

*Penney & Frost*  
DEPUTY OIL & GAS INSPECTOR

DEC 2 9 1997

*Approved*

Meter Number:90600  
Location Name:SAN JUAN 28-7 UNIT #110  
Location:TN-27 RG-07  
SC-19 UL-N  
2 - Federal  
NMOCD Zone:OUTSIDE  
Hazard Ranking Score:00

RECEIVED  
APR 14 1997

OIL CON. DIV.  
DIST. 3

**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: 9D600 Location: San Juan 28-7 Unit 110  
 Operator #: 0203 Operator Name: Ameco P/L District: Blanco  
 Coordinates: Letter: N Section 19 Township: 27 Range: 7  
 Or Latitude / Longitude /  
 Pit Type: Dehydrator ☒ Location Drip: / Line Drip: / Other: /  
 Site Assessment Date: 6/6/94 Area: 03 Run: 32

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 /

(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 - Outside  
4 pits. Close. Pit Dry

PUSH-IN

ORIGINAL PIT LOCATION	<div data-bbox="636 266 1082 308" data-label="Section-Header">ORIGINAL PIT LOCATION</div> <div data-bbox="206 322 1511 434" data-label="Text"><p>Original Pit : a) Degrees from North <u>89°</u> Footage from Wellhead <u>43'</u> b) Length : <u>37'</u> Width : <u>32'</u> Depth : <u>5'</u></p></div> <div data-bbox="214 475 1511 1064" data-label="Diagram"><p>The diagram illustrates the spatial relationship between a wellhead and an original pit. A vertical line represents the North direction. A horizontal line extends 43 feet from the wellhead (marked with a circle) to the pit. The angle between the North line and the line to the pit is 89 degrees. The pit is a rectangle measuring 37 feet in length and 32 feet in width. A wavy line representing a fence is shown around the pit, with a note indicating a 23-foot fence line and a 5-foot depth, dated 6/6/94.</p></div>
REMARKS	<div data-bbox="206 1134 1511 1274" data-label="Text"><p>Remarks : <u>Pictures @ 1211 (10-14)</u> <u>End Dump</u></p></div> <div data-bbox="206 1288 1511 1694" data-label="Text"><p><u>Fenced + Bermed area of pit is 37' x 32'. Actual pit area is 32' x 23' x 5'</u> <span style="float: right;">cnc 6/6/94</span></p></div>
	<div data-bbox="206 1736 1511 1959" data-label="Text"><p>Completed By:</p><div><div data-bbox="305 1805 826 1945"><u>Cory Chase</u> Signature</div><div data-bbox="1073 1805 1247 1945"><u>6/6/94</u> Date</div></div></div>

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# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	<p>Meter: <u>90660</u> Location: <u>SAN JUAN 28-7<sup>#</sup> 110</u></p> <p>Coordinates: Letter: <u>N</u> Section <u>19</u> Township: <u>27</u> Range: <u>7</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>8-17-94</u> Run: <u>03</u> <u>32</u></p>
FIELD OBSERVATIONS	<p>Sample Number(s): <u>MK270</u></p> <p>Sample Depth: <u>3'</u> Feet</p> <p>Final PID Reading <u>327</u> PID Reading Depth <u>3'</u> Feet</p> <p>Groundwater Encountered <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Approximate Depth _____ Feet</p>
CLOSURE	<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>8-17-94</u> Pit Closed By: <u>BEI</u></p>
REMARKS	<p>Remarks : <u>EPNE lines marked soil black slight odor</u></p> <p><u>Hit Sand Stone 3'</u></p>
	<p>Signature of Specialist: <u>Morgan Hillion</u></p>



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	ML 270	945959
MTR CODE   SITE NAME:	90600	N/A
SAMPLE DATE   TIME (Hrs):	8/17/94	1134
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	8/18/94	8/18/94
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	JG	Black fine sand

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	13,900	MG/KG			0.47	28
HEADSPACE PID	327	PPM				
PERCENT SOLIDS	92.8	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

Date:

9/2/94

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Test Method for  
Oil and Grease and Petroleum Hydrocarbons  
in Water and Soil  
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Perkin-Elmer Model 1600 FT-IR  
Analysis Report  
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11/03/10 15:07

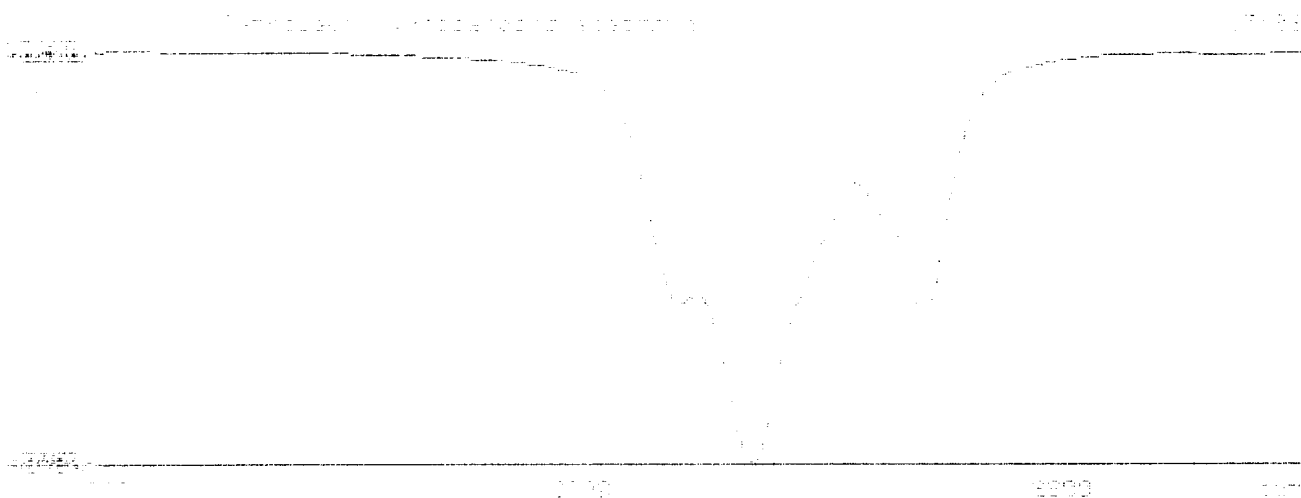
Sample Identification  
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Initial mass of sample, g

Mass of sample after extraction, g

Extraction solvent, ml

Extraction time, min



**ILLEGIBLE**