Approved

Meter Number:94510
Location Name:MEDIO CANYON #3
Location:TN-24 RG-04
SC-36 UL-A
6 - Jicarilla
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.

EL PASO FIELD SERVICES

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 94510 Location: Media Canyon #3
Operator #: 8367 Operator Name: Southland Royalty Co P/L District: OJITO
Coordinates: Letter: A Section 36 Township: 24 Range: 4
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: ✓ Line Drip: ___ Other: _____
Site Assessment Date: 6/23/94 Area: 08 Run: 73

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
3 pits. Will close. Pit dry

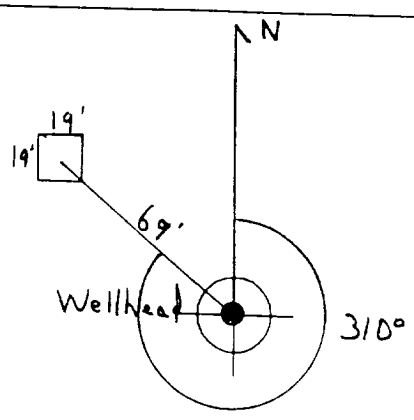
PUSH-IN

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 310° Footage from Wellhead 69'

b) Length : 19' Width : 19' Depth : 4'



REMARKS

Remarks :

Pictures @ 1135 (13-16)

Dump Truck

Completed By:

Signature

6/23/94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 94510 Location: MEDIO CANYON #3

Coordinates: Letter: A Section 32 Township: 24 Range: 4

Or Latitude _____ Longitude _____

Date Started : 10-3-95 Run: 08 73

FIELD OBSERVATIONS

Sample Number(s): NS105 _____ _____ _____

Sample Depth: 12 Feet

Final PID Reading 200 PID Reading Depth 12 Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☒ Approx. Cubic Yards 378 cy 10/13/95

Onsite Bioremediation ☐ Gabrial Jic E.P.C. approved closure 10-9-95

Backfill Pit Without Excavation ☐

Soil Disposition:

Envirotech ☒ Tierra ☐

Other Facility ☐ Name: _____

Pit Closure Date: 10-11-95 Pit Closed By: Philip

REMARKS

Remarks : PID READINGS : LN - 13.7)(S - 4.1)(E - 9.4)(W - 33.1)
Pit Size 27X30X12 - Rock Bottom Pit Listed Outside W.U. Zone
More Than 100' From Ephemeral Stream. E.P.N.G. (Norman) Onsite
Fencing 28 X 28 X 3 Netting Y — N

SPRAYED PIT WITH SOIL ENHANCER 10-9-95

Signature of Specialist: Nicholas Schmaltz

(SP3191) 03/16/94

El Paso Natural Gas Company

SPLIT

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	NS105	947~~475~~ 575 RLD 10/5/95
MTR CODE | SITE NAME:	94510	Mesa Canyon #3
SAMPLE DATE | TIME (Hrs):	10-03-95	1315
PROJECT:	JICP.I.S	
DATE OF TPH EXT. | ANAL.:		
DATE OF BTEX EXT. | ANAL.:	10/4/95	10/4/95
TYPE | DESCRIPTION:	VG	light grey sand & sandstone

REMARKS: (N-13.7)(S-4.1)(E-9.4)(W-33.1)

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS DF	Q	M(g)	V(ml)	ATI Results
BENZENE	2.5	MG/KG					0.55
TOLUENE	4.6	MG/KG					1.4
ETHYL BENZENE	11.1	MG/KG					7.4
TOTAL XYLENES	49.9	MG/KG					40.0
TOTAL BTEX	68.1	MG/KG					49.4
TPH (418.1)	[illegible]	MG/KG			1.77	2?	860
HEADSPACE PID	200	PPM					Surrogate % 182
PERCENT SOLIDS	91.7	%					Dilution Factor 20

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

The Surrogate Recovery was at 45% for this samp All QA/QC was acceptable.

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

DF = Dilution Factor Used

Approved By: [signature]

Date: 10-10-95

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

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

[illegible]5/10/04 14:37

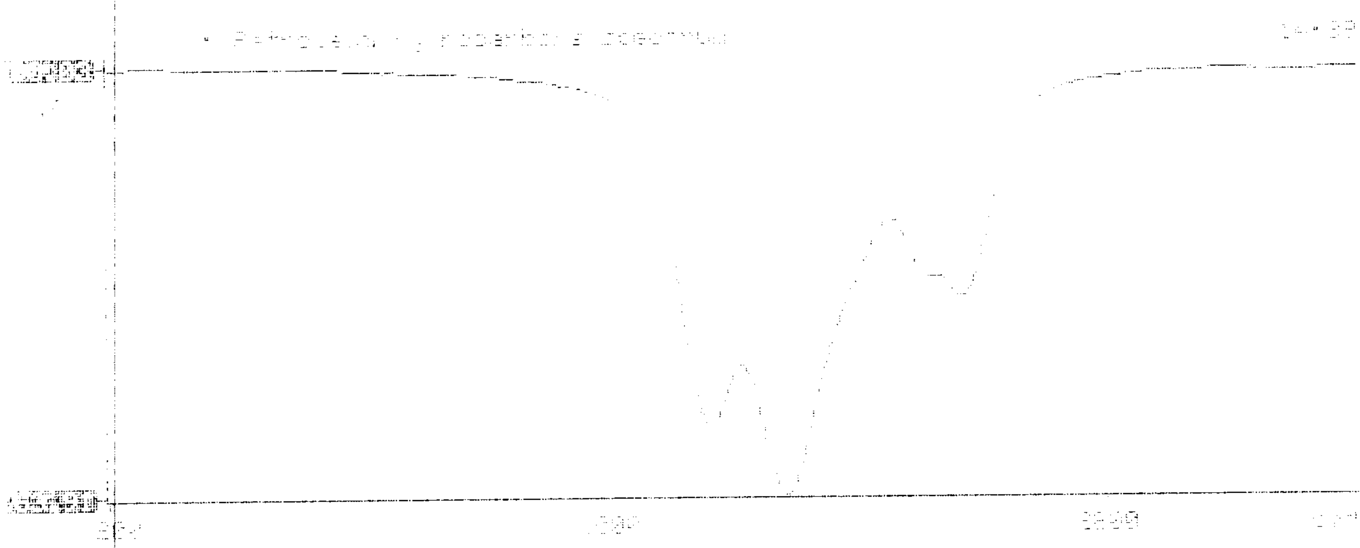
Sample Identification
47579

Initial mass of sample, g
[illegible]

Volume of sample after extraction, ml
[illegible]

Petroleum hydrocarbons, ppm
[illegible]

[illegible] absorbance of hydrocarbons [illegible]
[illegible]



BTEX SOIL SAMPLE WORKSHEET

File	: 947575	**Date Printed**	: 10/5/95		
Soil Mass (g)	: 4.97	**Multiplier (L/g)**	: 0.00101		
Extraction vol. (mL)	: 10	**DF (Analytical)**	: 200		
Shot Volume (uL)	: 50	**DF (Report)**	: 0.20121		

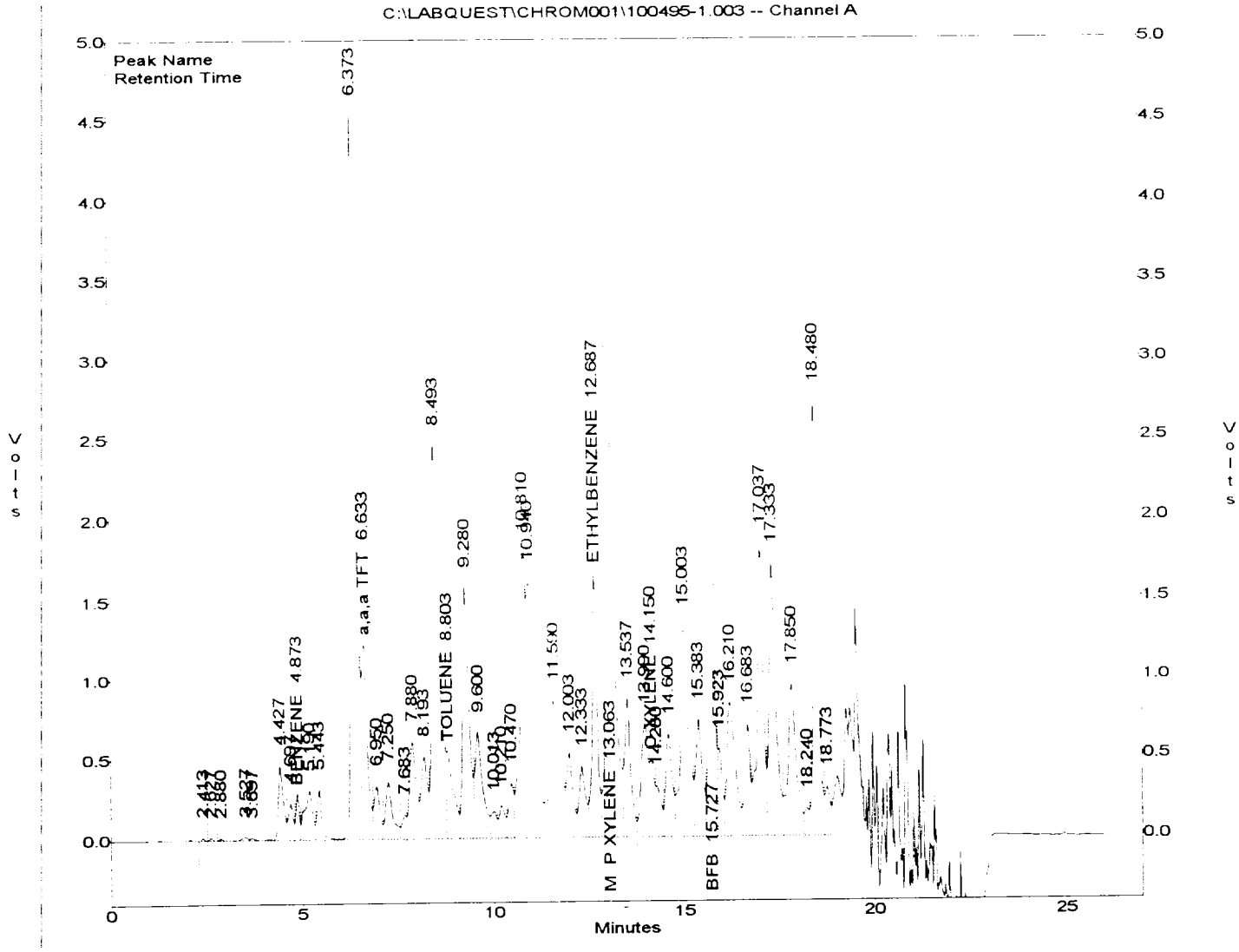
			Det. Limit
Benzene (ug/L)	: 12.40	**Benzene (mg/Kg):**	**2.495**	0.503
Toluene (ug/L)	: 22.90	**Toluene (mg/Kg):**	**4.608**	0.503
Ethylbenzene (ug/L)	: 55.10	**Ethylbenzene (mg/Kg):**	**11.087**	0.503
p & m-xylene (ug/L)	: 232.00	p & m-xylene (mg/Kg):	46.680	1.006
o-xylene (ug/L)	: 15.90	o-xylene (mg/Kg):	3.199	0.503
		Total xylenes (mg/Kg):	**49.879**	1.509
		Total BTEX (mg/Kg):	**68.068**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\100495-1.003
Method : C:\LABQUEST\METHODS\1-091895.MET
Sample ID : 947575,4.97G,50U
Acquired : Oct 04, 1995 12:52:46
Printed : Oct 04, 1995 13:39:55
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	4.873	1875778	12.4019
a,a,a TFT	6.633	12018883	260.3333
TOLUENE	8.803	6638550	22.9127
ETHYLBENZENE	12.687	15032610	55.1064
M & P XYLENE	13.063	65951536	231.7630
O XYLENE	14.150	4015731	15.8652
BFB	15.727	68884968	95.0279



Analytical**Technologies,** Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS ATI I.D.: 510329

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/JIC PITS

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
02	947575	NON-AQ	10/03/95	10/10/95	10/10/95	20

PARAMETER	UNITS	02
BENZENE	MG/KG	0.55
TOLUENE	MG/KG	1.4
ETHYLBENZENE	MG/KG	7.4
TOTAL XYLENES	MG/KG	40

SURROGATE:

BROMOFLUOROBENZENE (%) 182*

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

Analytical**Technologies,**Inc.

GENERAL CHEMISTRY RESULTS

CLIENT	: EL PASO NATURAL GAS	ATI I.D.	: 510329
PROJECT #	: 24324	DATE RECEIVED	: 10/10/95
PROJECT NAME	: PIT CLOSURE/JIC PITS	DATE ANALYZED	: 10/11/95
			10/12/95

PARAMETER	UNITS	02A	02B
PETROLEUM HYDROCARBONS, IR	MG/KG	290	860

GY7575

Chem

Use this one.

TX

10/13/95

Analytical**Technologies,**Inc.

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

ATI I.D. **510329**

October 13, 1995

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

Project Name/Number: PIT CLOSURE/JIC PITS 24324

Attention: John Lambdin

On **10/10/95**, 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.

Due to sample heterogeneity, varying results were obtained for sample "947575" on EPA method 418.1. The low and high values are submitted.

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

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure