

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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	GAS	
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OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-104
Revised 10-01-78
Format 06-01-83
Page 1

REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

I.

Operator Amoco Production Co.	
Address 501 Airport Drive, Farmington, N M 87401	
Reason(s) for filing (Check proper box)	Other (Please explain)
☒ New Well ☐ Recompletion ☐ Change in Ownership	Change in Transporter of: ☐ Oil ☐ Gas ☐ Condensate

If change of ownership give name and address of previous owner _____

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DIST. 3

II. DESCRIPTION OF WELL AND LEASE

Lease Name Gallegos Canyon Unit	Well No. 244E	Pool Name, including Formation Basin Dakota	Kind of Lease State, Federal or Fee Federal	Lease No. SF-078903
Location Unit Letter <u>M</u> ; <u>900</u> Feet From The <u>South</u> Line and <u>800</u> Feet From The <u>West</u>				
Line of Section <u>36</u> Township <u>28N</u> Range <u>12W</u> , NMPM, San Juan County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☐ or Condensate ☒ Permian Corporation	Address (Give address to which approved copy of this form is to be sent) P.O. Box 1702, Farmington, NM 87499
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas ☒ El Paso Natural Gas Company	Address (Give address to which approved copy of this form is to be sent) P.O. Box 990, Farmington, NM 87499
If well produces oil or liquids, give location of tanks. Unit <u>M</u> Sec. <u>36</u> Twp. <u>28N</u> Rge. <u>12W</u>	Is gas actually connected? <u>No</u> When _____

If this production is commingled with that from any other lease or pool, give commingling order number: _____

NOTE: Complete Parts IV and V on reverse side if necessary.

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given is true and complete to the best of my knowledge and belief.

BD Shaw

(Signature)

Adm. Supervisor

(Title)

6-25-85

(Date)

OIL CONSERVATION DIVISION
7-10-85
APPROVED
JUL 10 1985
BY Original Signed by FRANK T. CHAVEZ
TITLE SUPERVISOR DISTRICT # 3

This form is to be filed in compliance with RULE 1104.
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.
All sections of this form must be filled out completely for allowable on new and recompleted wells.
Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.
Separate Forms C-104 must be filed for each pool in multiply completed wells.

IV. COMPLETION DATA

Designate Type of Completion - (X)		Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Resv.	Diff.
			X	X					
Date Spudded 4-25-85	Date Compl. Ready to Prod. 5-16-85	Total Depth 6511'		P.B.T.D. 6450'					
Elevations (DF, RKB, RT, GR, etc.) 6008' GR	Name of Producing Formation Dakota	Top Oil/Gas Pay 6308'		Tubing Depth 6425'					
Perforations 6308'-6314', 6352'-6390', 6410'-6420'							Depth Casing Shoe 6511'		

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
12-1/4"	9-5/8", 36#, K55	359'	295 cu. ft.
8-3/4"	7", 23#, K55	6511'	1638 cu. ft.
	2-3/8"	6425'	

TEST DATA AND REQUEST FOR ALLOWABLE (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D 808	Length of Test 3 hrs.	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.) Back pressure	Tubing Pressure (Shut-in) 589	Casing Pressure (Shut-in) 1202 psig	Choke Size .75"

Jenny L. Frost
DEPUTY OIL & GAS INSPECTOR

DEC 30 1997

Approved

Meter Number:95630

Location Name:GALLEGOS CANYON UNIT 244E

Location:TN-28 RG-12

SC-36 UL-M

3 - Navajo

NMOCD Zone:OUTSIDE

Hazard Ranking Score:00

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CUC

**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.

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 95630 Location: Gallegos Canyon Unit 244E
 Operator #: 0203 Operator Name: Amoro P/L District: Angel Park
 Coordinates: Letter: M Section 36 Township: 28 Range: 12
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator ☒ Location Drip: _____ Line Drip: _____ Other: _____
 Site Assessment Date: 1/20/95 Area: 01 Run: 32

SITE ASSESSMENT

NMOCD Zone:

(From NMOCD
Maps)

Inside

Outside

Land Type:

BLM ☐ (1)

State ☐ (2)

Fee ☐ (3)

Indian Navajo

☐ (1)

☒ (2)

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 _____

(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: 0 POINTS

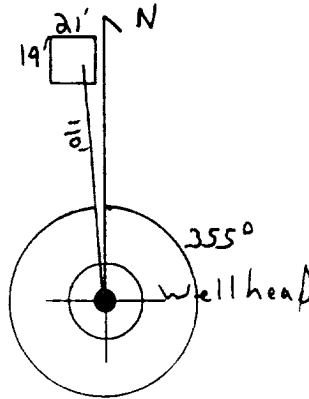
REMARKS

Remarks : Redline Book: Outside Vulnerable Zone Type: Outside
3 pits. Close

PUSH-IN

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 355° Footage from Wellhead 110'
 b) Length : 21' Width : 19' Depth : 5'



ORIGINAL PIT LOCATION

REMARKS :

Pictures @ 1506hr 23-25 roll /

REMARKS

Completed By:

Cory Chase
 Signature

1/20/95
 Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	Meter: <u>95630</u> Location: <u>Gallegos Canyon Unit 244E</u> Coordinates: Letter: <u>M</u> Section <u>36</u> Township: <u>28</u> Range: <u>12</u> Or Latitude _____ Longitude _____ Date Started : <u>11/17/95</u> Run: <u>01</u> <u>32</u>
FIELD OBSERVATIONS	Sample Number(s): <u>JK141</u> Sample Depth: <u>5'</u> Feet Final PID Reading <u>165.0</u> PID Reading Depth <u>5'</u> Feet Yes No Groundwater Encountered ☐ ☒ Approximate Depth _____ Feet
CLOSURE	Remediation Method : Excavation ☐ Approx. Cubic Yards <u>0</u> <u>LT 11/27/95</u> Onsite Bioremediation ☐ Backfill Pit Without Excavation ☒ Soil Disposition: Envirotech ☐ Tierra ☐ Other Facility ☐ Name: _____ Pit Closure Date: <u>11/17/95</u> Pit Closed By: <u>Philip</u>
REMARKS	Remarks : <u>This Pit was a Push In</u> <u>we Hit Rock a 5'</u> <u>Fence size 24x22 No Net</u> <u>More Than 100' From Ephemeral Stream</u> Signature of Specialist: <u>Joe K. Kip</u>



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JK 141	94 7796
MTR CODE SITE NAME:	95630	Gallegos Canyon Unit 244E
SAMPLE DATE TIME (Hrs):	11-17-95	0900
PROJECT:	Phase I Nurgio	
DATE OF TPH EXT. ANAL.:	11/27/95	
DATE OF BTEX EXT. ANAL.:	11/20/95	11/20/95
TYPE DESCRIPTION:	V6	Light brown sand & sand stone

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	25.0	MG/KG				
TOLUENE	226	MG/KG	5	D1		
ETHYL BENZENE	30.2	MG/KG				
TOTAL XYLENES	268	MG/KG	5	D		
TOTAL BTEX	547	MG/KG				
TPH (418.1)	9070	MG/KG			0.94	28
HEADSPACE PID		PPM				
PERCENT SOLIDS	90.1	%				

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

The Surrogate Recovery was at 101%/100% for this sample All QA/QC was acceptable.

Narrative:

Result for Toluene exceeded calibration range

DF = Dilution Factor Used

Approved By:

Date:

11/28/95

BTEX SOIL SAMPLE WORKSHEET

File	:	947796	Date Printed	:	11/21/95
Soil Mass (g)	:	5.07	Multiplier (L/g)	:	0.00099
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical):		1000
Shot Volume (uL)	:	10	CAL FACTOR (Report):		0.98619
			DILUTION FACTOR:	5	Det. Limit
Benzene (ug/L)	:	26.84	Benzene (mg/Kg):	26.469	2.465
Toluene (ug/L)	:	226.09	Toluene (mg/Kg):	222.968	2.465
Ethylbenzene (ug/L)	:	30.08	Ethylbenzene (mg/Kg):	29.665	2.465
p & m-xylene (ug/L)	:	225.70	p & m-xylene (mg/Kg):	222.584	4.931
o-xylene (ug/L)	:	45.67	o-xylene (mg/Kg):	45.039	2.465
			Total xylenes (mg/Kg):	267.623	7.396
			Total BTEX (mg/Kg):	546.726	

EL PASO NATURAL GAS

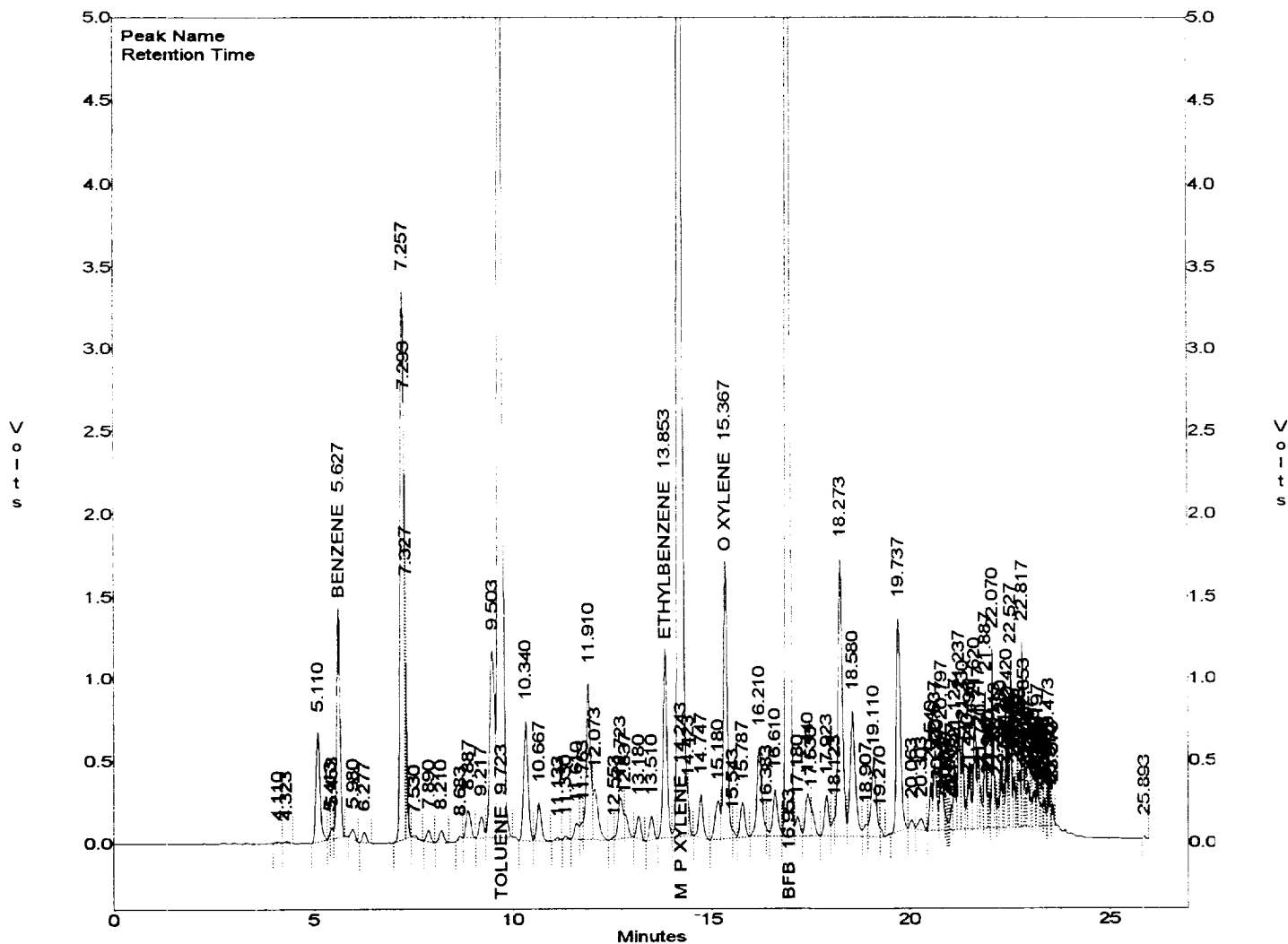
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\112095-2.013
 Method : C:\LABQUEST\METHODS\1-112095.MET
 Sample ID : 947796,5.07G,10U
 Acquired : Nov 20, 1995 22:47:52
 Printed : Nov 20, 1995 23:14:21
 User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	5.627	8406402	26.8409
TOLUENE	9.723	66600200	226.0870
ETHYLBENZENE	13.853	7788162	30.0804
M & P XYLENE	14.243	67387848	225.6953
O XYLENE	15.367	11544142	45.6668
BFB	16.953	65840836	100.0157

C:\LABQUEST\CHROM001\112095-2.013 -- Channel A



BTEX SOIL SAMPLE WORKSHEET

File	:	947796	Date Printed	:	11/21/95
Soil Mass (g)	:	5.07	Multiplier (L/g)	:	0.00099
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical):		400
Shot Volume (uL)	:	25	CAL FACTOR (Report):		0.39448
			DILUTION FACTOR:	2	Det. Limit
Benzene (ug/L)	:	69.96	Benzene (mg/Kg):	27.598	0.986
Toluene (ug/L)	:	123.03	Toluene (mg/Kg):	48.533	0.986
Ethylbenzene (ug/L)	:	78.91	Ethylbenzene (mg/Kg):	31.128	0.986
p & m-xylene (ug/L)	:	0.00	p & m-xylene (mg/Kg):	0.000	1.972
o-xylene (ug/L)	:	113.09	o-xylene (mg/Kg):	44.611	0.986
			Total xylenes (mg/Kg):	44.611	2.959
			Total BTEX (mg/Kg):	151.870	

EL PASO NATURAL GAS

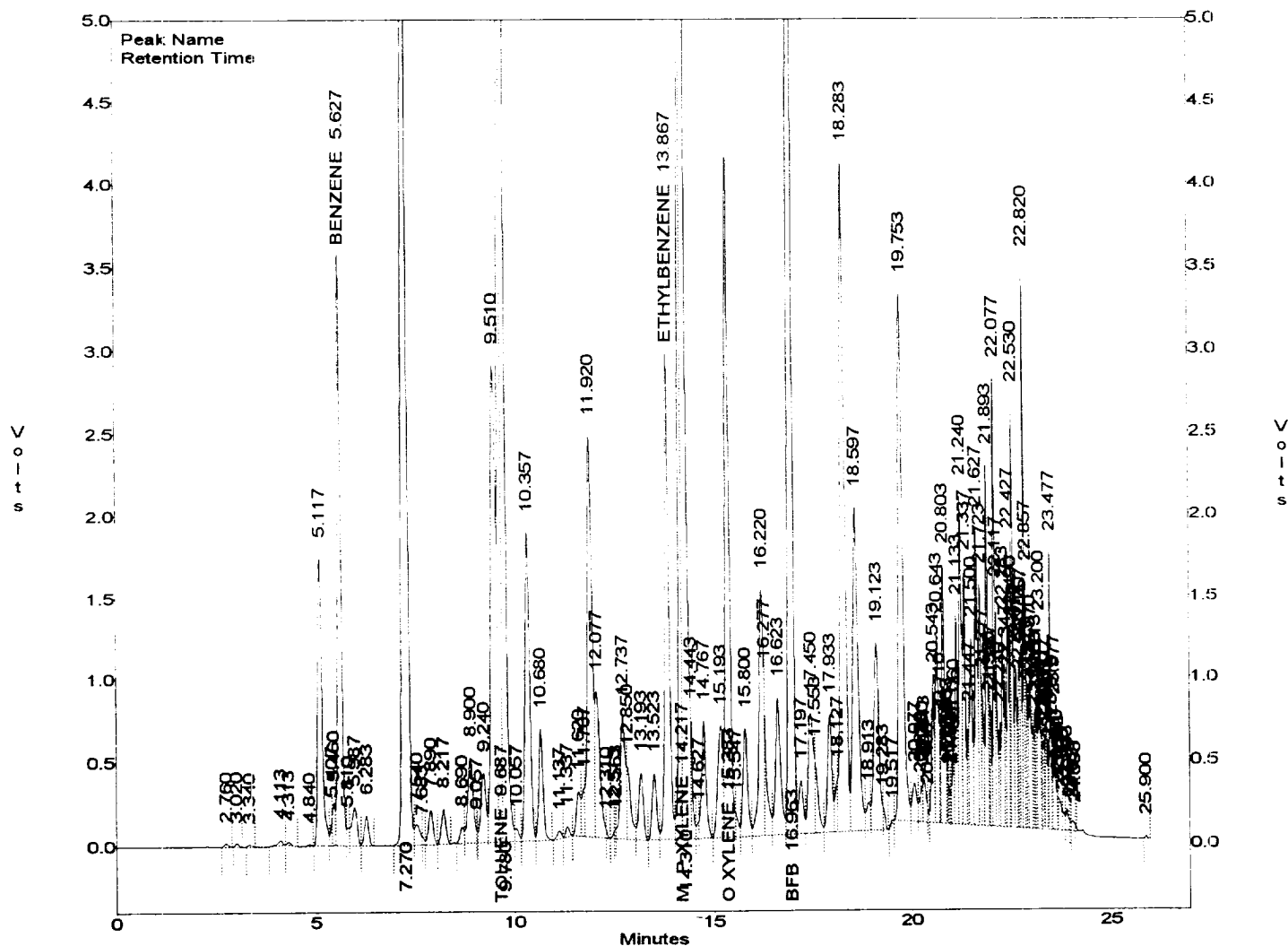
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\112095-2.014
 Method : C:\LABQUEST\METHODS\1-112095.MET
 Sample ID : 947796,5.07G,25U
 Acquired : Nov 20, 1995 23:27:57
 Printed : Nov 20, 1995 23:54:31
 User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	5.627	23278198	69.9644
TOLUENE	9.687	37802324	123.0313
ETHYLBENZENE	13.867	21670482	78.9140
M & P XYLENE	14.217	38355900	124.8632
O XYLENE	15.383	29814024	113.0924
BFB	16.963	67649104	102.7626

C:\LABQUEST\CHROM001\112095-2.014 -- Channel A



BTEX SOIL SAMPLE WORKSHEET

File	:	947796	Date Printed	:	11/21/95
Soil Mass (g)	:	5.07	Multiplier (L/g)	:	0.00099
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical):		200
Shot Volume (uL)	:	50	CAL FACTOR (Report):		0.19724

		DILUTION FACTOR:	1	Det. Limit
Benzene (ug/L)	:	126.93	Benzene (mg/Kg):	25.036 0.493
Toluene (ug/L)	:	19.95	Toluene (mg/Kg):	3.935 0.493
Ethylbenzene (ug/L)	:	153.15	Ethylbenzene (mg/Kg):	30.207 0.493
p & m-xylene (ug/L)	:	0.00	p & m-xylene (mg/Kg):	0.000 0.986
o-xylene (ug/L)	:	220.83	o-xylene (mg/Kg):	43.556 0.493
			Total xylenes (mg/Kg):	43.556 1.479
			Total BTEX (mg/Kg):	102.734

EL PASO NATURAL GAS

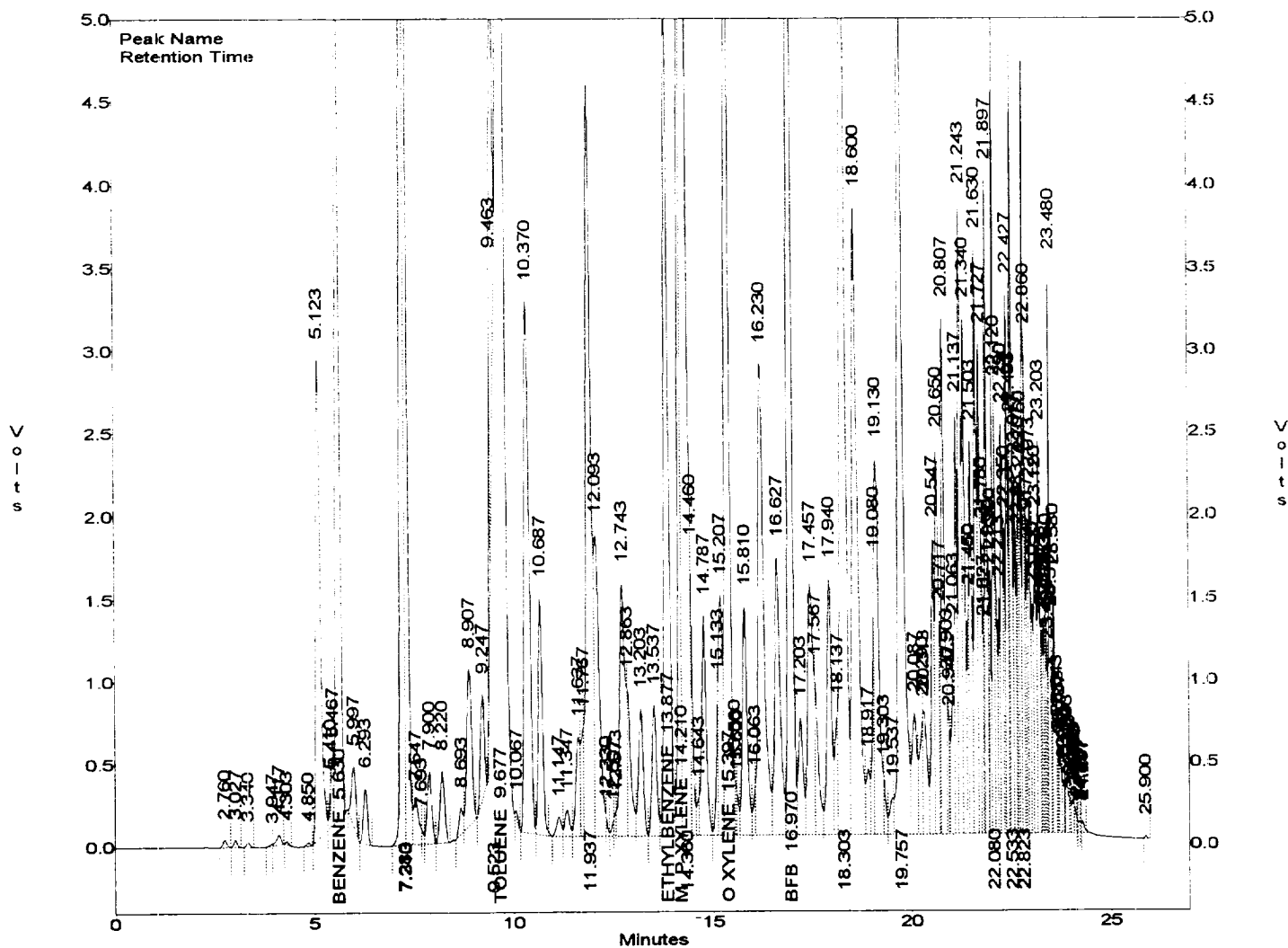
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\112095-2.015
 Method : C:\LABQUEST\METHODS\1-112095.MET
 Sample ID : 947796,5.07G,50U
 Acquired : Nov 21, 1995 00:07:54
 Printed : Nov 21, 1995 00:34:33
 User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	5.630	42359704	126.9333
TOLUENE	9.677	5718369	19.9541
ETHYLBENZENE	13.877	42169400	153.1528
M & P XYLENE	14.210	37496080	121.9739
O XYLENE	15.397	57019328	220.8251
BFB	16.970	66474992	100.9790

C:\LABQUEST\CHROM001\112095-2.015 -- Channel A



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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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95/11/27 14:18

Sample identification
947796

Initial mass of sample, g
0.940

Volume of sample after extraction, ml
28.000

Petroleum hydrocarbons, ppm
9067.477

Net absorbance of hydrocarbons (2930 cm^{-1})
0.526

