Kenny G. Trost
DEPUTY OIL & GAS INSPECTOR
DEC 22 1997.

Meter Number:90946
Location Name:Jicarilla #107
Location:TN-24 RG-04
SC-07 UL-A
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.

FIELD PIT SITE ASSESSMENT FORM

EPFS
EL PASO FIELD SERVICES

Meter: 90946 Location: JICARILLA #107
Operator #: 0148 Operator Name: SNYDER OIL CORP P/L District: OJITO
Coordinates: Letter: A Section 7 Township: 24 Range: 4
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: X Line Drip: ___ Other: _____
Site Assessment Date: 7-26-95 Area: 08 Run: 63

NMOCD Zone: (From NMOCD Maps)

Inside ___ (1)
Outside X (2)

Land Type:

BLM ___ (1)
State ___ (2)
Fee ___ (3)
Indian JICARILLA

Depth to Groundwater

Less Than 50 Feet (20 points) ___ (1)
50 Ft to 99 Ft (10 points) ___ (2)
Greater Than 100 Ft (0 points) X (3)

Wellhead Protection Area :

Is it less than 1000 ft from wells, springs, or other sources of fresh water extraction? , or : s it ess than 200 ft from a private domestic water source? ___ (1) YES (20 points) X (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) X (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)
X (2) > 100'

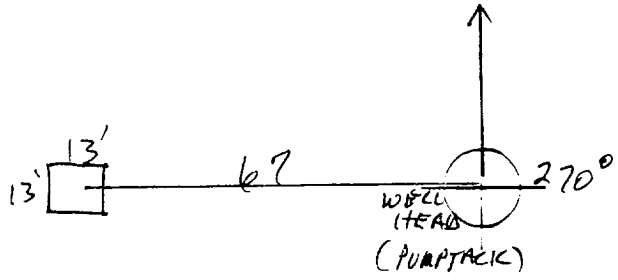
TOTAL HAZARD RANKING SCORE: 0 **POINTS**

Remarks : T.D.

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 270° Footage from Wellhead 67'

b) Length : 13 Width : 13 Depth : 30"



Remarks :

Completed By:

Signature

7-26-95

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 90946 Location: Jicarilla #107

Coordinates: Letter: A Section 2 Township: 24 Range: 4

Or Latitude _____ Longitude _____

Date Started : 9/27/95 Run: 08 63

FIELD OBSERVATIONS

Sample Number(s): JK90 _____ _____ _____

Sample Depth: 16' Feet

Final PID Reading 900 PID Reading Depth 16' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation	☒	Approx. Cubic Yards 702 cy 10/5/95
Onsite Bioremediation	☐	Gabrial Jicarilla E.P.O. Approved closure 10-2-95
Backfill Pit Without Excavation	☐	

Soil Disposition:

Envirotech ☒ ☐ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 10-3-95 Pit Closed By: Philip

REMARKS

Remarks : Pit PID Readings (W-1.0) (7.2) (E-25.3) (W-8.9)
Pit size: 22x24x16
Fence Size: 17x17x3 Wet yes
More Than 100' From Ephemral Strem

Signature of Specialist: [signature]

(SP3191) 03/16/94

El Paso 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:	JK90	947552
MTR CODE | SITE NAME:	90946	Jicarilla H #107
SAMPLE DATE | TIME (Hrs):	09-27-95	1200
PROJECT:	JicPits	
DATE OF TPH EXT. | ANAL.:	9/28/95	
DATE OF BTEX EXT. | ANAL.:	9/28/95	9/28/95
TYPE | DESCRIPTION:	VG	Brown Loose Soil

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 0.5	MG/KG				
TOLUENE	< 0.5	MG/KG				
ETHYL BENZENE	< 0.5	MG/KG				
TOTAL XYLENES	< 1.5	MG/KG				
TOTAL BTEX	< 3	MG/KG				
TPH (418.1)	15	MG/KG			2.20	2.5
HEADSPACE PID	90.0	PPM				
PERCENT SOLIDS	95.3	%				

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

The Surrogate Recovery was at 101 % for this sample All QA/QC was acceptable.

Narrative: AT1 Results for mod 8015 attached (110).

DF = Dilution Factor Used

Approved By: _____ Date: 9-29-95

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

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

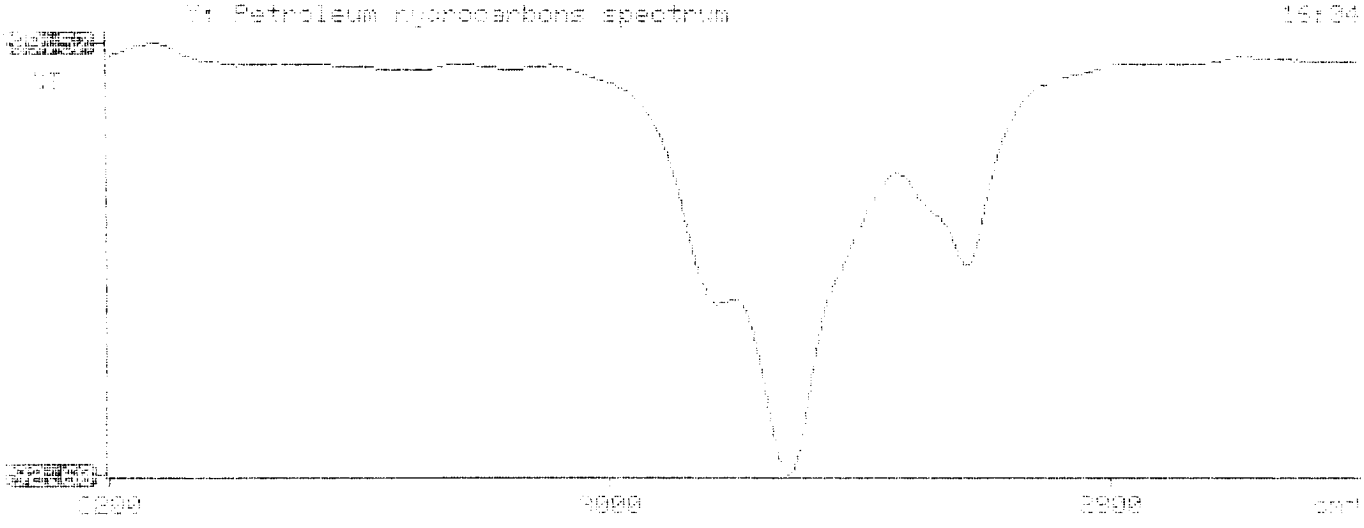
95/09/28 16:04

Sample identification
47552

Initial mass of sample, g
1.200

Volume of sample after extraction, ml
18.000

Petroleum hydrocarbons, ppm
50.129
Net absorbance of hydrocarbons (2930 cm-1)
0.030



BTEX SOIL SAMPLE WORKSHEET

File	947552	**Date Printed**	9/29/95
Soil Mass (g)	5.00	**Multiplier (L/g)**	0.00100
Extraction vol. (mL)	10	**DF (Analytical)**	200
Shot Volume (uL)	50	**DF (Report)**	0.20000

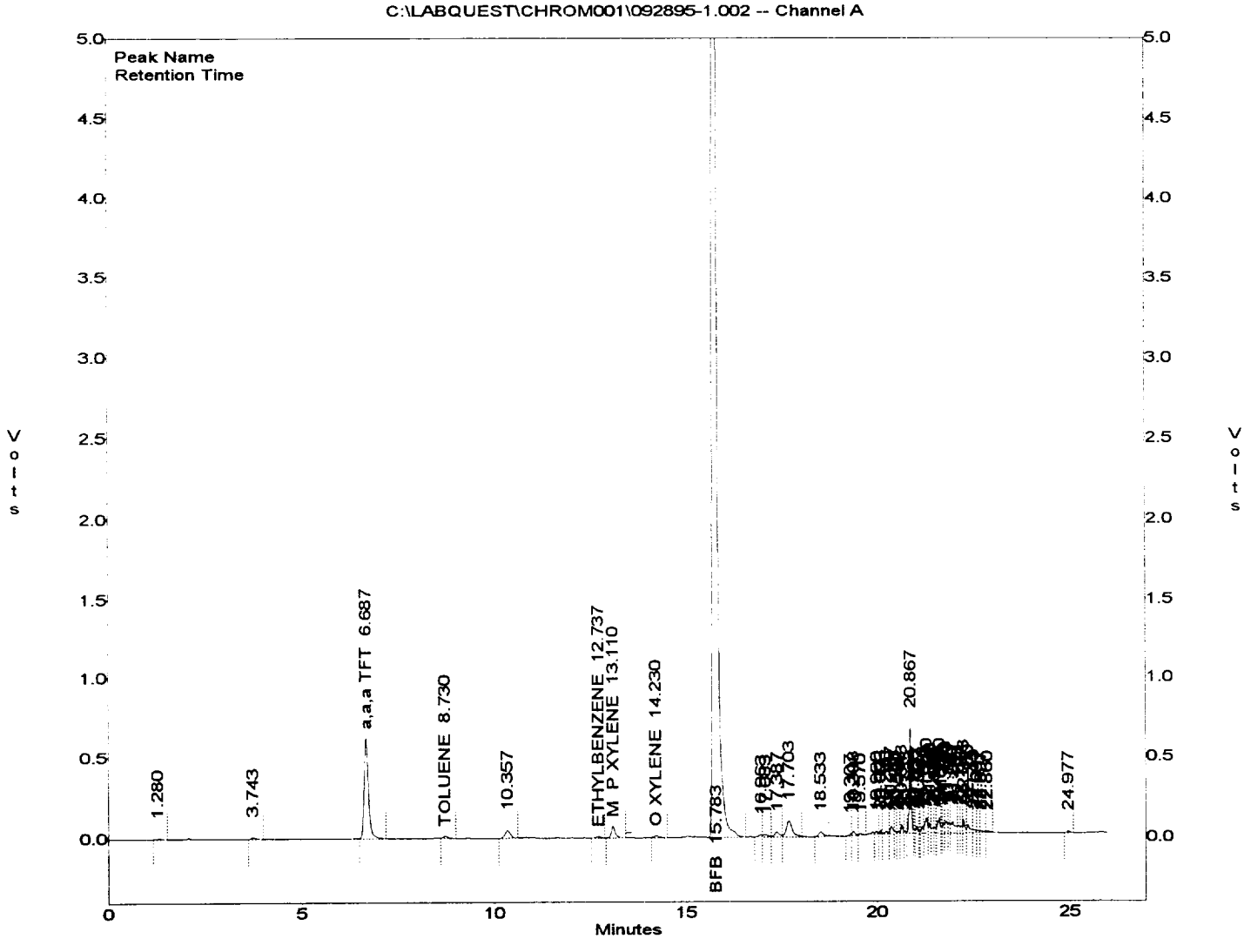
				Det. Limit
Benzene (ug/L)	0.00	**Benzene (mg/Kg):**	**0.000**	0.500
Toluene (ug/L)	0.40	**Toluene (mg/Kg):**	**0.080**	0.500
Ethylbenzene (ug/L)	0.26	**Ethylbenzene (mg/Kg):**	**0.052**	0.500
p & m-xylene (ug/L)	1.61	p & m-xylene (mg/Kg):	0.322	1.000
o-xylene (ug/L)	0.50	o-xylene (mg/Kg):	0.100	0.500
		Total xylenes (mg/Kg):	**0.422**	1.500
		Total BTEX (mg/Kg):	**0.554**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\092895-1.002
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 947552,5.00G,50U
Acquired : Sep 28, 1995 13:32:55
Printed : Sep 28, 1995 13:59:22
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	4.917	0	0.0000
a,a,a TFT	6.687	4827406	104.5633
TOLUENE	8.730	111515	0.4015
ETHYLBENZENE	12.737	65923	0.2580
M & P XYLENE	13.110	533368	1.6098
O XYLENE	14.230	118061	0.4958
BFB	15.783	73157016	100.9213



Analytical**Technologies,**Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED

CLIENT : EL PASO NATURAL GAS ATI I.D.: 510303

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/JIC PITS

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	947552	NON-AQ	09/27/95	10/03/95	10/04/95	1

PARAMETER	UNITS	01
FUEL HYDROCARBONS	MG/KG	110
HYDROCARBON RANGE		C6-C36
HYDROCARBONS QUANTITATED USING		DIESEL
SURROGATE:		
O-TERPHENYL (%)		97

Analytical**Technologies,**Inc.

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

ATI I.D. **510303**

October 9, 1995

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

Project Name/Number: PIT CLOSURE/JIC PITS 24324

Attention: John Lambdin

On **10/03/95**, 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