Denny G. Foust
DEPUTY OIL & GAS INSPECTOR
DEC 22 1997

Approved

Meter Number:90331
Location Name:TAFOYA #1A
Location:TN-32 RG-13
SC-35 UL-F
4 - Fee
NMOCD Zone:OUTSIDE
Hazard Ranking Score:00

RECEIVED
APR 14 1997
OIL CON. DIV.
DIST. 3

RATIONALE FOR RISK-BASED CLOSURE OF PRODUCTION PITS LOCATED OUTSIDE OF THE VULNERABLE ZONE IN THE SAN JUAN BASIN

This production pit location was ranked according to the criteria in the New Mexico Oil Conservation Division's Unlined Surface Impoundment Closure Guidelines and received a ranking score of zero. The estimated depth to groundwater is greater than 100-feet beneath ground surface (bgs), the pit is not in a well head protection area, and there are no surface water bodies within 1,000 horizontal feet of the pit location.

The primary source, discharge to the pit has been removed. There has been no discharge to the pits for at least 4 years and the pits have been closed for at least one year.

Each pit was backfilled with clean soil and graded in a manner to divert precipitation away from the excavated area. Minimal infiltration of rainfall is expected. Any rainfall that does infiltrate the ground surface must migrate through clean backfill before reaching the residual hydrocarbons.

There is no source material at the ground surface, so direct contact of hydrocarbons with livestock and the populous is not likely.

In general, outside of the vulnerable area and alluvial valleys, bedrock material is generally encountered within 20 feet of the ground surface. Bedrock material in the San Juan Basin consists of interbedded sandstones, shales and clays. According to Freeze and Cherry, 1979, the hydraulic conductivity of the bedrock material are as follows:

Sandstone	10^{-9} to 10^{-13} cm/sec
Shale	10^{-12} to 10^{-16} cm/sec
Clay	10^{-12} to 10^{-15} cm/sec

Based on this information, the residual hydrocarbons should not migrate to groundwater.

Natural process (bioremediation) are degrading the residual hydrocarbon to carbon dioxide and water and will continue until the source is gone, therefore minimizing any impact to the environment.

Based on the above information, it is highly unlikely that any source material will impact groundwater or ever find an exposure pathway to affect human health and therefore El Paso Field Services Company (EPFS) requests closure of this pit location.

FI[redacted]E FORM

EL PASO FIELD SERVICES

GENERAL

Meter: 90331 Location: Tafoya #1A

Coordinates: Letter: F Section 35 Township: 32 Range: 13

Or Latitude _____ Longitude _____

Date Started : 4-22-94 Area: 02 Run: 21

FIELD OBSERVATIONS

Sample Number(s): 94502 VW23 _____ _____ _____

Sample Depth: 12' Feet

Final PID Reading 318 PID Reading Depth 12' Feet

	Yes	No	
Groundwater Encountered	☐ (1)	☒ (2)	Approximate Depth _____ Feet

CLOSURE

Remediation Method :

VW 4-22-94

Excavation ☒ (1) Approx. Cubic Yards 0

Onsite Bioremediation ☐ (2)

Backfill Pit Without Excavation ☒ (3)

Soil Disposition:

VW 4-22-94

Envirotech ☐ (1) ☒ (3) Tierra

Other Facility ☐ (2) Name: _____

Pit Closure Date: 4-22-94 Pit Closed By: BCT

REMARKS

Remarks : Assessment said pit was in the zone. Double checked & found out it wasn't. Pulled a grab sample

Signature of Specialist: Vale Wilson

(SP3191) 04/07/94

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 90331 Location: TAFOYA #1A

Operator #: 0148 Operator Name: SNYDER OIL P/L District: KUTZ

Coordinates: Letter: F Section 35 Township: 32 Range: 13

Or Latitude _____ Longitude _____

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

Site Visit Date: 3·31·94 Run: 02 21

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps)

Inside Vulnerable Zone ☒ 6·8·94 RT

Outside ☒

Land Type:

BLM ☐

State ☐

Fee ☒

Indian _____

Depth to Groundwater

Less Than 50 Feet (20 points) ☐

50 Ft to 99 Ft (10 points) ☐

Greater Than 100 Ft (0 points) ☒

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? ☐ YES (20 points) ☒ NO (0 points)

Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points) ☐

200 Ft to 1000 Ft (10 points) ☐

Greater Than 1000 Ft (0 points) ☒

Name of Surface Water Body _____

(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

TOTAL HAZARD RANKING SCORE: 0 **POINTS**

REMARKS

Remarks : ONLY PIT ON LOCATION.

ORIGINAL PIT LOCATION

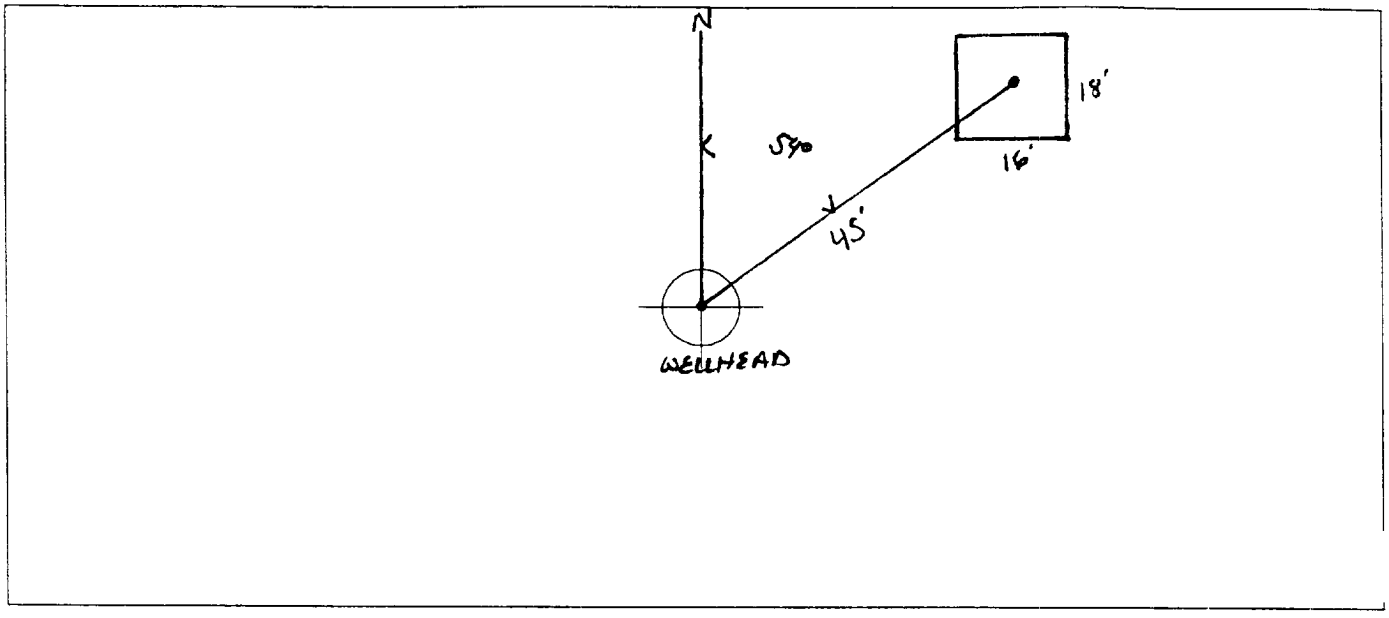
ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 54° Footage to Wellhead 45'

b) Degrees from North _____ Footage to Dogleg _____

Dogleg Name _____

c) Length : 18' Width : 16' Depth : 4'



REMARKS

Remarks :

STARTED TAKING PICTURES AT 8:55 A.M.

END DUMP

Completed By:

Robert Thompson
Signature

3-31-94
Date

FIE) PIT REMEDIATION/CLOS RE FORM

GENERAL

Meter: 90331 Location: Tafoya #1A

Coordinates: Letter: F Section 35 Township: 32 Range: 13

Or Latitude _____ Longitude _____

Date Started : 4-22-94 Area: 02 Run: 21

FIELD OBSERVATIONS

Sample Number(s): 94502 VW23 _____ _____ _____

Sample Depth: 12 Feet

Final PID Reading 318 PID Reading Depth 12' Feet

	Yes	No	
Groundwater Encountered	☐ (1)	☒ (2)	Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation	☒ (1) VW 4-22-94	Approx. Cubic Yards 0
Onsite Bioremediation	☐ (2)	
Backfill Pit Without Excavation	☒ (3)	

Soil Disposition:

Envirotech	☐ (1)	☒ (3) VW 4-22-94 Tierra
Other Facility	☐ (2)	Name: _____

Pit Closure Date: 4-22-94 Pit Closed By: BIT

REMARKS

Remarks : Assessment said pit was in the zone. Double checked & found out it wasn't. Pulled a grab sample

Signature of Specialist: Vale Wilson

(SP3191) 04/07/94

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	VW23	4/29/94 ~~7405002~~ 945002
MTR CODE | SITE NAME:	90331	N/A
SAMPLE DATE | TIME (Hrs):	4/22/94	0900
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	4/28/94	4/28/94
DATE OF BTEX EXT. | ANAL.:	N/A	N/A
TYPE | DESCRIPTION:	VG	Brown Clay

REMARKS: Outside WVZ so no BTEX req'd.

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					IDF
TOTAL BTEX	~~5/10/94~~	~~MG/KG~~	~~.7273~~		~~.55~~	~~20~~	~~20~~
TPH (418.1)	2970	MG/KG			2.04	28	
HEADSPACE PID	318	PPM					
PERCENT SOLIDS	86.2	%					

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

The Surrogate Recovery was at 103.6 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: John Sabdi

Date: 5/17/94

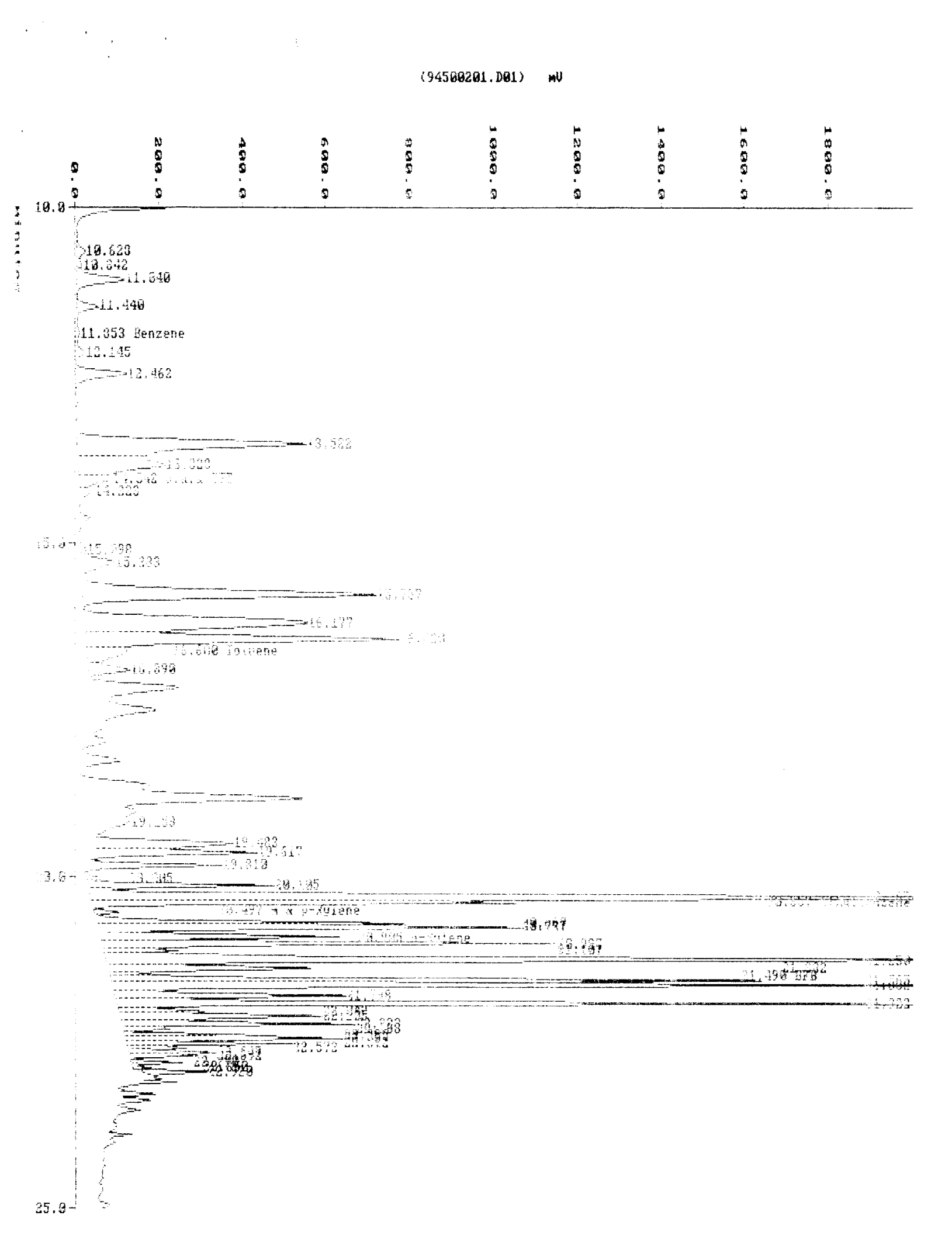
File : 94500201.D01 MTR 90331 STACY SENGLER
Run : 01 Queue : SOILEXTR Set Number : 1 Type : Sample
Path : C:\CHROM
Collection : 01:56:37 May 01 1994 Meth(A): BETX [13:57:48 Apr 30 1994]
Integration: 01:56:37 May 01 1994 Meth(A): BETX [13:57:48 Apr 30 1994]
Report : 02:22:48 May 01 1994 Meth(A): BETX [13:57:48 Apr 30 1994]

Sample Amt : 1.00000e+0 Dilution: 7.27300e-1

EXTERNAL STANDARD AREA

RT	Area	ID	End PT	PT	ug/L	Name
21.220	17356[illegible]	T		[illegible]	0.0000	Unknown
21.261	[illegible]	T		[illegible]	0.0000	Unknown
21.349	328084	T		[illegible]	0.0000	Unknown
21.[illegible]	[illegible]	T		[illegible]	0.0000	Unknown
21.[illegible]	[illegible]	T	[illegible]	[illegible]	[illegible]	[illegible]
21.[illegible]	[illegible]	T		[illegible]	0.0000	Unknown
21.[illegible]	[illegible]	T		[illegible]	[illegible]	[illegible]

(94500201.D01) mV

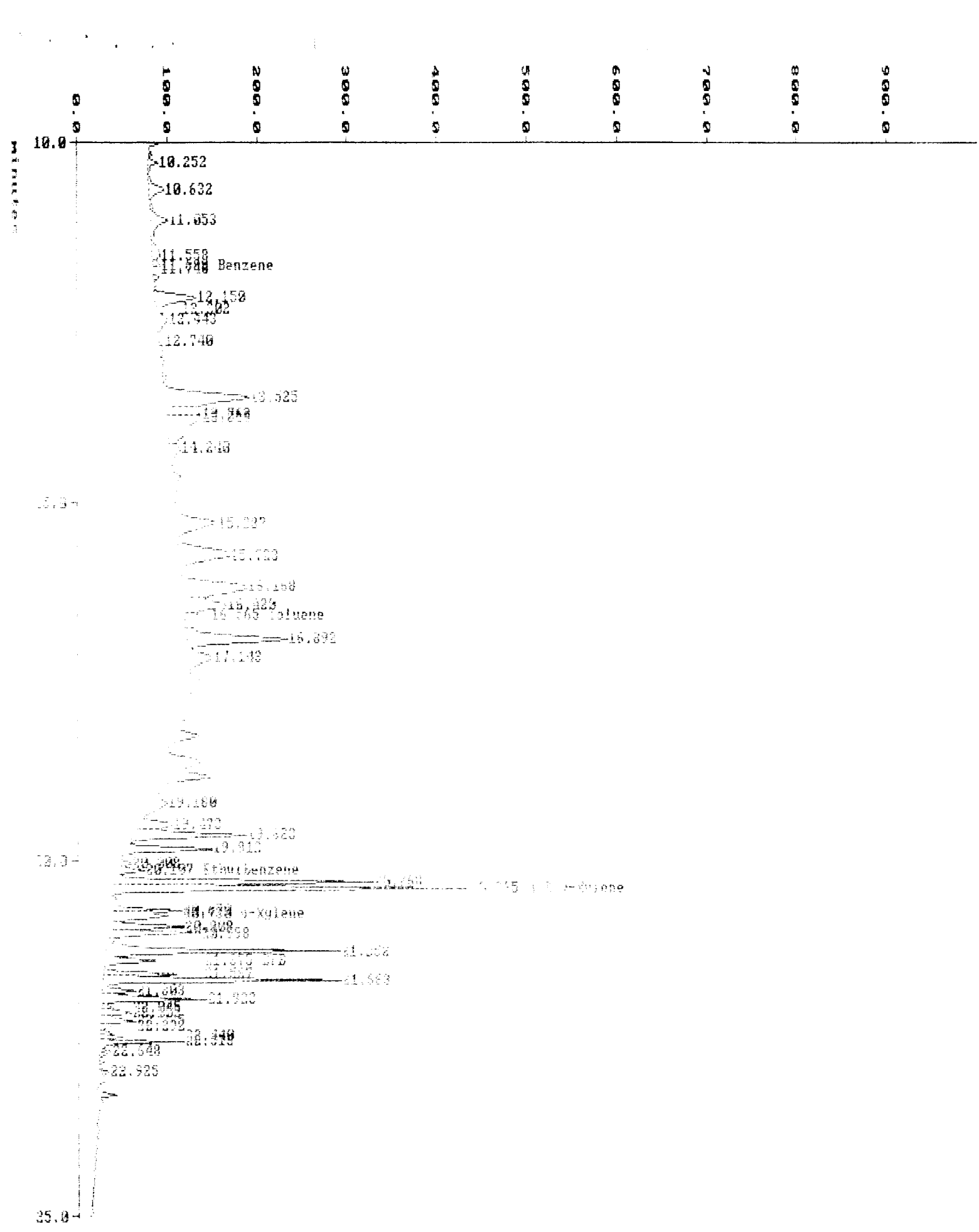


File : 94500201.D02 MTR 90331 STACY SENDLER
Run : 01 Queue : SOILEXTR Set Number : 1 Type : Sample
Path : C:\CHROM
Collection : 01:56:37 May 01 1994 Meth(B): BETX [06:35:09 Apr 29 1994]
Integration: 01:56:37 May 01 1994 Meth(S): BETX [06:35:09 Apr 29 1994]
Report : 02:23:07 May 01 1994 Meth(S): BETX [06:35:09 Apr 29 1994]

Sample Amt : 1.00000e+0 Dilution: 7.27300e-1

EXTERNAL STANDARD (AREA)

RT	Area	ID	ExpRT	FT	ug/L	Name
10.382	11243	T		1.0[illegible]e+0	0.0000	Unknown
10.521	127642	T		1.[illegible]e+0	0.0000	Unknown
11.060	882947	T		1.[illegible]e+0	0.0000	Unknown
11.250	105510	T		1.[illegible]e+0	0.0000	Unknown
11.303	13546	T	11.273	1.[illegible]e+0	0.0000	Unknown
11.740	4692	T		1.[illegible]e+0	0.0000	Unknown
12.131	4114	T		1.[illegible]e+0	0.0000	Unknown
12.221	9873	T		1.[illegible]e+0	0.0000	Unknown
12.[illegible]	2[illegible]	T		1.[illegible]e+0	0.0000	Unknown
12.[illegible]	4[illegible]	T		1.[illegible]e+0	0.0000	Unknown
12.[illegible]	4[illegible]	T		1.[illegible]e+0	0.0000	Unknown
12.[illegible]	1[illegible]	T		1.[illegible]e+0	0.0000	Unknown
12.[illegible]	1[illegible]	T		1.[illegible]e+0	0.0000	Unknown
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
13.[illegible]	1[illegible]	T		1.[illegible]e+0	0.0000	Unknown
13.387	4[illegible]	T		1.[illegible]e+0	0.0000	Unknown
13.[illegible]	1[illegible]	T		1.[illegible]e+0	0.0000	Unknown
13.[illegible]	1[illegible]	T		1.[illegible]e+0	0.0000	Unknown
13.[illegible]	1[illegible]	T		1.[illegible]e+0	0.0000	Unknown
13.[illegible]	1[illegible]	T	[illegible]	1.[illegible]e+0	0.0000	Toluene
13.[illegible]	7[illegible]	T		1.[illegible]e+0	0.0000	Unknown
13.[illegible]	1


0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
10.0
10.252
10.632
11.053
Benzene
12.740
15.0
Toluene
20.0
Ethylbenzene
p-Xylene
25.0

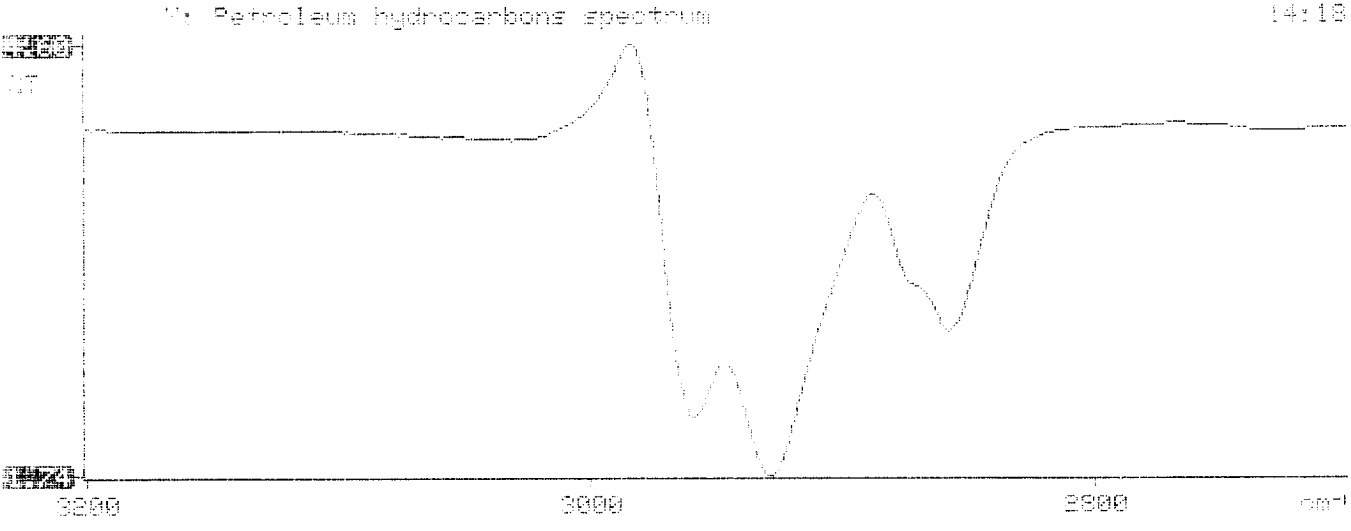
****
Test Method for
Oil and Grease and Petroleum Hydrocarbons
in Water and Soil

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

4/04/28 14:18

Sample identification
45002

Initial mass of sample, g
.040

Volume of sample after extraction, ml
2.000

Petroleum hydrocarbons, ppm
969.879
Net absorbance of hydrocarbons (2930 cm-1)
.088