

*Denny & Fort*  
DEPUTY OIL & GAS INSPECTOR

DEC 29 1997

Meter Number: 74824  
Location Name: CANYON LARGO UNIT #67  
Location: TN-25 RG-06  
SC-01 UL-C  
2 - Federal  
NMOCD Zone: OUTSIDE  
Hazard Ranking Score: 00

**RATIONALE FOR RISK-BASED CLOSURE OF PRODUCTION PITS  
LOCATED OUTSIDE OF THE VULNERABLE ZONE  
IN THE SAN JUAN BASIN**

This production pit location was ranked according to the criteria in the New Mexico Oil Conservation Division's Unlined Surface Impoundment Closure Guidelines and received a ranking score of zero. The estimated depth to groundwater is greater than 100-feet beneath ground surface (bgs), the pit is not in a well head protection area, and there are no surface water bodies within 1,000 horizontal feet of the pit location.

The primary source, discharge to the pit has been removed. There has been no discharge to the pits for at least 4 years and the pits have been closed for at least one year.

Each pit was backfilled with clean soil and graded in a manner to divert precipitation away from the excavated area. Minimal infiltration of rainfall is expected. Any rainfall that does infiltrate the ground surface must migrate through clean backfill before reaching the residual hydrocarbons.

There is no source material at the ground surface, so direct contact of hydrocarbons with livestock and the populous is not likely.

In general, outside of the vulnerable area and alluvial valleys, bedrock material is generally encountered within 20 feet of the ground surface. Bedrock material in the San Juan Basin consists of interbedded sandstones, shales and clays. According to Freeze and Cherry, 1979, the hydraulic conductivity of the bedrock material are as follows:

Sandstone	$10^{-9}$ to $10^{-13}$ cm/sec
Shale	$10^{-12}$ to $10^{-16}$ cm/sec
Clay	$10^{-12}$ to $10^{-15}$ cm/sec

Based on this information, the residual hydrocarbons should not migrate to groundwater.

Natural process (bioremediation) are degrading the residual hydrocarbon to carbon dioxide and water and will continue until the source is gone, therefore minimizing any impact to the environment.

Based on the above information, it is highly unlikely that any source material will impact groundwater or ever find an exposure pathway to affect human health and therefore El Paso Field Services Company (EPFS) requests closure of this pit location.

## FIELD PIT SITE ASSESSMENT FORM

7

**GENERAL**

Meter: 74824 Location: Canyon Largo unit #67  
 Operator #: 2999 Operator Name: Merridan P/L District: Ojito  
 Coordinates: Letter: C Section 1 Township: 25 Range: 6W  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: ☒ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 7-19-94 Area: 06 Run: 62

**SITE ASSESSMENT**

**NMOCD Zone:**

(From NMOCD Maps)

Inside

☐ (1)

Outside

☒ (2)

**Land Type:**

BLM ☒ (1)

State ☐ (2)

Fee ☐ (3)

Indian ~~Navajo~~ <sup>K6W</sup> 7-19-94

Apache

**Depth to Groundwater**

Less Than 50 Feet (20 points) ☐ (1)

50 Ft to 99 Ft (10 points) ☐ (2)

Greater Than 100 Ft (0 points) ☒ (3)

**Wellhead Protection Area :**

Is it less than 1000 ft from wells, springs, or other sources of fresh water extraction? , or ; Is it less than 200 ft from a private domestic water source? ☐ (1) YES (20 points) ☒ (2) NO (0 points)

**Horizontal Distance to Surface Water Body**

Less Than 200 Ft (20 points) ☐ (1)

200 Ft to 1000 Ft (10 points) ☐ (2)

Greater Than 1000 Ft (0 points) ☒ (3)

Name of Surface Water Body \_\_\_\_\_

(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)  
☐ (2) > 100'

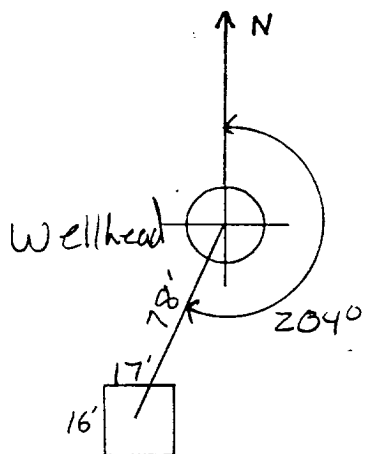
**TOTAL HAZARD RANKING SCORE:** 0 POINTS

**REMARKS**

Remarks : Redline v.z. - outside Topo v.z. - outside  
one pit - water & oil in it Push th

## ORIGINAL PIT LOCATION

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Original Pit : a) Degrees from North 204 Footage from Wellhead 78b) Length : 17 Width : 16 Depth : 2

## REMARKS

## Remarks :

Photos - 21-24 Roll #4Water in pit

Completed By:

Signature

7-19-94

Date

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	<p>Meter: <u>14824</u> Location: <u>Canyon Largo Unit #67</u></p> <p>Coordinates: Letter: <u>C</u> Section <u>1</u> Township: <u>25</u> Range: <u>6W</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>10-11-94</u> Run: <u>06</u> <u>62</u></p>
<b>FIELD OBSERVATIONS</b>	<p>Sample Number(s): <u>VW 401</u></p> <p>Sample Depth: <u>5'</u> Feet</p> <p>Final PID Reading <u>244</u> PID Reading Depth <u>5'</u> Feet</p> <p style="text-align: center;">Yes      No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p>
<b>CLOSURE</b>	<p>Remediation Method :</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Excavation <input type="checkbox"/></p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/></p> </div> <div> <p>Approx. Cubic Yards _____</p> <p><input type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> </div> </div> <p>Soil Disposition:</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Envirotech <input type="checkbox"/></p> <p>Other Facility <input type="checkbox"/></p> </div> <div> <p><input type="checkbox"/> Tierra</p> <p>Name: _____</p> </div> </div> <p>Pit Closure Date: <u>10-11-94</u> Pit Closed By: <u>BEI</u></p>
<b>REMARKS</b>	<p>Remarks : <u>sandstone 5'</u></p> <p style="text-align: right;"><u>10 yds soil</u> <u>W 10-11-94</u></p>
	<p>Signature of Specialist: <u>Vale Wilson</u></p>



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

Field ID

Lab ID

MTR CODE | SITE NAME:

SAMPLE DATE | TIME (Hrs):

SAMPLED BY:

DATE OF TPH EXT. | ANAL.:

DATE OF BTEX EXT. | ANAL.:

TYPE | DESCRIPTION:

VW 401

946383

74824

N/A

10-11-94

415

N/A

10-13-94

N/A

N/A

VG

light brown sand & clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	4740	MG/KG			2.01	25
HEADSPACE PID	244	PPM				
PERCENT SOLIDS	27.4	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

Date:

10/23/94

\*\*\*\*\*  
 Test Method for  
 Oil and Grease and Petroleum Hydrocarbons  
 in Water and Soil  
 Perkin-Elmer Model 1600 FT-IR  
 Analysis Report  
 \*\*\*\*\*

94/10/13 13:25

Sample identification  
 946383

Initial mass of sample, g  
 1.010

Volume of sample after extraction, ml  
 28.000

Petroleum hydrocarbons, ppm  
 4741.849

Net absorbance of hydrocarbons (2930  $\text{cm}^{-1}$ )  
 0.591

