

*Denny L. ...*  
DEPUTY OIL & GAS INSPECTOR

DEC 22 1997

*Approved*

Meter Number: 90710 90711  
Location Name: MOORE LS 5A  
Location: TN-32 RG-12  
SC-24 UL-E  
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: 90710 Location: MOORE LS SA  
 Operator #: 0203 Operator Name: Amoco P/L District: KUTZ  
 Coordinates: Letter: E Section 24 Township: 32 Range: 12  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator ☒ Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Visit Date: 3-29-94 Run: 02 22

SITE ASSESSMENT

NMOCD Zone: Inside Land Type: BLM ☒  
 (From NMOCD Vulnerable State ☐  
 Maps) Zone ☐ Fee ☐  
 Outside ☒ Indian \_\_\_\_\_

Depth to Groundwater  
 Less Than 50 Feet (20 points) ☐  
 50 Ft to 99 Ft (10 points) ☐  
 Greater Than 100 Ft (0 points) ☒

## 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? ☐ YES (20 points) ☒ NO (0 points)

## Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points) ☐  
 200 Ft to 1000 Ft (10 points) ☐  
 Greater Than 1000 Ft (0 points) ☒

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

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

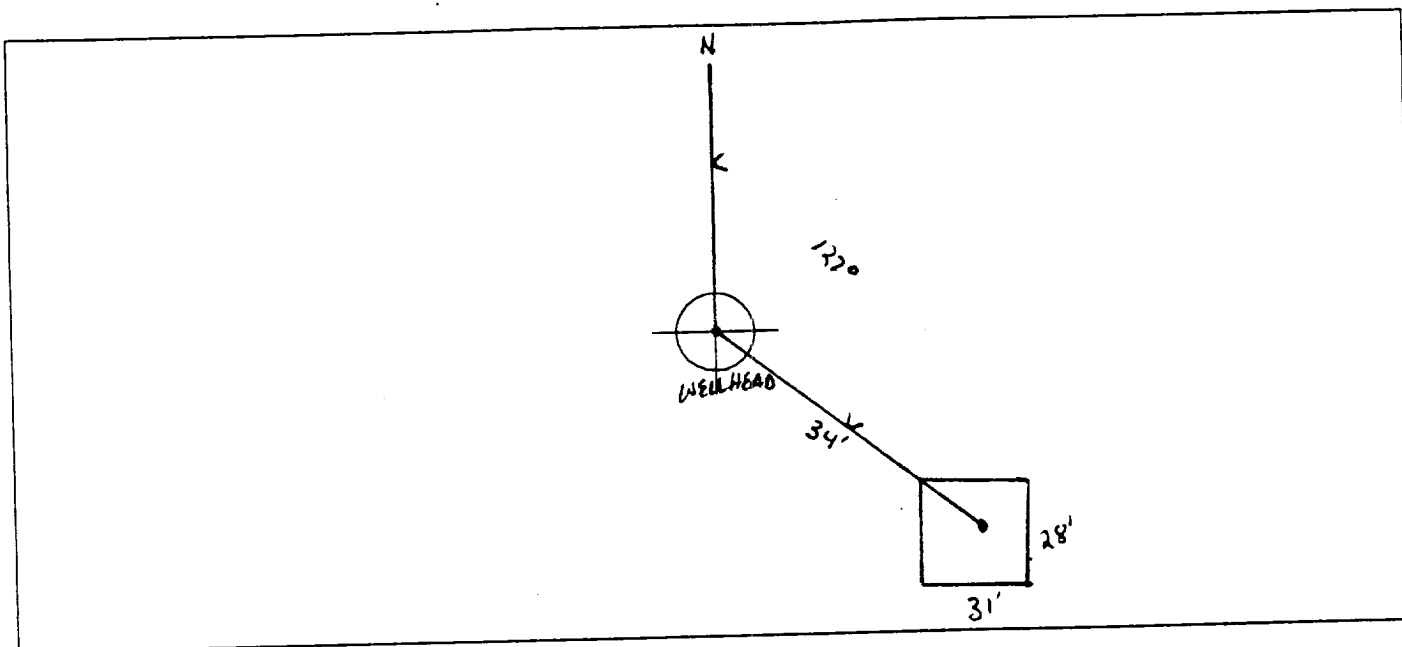
TOTAL HAZARD RANKING SCORE: 0 POINTS

REMARKS

Remarks : THREE PITS ON LOCATION. WILL CLOSE ONLY ONE. DENY  
HAS NOT BEEN DISCONNECTED FROM PIT YET. PIT IS DRY.

# ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 129° Footage to Wellhead 34'  
 b) Degrees from North \_\_\_\_\_ Footage to Dogleg \_\_\_\_\_  
 Dogleg Name \_\_\_\_\_  
 c) Length : 31' Width : 28' Depth : 4'



## REMARKS :

STARTED TAKING PICTURES AT 1:10 P.M.

END DUMP

Completed By:

Robert Thompson  
 Signature

3.29.94

Date

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	<p>Meter: <u>90710</u> <u>90711</u> Location: <u>MOORE LS 5A</u></p> <p>Coordinates: Letter: <u>E</u> Section <u>24</u> Township: <u>32</u> Range: <u>12</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>4-21-94</u> Area: <u>02</u> Run: <u>72</u></p>
<b>FIELD OBSERVATIONS</b>	<p>Sample Number(s): <sup>940857</sup> <u>KD 21</u> <sup>940858</sup> <u>KD 22</u> <sup>940859</sup> <u>KD 23</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>413 ppm</u> PID Reading Depth <u>12'</u> Feet</p> <p style="text-align: center;">Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth _____ Feet</p>
<b>CLOSURE</b>	<p>Remediation Method :</p> <p>Excavation <input type="checkbox"/> (1) Approx. Cubic Yards <u>0</u></p> <p>Onsite Bioremediation <input type="checkbox"/> (2)</p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/> (3)</p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (3) Tierra</p> <p>Other Facility <input type="checkbox"/> (2) Name: _____</p> <p>Pit Closure Date: <u>4-21-94</u> Pit Closed By: <u>BEI</u></p>
<b>REMARKS</b>	<p>Remarks : <u>TOOK test Hole to 12' TOOK PID Reading</u></p> <p><u>Closed Pit. TOOK Blank and Duplicate Samples on this</u></p> <p><u>Pit.</u></p>
	<p>Signature of Specialist: <u>Kerry Dean</u></p>



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT - Soil

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:

KD21	940857
90710 / 90711	N/A
4/21/94	1435
N/A	
4-22-94	4-22-94
N/A	N/A
VCE	Brown Clay/Sand

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE		MG/KG				
TOLUENE		MG/KG				
ETHYL BENZENE		MG/KG				
TOTAL XYLENES		MG/KG				
TOTAL BTEX		MG/KG				
TPH (418.1)	210	MG/KG			2.0	28
HEADSPACE PID	413	PPM				
PERCENT SOLIDS	85	%				

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at \_\_\_\_\_ % for this sample All QA/QC was acceptable.  
Narrative:

DF = Dilution Factor Used

Approved By:

*John Fardi*

Date:

5/17/94

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*****: *****
      Test Method for
Oil and Grease and Petroleum Hydrocarbons
      in Water and Soil
      Perkin-Elmer Model 1600 FT-IR
      Analysis Report
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4/04/22 13:38

Sample identification  
40857

Initial mass of sample, g  
0.000

Volume of sample after extraction, ml  
3.000

Petroleum hydrocarbons, ppm  
230.175

Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
0.013

