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

Meter Number:75625
Location Name:Jicarilla A #8
Location:TN-26 RG-05
SC-17 UL-E
6 - Jicarilla
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.

EPFS
EL PASO FIELD SERVICES

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 75625 Location: Jicarilla A #8
Operator #: 0203 Operator Name: Amoco P/L District: OJITD
Coordinates: Letter: E Section 17 Township: 26 Range: 5
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: ✓ Line Drip: ___ Other: _____
Site Assessment Date: 7/14/94 Area: 06 Run: 72

SITE ASSESSMENT

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

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

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**

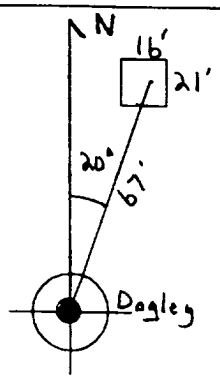
REMARKS

Remarks : Redline Book - Outside., Vulnerable Zone Topo - Outside
1pit. Will close. Pit has liquid in it.
Redline book shows pit in Unit H. Location sign shows Unit E.
D16+ Push-In

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 20° Footage from ~~Wellhead~~ Dogleg 67' CME 7/14/94

b) Length : 21' Width : 16' Depth : 4'



REMARKS

Remarks :

Pictures @ 1317 (4-7)

Bearing taken from dogleg next to meterhouse (67' from center of pit.)
Could not locate wellhead.

Completed By:

Cory Chase
Signature

7/14/94
Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 75625 Location: JICARILLA A #8

Coordinates: Letter: E Section 17 Township: 24 Range: 5

Or Latitude _____ Longitude _____

Date Started : 9-14-95 Run: 06 72

FIELD OBSERVATIONS

Sample Number(s): 10588 _____ _____ _____

Sample Depth: 5 Feet

Final PID Reading 145 PID Reading Depth 5 Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation	☒	Approx. Cubic Yards 72 & 9/25/95
Onsite Bioremediation	☐	DAUL FROM Jicarilla E.P.O.
Backfill Pit Without Excavation	☐	Approved closure 9-18-95

Soil Disposition:

Envirotech ☒ ☐ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 9-19-95 Pit Closed By: Philip

REMARKS

Remarks : PID WALL READINGS (N-92 NS)(S-275)(E-240)(W-47)
PIT SIZE 29X15X5 - HIT ROCK BOTTOM @ 5', W,S,E, WALLS RESTRICTED BY PIPE LINE. EPNG - NORMAN ONSITE. PIT LISTED OUTSIDE V.Z. FENCE SIZE 28X28X3 LESS THAN 100' FROM EPHEMERAL STREAM
SPRAY PIT WITH SOIL ENHANCER 9-18-95

Signature of Specialist: Nicholas Schmaltz

(SP3191) 03/16/94

SPLIT

El Paso Natural Gas Company

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	NS 88	947475
MTR CODE | SITE NAME:	75625	Jicarilla A #8
SAMPLE DATE | TIME (Hrs):	09-14-95	1045
PROJECT:	JicPits	
DATE OF TPH EXT. | ANAL.:	9-15-95	09-15-95
DATE OF BTEX EXT. | ANAL.:	9/15/95	9/20/95
TYPE | DESCRIPTION:	VG	Light green sand & sandstone

REMARKS: (N-92)(S-275)(E-240)(W-47)

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS				ATI Results
			DF	Q	M(g)	V(ml)	
BENZENE	6.5	MG/KG	4	D			<0.50
TOLUENE	60.3	MG/KG	4	D			8.7
ETHYL BENZENE	8.0	MG/KG	4	D			5.7
TOTAL XYLENES	70.5	MG/KG	4	D			42
TOTAL BTEX	145	MG/KG	4	D			56.4
TPH (418.1)	588	MG/KG			1.82	28	3400
HEADSPACE PID	145	PPM					Surrogate % 191
PERCENT SOLIDS	92.6	%					Dilution Factor 20

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

The Surrogate Recovery was at 84 % for this samp All QA/QC was acceptable.

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

DF = Dilution Factor Used

Approved By: John Sanders Date: 9-18-95

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

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

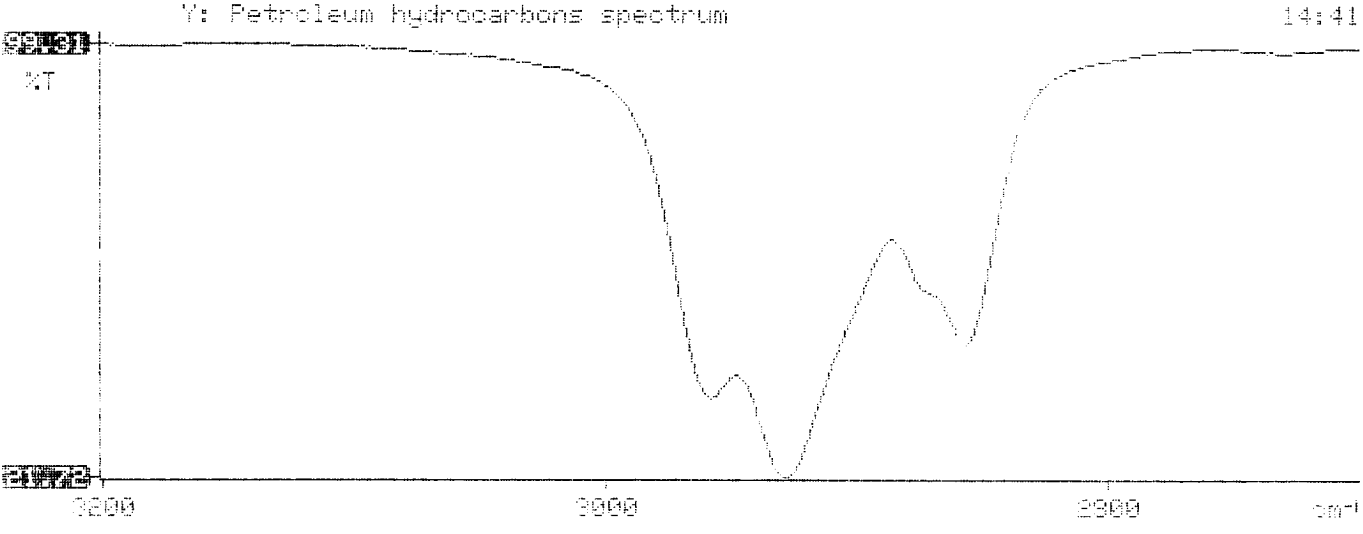
95/09/15 14:40

Sample identification
947475

Initial mass of sample, g
1.820

Volume of sample after extraction, ml
28.000

Petroleum hydrocarbons, ppm
3881.130
Net absorbance of hydrocarbons (2930 cm-1)
0.658



BTEX SOIL SAMPLE WORKSHEET

File	947475	**Date Printed**	9/21/95
Soil Mass (g)	4.98	**Multiplier (L/g)**	0.00100
Extraction vol. (mL)	20	**DF (Analytical)**	800
Shot Volume (uL)	25	**DF (Report)**	0.80321

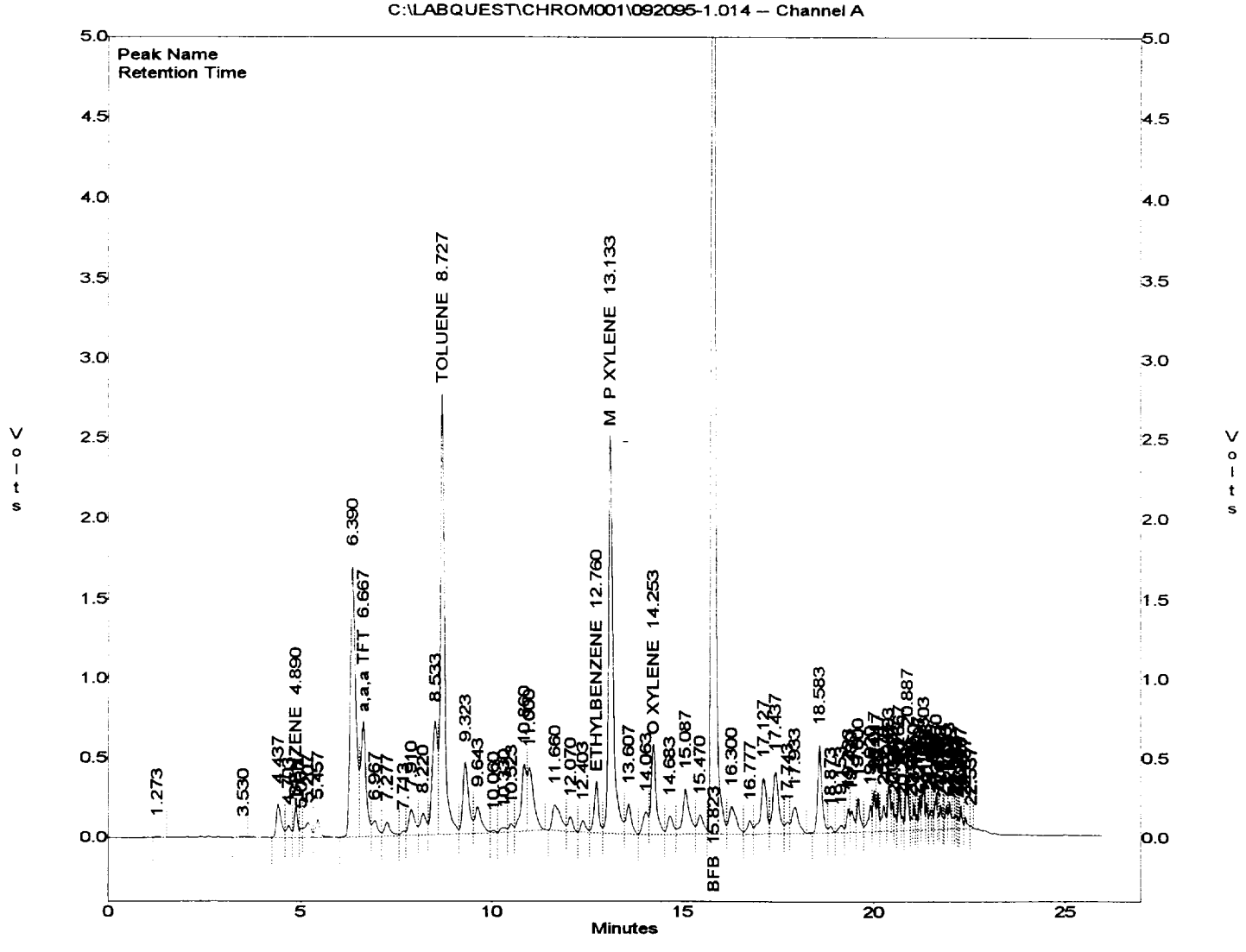
			Det. Limit
Benzene (ug/L)	8.06	**Benzene (mg/Kg):**	**6.474**	2.008
Toluene (ug/L)	75.10	**Toluene (mg/Kg):**	**60.321**	2.008
Ethylbenzene (ug/L)	10.00	**Ethylbenzene (mg/Kg):**	**8.032**	2.008
p & m-xylene (ug/L)	67.80	p & m-xylene (mg/Kg):	54.458	4.016
o-xylene (ug/L)	20.00	o-xylene (mg/Kg):	16.064	2.008
		Total xylenes (mg/Kg):	**70.522**	6.024
		Total BTEX (mg/Kg):	**145.349**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\092095-1.014
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 947475,4.98G,25U
Acquired : Sep 20, 1995 19:10:18
Printed : Sep 20, 1995 19:36:47
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	4.890	1203647	8.0595
a,a,a TFT	6.667	7161441	155.1193
TOLUENE	8.727	21491272	75.0694
ETHYLBENZENE	12.760	2621167	10.0265
M & P XYLENE	13.133	21030328	67.8062
O XYLENE	14.253	5103736	20.0078
BFB	15.823	61045944	84.2139



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS ATI I.D.: 509398

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/JIC PITS

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	947475	NON-AQ	09/14/95	09/28/95	09/29/95	20

PARAMETER	UNITS	01
BENZENE	MG/KG	<0.50
TOLUENE	MG/KG	8.7
ETHYLBENZENE	MG/KG	5.0
TOTAL XYLENES	MG/KG	42

SURROGATE:

BROMOFLUOROBENZENE (%) 191*

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

Analytical**Technologies,**Inc.

GENERAL CHEMISTRY RESULTS

CLIENT	: EL PASO NATURAL GAS	ATI I.D.	: 509398
PROJECT #	: 24324	DATE RECEIVED	: 09/27/95
PROJECT NAME	: PIT CLOSURE/JIC PITS	DATE ANALYZED	: 09/28/95

PARAMETER	UNITS	01
PETROLEUM HYDROCARBONS, IR	MG/KG	3400

Analytical**Technologies,**Inc.

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

ATI I.D. **509398**

October 5, 1995

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

Project Name/Number: PIT CLOSURE/JIC PITS 24324

Attention: John Lambdin

On **09/27/95**, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** sample(s). The sample(s) 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.

Kimberly D. McNeill
Project Manager

John Epley for
H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure