

*Denny E. Frost*  
**DEPUTY OIL & GAS INSPECTOR**

DEC 29 1997

Meter Number: 72475  
Location Name: RUSSELL LS 4  
Location: TN-28 RG-08  
SC-24 UL-G  
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.

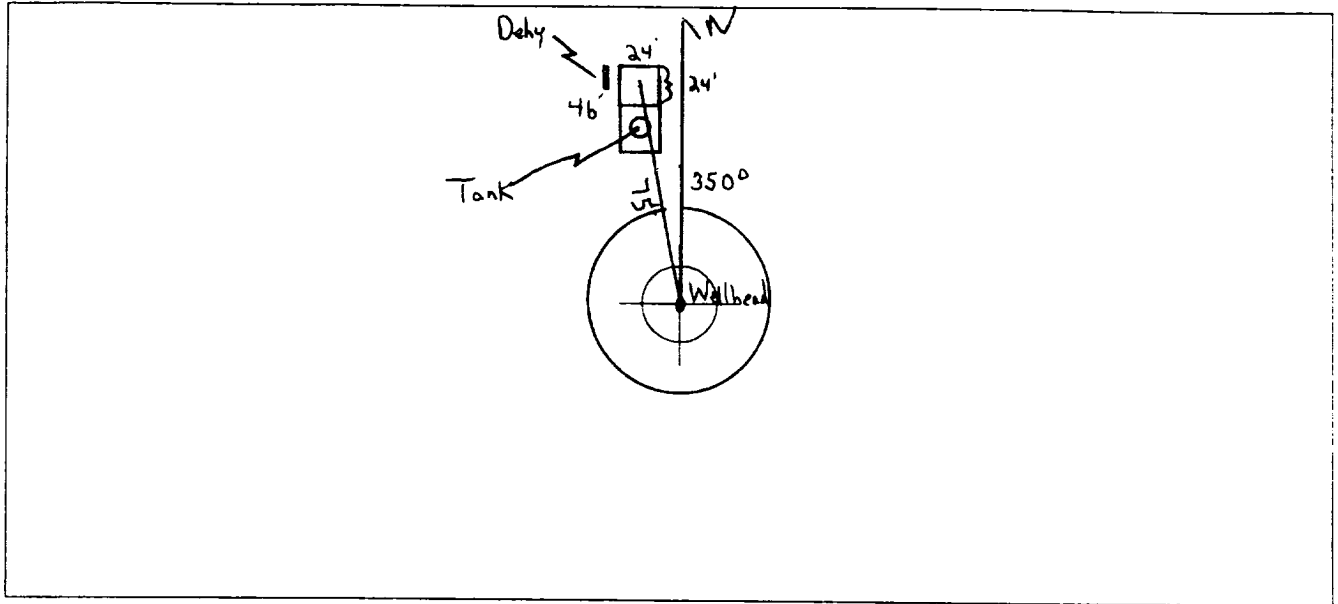
Based on the above information, it is highly unlikely that any source material will impact groundwater or ever find an exposure pathway to affect human health and therefore El Paso Field Services Company (EPFS) requests closure of this pit location.

**FIELD PIT SITE ASSESSMENT FORM**

GENERAL	<p>Meter: <u>72475</u> Location: <u>Russell LS 4</u>          Operator #: <u>0203</u> Operator Name: <u>Amoro</u> P/L District: <u>Blanco</u>          Coordinates: Letter: <u>G</u> Section <u>24</u> Township: <u>28</u> Range: <u>8</u>          Or Latitude _____ Longitude _____          Pit Type: Dehydrator <input checked="" type="checkbox"/> Location Drip: _____ Line Drip: _____ Other: _____          Site Assessment Date: <u>6/9/94</u> Area: <u>13</u> Run: <u>42</u></p>		
	<table border="0"> <tr> <td data-bbox="66 676 164 1847" rowspan="2">SITE ASSESSMENT</td> <td data-bbox="164 676 1555 1847"> <p><b>NMOCD Zone:</b>            (From NMOCD Maps)</p> <p>Inside <input type="checkbox"/> (1)            Outside <input checked="" type="checkbox"/> (2)</p> <p><b>Land Type:</b> BLM <input checked="" type="checkbox"/> (1)            State <input type="checkbox"/> (2)            Fee <input type="checkbox"/> (3)            Indian _____</p> <p><b>Depth to Groundwater</b>            Less Than 50 Feet (20 points) <input type="checkbox"/> (1)            50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2)            Greater Than 100 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p><b>Wellhead Protection Area :</b>            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><b>Horizontal Distance to Surface Water Body</b>            Less Than 200 Ft (20 points) <input type="checkbox"/> (1)            200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2)            Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____            (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) &lt; 100' (Navajo Pits Only)  <input type="checkbox"/> (2) &gt; 100'</p> <p><b>TOTAL HAZARD RANKING SCORE:</b> <u>0</u> POINTS</p> </td> </tr> <tr> <td data-bbox="66 1847 1555 2047"> <p><b>REMARKS</b></p> <p>Remarks : <u>Redline-Outside, Vuln-Outside</u>  <u>2 pits. Will close 1. Pit dry. Dehy still on pit &amp; appears it may be operating. Dehy has not been transferred according to Dehy Book</u>  <u>PUSH-IN</u></p> </td> </tr> </table>	SITE ASSESSMENT	<p><b>NMOCD Zone:</b>            (From NMOCD Maps)</p> <p>Inside <input type="checkbox"/> (1)            Outside <input checked="" type="checkbox"/> (2)</p> <p><b>Land Type:</b> BLM <input checked="" type="checkbox"/> (1)            State <input type="checkbox"/> (2)            Fee <input type="checkbox"/> (3)            Indian _____</p> <p><b>Depth to Groundwater</b>            Less Than 50 Feet (20 points) <input type="checkbox"/> (1)            50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2)            Greater Than 100 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p><b>Wellhead Protection Area :</b>            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><b>Horizontal Distance to Surface Water Body</b>            Less Than 200 Ft (20 points) <input type="checkbox"/> (1)            200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2)            Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____            (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) &lt; 100' (Navajo Pits Only)  <input type="checkbox"/> (2) &gt; 100'</p> <p><b>TOTAL HAZARD RANKING SCORE:</b> <u>0</u> POINTS</p>
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### ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 350° Footage from Wellhead 75'  
 b) Length : 46' Width : 24' - Depth : 2'



### REMARKS :

Pictures @ 1144 (20-23)  
 End Dump

Fenced & Bermed area of pit is 46' x 24'. Actual pit area is 24' x 24' x 2'  
 Tank is in bermed & fenced area. Tank is connected to dehy.

Completed By:

Cory Chase  
 Signature

6/9/94  
 Date

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	Meter: <u>72475</u> Location: <u>Russell 15#4</u> Coordinates: Letter: <u>6</u> Section <u>24</u> Township: <u>28</u> Range: <u>2</u> Or Latitude _____ Longitude _____ Date Started : <u>8-19</u> Run: <u>13</u> <u>42</u>
<b>FIELD OBSERVATIONS</b>	Sample Number(s): <u>AK281</u> Sample Depth: <u>5'</u> Feet Final PID Reading <sup>3-13-94</sup> <u>238</u> PID Reading Depth <u>5'</u> Feet Groundwater Encountered <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 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 <input type="checkbox"/>            Other Facility <input type="checkbox"/> </div> <div> <input type="checkbox"/> Tierra            Name: _____         </div> </div> Pit Closure Date: <u>8-19-94</u> Pit Closed By: <u>BEI</u>
<b>REMARKS</b>	Remarks : <u>EPNG lines not marked soil grey strong Hydrocarbon</u> <u>odor hit sand stone 5'</u> _____ _____
Signature of Specialist: _____	

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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  
\*\*\*\*\*

11/02/21 10:48

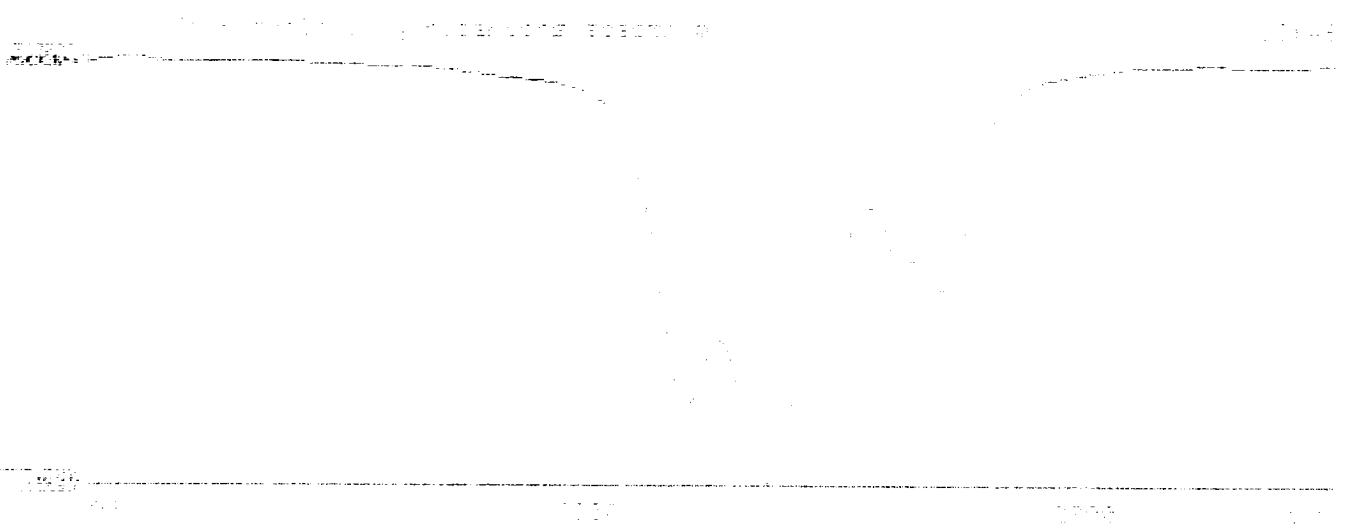
Sample Identification  
4784

Weight of sample g

Volume of solvent used for extraction, mL

Concentration of standard, ppm

Concentration of sample, ppm



good!