

Denny E. Faust
DEPUTY OIL & GAS INSPECTOR

DEC 22 1997

Meter Number: 89485
Location Name: Elliot Cas Com C#1A
Location: TN-30 RG-09
SC-09 UL-E
2 - Federal
NMOCD Zone: OUTSIDE
Hazard Ranking Score: 00

RECEIVED
APR 1 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

Meter: 89485 Location: ELLIOT GAS Com C #1A
 Operator #: 6203 Operator Name: Amoco P/L District: AZTEC
 Coordinates: Letter: E Section 9 Township: 30 Range: 9
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator ☒ Location Drip: _____ Line Drip: _____ Other: _____
 Site Assessment Date: 6.2.95 Area: 10 Run: 33

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps) Inside ☐ (1) Outside ☒ (2)

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

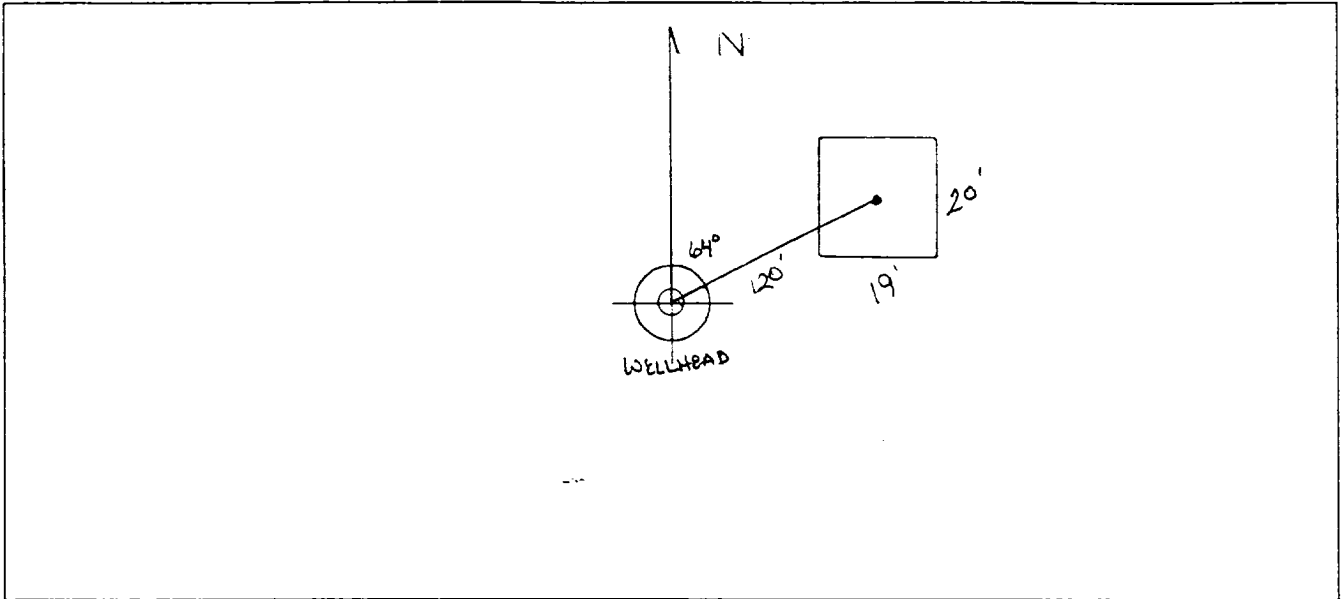
REMARKS

Remarks : Redline Book: INSIDE Vulnerable Zone Topo: OUTSIDE.
THERE ARE TWO PITS ON THIS LOCATION. DEHY PIT BELONGS
TO EPNG. WILL CLOSE PIT. DEHY HAS NOT BEEN REMOVED
BUT IS NOT OPERATING. PUSH IN

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 64° Footage from Wellhead 120'
b) Length : 20' Width : 19' Depth : 3'

ORIGINAL PIT LOCATION



Remarks :

Pictures @ 1159 hr

REMARKS

Completed By:

Robert Thompson

Signature

6.2.98

Date

FIELD PIT REMEDIATION/CLOSURE FORM

| | |
|---------------------------|---|
| GENERAL | <p>Meter: <u>89485</u> Location: <u>Elliot Gas com C#1A</u></p> <p>Coordinates: Letter: <u>E</u> Section <u>9</u> Township: <u>30</u> Range: <u>9</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>7-11-95</u> Run: <u>10</u> <u>33</u></p> |
| FIELD OBSERVATIONS | <p>Sample Number(s): <u>NK 432</u></p> <p>Sample Depth: <u>12</u> Feet</p> <p>Final PID Reading <u>214 PPM</u> PID Reading Depth <u>12'</u> Feet</p> <p style="text-align: center;">Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p> |
| CLOSURE | <p>Remediation Method :</p> <p>Excavation <input type="checkbox"/> Approx. Cubic Yards _____</p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> <input type="checkbox"/> Tierra</p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>7-11-95</u> Pit Closed By: <u>Philip</u></p> |
| REMARKS | <p>Remarks : <u>Arrived took Fence down dug sample Hole</u></p> <p><u>Soil started out black turned Brown strong Hydrocarbon</u></p> <p><u>odor</u></p> |
| | <p>Signature of Specialist: <u>Morgan Kelleen</u></p> |



Phase 1

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|----------------------------|----------|-------------------|
| SAMPLE NUMBER: | MK 432 | 946976 |
| MTR CODE SITE NAME: | 89485 | N/A |
| SAMPLE DATE TIME (Hrs): | 7-11-95 | 13:30 |
| SAMPLED BY: | N/A | |
| DATE OF TPH EXT. ANAL.: | 7-12-95 | 7-12-95 |
| DATE OF BTEX EXT. ANAL.: | | |
| TYPE DESCRIPTION: | VG | Brown sand + clay |

REMARKS:

RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|----------------|--------|-------|------------|---|------|-------|
| | | | DF | Q | M(g) | V(ml) |
| TPH (418.1) | 753 | MG/KG | | | 1.96 | 28 |
| HEADSPACE PID | 214 | PPM | | | | |
| PERCENT SOLIDS | 92.0% | % | | | | |

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

J. L.

Date:

7/17/95

* Test Method for *
* Oil and Grease and Petroleum Hydrocarbons *
* in Water and Soil *
* *
* Perkin-Elmer Model 1600 FT-IR *
* Analysis Report *

95/07/12 12:48
* Sample identification
946976
* Initial mass of sample, g
1.960
* Volume of sample after extraction, ml
28.000
* Petroleum hydrocarbons, ppm
752.706
* Net absorbance of hydrocarbons (2930 cm-1)
0.100
*
*

