Jennifer Sanchez
DEPUTY OIL & GAS INSPECTOR

DEC 21 '99

EL PASO FIELD SERVICES
PRODUCTION PIT CLOSURE

DECEIVED
JUL
OIL CON. DIV.

CHARLEY PAH #1
Meter/Line ID - 70629

SITE DETAILS

Legals - Twn: 27 **Rng:** 09 **Sec:** 12 **Unit:** F
NMOCD Hazard Ranking: 40 **Land Type:** 3 - Navajo
Operator: TEXACO E&P INC **Pit Closure Date:** 08/17/94

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

9

GENERAL

Meter: 70629 Location: Charley PAH #1
Operator #: 0263 Operator Name: Texaco P/L District: Ballard
Coordinates: Letter: E Section 12 Township: 27 Range: 9
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: ___ Line Drip: ___ Other: _____
Site Assessment Date: 6-13-94 Area: 11 Run: 42

SITE ASSESSMENT

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

Land Type:
BLM ☐ (1)
State ☐ (2)
Fee ☐ (3)
Indian Navajo Agency

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 Blanco 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

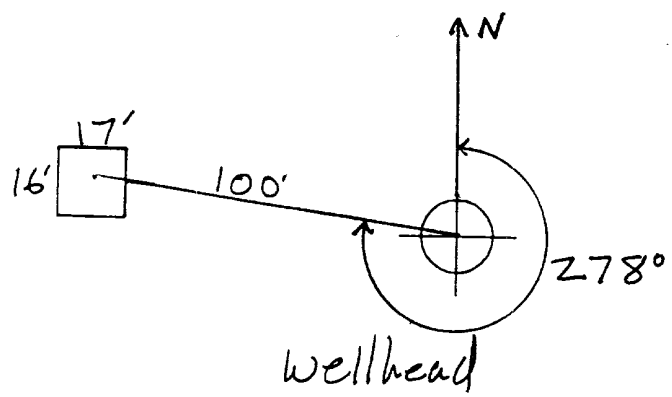
Remarks : one pit - dry
Inside V.Z. on Redline & Topo
Dig & Haul

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 278 Footage from Wellhead 100

b) Length : 17 Width : 16 Depth : 4



REMARKS

Remarks : Photos - 1535

Completed By:

Signature

6-13-94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 70629 Location: Charley PAH #1

Coordinates: Letter: F Section 12 Township: 27 Range: 9

Or Latitude _____ Longitude _____

Date Started : 8-17-94 Run: 11 42

FIELD OBSERVATIONS

Sample Number(s): KP191 _____ _____ _____

Sample Depth: 12' Feet

Final PID Reading 242 PID Reading Depth 12' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☒ Approx. Cubic Yards 60

Onsite Bioremediation ☐

Backfill Pit Without Excavation ☐

Soil Disposition:

Envirotech ☒ ☐ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 8-17-94 Pit Closed By: B.E.J.

REMARKS

Remarks : Some LINE MARKERS ON LOCATION. Started Remediating TO 12' Soil Turned GRAY LOOKING LIKE shell with A Smell. At 12' Soil Light gray with A Smell.

Signature of Specialist: Kelly Padilla

(SP3191) 03/16/94

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP191	945954
MTR CODE | SITE NAME:	70629	Charley Pah #1
SAMPLE DATE | TIME (Hrs):	8/17/94	1415
PROJECT:	PHASE I	
DATE OF TPH EXT. | ANAL.:	8/18/94	8/18/94
DATE OF BTEX EXT. | ANAL.:	8/22/94	8/23/94
TYPE | DESCRIPTION:	VC	Dark brown sand/clay

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.25	MG/KG	10	D		
TOLUENE	4.00	MG/KG	10	D		
ETHYL BENZENE	0.42	MG/KG	10	D		
TOTAL XYLENES	6.70	MG/KG	10	D		
TOTAL BTEX	11.1	MG/KG				
TPH (418.1)	560	MG/KG			2.12	28
HEADSPACE PID	242	PPM				
PERCENT SOLIDS	91.1	%				

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

The Surrogate Recovery was at 85.0 for this sample All QA/QC was acceptable.
The "D" qualifier indicates reported result for this analyte is calculated basd on a secondary dilution factor.

Narrative:

HTI Results attached.

DF = Dilution Factor Used

Approved By: _____ INGVZPIT.XLS Date: 9/2/94

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:	KP 191	945954
MTR CODE | SITE NAME:	70629	N/A
SAMPLE DATE | TIME (Hrs):	8/17/94	1415
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	8/18/94	8/18/94
DATE OF BTEX EXT. | ANAL.:	8/22/94 (ext 8/18/94)	8/23/94
TYPE | DESCRIPTION:	VG VC	DK Brown Sand / Clay

REMARKS: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.25	MG/KG	10			
TOLUENE	4.0	MG/KG	10			
ETHYL BENZENE	0.42	MG/KG	10			
TOTAL XYLENES	6.7	MG/KG	10			
TOTAL BTEX	11.4	MG/KG				
TPH (418.1)	560	MG/KG			2.12	28
HEADSPACE PID	242	PPM				
PERCENT SOLIDS	~~100~~ 91.1	%				

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

The Surrogate Recovery was at 85 % for this sample All QA/QC was acceptable.

Narrative: ATI results attached.

DF = Dilution Factor Used

Approved By: _____ Date: 9/2/94

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

Perkin-Elmer Model 1600 FT-IR
Analysis Report

94/08/19 13:54

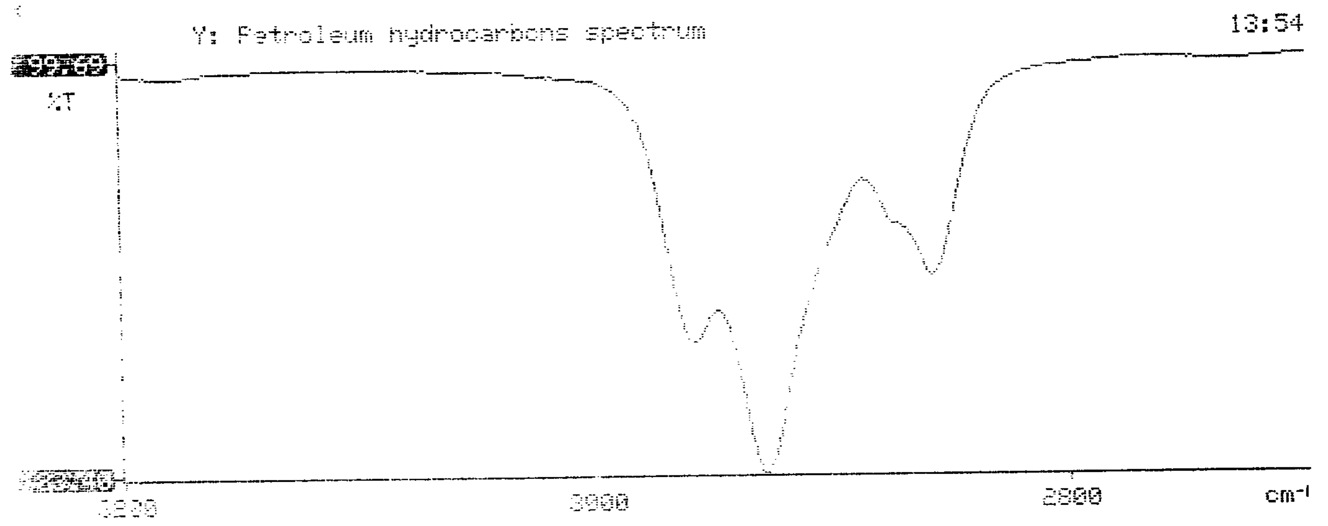
Sample Identification
745954

Initial mass of sample, g
0.120

Volume of sample after extraction, ml
38.000

Petroleum hydrocarbons, ppm
159.818

Net absorbance of hydrocarbons (2930 cm-1)
0.076



Analytical Technologies, Inc.

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

ATI I.D. **408380**

August 24, 1994

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On **08/19/94**, 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

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : El PASO NATURAL GAS CO. ATI I.D.: 408380
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	945953	NON-AQ	08/17/94	08/22/94	08/22/94	20
08	945954	NON-AQ	08/17/94	08/22/94	08/23/94	10
09	945955	NON-AQ	08/17/94	08/22/94	08/23/94	10

PARAMETER	UNITS	07	08	09
BENZENE	MG/KG	<0.5	<0.25	<0.25
TOLUENE	MG/KG	31	4.0	4.1
ETHYLBENZENE	MG/KG	3.9	0.42	0.54
TOTAL XYLENES	MG/KG	63	6.7	18
SURROGATE: BROMOFLUOROBENZENE (%)		106	85	149*

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1
Well #
Page 1 of 2

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

Project Name EPFS GW PITS
Project Number 17520 Phase 6001.77
Project Location CHARLEY DAH #1 - 706.29

Elevation
Borehole Location 27 T 9-R 12 S F - Ltr
GWL Depth N/A
Logged By
Drilled By K. PADILLA
Date/Time Started 2/10/97 - 1100
Date/Time Completed 2/10/97 - 1335

Well Logged By D. CESARK
Personnel On-Site C. MAIZ, C. CHANCE, D. CHA
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/HS	Drilling Conditions & Blow Counts
0										
5				BACKFILL TO 12'						
10										
15	1	15-17	12	SILTY CLAY, HARD, DRY, LIGHT GRAY, STRONG HC ODOR.	ML				449/786	1120
20	2	20-22	12	(SAME AS ABOVE)					288/793	1130
25	3	25-27	8	INORGANIC CLAY w/ RED-BROWN VARVES, DARK GRAY, STRONG HC ODOR. HARD, DRY.	CL				405/617	1140
30	4	30-32	8	INORGANIC SILT, SILTY CLAYEY FINE SANDS, LIGHT GRAY, HARD, DRY, MOD. HC ODOR	ML				9/298	1152
35	5	35-36	6	CLAYEY SAND, LT GRAY, HARD, DRY, SLT HC ODOR.	SC				13/44	1231
40	6	36-37	12	TD = 37'					62/190	1250

Comments: AUGER REFUSAL @ 36' BGS. CMC 300 + CMC 301 (DUPLICATE) COLLECTED FROM 36'-37' & SUBMITTED TO LAB FOR BTEX + TPH ANALYSES. BORING GROUTED TO SURFACE. NO GW ENCOUNTERED. (ALSO SUBMITTED FIELD BLK - CMC 302

Geologist Signature

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC300	970080
MTR CODE | SITE NAME:	70629	Charley Pah #1
SAMPLE DATE | TIME (Hrs):	2/10/97	1250
PROJECT:	Phase II Drilling 36-37'	
DATE OF TPH EXT. | ANAL.:	2/13/97	2/13/97
DATE OF BTEX EXT. | ANAL.:	2/14/97	2/14/97
TYPE | DESCRIPTION:	VG	Gray lumpy sand

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)	<10	MG/KG			2.34	28
HEADSPACE PID	190	PPM				
PERCENT SOLIDS	90.7	%				

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

The Surrogate Recovery was at 87.7 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: John Fowler Date: 2-25-97

EL PASO FIELD SERVICES LABORATORY

EPA METHOD 8020 - BTEX

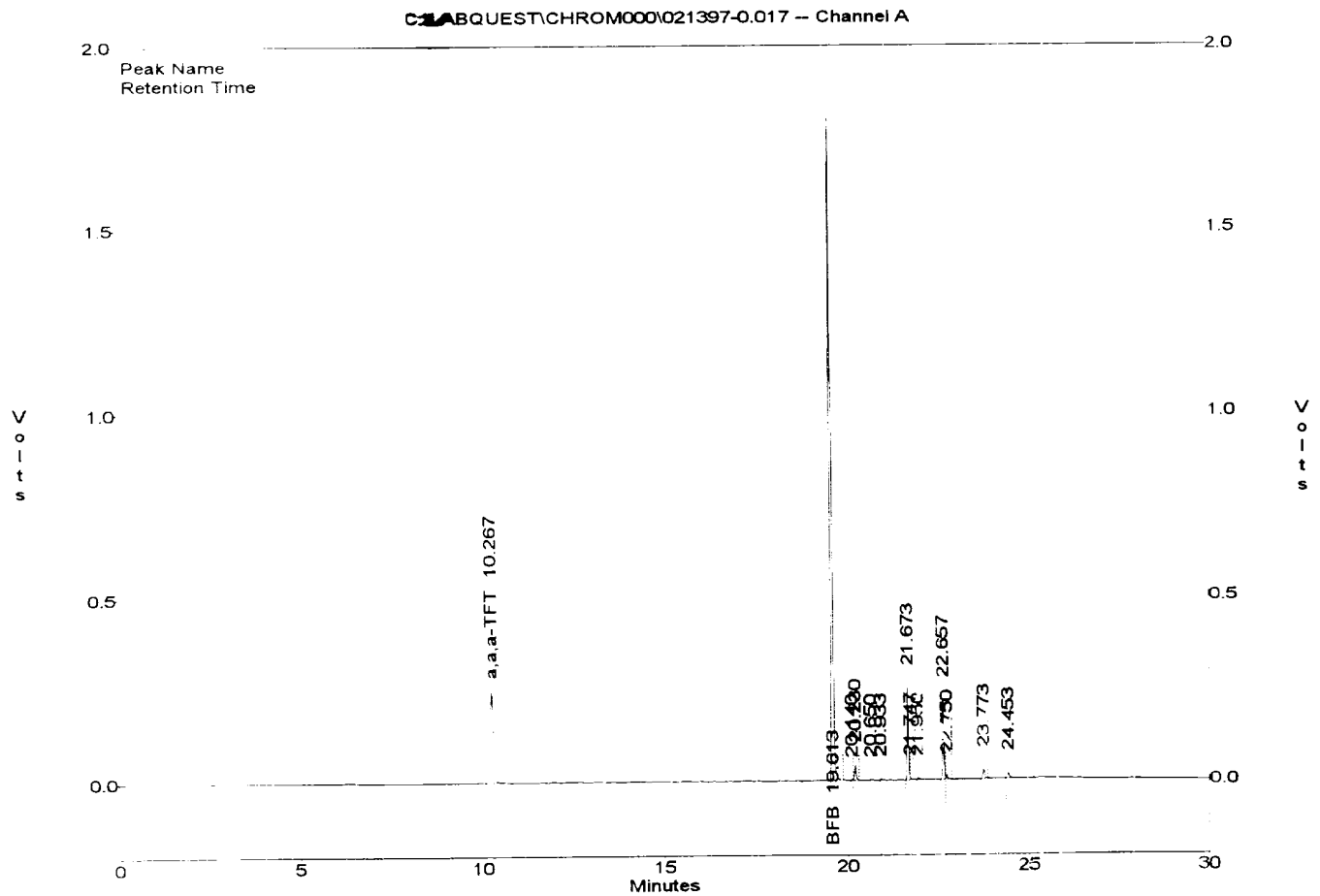
File : C:\LABQUEST\CHROM000\021397-0.017
Method : C:\LABQUEST\METHODS\0-021297.MET
Sample ID : 970080.5.04G,50U
Acquired : Feb 14. 1997 03:07:59
Printed : Feb 14. 1997 03:38:27
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	8.050	0	0.0000
a,a,a-TFT	10.267	1620746	85.8815
TOLUENE	12.567	0	0.0000
ETHYLBENZENE	16.790	0	0.0000
M,P-XYLENES	17.170	0	0.0000
O-XYLENE	18.310	0	0.0000
BFB	19.613	6404753	87.6777

Channel A Group Results

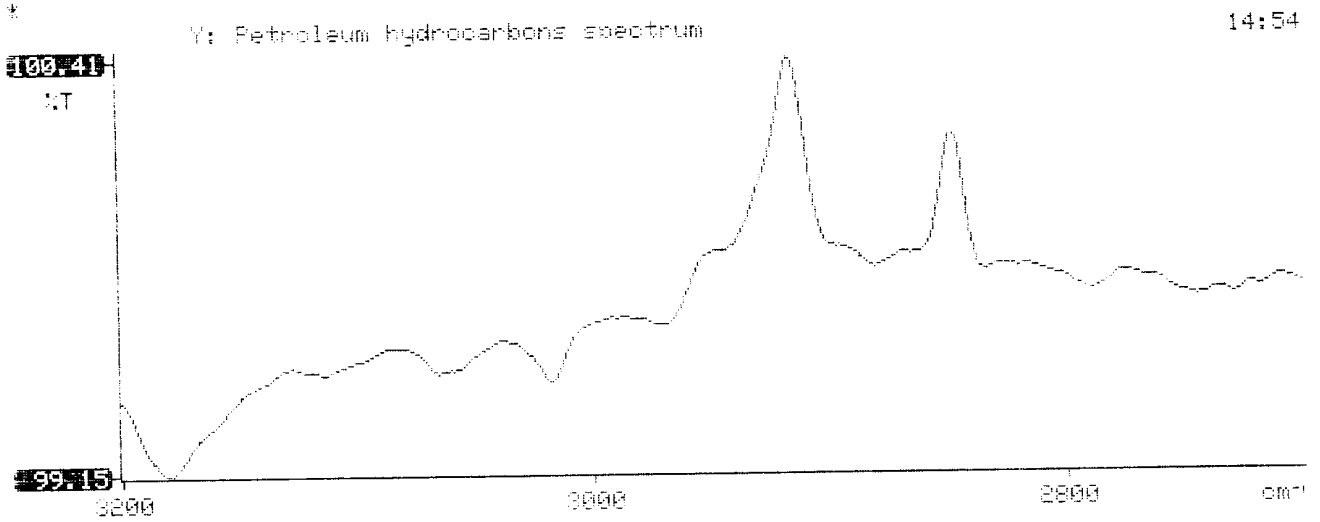
COMPONENT	RET TIME	AREA	CONC (ug/L)
TOTAL XYLENES		0	0.0000



BTEX SOIL SAMPLE WORKSHEET

File	: 970080	Date Printed	: 2/18/97		
Soil Mass (g)	: 5.04	Multiplier (L/g)	: 0.00099		
Extraction vol. (mL)	: 10	CAL FACTOR (Analytical):	200		
Shot Volume (uL)	: 50	CAL FACTOR (Report):	0.19841		
		DILUTION FACTOR:	1	Det. Limit	
Benzene (ug/L)	: 0.00	Benzene (mg/Kg):	**0.000**	0.496	
Toluene (ug/L)	: 0.00	Toluene (mg/Kg):	**0.000**	0.496	
Ethylbenzene (ug/L)	: 0.00	Ethylbenzene (mg/Kg):	**0.000**	0.496	
p & m-xylene (ug/L)	: 0.00	p & m-xylene (mg/Kg):	0.000	0.992	
o-xylene (ug/L)	: 0.00	o-xylene (mg/Kg):	0.000	0.496	
		Total xylenes (mg/Kg):	**0.000**	1.488	
		Total BTEX (mg/Kg):	**0.000**		

```
**********************************************************
*                    Test Method for                     *
*      Oil and Grease and Petroleum Hydrocarbons         *
*                    in Water and Soil                   *
*                                                        *
*              Perkin-Elmer Model 1600 FT-IR             *
*                    Analysis Report                     *
**********************************************************
*
 97/02/13  14:54
*
*  Sample identification
 970080
*
*  Initial mass of sample, g
 2.340
*
*  Volume of sample after extraction, ml
 28.000
*
*  Petroleum hydrocarbons, ppm
 -9.315
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.155
*
*
*
```



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC301	970081
MTR CODE | SITE NAME:	70629	Charley Pah #1
SAMPLE DATE | TIME (Hrs):	2/10/97	1250
PROJECT:	Phase II Drilling 36-37'	
DATE OF TPH EXT. | ANAL.:	2/13/97	2/13/97
DATE OF BTEX EXT. | ANAL.:	2/14/97	2/14/97
TYPE | DESCRIPTION:	Duplicate	Gray lumpy sand

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)	<10	MG/KG			2.24	28
HEADSPACE PID	190	PPM				
PERCENT SOLIDS	91.3	%				

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

The Surrogate Recovery was at 95.1 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: John Labrie Date: 2-25-97

EL PASO FIELD SERVICES LABORATORY
EPA METHOD 8020 - BTEX

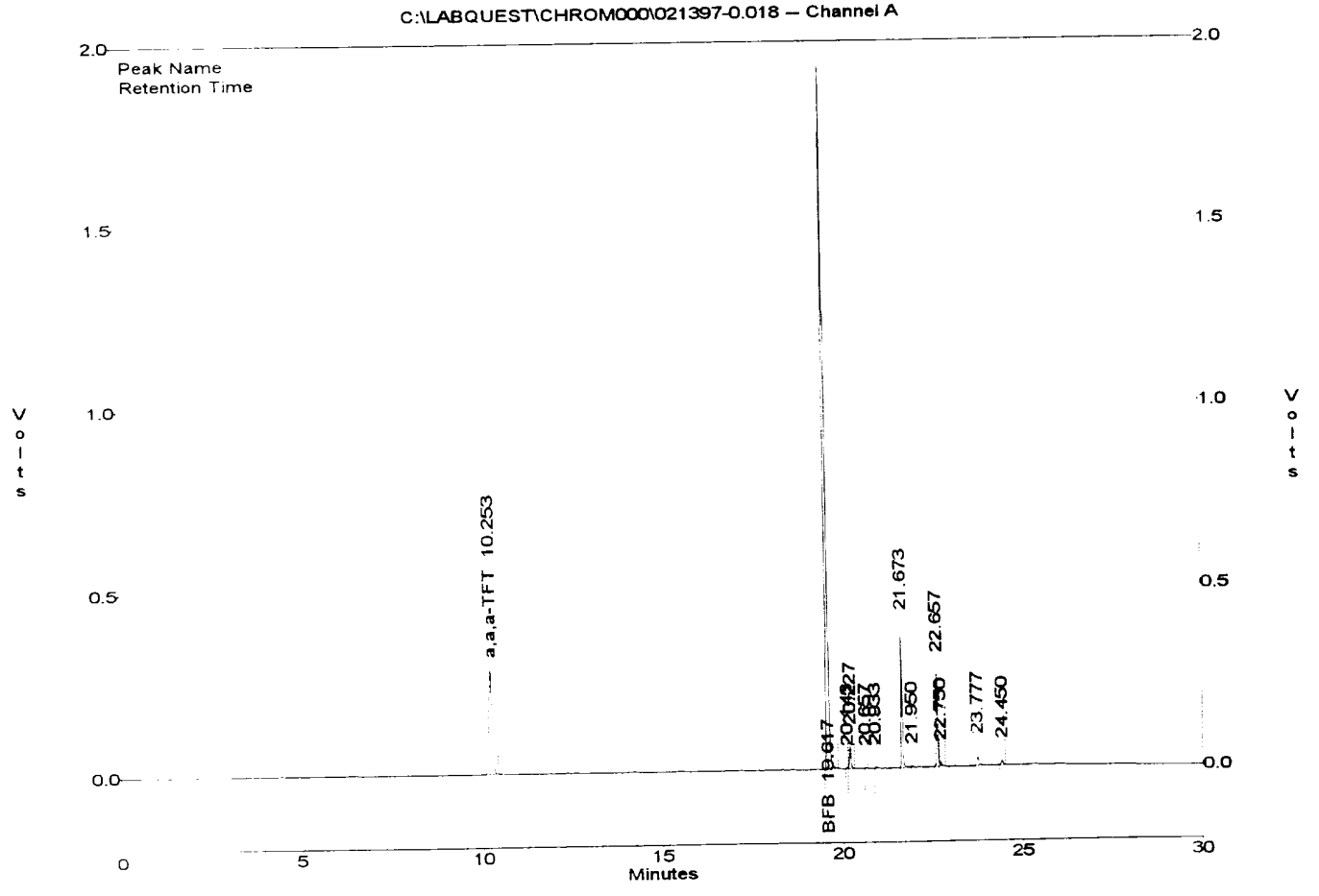
File : C:\LABQUEST\CHROM000\021397-0.018
Method : C:\LABQUEST\METHODS\0-021297.MET
Sample ID : 970081.5.13G,50U
Acquired : Feb 14. 1997 03:49:48
Printed : Feb 14. 1997 04:20:12
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	8.050	0	0.0000
a,a,a-TFT	10.253	1847441	97.8938
TOLUENE	12.567	0	0.0000
ETHYLBENZENE	16.790	0	0.0000
M,P-XYLENES	17.170	0	0.0000
O-XYLENE	18.310	0	0.0000
BFB	19.617	6945562	95.0811

Channel A Group Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
TOTAL XYLENES		0	0.0000



BTEX SOIL SAMPLE WORKSHEET

File	970081	Date Printed	2/18/97		
Soil Mass (g)	5.13	Multiplier (L/g)	0.00097		
Extraction vol. (mL)	10	CAL FACTOR (Analytical):	200		
Shot Volume (uL)	50	CAL FACTOR (Report):	0.19493		
		DILUTION FACTOR:	1	Det. Limit	
Benzene (ug/L)	0.00	Benzene (mg/Kg):	**0.000**	0.487	
Toluene (ug/L)	0.00	Toluene (mg/Kg):	**0.000**	0.487	
Ethylbenzene (ug/L)	0.00	Ethylbenzene (mg/Kg):	**0.000**	0.487	
p & m-xylene (ug/L)	0.00	p & m-xylene (mg/Kg):	0.000	0.975	
o-xylene (ug/L)	0.00	o-xylene (mg/Kg):	0.000	0.487	
		Total xylenes (mg/Kg):	**0.000**	1.462	
		Total BTEX (mg/Kg):	**0.000**		

```
**************************************************
*                  Test Method for               *
*     Oil and Grease and Petroleum Hydrocarbons  *
*                  in Water and Soil             *
*                                                *
*          Perkin-Elmer Model 1600 FT-IR         *
*                  Analysis Report               *
**************************************************
*
 97/02/13  14:56
*
*  Sample identification
 970081
*
*  Initial mass of sample, g
 2.240
*
*  Volume of sample after extraction, ml
 28.000
*
*  Petroleum hydrocarbons, ppm
 -9.731
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.155
*
*
*
```