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

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

Form C-144 Revised April 3, 2017

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

Santa 1°C, 14141 87303 to the appropriate 1440CD District Office.
BGT 1 Proposed Alternative Method Permit or Closure Plan Application
Type of action: Below grade tank registration Permit of a pit or proposed alternative method Closure of a pit, below-grade tank, or proposed alternative method Modification to an existing permit/or registration Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request
lease be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the nvironment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
Operator: Hilcorp Energy Company OGRID #: 372171
Address: 382 Road 3100 Aztec, NM 87410
Facility or well name: San Juan 27-5 Unit 80
API Number: 3003982363 OCD Permit Number:
U/L or Qtr/Qtr P Section 22 Township 027N Range 005W County: Rio Arriba
Center of Proposed Design: Latitude 36.554674N Longitude -107.340119W NAD83
Surface Owner: Federal State Private Tribal Trust or Indian Allotment
Surface Owner. Extremely State 111vate
Pit: Subsection F, G or J of 19.15.17.11 NMAC Temporary: □ Drilling □ Workover □ Permanent □ Emergency □ Cavitation □ P&A □ Multi-Well Fluid Management Low Chloride Drilling Fluid □ yes □ no □ Lined □ Unlined Liner type: Thickness mil □ LLDPE □ HDPE □ PVC □ Other □ String-Reinforced Liner Seams: □ Welded □ Factory □ Other Volume: bbl Dimensions: L
Line Scalis. Wedged Tactory Collect Volume
Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume:120
4. ————————————————————————————————————
Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.
5.
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)
Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify_

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 accept material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	otable 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 ☑ 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	☐ Yes ⊠ No			
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				
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 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or plays lake (measured from the ordinary high-water mark). 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; Satellitic image 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 respirate, in the existence at the time of initial application; NN Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 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 plays lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site (measured from the ordinary high-water mark). Now thin 500 feet for an a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Within 500 feet form a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Now office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site image Within 500 feet for a welland. Now office of the source of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. Now office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site Now office of the source of the spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. Now office of the spring or a fres	Within 100 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
or playa lake (measured from the ordinary high-water mark). Topographic map, Visual inspection (certification) of the proposed site vesting 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 Within 300 feet of a worland. NM Office of the State Engineer - IWATERS database search; Visual inspection (certification) of the proposed site yes No Permanent Pit or Multi-Well Fluid Management Pit Within 300 feet of a worland. US 19th 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). Visual inspection (certification) of the proposed site yes No Within 500 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 yes No Within 500 forizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site yes No Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site yes No Within 500 feet of a wetland. US Fish, and Below-grade Tanks) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Interport Pits, Emergence Pits, and Below-grade Tanks Permit Application Altachment Checklist: Subsection B of 19.15.17.9 NMAC Within 500 feet of a wetland Paragraph (4) of Subsection B of 19.15.17.9 NMAC Within	Temporary Pit Non-low chloride drilling fluid	
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Yes No No No No No No No N	or playa lake (measured from the ordinary high-water mark).	☐ Yes ☐ No
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		☐ 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 Visual inspection (certification) of the proposed site Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographical proposed site in t	watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;	☐ Yes ☐ No
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 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 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. NOT Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site NOTE: Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the appropriate requirements of 19.15.17.10 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.10 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.13 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.19 NMAC Operating and Maintenance Plan -		☐ Yes ☐ No
lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 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 Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Permorary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Stiing Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number: "Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 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 19.15.17.12 NMAC A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.1	Permanent Pit or Multi-Well Fluid Management Pit	
Visual inspection (certification) of the proposed site 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 Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site No Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site No Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site No Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site No Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site No Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site No Within 500 feet of a wetland. Please indicate, by a check mark in the box, that the documents are attached. Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19		
Visual inspection (certification) of the proposed site; Aerial photo; Satellite image		☐ Yes ☐ No
initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site Yes No		☐ Yes ☐ No
NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site Yes No No Within 500 feet of a wetland. Yes No No Within 500 feet of a wetland. Yes No No No No No No No N		
US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Yes No		Yes No
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC The previously Approved Design (attach copy of design) API Number:		☐ Yes ☐ No
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC	Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 Nature Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the docattached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.10 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. and 19.15.17.13 NMAC	NMAC 15.17.9 NMAC
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC		
Description Amount of Design (attack agents of design) ADI Numbers	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 document of 19.15.17.11 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 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	

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. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.19 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 Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H 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	documents are			
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 Flank 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	luid Management Pit			
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be a closure plan. Please indicate, by a check mark in the box, that the documents are attached. □ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC □ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC □ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) □ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC □ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	attached to the			
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. P. 19.15.17.10 NMAC for guidance.				
Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA			
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells Yes Yes NA				
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells Yes No				
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site				
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				
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site				
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	□ V _a -□ N			
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	Yes No			

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality.	; Written approval obtained from t	he municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM I	☐ Yes ☐ No		
Within an unstable area. - Engineering measures incorporated into the design; NM Bi Society; Topographic map	ureau of Geology & Mineral Reso	urces; USGS; NM Geological	
Within a 100-year floodplain.			Yes No
- FEMA map			Yes No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instruction by a check mark in the box, that the documents are attached. □ Siting Criteria Compliance Demonstrations - based upon the appropriate □ Construction/Design Plan of Burial Trench (if applicable) b □ Construction/Design Plan of Temporary Pit (for in-place bur □ Protocols and Procedures - based upon the appropriate requir □ Confirmation Sampling Plan (if applicable) - based upon the □ Waste Material Sampling Plan - based upon the appropriate □ Disposal Facility Name and Permit Number (for liquids, dril □ Soil Cover Design - based upon the appropriate requirement □ Re-vegetation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate requirement □ Site Reclamation Plan - based upon the appropriate Plan - Site Reclamation Pla	e appropriate requirements of 19.1 e requirements of Subsection E of based upon the appropriate requirerial of a drying pad) - based upon irements of 19.15.17.13 NMAC e appropriate requirements of 19.1 requirements of 19.15.17.13 NMAI lling fluids and drill cuttings or in its of Subsection H of 19.15.17.13 its of Subsection H of 19.15.17.13	5.17.10 NMAC 19.15.17.13 NMAC ments of Subsection K of 19.15.17 the appropriate requirements of 19. 5.17.13 NMAC AC case on-site closure standards cann NMAC NMAC	.11 NMAC .15.17.11 NMAC
17. Operator Application Certification: I hereby certify that the information submitted with this applicatio	on is true, accurate and complete to	the best of my knowledge and bel	lief.
Name (Print):	-		
Signature:	Date:		
e-mail address:	Telephone:		
18. OCD Approval: Permit Application (including closure plan)		CD Conditions (see attachment)	
OCD Representative Signature:	2	Approval Date:1/22//	2021
Title: Environmental Specialist	OCD Permit Nu	mber: BGT 1	
19. <u>Closure Report (required within 60 days of closure completion</u> Instructions: Operators are required to obtain an approved closu The closure report is required to be submitted to the division with section of the form until an approved closure plan has been obtain	ure plan prior to implementing an in 60 days of the completion of th ined and the closure activities hav	ne closure activities. Please do no	
20. Closure Method: Waste Excavation and Removal □ On-Site Closure Method □ If different from approved plan, please explain.	d Alternative Closure Metho	od Waste Removal (Closed-le	oop systems only)
21. Closure Report Attachment Checklist: Instructions: Each of the mark in the box, that the documents are attached. □ Proof of Closure Notice (surface owner and division) □ Proof of Deed Notice (required for on-site closure for privat □ Plot Plan (for on-site closures and temporary pits) □ Confirmation Sampling Analytical Results (if applicable) □ Waste Material Sampling Analytical Results (required for on-site closures)	e land only)	ed to the closure report. Please in	ndicate, by a check

22.			
Operator Closur	e Certification:		
	at the information and attachments submitted with this closure fy that the closure complies with all applicable closure requires		
Name (Print):	Etta Trujillo	Title: Opera	tions/Regulatory Technician – Sr
Signature:	Etta Trujllo		Date:
e-mail address:	ettrujillo@hilcorp.com Telepho	one: (505) 324-5161	

Hilcorp Energy Company San Juan Basin Below Grade Tank Closure Report

Lease Name: San Juan 27-5 Unit 80

API No.: 30-039-82363

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

7/29/2020

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)

72-Hour Notification was not sent out prior to closing, due to miscommunication.

7/28/20 - Per conversation between Cory Smith, NMOCD and Lindsay Dumas, Environmental Specialist (HEC), self-disclosure will suffice.

Subject: 72 Hour BGT Closure Notification

Anticipated Start Date: Thursday, July 9th at approximately 9:00 a.m.

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: San Juan 27-5 Unit 80

API#: 3003982363

Location: Unit P (SESE), Section 22, T27N, R05W

Footages: 1180' FSL & 890' FEL

Operator: Hilcorp Surface Owner: Federal (Lease #NMSF079403)

Reason: Re-setting with AGT Facility

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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

			T-			
Responsible Party Hilcorp Energy Company OGRII			oany	OGRID	372171	
Contact Name Etta Trujillo				Contact T	elephone (505) 324-5161	
Contact emai	il ettruji	llo@hilcorp.com		Incident #	(assigned by OCD)	
Contact mail	ing address	382 Road 3100	Aztec NM 87410	0		
			Location 6	of Release S	ource	
Latitude			Longitude (NAD 83 in deci	mal degrees to 5 deci	mal places)	
Site Name Sa	an Juan 27-5	5 Unit 80		Site Type	Gas Well	
Date Release	Discovered	N/A		API# (if ap	plicable) 3003982363	
Unit Letter	Section	Township	Range	Cou	nty	
Р	22	027N	005W	Rio A	-	
Surface Owner			Nature and	Volume of	Release c justification for the volumes provided below)	
Crude Oil		Volume Release		arculations of specific	Volume Recovered (bbls)	
Produced	Water	Volume Release	d (bbls)		Volume Recovered (bbls)	
Is the concentration of dissolved chloride in the produced water >10,000 mg/l?				loride in the	☐ Yes ☐ No	
Condensa	ite	Volume Released (bbls)			Volume Recovered (bbls)	
Natural G	las	Volume Released (Mcf)			Volume Recovered (Mcf)	
Other (describe) Volume/Weight Released (provide units)		units)	Volume/Weight Recovered (provide units)			
Cause of Rele	ease	I			1	
No release wa	s encountere	ed during the BGT	Closure.			

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	_	_	_	-,,	-	

Incident ID	
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Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the re-	sponsible party consider this a major release?		
☐ Yes ⊠ No	N/A			
If YES, was immediate no	otice given to the OCD? By whom? To	whom? When and by what means (phone, email, etc)?		
Not Required				
	Initial	Response		
The responsible p	oarty must undertake the following actions immed	liately unless they could create a safety hazard that would result in injury		
☐ The source of the rele	ease has been stopped.			
L	s been secured to protect human health			
		or dikes, absorbent pads, or other containment devices.		
	ecoverable materials have been removed al above have <u>not</u> been undertaken, expl			
Per 19.15.29.8 B. (4) NM	AC the responsible party may commen	ce remediation immediately after discovery of a release. If remediation		
has begun, please attach within a lined containment	a narrative of actions to date. If remediat area (see 19.15.29.11(A)(5)(a) NMAC	lial efforts have been successfully completed or if the release occurred C), 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: Etta Tru	ıjillo	Title: Operations/Regulatory Technician – Sr.		
Signature:Etta	a Trujillo	Date:		
email:	ettrujillo@hilcorp.com	Telephone:(505) 324-5161		
OCD Only				
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?	(ft bgs)		
Did this release impact groundwater or surface water?	☐ Yes ☐ No		
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	Yes 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)?	☐ Yes ☐ No		
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ 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?	☐ Yes ☐ No		
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No		
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No		
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No		
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No		
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No		
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No		
Did the release impact areas not on an exploration, development, production, or storage site?			
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil		
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.

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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:	_ Title:		
Signature:	Date:		
email:	Telephone:		
OCD Only			
Received by:	Date:		

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Remediation Plan

Remediation Plan Checklist: Each of the following items must b	a included in the alon
Remediation Flan Checklist: Each of the following tiems must be	e included in the plan.
 □ Detailed description of proposed remediation technique □ Scaled sitemap with GPS coordinates showing delineation poin □ Estimated volume of material to be remediated □ Closure criteria is to Table 1 specifications subject to 19.15.29. □ Proposed schedule for remediation (note if remediation plan tin 	12(C)(4) NMAC
<u>Deferral Requests Only</u> : Each of the following items must be con	nfirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around predeconstruction.	roduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human health	n, the environment, or groundwater.
	e and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Printed Name:	Title:
Signature:	Date:
email:	Telephone:
OCD Only	
Received by:	Date:
☐ Approved ☐ Approved with Attached Conditions of	Approval
Signature:	Date:

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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 19.15.29.1	1 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate ODG	C District office must be notified 2 days prior to final sampling)
☐ Description of remediation activities	
and regulations all operators are required to report and/or file certai may endanger public health or the environment. The acceptance of	nations. The responsible party acknowledges they must substantially anditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.
Signature:	Date:
email:	Telephone:
OCD Only	
Received by:	Date:
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.
Closure Approved by:	Date:
Printed Name:	Title:



ANALYTICAL REPORT

July 17, 2020

HilCorp-Farmington, NM

Sample Delivery Group: L1238498 Samples Received: 07/10/2020

Project Number:

San Juan 27-5 Unit 80 Description:

Site: S.J. 27-5 UNIT 80

Report To: Lindsay Dumas

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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Al: Accreditations & Locations	10
Sc: Sample Chain of Custody	11





















Collected by

Collected date/time Received date/time

BGT PIT L1238498-01 Solid			K Hoekstra	07/09/20 09:25	07/10/20 08:3	0
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Wet Chemistry by Method 300.0	WG1507969	1	07/13/20 21:00	07/14/20 07:31	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1508556	1	07/13/20 10:48	07/14/20 16:19	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1508477	1	07/14/20 06:43	07/14/20 15:23	JN	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

L1238498

SAMPLE RESULTS - 01 L1238498

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Collected date/time: 07/09/20 09:25

Wet Chemistry by Method 300.0

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Chloride	ND		20.0	1	07/14/2020 07:31	WG1507969

Volatile Organic Compounds (GC) by Method 8015/8021

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Benzene	0.000636		0.000500	1	07/14/2020 16:19	WG1508556
Toluene	ND		0.00500	1	07/14/2020 16:19	WG1508556
Ethylbenzene	ND		0.000500	1	07/14/2020 16:19	WG1508556
Total Xylene	ND		0.00150	1	07/14/2020 16:19	WG1508556
TPH (GC/FID) Low Fraction	ND		0.100	1	07/14/2020 16:19	WG1508556
(S) a,a,a-Trifluorotoluene(FID)	100		77.0-120		07/14/2020 16:19	WG1508556
(S) a,a,a-Trifluorotoluene(PID)	101		72.0-128		07/14/2020 16:19	WG1508556



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	ND		4.00	1	07/14/2020 15:23	WG1508477
C28-C40 Oil Range	5.71		4.00	1	07/14/2020 15:23	WG1508477
(S) o-Terphenyl	61.0		18.0-148		07/14/2020 15:23	WG1508477



QUALITY CONTROL SUMMARY

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Wet Chemistry by Method 300.0

L1238498-01

Method Blank (MB)

(MB) R3549168-1 07/13/2	0 22:36			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0





Ss

L1238345-04 Original Sample (OS) • Duplicate (DUP)

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



[†]Cn



L1238345-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1238345-16 07/14/20 05:22 • (DUP) R3549168-6 07/14/20 06:17

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	52.6	52.7	1	0.178		20





Laboratory Control Sample (LCS)

(LCS) R3549168-2 07/13/20 22:55

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	208	104	90.0-110	

L1238345-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

	(OS) L1238345-06	0//14/20 01:22 • (MS)	R3549168-4 07/14/20 01:41 • ((MSD) R3549168-5 0//14/20 02:36
--	------------------	-----------------------	--------------------------------	---------------------------------

(03) [1230343-00 07/14	720 01.22 (1015)	113543100-4 0	7/14/20 01.41	(MSD) KSS431	00-3 07/17/20	02.50						
	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	507	511	101	102	1	80.0-120			0.871	20

Volatile Organic Compounds (GC) by Method 8015/8021

QUALITY CONTROL SUMMARY

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L1238498-01

Method Blank (MB)

(MB) R3550377-3 07/14/2	20 11:10						
	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(FID)	102			77.0-120			
(S) a,a,a-Trifluorotoluene(PID)	104			72.0-128			

Laboratory Control Sample (LCS)

(LCS) R3550377-1 07/14/	20 09:45					(
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	
Analyte	mg/kg	mg/kg	%	%		8
Benzene	0.0500	0.0544	109	76.0-121		
Toluene	0.0500	0.0539	108	80.0-120		9
Ethylbenzene	0.0500	0.0542	108	80.0-124		5
Total Xylene	0.150	0.166	111	37.0-160		
(S) a,a,a-Trifluorotoluene(FID)			102	77.0-120		
(S) a,a,a-Trifluorotoluene(PID)			104	72.0-128		

Laboratory Control Sample (LCS)

(LCS) R3550377-2 07/14					
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
TPH (GC/FID) Low Fraction	5.50	6.55	119	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			107	77.0-120	
(S) a.a.a-Trifluorotoluene(PID)			111	72.0-128	

QUALITY CONTROL SUMMARY

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L1238498-01

Semi-Volatile Organic Compounds (GC) by Method 8015

Method Blank (MB)

(MB) R3549590-1 07/14	1/20 13:28			
	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	74.2			18.0-148



Laboratory Control Sample (LCS)

(LCS) R3549590-2 07/14	(LCS) R3549590-2 07/14/20 13:40					
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	
Analyte	mg/kg	mg/kg	%	%		
C10-C28 Diesel Range	50.0	30.9	61.8	50.0-150		
(S) o-Terphenyl			74.0	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	a 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.
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.





















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
lowa	364
Kansas	E-10277
Kentucky 16	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.



















		Billing Information:			1			Analysis / Container / Preservative Chain of Custody						dy Page of	
en e			ATTN: Li	ndsay Duma	s	Pres Chk								Pac	e Analytical *
eport to:			Email To:	philcorp.com		+								12065 Lebanon F Mount Juliet, TN	37122
Lindsay Dumas Project Description: San Juan 27-5 Unit	t 80			City/State Collected: Aztec, NM			MRO							Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859	
Phone: 281-794-9159 Fax:	Client Project	# 1		Lab Project #				a a						L# LI	2 5 8 49 9 3046
Collected by (print): (Hoekstra	Site/Facility ID			P.O. #	.#		DRO, GRO,							Acctnum: HILCOR	
Collected by (signature):	Same Da	ab MUST Be ay X Five	Day (Rad Only)	Quote #	sults Needed		5-	121	e 300.0					Prelogin: TSR:	
Immediately Packed on Ice N YX	Two Day	y 10 Da	ay (Rad Only)		417	No. of	-801	BTEX 8021	Chloride					PB: Shipped Via:	
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Cntrs	TPH	BTE	Chi					Remarks	Sample # (lab onl
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* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:									pH	Temp_		COC Sea COC Sig Bottles	Sample Receipt il Present/Inta med/Accurate: arrive intact bottles used:	ct: _NP _4 _
DW - Drinking Water OT - Other	Samples retu	rned via: edExCo	urier		Tracking #		000	or	082	5			Suffici	ent volume sen If Applic TO Headspace: Vation Correct/	t: Y_ able
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Refinquished by ; (Signature)		Date:		Time:	Received by: (Sig	nature)				Temp: 4	7°C Bottles	Received:	If preser	vation required by	Login: Date/Time
Relinquished by : (Signature)		Date:		Time:	Received for lab	by: (Sign	ature)	0		Date: 1	Time:	1:30	Hold:		Condition: NCF / OK













<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 9445

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
HILCORP ENERGY COMPANY	1111 Travis Street	Houston, TX77002	372171	9445	C-144

OCD Reviewer	Condition
csmith	BGT 1 @ 30-039-82363