

George E. Hunt
DEPUTY CLERK INSPECTOR

DEC 8 9 1997

Approved

Meter Number: 94356
Location Name: Roeloffs #4E DK
Location: TN-29 RG-08
SC-22 UL-I
2 - Federal
NMOCD Zone: OUTSIDE
Hazard Ranking Score: 00

RECEIVED
APR 14 1997

OIL & GAS

**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 EL PASO FIELD SERVICES

GENERAL

Meter: 94356 Location: ROELOFFS #4E DK
 Operator #: 0203 Operator Name: Amoco P/L District: BLANCO
 Coordinates: Letter: I Section 22 Township: 29 Range: 8
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator ☒ Location Drip: _____ Line Drip: _____ Other: _____
 Site Assessment Date: 9.26.95 Area: 13 Run: S2

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 : REDUNE 2. TOPO SHOW LOCATION OUTSIDE V.Z. THERE ARE THREE PITS ON THIS LOCATION. UNUSED DEHY PIT BELONGS TO EPNG. THE OTHER TWO PITS BELONG TO THE OPERATOR. WILL CLOSE EPNG'S PIT.

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 94356 Location: ROE LO FFS #4E OK
 Coordinates: Letter: I Section 22 Township: 29 Range: 8
 Or Latitude _____ Longitude _____
 Date Started : 10-10-95 Run: 13 52

FIELD OBSERVATIONS

Sample Number(s): mk 486
 Sample Depth: 5' Feet
 Final PID Reading 31 ppm PID Reading Depth 5' Feet
 Yes No
 Groundwater Encountered ☐ ☒ Approximate Depth _____ Feet

CLOSURE

Remediation Method :
 Excavation ☐ Approx. Cubic Yards _____
 Onsite Bioremediation ☐
 Backfill Pit Without Excavation ☒
 Soil Disposition:
 Envirotech ☐ Tierra ☐
 Other Facility ☐ Name: _____
 Pit Closure Date: 10-10-95 Pit Closed By: Philip

REMARKS

Remarks : Arrived dug sample hole soil gray brown
Slight Hydro carbon odor Hit Rock 5'

Signature of Specialist: Morgan Killian



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	MK486	947617
MTR CODE SITE NAME:	94356	Roeloffs #4E N/A
SAMPLE DATE TIME (Hrs):	10-10-95	1130
Project SAMPLED BY:	Phase I	N/A
DATE OF TPH EXT. ANAL.:	10/14/95	
DATE OF BTEX EXT. ANAL.:		
TYPE DESCRIPTION:	VG	Underground Storage Tank

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	75	MG/KG			2.0	2.0
HEADSPACE PID	31	PPM				
PERCENT SOLIDS	97.5	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

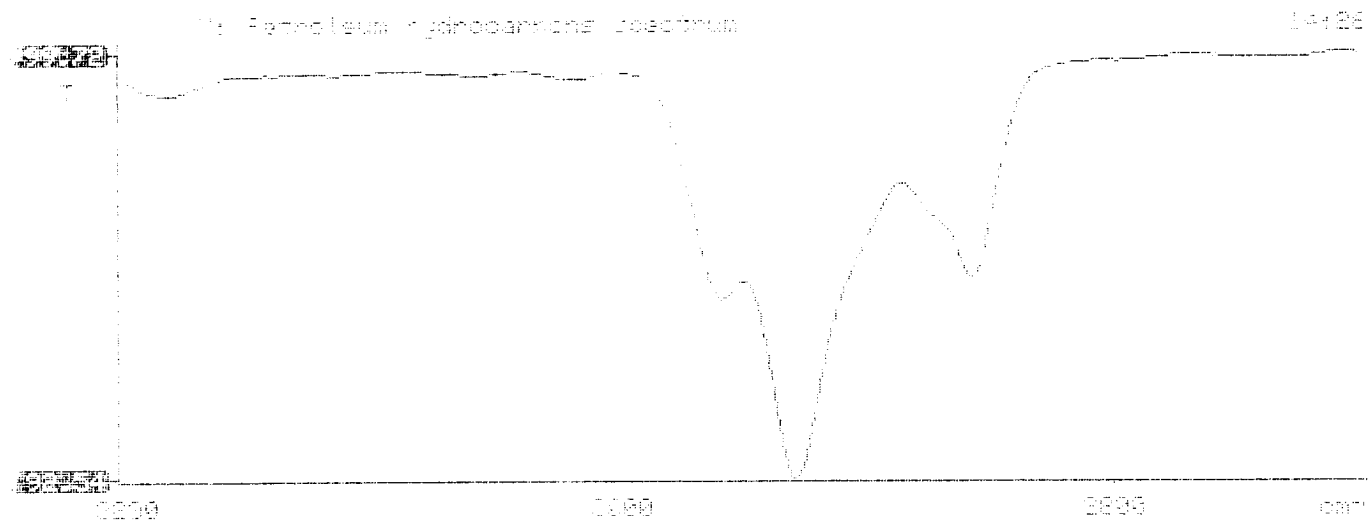
J.P.

Date:

10-13-95

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

95/10/11 14:26
Sample identification
947617
Initial mass of sample, g
2.000
Volume of sample after extraction, ml
12.000
Petroleum hydrocarbons, ppm
174.896
Net absorbance of hydrocarbons (2930 cm-1)
0.031



ILLEGIBLE