

*Denny E. Faust*  
DEPUTY OIL & GAS INSPECTOR

DEC 22 1997

Meter Number:92008

Location Name:MADDOX WN FEDERAL #3E

Location:TN-30 RG-13

SC-24 UL-J

2 - Federal

NMOCD Zone:OUTSIDE

Hazard Ranking Score:00

RECEIVED  
APR 14 1997

OIL CON. DIV.  
DIST. 3

*Approved*

**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

LEPPS

EL PASO FIELD SERVICE

GENERAL

Meter: 92008 Location: MADDOX W N FEDERAL #3EOperator #: 0286 Operator Name: CONOCO P/L District: KUTZCoordinates: Letter: <sup>3-25-94 RT</sup> 85 Section 24 Township: 30 Range: 13

Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

Pit Type: Dehydrator ☒ Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_Site Visit Date: 3-25-94 Run: 02 31

SITE ASSESSMENT

NMOCD Zone: Inside  
(From NMOCD Vulnerable  
Maps) Zone ☐  
Outside ☒

Land Type: BLM ☒  
State ☐  
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)

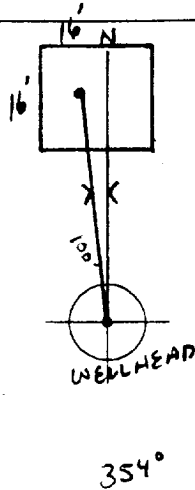
TOTAL HAZARD RANKING SCORE: 0 POINTS

REMARKS

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

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 354° Footage to Wellhead 100'  
 b) Degrees from North \_\_\_\_\_ Footage to Dogleg \_\_\_\_\_  
 Dogleg Name \_\_\_\_\_  
 c) Length : 16' Width : 16' Depth : 3'



### REMARKS :

STARTED TAKING PICTURES AT 8:44 A.M.  
END DUMP

Completed By:

*Robert Thompson*  
 Signature

3.25.94  
 Date

# FIELD IT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 92008 Location: Maddox Wn Federal #3E  
 Coordinates: Letter: J Section 24 Township: 30 Range: 13  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Date Started : 5-9-94 Area: 02 Run: 31

FIELD OBSERVATIONS

Sample Number(s): VW' 38  
 Sample Depth: 4' Feet  
 Final PID Reading 240 PID Reading Depth 4' Feet  
 Yes No  
 Groundwater Encountered ☐ (1) ☒ (2) Approximate Depth \_\_\_\_\_ Feet

CLOSURE

Remediation Method :  
 Excavation ☐ (1) Approx. Cubic Yards 0  
 Onsite Bioremediation ☐ (2)  
 Backfill Pit Without Excavation ☒ (3)  
 Soil Disposition:  
 Envirotech ☐ (1) ☐ (3) Tierra  
 Other Facility ☐ (2) Name: \_\_\_\_\_  
 Pit Closure Date: 5-9-94 Pit Closed By: BEZ

REMARKS

Remarks : Four foot hit sandstone + couldn't dig any further

Signature of Specialist: Vicki Wilson



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:

VW 38	945101
92008	NIA
5/9/94	0815
NIA	NIA
5/10/94	5/10/94
NIA	NIA
VG	Fine Lt. Brown Sand/Clay

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)	1280	MG/KG			2.08	28
HEADSPACE PID	240	PPM				
PERCENT SOLIDS	92.0	%				

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

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

DF = Dilution Factor Used

Approved By:

*John F. Lach*

Date:

5/15/94

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

74/05/10 14:07

Sample identification  
 745101

Initial mass of sample, g  
 2.060

Volume of sample after extraction, ml  
 19.000

Petroleum hydrocarbons, ppm  
 1293.299

Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
 0.142

