OK

EL PASO FIELD SERVICES
PRODUCTION PIT CLOSURE

DEC 21 1998

Approved

RECEIVED
JUL 2 1998
OIL CON. DIV.
DIST. 3

JOHNSTON FED 1A (Pit #2)
Meter/Line ID - 89638

SITE DETAILS

Legals - Twn: 30 **Rng:** 09 **Sec:** 12 **Unit:** F
NMOCD Hazard Ranking: 40 **Land Type:** 2 - Federal
Operator: MERIDIAN OIL INC **Pit Closure Date:** 01/20/95

RATIONALE FOR RISK-BASED CLOSURE:

The above mentioned production pit was assessed and ranked according to the criteria in the New Mexico Conservation Division's Unlined Surface Impoundment Closure Guidelines.

The primary source, discharge to the pit, has been removed. There has been no discharge to the production pit for at least five years and the pit has been closed for at least three years.

The production pit has been remediated to the practical extent of the trackhoe or to the top of bedrock. Initial laboratory analysis has indicated that the soil remaining at the bottom of the excavation is above standards based on the hazard ranking score. Contaminated soil was removed and transported to an approved landfarm for disposal. The initial excavation was backfilled with clean soil and graded in a manner to divert precipitation away from the excavated area. Any rainfall that does infiltrate the ground surface must migrate through clean backfill before reaching any residual hydrocarbons remaining in the soil. Therefore, further mobility of residual hydrocarbons is unlikely.

Since the soil samples from the initial excavation were above standards, a test boring was drilled and a sample was collected to evaluate the vertical extent of impact to soils. Test boring sample results indicated soils below standards beneath the original excavation.

El Paso Field Services Company (EPFS) requests closure of the above mentioned production pit location for the following reasons:

- Discharge to the pit has not occurred in over five years and the pit has been closed for over three years.
- The bulk of the impacted soil was removed during the initial excavation.
- The excavation was backfilled with clean soil and graded to divert precipitation away from the excavation area.
- All source material has been removed from the ground surface, eliminating potential direct contact with livestock and the general public.
- Groundwater was not encountered in the initial excavation or test boring; therefore, impact to groundwater is unlikely.
- Soil samples collected beneath the initial excavation were below standards.
- No potential receptors are within 1,000 feet of the site.
- Residual hydrocarbons remaining in the soil at the bottom of the initial excavation will naturally degrade in time with minimal risk to the environment.

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 89638 Location: Johnston Fed 1A
Operator #: 0128 Operator Name: MOI P/L District: Bloomfield
Coordinates: Letter: F Section 12 Township: 30 Range: 9
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ✓ Location Drip: ___ Line Drip: ___ Other: _____
Site Assessment Date: 1/11/95 Area: 10 Run: 22

SITE ASSESSMENT

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

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 Pump 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: 40 **POINTS**

REMARKS

Remarks : Redline Book - Inside Vulnerable Zone Topo - Inside
2 pits. Closed.

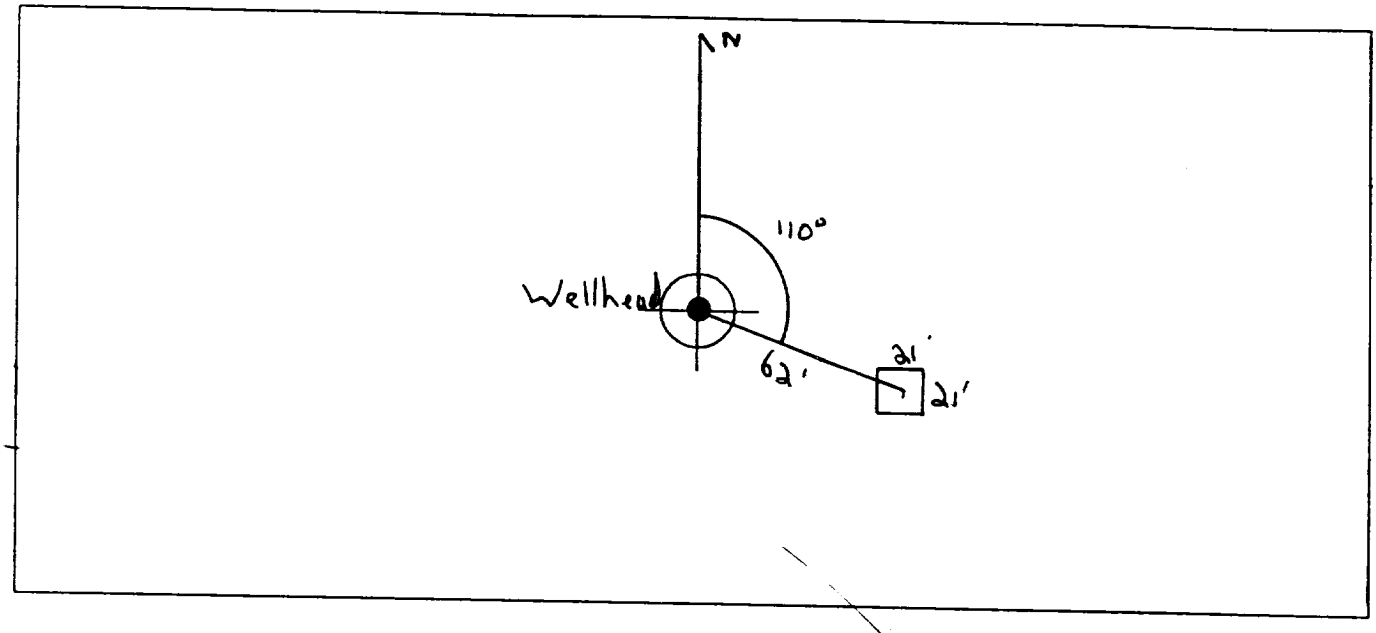
DIG + H AUL

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 110° Footage from Wellhead 62'

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



REMARKS

Remarks :

Pictures @ 1132 8-11 (roll-3)

Completed By:

Cory Chase
Signature

1/11/95
Date

PHASE I
EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 89638 Location: Johnston Fed 1A (Pit #2)

Coordinates: Letter: F Section 12 Township: 30 Range: 9

Or Latitude _____ Longitude _____

Date Started : 1-19-95 Run: 10 22

FIELD OBSERVATIONS

Sample Number(s): KP384 _____ _____ _____

Sample Depth: 12' Feet

Final PID Reading 970 PID Reading Depth 12' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☒ Approx. Cubic Yards 220

Onsite Bioremediation ☐

Backfill Pit Without Excavation ☐

Soil Disposition:

Envirotech ☒ ☐ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 1-20-95 Pit Closed By: B.EI

REMARKS

Remarks : No Line markers Started Remediating to 12' Soil Turned dark Gray with A shell Looking. At 12' soil still The Same.

Signature of Specialist: Kelly Padilla

(SP3181) 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:	KF384	946584
MTR CODE | SITE NAME:	89638	N/A
SAMPLE DATE | TIME (Hrs):	1-20-95	1430
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	1-28-95	1-28-95
DATE OF BTEX EXT. | ANAL.:	1/26/95	1/29/95
TYPE | DESCRIPTION:	VC	Dark Gray clay

REMARKS: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.99	MG/KG	0.19841		2.52	20
TOLUENE	5.91	MG/KG				
ETHYL BENZENE	5.13	MG/KG				
TOTAL XYLENES	44.0	MG/KG				
TOTAL BTEX	55.0	MG/KG				
TPH (418.1)	1370	MG/KG			1.95	28
HEADSPACE PID	970	PPM				
PERCENT SOLIDS	86.8	%				

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

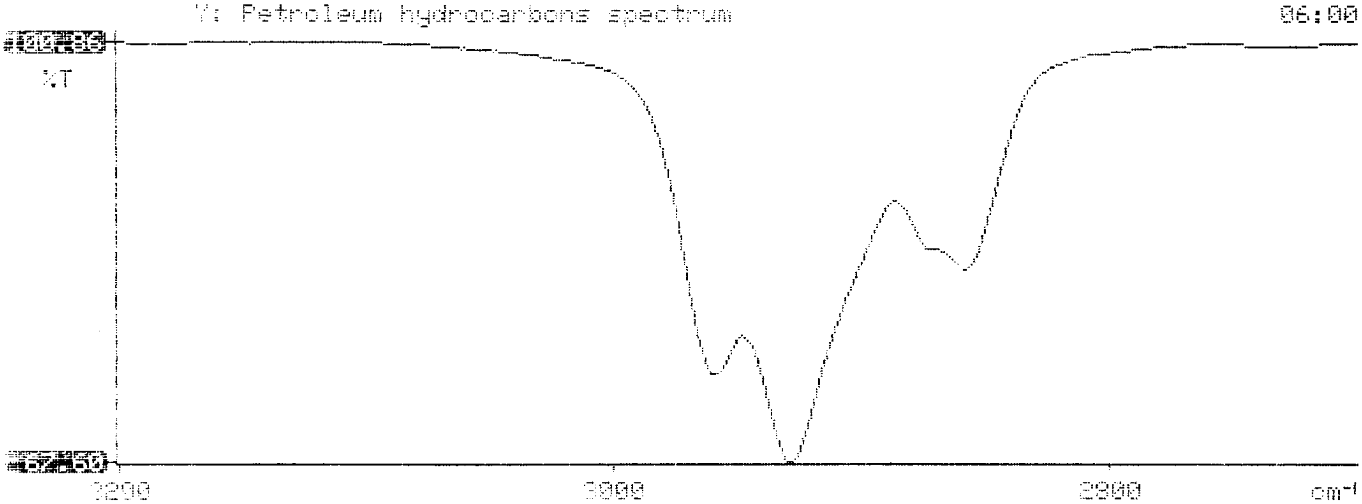
The Surrogate Recovery was at 98.0 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: _____ Date: 2-22-95

```
*****************************************************
*                 Test Method for                   *
*    Oil and Grease and Petroleum Hydrocarbons      *
*               in Water and Soil                   *
*                                                   *
*           Perkin-Elmer Model 1600 FT-IR           *
*                 Analysis Report                   *
*****************************************************
*
 95/01/28  06:00
*
*  Sample identification
 946584
*
*  Initial mass of sample, g
 1.750
*
*  Volume of sample after extraction, ml
 28.000
*
*  Petroleum hydrocarbons, ppm
 1373.126
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.173
*
*
*
```



BTEX SOIL SAMPLE WORKSHEET

File	: 946584B	**Date Printed**	: 1/30/95
Soil Mass (g)	: 2.52	**Multiplier (L/g)**	: 0.00198
Extraction vol. (mL)	: 20	**DF (Analytical)**	: 100
Shot Volume (uL)	: 200	**DF (Report)**	: 0.19841

			Det. Limit
Benzene (ug/L)	: 0.00	**Benzene (mg/Kg):**	**0.000**	0.992
Toluene (ug/L)	: 29.78	**Toluene (mg/Kg):**	**5.909**	0.992
Ethylbenzene (ug/L)	: 25.87	**Ethylbenzene (mg/Kg):**	**5.133**	0.992
p & m-xylene (ug/L)	: 161.50	p & m-xylene (mg/Kg):	32.044	1.984
o-xylene (ug/L)	: 60.19	o-xylene (mg/Kg):	11.942	0.992
		Total xylenes (mg/Kg):	**43.986**	2.976
		Total BTEX (mg/Kg):	**55.028**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

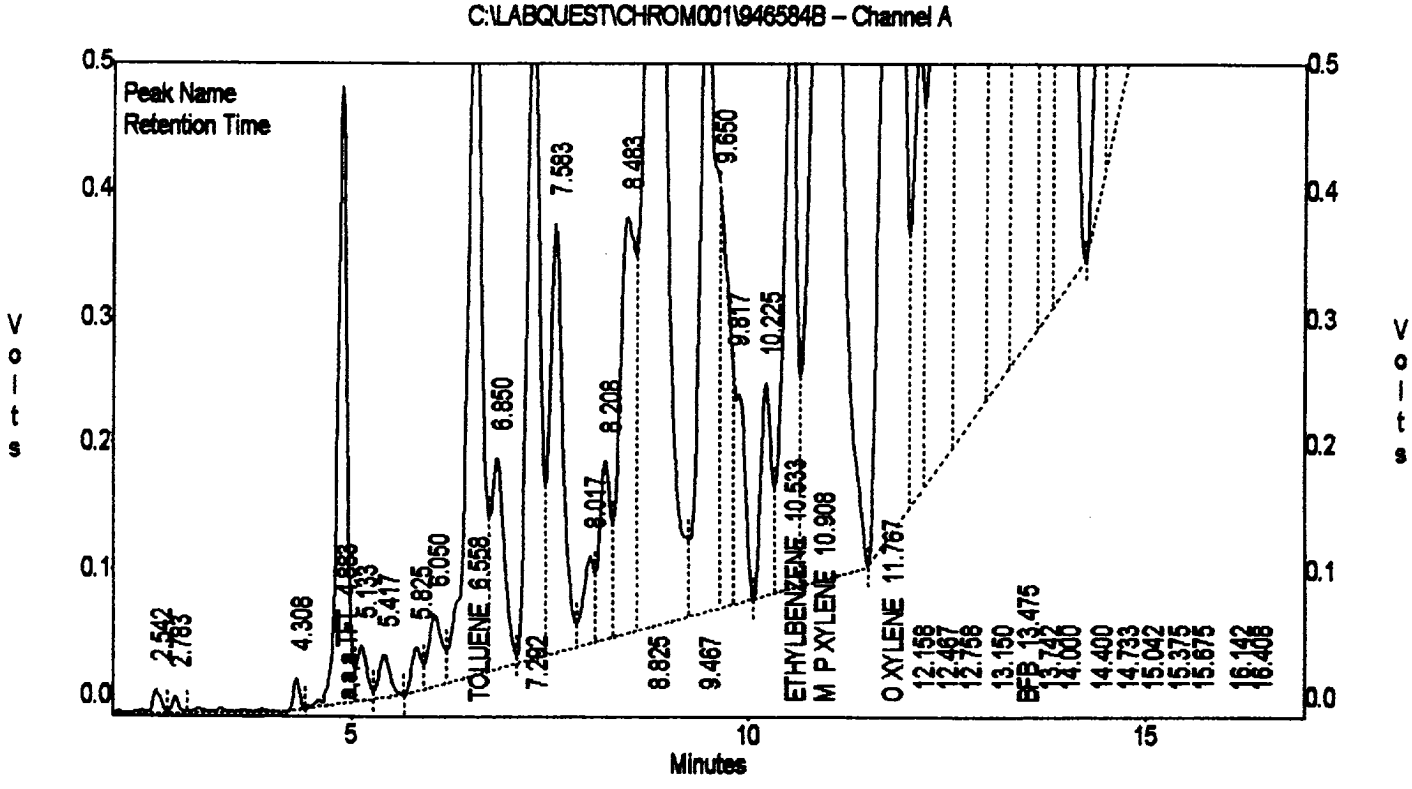
File : C:\LABQUEST\CHROM001\946584B
Method : C:\LABQUEST\METHODS\CALCBTEX.MET
Sample ID : 946584,2.52G/200uL
Acquired : Jan 29, 1995 20:25:38
Printed : Jan 30, 1995 11:07:53
User : Tony

Channel A Results

COMPONENT	RET TIME	AREA	AVG RF	CONC (ug/L)
BENZENE	3.442	0	0.00000	0.0000
a,a,a TFT	4.883	3934934	32055.68359	120.7649
TOLUENE	6.558	7358746	314479.71875	29.7773
ETHYLBENZENE	10.533	5833197	228573.29688	25.8711
M & P XYLENE	10.908	40658568	316768.40625	161.5038
O XYLENE	11.767	13263643	221087.17188	60.1876
BFB	13.475	93472152	944778.31250	98.0209

Totals :

164521248		496.1256

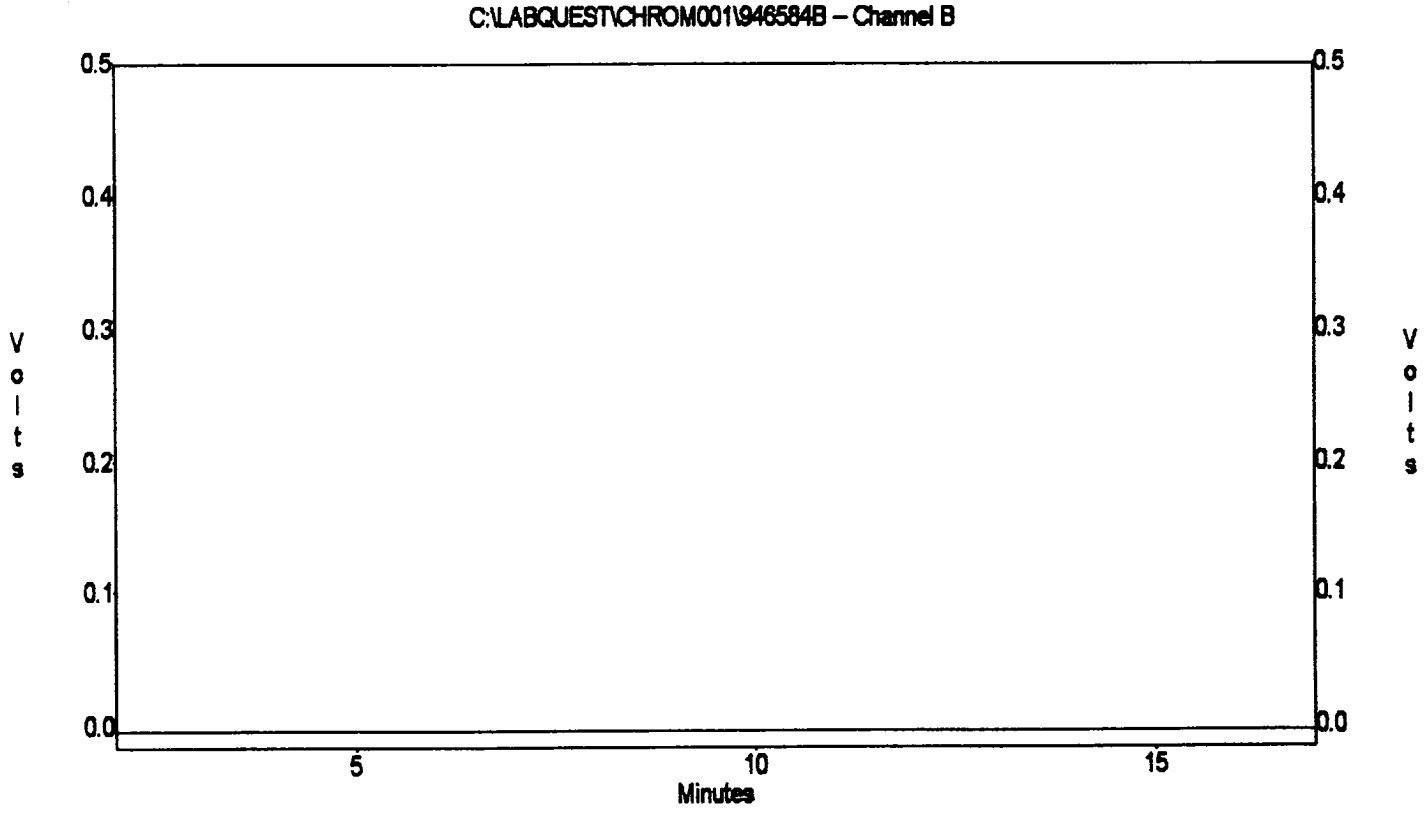


EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\946584B
Method : C:\LABQUEST\METHODS\CALCBTEX.MET
Sample ID : 946584,2.52G/200uL
Acquired : Jan 29, 1995 20:25:38
Printed : Jan 30, 1995 11:08:02
User : Tony

Channel B Results

COMPONENT	RET TIME	AREA	AVG RF	CONC (ug/L)
BENZENE	3.367	0	0.00000	0.0000
a,a,a TFT	4.883	0	0.00000	0.0000
TOLUENE	6.700	0	0.00000	0.0000
ETHYLBENZENE	10.480	0	0.00000	0.0000
M & P XYLENE	10.833	0	0.00000	0.0000
O XYLENE	11.900	0	0.00000	0.0000
BFB	13.400	0	0.00000	0.0000
Totals :		0		0.0000



PHASE II

RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1
Well # N/A
Page 1 of 1

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

Project Name EPNG PITS
Project Number 14509 Phase 6000 77
Project Location Pump Canyon

Elevation
Borehole Location Johnston Federal 1A
GWL Depth N/A
Logged By S. Pope
Drilled By M DONOHUE
Date/Time Started 0800 6/13/95
Date/Time Completed 0900 6/13/95

Well Logged By ST Pope
Personnel On-Site J. O'Kief
Contractors On-Site N/A
Client Personnel On-Site N/A

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	STP MS	Drilling Conditions & Blow Counts
0				Brown Sandy fill						
5										
10	1	10 12	95 11	Brown-Gray Silty Sand, fine grained Sand, Very dense, Cemented Slightly, Moist.		SM	0	0	0	0840 Head Space 12ppm
15	2	15 17	55 0 0	SAA			0	0	0	Not enough for ogt Headspace. Bagged And ICE Dpending Head space above Will collect for analysis
20				TOB - 17						
25										
30										
35										
40										

Comments: Auger Remove, Hole Grouted to Surface

Geologist Signature Scott T. Pope

El Paso Natural Gas Company

Phase II

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	STP 1	946895
MTR CODE | SITE NAME:	89638	N/A
SAMPLE DATE | TIME (Hrs):	6-13-95	0845
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	6-15-95	6-15-95
DATE OF BTEX EXT. | ANAL.:	6-14-95	6-16-95
TYPE | DESCRIPTION:	VG	Brown sand & clay

REMARKS: _____

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)	161	MG/KG			2.06	28
HEADSPACE PID	12	PPM				
PERCENT SOLIDS	92.6	%				

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

The Surrogate Recovery was at 96 % for this sample All QA/QC was acceptable.

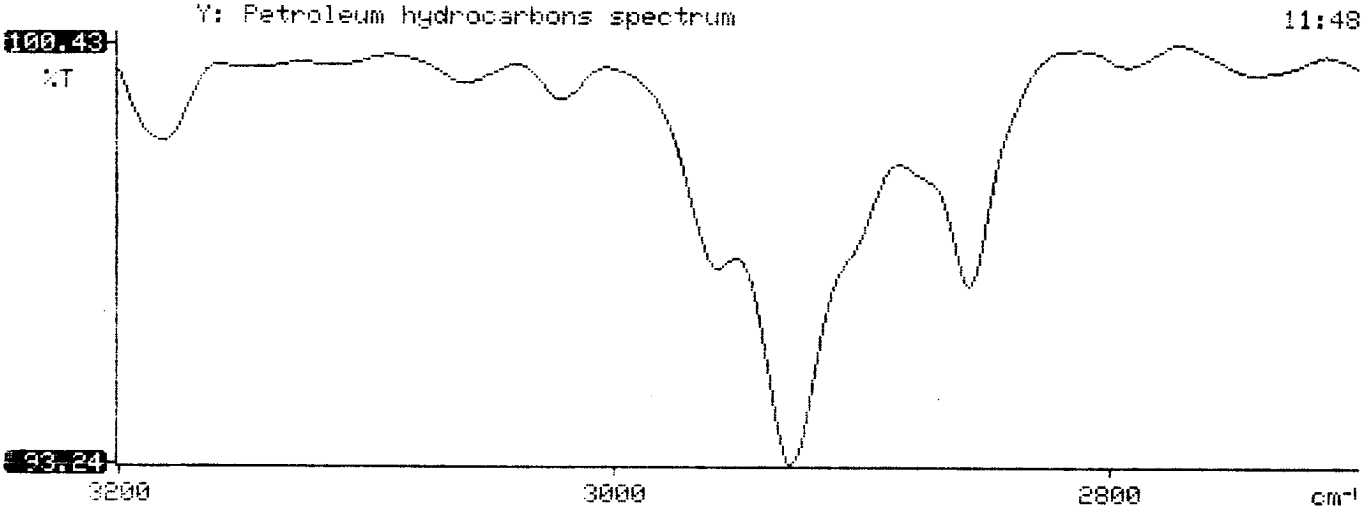
Narrative:

ATI results attached for BTEX and modified 8015

DF = Dilution Factor Used

Approved By: _____ Date: 6/28/95

****
*
* Test Method for
* Oil and Grease and Petroleum Hydrocarbons
* in Water and Soil
*
* Perkin-Elmer Model 1600 FT-IR
* Analysis Report
****
*
95/06/15 11:47
*
* Sample identification
946895
*
* Initial mass of sample, g
2.060
*
* Volume of sample after extraction, ml
28.000
*
* Petroleum hydrocarbons, ppm
160.845
* Net absorbance of hydrocarbons (2930 cm-1)
0.030
*
*
*



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 506376

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/PHASE II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	946894	NON-AQ	06/13/95	06/16/95	06/16/95	1
05	946895	NON-AQ	06/13/95	06/16/95	06/16/95	1
06	946896	NON-AQ	06/13/95	06/16/95	06/16/95	1

PARAMETER	UNITS	04	05	06
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 (%)		101	96	99

Analytical **Technologies,** Inc.

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

ATI I.D. 506376

June 21, 1995

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

Project Name/Number: PIT CLOSURE/PHASE II 24324

Attention: John Lambdin

On **06/16/95**, 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.

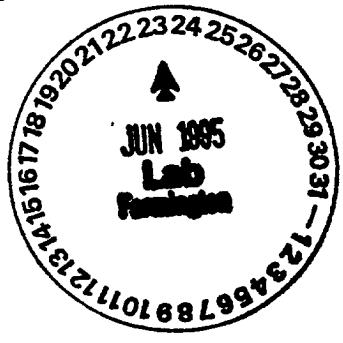
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 506376

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/PHASE II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
05	946895	NON-AQ	06/13/95	06/16/95	06/19/95	1
06	946896	NON-AQ	06/13/95	06/16/95	06/19/95	1
07	946897	NON-AQ	06/13/95	06/16/95	06/19/95	1

PARAMETER	UNITS	05	06	07
FUEL HYDROCARBONS	MG/KG	43	46	180
HYDROCARBON RANGE		C20-C36	C20-C36	C6-C14
HYDROCARBONS QUANTITATED USING		DIESEL	DIESEL	GASOLINE
FUEL HYDROCARBONS	MG/KG	-	-	24
HYDROCARBON RANGE		-	-	C20-C36
HYDROCARBONS QUANTITATED USING		-	-	DIESEL
SURROGATE:				
O-TERPHENYL (%)		101	95	92

Natural Gas Company

Plazett

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	STP 2	9468966
MTR CODE | SITE NAME:	89638	N/A
SAMPLE DATE | TIME (Hrs):	6-13-95	0845
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	6-15-95	6-15-95
DATE OF BTEX EXT. | ANAL.:	6-16-95	6-16-95
TYPE | DESCRIPTION:	D	Brown Sand & Clay

REMARKS: _____

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)	104	MG/KG			2.03	28
HEADSPACE PID	12	PPM				
PERCENT SOLIDS	92.6	%				

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

The Surrogate Recovery was at 99 % for this sample All QA/QC was acceptable.

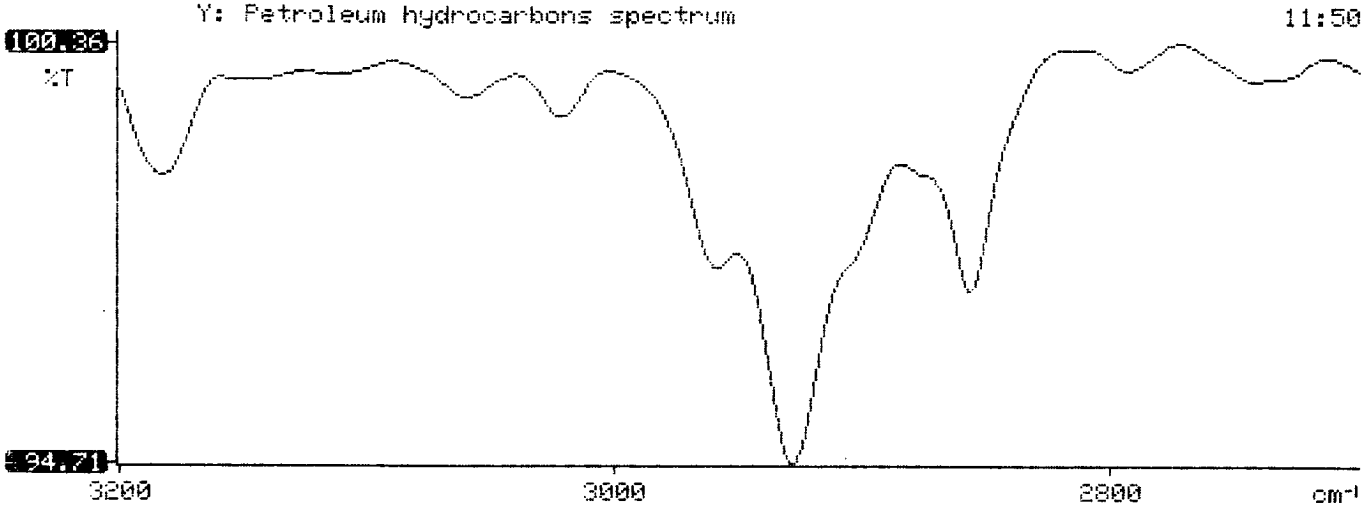
Narrative:

ATI Results attached for BTEX and modified 8015

DF = Dilution Factor Used

Approved By: _____ Date: 6/28/95

```
**********************************************************
*                    Test Method for                     *
*      Oil and Grease and Petroleum Hydrocarbons         *
*                  in Water and Soil                     *
*                                                        *
*            Perkin-Elmer Model 1600 FT-IR               *
*                  Analysis Report                       *
**********************************************************
*
 95/06/15  11:50
*
*  Sample identification
 946896
*
*  Initial mass of sample, g
 2.030
*
*  Volume of sample after extraction, ml
 28.000
*
*  Petroleum hydrocarbons, ppm
 103.648
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.023
*
*
*
```



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 506376

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/PHASE II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	946894	NON-AQ	06/13/95	06/16/95	06/16/95	1
05	946895	NON-AQ	06/13/95	06/16/95	06/16/95	1
06	946896	NON-AQ	06/13/95	06/16/95	06/16/95	1

PARAMETER	UNITS	04	05	06
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 (%)		101	96	99

Analytical Technologies, Inc.

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

ATI I.D. **506376**

June 21, 1995

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

Project Name/Number: PIT CLOSURE/PHASE II 24324

Attention: John Lambdin

On **06/16/95**, 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.

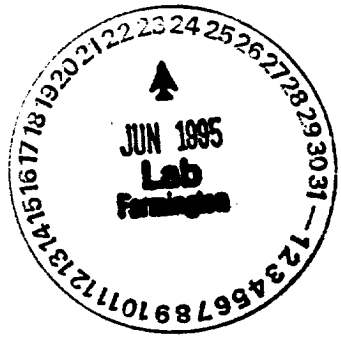
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 506376

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/PHASE II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
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HYDROCARBONS QUANTITATED USING		DIESEL	DIESEL	GASOLINE
FUEL HYDROCARBONS	MG/KG	-	-	24
HYDROCARBON RANGE		-	-	C20-C36
HYDROCARBONS QUANTITATED USING		-	-	DIESEL
SURROGATE:				
O-TERPHENYL (%)		101	95	92