

*Denny & Faust*  
DEPUTY OIL & GAS INSPECTOR

DEC 22 1997

*Approved*

Meter Number: 73043  
Location Name: MADDOX WN FEDERAL #1  
Location: TN-30 RG-13  
SC-13 UL-H  
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

**EPFS**

**EL PASO FIELD SERVICES**

GENERAL

Meter: 23043 Location: MADDOX WM FEDERAL #1  
 Operator #: 0286 Operator Name: CONOCO P/L District: KUTZ  
 Coordinates: Letter: H Section 13 Township: 30 Range: 13  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator ☒ Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Visit Date: 3.24.94 Run: 02 31

SITE ASSESSMENT

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

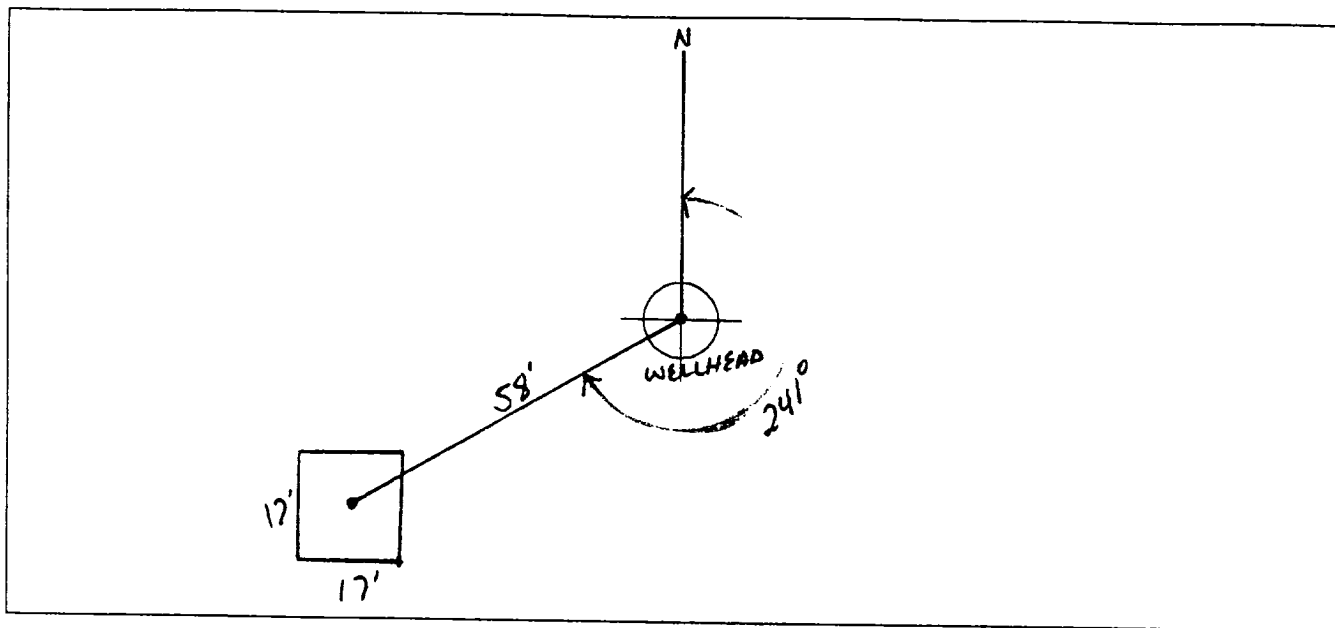
**TOTAL HAZARD RANKING SCORE:** 0 POINTS

REMARKS

Remarks : TWO PITS ON LOCATION. WILL CLOSE ONLY ONE.  
PIT IS DRY.

# ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 241° Footage to Wellhead 58'  
 b) Degrees from North \_\_\_\_\_ Footage to Dogleg \_\_\_\_\_  
 Dogleg Name \_\_\_\_\_  
 c) Length : 12' Width : 12' Depth : 3'



## Remarks :

STARTED TAKING PICTURES AT 3:05 P.M.  
END DUMP

Completed By:

Robert Thompson  
 Signature

3-24-94  
 Date

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	
Meter: <u>73043</u> Location: <u>Maddox WN Federal #1</u>	
Coordinates: Letter: <u>H</u> Section <u>13</u> Township: <u>30</u> Range: <u>13</u>	
Or Latitude _____ Longitude _____	
Date Started : <u>4-21-94</u> Area: <u>02</u> Run: <u>31</u>	
FIELD OBSERVATIONS	
Sample Number(s): <sup>940854</sup> <u>KD 18</u>	
Sample Depth: <u>4'</u> Feet	
Final PID Reading <u>455 ppr</u> PID Reading Depth <u>4'</u> Feet	
Yes No	
Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth _____ Feet	
CLOSURE	
Remediation Method :	
Excavation <input type="checkbox"/> (1) Approx. Cubic Yards <u>0</u>	
Onsite Bioremediation <input type="checkbox"/> (2)	
Backfill Pit Without Excavation <input checked="" type="checkbox"/> (3)	
Soil Disposition:	
Envirotech <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (3) Tierra	
Other Facility <input type="checkbox"/> (2) Name: _____	
Pit Closure Date: <u>4-21-94</u> Pit Closed By: <u>BEI</u>	
REMARKS	
Remarks : <u>Dug test Hbk to 4' Hit Sandstone Layer</u>	
<u>Took PID Reading closed pit.</u>	
Signature of Specialist: <u>Henry Dean</u>	



**FIELD SERVICES LABORATORY**  
**ANALYTICAL REPORT**  
**PIT CLOSURE PROJECT - Soil**

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	KD18	940854
MTR CODE   SITE NAME:	73043	NIA
SAMPLE DATE   TIME (Hrs):	4/21/94	1015
SAMPLED BY:	NIA	
DATE OF TPH EXT.   ANAL.:	4-22-94	4-22-94
DATE OF BTEX EXT.   ANAL.:	NIA	NIA
TYPE   DESCRIPTION:	VG	COARSE 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	4.25/14/94	MG/KG				
TPH (418.1)	1070 1065	MG/KG			2.05	28
HEADSPACE PID	455	PPM				
PERCENT SOLIDS	93.3%	%				

-- 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 P. Smith*

Date:

*4/30/94*

\*\*\*\*\*  
 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  
 \*\*\*\*\*

04/04/22 13:17

Sample identification  
 40854

Initial mass of sample, g  
 1050

Volume of sample after extraction, ml  
 3.000

Petroleum hydrocarbons, ppm  
 265.149

Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
 .147

