

Meter Number:94435  
Location Name:GALLEGOS CANYON UNIT#166E

Location:TN-28 RG-12

SC-34 UL-E

3 - Navajo

NMOCD Zone:OUTSIDE

Hazard Ranking Score:00

RECEIVED  
APR 14 1997

OIL FIELD

Approved

**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.

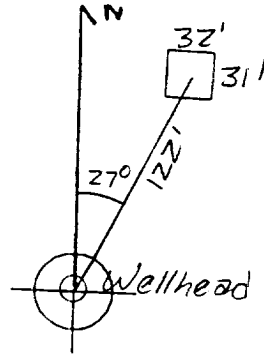
Based on the above information, it is highly unlikely that any source material will impact groundwater or ever find an exposure pathway to affect human health and therefore El Paso Field Services Company (EPFS) requests closure of this pit location.

### FIELD PIT SITE ASSESSMENT FORM

GENERAL	<p>Meter: <u>94-435</u> Location: <u>Gallegos Canyon Unit Well No. 166E</u>          Operator #: <u>0203</u> Operator Name: <u>Amoco</u> P/L District: <u>Angel Peak</u>          Coordinates: Letter: <u>E</u> Section <u>34</u> Township: <u>28</u> Range: <u>12</u>          Or Latitude _____ Longitude _____          Pit Type: Dehydrator _____ Location Drip: <u>X</u> Line Drip: _____ Other: _____          Site Assessment Date: <u>9/13/94</u> Area: <u>01</u> Run: <u>82</u></p>
SITE ASSESSMENT	<p><b>NMOCD Zone:</b>          (From NMOCD Maps) Inside <input type="checkbox"/> (1) Outside <input checked="" type="checkbox"/> (2)</p> <p><b>Land Type:</b> BLM <input type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input type="checkbox"/> (3) Indian <u>Navajo</u></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 <u>Gallegos Canyon</u>          (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 checked="" type="checkbox"/> (2) &gt; 100'</p> <p><b>TOTAL HAZARD RANKING SCORE:</b> <u>0</u> POINTS</p>
REMARKS	<p>Remarks : <u>Redline Book - Outside</u> <u>Vulnerable Zone - Outside</u>  <u>Three pits, location drip pit is dry. Will close one pit.</u></p> <p style="text-align: right;"><u>PUSH IN</u></p>

# ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 27° Footage from Wellhead 122'  
 b) Length : 32' Width : 31' Depth : 3'



ORIGINAL PIT LOCATION

## Remarks :

Pictures @ 1121 (1-4, 13001)

Dump Track

Wellhead is almost hidden in the brush

REMARKS

Completed By:

*Sarah Kelly*  
 Signature

9/13/94  
 Date

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 94435 Location: Gallegos Canyon unit well No. 166 E

Coordinates: Letter: E Section 34 Township: 28 Range: 12

Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

Date Started : 10-20-94 Area: ~~128~~ 01 Run: 82

FIELD OBSERVATIONS

Sample Number(s): KP 322

Sample Depth: 12' Feet

Final PID Reading 037 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: 10-20-94 Pit Closed By: B.E.F

REMARKS

Remarks : Same Line markers dug A test hole to 12'  
Sample At 12' Soil Real Sandy with A odor. closed Pit.

Signature of Specialist: Kelly Padilla



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

MTR CODE | SITE NAME:

SAMPLE DATE | TIME (Hrs):

SAMPLED BY:

DATE OF TPH EXT. | ANAL.:

DATE OF BTEX EXT. | ANAL.:

TYPE | DESCRIPTION:

Field ID

Lab ID

KP 322	94433
94435	N/A
10-20-94	1225
N/A	N/A
10-26-94	
N/A	N/A
UG	Brown fine sand

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	630	MG/KG			2.16	28
HEADSPACE PID	37	PPM				
PERCENT SOLIDS	93.7	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

Date:

11/3/94

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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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94/10/26 11:00

Sample identification  
946433

Initial mass of sample, g  
2.160

Volume of sample after extraction, ml  
28.000

Petroleum hydrocarbons, ppm  
630.008

Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
0.093

