

*Approved*

**Meter Number:70422**  
**Location Name:HUGHES B #7**  
**Location:TN-29 RG-08**  
**SC-29 UL-M**  
**2 - Federal**  
**NMOCD Zone:OUTSIDE**  
**Hazard Ranking Score:00**

RECEIVED  
MAY 1 1997  
OIL & GAS DIVISION  
NEW MEXICO DEPARTMENT OF  
NATURAL RESOURCES

**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: 70422 Location: HUGHES B 7  
Operator #: 0203 Operator Name: Amoco P/L District: Blanco  
Coordinates: Letter: M Section 29 Township: 29 Range: 8  
Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Pit Type: Dehydrator ☒ Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
Site Assessment Date: 6/10/94 Area: 13 Run: 51

**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

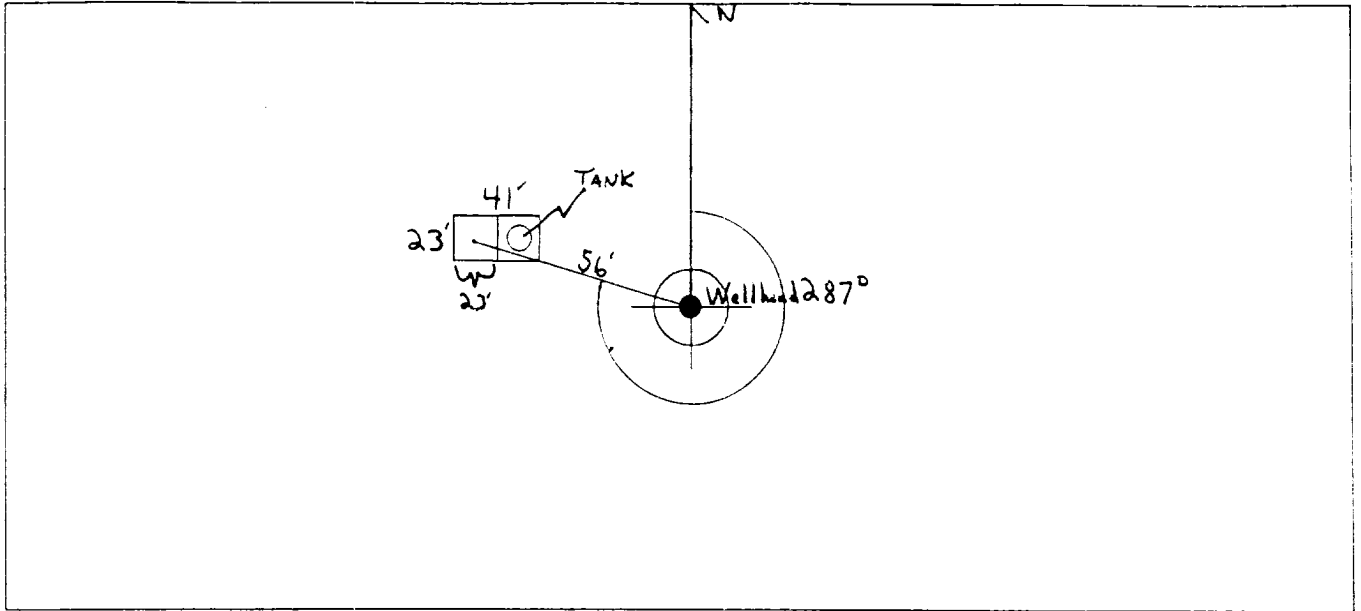
**REMARKS**

Remarks : Redline & Vulnerable Zone Topo - Outside  
1 pit. Will close 1. Pit Dry. Tank is in Fenced & Bermed area next to pit

**PUSH-IN**

# ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 287° Footage from Wellhead 56'  
 b) Length : 41' Width : 23' Depth : 4'



## Remarks :

Pictures @ 1105 (23-26)  
 cmcb/10/94  
~~Dump Truck~~ End Dump

Fenced + Bermed area of pit is 41' x 23'. Actual pit area is 23' x 23' x 4'  
 Tank is within Fenced + Bermed area

Completed By:

Cory Chance  
 Signature

6/10/94  
 Date

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	Meter: <u>70422</u> Location: <u>Hughes B<sup>#</sup>7</u> Coordinates: Letter: <u>m</u> Section <u>29</u> Township: <u>29</u> Range: <u>8</u> Or Latitude _____ Longitude _____ Date Started : <u>8-2-94</u> Run: <u>13</u> <u>51</u>
<b>FIELD OBSERVATIONS</b>	Sample Number(s): <u>mk 210</u> Sample Depth: <u>5'</u> Feet Final PID Reading <u>175</u> PID Reading Depth <u>5'</u> Feet <div style="text-align: center;">Yes      No</div> Groundwater Encountered <input type="checkbox"/> <input type="checkbox"/> Approximate Depth _____ Feet
<b>CLOSURE</b>	Remediation Method : <div style="display: flex; justify-content: space-between;"> <div>           Excavation            Onsite Bioremediation            Backfill Pit Without Excavation         </div> <div style="text-align: right;"> <input type="checkbox"/> Approx. Cubic Yards _____  <input type="checkbox"/>  <input checked="" type="checkbox"/> </div> </div> Soil Disposition: <div style="display: flex; justify-content: space-between;"> <div>           Envirotech            Other Facility         </div> <div style="text-align: right;"> <input type="checkbox"/> <input type="checkbox"/> Tierra  <input type="checkbox"/> Name: _____         </div> </div> Pit Closure Date: <u>8-2-94</u> Pit Closed By: <u>BEI</u>
<b>REMARKS</b>	Remarks : <u>EPNG lines marked soil Black strong HYDROcarbon odor pit 5' sandstone 5'</u> _____ _____
Signature of Specialist: <u>Morgan Killian</u>	



## FIELD SERVICES LABORATORY

### ANALYTICAL REPORT

#### PIT CLOSURE PROJECT - Soil

#### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	MJS 210	945821
MTR CODE   SITE NAME:	70422	N/A
SAMPLE DATE   TIME (Hrs):	8-2-94	1134
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	8/4/94	8/4/94
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	RG	Black Fine 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)	2160	MG/KG			2.00	28
HEADSPACE PID	175	PPM				
PERCENT SOLIDS	86.2	%				

— 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: J. J.

Date: 8/17/94

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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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12/15/04 11:40

Sample Identification  
0001

Sample Name: 0001

Sample ID: 0001

Sample Weight: 0.0010 g

Sample Location: 0001

Sample Date: 12/15/04

Sample Time: 11:40

Sample Name: 0001

Sample ID: 0001