Denny E. Foust
DEPUTY OIL & GAS INSPECTOR
DEC 29 1997
Approved

Meter Number:92049
Location Name:EDGAR FEDERAL #2
Location:TN-27 RG-12
SC-01 UL-G
3 - Navajo
NMOCD Zone:OUTSIDE
Hazard Ranking Score:00

RECEIVED
APR 14 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: 92049 Location: EDGAR FEDERAL #2
Operator #: 0286 Operator Name: CONOCO-MESA P/L District: ANGEL PEAK
Coordinates: Letter: G Section 1 Township: 27 Range: 12
Or Latitude _____ Longitude _____
Pit Type: Dehydrator X Location Drip: ___ Line Drip: ___ Other: _____
Site Assessment Date: 10/19/94 Area: 01 Run: 32

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

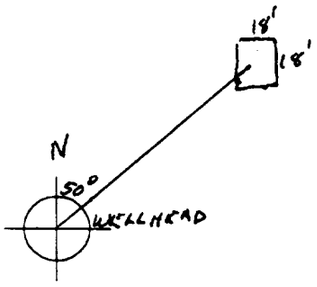
Remarks : LOCATION SHOWS FEDERAL LAND FED SF-079116

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 50 Footage from Wellhead 28'

b) Length : 18' Width : 14' Depth : 36'



REMARKS

Remarks :

Completed By:

Signature

10-19-94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 92049 Location: EDGAR FEDERAL #2

Coordinates: Letter: G Section 1 Township: 27 Range: 12

Or Latitude _____ Longitude _____

Date Started : 10/20/94 Area: 01 Run: 32

FIELD OBSERVATIONS

Sample Number(s): RC4 _____ _____ _____

Sample Depth: 12 Feet

Final PID Reading 1339 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: EPNG

REMARKS

Remarks : _____

Signature of Specialist: [signature]

(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:	RC 6	946437
MTR CODE | SITE NAME:	92049	N/A
SAMPLE DATE | TIME (Hrs):	10-20-94	1135
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	10-26-94	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	2.4	MG/KG	20			
TOLUENE	13	MG/KG	20			
ETHYL BENZENE	10.5	MG/KG	20			
TOTAL XYLENES	60	MG/KG	20			
TOTAL BTEX	75.9	MG/KG				
TPH (418.1)	9700	MG/KG			0.97	28
HEADSPACE PID	1330	PPM				
PERCENT SOLIDS	88.7	%				

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

The Surrogate Recovery was at 105 % for this sample All QA/QC was acceptable.

Narrative:

ATI Results attached.

DF = Dilution Factor Used

Approved By: _____ Date: 11/17/94

ILLEGIBLE

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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 11:30

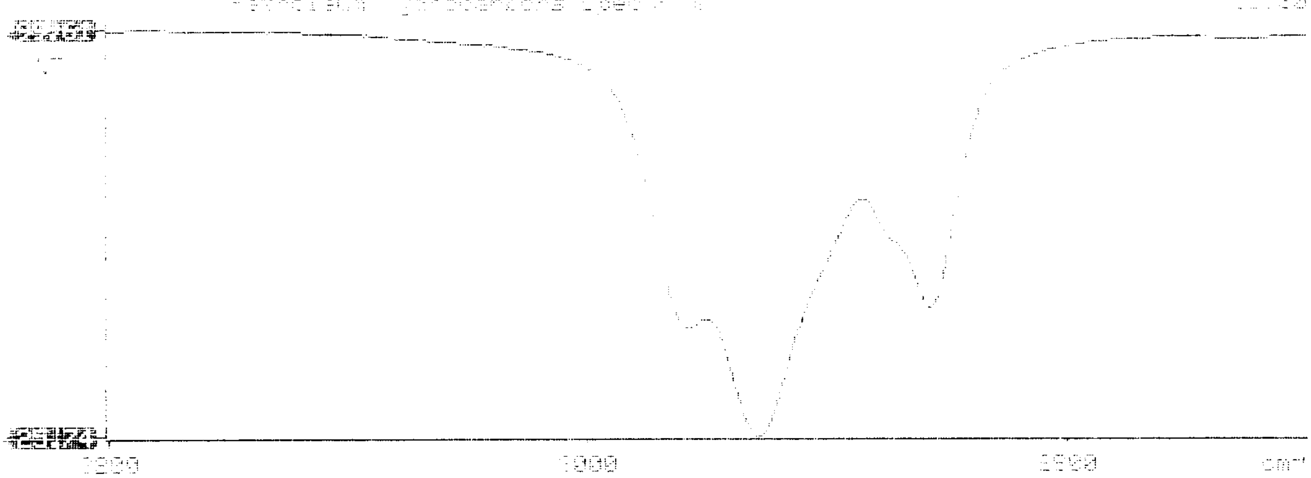
Sample Identification
[illegible]46437

Initial mass of sample, g
[illegible].970

Volume of sample after extraction, ml
[illegible]8.000

Petroleum hydrocarbons, ppm
[illegible]771.981
Net absorbance of hydrocarbons (2930 cm-1)
[illegible].504

Petroleum hydrocarbons spectrum



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	10/23/94	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