<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 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

77	Propos	sed Alternative	e Method Permit or Closure Plan Application		
	Type of action:	Below grade tan	nk registration		
	31	Permit of a pit o	or proposed alternative method		
			t, below-grade tank, or proposed alternative method		
			o an existing permit/or registration		
	or proposed altern	-	nly submitted for an existing permitted or non-permitted pit, below-grade tank,		
	Instructions: Pleas	se submit one applicat	ation (Form C-144) per individual pit, below-grade tank or alternative request		
			the operator of liability should operations result in pollution of surface water, ground water or the onsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.		
1.					
			OGRID #: 372171		
		n 32-9 Unit 282S			
			OCD Permit Number:		
			p 32N Range 09W County: San Juan		
	-		_Longitude107.779455 °W NAD83		
Surface Owner: 🔀] Federal 🗌 State [Private Tribal T	Frust or Indian Allotment		
2.					
Pit: Subsecti	on F, G or J of 19.	15.17.11 NMAC Re	elease Confirmed Addtional C-141 Required, Incident# NCS2026629266		
Temporary: \square D	rilling 🔲 Workove	er			
Permanent	Emergency Car	vitation P&A N	Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no		
☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other					
☐ String-Reinforced					
		Other	Volume: bbl Dimensions: L x W x D		
3. ⊠ Below-grade t	ank: Subsection	I of 19.15.17.11 NMA	AC		
			Produced Water		
		Metal			
			e sidewalls, liner, 6-inch lift and automatic overflow shut-off		
		/isible sidewalls only			
	ness		PE PVC Other Unspecified		
Liner type. Timek	lless		E TVC Souici Onspecified		
4. Alternative M	(ethod:				
		agrical Expansions n	must be submitted to the Soute Ee Environmental Durson office for consideration of annuously		
Submittal of an ex	ception request is re	equired. Exceptions in	must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.		
5.	. D 610.15.17.1	1.33.6.6.4. 2			
·			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 heigh	nt, four strands of b	arbed wire evenly spac	ced between one and four feet		
Alternate. Plea	ase 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 acceptate are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	ptable source
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 図 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.	Yes No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
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.	□ v □ n.
- 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
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc 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 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 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number: or Permit Number:	NMAC 15.17.9 NMAC
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 doc 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. 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:	

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 attached.	documents are
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 19.15.17.112 NMAC	
☐ Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan	
☐ Emergency Response Plan ☐ Oil Field Waste Stream Characterization	
Monitoring and Inspection Plan	
Erosion Control Plan	
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	
13.	
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.	
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well Fl	luid 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. Weste Everystian and Demoval Cleaning Plan Checklists (10.15.17.12 NIMAC) Instructions. Each of the following items must be	attached to the
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be closure plan. Please indicate, by a check mark in the box, that the documents are attached.	anacnea to the
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 sour	
provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. F 19.15.17.10 NMAC for guidance.	lease refer to
19.15.17.10 NWIAC for guidance.	T
Ground water is less than 25 feet below the bottom of the buried waste.	☐ Yes ☐ No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ NA
Ground water is between 25-50 feet below the bottom of the buried waste	☐ Yes ☐ No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ NA □
Ground water is more than 100 feet below the bottom of the buried waste.	☐ Yes ☐ No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa	☐ Yes ☐ No
lake (measured from the ordinary high-water mark).	
- Topographic map; Visual inspection (certification) of the proposed site	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence	☐ Yes ☐ No
at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	
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	
22.2.2.2.2.2.2.1.2.1.2.1.2.2.2.2.2.2.2.	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 Within a 100-year floodplain.	☐ Yes ☐ No				
- FEMA map	☐ Yes ☐ No				
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 19.15.17.13 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 believed.	ief.				
Name (Print): Title:					
Signature: Date:					
e-mail address: Telephone:					
18. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)					
OCD Representative Signature: Approval Date: 03/19/					
Approvai Date:	2021				
Title: Environmental Specialist OCD Permit Number: 77	2021 				
	the closure report.				
Title: Environmental Specialist OCD Permit Number: 77 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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed. Closure Completion Date: NA - remediation	the closure report.				
Title: Environmental Specialist OCD Permit Number: 77 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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.	the closure report.				

20		
22. Operator Closure Certification:		
I hereby certify that the information and attachments submitted with this closure	report is true, acc	curate and complete to the best of my knowledge and
belief. I also certify that the closure complies with all applicable closure requires		
N (D'A) A LWII	TP' d	
Name (Print): Amanda Walker	1 itie:	Operations/Regulatory Technician – Sr
Signature: Amanda Walker	Date:	8/12/2020
Signature. Amunda vvanci	Date.	0/12/2020
e-mail address: mwalker@hilcorp.com Telepho	one:(505) 32	14 5122
e-man address. <u>mwarker wincorp.com</u> releption	one. (303) 32	.4-3122

Hilcorp Energy Company San Juan Basin Below Grade Tank Closure Report

Lease Name: SJ 32-9 Unit 282S

API No.: 30-045-32253

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

General Plan:

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

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

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

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

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

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

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

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

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

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

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

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

A release was determined for the above referenced well.

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

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

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

Notification is attached.

- 9. The surface owner shall be notified of HILCORP's closing of the below-grade tank 72 hours, but not more than one week, prior to closure as per the approved closure plan via certified mail, return receipt requested.
 - The closure process notification to the landowner was sent via <a href="mailto:emailto
- 10. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be place in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
 - The below-grade tank area was re-contoured to match fit, shape, line, form and texture of the surrounding area. Re-shaping including drainage control, to prevent ponding and erosion. Natural drainages were unimpeded and water bars and/or silt traps were placed in areas where needed to prevent erosion on a large scale. Final recontour has a uniform appearance with smooth surface, fitting the natural landscape.
- 11. HILCORP shall seed the disturbed areas the first favorable growing season following closure of a below-grade tank. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM stipulated seed mixes will be used on federally regulated lands and division-approved seed mixtures (administratively approved if required) will be utilized on all State or private lands. A uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre- disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. Hilcorp will repeat seeding or planting will be continued until successful vegetative growth occurs.

8/12/2020

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

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

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

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

Mandi Walker

From: Mandi Walker

Sent: Wednesday, June 3, 2020 10:14 AM

To: 'Smith, Cory, EMNRD'; Kelly, Jonathan, EMNRD

Cc: Kurt Hoekstra; Jennifer Deal; Ramon Florez; Colter Faverino; Priscilla Shorty

Subject: 72 Hour BGT Closure Notice: SJ 32-9 Unit 282S

The subject well has a below-grade tank that will begin the closure process between 72 hours and one week from this notification. Please contact me at any time if you have any questions or concerns.

Well Name: SJ 32-9 Unit 282S

API#: 30-045-32253

Location: P Sec. 33 T32N R 09W Footages: 1140' FSL & 960' FEL

Surface Owner: BLM

Scheduled Date & Time of Start: Monday June 8th @ 8am

Mandi Walker

San Juan North Regulatory Technician Hilcorp Energy 505.324.5122 mwalker@hilcorp.com <u>District I</u> 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 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

			Res	ponsi	ble Party	y	
Responsible Party Hilcorp Energy Company				OGRID 372171			
Contact Name Jennifer Deal					Contact Te	elephone 505-8	301-6517
Contact ema	il jdeal@hil	lcorp.com			Incident #		
Contact mail	ling address	382 Road 3100,	Aztec NM 87410				
			Location	of R	Release Se	ource	
Latitude 36.	.9370079		(NAD 83 in de	ecimal de	Longitude -	-107.7794952_	
Га. <u>э</u> .			(IVID 05 in ac	.cimai ac			
Site Name S					Site Type		
Date Release	Discovered	6/25/2020			API# 30-043	5-32253	
Unit Letter	Section	Township	Range		Coun	ntv	1
P	33	32N	09W	San	Juan	ity	
	Materia	l(s) Released (Select a		d Vo	lume of I	justification for the	volumes provided below)
Crude Oi		Volume Releas				Volume Reco	` '
Produced	Water	Volume Releas			Volume Recovered (bbls) 209 bbls		
		Is the concentra produced water	ation of dissolved o	chloride	de in the Yes No		
⊠ Condensa	ate		ed (bbls) unknow	'n		Volume Recovered (bbls) 0	
☐ Natural C	Gas	Volume Releas	ed (Mcf)			Volume Recovered (Mcf)	
Other (describe) Volume/Weight Released (provide unit			le units)	Volume/Weig	ght Recovered (provide units)	
results came	2020, Hilcor back above	closure standard a		e BGT			ng occurred on June 25, 2020 and sample 9 will now apply to this site. Hilcorp

Received by OCD: 8/12/2020 10:14:51 AM State of New Mexico
Page 2 Oil Conservation Division

73	- 4 4			
Paga	0 1	nt	-⊀ <i>0</i>	
1 46	<i>- 1 4</i>	U	V	

Incident ID	
District RP	
Facility ID	
Application ID	

	т	
Was this a major	If YES, for what reason(s) does the respon	sible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	Spill considered major release because vol	ume was >25bbls
1).13.2).7(11) TWINE:	spin considered major release because voi	une was > 250015
☐ Yes ⊠ No		
If YES, was immediate no	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
	Initial Re	esponse
The responsible p	party must undertake the following actions immediately	unless they could create a safety hazard that would result in injury
The source of the rele	ease has been stopped.	
☐ The impacted area ha	is been secured to protect human health and	the environment.
Released materials ha	ave been contained via the use of berms or d	ikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and	managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain v	vhy:
Dor 10 15 20 9 D (4) NIM	(AC the responsible porty may common as to	amodiation immediately after discovery of a release. If remediation
		emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred
0 1		lease attach all information needed for closure evaluation.
I hereby certify that the infor	rmation given above is true and complete to the h	pest of my knowledge and understand that pursuant to OCD rules and
regulations all operators are	required to report and/or file certain release notif	ications and perform corrective actions for releases which may endanger
		CD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In
addition, OCD acceptance of		responsibility for compliance with any other federal, state, or local laws
and/or regulations.		
Printed Name:Jennifer	Deal	Title:Environmental Specialist
Signatura	unifu Deal	Dota: 7/7/2020
Signature		Date. ////2020
email:jdeal@hilcorp.	.com_	Telephone:505-801-6517
OCD Only		
OCD Only		
Received by:		Date:



ANALYTICAL REPORT

June 16, 2020

















HilCorp-Farmington, NM

Sample Delivery Group: L1226872 Samples Received: 06/09/2020

Project Number:

SJ282S Description:

S.J. 32-9 #282S Site:

Report To: Jennifer Deal

382 Road 3100

Aztec, NM 87410

Entire Report Reviewed By:

Olivia Studebaker

Project Manager Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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Collected by

Collected date/time Received date/time

BGT PIT L1226872-01 Solid			K. Hoekstra	06/08/20 08:45 06/09/20 08:45		
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Wet Chemistry by Method 300.0	WG1492816	1	06/15/20 19:19	06/15/20 23:49	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1492373	1	06/15/20 11:00	06/15/20 11:49	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021	WG1491150	1	06/11/20 09:17	06/11/20 19:34	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1491531	200	06/11/20 17:41	06/16/20 13:08	JN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1491531	50	06/11/20 17:41	06/14/20 19:00	T.JD	Mt. Juliet, TN



















All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



















Olivia Studebaker Project Manager

L1226872

SAMPLE RESULTS - 01

Collected date/time: 06/08/20 08:45

Wet Chemistry by Method 300.0

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Chloride	ND		20.0	1	06/15/2020 23:49	WG1492816

Volatile Organic Compounds (GC) by Method 8015/8021

	Result	Qualifier	RDL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/kg		mg/kg		date / time	
Benzene	ND		0.000500	1	06/11/2020 19:34	WG1491150
Toluene	ND		0.00500	1	06/11/2020 19:34	WG1491150
Ethylbenzene	ND		0.000500	1	06/11/2020 19:34	WG1491150
Total Xylene	ND		0.00150	1	06/11/2020 19:34	WG1491150
TPH (GC/FID) Low Fraction	ND		0.100	1	06/15/2020 11:49	WG1492373
(S) a,a,a-Trifluorotoluene(FID)	89.3		77.0-120		06/11/2020 19:34	WG1491150
(S) a,a,a-Trifluorotoluene(FID)	84.5		77.0-120		06/15/2020 11:49	WG1492373
(S) a,a,a-Trifluorotoluene(PID)	97.0		72.0-128		06/11/2020 19:34	WG1491150
(S) a,a,a-Trifluorotoluene(PID)	91.7		72.0-128		06/15/2020 11:49	WG1492373







Semi-Volatile Organic Compounds (GC) by Method 8015

	Result	Qualifier	RDL	Dilution	Analysis	<u>Batch</u>	
Analyte	mg/kg		mg/kg		date / time		
C10-C28 Diesel Range	5200		200	50	06/14/2020 19:00	WG1491531	
C28-C40 Oil Range	23900		800	200	06/16/2020 13:08	WG1491531	
(S) o-Terphenyl	0.000	<u>J7</u>	18.0-148		06/16/2020 13:08	WG1491531	
(S) o-Terphenyl	0.000	<u>J7</u>	18.0-148		06/14/2020 19:00	WG1491531	

Ss

Cn

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Wet Chemistry by Method 300.0

L1226872-01

Method Blank (MB)

(MB) R3539111-1 06	6/15/20 22:32			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0



³Ss

L1226872-01 Original Sample (OS) • Duplicate (DUP)

(OC) 11226072 01	06/15/20 22·40 .	(DI ID) D2E20111 2	06/16/20 00:06
(OS) L1226872-01	00/13/20 23.49 •	(DOF) K3333111-3	00/10/20 00.00

,	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		20





L1228917-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1228917-01 06/16/20 07:34 • (DUP) R3539111-6 06/16/20 07:52

(03) [1220317-01 00/10/20	Original Result				DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		20





Laboratory Control Sample (LCS)

(LCS) R3539111-2 06/15/20 22:50

,	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	207	103	90.0-110	

L1227126-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1227126-05 06/16/20 03:23 • (MS) R3539111-4 06/16/20 03:41 • (MSD) R3539111-5 06/16/20 03:59

(03) [1227120-03 00/10/.	20 03.23 • (1013)	K3333111-4 0C	0/10/20 03.41	(IVISD) KSSSSII	1-3 00/10/200	13.33						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	500	411	923	926	102	103	1	80.0-120			0.295	20

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L1226872-01

Volatile Organic Compounds (GC) by Method 8015

Method Blank (MB)

ИВ) R3538801-3 06/15/2	20 10:49				
	MB Result	MB Qualifier	MB MDL	MB RDL	
nalyte	mg/kg		mg/kg	mg/kg	
PH (GC/FID) Low Fraction	0.0480	<u>J</u>	0.0217	0.100	
(S) a,a-Trifluorotoluene(FID)	94.5			77.0-120	
(S) n,a-Trifluorotoluene(PID)	102			72.0-128	

(LCS) R3538801-2 06/15/20 10:05								
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier			
Analyte	mg/kg	mg/kg	%	%				
TPH (GC/FID) Low Fraction	5.50	4.57	83.1	72.0-127				
(S) a,a,a-Trifluorotoluene(FID)			99.4	77.0-120				
(S) a,a,a-Trifluorotoluene(PID)			108	72.0-128				



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L1226872-01

Volatile Organic Compounds (GC) by Method 8021

Method Blank (MB)

(MB) R3538370-3 06/11/20 18:09						
	MB Result	MB Qualifier	MB MDL	MB RDL		
Analyte	mg/kg		mg/kg	mg/kg		
Benzene	0.000228	<u>J</u>	0.000120	0.000500		
Toluene	U		0.000150	0.00500		
Ethylbenzene	U		0.000110	0.000500		
Total Xylene	U		0.000460	0.00150		
(S) a,a,a-Trifluorotoluene(PID)	96.9			72.0-128		
(S) a,a,a-Trifluorotoluene(FID)	92.5			77.0-120		

(LCS) R3538370-1 06/11/2	(LCS) R3538370-1 06/11/20 17:03							
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier			
Analyte	mg/kg	mg/kg	%	%	L			
Benzene	0.0500	0.0480	96.0	76.0-121				
Toluene	0.0500	0.0454	90.8	80.0-120				
Ethylbenzene	0.0500	0.0476	95.2	80.0-124				
Total Xylene	0.150	0.146	97.3	37.0-160				
(S) a,a,a-Trifluorotoluene(PID)			99.4	72.0-128				
(S) a,a,a-Trifluorotoluene(FID)			91.8	77.0-120				



















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L1226872-01

Semi-Volatile Organic Compounds (GC) by Method 8015

Method Blank (MB)

(MB) R3538188-1 06/12	/20 15:11			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	63.8			18.0-148

²Tc





⁴Cn

(LCS) R3538188-2 06/12	/20 15:25				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
C10-C28 Diesel Range	50.0	38.2	76.4	50.0-150	
(S) o-Terphenyl			61.6	18.0-148	







Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

Appleviations and	
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
-----------	-------------

	· · · · · · · · · · · · · · · · · · ·
J	The identification of the analyte is acceptable; the reported value is an estimate.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.























Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Otate / tool e altations	
Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky ^{1 6}	90010
Kentucky ²	16
Louisiana	Al30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 1 4	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	
A2LA - ISO 17025 5	1461.02	
Canada	1461.01	
EPA-Crypto	TN00003	

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.

















ceivea by OCD: 8/12/2020	10:14:51 A		Billing Infor	rmation:		1.			A	nalysis /	Contai	ner / Pre	servativ	/e			Chain of Custody	Page
		3	ATTN: Je	ennifer Deal		Pres Chk											Pace National Co	Analytical*
			es .														1	
eport to: ennifer Deal	2		Email To: jdeal@h	ilcorp.com; kl	noekstra@hi	lcorp											12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-58	
roject escription: San Juan 32-9 Unit	t 282S			City/State Collected: Azte	ec, NM	<i>y</i>	0										Phone: 800-767-58 Fax: 615-758-5859	
hone: 505-324-5128 ax:	Client Project	#		Lab Project #	2 (A)		GRO, MRO										L# L/22	687 88
ollected by (print): Hoekstra	Site/Facility II			P.O. #			DRO, GF										Acctnum: HIL	CORANM
collected by (signarure):	Same D Next Da	Lab MUST Be lay Five D lay 5 Day lay 10 Da lay	(Rad Only)	Quote # Date Resi	ults Needed	No.	-8015 - DR	(8021	Chloride 300.0								Template: Prelogin: TSR: PB:	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	TPH	ВТЕХ	Chlo								Shipped Via:	Sample # (lal
GT Pit	Comp	SS		6-8-20	8:45	1	×	X	X									-0
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77 Telegraphy (1997)							1											
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Matrix: 5 - Soil AIR - Air F - Filter W - Groundwater B - Bioassay W - WasteWater	Remarks:	in the state of th		4.6	š					pH		Tem			COC Bott Corr	Seal P Signed les ar ect bo	ple Receipt (Present/Intac d/Accurate: rive intact: ottles used:	:: _NP
ow - Drinking Water or - Other	Samples retu UPSF	urned via: FedExCou	urier		racking# 4C	130	3	422	2 -	783			()	VOA	Zero H	<pre>volume sent If Applica leadspace: lon Correct/C</pre>	ble
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Relinquished by : (Signature)		Date:		Time:	Received for lab b	of (Sign:	ature)			Date:		Tir	ne:		Hold:			Conditi



ANALYTICAL REPORT

July 02, 2020

Ss

Cn

Sr СQс

Gl

ΆΙ



HilCorp-Farmington, NM

Sample Delivery Group: L1234167 Samples Received: 06/27/2020

Project Number:

San Juan 32 Unit 282 S Description: Site: S.J. 32-9 UNIT 282 S

Report To: Jennifer Deal

382 Road 3100

Aztec, NM 87410

Entire Report Reviewed By:

Olivia Studebaker

Project Manager Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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Semi-Volatile Organic Compounds (GC) by Method 8015	8
GI: Glossary of Terms	9
Al: Accreditations & Locations	10
Sc: Sample Chain of Custody	11





















Collected by

Collected date/time Received date/time

BGT PIT CLOSURE SAMPLE L1234167-01 Solid							
Batch	Dilution	Preparation	Analysis	Analyst	Location		
		date/time	date/time				
WG1501363	1	06/30/20 18:25	07/01/20 06:29	MCG	Mt. Juliet, TN		
WG1502218	1	06/27/20 18:50	07/01/20 14:36	DWR	Mt. Juliet, TN		
WG1501443	100	06/29/20 22:16	07/01/20 18:08	JDG	Mt. Juliet, TN		
WG1501443	20	06/29/20 22:16	07/01/20 00:09	JN	Mt. Juliet, TN		
	WG1501363 WG1502218 WG1501443	WG1501363 1 WG1502218 1 WG1501443 100	WG1501363 1 06/30/20 18:25 WG1502218 1 06/27/20 18:50 WG1501443 100 06/29/20 22:16	Batch Dilution Preparation date/time Analysis date/time WG1501363 1 06/30/20 18:25 07/01/20 06:29 WG1502218 1 06/27/20 18:50 07/01/20 14:36 WG1501443 100 06/29/20 22:16 07/01/20 18:08	Batch Dilution Preparation date/time Analysis Analyst WG1501363 1 06/30/20 18:25 07/01/20 06:29 MCG WG1502218 1 06/27/20 18:50 07/01/20 14:36 DWR WG1501443 100 06/29/20 22:16 07/01/20 18:08 JDG		



















All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



















HilCorp-Farmington, NM

SAMPLE RESULTS - 01

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Collected date/time: 06/25/20 09:40

Wet Chemistry by Method 300.0

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Chloride	ND		20.0	1	07/01/2020 06:29	WG1501363

Volatile Organic Compounds (GC) by Method 8015/8021

	Result	Qualifier	RDL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/kg		mg/kg		date / time	
Benzene	ND		0.000500	1	07/01/2020 14:36	WG1502218
Toluene	ND		0.00500	1	07/01/2020 14:36	WG1502218
Ethylbenzene	ND		0.000500	1	07/01/2020 14:36	WG1502218
Total Xylene	ND		0.00150	1	07/01/2020 14:36	WG1502218
TPH (GC/FID) Low Fraction	ND		0.100	1	07/01/2020 14:36	WG1502218
(S) a,a,a-Trifluorotoluene(FID)	101		77.0-120		07/01/2020 14:36	WG1502218
(S) a,a,a-Trifluorotoluene(PID)	99.7		72.0-128		07/01/2020 14:36	WG1502218



Cn

[°]Qc

GI

Semi-Volatile Organic Compounds (GC) by Method 8015

_						
	Result	Qualifier	RDL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	1650		80.0	20	07/01/2020 00:09	WG1501443
C28-C40 Oil Range	8080		400	100	07/01/2020 18:08	WG1501443
(S) o-Terphenyl	0.000	<u>J7</u>	18.0-148		07/01/2020 18:08	WG1501443
(S) o-Terphenyl	76.7	J7	18.0-148		07/01/2020 00:09	WG1501443



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QUALITY CONTROL SUMMARY

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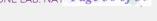
L1234167-01

Wet Chemistry by Method 300.0

Method	Blank	(MB)
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Chloride

(MB) R3545579-1 06/30/2	20 20:25			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg



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$^{2}T_{C}$

L1233377-01 Original Sample (OS) • Duplicate (DUP)

20.0

9.20

(OS) L1233377-01 07/01/20 00:39 • (DUP) R3545579-3 07/01/20 00:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		20



L1233795-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1233795-06 07/01/20 05:52 • (DUP) R3545579-8 07/01/20 06:10

. ,	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		20



Laboratory Control Sample (LCS)

(LCS) R3545579-2 06/30/20 20:43

,	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	204	102	90.0-110	

L1233408-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1233408-01 07/01/20 01:34	• (MS) R3545579-4 07/01/20 01:52 • (MSC)) R3545579-5 07/01/20 02:11
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(O3) L1233408-01 07	(03) E1233406-01 07/01/20 01.34 • (1/13) / (3343373-4 07/01/20 01.32 • (1/13) / (3343373-3 07/01/20 02.11												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%	
Chloride	500	ND	497	493	99.4	98.5	1	80.0-120			0.832	20	

L1233795-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) I 1222705 OA 07/01/20 04:30	. (MC) D25/5570 6	07/01/20 04:56	. (MCD) D3E4EE70 7	07/01/20 05:15

(OS) £1233/95-04 07/01/20 04:38 • (MS) £35455/9-6 07/01/20 04:56 • (MSD) £35455/9-7 07/01/20 05:15												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	500	20.3	515	519	99.0	99.8	1	80.0-120			0.833	20

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Volatile Organic Compounds (GC) by Method 8015/8021

L1234167-01

Method Blank (MB)

(MB) R3545440-3 07/01/	20 13:35			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Benzene	U		0.000120	0.000500
Toluene	U		0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(PID)	103			72.0-128
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3545440-1 07/01/	/20 12:14					
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	_
Analyte	mg/kg	mg/kg	%	%		8
Benzene	0.0500	0.0470	94.0	76.0-121		
Toluene	0.0500	0.0510	102	80.0-120		9
Ethylbenzene	0.0500	0.0519	104	80.0-124		5
Total Xylene	0.150	0.154	103	37.0-160		
(S) a,a,a-Trifluorotoluene(PID)			101	72.0-128		
(S) a,a,a-Trifluorotoluene(FID)			107	77.0-120		

(LCS) R3545440-2 07/01/20 12:54								
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier			
Analyte	mg/kg	mg/kg	%	%				
TPH (GC/FID) Low Fraction	5.50	5.97	109	72.0-127				
(S) a,a,a-Trifluorotoluene(PID)			109	72.0-128				
(S) a.a.a-Trifluorotoluene(FID)			100	77.0-120				

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L1234167-01

Semi-Volatile Organic Compounds $\,$ (GC) by Method 8015

Method Blank (MB)

(MB) R3544695-1 06/30	(MB) R3544695-1 06/30/20 12:45							
	MB Result	MB Qualifier	MB MDL	MB RDL				
Analyte	mg/kg		mg/kg	mg/kg				
C10-C28 Diesel Range	U		1.61	4.00				
C28-C40 Oil Range	U		0.274	4.00				
(S) o-Terphenyl	58.7			18.0-148				

²Tc





⁴Cn

(LCS) R3544695-2 06/3	0/20 12:58				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
C10-C28 Diesel Range	50.0	26.7	53.4	50.0-150	
(S) o-Terphenyl			51.2	18.0-148	









Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

Appreviations at	id Definitions
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.

Qualifier Description

Sample Summary (Ss)

Surrogate recovery cannot be used for control limit evaluation due to dilution.

times of preparation and/or analysis.



















J7

This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1 6}	90010
Kentucky ²	16
Louisiana	Al30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 1 4	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA - ISO 17025 5	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.











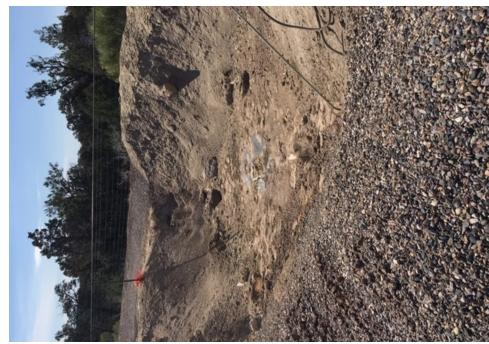
















<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

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

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 9654

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
HILCORP ENERGY COMPANY	1111 Travis Street	Houston, TX77002	372171	9654	C-144

OCD Reviewer	Condition
csmith	Release Confirmed Additional C-141 Required, Incident# NCS2026629266