

*George A. Smith*  
DEPUTY OIL CONSERVATION DIRECTOR

DEC 22 1991

*Approved*

Meter Number: 75787  
Location Name: FLORANCE #92  
Location: TN-30 RG-09  
SC-30 UL-O  
2 - Federal  
NMOCD Zone: OUTSIDE  
Hazard Ranking Score: 00

RECEIVED  
APR 1 1992  
OIL CON  
DIV

**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.

# EPFS

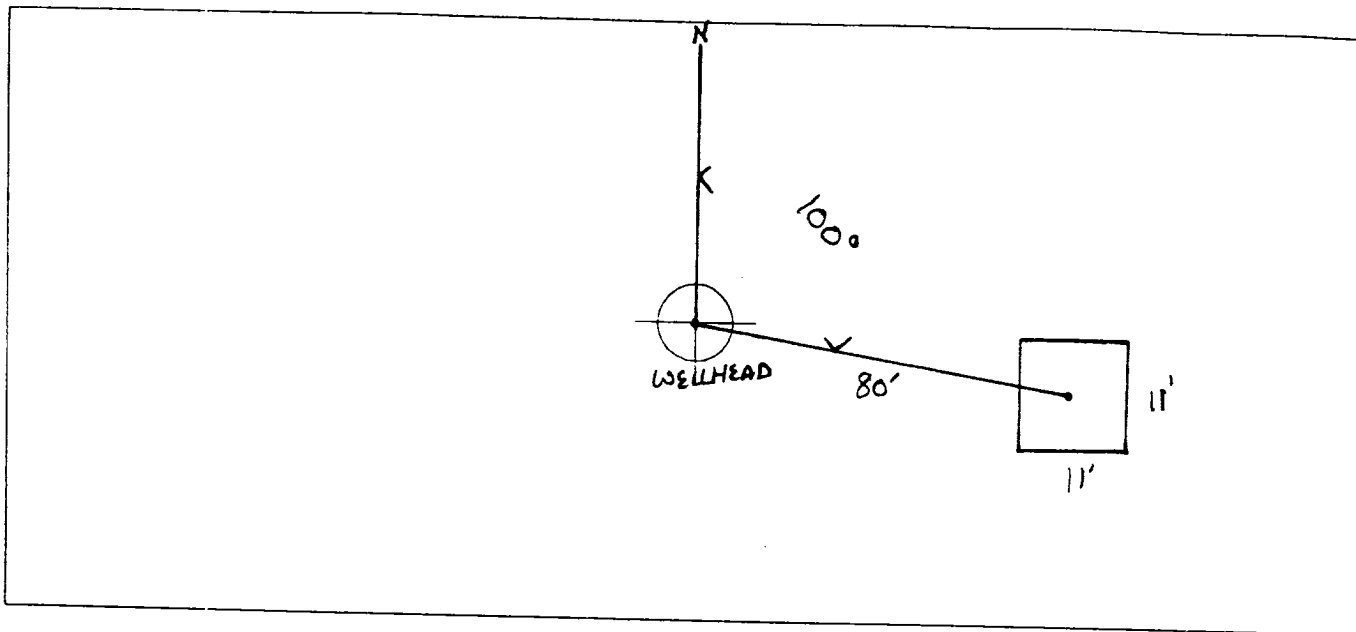
## FIELD PIT SITE ASSESSMENT FORM

### AMOCO FIELD SERVICES

<b>GENERAL</b>	<p>Meter: <u>75787</u> Location: <u>FLORENCE #92</u></p> <p>Operator #: <u>0203</u> Operator Name: <u>Amoco</u> P/L District: <u>Bloomfield</u></p> <p>Coordinates: Letter: <u>0</u> Section <u>30</u> Township: <u>30</u> Range: <u>9</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator _____ Location Drip: <u>X</u> Line Drip: _____ Other: _____</p> <p>Site Visit Date: <u>4.14.94</u> Run: <u>10</u> <u>83</u></p>
<b>SITE ASSESSMENT</b>	<p><b>NMOCD Zone:</b> Inside _____ Land Type: BLM <input checked="" type="checkbox"/>          (From NMOCD Vulnerable _____ State <input type="checkbox"/>          Maps) Zone <input type="checkbox"/> Fee <input type="checkbox"/>          Outside <input checked="" type="checkbox"/> Indian _____</p> <p><b>Depth to Groundwater</b></p> <p>Less Than 50 Feet (20 points) <input type="checkbox"/>          50 Ft to 99 Ft (10 points) <input type="checkbox"/>          Greater Than 100 Ft (0 points) <input checked="" type="checkbox"/></p> <p><b>Wellhead Protection Area :</b></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"/> YES (20 points) <input checked="" type="checkbox"/> NO (0 points)</p> <p><b>Horizontal Distance to Surface Water Body</b></p> <p>Less Than 200 Ft (20 points) <input type="checkbox"/>          200 Ft to 1000 Ft (10 points) <input type="checkbox"/>          Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/></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><b>TOTAL HAZARD RANKING SCORE:</b> <u>0</u> POINTS</p>
<b>REMARKS</b>	<p>Remarks : <u>TWO PITS ON LOCATION. WILL CLOSE ONLY ONE.</u>  <u>PIT IS DRY.</u></p>

# ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 100° Footage to Wellhead 80'  
 b) Degrees from North \_\_\_\_\_ Footage to Dogleg \_\_\_\_\_  
 Dogleg Name \_\_\_\_\_  
 c) Length : 11' Width : 11' Depth : 2'



Remarks :

STARTED TAKING PICTURES AT 2:48 P.M.  
END DUMP

Completed By:

Bob Thompson  
 Signature

4.14.94  
 Date

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	Meter: <u>75787</u> Location: <u>Florence #92</u> Coordinates: Letter: <u>O</u> Section <u>30</u> Township: <u>30</u> Range: <u>9</u> Or Latitude _____ Longitude _____ Date Started : <u>6-6-94</u> Area: <u>10</u> Run: <u>83</u>
<b>FIELD OBSERVATIONS</b>	Sample Number(s): <u>MK9</u> Sample Depth: <u>3'</u> Feet Final PID Reading <u>134</u> PID Reading Depth <u>2'</u> Feet <div style="text-align: center;">Yes      No</div> Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth _____ Feet
<b>CLOSURE</b>	Remediation Method : <div style="display: flex; justify-content: space-between;"> <div>Excavation</div> <div><input type="checkbox"/> (1) Approx. Cubic Yards _____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Onsite Bioremediation</div> <div><input type="checkbox"/> (2)</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Backfill Pit Without Excavation</div> <div><input checked="" type="checkbox"/> (3)</div> </div> Soil Disposition: <div style="display: flex; justify-content: space-between;"> <div>Envirotech</div> <div><input type="checkbox"/> (1)</div> <div><input type="checkbox"/> (3) Tierra</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Other Facility</div> <div><input type="checkbox"/> (2) Name: _____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Pit Closure Date: <u>6-6-94</u></div> <div>Pit Closed By: <u>SE</u></div> </div>
<b>REMARKS</b>	Remarks : <u>Black soil at sample depth, live rocks</u> <u>small clumps of dark soil, H.f sandstone at 3'</u>  
	Signature of Specialist: <u>Morgan Killion</u>



## FIELD SERVICES LABORATORY

### ANALYTICAL REPORT

### PIT CLOSURE PROJECT - Soil

#### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	mk 9	445269
MTR CODE   SITE NAME:	75787	N/A
SAMPLE DATE   TIME (Hrs):	6-6-94	1500
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	6-7-94	6/7/94
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	VG	Black coarse 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)	150148	MG/KG			2.63	ZE
HEADSPACE PID	134	PPM				
PERCENT SOLIDS	92.7	%				

— 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:

6/16/94

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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  
 \*\*\*\*\*

11/06/07 15:17

Sample Identification  
 105318

Initial mass of sample, g  
 1.00

Volume of sample after extraction, mL  
 10.00

Extraction solvent, g  
 1.00

Extraction time, minutes  
 120

Sample Name: 105318 11/06/07 15:17 105318

