Denny G. Foust
DEPUTY OIL & GAS INSPECTOR

DEC 2 9 1997

Approved

**Meter Number:72444**
**Location Name:SAN JUAN 28-5 #37**
**Location:TN-28 RG-05**
**SC-24 UL-L**
**2 - Federal**
**NMOCD Zone:OUTSIDE**
**Hazard Ranking Score:00**

RECEIVED
APR 1 4 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: 72444 Location: SAN JUAN 28-5 #37
Operator #: 2999 Operator Name: MERIDIAN P/L District: BLOOMFIELD
Coordinates: Letter: L Section 24 Township: 28 Range: 5
Or Latitude _____ Longitude _____
Pit Type: Dehydrator X Location Drip: ___ Line Drip: ___ Other: _____
Site Assessment Date: 5.27.94 Area: 10 Run: 61

## SITE ASSESSMENT

**NMOCD Zone:** (From NMOCD Maps) Inside ☐ (1) Outside ☒ (2)

**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 : TWO PITS ON LOCATION. WILL CLOSE ONLY ONE. PIT IS DRY. LOCATION IS ON TOP OF A MESA. REDLINE AND TOPO CONFIRMED LOCATION IS OUTSIDE V.Z.

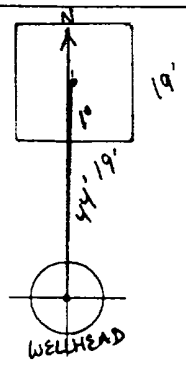
PUSH IN

ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 1° Footage from Wellhead 44'

b) Length : 19' Width : 19' Depth : 1'




REMARKS

**Remarks :**

TOOK PICTURES AT 1:09 P.M.

DUMP TRUCK - BOBTAIL

Completed By:

Robert Thompson
Signature

5.27.94
Date

# FIELD PIT REMEDIATION/CLOSURE FORM

**GENERAL**

Meter: 72444 Location: San Juan 28-5 #37

Coordinates: Letter: L Section 24 Township: 28 Range: 5

Or Latitude _____ Longitude _____

Date Started : 5-27-94 Area: 10 Run: 61

**FIELD OBSERVATIONS**

Sample Number(s): MK 61 _____ _____ _____

Sample Depth: 12 Feet

Final PID Reading 217 PID Reading Depth 12' Feet

| | Yes | No | |
|---|---|---|---|
| Groundwater Encountered | ☐ (1) | ☒ (2) | Approximate Depth _____ Feet |

**CLOSURE**

Remediation Method :

| | | |
|---|---|---|
| Excavation | ☐ (1) | Approx. Cubic Yards _____ |
| Onsite Bioremediation | ☐ (2) | |
| Backfill Pit Without Excavation | ☒ (3) | |

Soil Disposition:

| | | | |
|---|---|---|---|
| Envirotech | ☐ (1) | ☐ (3) | Tierra |
| Other Facility | ☐ (2) | Name: _____ | |

Pit Closure Date: 6-29-94 Pit Closed By: BEI

**REMARKS**

**Remarks :** EPNG lines marked Soil light Brown Strong Hydrocarbon odor

Signature of Specialist: Morgan Killion

(SP3191) 04/07/94

El Paso Natural Gas Company

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

## SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---|---|---|
| SAMPLE NUMBER: | MK61 | 945554 |
| MTR CODE \| SITE NAME: | 72444 | N/A |
| SAMPLE DATE \| TIME (Hrs): | 6-29-94 | 1000 |
| SAMPLED BY: | N/A | |
| DATE OF TPH EXT. \| ANAL.: | 6/30/94 | 6/30/94 |
| DATE OF BTEX EXT. \| ANAL.: | N/A | N/A |
| TYPE \| DESCRIPTION: | VG | light brown clay/sand stone |

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) | 1030 | MG/KG | | | 1.97 | 28 |
| HEADSPACE PID | 217 | PPM | | | | |
| PERCENT SOLIDS | ~~N/A~~ 84.8 AND 6/30/94 | % | | | | |

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

The Surrogate Recovery was at N/A % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: [signature] Date: 7/7/94

Test Method for
Oil and Grease and Petroleum Hydrocarbons
in Water and Soil

Perkin-Elmer Model 1600 FT-IR
Analysis Report

ILLEGIBLE