft.

Source: Page extracted from Registered Pit Closure Permit (Form C-144) for the Tribal C 1. Found on OCD's website under Tribal C 1(30-039-06655) – Associated Images – Well File Search (10/13/2021).

Aquifers are found in the sandstones under the San Juan Basin as well as within unconsolidated sands and gravels. Water quality in these aquifers ranges from fair to poor (varying degrees of salinity). The largest aquifer under the San Juan Basin is the Uinta-Animas Aquifer. This aquifer is made up of the San Jose Formation, the Animas Formation, the Nacimiento Formation and the Ojo Sandstone. This aquifer reaches its maximum thickness at the northeast end of the basin at approximately 3,500 feet. The Uinta-Animas aquifer receives groundwater recharge from the higher altitude areas of the basin, which are located along its margins. Water is discharged from the aquifer toward the San Juan River and is discharged into streams, valley alluvium, and lost to vegetation evapotranspiration.

The Mesaverde Aquifer is also present in the San Juan Basin. Its water-yielding components are within the Upper Cretaceous Mesaverde Group as well as in some Tertiary and other Upper Cretaceous formations. The Mesaverde aquifer reaches its maximum thickness at the southern end of the basin at approximately 4,500 feet. It receives recharge from areas of higher elevation that receive more precipitation. Water is discharged from the aquifer along streams and rivers including the San Juan River and the Chaco River.


Groundwater is also present in unconsolidated sand and gravel of the Rio Grande aquifer system. Water enters this aquifer through runoff from mountainous areas surrounding the basin. Most of this water is lost through evaporation before it can reach the aquifer. The quality of this water is affected by the quality of the runoff that reaches it.

From: Farmington Proposed Resource Management Plan and Final Environmental Impact Statement. March 2003 US Department of Interior, Bureau of Land Management, Farmington Field Office, Farmington, NM (BLM-NM-PL-03-014-1610).

Depth to groundwater

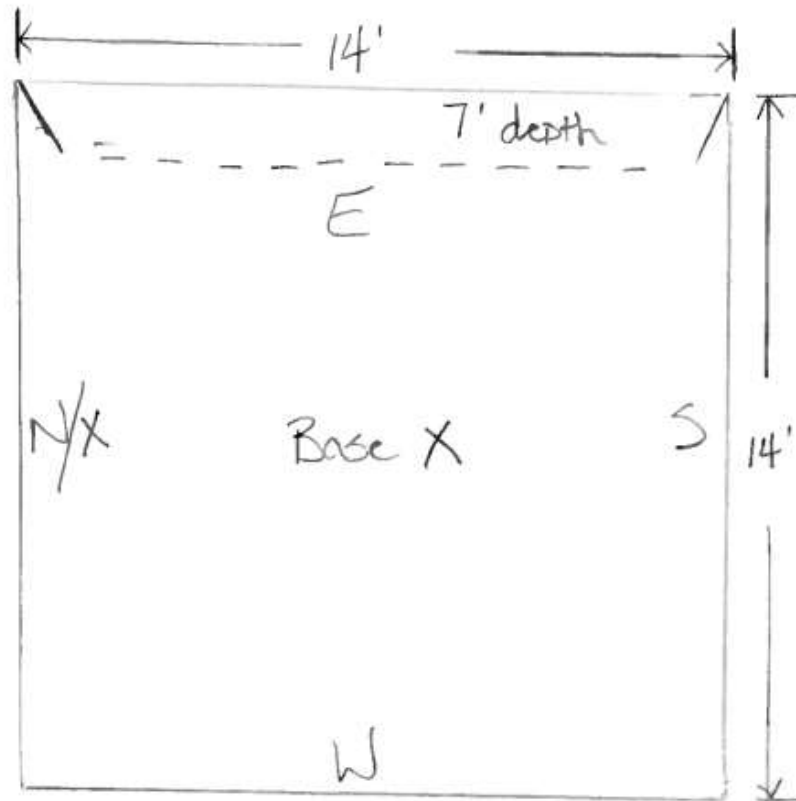


New Mexico Office of the State Engineer Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	SJ 01205	4	4	4	34	27N	04W	300255	4044335* 
<hr/>									
Driller License:	727	Driller Company:				AZTEC WELL SERVICING CO. INC.			
Driller Name:	SANDEL, JERRY								
Drill Start Date:	10/18/1980	Drill Finish Date:				10/25/1980	Plug Date:		
Log File Date:	11/20/1980	PCW Rcv Date:				12/22/1980	Source:		Artesian
Pump Type:	SUBMER	Pipe Discharge Size:				2	Estimated Yield:		
Casing Size:	7.63	Depth Well:				3054 feet	Depth Water:		750 feet
<hr/>									
Water Bearing Stratifications:					Top	Bottom	Description		
					892	3004	Sandstone/Gravel/Conglomerate		
<hr/>									
Casing Perforations:					Top	Bottom			
					792	3004			

Note: NMOSE data pulled from 9 sections including the release point is shown above. Depth to groundwater in the sources is 750 ft at an elevation of 7005 ft. Tribal C 1's elevation is 6948 ft. From that groundwater depth can be estimated at 693 ft. Release point shown to be within 300 ft of a significant water course; therefore, the most stringent Table 1 Closure Criteria will be utilized.

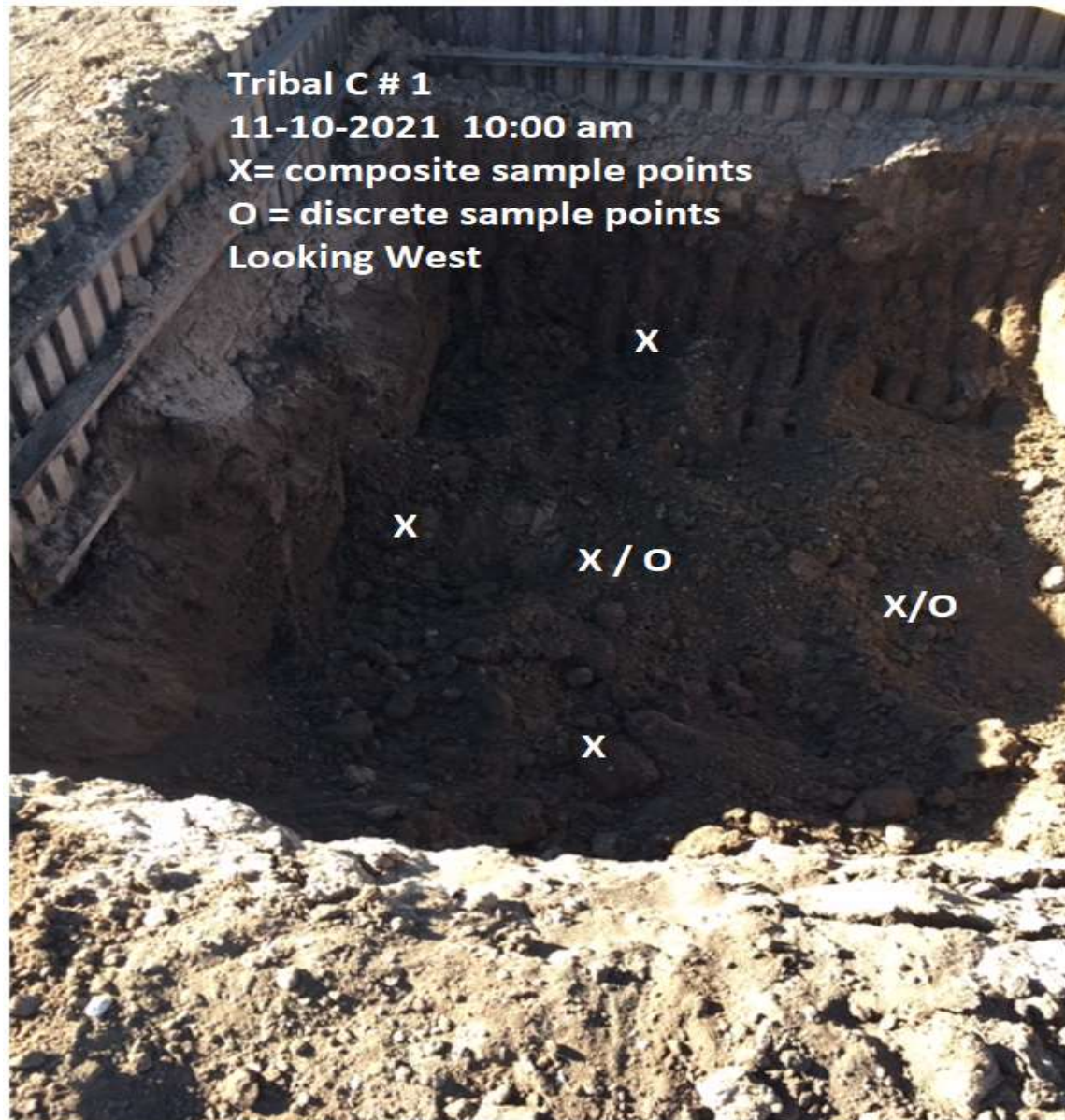
Sample field notes



Sample pts. = N, S, E, W, Base (5pt.)

X = Discrete Sample

Sample locations – 11/10/21 at 10:00 am, 36.510440°N 107.1900283°W



Sample locations – 11/10/21 at 10:00 am, 36.510440°N 107.1900283°W



North view of BGT pit.

Backfill Photographs— 11/22/21 at 10:30 am, 36.510440°N 107.1900283°W



North view

Backfill Photographs— 11/22/21 at 10:30 am, 36.510440°N 107.1900283°W



South view

Backfill Photographs— 11/22/21 at 10:30 am, 36.510440°N 107.1900283°W



East view

Backfill Photographs— 11/22/21 at 10:30 am, 36.510440°N 107.1900283°W



West view

Data table of soil contaminant concentration data

TABLE 1

SOIL ANALYTICAL RESULTS

Tribal C 1

HILCORP ENERGY - L48 WEST

Soil Sample Identification	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	TPH GRO+DRO+MRO (mg/kg)
BGT Composite	11/10/2021	<0.024	<0.047	<0.047	<0.094	ND	<60	<4.7	27	<47	27.0
Discrete Sample No. 1	11/10/2021	<0.025	<0.050	<0.050	<0.10	ND	<60	<5.0	<9.8	<49	N/A
Discrete Sample No. 2	11/10/2021	<0.025	<0.050	<0.050	<0.099	ND	<60	<5.0	63	<47	63.0
NMOCD Table 1 Closure Criteria		10	NE	NE	NE	50	600	NE	NE	NE	100

Note: Confirmation samples were collected on 11/10/2021 by Hilcorp personnel. All samples came back below action levels.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

November 24, 2021

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

RE: Tribal C 1

OrderNo.: 2111599

Dear Billy Ginn:

Hall Environmental Analysis Laboratory received 3 sample(s) on 11/11/2021 for the analyses presented in the following report.

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

Please don't hesitate to contact HEAL for any additional information or clarifications.

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2111599

Date Reported: 11/24/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: Discrete Center

Project: Tribal C 1

Collection Date: 11/10/2021 10:05:00 AM

Lab ID: 2111599-001

Matrix: SOIL

Received Date: 11/11/2021 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/17/2021 3:07:29 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/17/2021 3:07:29 PM
Surr: DNOP	89.9	70-130		%Rec	1	11/17/2021 3:07:29 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: mb
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/15/2021 10:21:00 AM
Surr: BFB	104	70-130		%Rec	1	11/15/2021 10:21:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: mb
Benzene	ND	0.025		mg/Kg	1	11/15/2021 10:21:00 AM
Toluene	ND	0.050		mg/Kg	1	11/15/2021 10:21:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	11/15/2021 10:21:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	11/15/2021 10:21:00 AM
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	11/15/2021 10:21:00 AM
EPA METHOD 300.0: ANIONS						Analyst: LRN
Chloride	ND	60		mg/Kg	20	11/15/2021 2:51:25 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2111599

Date Reported: 11/24/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: Discrete East

Project: Tribal C 1

Collection Date: 11/10/2021 10:10:00 AM

Lab ID: 2111599-002

Matrix: SOIL

Received Date: 11/11/2021 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	63	9.4		mg/Kg	1	11/17/2021 3:20:17 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/17/2021 3:20:17 PM
Surr: DNOP	88.5	70-130		%Rec	1	11/17/2021 3:20:17 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: mb
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/15/2021 11:20:00 AM
Surr: BFB	104	70-130		%Rec	1	11/15/2021 11:20:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: mb
Benzene	ND	0.025		mg/Kg	1	11/15/2021 11:20:00 AM
Toluene	ND	0.050		mg/Kg	1	11/15/2021 11:20:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	11/15/2021 11:20:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	11/15/2021 11:20:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	11/15/2021 11:20:00 AM
EPA METHOD 300.0: ANIONS						Analyst: LRN
Chloride	ND	60		mg/Kg	20	11/15/2021 3:03:49 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2111599

Date Reported: 11/24/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: Composite 7' D

Project: Tribal C 1

Collection Date: 11/10/2021 10:15:00 AM

Lab ID: 2111599-003

Matrix: SOIL

Received Date: 11/11/2021 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	27	9.4		mg/Kg	1	11/16/2021 11:44:53 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/16/2021 11:44:53 AM
Surr: DNOP	95.9	70-130		%Rec	1	11/16/2021 11:44:53 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: mb
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/15/2021 11:40:00 AM
Surr: BFB	103	70-130		%Rec	1	11/15/2021 11:40:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: mb
Benzene	ND	0.024		mg/Kg	1	11/15/2021 11:40:00 AM
Toluene	ND	0.047		mg/Kg	1	11/15/2021 11:40:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	11/15/2021 11:40:00 AM
Xylenes, Total	ND	0.094		mg/Kg	1	11/15/2021 11:40:00 AM
Surr: 4-Bromofluorobenzene	113	70-130		%Rec	1	11/15/2021 11:40:00 AM
EPA METHOD 300.0: ANIONS						Analyst: LRN
Chloride	ND	60		mg/Kg	20	11/15/2021 3:16:13 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2111599

24-Nov-21

Client: HILCORP ENERGY**Project:** Tribal C 1

Sample ID: MB-63931	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 63931	RunNo: 82840								
Prep Date: 11/15/2021	Analysis Date: 11/15/2021	SeqNo: 2942094	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-63931	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 63931	RunNo: 82840								
Prep Date: 11/15/2021	Analysis Date: 11/15/2021	SeqNo: 2942095	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2111599

24-Nov-21

Client: HILCORP ENERGY**Project:** Tribal C 1

Sample ID: MB-63901	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 63901	RunNo: 82883								
Prep Date: 11/12/2021	Analysis Date: 11/16/2021	SeqNo: 2943533			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		105	70	130			

Sample ID: LCS-63901	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 63901	RunNo: 82883								
Prep Date: 11/12/2021	Analysis Date: 11/16/2021	SeqNo: 2943542			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.7	68.9	135			
Surr: DNOP	5.3		5.000		106	70	130			

Sample ID: 2111599-003AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: Composite 7' D	Batch ID: 63935	RunNo: 82886								
Prep Date: 11/15/2021	Analysis Date: 11/16/2021	SeqNo: 2943796			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	240	9.6	48.08	26.52	441	39.3	155			S
Surr: DNOP	4.5		4.808		93.3	70	130			

Sample ID: 2111599-003AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: Composite 7' D	Batch ID: 63935	RunNo: 82886								
Prep Date: 11/15/2021	Analysis Date: 11/16/2021	SeqNo: 2943797			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	130	10	50.35	26.52	196	39.3	155	62.3	23.4	RS
Surr: DNOP	4.4		5.035		88.3	70	130	0	0	

Sample ID: MB-63935	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 63935	RunNo: 82886								
Prep Date: 11/15/2021	Analysis Date: 11/16/2021	SeqNo: 2943799			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		89.9	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2111599

24-Nov-21

Client: HILCORP ENERGY

Project: Tribal C 1

Sample ID: LCS-63935		SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: LCSS		Batch ID: 63935			RunNo: 82886					
Prep Date: 11/15/2021		Analysis Date: 11/16/2021			SeqNo: 2943800		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	78.3	68.9	135			
Surr: DNOP	4.5		5.000		90.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 6 of 8

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2111599

24-Nov-21

Client: HILCORP ENERGY**Project:** Tribal C 1

Sample ID: mb-63908	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 63908	RunNo: 82849								
Prep Date: 11/12/2021	Analysis Date: 11/15/2021	SeqNo: 2941346	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		99.0	70	130			

Sample ID: lcs-63908	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 63908	RunNo: 82849								
Prep Date: 11/12/2021	Analysis Date: 11/15/2021	SeqNo: 2941348	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	78.6	131			
Surr: BFB	1100		1000		114	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2111599

24-Nov-21

Client: HILCORP ENERGY**Project:** Tribal C 1

Sample ID: mb-63908	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 63908	RunNo: 82849								
Prep Date: 11/12/2021	Analysis Date: 11/15/2021	SeqNo: 2941378			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	70	130			

Sample ID: lcs-63908	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 63908	RunNo: 82849								
Prep Date: 11/12/2021	Analysis Date: 11/15/2021	SeqNo: 2941379			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	70	130			

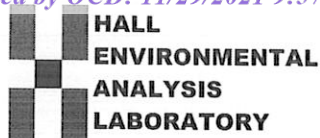
Sample ID: 2111599-001ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: Discrete Center	Batch ID: 63908	RunNo: 82849								
Prep Date: 11/12/2021	Analysis Date: 11/15/2021	SeqNo: 2941380			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9950	0	104	80	120			
Toluene	1.1	0.050	0.9950	0	107	80	120			
Ethylbenzene	1.1	0.050	0.9950	0	106	80	120			
Xylenes, Total	3.2	0.10	2.985	0	109	80	120			
Surr: 4-Bromofluorobenzene	1.1		0.9950		107	70	130			

Sample ID: 2111599-001amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: Discrete Center	Batch ID: 63908	RunNo: 82849								
Prep Date: 11/12/2021	Analysis Date: 11/15/2021	SeqNo: 2941381			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9970	0	101	80	120	3.26	20	
Toluene	1.0	0.050	0.9970	0	101	80	120	5.20	20	
Ethylbenzene	1.1	0.050	0.9970	0	106	80	120	0.238	20	
Xylenes, Total	3.2	0.10	2.991	0	108	80	120	0.133	20	
Surr: 4-Bromofluorobenzene	1.1		0.9970		112	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: HILCORP ENERGY

Work Order Number: 2111599

RcptNo: 1

Received By: Desiree Dominguez 11/11/2021 9:20:00 AM

Completed By: Sean Livingston 11/11/2021 11:50:18 AM

Reviewed By: JO 11/11/21

ID2
Sean Livingston

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:
(<2 or >12 unless noted)

Adjusted? _____

Checked by: Sean LivingstonSpecial Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.0	Good				

Billy Ginn

From: Billy Ginn
Sent: Friday, November 5, 2021 1:19 PM
To: OCD.Enviro@state.nm.us; Cory.Smith@state.nm.us; kcmannwell@yahoo.com; kurt.sandoval@bia.gov; jasonsandoval@jicarillaoga.com; alfredvigiljr@jicarillaoga.com
Cc: Terry Nelson; Ashton Hemphill; Kurt Hoekstra; Brian Roth
Subject: Tribal C 1 NCS2129551635

Please let this serve as notice for confirmation sampling for the Tribal C 1 (36.510538, -107.189386) on November 10th, 2021 at 10:00 a.m.

Billy Ginn
Hilcorp Energy Company
346-237-2073 (Office)
832-561-4185 (Mobile)

Billy Ginn

From: OCDOnline@state.nm.us
Sent: Monday, October 25, 2021 3:49 PM
To: Billy Ginn
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has approved the application, Application ID: 57371

To whom it may concern (c/o William Ginn 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#) nCS2129551635, 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**

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,
Ramona Marcus
Program Coordinator I
505-470-3044
Ramona.Marcus@state.nm.us

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 63852

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 63852
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	1/6/2022