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State of New Mexico Energy Minerals and Natural Resources

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

Page 1 of 10 Form C-138 Revised October 11, 2022

\*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

<b>REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE</b>			
1. Generator Name and Address:			
New Mexico Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, NM 87505			
2. Originating Site:			
Canyon E&P Double L Queen Tank Battery			
3. Location of Material (Street Address, City, State or ULSTR):			
P 36 T14S R29E			
4. Source and Description of Waste:			
Crude oil and produced water contaminated soil from remediation activities at the Double L Queen Tank Battery			
Estimated Volume 6000 (yd <sup>3</sup> ) bbls Known Volume (to be entered by the operator at the end of the haul) yd <sup>3</sup> / bbls 5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS			
I, Ashley Maxwell , representative or authorized agent for New Mexico Oil Conservation Division do hereby			
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)			
RCRA Exempt:Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non- operator Use Only: Waste Acceptance Frequency I Monthly I Weekly I Per Load			
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)			
□ MSDS Information □ RCRA Hazardous Waste Analysis □ Process Knowledge □ Other (Provide description in Box 4)			
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS			
I, <u>Ashley Maxwell</u> , representative for <u>New Mexico Oil Conservation Division</u> do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.			
5. Transporter:			
Envirotech			
OCD Permitted Surface Waste Management Facility			
Name and Facility Permit #: Gandy Marley NM 1-19			
Address of Facility: Sections 4,5,8 and 9 TWP 11S RNG 31E			
Method of Treatment and/or Disposal:			
Evaporation Injection Treating Plant Landfarm Landfill Other			
Waste Acceptance Status:  APPROVED			
PRINT NAME: TITLE: DATE:			
SIGNATURE: TELEPHONE NO.:			
Surface Waste Management Facility Authorized Agent			

# **Soil Remediation Plan**



NMOCD Double L Queen - Remediation Plan Chavez County, New Mexico

April 27, 2023 Envirotech Project #23002-0003

> Submitted To: Ms. Ashley Maxwell Environmental Bureau Projects Group Oil Conservation Division (505) 635-5000 Ashley.Maxwell@emnrd.nm.gov



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#### **Location**

The subject site is identified as the Double L Queen and is located within Section 36, Township 14 South, Range 29 East, Chavez County, New Mexico. The site location is further described as latitude 33.05539 and longitude -103.975098; see **Figure 1**, **Vicinity Map**.

#### **Background**

Envirotech conducted initial site assessment activities between January 24<sup>th</sup> and February 1, 2023. Based on soil boring results it was determined that an estimated 6000 cubic yards of petroleum and chloride impacted soil is present on the site.

The subject site is an abandoned facility formerly operated by Canyon E&P. The New Mexico Oil Conservation Division (NMOCD) took control of the site under the Orphan Well Program. Envirotech completed demolition activities the week of April 3, 2023. The metal from the tanks was taken to local scrap metal recyclers and demolition debris was taken to the local landfill.

#### Surface and Groundwater

The nearest surface water is a lake/stock pond approximately 1,045 feet to the south west. There are two windmills near the lake which feed cattle water troughs. There are no other significant water courses in the vicinity of the site

In order to determine depth to groundwater three soil borings were drilled between March 27<sup>th</sup> and March 29<sup>th</sup> to a depth of 52 feet below ground surface. The borings were completed with 10 feet of screen and 45 feet of casing. The borings were allowed to sit open a minimum of 72 hours to see if any water was present. On April 2<sup>nd</sup> all three borings were check for the presence of water. No water was found in any of the wells and the three boring holes were plugged and abandoned.

#### **Regulatory Standards**

Based on the shallow depth of groundwater, the closure criteria for the site were based on the following standards (*19.15.29.12 NMAC*):

Constituent	Method	Limit
Chloride	EPA 300.0	600 mg/kg
Total Petroleum Hydrocarbons (TPH)	EPA Method 8015D	100 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA Method 8021B	50 mg/kg
Benzene	EPA Method 8021B	10 mg/kg

#### Closure standards (upper 4 feet)



#### Closure standards (4 to 50 feet)

Constituent	Method	Limit
Chloride	EPA 300.0	10,000 mg/kg
Total Petroleum Hydrocarbons (GRO/DRO)	EPA Method 8015D	1,000 mg/kg
Total Petroleum Hydrocarbons (GRO/DRO/MRO)	EPA Method 8015D	2,500 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA Method 8021B	50 mg/kg
Benzene	EPA Method 8021B	10 mg/kg

#### Soil Remediation Work Plan

Envirotech will excavate, transport, and dispose of approximately 6,000 cubic yards of contaminated soil. Excavation activities will be guided by environmental staff performing field screening of the soils. Staff will be on site to document contaminated soil removal and field screening results to guide the excavation. Contaminated soil will be transported to Gandy Marley landfarm (NMOCD permit #1-19) for disposal/remediation.

#### Field Screening

Field personnel will conduct field screening to evaluate, describe, and record lithology per the Unified Soil Classification System, hydrocarbon vapors, odor, and all other observations pertinent to the geology of the site. Information will be recorded on a field forms and will be submitted with the final report. Field screening for VOC vapors will be conducted with a PID-OVM. Prior to commencing field screening activities, the PID-OVM will be calibrated with 100 ppm isobutylene gas. The following protocol outlines the steps in which the soil samples will be field screened:

- Use a clean, 32-oz glass jar and half-fill with sample (the volume ratio of soil to air is equal), then immediately seal it using aluminum foil and the jar lid ring. Lightly shake the jar to break up any soil clusters. Note: Immediately after opening the split spoon sampler or soil sample liner, transfer soil to field screening jars.
- Allow headspace development for at least 10 minutes in an area that is not exposed to direct sunlight (i.e., vehicle floor heater). Vigorously shake jar for 15 seconds at the beginning and end of the headspace development period.
- After headspace development, introduce the instrument sampling probe through a small opening in the foil seal to a point about one-half of the headspace depth. Keep the probe free of water droplets and soil particles.
- Record the highest meter response on a sampling form. Maximum response usually occurs within about two seconds. Erratic meter response may occur if high organic vapor concentrations or moisture is present. Note any erratic headspace data in the sampling form. Do not collect analytical samples from the jar.



Soil samples will also be screened in the field for TPH per United States Environmental Protection Agency (EPA) Method 418.1 using an Infracal Total Oil and Grease (TOG)/ TPH Analyzer. A three-point calibration will be completed prior to conducting soil screening. The Infracal will also be bump checked periodically to ensure the calibration is still valid. Bump checks will be performed at a minimum of daily but could occur more frequently if field conditions warrant.

#### Laboratory Confirmation Samples

Samples will be collected for laboratory analysis from the sidewalls and base of the excavation once field screening results justify. Soil samples will be analyzed for TPH via EPA Method 8015; BTEX by USEPA Method 8260 and for Chlorides via USEPA Method 300.0.

#### <u>Backfill</u>

The site will be backfilled with 6,000 cubic yards once remediation is complete and soil samples are below the regulatory limits listed above. Location of the where the backfill comes from will be determined by NMOCD and New Mexico State Land Office. In addition, the top 1 foot of backfill will be topsoil or one foot of suitable material to establish vegetation.

#### <u>Seeding</u>

Upon completion of the excavation and backfill the site will be reseeded with an appropriate seed mix for the area. The seed mix will be determined by the New Mexico State Land Office. All disturbed areas including the access road will be cross ripped to a depth of eight (8) inches in preparation for seed. The predetermined seed mix will then be broadcast applied and disked into to the topsoil in all disturbed areas.

#### Variance Request

Envirotech is formerly requesting a variance to the sampling requirement of 200 ft<sup>2</sup> as written in 19.15.29.12D(1)(c). Envirotech proposes to use a sampling frequency of 400 ft<sup>2</sup> for this remediation project.

#### Final Report

Upon final receipt of all laboratory analytical results, a report will be prepared and submitted to the NMOCD. The report will include, at a minimum, methods and procedures followed during excavation; NMOSE permit documentation; waste disposal documentation; analytical results; field notes; and recommendations for continued remediation or site closure.



### Proposed Schedule

Envirotech is available to mobilize starting on May 1, 2023. The anticipated time to completion is 40 working days (4-6) weeks from the initial mobilization. Re-seeding activities will be scheduled immediately following the remediation if the timing aligns with prime growing season. If optimal growing season is past, seeding activities will be postponed until the fall season.



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

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

#### COMMENTS

Operator:	OGRID:	
CANYON E & P COMPANY	269864	
251 O'Connor Ridge Blvd.	Action Number:	
Irving, TX 75038	195756	
	Action Type:	
	[IM-SD] Incident File Support Doc (ENV) (IM-BNF)	
COMMENTS		

#### COMMENTS

Created By	Comment	Comment Date
amaxwell	Approved remediation plan.	5/3/2023

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Action 195756

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