District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

OIL CONS. DIV DIST. 3
FEB 12 2018

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office to accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Subsequent Report ☐ Final Report

Name of Company **Hilcorp Energy Company**	Contact **Lindsay Dumas**
Address **1111 Travis St. Houston, TX 77002**	Telephone No. **(281)794-9159**
Facility Name: **SJ 27-5 110N**	Facility Type: Gas

Surface Owner State	Mineral Owner State	API No.**3003927767**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	**02**	**27N**	**05W**	**920'**	**North**	**855**	**East**	**Rio Arriba**

Latitude 36.6067696 Longitude -107.3215485

NATURE OF RELEASE

Type of Release **Oil & Produced Water**	Volume of Release **33 bbls/ 17 bbls**	Volume Recovered **0 bbls**
Source of Release Production Tank	Date and Hour of Occurrence **11/29/17 12:50pm**	Date and Hour of Discovery **11/29/2017 12:50pm**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **NMOCD**	
By Whom? **Lisa Hunter**	Date and Hour **11/30/2017 7:40AM**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **N/A**	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
The release as a result of corrosion on the bottom of the production tank. There was no standing product to recover.

Describe Area Affected and Cleanup Action Taken.*
Please see attached remediation plan.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Lindsay Dumas

Printed Name: **Lindsay Dumas**

Title: **Environmental Specialist**

E-mail Address: **Ldumas@hilcorp.com**

Date: 2/8/2018 Phone: **(281)794-9159**

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 4/10/18 Expiration Date:

Conditions of Approval: Sample for TPH BTEX, Benzene
Each 100 yd³ Stock pile must be sampled with 6 weeks of Excavations piles that fail must be Removed Any Amendments must be Aproved By OCD prior to use.
Sample vadose zone after Remediation is complete.

Attached ☐

* Attach Additional Sheets If Necessary

(5)

FIGURE 3

SOIL SAMPLING LOCATIONS, FIELD PID-OVM READINGS, LABORATORY ANALYTICAL RESULTS, AND EXCAVATION RECOMMENDATIONS DECEMBER 2017 AND JANUARY 2018

HILCORP ENERGY
SAN JUAN 27-5 UNIT 110N
NE¼, NE¼, SECTION 2, T27N, R5W
RIO ARRIBA COUNTY, NEW MEXICO
N36.60696, W107.32165

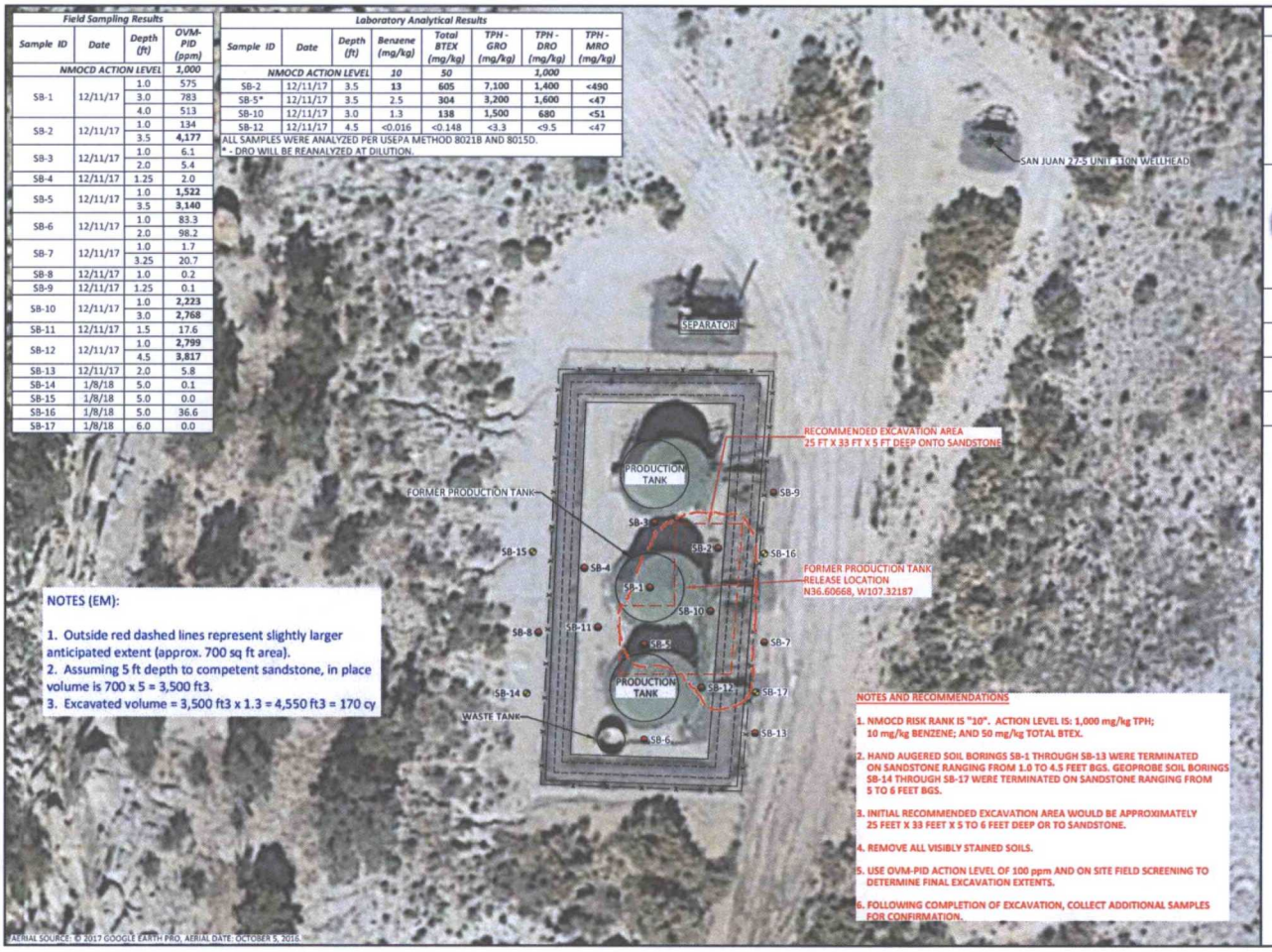
Field Sampling Results

Sample ID	Date	Depth (ft)	OVM-PID (ppm)
NMOCD ACTION LEVEL			1,000
SB-1	12/11/17	1.0	575
		3.0	783
		4.0	513
SB-2	12/11/17	1.0	134
		3.5	**4,177**
SB-3	12/11/17	1.0	6.1
		2.0	5.4
SB-4	12/11/17	1.25	2.0
SB-5	12/11/17	1.0	**1,522**
		3.5	**3,140**
SB-6	12/11/17	1.0	83.3
		2.0	98.2
SB-7	12/11/17	1.0	1.7
		3.25	20.7
SB-8	12/11/17	1.0	0.2
SB-9	12/11/17	1.25	0.1
SB-10	12/11/17	1.0	**2,223**
		3.0	**2,768**
SB-11	12/11/17	1.5	17.6
SB-12	12/11/17	1.0	**2,799**
		4.5	**3,817**
SB-13	12/11/17	2.0	5.8
SB-14	1/8/18	5.0	0.1
SB-15	1/8/18	5.0	0.0
SB-16	1/8/18	5.0	36.6
SB-17	1/8/18	6.0	0.0

Laboratory Analytical Results

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	TPH - MRO (mg/kg)
NMOCD ACTION LEVEL			10	50		1,000	
SB-2	12/11/17	3.5	13	605	7,100	1,400	<490
SB-5*	12/11/17	3.5	2.5	304	3,200	1,600	<47
SB-10	12/11/17	3.0	1.3	138	1,500	680	<51
SB-12	12/11/17	4.5	<0.016	<0.148	<3.3	<9.5	<47

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D.
* - DRO WILL BE REANALYZED AT DILUTION.



NOTES (EM):

1. Outside red dashed lines represent slightly larger anticipated extent (approx. 700 sq ft area).
2. Assuming 5 ft depth to competent sandstone, in place volume is 700 x 5 = 3,500 ft3.
3. Excavated volume = 3,500 ft3 x 1.3 = 4,550 ft3 = 170 cy

NOTES AND RECOMMENDATIONS

1. NMOCD RISK RANK IS "10". ACTION LEVEL IS: 1,000 mg/kg TPH; 10 mg/kg BENZENE; AND 50 mg/kg TOTAL BTEX.
2. HAND AUGERED SOIL BORINGS SB-1 THROUGH SB-13 WERE TERMINATED ON SANDSTONE RANGING FROM 1.0 TO 4.5 FEET BGS. GEOPROBE SOIL BORINGS SB-14 THROUGH SB-17 WERE TERMINATED ON SANDSTONE RANGING FROM 5 TO 6 FEET BGS.
3. INITIAL RECOMMENDED EXCAVATION AREA WOULD BE APPROXIMATELY 25 FEET X 33 FEET X 5 TO 6 FEET DEEP OR TO SANDSTONE.
4. REMOVE ALL VISIBLY STAINED SOILS.
5. USE OVM-PID ACTION LEVEL OF 100 ppm AND ON SITE FIELD SCREENING TO DETERMINE FINAL EXCAVATION EXTENTS.
6. FOLLOWING COMPLETION OF EXCAVATION, COLLECT ADDITIONAL SAMPLES FOR CONFIRMATION.

AERIAL SOURCE: © 2017 GOOGLE EARTH PRO, AERIAL DATE: OCTOBER 5, 2016.

animas environmental services
Farmington, NM • Durango, CO
animasenvironmental.com

DRAWN BY:	DATE DRAWN:
C. Lameman	December 12, 2017
REVISIONS BY:	**DATE REVISED:**
C. Lameman	January 11, 2018
CHECKED BY:	**DATE CHECKED:**
E. McNally	January 11, 2018
APPROVED BY:	**DATE APPROVED:**
E. McNally	January 11, 2018

LEGEND

- HAND AUGERED SOIL BORING LOCATION
- GEOPROBE SOIL BORING LOCATION
- SECONDARY CONTAINMENT BERM
- —x— FENCE

SCALE
20 10 0 20
(1 INCH = 20 FEET)

Based on the attached final delineation report, Hilcorp plans to excavate approximately 170 cy of soil, confirmation sampling of excavation walls will occur and NMOCD & SLO will receive 48 hour notification to witness.

Hilcorp plans to remediate the soil onsite by using bioremediation piles. The release was 17 bbls of light end condensate, the soil is not super saturated. Bioremediation piles are the best path forward for this particular location due to transportation logistics. Groundwater is >100ft, there is no issue of contaminating the vadose zone. The piles will not be lined, but will be bermed. The bioremediation piles with be turned weekly and sampled 6 weeks from 1/29/2018. Approximately 150 lbs of 20-10-5 fertilizer has been mixed with the bioremediation pile. This was determined based on the following assumptions:

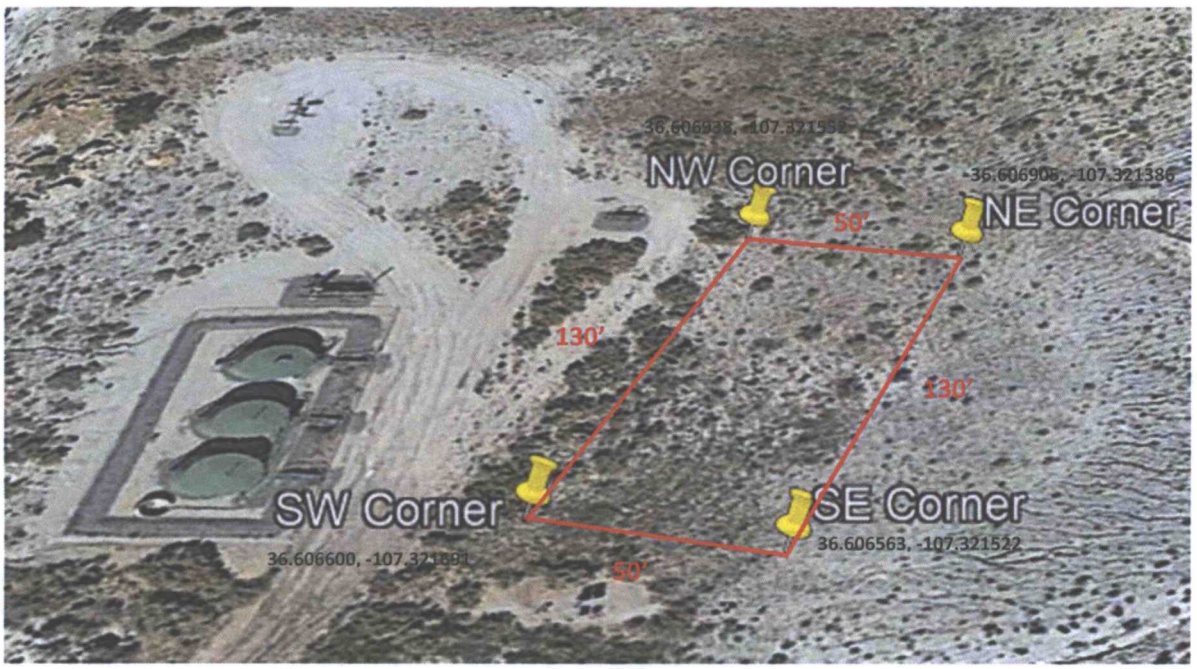
- TPH concentration of 8500 mg/kg
- 150:1 carbon to nitrogen ratio
- 4:1:1 nitrogen to phosphorous to potassium ratio

Sampling

On 3/12/18 1 – 5 pt composite per 100 cubic yards will be collected from the bioremediation piles. The soil samples will be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by Method 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300.

Closure

Once laboratory analyses confirm nominal detection limits, the bioremediation pile will be used to backfill the current excavation. The surface below the piles will then be sampled with 2 – 5 pt composites, the area will be split in a north and a south area. The soil samples will be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by Method 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300.


36.606938, -107.321558
NW Corner
36.606908, -107.321586
NE Corner
50'
130'
130'
SW Corner
36.606600, -107.321691
SE Corner
36.606563, -107.321522
50'

Legend

- Well Head
- Monitor Well
- Remediation Well
- Abandoned Borehole
- TPH Contour (mg/kg)
- BP Excavation Limits
- Williams Excavation Limits
- Remediation Collection Line
- WFS Line
- Responsibility Demarcation Line
- 95 BBL Remediation Tank
- Concrete Trap
- Main Seep
- Secondary Seep
- Former Product Tank
- Former 45 BBL Tank
- Former 95 BBL Tank A
- Former 95 BBL Tank B
- Former Compressor
- Former Dehydrator
- Former Separator
- Former Steel Containment Ring
- Former Meter
- TPH Unsaturated Soils
- TPH Saturated Soils

Note: Data from MW-06, MW-08, and MW-10 collected by Blagg Engineering in January 2017

0 25 50 100 Feet

N

WILLIAMS FOUR CORNERS LLC

FIGURE NUMBER 5

FLORANCE GC J 16A SOIL ANALYTICAL MAP (JANUARY - MAY 2017)

APTIM 6380 South Fiddlers Green Circle Suite 310 Greenwood Village, Colorado 80111 www.APTIM.com

Tim ~~[illegible]~~ Lousett 303-839-5504 x317

TWES