

# EPFS PIT CLOSURE SUMMARY

*Denny E. Faust*  
**DEPUTY OIL & GAS INSPECTOR**

**JUL 17 1998**

**Cleveland No. 3  
Meter/Line ID - 71104**

*Approved*

Legals - Twn: 27 Rng: 9  
NMOCD Hazard Ranking: 309  
Operator: Meridian

## SITE DETAILS

Sec: 21 Unit: C  
Land Type: BLM

## PREVIOUS ACTIVITIES

Site Assessment: 6/11/94  
Monitor Well: N/A

Excavation: 8/22/94  
Re-Excavation: N/A

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

## CONCLUSIONS

The initial excavation was excavated to the top of bedrock, which was 5 feet below ground surface (bgs). PID field screening indicated subsurface soils to be 265 ppm at 5 feet bgs. Excavation was terminated and a sample was collected. Sample analysis indicated total BTEX to be above standards at 83 mg/kg and TPH was above standards at 2.380 mg/kg. A test boring was drilled in the center of the initial excavation to determine the vertical extent of impact to soil. A hard, gray-brown, medium-coarse grained sand (possibly sandstone) was encountered at 15 feet bgs and continued to the termination of the boring at 40 feet bgs. A soil sample was collected for BTEX and TPH analysis at 38-40 feet bgs. Laboratory analysis showed all BTEX compounds to be below detection limits. TPH Method 418.1 analysis showed TPH present at 106 mg/kg. The sample was re-analyzed using Method 8015 modified and the sample results were below laboratory detection limits.

## 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 33 feet beneath the initial excavation.
- The excavation was terminated in bedrock.
- 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

Meter: 71104 Location: Cleveland No. 3  
 Operator #: 2999 Operator Name: Merridan P/L District: Ballard  
 Coordinates: Letter: C Section 21 Township: 27 Range: 9  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 6-11-94 Area: 11 Run: 31

## NMOCD Zone:

(From NMOCD  
Maps)

Inside

Outside

## 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 Taquez Canyon

(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: 30 POINTS

Remarks :

(Wellhead outside U.Z. but drip is inside  
Inside U.Z. on Redline & Topo

Drip Head

SITE ASSESSMENT

REMARKS

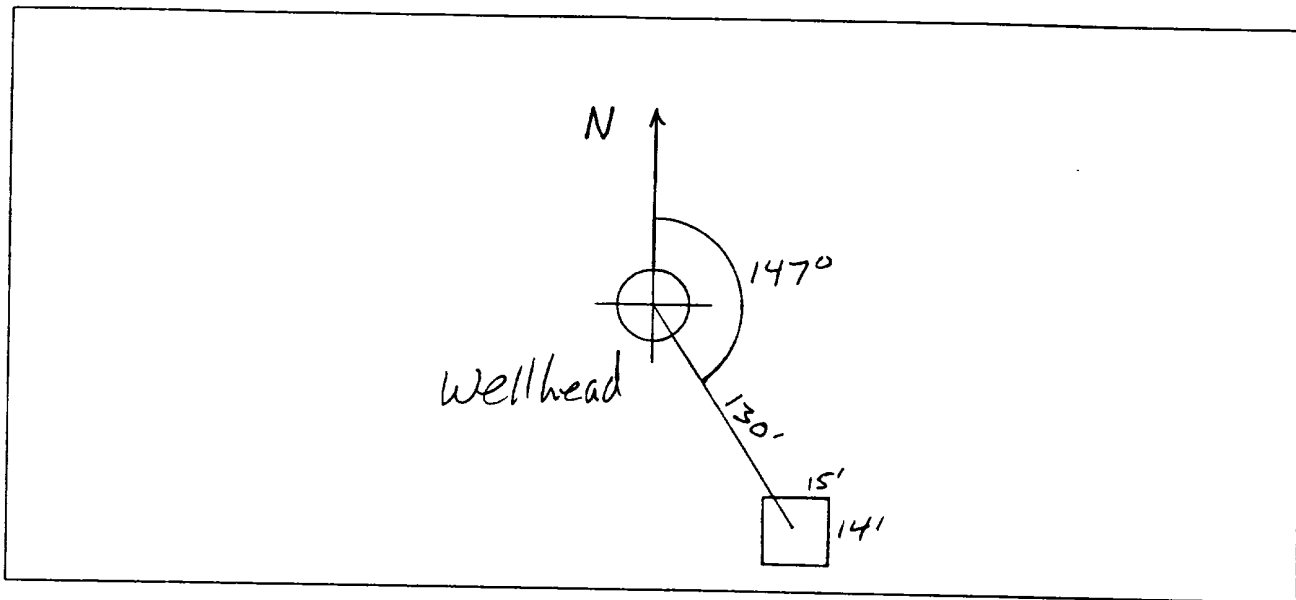
RECEIVED  
MAR - 9 1996

OIL CON. DIV.  
DIST. 3

## ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 147 Footage from Wellhead 130  
b) Length : 15 Width : 14 Depth : 4



Remarks :

Photos - 1309Bob tail

## REMARKS

Completed By:

Signature

6-11-94

Date

# **PHASE I EXCAVATION**

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	<p>Meter: <u>71104</u> Location: <u>CLEVELAND No. 3</u></p> <p>Coordinates: Letter: <u>C</u> Section <u>21</u> Township: <u>27</u> Range: <u>9</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>8-22-94</u> Run: <u>11</u> <u>31</u></p>
FIELD OBSERVATIONS	<p>Sample Number(s): <u>KP 202</u></p> <p>Sample Depth: <u>5'</u> Feet</p> <p>Final PID Reading <u>265</u> PID Reading Depth <u>5'</u> Feet</p> <p>Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p>
CLOSURE	<p>Remediation Method :</p> <p>Excavation <input checked="" type="checkbox"/> Approx. Cubic Yards <u>10</u></p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input checked="" type="checkbox"/> <input type="checkbox"/> Tierra</p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>8-22-94</u> Pit Closed By: <u>B.E.I.</u></p>
REMARKS	<p>Remarks : <u>SOME LINE MARKERS. STARTED REMEDIATING</u>  <u>TO 12' SOIL TURNED GRAY LOOKING WITH A SMALL</u>  <u>HIT SAND STONE AT 5' PID CLOSED PIT</u></p>
	<p>Signature of Specialist: <u>Kelly Padella</u></p>



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP 202	945993
MTR CODE   SITE NAME:	71104	N/A
SAMPLE DATE   TIME (Hrs):	8-22-94	1500
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	8-24-94	8-24-94
DATE OF BTEX EXT.   ANAL.:	8/25/94	8/26/94
TYPE   DESCRIPTION:	VC	light grey sand & clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	40.5	MG/KG	20			
TOLUENE	30	MG/KG	20			
ETHYL BENZENE	1.9	MG/KG	20			
TOTAL XYLENES	51	MG/KG	20			
TOTAL BTEX	83	MG/KG				
TPH (418.1)	2380	MG/KG			2.07	28
HEADSPACE PID	265	PPM				
PERCENT SOLIDS	90.5	%				

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

The Surrogate Recovery was at 159 % 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:

*[Signature]*

Date:

9/30/94

\*\*\*\*\*  
 Test Method for  
 Oil and Grease and Petroleum Hydrocarbons  
 in Water and Soil  
 Barkin-Elmer Model 1400 FT-IR  
 Analysis Report  
 \*\*\*\*\*

94/03/24 13:18

Sample identification

745990

Initial mass of sample, g

0.070

Volume of sample after extraction, ml

35.000

Petroleum hydrocarbons, ppm

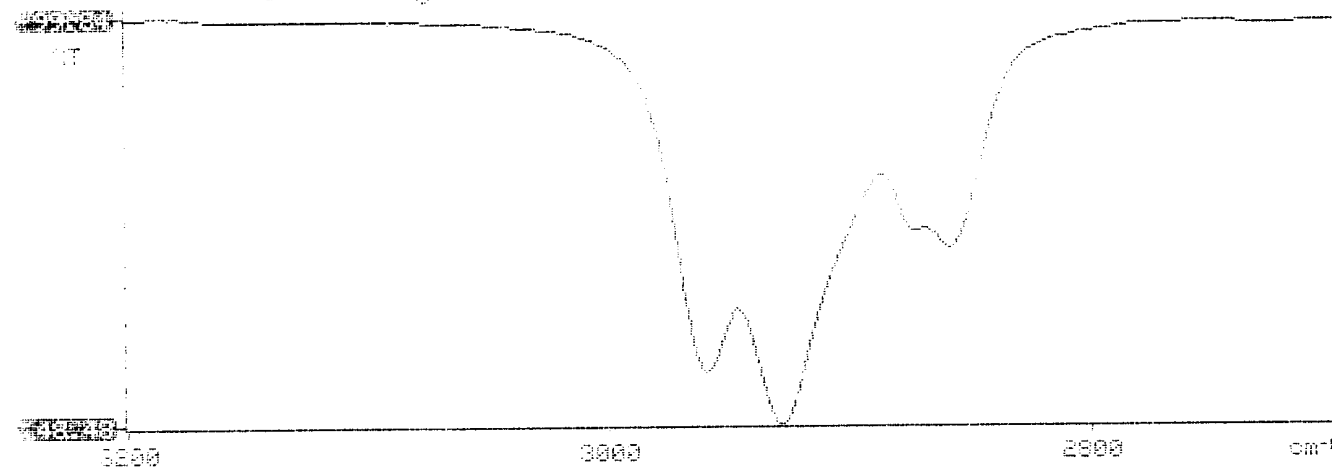
3323.217

Net Absorbance of hydrocarbons (2930 cm<sup>-1</sup>)

0.311

Petroleum hydrocarbons spectrum

13:18





Analytical Technologies, Inc.

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

ATI I.D. 408397

August 29, 1994

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

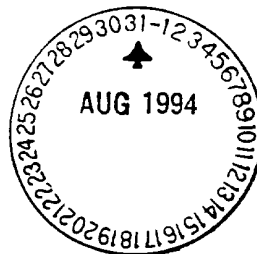
On 08/25/94, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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





# GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
 CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 408397  
 PROJECT # : 24324  
 PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
22	945992	NON-AQ	08/22/94	08/25/94	08/26/94	10
23	945993	NON-AQ	08/22/94	08/25/94	08/26/94	20
24	945994	NON-AQ	08/22/94	08/25/94	08/26/94	1
PARAMETER			UNITS	22	23	24
BENZENE			MG/KG	<0.25	<0.5	<0.025
TOLUENE			MG/KG	1.2	30	<0.025
ETHYLBENZENE			MG/KG	0.60	1.9	<0.025
TOTAL XYLENES			MG/KG	6.0	51	<0.025

SURROGATE:

BROMOFLUOROBENZENE (%)

62\*

159\*

94

\*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

# PHASE II

# RECORD OF SUBSURFACE EXPLORATION

## PHILIP ENVIRONMENTAL

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

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

Elevation \_\_\_\_\_  
Borehole Location T 27, R 9, S 21, C  
GWL Depth \_\_\_\_\_  
Logged By Jeff W. Kindley  
Drilled By G. Sudduth  
Date/Time Started 08/08/95 1124  
Date/Time Completed 09/08/95 1610

Project Name EPNG Pits  
Project Number 14509 Phase 6000.77  
Project Location Cleveland sig 3  
Well Logged By Jeff W. Kindley  
Personnel On-Site G. Sudduth, A. Roberts  
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/H			Drilling Conditions & Blow Counts
0				Backfill to 5'						
15	1	13-15	1.5 1.5	SAND, Gray/brown, medium to coarse grained, loose, dry					85 114	1146
20	2	18-20	1.5 1.5	S.A.A.					90 115	1210
25	3	23-25	1.8 1.5	S.A.A.					82 91	1245
30	4	28-30	1.3 1.5	SAND, Gray/brown, medium grained, hard, dry					52 61	1430
35	5	33-35	1.5 1.5	SAA					14 62	1450
40	6	38-40	1.6 1.5	SAND, brown, medium to coarse grain, loose, dry Boring terminated at 40'					6 13	1525

Comments:

Sample collected at 38-40' interval for BTEX/TPH analysis. B.M.  
grinded to surface.

Geologist Signature

*Jeffrey Kindley*



## FIELD SERVICES LABORATORY

## ANALYTICAL REPORT

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

## SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JWK 8	947178
MTR CODE   SITE NAME:	71104	Cleveland No. 3
SAMPLE DATE   TIME (Hrs):	08-08-95	15:25
PROJECT:	Phase II Drilling	
DATE OF TPH EXT.   ANAL:	8/9/95	8/9/95
DATE OF BTEX EXT.   ANAL:		
TYPE   DESCRIPTION:	VG	Brown sand

Field Remarks: (38-40')

## RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.025	MG/KG	1			
TOLUENE	<0.025	MG/KG	1			
ETHYL BENZENE	<0.025	MG/KG	1			
TOTAL XYLENES	<0.025	MG/KG	1			
TOTAL BTEX	<0.10	MG/KG				
TPH (418.1)	106	MG/KG			2.0	28
HEADSPACE PID	13	PPM				
PERCENT SOLIDS	91.3	%				

-- 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:

AT 1 Results for BTEX and mod 8015 attached

DF = Dilution Factor Used

Approved By: J.S.

Date:

8/28/95

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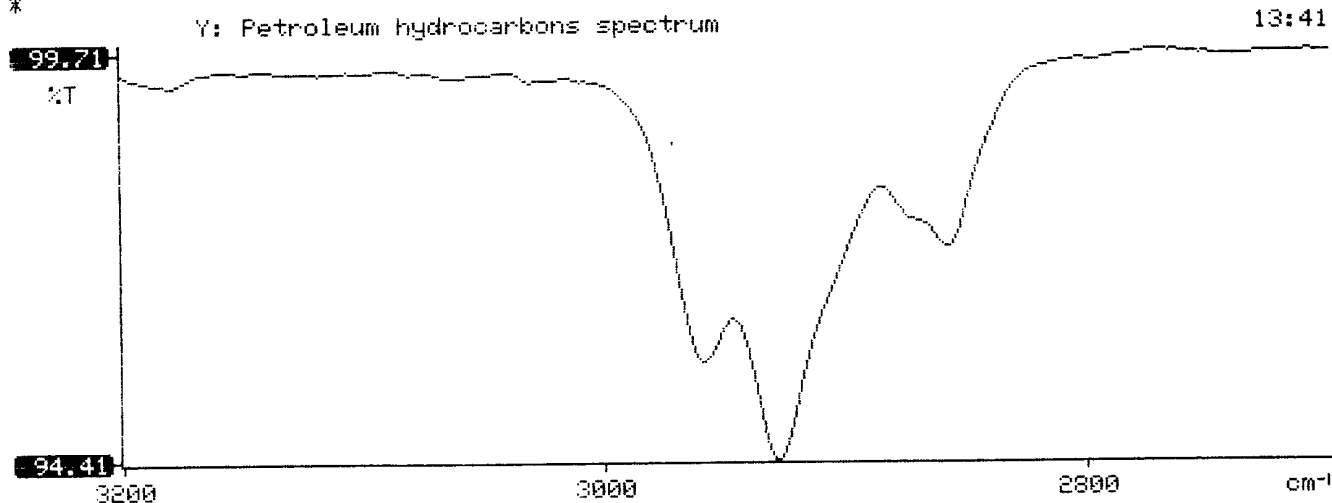
*****
*                               *
*       Test Method for         *
*       Oil and Grease and Petroleum Hydrocarbons      *
*       in Water and Soil      *
*                               *
*       Perkin-Elmer Model 1600 FT-IR                   *
*       Analysis Report   *
*****

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* 95/08/09 13:41
*
* Sample identification
* 941178
*
* Initial mass of sample, g
* 2.000
*
* Volume of sample after extraction, ml
* 28.000
*
* Petroleum hydrocarbons, ppm
* 105.866
* Net absorbance of hydrocarbons (2930 cm-1)
* 0.023
*
*
*

```





Analytical **Technologies**, Inc.

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

ATI I.D. 508367

August 17, 1995

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

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

Attention: John Lambdin

On 08/11/95, 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.: 508367  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE/PHASE I, II & III

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
13	947174	NON-AQ	08/08/95	08/14/95	08/15/95	1
14	947178	NON-AQ	08/08/95	08/12/95	08/12/95	1
15	947179	NON-AQ	08/08/95	08/12/95	08/12/95	1
PARAMETER			UNITS	13	14	15
BENZENE			MG/KG	<0.025	<0.025	<0.025
TOLUENE			MG/KG	<0.025	<0.025	<0.025
ETHYLBENZENE			MG/KG	<0.025	<0.025	<0.025
TOTAL XYLENES			MG/KG	<0.025	<0.025	<0.025

## SURROGATE:

BROMOFLUOROBENZENE (%) 107 101 109

PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE/PHASE I, II & III

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
09	947161	NON-AQ	08/04/95	08/12/95	08/14/95	1
11	947172	NON-AQ	08/07/95	08/12/95	08/14/95	1
14	947178	NON-AQ	08/08/95	08/12/95	08/14/95	1
PARAMETER			UNITS	09	11	14
FUEL HYDROCARBONS			MG/KG	<5	<5	<5
HYDROCARBON RANGE				-	-	-
HYDROCARBONS QUANTITATED USING				-	-	-

## SURROGATE: