

**El PASO FIELD SERVICES**  
**DEPUTY PRODUCTION PIT CLOSURE**

DEC 21 1998

**MC GEE #1E**  
**Meter/Line ID - 94501**

**RECEIVED**  
JUL 2 1998

Oil Control Unit

*Approved*

**SITE DETAILS**

Legals - Twn: 30... Rng: 13  
NMOCD Hazard Ranking: 20  
Operator: MERIDIAN OIL INC - UNICON

Sec: 27 Unit: F  
Land Type: 4 - Fee

Pit Closure Date: 04/19/94

**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:

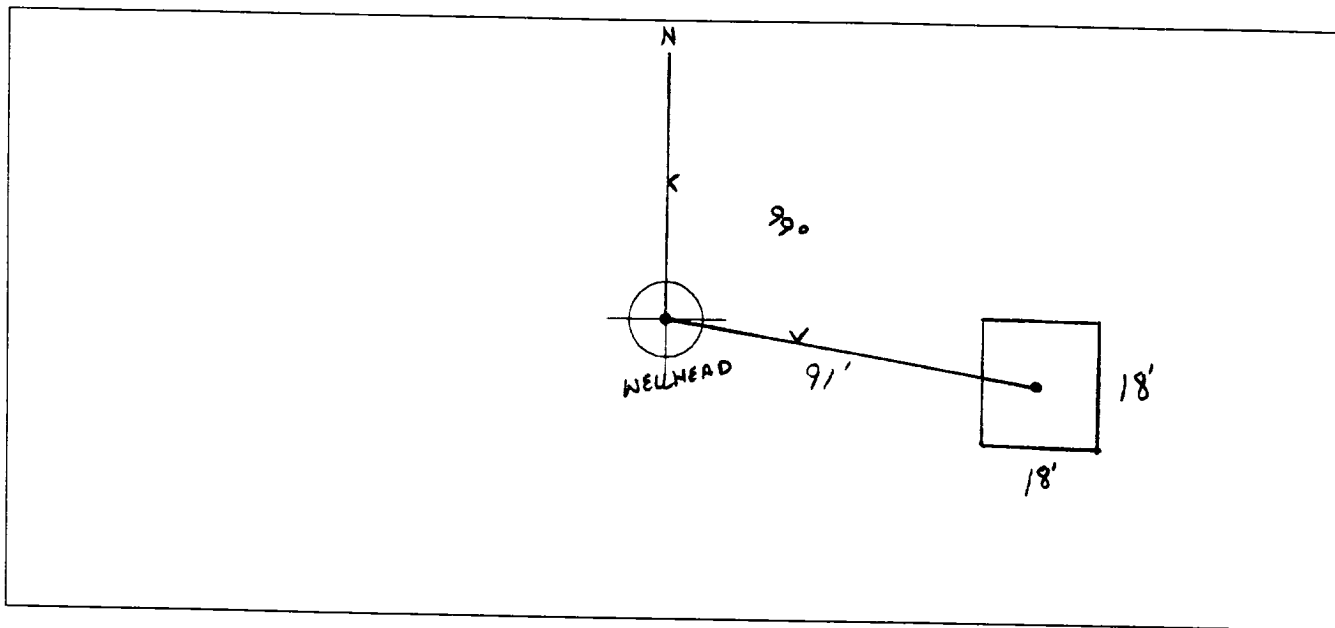
- Discharge to the pit has not occurred in over five years and the pit has been closed for over three years.
- The bulk of the impacted soil was removed during the initial excavation.
- The excavation was backfilled with clean soil and graded to divert precipitation away from the excavation area.
- All 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

GENERAL	Meter: <u>94501</u> Location: <u>McGEE #1E</u> Operator #: <u>0128</u> Operator Name: <u>MERIDIAN</u> P/L District: <u>KUTZ</u> Coordinates: Letter: <u>F</u> Section <u>27</u> Township: <u>30</u> Range: <u>13</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator <u>X</u> Location Drip: _____ Line Drip: _____ Other: _____ Site Visit Date: <u>3.24.94</u> Run: <u>02</u> <u>31</u>	
	<b>NMOCD Zone:</b> Inside <input type="checkbox"/> Land Type: BLM <input type="checkbox"/> (From NMOCD Vulnerable <input type="checkbox"/> State <input type="checkbox"/> Maps) Zone <input checked="" type="checkbox"/> Fee <input checked="" type="checkbox"/> Outside <input type="checkbox"/> Indian _____	
SITE ASSESSMENT	<b>Depth to Groundwater</b> Less Than 50 Feet (20 points) <input type="checkbox"/> 50 Ft to 99 Ft (10 points) <input type="checkbox"/> Greater Than 100 Ft (0 points) <input checked="" type="checkbox"/>	
	<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"/> YES (20 points) <input checked="" type="checkbox"/> NO (0 points)	
REMARKS	<b>Horizontal Distance to Surface Water Body</b> Less Than 200 Ft (20 points) <input type="checkbox"/> 200 Ft to 1000 Ft (10 points) <input type="checkbox"/> Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/> Name of Surface Water Body _____ (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)	
	<b>TOTAL HAZARD RANKING SCORE:</b> <u>0</u> POINTS	
Remarks : <u>TWO PITS ON LOCATION. WILL CLOSE ONLY ONE.</u> <u>DEHY HAS BEEN DISCONNECTED BUT NOT REMOVED. PIT IS DRY.</u>		

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 99° Footage to Wellhead 91'  
 b) Degrees from North \_\_\_\_\_ Footage to Dogleg \_\_\_\_\_  
 Dogleg Name \_\_\_\_\_  
 c) Length : 18' Width : 18' Depth : 3'



### Remarks :

STARTED TAKING PICTURES AT 11:18 A.M.  
END DUMP

Completed By:

Robert Thompson  
 Signature

3.24.24  
 Date

4-22-94  
RT

## FIELD PIT SITE ASSESSMENT FORM

GENERAL	
SITE ASSESSMENT	<p>Meter: <u>94501</u> Location: <u>McGEE #1E</u> Operator #: _____ Operator Name: _____ P/L District: _____ Coordinates: Letter: _____ Section: _____ Township: _____ Range: _____ Or Latitude _____ Longitude _____ Pit Type: Dehydrator _____ Location Drip: _____ Line Drip: _____ Other: _____ Site Assessment Date: _____ Area: <u>02</u> Run: <u>31</u></p> <p><b>NMOCD Zone:</b> (From NMOCD Maps) Inside <input type="checkbox"/> (1) Outside <input type="checkbox"/> (2)</p> <p><b>Land Type:</b> BLM <input checked="" type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input type="checkbox"/> (3) Indian _____</p> <p><b>Depth to Groundwater</b> Less Than 50 Feet (20 points) <input type="checkbox"/> (1) 50 Ft to 99 Ft (10 points) <input checked="" 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 type="checkbox"/> (2) NO (0 points)</p> <p><b>Horizontal Distance to Surface Water Body</b> Less Than 200 Ft (20 points) <input type="checkbox"/> (1) 200 Ft to 1000 Ft (10 points) <input checked="" type="checkbox"/> (2) Greater Than 1000 Ft (0 points) <input type="checkbox"/> (3)</p> <p>Name of Surface Water Body <u>FARMINGTON GLADE</u> (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds) 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>20</u> POINTS</p>
REMARKS	<p>Remarks : _____</p> <p>_____</p> <p>_____</p>

# **PHASE I EXCAVATION**

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	<p>Meter: <u>94501</u> Location: <u>Mcgee #1 E</u></p> <p>Coordinates: Letter: <u>F</u> Section <u>27</u> Township: <u>30</u> Range: <u>13</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>4-19-94</u> Area: <u>02</u> Run: <u>31</u></p>
FIELD OBSERVATIONS	<p>Sample Number(s): <u>940830</u> <u>KD7</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>612 PPM</u> PID Reading Depth <u>12'</u> Feet</p> <p>Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth _____ Feet</p>
CLOSURE	<p>Remediation Method :</p> <p>Excavation <input checked="" type="checkbox"/> (1) Approx. Cubic Yards <u>83</u></p> <p>Onsite Bioremediation <input type="checkbox"/> (2)</p> <p>Backfill Pit Without Excavation <input type="checkbox"/> (3)</p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (3) Tierra</p> <p>Other Facility <input type="checkbox"/> (2) Name: _____</p> <p>Pit Closure Date: <u>4-19-94</u> Pit Closed By: <u>BEI</u></p>
REMARKS	<p>Remarks : <u>TOOK Excavation to 12', Contamination throughout</u></p> <p><u>Final PID Reading 612 ppm.</u></p>
	<p>Signature of Specialist: <u>Kenny Dean</u></p>



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil

RE RUN  
BTEX  
0.2g/30ml  
meOH

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD7	940830
MTR CODE   SITE NAME:	94501	N/A
SAMPLE DATE   TIME (Hrs):	4/19/94	1110
SAMPLED BY:	N/A	N/A
DATE OF TPH EXT.   ANAL.:	N/A	N/A
DATE OF BTEX EXT.   ANAL.:	5/3/94	5/17/94
TYPE   DESCRIPTION:	VC	N/A

REMARKS: ReRun BTEX @ 0.2g/30ml meOH

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	6.26	MG/KG				
TOLUENE	79.2	MG/KG				
ETHYL BENZENE	22.5	MG/KG				
TOTAL XYLENES	198	MG/KG				
TOTAL BTEX	306	MG/KG	91429		0.21	30
TPH (418.1)	<del>8170</del> 10,100	MG/KG			0.970	28
HEADSPACE PID	612	PPM				
PERCENT SOLIDS	91.0	%				

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

The Surrogate Recovery was at 87.1 % for this sample All QA/QC was acceptable.  
Narrative:

DF = Dilution Factor Used

Approved By:

*John Latch*

Date:

5/21/94



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD7	940830
MTR CODE   SITE NAME:	94501	N/A
SAMPLE DATE   TIME (Hrs):	4/19/94	1110
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	4-22-94	4-22-94
DATE OF BTEX EXT.   ANAL.:	4/25/94	
TYPE   DESCRIPTION:	VC	Brown Coarse Sand/Clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE		MG/KG				
TOLUENE		MG/KG				
ETHYL BENZENE		MG/KG				
TOTAL XYLENES		MG/KG				
<del>DOUBLE BTEX</del>		MG/KG	0.0351		0.57	20
<del>TPH (418.1)</del>	817E	MG/KG			2.02	28
HEADSPACE PID	612	PPM				
<del>PERCENT SOLIDS</del>	91.0	%				

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

The Surrogate Recovery was at  
Narrative:

% for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_



File : 94083001.D01

MTR 94501

STACY SENDLER

Run : 01

Queue : 5015XTR Set Number : 1

Type : Sample

Path : C:\NOCHROM\

Collection : 03:49:32 Apr 25 1994 Meth(A): BETX C 13:51:33 Apr 25 1994 J

Integration: 03:49:32 Apr 25 1994 Meth(A): BETX E 13:51:33 Apr 25 1994 J

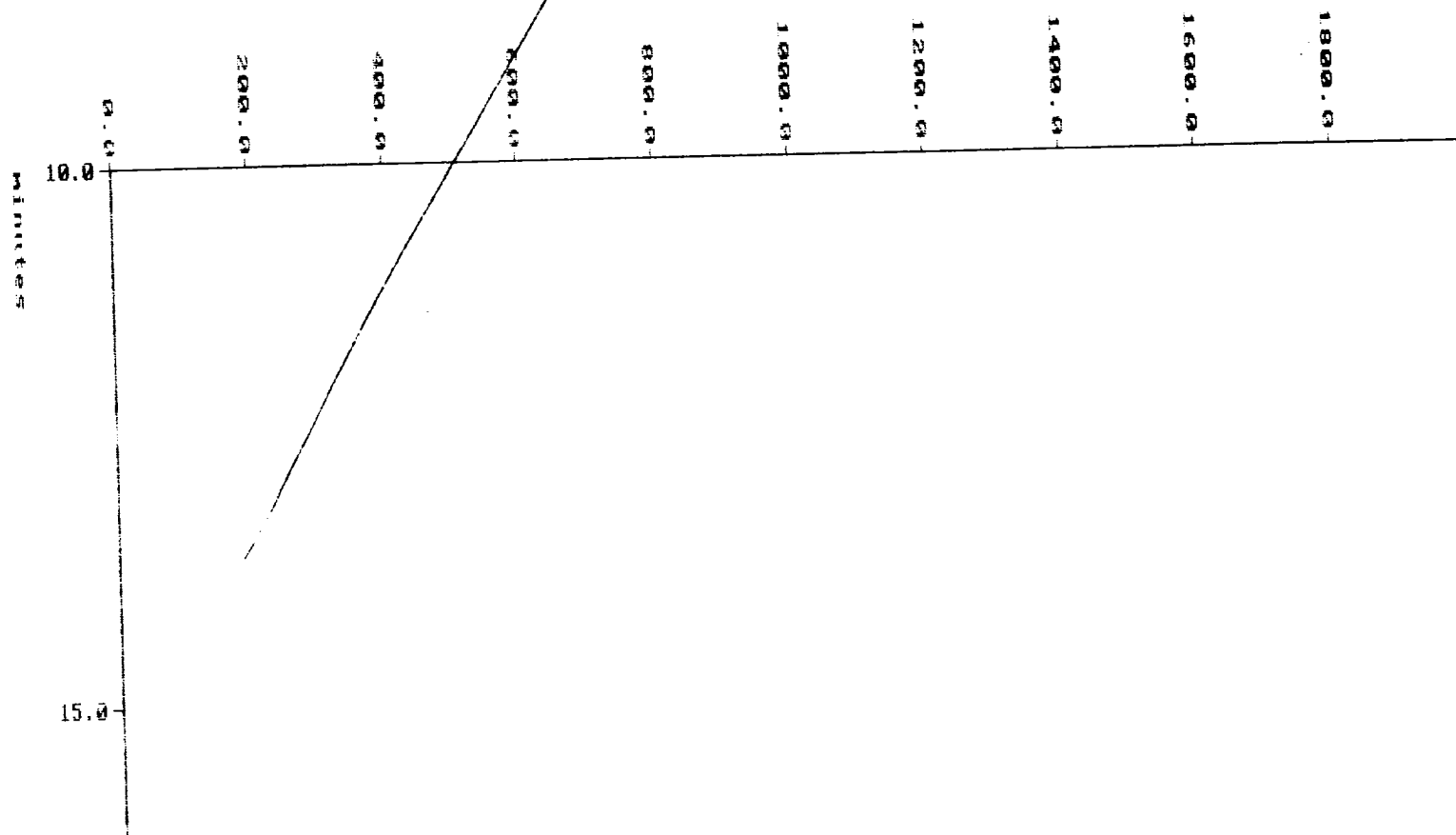
Report : 04:15:39 Apr 26 1994 Meth(A): BETX E 13:51:33 Apr 25 1994 J

Sample Amt : 1.000000e+0 Dilution: 3.510000e-2

EXTERNAL STANDARD ( AREA )

RT	Area	BC	ExpRT	RF	ug/L	Name
			11.677	9.51502e-6		Benzene
			14.090	1.81295e-4		a,a,a TFT
			13.611	7.20270e-6		Toluene
			20.180	6.59961e-6		Ethylbenzene
			20.639	6.27948e-6		m & p-Xylene
20.947	46801	T	20.782	1.77760e-6	0.0029	o-Xylene
21.200	31987	T		0.00000e+0	0.0000	Unknown
21.285	100471	T	21.311	-2.02484e-6	-0.0071	BFB
21.370	92102	T		0.00000e+0	0.0000	Unknown
21.532	115017	T		0.00000e+0	0.0000	Unknown
21.590	111646	T		0.00000e+0	0.0000	Unknown
21.838	144739	T		0.00000e+0	0.0000	Unknown
21.963	158220	T		0.00000e+0	0.0000	Unknown
22.131	200494	T		0.00000e+0	0.0000	Unknown
22.207	114640	T		0.00000e+0	0.0000	Unknown
22.440	95907	T		0.00000e+0	0.0000	Unknown
22.603	104444	T		0.00000e+0	0.0000	Unknown

(94083001.D01) MU



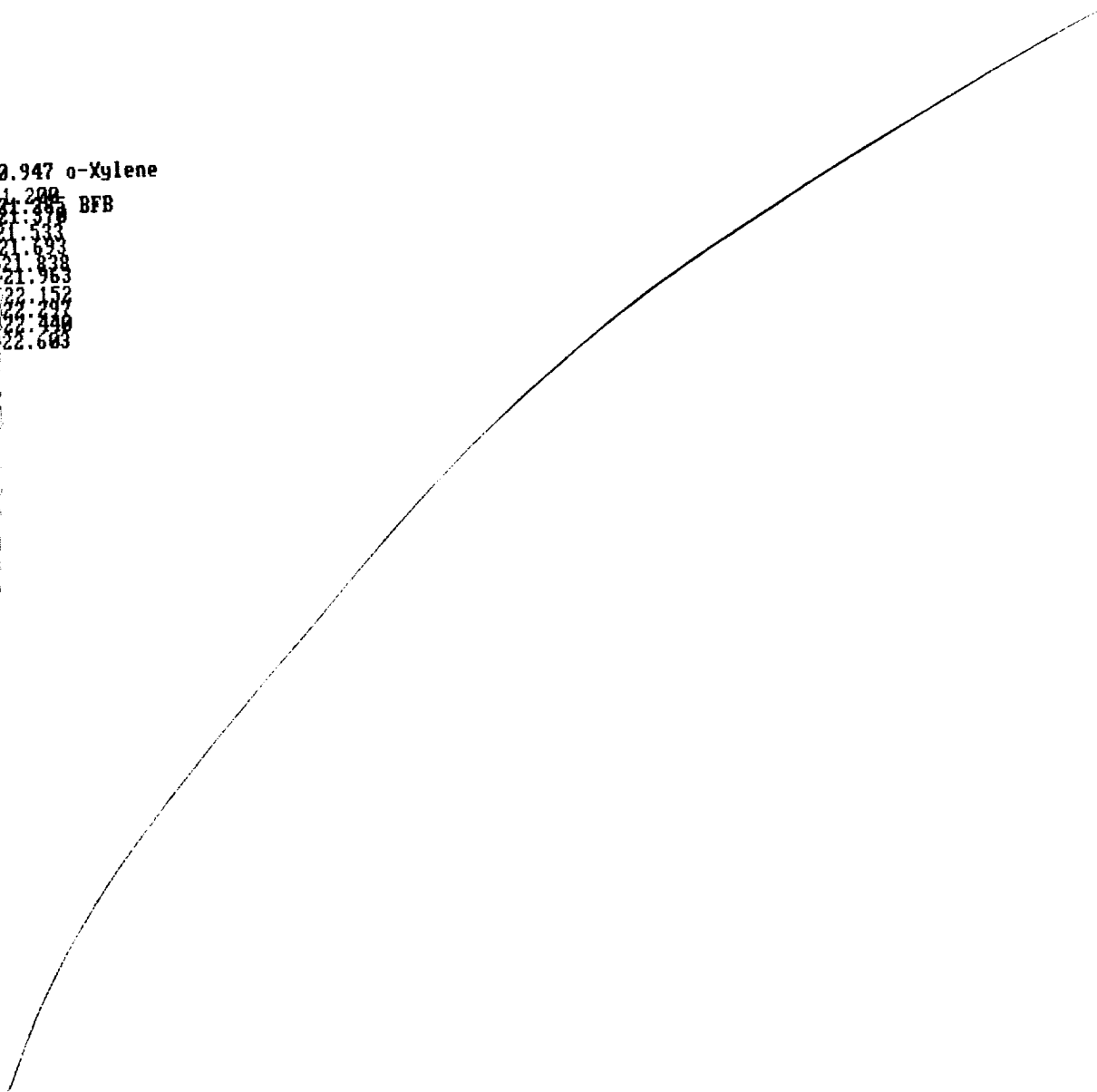
20.0-

20.947 o-Xylene

21.200 BFB

21.378  
21.533  
21.638  
21.838  
21.963  
22.152  
22.257  
22.440  
22.603

25.0-



File : 94083001.D02

NTP 94501

STACY SENDLER

Run : 31

Queue : GC1EXTR Set Number : 1

Type : Sample

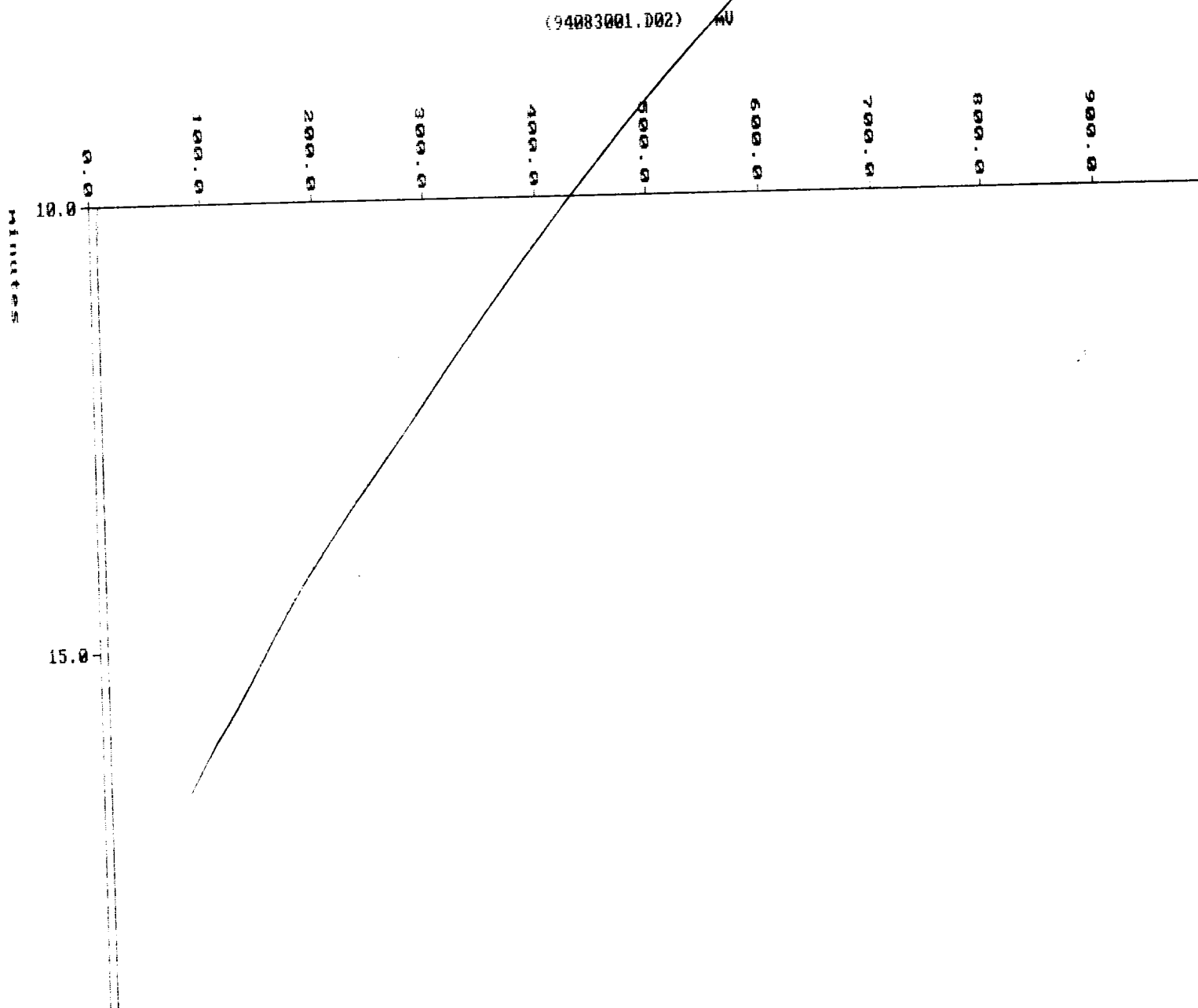
Tech : JACHPROM

Collection : 03:49:32 Apr 26 1994 Meth(B): BETX C 11:29:28 Apr 22 1994 J  
Integration: 03:49:32 Apr 26 1994 Meth(B): BETX C 11:29:28 Apr 22 1994 J  
Report : 04:15:45 Apr 26 1994 Meth(B): BETX C 11:29:28 Apr 22 1994 J

Sample Amt : 1.00000e+0 Dilution: 0.51000e-2

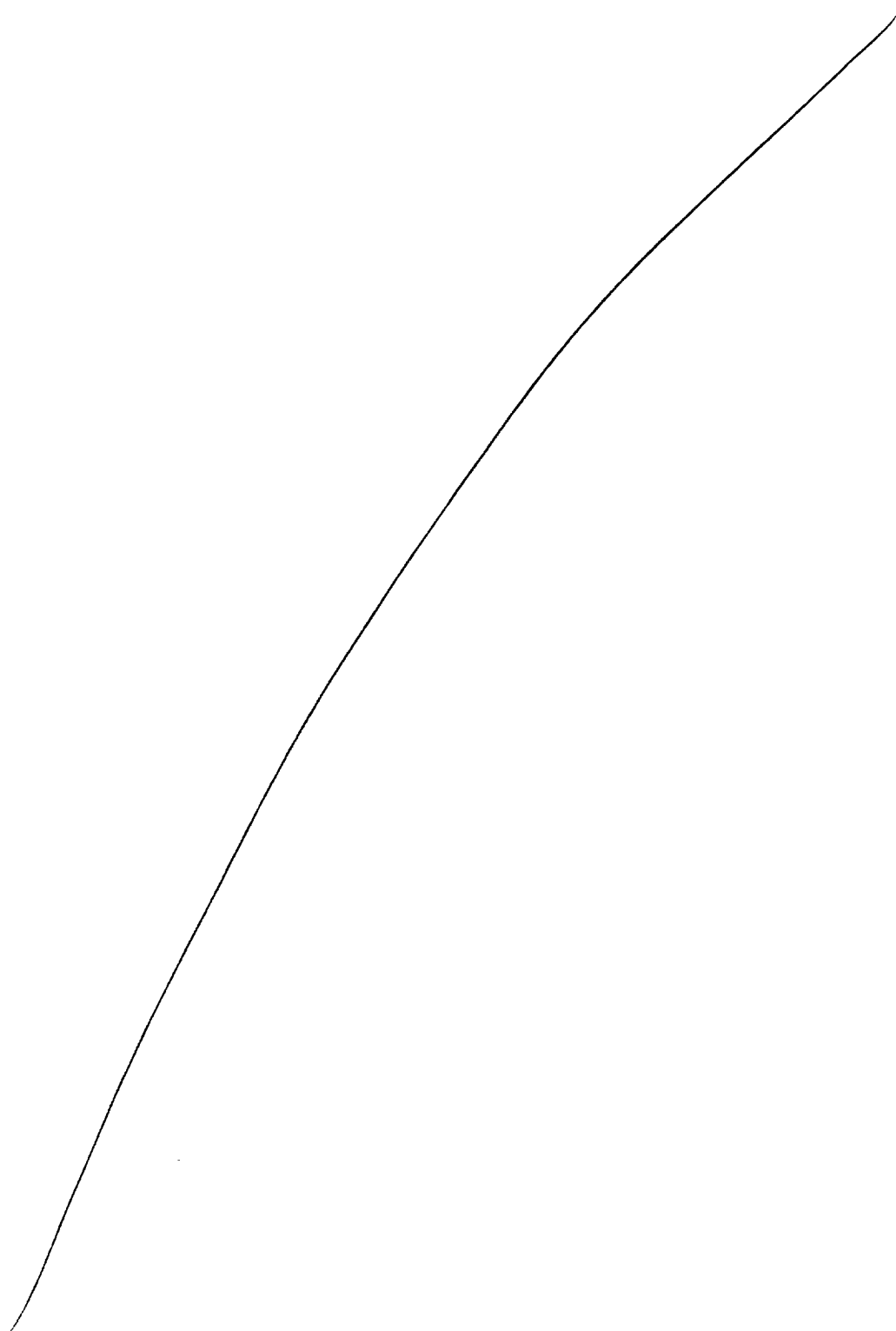
## EXTERNAL STANDARD ( AREA )

RT	Area	BC	ExpRT	RF	ug/L	Name
11.675	2.02301e-4					Benzene
14.070	0.00000e+0					R a,a,a TFT
16.612	1.66289e-4					Toluene
20.166	1.47971e-4					Ethylbenzene
20.345	1.42820e-4					m & p-Xylene
20.794	1.52723e-4					o-Xylene
21.346	9.20595e-6					BFB



20.0

25.0



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

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

04/04/22 13:51

Sample identification

~~940830~~ 940830

Initial mass of sample, g  
0.970

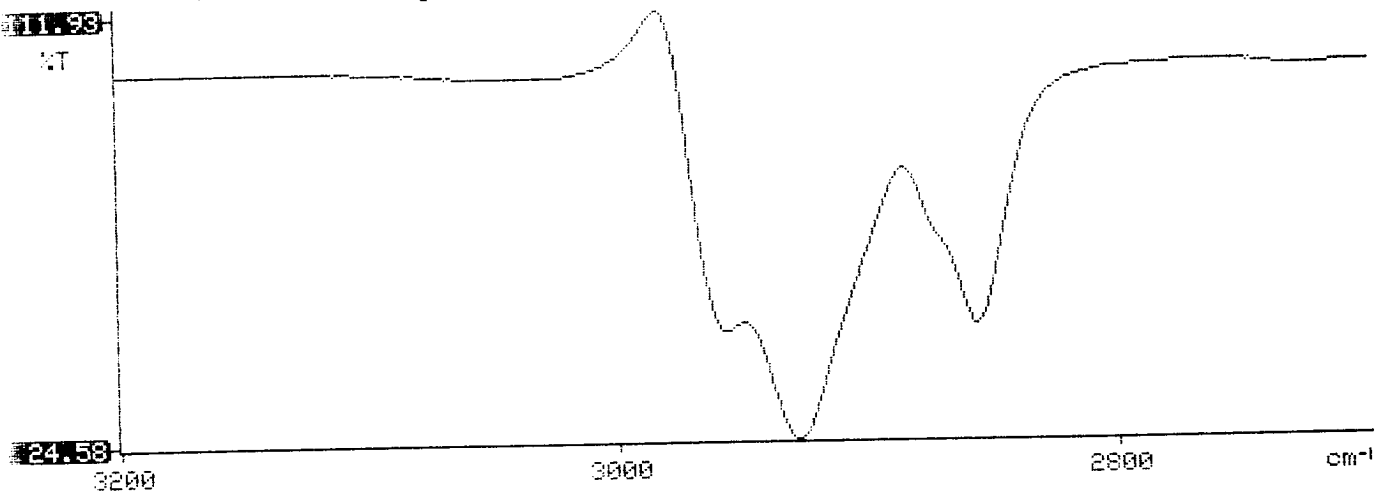
Volume of sample after extraction, ml  
28.000

Petroleum hydrocarbons, ppm  
10123.626

Net absorbance of hydrocarbons (2930  $\text{cm}^{-1}$ )  
0.609

Y: Petroleum hydrocarbons spectrum

13:51



File: BETX\_00.001

940830 1/20

John Lambdin

Type: Sample

Date: 01-01-94  
Time: 11:40:11

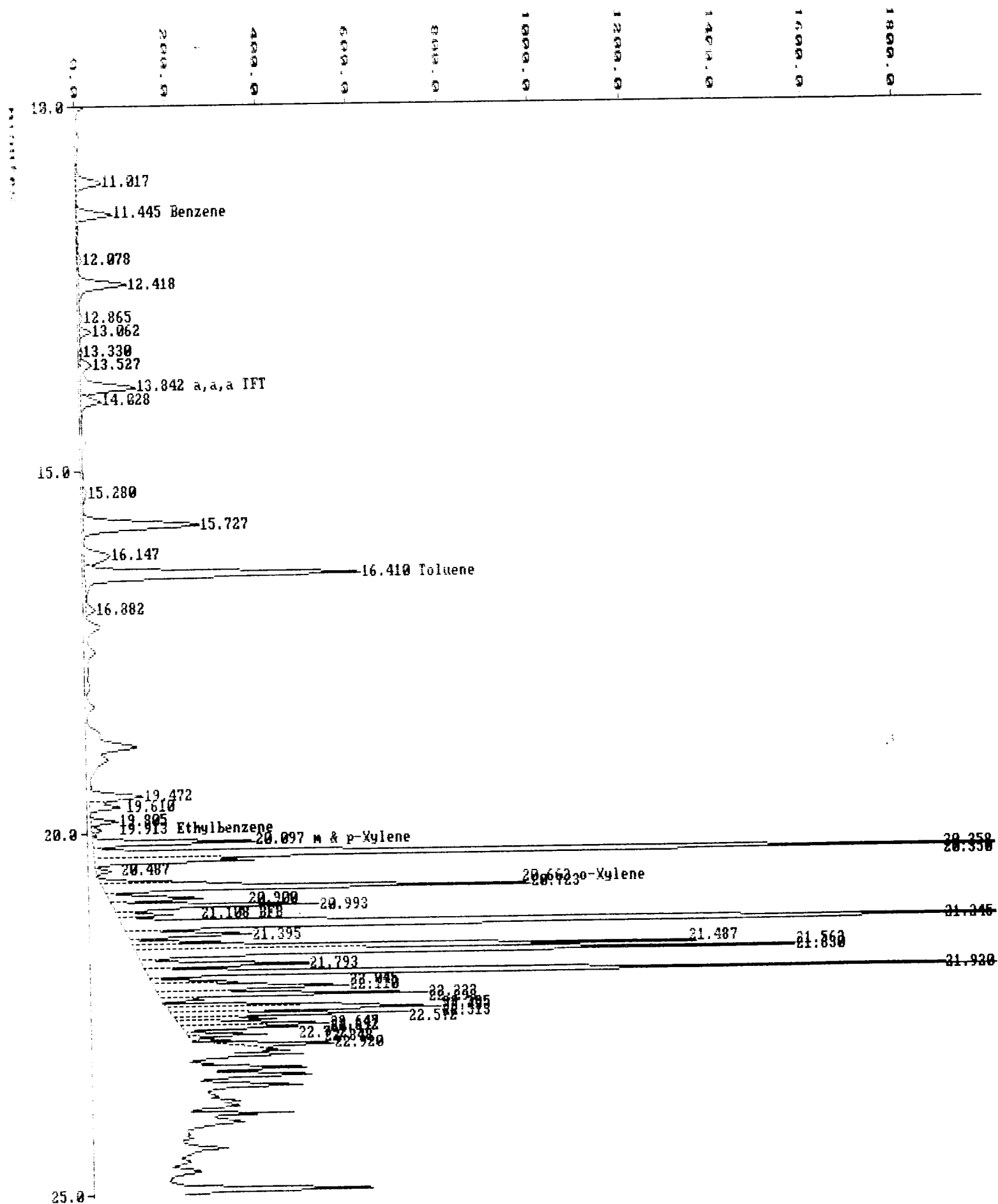
Collection: 10:00:32 May 17 1994 Meth(A): BETX [ 11:40:11 May 17 1994 ]  
Integration: 10:00:32 May 17 1994 Meth(A): BETX [ 11:40:11 May 17 1994 ]  
Report: 10:26:43 May 17 1994 Meth(A): BETX [ 11:40:11 May 17 1994 ]

Sample Amt: 1.000000e+0 Dilution: 2.000000e+1

## EXTERNAL STANDARD ( AREA )

RT	Area	BC	ExpRT	RF	ug/L	Name
11.017	381209	V		0.000000e+0	0.0000	Unknown
11.445	472422		11.448	4.63528e-6	2.9 43.7961	Benzene
12.078	49884	T		0.000000e+0	0.0000	Unknown
12.418	777348	V		0.000000e+0	0.0000	Unknown
12.365	50108	T		0.000000e+0	0.0000	Unknown
13.061	156555	T		0.000000e+0	0.0000	Unknown
13.330	32147	T		0.000000e+0	0.0000	Unknown
13.517	202871	T		0.000000e+0	0.0000	Unknown
13.641	919435	T	13.641	1.59674e-4	2936.2012	R a.a.a TFT
14.021	313033			0.000000e+0	0.0000	Unknown
15.230	56459	V		0.000000e+0	0.0000	Unknown
15.726	1865363	V		0.000000e+0	0.0000	Unknown
16.147	356705	T		0.000000e+0	0.0000	Unknown
16.410	3791555	T	16.335	7.31248e-6	27.7 554.5131	Toluene
16.981	113454			0.000000e+0	0.0000	Unknown
18.471	386214	T		0.000000e+0	0.0000	Unknown
18.610	292790	V		0.000000e+0	0.0000	Unknown
18.605	223543	T		0.000000e+0	0.0000	Unknown
19.913	83922	T	19.913	2.58467e-6	7.88 43.5823	Ethylbenzene x20 = 157.5
20.096	1193461	T	20.166	7.27409e-6	56.63 173.8255	m & p-Xylenex20 = 1132.1
20.255	9017755	T		0.000000e+0	0.0000	Unknown
20.330	1071576	T		0.000000e+0	0.0000	Unknown
20.486	116475	V		0.000000e+0	0.0000	Unknown
20.661	773854	T	20.613	4.32375e-6	12.77 67.0119	o-Xylene x20 = 255.4
20.723	2949505	T		0.000000e+0	0.0000	Unknown
20.900	794408	T		0.000000e+0	0.0000	Unknown
20.993	1555117	T		0.000000e+0	0.0000	Unknown
21.106	342965	T	21.152	4.04194e-6	87.1 27.7249	BFB
21.245	21552964	T		0.000000e+0	0.0000	Unknown
21.395	1124824	T		0.000000e+0	0.0000	Unknown
21.406	465133	T		0.000000e+0	0.0000	Unknown
21.562	3564265	T		0.000000e+0	0.0000	Unknown
21.600	4860955	T		0.000000e+0	0.0000	Unknown
21.703	1108009	T		0.000000e+0	0.0000	Unknown
21.723	3242025	T		0.000000e+0	0.0000	Unknown
21.845	617958	T		0.000000e+0	0.0000	Unknown
21.910	1732795	T		0.000000e+0	0.0000	Unknown
22.223	1666251	T		0.000000e+0	0.0000	Unknown
22.263	248177	V		0.000000e+0	0.0000	Unknown
22.265	929582	T		0.000000e+0	0.0000	Unknown
22.433	1911731	T		0.000000e+0	0.0000	Unknown
22.510	1310213	T		0.000000e+0	0.0000	Unknown
22.572	563730	T		0.000000e+0	0.0000	Unknown
22.647	973334	T		0.000000e+0	0.0000	Unknown
22.692	567982	T		0.000000e+0	0.0000	Unknown
22.751	358368	T		0.000000e+0	0.0000	Unknown
22.848	167755	V		0.000000e+0	0.0000	Unknown
22.920	752339	V		0.000000e+0	0.0000	Unknown

J. L. Lambdin  
5/17/94



File: BETX\_03.D02

040830 1/20

John Lambdin

Type: Sample

Lab: 2120RON

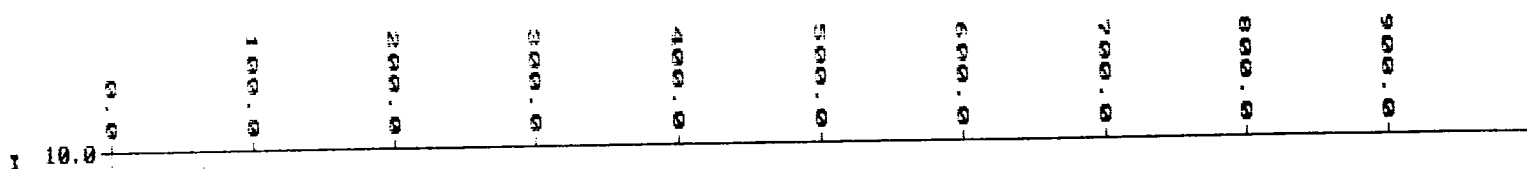
Collection: 10:00:02 May 17 1994 Meth(B): BETX [ 10:07:15 May 17 1994 ]  
 Integration: 10:00:02 May 17 1994 Meth(B): BETX [ 10:07:16 May 17 1994 ]  
 Report: 10:07:01 May 17 1994 Meth(B): BETX [ 10:07:16 May 17 1994 ]

Sample Amt: 1.000000e+0 Dilution: 2.000000e+1

EXTERNAL STANDARD ( AREA )

RT	Area	BC	ExpRT	RF	ug/L	Name
10.562	47690	T		0.000000e+0	0.0000	Unknown
11.452	56007	T	11.521	9.93760e-5	111.3155	Benzene
11.735	47967	T		0.000000e+0	0.0000	Unknown
12.168	54934	T		0.000000e+0	0.0000	Unknown
12.420	43346	T		0.000000e+0	0.0000	Unknown
13.841	57280	T		0.000000e+0	0.0000	Unknown
			14.070	0.000000e+0		a,a,a TFT
15.293	30697	T		0.000000e+0	0.0000	Unknown
15.490	22321	T		0.000000e+0	0.0000	Unknown
15.732	221604	T		0.000000e+0	0.0000	Unknown
15.941	34097	T		0.000000e+0	0.0000	Unknown
16.138	191910	T		0.000000e+0	0.0000	Unknown
16.412	235537	T	16.470	1.97425e-4	1324.5707	Toluene
16.667	212500	T		0.000000e+0	0.0000	Unknown
17.096	30462	T		0.000000e+0	0.0000	Unknown
19.462	57166	T		0.000000e+0	0.0000	Unknown
19.613	63749	V		0.000000e+0	0.0000	Unknown
19.807	47799	V		0.000000e+0	0.0000	Unknown
20.098	45266	T	20.127	1.48370e-4	134.3905	Ethylbenzene
20.260	324560	T	20.290	1.98190e-4	1286.4937	m & p-Xylene
20.357	273643	T		0.000000e+0	0.0000	Unknown
20.660	51020	T		0.000000e+0	0.0000	Unknown
20.723	119136	T	20.748	1.39441e-4	451.3865	o-Xylene
20.905	68267	T		0.000000e+0	0.0000	Unknown
20.965	96636	T		0.000000e+0	0.0000	Unknown
21.247	886706	T		0.000000e+0	0.0000	Unknown
21.375	61851	V	21.348	-2.40716e-5	-29.7774	BFB
21.565	130518	T		0.000000e+0	0.0000	Unknown
21.660	375889	T		0.000000e+0	0.0000	Unknown
21.798	64501	T		0.000000e+0	0.0000	Unknown
21.922	234314	T		0.000000e+0	0.0000	Unknown
22.047	43706	T		0.000000e+0	0.0000	Unknown
22.107	78165	T		0.000000e+0	0.0000	Unknown
22.225	102331	T		0.000000e+0	0.0000	Unknown
22.440	60924	T		0.000000e+0	0.0000	Unknown
22.513	227510	T		0.000000e+0	0.0000	Unknown
22.550	47715	T		0.000000e+0	0.0000	Unknown
22.930	44261			0.000000e+0	0.0000	Unknown

(BETX\_03.D02) MU





11.452 Benzene

11.735

12.166

12.420

13.842

15.0

15.293

15.490

15.733

15.942

16.138

16.412 Toluene

16.887

17.097

19.462

19.613

19.807

23.0

20.098 Ethylbenzene

20.357 m & p-Xylene

20.688 o-Xylene

20.905

20.995

21.375 SFB

21.247

21.565

21.660

21.798

21.922

22.047

22.225

22.650

22.449

22.930

35.0

# 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 # N/A  
Page 1 of 2

Project Name EPNG PITS  
Project Number 14509 Phase 6000 77  
Project Location MCGEE #1/E (94501)

Elevation \_\_\_\_\_  
Borehole Location T-30, R-13, S-27, E  
GWL Depth \_\_\_\_\_  
Logged By ST Pope  
Drilled By M. DONOHUE K Padilla  
Date/Time Started 9/29/95 0800  
Date/Time Completed 9/29/95

Well Logged By ST Pope  
Personnel On-Site D. Charlie, Jones  
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			Drilling Conditions & Blow Counts
							BZ	BH	YS	
0				Brown Sandy Fill						
5							0	0	0	
10				Bottom of Pit		12				
15	1	15 17	18	Gray Sand Fine-Medium grained, Trace silt, Med dense, moist	SW	0	0	0	365	Headspace = 3303 Strong H <sub>2</sub> C odor Gray discolored
20	2	20 22	12	SAA			0	10	507	HS = 1703
25	3	25 27	18	SPE			0	10	506	HS = 4500
30	4	30 32	12	SAA	SW		0	49	529	HS = 2033
35	5	35 37	15	SAA			2	72	175	HS = 1735
40										

Comments:

SAA = Same As Above

Geologist Signature

ST Pope

# RECORD OF SUBSURFACE EXPLORATION

## PHILIP ENVIRONMENTAL

4000 Monroe Road  
Farmington, New Mexico 87401  
(505) 328-2262 FAX (505) 328-2388

Borehole # BH-1  
Well # N/A  
Page 2 of 2

Project Name EPNG PITS  
Project Number 14509 Phase 6000 77  
Project Location MCGEE #1 E, (94501)

Elevation \_\_\_\_\_  
Borehole Location T30, R13, S27, E  
GWL Depth N/A  
Logged By S.T. Pope  
Drilled By M DONOHUE  
Date/Time Started 9/29/95 @ 800  
Date/Time Completed 9/29/95

Well Logged By ST Pope  
Personnel On-Site D. Charlie, Jesus  
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			Drilling Conditions & Blow Counts
							BZ	BH	MS	
40							3	38	177	HS = 3893 Strong odor discoloration
	6	40 42	15	Gray Sand Fine - Med grained, trace silt, Med dense, MOIST						
45							2	25	30	HS = 6510 Discoloration ends @ 46.5
	7	45 47	15	SAA	SW					
50							2	11	13	HS = 6508 Slight HC odor no discoloration.
	8	50 52	12	Brown Sand Fine - Med. grained, trace silt, Med dense, MOIST						
55							2	75	19	HS = 1500 Drilling getting tight
	9	53 57	12	Brown Sand Fine - Med grained, trace silt, trace Med gravel, dense Dry. (Possibly cemented S.S.)	Sand Stone	55				
60							2	157	17	HS = 83
	10	60 62	12	SAA No gravel						
65							0	9	9	HS = 29 *
	11	65 67	22	SAA						
70				TOB-67						
75										
80										
85										
90										

Comments: \* Sample STP-21 65'-67' for BTEX & TPH sent to EPN/Ca Lab.

Geologist Signature

Shirley T. Pope



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	STP 21	947562
MTR CODE   SITE NAME:	94501	McGee #1 E
SAMPLE DATE   TIME (Hrs):	09-29-95	1030
PROJECT:	Phase II Drilling	
DATE OF TPH EXT.   ANAL.:	10/3/95	
DATE OF BTEX EXT.   ANAL.:	10/2/95	10/2/95
TYPE   DESCRIPTION:	VG	Light Brown 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)	<sup>RLS 418.1</sup> 35 34.9	MG/KG			2.02	28
HEADSPACE PID	29	PPM				
PERCENT SOLIDS	97.6	%				

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

The Surrogate Recovery was at  
Narrative:

97% for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Approved By:

Date:

10-4-95

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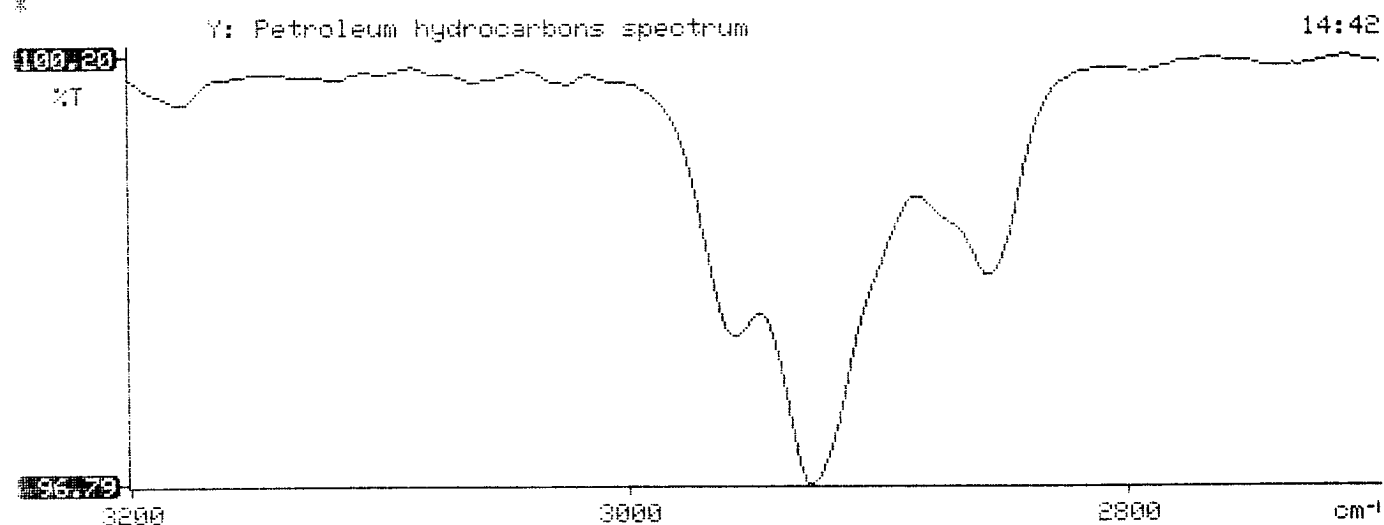
*****
*                                     *
*      Test Method for               *
*      Oil and Grease and Petroleum Hydrocarbons      *
*      in Water and Soil             *
*                                     *
*      Perkin-Elmer Model 1600 FT-IR      *
*      Analysis Report              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

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* 95/10/03 14:42
*
* Sample identification
* 947562
*
* Initial mass of sample, g
* 2.020
*
* Volume of sample after extraction, ml
* 28.000
*
* Petroleum hydrocarbons, ppm
* 34.931
* Net absorbance of hydrocarbons (2930 cm-1)
* 0.015
*
*
*

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## BTEX SOIL SAMPLE WORKSHEET

File	:	947562	Date Printed	:	10/3/95
Soil Mass (g)	:	5.13	Multiplier (L/g)	:	0.00097
Extraction vol. (mL)	:	10	DF (Analytical)	:	200
Shot Volume (uL)	:	50	DF (Report)	:	0.19493

				Det. Limit
Benzene (ug/L)	:	0.00	Benzene (mg/Kg):	0.000 0.487
Toluene (ug/L)	:	0.33	Toluene (mg/Kg):	0.064 0.487
Ethylbenzene (ug/L)	:	0.00	Ethylbenzene (mg/Kg):	0.000 0.487
p & m-xylene (ug/L)	:	0.27	p & m-xylene (mg/Kg):	0.053 0.975
o-xylene (ug/L)	:	0.00	o-xylene (mg/Kg):	0.000 0.487
			Total xylenes (mg/Kg):	0.053 1.462
			Total BTEX (mg/Kg):	0.117

# EL PASO NATURAL GAS

## EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\100295-1.002  
 Method : C:\LABQUEST\METHODS\1-091895.MET  
 Sample ID : 947562,5.13G,50U  
 Acquired : Sep 30, 1995 14:46:53  
 Printed : Sep 30, 1995 15:13:14  
 User : MARLON

### Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	4.917	0	0.0000
a,a,a TFT	6.647	4643195	100.5732
TOLUENE	8.680	93008	0.3349
ETHYLBENZENE	12.710	0	0.0000
M & P XYLENE	13.050	87857	0.2652
O XYLENE	14.208	0	0.0000
BFB	15.723	70047928	96.6322

