

George E. Frost
DEPUTY OIL & GAS INSPECTOR

DEC 30 1997

Approved

Meter Number: 74874

Location Name: STATE OF NEW MEXICO AX#1

Location: TN-29 RG-09

SC-32 UL-H

1 - State

NMOCD Zone: OUTSIDE

Hazard Ranking Score: 00

RECEIVED
DEC 30 1997

OFFICE OF THE
DEPUTY OIL & GAS INSPECTOR

**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.

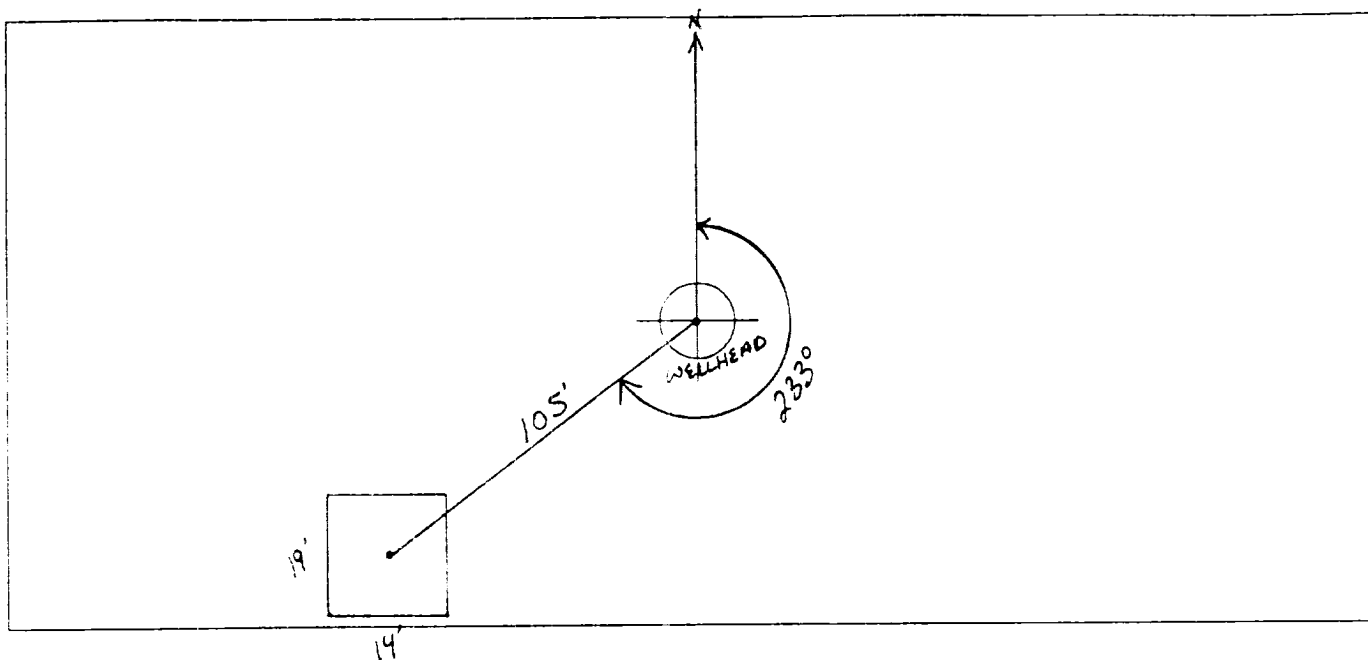
FIELD PIT SITE ASSESSMENT FORM

GENERAL	<p>Meter: <u>74874</u> Location: <u>STATE OF NEW MEXICO AX #1</u></p> <p>Operator #: <u>0203</u> Operator Name: <u>AMOCO</u> P/L District: <u>BLANCO</u></p> <p>Coordinates: Letter: <u>H</u> Section <u>32</u> Township: <u>29</u> Range: <u>9</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator _____ Location Drip: <input checked="" type="checkbox"/> Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>5-14-94</u> Area: <u>03</u> Run: <u>42</u></p>
SITE ASSESSMENT	<p>NMOCD Zone: (From NMOCD Maps)</p> <p style="margin-left: 100px;">Inside <input type="checkbox"/> (1)</p> <p style="margin-left: 100px;">Outside <input checked="" type="checkbox"/> (2)</p> <p style="margin-left: 100px;">Land Type:</p> <p style="margin-left: 100px;">BLM <input type="checkbox"/> (1)</p> <p style="margin-left: 100px;">State <input checked="" type="checkbox"/> (2)</p> <p style="margin-left: 100px;">Fee <input type="checkbox"/> (3)</p> <p style="margin-left: 100px;">Indian _____</p> <p>Depth to Groundwater</p> <p>Less Than 50 Feet (20 points) <input type="checkbox"/> (1)</p> <p>50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2)</p> <p>Greater Than 100 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Wellhead Protection Area :</p> <p>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? <input type="checkbox"/> (1) YES (20 points) <input checked="" type="checkbox"/> (2) NO (0 points)</p> <p>Horizontal Distance to Surface Water Body</p> <p>Less Than 200 Ft (20 points) <input type="checkbox"/> (1)</p> <p>200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2)</p> <p>Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____</p> <p>(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)</p> <p>Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) < 100' (Navajo Pits Only)</p> <p style="margin-left: 100px;"><input type="checkbox"/> (2) > 100'</p> <p>TOTAL HAZARD RANKING SCORE: <u>0</u> POINTS</p>
REMARKS	<p>Remarks : <u>ONLY PIT ON LOCATION. PIT IS DRY. LOCATION IS UP ON TOP OF A MESA SOUTH OF SULLIVAN RD. REDLINE AND TOPO CONFIRMED LOCATION IS OUTSIDE V.2.</u></p> <p style="text-align: right;"><u>PUSH ME.</u></p>

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 233° Footage from Wellhead 105'
b) Length : 19' Width : 14' Depth : 2'

ORIGINAL PIT LOCATION



REMARKS

Remarks :

TOOK PICTURES AT 10:53 A.M.

END DUMP

Completed By:

Robert Thompson

Signature

5.14.94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	Meter: <u>74874</u> Location: <u>STATE OF NEW MEXICO AX #1</u> Coordinates: Letter: <u>H</u> Section <u>32</u> Township: <u>29</u> Range: <u>9</u> Or Latitude _____ Longitude _____ Date Started : <u>7-27-94</u> Run: <u>03</u> <u>42</u>
FIELD OBSERVATIONS	Sample Number(s): <u>NK 186</u> Sample Depth: <u>5'</u> Feet Final PID Reading <u>100</u> PID Reading Depth <u>5'</u> Feet <div style="text-align: center;">Yes No</div> Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet
CLOSURE	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 <input type="checkbox"/> Other Facility <input type="checkbox"/> </div> <div> <input type="checkbox"/> Tierra Name: _____ </div> </div> Pit Closure Date: <u>7-27-94</u> Pit Closed By: <u>BEI</u>
REMARKS	Remarks : <u>EPNG lines Marked Soil Gray Slight HYDROCARBON odor Hit Sandstone 5'</u> _____ _____
	Signature of Specialist: <u>Morgan Killian</u>



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:

mk 186	945775
74874	N/A
7-27-94	1047
N/A	N/A
7/28/94	7/28/94
N/A	N/A
VG	lt. Grey 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)	2010	MG/KG			2.10	28
HEADSPACE PID	100	PPM				
PERCENT SOLIDS	92.0	%				

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

The Surrogate Recovery was at
Narrative:

N/A

% for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Approved By:

D.F.

Date:

8/8/94

100