Denny A. Foust
DEPUTY OIL & GAS INSPECTOR

DEC 2 9 1997

Approved

Meter Number:95189
Location Name:HOLLOWAY FED #5E DK
Location:TN-27 RG-11
SC-07 UL-D
3 - Navajo
NMOCD Zone:OUTSIDE
Hazard Ranking Score:00

RECEIVED
APR 1 4 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

EPFS — EL PASO FIELD SERVICES

GENERAL

Meter: 95169 Location: HOLLOWAY FED #5E DK
Operator #: 0284 Operator Name: CONOCO-MESA P/L District: ANGEL PEAK
Coordinates: Letter: D Section 7 Township: 27 Range: 11
Or Latitude _____ Longitude _____
Pit Type: Dehydrator X Location Drip: ___ Line Drip: ___ Other: _____
Site Assessment Date: ~~10-20-94~~ 10-19-94 Area: 01 Run: 82

SITE ASSESSMENT

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

Land Type:
BLM ☐ (1)
State ☐ (2)
Fee ☐ (3)
Indian NAPI

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

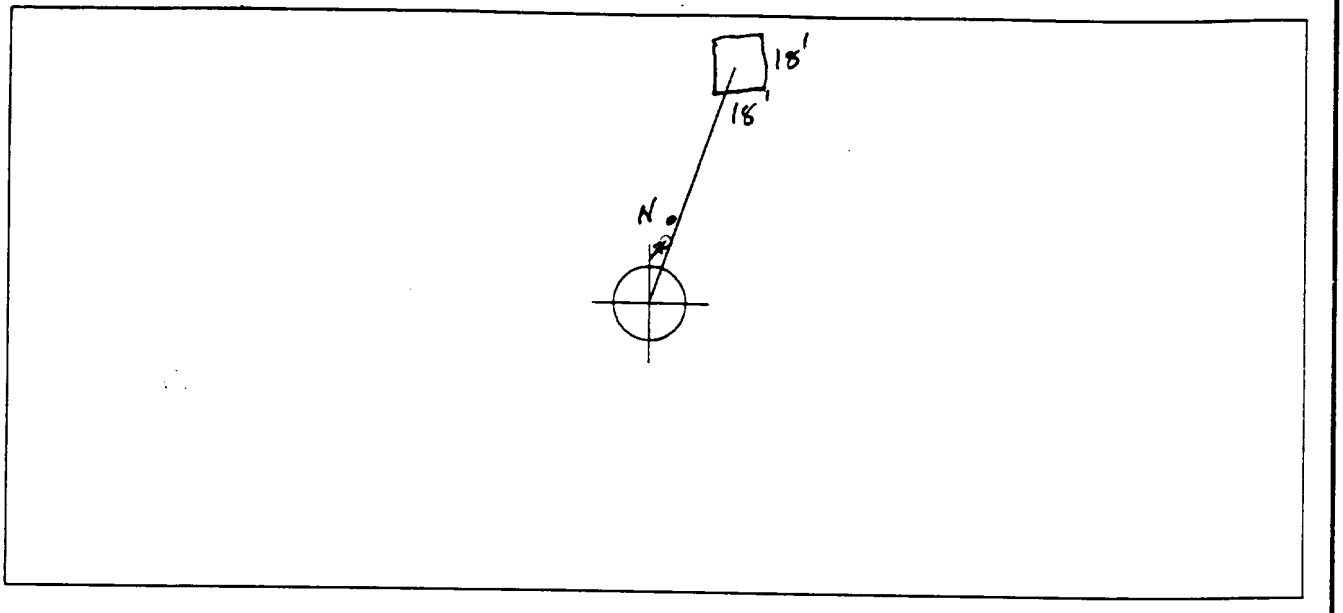
Remarks : LOCATION SHOWS FEDERAL LAND SF 078895
MAP BLM SHOWS INDIAN LANDS OR RESERVATION

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 20 Footage from Wellhead 145'

b) Length : 18' Width : 18' Depth : 30"



REMARKS

Remarks :

Completed By:

Signature

10/19/94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 95189 Location: HOLLOWAY FED #5E DK

Coordinates: Letter: D Section 7 Township: 27 Range: 11

Or Latitude _____ Longitude _____

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

FIELD OBSERVATIONS

Sample Number(s): RC5 _____ _____ _____

Sample Depth: 12 Feet

Final PID Reading 2062 PID Reading Depth 12 Feet

Yes No

Groundwater Encountered ☐ (1) ☒ (2) Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☐ (1) Approx. Cubic Yards 0

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: ENG

REMARKS

Remarks : Hit sandstone at approx. 10'

Signature of Specialist: Kelly Conley

(SP3191) 04/07/94

Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	RCS	946436
MTR CODE | SITE NAME:	95189	N/A
SAMPLE DATE | TIME (Hrs):	10-20-94	1020
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	10-26-94	
DATE OF BTEX EXT. | ANAL.:	10-27-94	10-28-94
TYPE | DESCRIPTION:	VG	Light brown Sand

REMARKS: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<1.0	MG/KG	20			
TOLUENE	18	MG/KG	20			
ETHYL BENZENE	20.5	MG/KG	20			
TOTAL XYLENES	170	MG/KG	20			
TOTAL BTEX	193	MG/KG				
TPH (418.1)	1020	MG/KG			2.12	28
HEADSPACE PID	2062	PPM				
PERCENT SOLIDS	94.5	%				

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 70 % for this sample All QA/QC was acceptable.

Narrative:

ATI Results attached.

DF = Dilution Factor Used

Approved By: _____ Date: 11/17/94

****
Test Method for
Oil and Grease and Petroleum Hydrocarbons
in Water and Soil

Perkin-Elmer Model 1600 FT-IR
Analysis Report
****

94/10/26 11:06

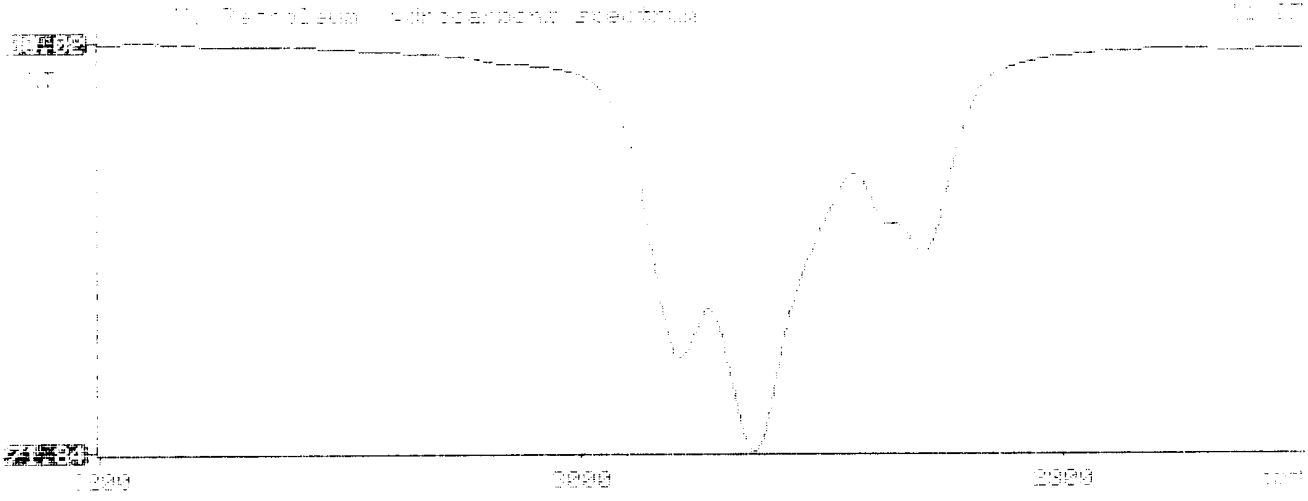
Sample identification
66436

Initial mass of sample, g
100

Volume of sample after extraction, ml
3.000

Petroleum hydrocarbons, ppm
662.627

Net absorbance of hydrocarbons (2930 cm-1)
.02



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 410463
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	946436	NON-AQ	10/20/94	10/27/94	10/28/94	20
02	946437	NON-AQ	10/20/94	10/27/94	10/28/94	20

PARAMETER	UNITS	01	02
BENZENE	MG/KG	4.0	2.4
TOLUENE	MG/KG	18	13
ETHYLBENZENE	MG/KG	<0.5	<0.5
TOTAL XYLENES	MG/KG	170	60
SURROGATE:			
BROMOFLUOROBENZENE (%)		70	65

Analytical Technologies, Inc.

2709-D Pan American Freeway. NE Albuquerque. NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. **410463**

November 3, 1994

El Paso Natural Gas Co.
P.O. Box 4990
Farmington, NM 87499

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On **10/27/94**, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure