

*Denny E. Faust*  
**DEPUTY OIL & GAS INSPECTOR**

DEC 29 1997

*Approved*

Meter Number: 87948  
Location Name: CANYON LARGO UNIT #218  
Location: TN-24 RG-06  
SC-20 UL-A  
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



GENERAL

Meter: 87-948 Location: Canyon Largo Unit No. 218  
 Operator #: 1987 Operator Name: Meridian P/L District: Ballard  
 Coordinates: Letter: A Section 20 Township: 24 Range: 6  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 1/20/95 Area: 07 Run: 42

SITE ASSESSMENT

## NMOCD Zone:

(From NMOCD  
Maps)

Inside

Outside

## Land Type:

BLM ☒ (1)

State ☐ (2)

Fee ☐ (3)

Indian \_\_\_\_\_

## 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 Rincon Largo

(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

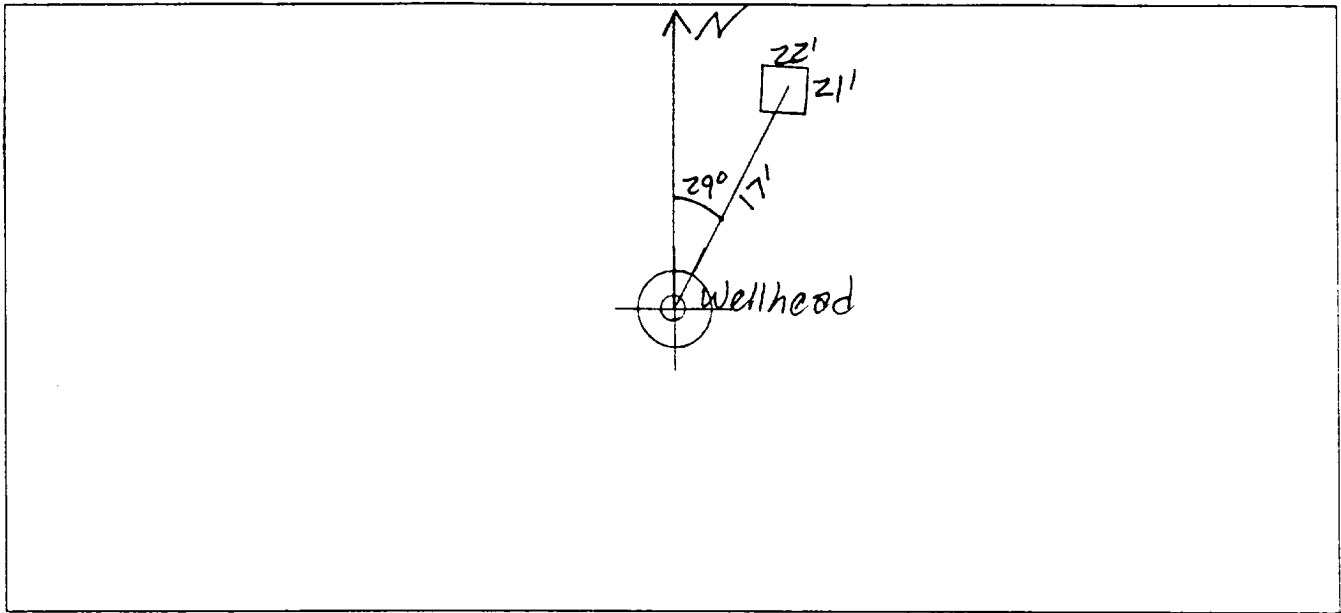
Remarks : Vulnerable Zone Topo: Outside Redline book: Outside  
One pit, pit is dry. Will close one pit.

PUSH IN

ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 29° Footage from Wellhead 17'  
b) Length : 22' Width : 21' Depth : 3'



REMARKS

Remarks :

Pictures at 1230.  
Dump Truck

Completed By:

Sarah Kelly  
Signature

1/20/95  
Date

# FIE PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	<p>Meter: <u>37948</u> Location: <u>CANYON Largo unit No 218</u></p> <p>Coordinates: Letter: <u>A</u> Section <u>20</u> Township: <u>24</u> Range: <u>6</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>7-17-95</u> Run: <u>07</u> <u>42</u></p>
<b>FIELD OBSERVATIONS</b>	<p>Sample Number(s): <u>MK 436</u></p> <p>Sample Depth: <u>7'</u> Feet</p> <p>Final PID Reading <u>655 PPM</u> PID Reading Depth <u>7'</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> <p>Excavation <input type="checkbox"/> Approx. Cubic Yards _____</p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> Tierra <input type="checkbox"/></p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>7-17-95</u> Pit Closed By: <u>Philip</u></p>
<b>REMARKS</b>	<p>Remarks : <u>Arrived took Fence Down dug sample hole</u></p> <p><u>Soil Gray Strong H<sub>2</sub>O or carbon odor Hit Rock 7'</u></p>
	<p>Signature of Specialist: <u>Morgan Killian</u></p>



## FIELD SERVICES LABORATORY

### ANALYTICAL REPORT

#### PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

#### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	MK 436	947015
MTR CODE   SITE NAME:	87948	N/A
SAMPLE DATE   TIME (Hrs):	7/17/95	12:30
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL:	7-18-95	7-18-95
DATE OF BTEX EXT.   ANAL:		
TYPE   DESCRIPTION:	V6	Gray clay and sand

REMARKS:

#### RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	326	MG/KG			2.01	28
HEADSPACE PID	655	PPM				
PERCENT SOLIDS	89.5	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

Date:

7/20/95

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

95/07/18 10:45  
 Sample identification  
 P47015  
 Initial mass of sample, g  
 2.010  
 Volume of sample after extraction, ml  
 28.000  
 Petroleum hydrocarbons, ppm  
 326.414  
 Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
 0.050

Y: Petroleum hydrocarbons spectrum

10:45

