Denise Zentz
DEPUTY OIL & GAS INSPECTOR

EL PASO FIELD SERVICES
PRODUCTION PIT CLOSURE

DEC 21 1998

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

Approved

MCKENZIE #1
Meter/Line ID - 73392

SITE DETAILS

Legals - Twn: 30 **Rng:** 12 **Sec:** 20 **Unit:** B
NMOCD Hazard Ranking: 10 **Land Type:** 2 - Federal
Operator: DUGAN PRODUCTION CORP **Pit Closure Date: 02/07/95**

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: 73392 Location: McKENZIE #1

Operator #: _____ Operator Name: ~~TENNECO~~ DUGAN PROD. RT 1-16-95 P/L District: KUTZ

Coordinates: Letter: B Section 20 Township: 30 Range: 12

Or Latitude _____ Longitude _____

Pit Type: Dehydrator X Location Drip: ___ Line Drip: ___ Other: _____

Site Assessment Date: 1-16-95 Area: 02 Run: 63

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 WYPER ARROYO

(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: 10 **POINTS**

REMARKS

Remarks : REDLINE & TOPO SHOW LOCATION INSIDE V.Z. ONLY PIT ON LOCATION. BELONGS TO EPNG. DEHY HAS NOT YET BEEN REMOVED. WILL CLOSE PIT.

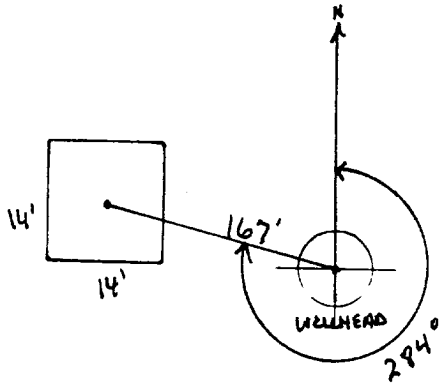
DIG & HAUL

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 284° Footage from Wellhead 167'

b) Length : 14' Width : 14' Depth : 2'



REMARKS

Remarks :

PHOTOS - 1530

Completed By:

Robert Thompson
Signature

1-16-95
Date

PHASE I
EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 73392 Location: McKenzie #1

Coordinates: Letter: B Section 20 Township: 30 Range: 12

Or Latitude _____ Longitude _____

Date Started : 2-7-95 Run: 02 63

FIELD OBSERVATIONS

Sample Number(s): MK359 _____ _____ _____

Sample Depth: 4' Feet

Final PID Reading 833 PID Reading Depth 4' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☒ Approx. Cubic Yards 10

Onsite Bioremediation ☐

Backfill Pit Without Excavation ☐

Soil Disposition:

Envirotech ☐ ☒ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 2-7-95 Pit Closed By: BET

REMARKS

Remarks : Arrived Dug sample Hole soil turn Gray about 6" down Excavated 1 load It sand stone 4' soil Tan Strong HyDro Carbon odor

Signature of Specialist: Morgan Killion

(SP3191) 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:	MV 359	9466424
MTR CODE | SITE NAME:	73392	N/A
SAMPLE DATE | TIME (Hrs):	2-7-95	1000
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	2-10-95	2-10-95
DATE OF BTEX EXT. | ANAL.:	2/9/95	2/17/95
TYPE | DESCRIPTION:	VC	light Brown fine sand

REMARKS: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	41.24	MG/KG	0.46729		2.14	2.0
TOLUENE	65.4	MG/KG	↓		↓	↓
ETHYL BENZENE	16.8	MG/KG	↓		↓	↓
TOTAL XYLENES	234	MG/KG	↓		↓	↓
TOTAL BTEX	321	MG/KG				
TPH (418.1)	3380	MG/KG			1.99	25
HEADSPACE PID	833	PPM				
PERCENT SOLIDS	91.8	%				

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

The Surrogate Recovery was at 91.3 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: _____ Date: 4/27/95

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

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

[illegible] 10:15

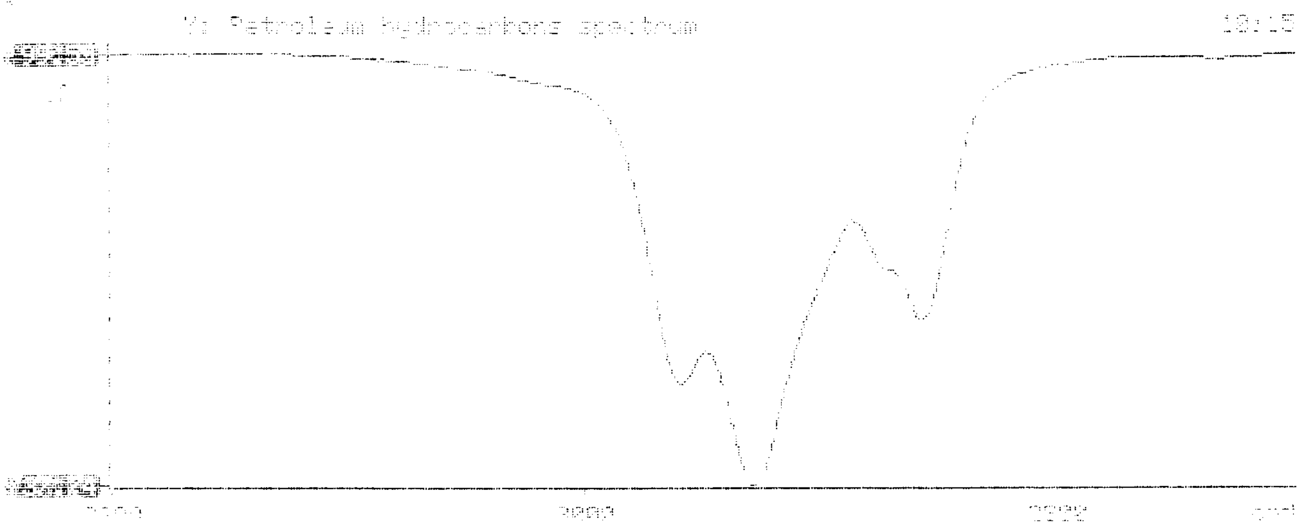
Sample identification
[illegible]

Initial mass of sample, g
[illegible]

Volume of sample after extraction, ml
20.000

Petroleum hydrocarbons, ppm
7779.674

Net absorbance of hydrocarbons (2930 cm-1)
0.400



BTEX SOIL SAMPLE WORKSHEET

File	946644E	**Date Printed**	2/20/95
Soil Mass (g)	2.14	**Multiplier (L/g)**	0.00234
Extraction vol. (mL)	20	**DF (Analytical)**	200
Shot Volume (uL)	100	**DF (Report)**	0.46729

				Det. Limit
Benzene (ug/L)	9.07	**Benzene (mg/Kg):**	**4.238**	2.336
Toluene (ug/L)	139.94	**Toluene (mg/Kg):**	**65.393**	2.336
Ethylbenzene (ug/L)	36.04	**Ethylbenzene (mg/Kg):**	**16.841**	2.336
p & m-xylene (ug/L)	400.00	p & m-xylene (mg/Kg):	186.916	4.673
o-xylene (ug/L)	101.80	o-xylene (mg/Kg):	47.570	2.336
		Total xylenes (mg/Kg):	**234.486**	7.009
		Total BTEX (mg/Kg):	**320.958**	

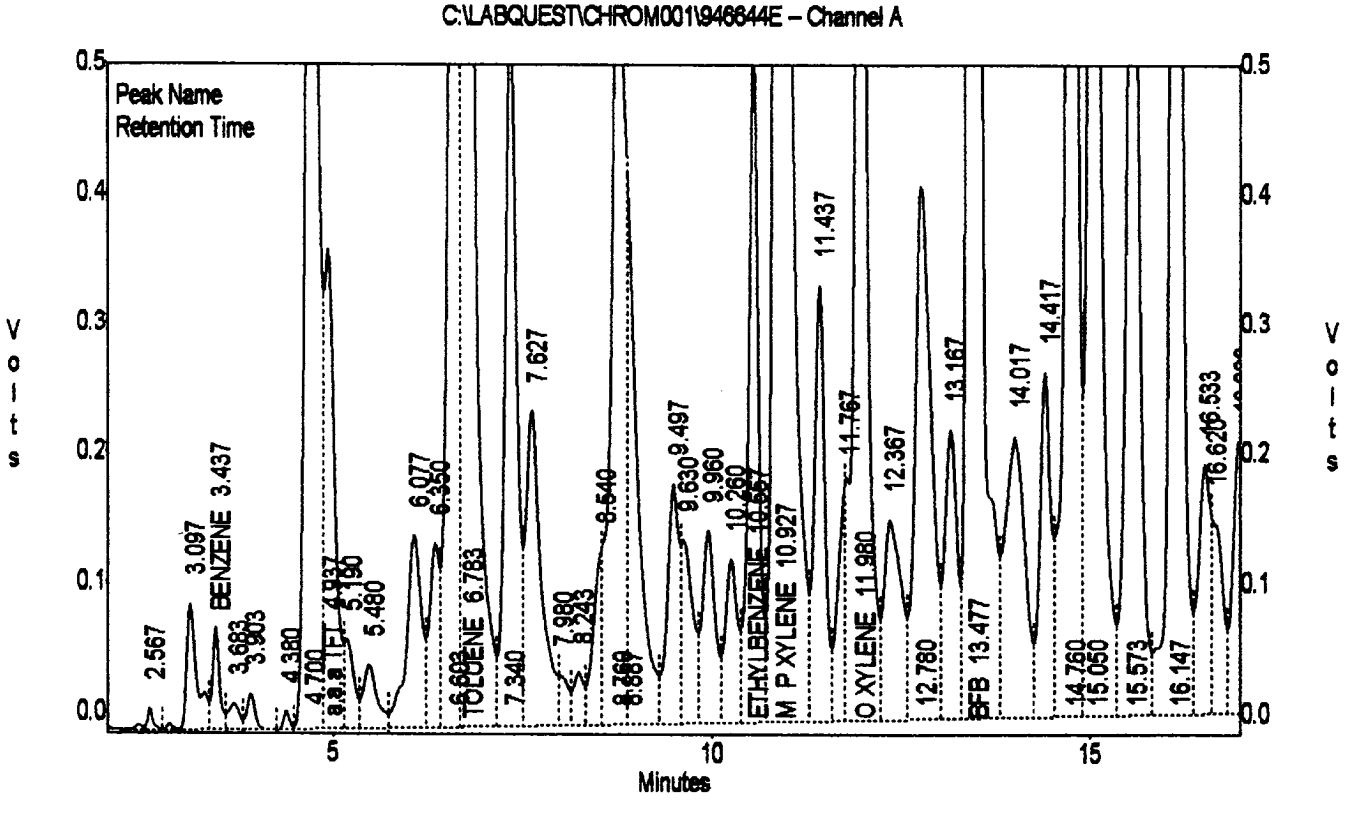
EL PASO NATURAL GAS

EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\946644E
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 946644,2.14G/100uL
Acquired : Feb 17, 1995 16:05:14
Printed : Feb 17, 1995 16:31:30
User : Tony

Channel A Results

COMPONENT	RET TIME	AREA	AVG RF	CONC (ug/L)
BENZENE	3.437	512847	56736.33594	9.0728
a,a,a TFT	4.937	3632756	19718.93164	182.2802
TOLUENE	6.783	18867100	146611.37500	139.9398
ETHYLBENZENE	10.557	4830253	140581.12500	36.0386
M & P XYLENE	10.927	61214532	167174.87500	399.9992
O XYLENE	11.980	13456809	138510.21875	101.8049
BFB	13.477	55843120	608473.93750	91.3009
Totals :		158357408		960.4363

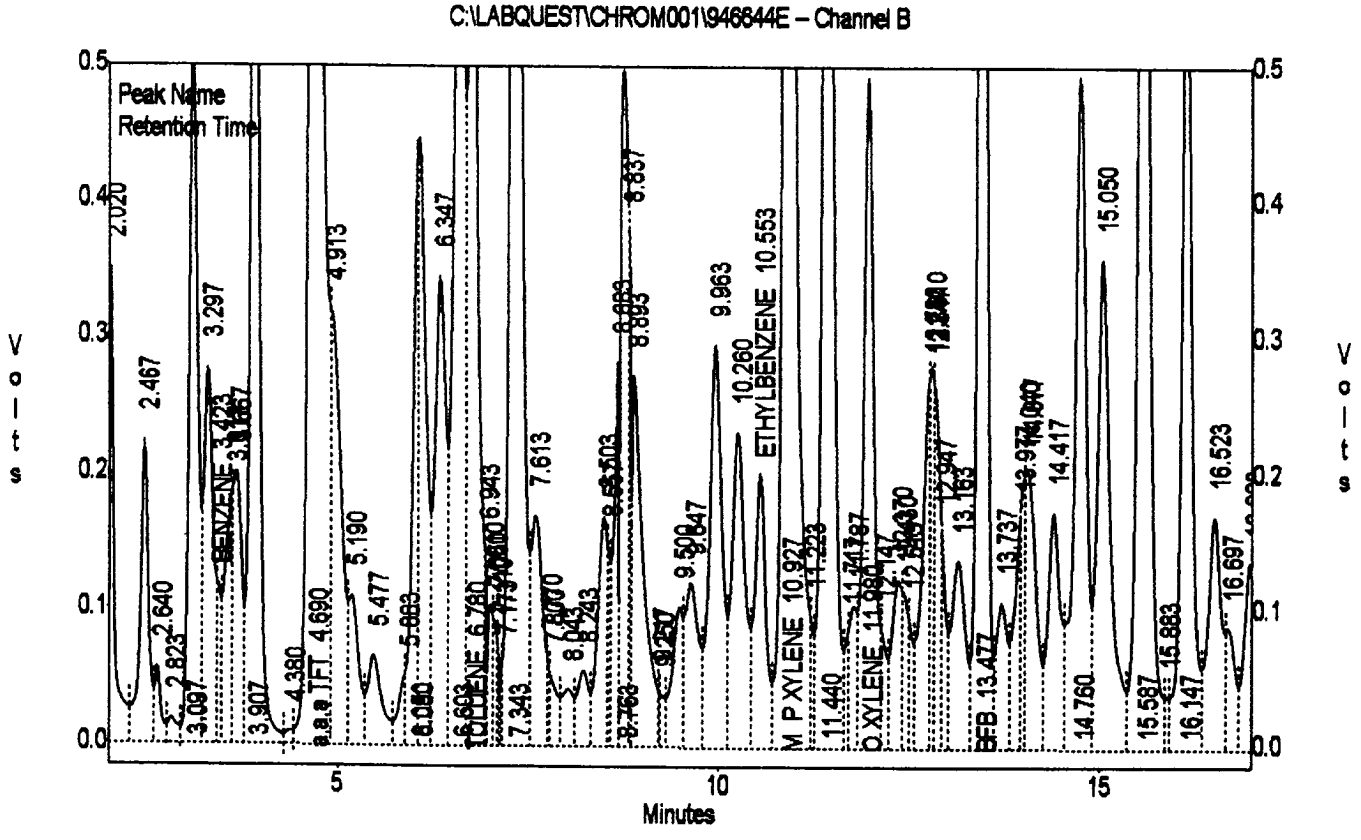


EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\946644E
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 946644,2.14G/100uL
Acquired : Feb 17, 1995 16:05:14
Printed : Feb 17, 1995 16:31:36
User : Tony

Channel B Results

COMPONENT	RET TIME	AREA	AVG RF	CONC (ug/L)
BENZENE	3.423	362012	35574.40625	10.8965
a,a,a TFT	4.690	16265633	5732.70117	2157.9370
TOLUENE	6.780	6643643	37912.04688	174.1824
ETHYLBENZENE	10.553	2046935	38397.52734	52.1189
M & P XYLENE	10.927	20234748	39847.84375	508.2338
O XYLENE	11.980	4606908	38989.35156	116.9502
BFB	13.477	9536875	85984.89844	110.8463
Totals :		59696756		3131.1650



PHASE II

RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1
Well #
Page 1 of 1

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(606) 326-2262 FAX (606) 326-2388

Project Name EPNG Pits
Project Number 14509 Phase ~~601~~ 6000
Project Location McKenzie #1, 73392

Elevation
Borehole Location T30, R12, S.20, B
GWL Depth
Logged By S.Kelly
Drilled By M. Donohue
Date/Time Started 10/5/95, 0820
Date/Time Completed 10/5/95, 1045

Well Logged By S.Kelly
Personnel On-Site M. Donohue, J. Long
Contractors On-Site
Client Personnel On-Site
Drilling Method 4¼" ID HSA
Air Monitoring Method CGI, PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ	BH	S/HS	Drilling Conditions & Blow Counts
0				Backfill to 4'						
5										
10										
15	1	13-15'	8'/2.0'	SAND, tan, fine to med. grained, dense. well-graded, dry					54/430	0850
20	2	18-20	9'/2.0'	SAA		21			75/125	0900
25	3	23-25	7.5'/2.0'	silty SAND, tan w/rust mottling, 10-30% silt, fine sand with trace med sand, dense, dry					4/171	0915
30	4	28-30	7'/2.0'			30			3/26	0938
				SILT, grey, v.dense, dry						
35				TOB- 30.0'						
40										

Comments: 28-30' sample (SEK91) sent to lab. (BTEX & TPH.) Sample was bagged and iced prior to being put in jar. BH grouted to surface.

Geologist Signature Sarah Kelly

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:	~~EME~~ SEK91	947593
MTR CODE | SITE NAME:	73392	Mckenzie #1
SAMPLE DATE | TIME (Hrs):	10-05-95	0938
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. | ANAL.:	10/6/95	
DATE OF BTEX EXT. | ANAL.:	10/6/95	10/6/95
TYPE | DESCRIPTION:	VG	

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)	210	MG/KG			2.12	25
HEADSPACE PID	26	PPM				
PERCENT SOLIDS	91.1	%				

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

The Surrogate Recovery was at 97% for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: _____ Date: 10-11-95

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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                       *
**********************************************************
*
 95/10/06   15:57
*
*  Sample identification
 sd7597
*
*  Initial mass of sample, g
 2.120
*
*  Volume of sample after extraction, ml
 28.000
*
*  Petroleum hydrocarbons, ppm
 -165.920
*  Net absorbance of hydrocarbons (2930 cm-1)
 -0.024
*
*
*
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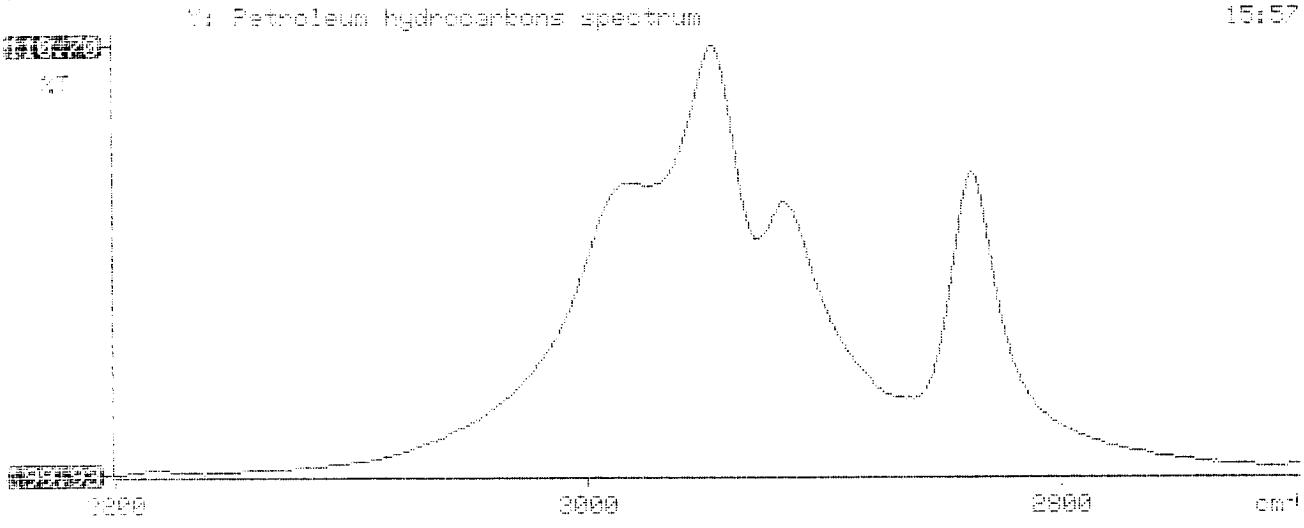

BTEX SOIL SAMPLE WORKSHEET

File	947593		**Date Printed**	10/7/95	
Soil Mass (g)	4.98		**Multiplier (L/g)**	0.00100	
Extraction vol. (mL)	10		**DF (Analytical)**	200	
Shot Volume (uL)	50		**DF (Report)**	0.20080	
					Det. Limit
Benzene (ug/L)	0.18		**Benzene (mg/Kg):**	**0.036**	0.502
Toluene (ug/L)	0.21		**Toluene (mg/Kg):**	**0.042**	0.502
Ethylbenzene (ug/L)	0.00		**Ethylbenzene (mg/Kg):**	**0.000**	0.502
p & m-xylene (ug/L)	0.37		p & m-xylene (mg/Kg):	0.074	1.004
o-xylene (ug/L)	0.18		o-xylene (mg/Kg):	0.036	0.502
			Total xylenes (mg/Kg):	**0.110**	1.506
			Total BTEX (mg/Kg):	**0.189**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM000\100695-0.006
Method : C:\LABQUEST\METHODS\0-092095.MET
Sample ID : 947593,4.98G,50U
Acquired : Oct 06, 1995 18:49:56
Printed : Oct 06, 1995 19:20:19
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	8.150	68742	0.1837
a,a,a-TFT	10.513	9317197	106.4995
TOLUENE	12.933	77888	0.2140
ETHYLBENZENE	17.170	0	0.0000
M,P-XYLENES	17.660	149287	0.3721
O-XYLENE	18.830	57330	0.1751
BFB	19.887	52832808	96.9265