

# EPFS PIT CLOSURE SUMMARY

*Denny & Fort*  
**DEPUTY OIL & GAS INSPECTOR**

**JUL 17 1998**

**Canyon Largo Unit # 49**  
**Meter/Line ID - 70655**

*Approved*  
Legals - Twn: 25      Rng: 7  
NMOCD Hazard Ranking: 40  
Operator: Meridian

## SITE DETAILS

Sec: 3      Unit: E  
Land Type: FEE

## PREVIOUS ACTIVITIES

Site Assessment: 6/29/94  
Monitor Well: N/A

Excavation: 7/14/94  
Re-Excavation: N/A

Soil Boring: 8/3/95  
Geoprobe: N/A

## CONCLUSIONS

The initial excavation was excavated to the practical extent of the trackhoe, which was 12 feet below ground surface (bgs). PID field screening indicated subsurface soils to be 198 ppm at 12 feet bgs. Excavation was terminated and a sample was collected. Sample analysis indicated total BTEX to be above standards at 59 mg/kg, and TPH was above standards at 5,120 mg/kg. A test boring was drilled in the center of the initial excavation to determine the vertical extent of impact to soil. The soil lithology consisted of a brown sand, which continued to approximately 30 feet bgs. A brown to olive sandstone was encountered at 30 feet bgs and continued to the termination of the boring at 40.75 feet bgs. A soil sample was collected for BTEX and TPH analysis at 40-40.75 feet bgs. Laboratory analysis showed all BTEX compounds to be below laboratory detection limits and TPH present at 87.7 mg/kg.

## RECOMMENDATIONS

No further action is recommended at the site for the following reasons:

- The bulk of the impacted soil was removed during the phase 1 excavation.
- Test boring sample results indicated soils below standards 28 feet beneath the initial excavation.
- No groundwater was encountered in the test boring.
- No potential receptors are within 1,000 feet of the site.
- Residual hydrocarbons remaining in the soils at the bottom of the initial excavation will naturally degrade in time with minimal risk to the environment.

**RECEIVED**  
MAR - 9 1998  
**OIL CON. DIV.**  
DIST. 3

# FIELD PIT SITE ASSESSMENT FORM

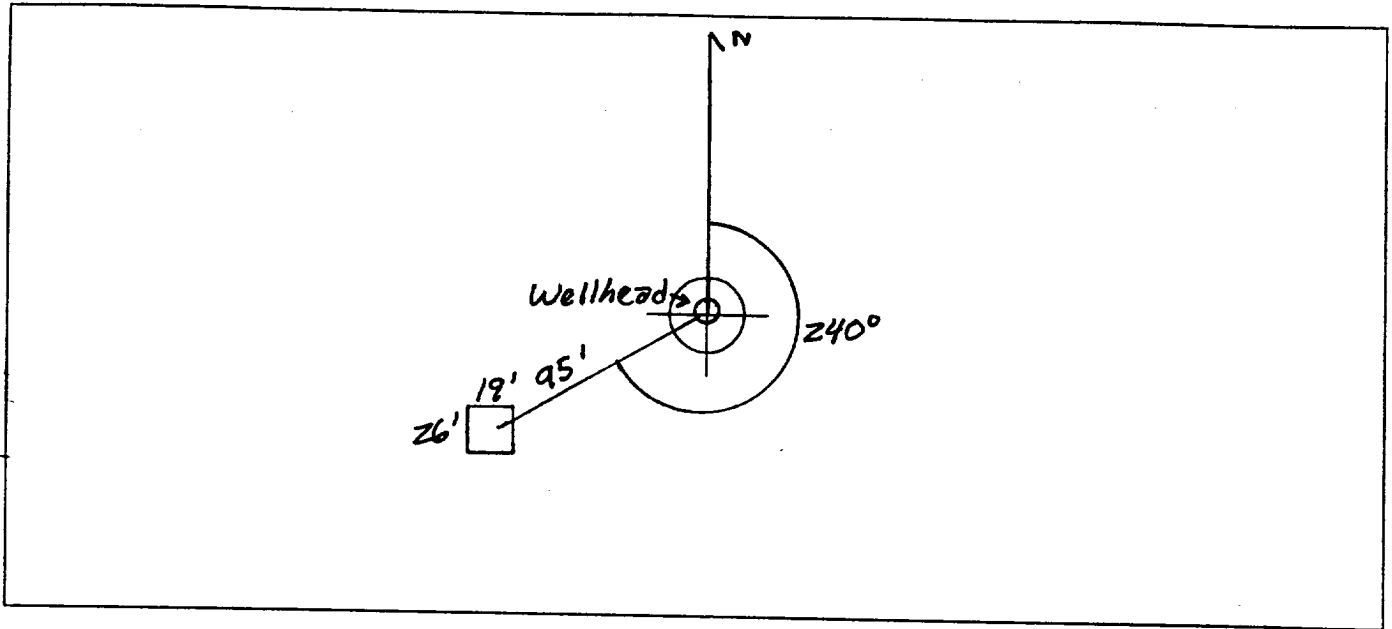
GENERAL	<p>Meter: <u>70-655</u> Location: <u>Canyon Largo Unit No. 49</u>          Operator #: <u>2999</u> Operator Name: <u>Meridian P/L</u> District: <u>Ballard</u>          Coordinates: Letter: <u>E</u> Section <u>3</u> Township: <u>25</u> Range: <u>6</u> <sup>GLADSKY</sup> <u>7</u>          Or Latitude _____ Longitude _____          Pit Type: Dehydrator _____ Location Drip: <u>X</u> Line Drip: _____ Other: _____          Site Assessment Date: <u>6/29/94</u> Area: <u>07</u> Run: <u>41</u></p>
SITE ASSESSMENT	<p><b>NMOCD Zone:</b>          (From NMOCD Maps) Inside <input checked="" type="checkbox"/> (1) Outside <input type="checkbox"/> (2)</p> <p><b>Land Type:</b> BLM <input type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input checked="" type="checkbox"/> (3) Indian _____</p> <p><b>Depth to Groundwater</b>          Less Than 50 Feet (20 points) <input checked="" type="checkbox"/> (1)          50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2)          Greater Than 100 Ft (0 points) <input type="checkbox"/> (3)</p> <p><b>Wellhead Protection Area :</b>          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? <input type="checkbox"/> (1) YES (20 points) <input checked="" type="checkbox"/> (2) NO (0 points)</p> <p><b>Horizontal Distance to Surface Water Body</b>          Less Than 200 Ft (20 points) <input checked="" type="checkbox"/> (1)          200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2)          Greater Than 1000 Ft (0 points) <input type="checkbox"/> (3)</p> <p>Name of Surface Water Body <u>Palluche Canyon</u>          (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)</p> <p>Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) &lt; 100' (Navajo Pits Only)  <input type="checkbox"/> (2) &gt; 100'</p> <p><b>TOTAL HAZARD RANKING SCORE:</b> <u>40</u> POINTS</p>
REMARKS	<p>Remarks : <u>Redline Book - Inside</u> <u>Vulnerable Zone Type - Inside</u>  <u>One Pit, Pit is dry, will close one pit.</u>  <u>ad 29/94 3R B Dig 4 Hou 1</u>  <u>Location sign says T25N, R6W, actually T25N, R7W.</u></p>

**RECEIVED**  
 MAR - 9 1998  
 OIL CON. DIV.  
 DIST. 3

ORIGINAL PIT LOCATION

### ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 240° Footage from Wellhead 95'  
b) Length : 26' Width : 19' Depth : 4'



REMARKS

Remarks :

Pictures @ 1335 (17-20)

Dump Truck

Completed By:

*Sarah Kelly*  
Signature

06/29/94  
Date

# **PHASE I EXCAVATION**



# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	FIELD OBSERVATIONS	CLOSURE	REMARKS
Meter: <u>70655</u> Location: <u>Canyon Largo Unit # 49</u> Coordinates: Letter: <u>E</u> Section <u>3</u> Township: <u>25</u> Range: <u>7</u> Or Latitude _____ Longitude _____ Date Started : <u>7/14/94</u> Run: <u>07</u> <u>41</u>	Sample Number(s): <u>KD 148</u> Sample Depth: <u>12'</u> Feet Final PID Reading <u>198 ppm</u> PID Reading Depth <u>12'</u> Feet Yes No Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet	Remediation Method : Excavation <input checked="" type="checkbox"/> Approx. Cubic Yards <u>80</u> Onsite Bioremediation <input type="checkbox"/> Backfill Pit Without Excavation <input type="checkbox"/> Soil Disposition: Envirotech <input checked="" type="checkbox"/> <input type="checkbox"/> Tierra Other Facility <input type="checkbox"/> Name: _____ Pit Closure Date: <u>7/14/94</u> Pit Closed By: <u>BEI</u>	Remarks : <u>Excavated pit to 12', Took PID Sample, Closed</u> <u>pit.</u>
Signature of Specialist: <u>Kenny Deann</u>			



# FIELD SERVICES LABORATORY

## ANALYTICAL REPORT

### PIT CLOSURE PROJECT - Soil

#### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD 148	945669
MTR CODE   SITE NAME:	70655	N/A
SAMPLE DATE   TIME (Hrs):	7-14-94	1430
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	7/19/94	7/19/94
DATE OF BTEX EXT.   ANAL.:	7/24/94	7/24/94
TYPE   DESCRIPTION:	VE	Brown/Grey Coarse Sand

REMARKS:

#### RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	LO.5	MG/KG	20			
TOLUENE	LO.5	MG/KG	20			
ETHYL BENZENE	2.3	MG/KG	20			
TOTAL XYLENES	56	MG/KG	20			
TOTAL BTEX	59	MG/KG				
TPH (418.1)	5120	MG/KG			1.99	28
HEADSPACE PID	198	PPM				
PERCENT SOLIDS	91.35	91.4 %				

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

The Surrogate Recovery was at 98 % for this sample All QA/QC was acceptable.

Narrative:

ATI results attached.

DF = Dilution Factor Used

L.P.

8/12/94

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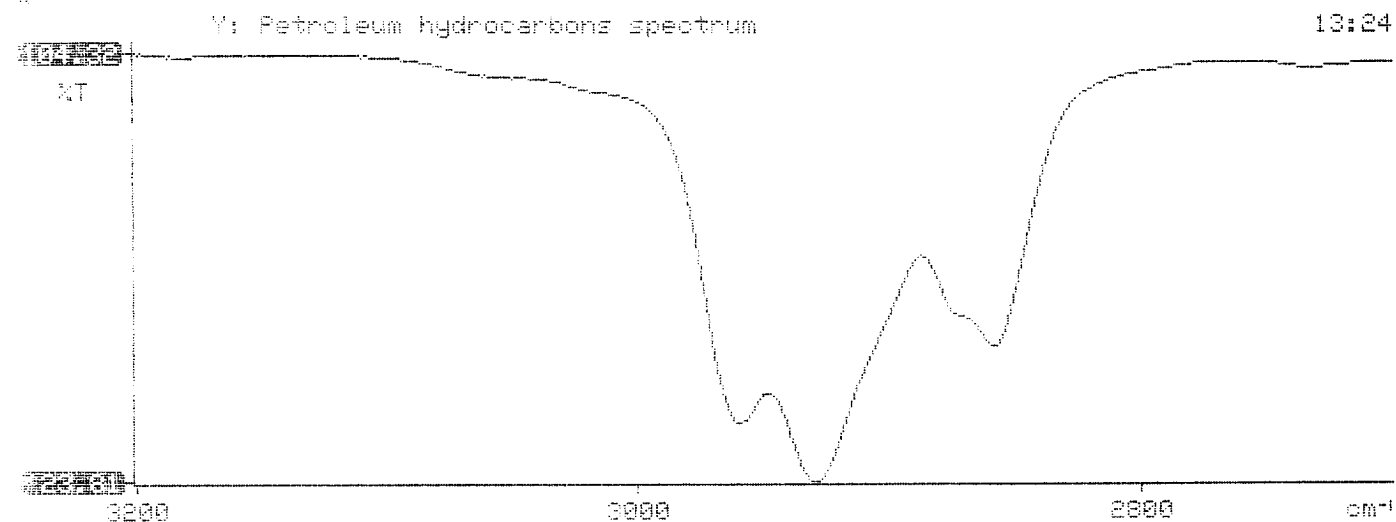
*****
*                               *
*      Test Method for          *
*      Oil and Grease and Petroleum Hydrocarbons      *
*      in Water and Soil       *
*                               *
*      Perkin-Elmer Model 1600 FT-IR                  *
*      Analysis Report                               *
*****

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94/07/19 13:24
*
% Sample identification
945669
%
% Initial mass of sample, g
1.790
%
% Volume of sample after extraction, ml
28.000
%
% Petroleum hydrocarbons, ppm
5122.619
% Net absorbance of hydrocarbons (2930 cm-1)
0.637
%
%
%

```







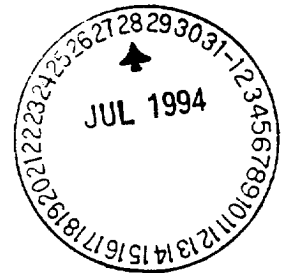
Analytical **Technologies**, Inc.

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

ATI I.D. 407376

July 27, 1994

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



Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 07/20/94, 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

# GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
 CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 407376  
 PROJECT # : 24324  
 PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	945668	NON-AQ	07/14/94	07/21/94	07/21/94	1
05	945669	NON-AQ	07/14/94	07/24/94	07/24/94	20
06	945679	NON-AQ	07/15/94	07/21/94	07/21/94	1

PARAMETER	UNITS	04	05	06
BENZENE	MG/KG	<0.025	<0.5	<0.025
TOLUENE	MG/KG	<0.025	<0.5	<0.025
ETHYLBENZENE	MG/KG	<0.025	2.3	<0.025
TOTAL XYLENES	MG/KG	<0.025	56	<0.025

## SURROGATE:

BROMOFLUOROBENZENE (%) 106 98 103

# PHASE II



# RECORD OF SUBSURFACE EXPLORATION

Burlington Environmental Inc.  
4000 Monroe Road  
Farmington, New Mexico 87401  
(505) 326-2262 FAX (505) 326-2388

Borehole # BH-1  
Well # \_\_\_\_\_  
Page 1 of 2

Project Name EPNG PITS  
Project Number 14509 Phase 6000.77  
Project Location Canyon Largo Unit #49 70455

Elevation \_\_\_\_\_  
Borehole Location Letter E-S3-T25-R7  
GWL Depth \_\_\_\_\_  
Logged By J.F. LaBarbera  
Drilled By K. Padilla  
Date/Time Started 8/3/95 - 11/4/7  
Date/Time Completed - 1343

Well Logged By J.F. LaBarbera  
Personnel On-Site K. Padilla, F. Rivera, D. Charlie  
Contractors On-Site \_\_\_\_\_  
Client Personnel On-Site \_\_\_\_\_  
Drilling Method 4 1/4 ID HSA  
Air Monitoring Method PID, CGI

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: ppm BZ BH S			Drilling Conditions & Blow Counts
0										
5										
10										
15	1	15- 16.25	14	Gray, loose, vfn to fn, SAND, tr. silt, dry, odor, visually impacted	SP		1.7	1073	499	11546
20	2	20- 21	12	AA, no visual impact apparent	SP		1.7	105	675 434	1203
25	3	25- 26	10	AA, fn to med.	SP		38	357	1934 394	1213
30	4	30- 31	11	Brown to Olive to Red Brown, fn to fine to med, SANDSTONE, moderate to poorly cemented, dry, sl. odor.	X		29	197	1630 4.9	1222 Hard drilling.
35	5	35- 36	12	Brown, fn to med, SAND, tr. silt, dry, sl. odor	SP		24 to 72	261	435 11	1237
40										

Comments:

Geologist Signature

*John J. Barbera*

# RECORD OF SUBSURFACE EXPLORATION

Burlington Environmental Inc.  
4000 Monroe Road  
Farmington, New Mexico 87401  
(505) 326-2262 FAX (505) 326-2388

Borehole # BH-1  
Well # \_\_\_\_\_  
Page 2 of 2

Project Name EPNG PITS  
Project Number 14509 Phase 6000.77  
Project Location Canyon Largo Unit #49 7065

Elevation \_\_\_\_\_  
Borehole Location Letter E-S3-T25-R7  
GWL Depth \_\_\_\_\_  
Logged By J.F. LaBarbera  
Drilled By K. Padilla  
Date/Time Started 8/3/95 - 1147  
Date/Time Completed - 1343

Well Logged By J.F. LaBarbera  
Personnel On-Site K. Padilla, F. Rivera, D. Charlie  
Contractors On-Site \_\_\_\_\_  
Client Personnel On-Site \_\_\_\_\_  
Drilling Method 4 1/4 ID HSA  
Air Monitoring Method PID, CGI

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: ppm <u>145</u> BZ BH <u>9</u> <u>4.9</u>			Drilling Conditions & Blow Counts
40	6	40 - 40.75	9	40-40.5 - AA 40.5 - Brown, moderately hard, fin to coarse, SAND- STONE, poorly cemented, no odor noted. TOB at 40.75'	X		1	379		1257
45										
10										
15										
20										
25										
30										
35										
40										

Comments:

Sample JFL 43 from 40-40.75' sent to lab for BTEX/TPH  
analysis.

Geologist Signature

J.F. LaBarbera

## FIELD SERVICES LABORATORY

## ANALYTICAL REPORT

Canyonhargo Unit #49

## PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

## SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JFL 43	947142
MTR CODE   SITE NAME:	70655	N/A
SAMPLE DATE   TIME (Hrs):	08/03/95	12:57
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	8-4-95	8-4-95
DATE OF BTEX EXT.   ANAL.:	8-9-95	8-9-95
TYPE   DESCRIPTION:	VG	Benson sand & clay

REMARKS:

## RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	40.025	MG/KG	1			
TOLUENE	40.025	MG/KG	1			
ETHYL BENZENE	40.025	MG/KG	1			
TOTAL XYLENES	40.025	MG/KG	1			
TOTAL BTEX	40.10	MG/KG				
TPH (418.1)	87.7	MG/KG			2.14	28
HEADSPACE PID	9	PPM				
PERCENT SOLIDS	92.6	%				

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

The Surrogate Recovery was at 104 % for this sample All QA/QC was acceptable.

Narrative:

ATI Results attached.

DF = Dilution Factor Used

Approved By:

Date:

8/22/95

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

Perkin-Elmer Model 1600 FT-IR  
Analysis Report

95/08/04 13:23

Sample identification  
947142

Initial mass of sample, g  
2.140

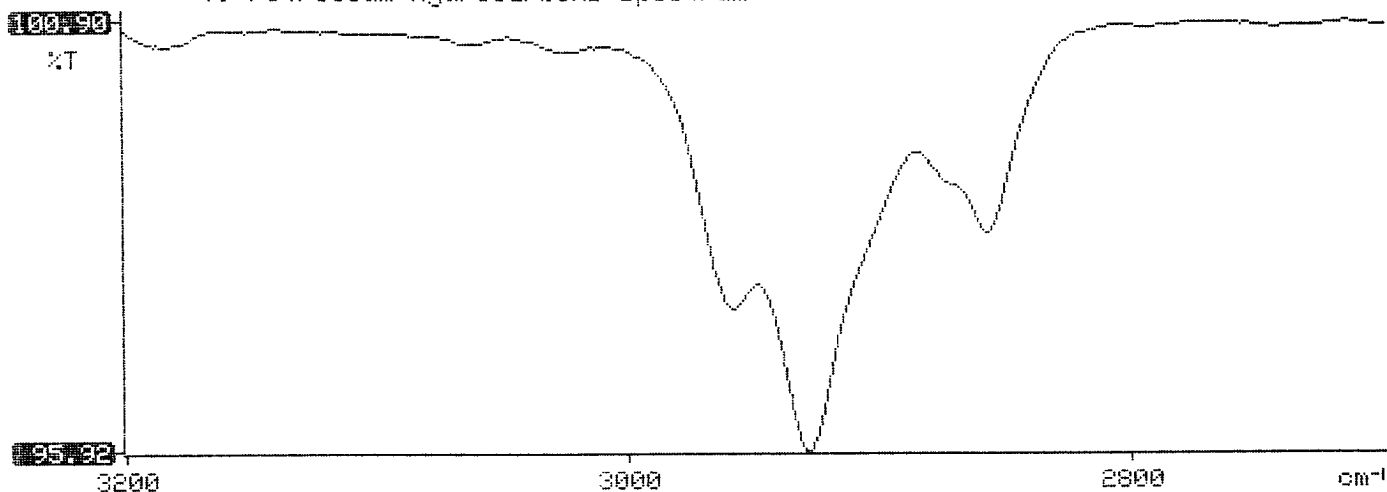
Volume of sample after extraction, ml  
28.000

Petroleum hydrocarbons, ppm  
87.663

Net absorbance of hydrocarbons (2930  $\text{cm}^{-1}$ )  
0.022

Y: Petroleum hydrocarbons spectrum

13:23







Analytical **Technologies**, Inc.

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

ATI I.D. 508342

August 11, 1995

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

Project Name/Number: PIT CLOSURE/PHASE I & II 24324

Attention: John Lambdin

On 08/08/95, 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.

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

Kimberly D. McNeill  
Project Manager

MR:jt

Enclosure

H. Mitchell Rubenstein, Ph.D.  
Laboratory Manager



# GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
 CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 508342  
 PROJECT # : 24324  
 PROJECT NAME : PIT CLOSURE/PHASE I & II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	947141	NON-AQ	08/03/95	08/09/95	08/10/95	1
05	947142	NON-AQ	08/03/95	08/09/95	08/09/95	1
06	947143	NON-AQ	08/03/95	08/09/95	08/09/95	1
PARAMETER			UNITS	04	05	06
BENZENE			MG/KG	<0.025	<0.025	0.032
TOLUENE			MG/KG	<0.025	<0.025	0.042
ETHYLBENZENE			MG/KG	<0.025	<0.025	<0.025
TOTAL XYLENES			MG/KG	<0.025	<0.025	<0.025

## SURROGATE:

BROMOFLUOROBENZENE (%)	98	104	98
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