Jenny L. Foust
DEPUTY OIL & GAS INSPECTOR
DEC 30 1997
Approved

Meter Number:89346
Location Name:HELEN JACKSON #6
Location:TN-29 RG-09
SC-34 UL-O
2 - Federal
NMOCD Zone:OUTSIDE
Hazard Ranking Score:00

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: 89346 Location: HELEN JACKSON #6

Operator #: 0203 Operator Name: Amoco P/L District: BLANCO

Coordinates: Letter: O Section 34 Township: 29 Range: 9

Or Latitude ________ Longitude ________

Pit Type: Dehydrator ___ Location Drip: X Line Drip: ___ Other: ________

Site Assessment Date: 5.14.94. Area: 03 Run: 42

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 : ONLY PIT ON LOCATION. PIT IS DRY. LOCATION IS UP ON A HILL SOUTH OF LARGO WASH. REDLINE AND TOPO CONFIRMED LOCATION IS OUTSIDE V.Z.

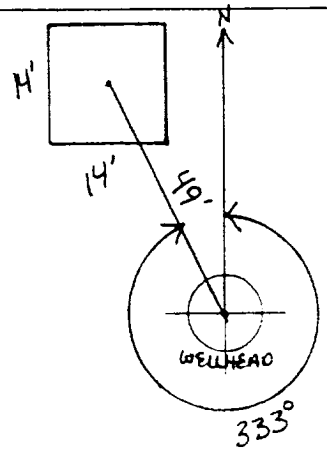
PUSH IN

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 333° Footage from Wellhead 49'

b) Length : 14' Width : 14' Depth : 3'



REMARKS

Remarks :

TOOK PICTURES AT 4:07 P.M. - 6-15-94

END DUMP

Completed By:

Robert Thompson
Signature

5-14-94
Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 89346 Location: Helen Jackson #6

Coordinates: Letter: O Section 34 Township: 29 Range: 9

Or Latitude _____ Longitude _____

Date Started : 8/23/94 Run: 03 42

FIELD OBSERVATIONS

Sample Number(s): KD 236 _____ _____ _____

Sample Depth: 12' Feet

Final PID Reading 8/24/94 170 ~~+30~~ ppm PID Reading Depth 12' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☐ Approx. Cubic Yards 0

Onsite Bioremediation ☐

Backfill Pit Without Excavation ☒

Soil Disposition:

Envirotech ☐ ☐ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 8/23/94 Pit Closed By: BEI

REMARKS

Remarks : Pit was Located outside WVZ, Dug test Hole to 12', Took PID Sample, Closed pit

Signature of Specialist: Thury Dann

(SP3191) 03/16/94

outside

El Paso Natural Gas Company

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD 236	945996
MTR CODE | SITE NAME:	89346	N/A
SAMPLE DATE | TIME (Hrs):	8-23-94	1250
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	8-25-94	8/25/94
DATE OF BTEX EXT. | ANAL.:	8/25/94	8/29/94
TYPE | DESCRIPTION:	VG	Grey fine Sand

REMARKS: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.25	MG/KG	10			
TOLUENE	<0.25	MG/KG	10			
ETHYL BENZENE	7.3	MG/KG	10			
TOTAL XYLENES	140	MG/KG	10			
TOTAL BTEX	148	MG/KG				
TPH (418.1)	1530	MG/KG			2.09	28
HEADSPACE PID	170	PPM				
PERCENT SOLIDS	89.6	%				

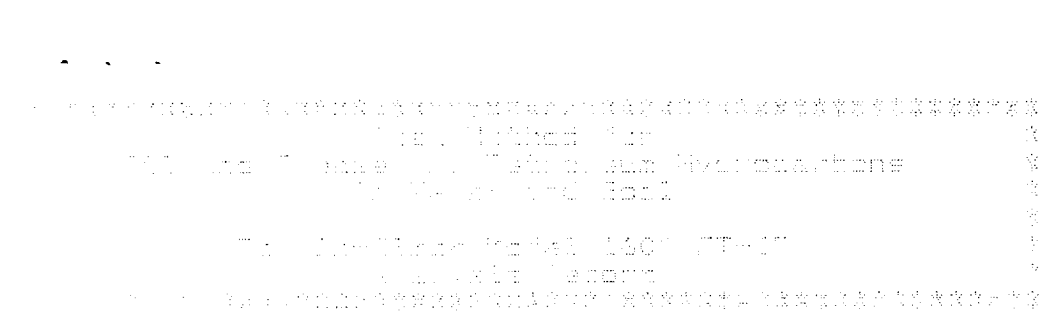
-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 284 % for this sample All QA/QC was acceptable.

Narrative:
ATI results attached. Surrogate recovery was outside ATI QC limits due to matrix interference

DF = Dilution Factor Used

Approved By: _____ Date: 9/30/94



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 408405

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	945995	NON-AQ	08/23/94	08/28/94	08/28/94	1
02	945996	NON-AQ	08/23/94	08/28/94	08/29/94	10
03	945997	NON-AQ	08/23/94	08/28/94	08/29/94	1

PARAMETER	UNITS	01	02	03
BENZENE	MG/KG	<0.025	<0.25	<0.025
TOLUENE	MG/KG	<0.025	<0.25	<0.025
ETHYLBENZENE	MG/KG	<0.025	7.3	<0.025
TOTAL XYLENES	MG/KG	<0.025	140	0.027
SURROGATE:				
BROMOFLUOROBENZENE (%)		89	284*	76

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

Analytical Technologies, Inc.

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

ATI I.D. **408405**

August 30, 1994

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On **08/26/94**, 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.

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure