Denny R. Foust
DEPUTY OIL & GAS INSPECTOR
DEC 21 1998

# EL PASO FIELD SERVICES
# PRODUCTION PIT CLOSURE

Approved

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

**VIERSON #1**
**Meter/Line ID - 72109**

## SITE DETAILS

**Legals - Twn:** 30 **Rng:** 13 **Sec:** 19 **Unit:** A
**NMOCD Hazard Ranking:** 40 **Land Type:** 2 - Federal
**Operator:** DENVER AMERICAN PETROLEUM **Pit Closure Date: 01/30/95**

## 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: 72109 Location: VIERSON #1
Operator #: 0504 Operator Name: Denver American P/L District: Kutz
Coordinates: Letter: A Section 19 Township: 30 Range: 12 13
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: ___ Line Drip: ___ Other: _____
Site Assessment Date: 1/12/95 Area: 02 Run: 23

## 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 Conner Arroya (off LaPlata R.)
(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 : Redline Book: Inside Vulnerable Zone Topo: Inside
1 pit. Will close

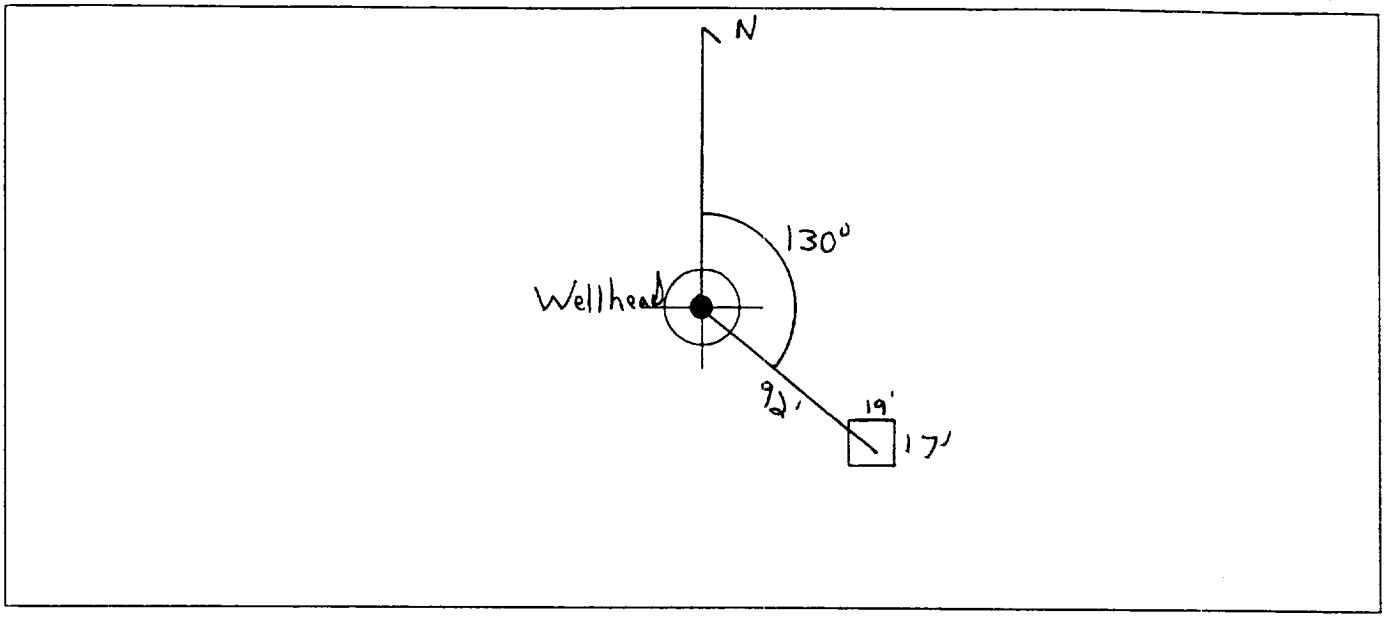
DIG + HAUL

ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 130° Footage from Wellhead 92'

b) Length : 19' Width : 17' Depth : 4'




REMARKS

**Remarks :**

Pictures @ 0911 hr 1-4 roll 1

Completed By:

Cory Chase
Signature

1/12/95
Date

# PHASE I EXCAVATION

# FIELD PIT REMEDIATION/CLOSURE FORM

## GENERAL

Meter: 72109 Location: VIERSON #1

Coordinates: Letter: A Section 19 Township: 30 Range: 13

Or Latitude _____ Longitude _____

Date Started : 1-30-95 Run: 02 23

## FIELD OBSERVATIONS

Sample Number(s): MK339 _____ _____ _____

Sample Depth: 4' Feet

Final PID Reading 591 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: 1-30-95 Pit Closed By: BEI

## REMARKS

**Remarks :** Arrived TOOK Fence Down Dug 1 load out
It Rock 4' Soil Gray Strong HYDRO carbon odor

Signature of Specialist: Morgan Killion

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: | MK 339 | 946606 |
| MTR CODE \| SITE NAME: | 72109 | N/A |
| SAMPLE DATE \| TIME (Hrs): | 1-30-95 | 0930 |
| SAMPLED BY: | N/A | |
| DATE OF TPH EXT. \| ANAL.: | 2/2/95 | 2/2/95 |
| DATE OF BTEX EXT. \| ANAL.: | 1/31/95 | 2/1/95 |
| TYPE \| DESCRIPTION: | VC | Dark Gray clay w/ Brown spots of clay |

REMARKS: _____

## RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|---|---|---|---|---|---|---|
| | | | DF | Q | M(g) | V(ml) |
| BENZENE | 3.33 | MG/KG | 0.79681 | | 2.51 | 20 |
| TOLUENE | 57.1 | MG/KG | | | | |
| ETHYL BENZENE | 11.0 | MG/KG | | | | |
| TOTAL XYLENES | 98.4 | MG/KG | | | | |
| TOTAL BTEX | 170 | MG/KG | | | | |
| TPH (418.1) | 1360 | MG/KG | | | 1.97 | 28 |
| HEADSPACE PID | 591 | PPM | | | | |
| PERCENT SOLIDS | 81.5 | % | | | | |

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

The Surrogate Recovery was at 92.7 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: _____ Date: 2-22-95

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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                               *
**********************************************************************
*
  95/02/02   12:35
*
*   Sample identification
  966606
*
*   Initial mass of sample, g
  1.970
*
*   Volume of sample after extraction, ml
  28.000
*
*   Petroleum hydrocarbons, ppm
  1355.724
*   Net absorbance of hydrocarbons (2930 cm-1)
  0.173
*
*
*
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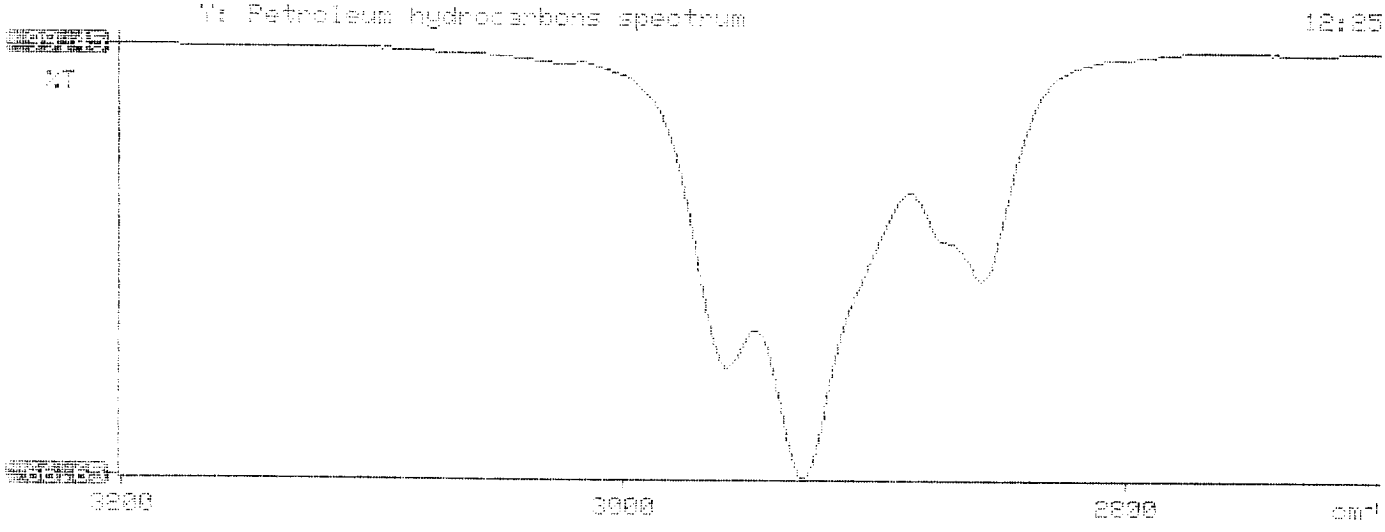


# BTEX SOIL SAMPLE WORKSHEET

| | | | |
|---|---|---|---|
| **File** | 946606A | **Date Printed** | 2/1/95 |
| **Soil Mass (g)** | 2.51 | **Multiplier (L/g)** | 0.00199 |
| **Extraction vol. (mL)** | 20 | **DF (Analytical)** | 400 |
| **Shot Volume (uL)** | 50 | **DF (Report)** | 0.79681 |

| | | | | Det. Limit |
|---|---|---|---|---|
| **Benzene (ug/L)** | 4.18 | **Benzene (mg/Kg):** | **3.331** | 3.984 |
| **Toluene (ug/L)** | 71.61 | **Toluene (mg/Kg):** | **57.060** | 3.984 |
| **Ethylbenzene (ug/L)** | 13.84 | **Ethylbenzene (mg/Kg):** | **11.028** | 3.984 |
| **p & m-xylene (ug/L)** | 97.83 | p & m-xylene (mg/Kg): | 77.952 | 7.968 |
| **o-xylene (ug/L)** | 25.62 | o-xylene (mg/Kg): | 20.414 | 3.984 |
| | | **Total xylenes (mg/Kg):** | **98.367** | 11.952 |
| | | **Total BTEX (mg/Kg):** | **169.785** | |

# EL PASO NATURAL GAS
## EPA METHOD 8020 - BTEX SOILS

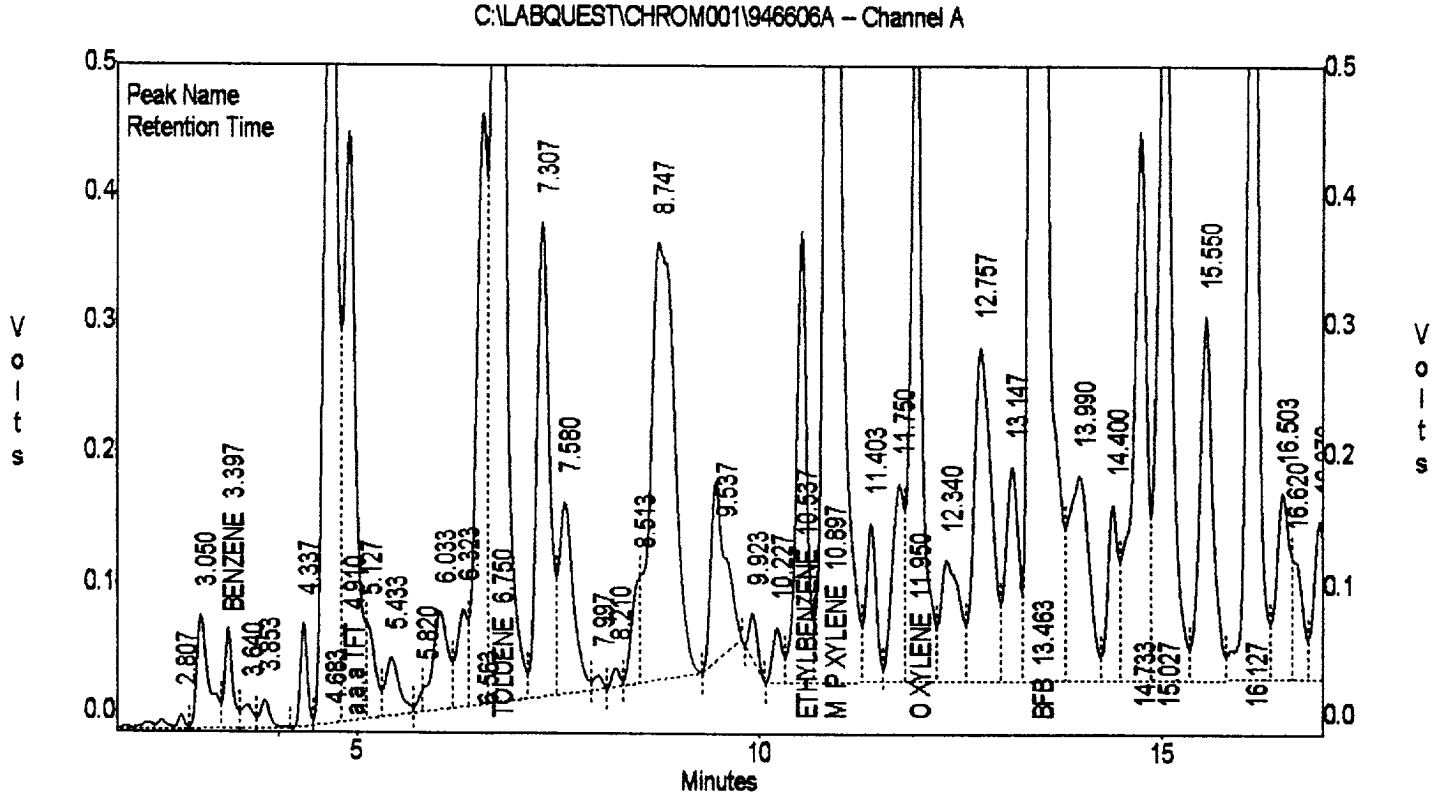
File : C:\LABQUEST\CHROM001\946606A
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 946606,2.51G/50uL
Acquired : Feb 01, 1995 14:31:21
Printed : Feb 01, 1995 14:57:34
User : Tony

Channel A Results

| COMPONENT | RET TIME | AREA | AVG RF | CONC (ug/L) |
|---|---|---|---|---|
| BENZENE | 3.397 | 538458 | 121531.74219 | 4.1801 |
| a,a,a TFT | 4.910 | 4805632 | 32055.68359 | 147.4870 |
| TOLUENE | 6.750 | 17697494 | 314479.71875 | 71.6132 |
| ETHYLBENZENE | 10.537 | 3121229 | 228573.29688 | 13.8431 |
| M & P XYLENE | 10.897 | 24629472 | 316768.40625 | 97.8331 |
| O XYLENE | 11.950 | 5646868 | 221087.17188 | 25.6243 |
| BFB | 13.463 | 88396256 | 944778.31250 | 92.6980 |

Totals :

| | | |
|---|---|---|
| 144835408 | | 453.2788 |



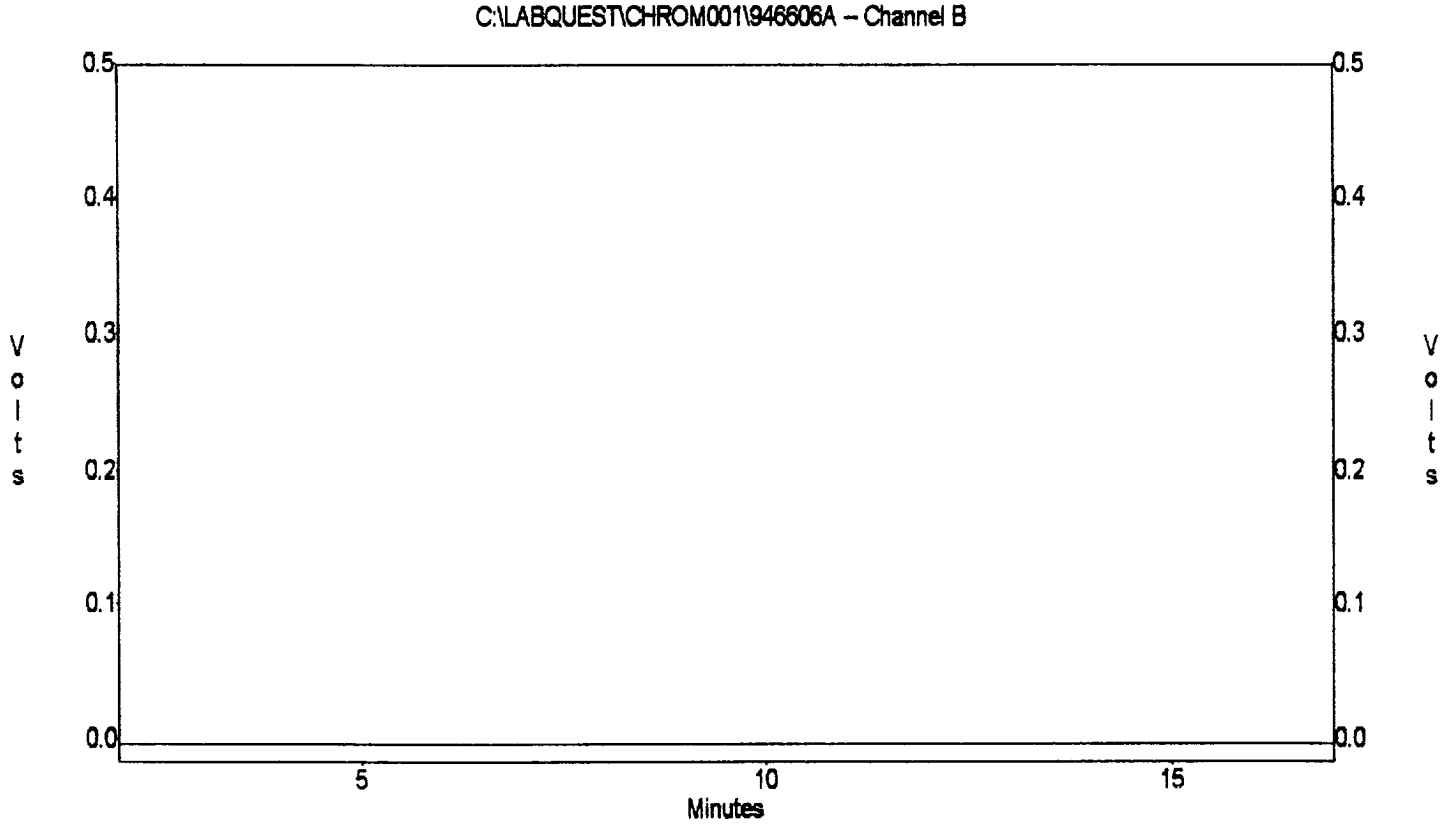
**EL PASO NATURAL GAS**

**EPA METHOD 8020 - BTEX SOILS**

File : C:\LABQUEST\CHROM001\946606A
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 946606,2.51G/50uL
Acquired : Feb 01, 1995 14:31:21
Printed : Feb 01, 1995 14:57:40
User : Tony

Channel B Results

| COMPONENT | RET TIME | AREA | AVG RF | CONC (ug/L) |
|---|---|---|---|---|
| BENZENE | 3.450 | 0 | 0.00000 | 0.0000 |
| a,a,a TFT | 4.950 | 0 | 0.00000 | 0.0000 |
| TOLUENE | 6.787 | 0 | 0.00000 | 0.0000 |
| ETHYLBENZENE | 10.480 | 0 | 0.00000 | 0.0000 |
| M & P XYLENE | 10.833 | 0 | 0.00000 | 0.0000 |
| O XYLENE | 11.900 | 0 | 0.00000 | 0.0000 |
| BFB | 13.400 | 0 | 0.00000 | 0.0000 |
| Totals : | | 0 | | 0.0000 |



# PHASE II

## RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1
Well #
Page 1 of 1

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

Project Name EPNG Pits
Project Number 14509 Phase 6000.77
Project Location VIERSON #1 72109

Elevation
Borehole Location T30, R13, S19, A
GWL Depth
Logged By Jeff W. Kindley
Drilled By M. Donahue
Date/Time Started 09/27/95 0830
Date/Time Completed 09/27/95 1000

Well Logged By Jeff W. Kindley
Personnel On-Site C. Millican, M. Donahue, J. Long
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 | Drilling Conditions & Blow Counts |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | Backfill material to 4 feet | | | | | | |
| 5 | | | | | | | | | | |
| 10 | 1 | 8-10 | 8/20 | CL, gray clay, dry, hard, hydrocarbon odor | | | | | 20/59 | 0845<br>46 blows per Foot |
| 15 | 2 | 13-15 | 7/20 | S.A.A | | | | | 43/85 | 0850<br>31 blows per Foot |
| 20 | 3 | 18-20 | 3/20 | S.A.A.<br>Boring terminated at 20 Feet. | | | | | 11/9 | 0900<br>42 blows per Foot |
| 25 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Comments: Sample collected From 18 to 20 feet (SWK 90). Sample submitted for analysis of BTEX/TPH. BH grouted to the surface

Geologist Signature Jeffrey Kindley

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: | JWK90 | 947556 |
| MTR CODE \| SITE NAME: | 72109 | Vierson #1 |
| SAMPLE DATE \| TIME (Hrs): | 09-27-95 | 0900 |
| PROJECT: | Phase II Drilling | |
| DATE OF TPH EXT. \| ANAL.: | 9/28/95 | |
| DATE OF BTEX EXT. \| ANAL.: | 9/28/95 | 9/28/95 |
| TYPE \| DESCRIPTION: | VG | Grey Sand & Clay |

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) | 41 | MG/KG | | | 2.05 | 28 |
| HEADSPACE PID | 9 | PPM | | | | |
| PERCENT SOLIDS | ~~93.5~~ 97.8 KB | % | | | | |

-- 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: 9-29-95

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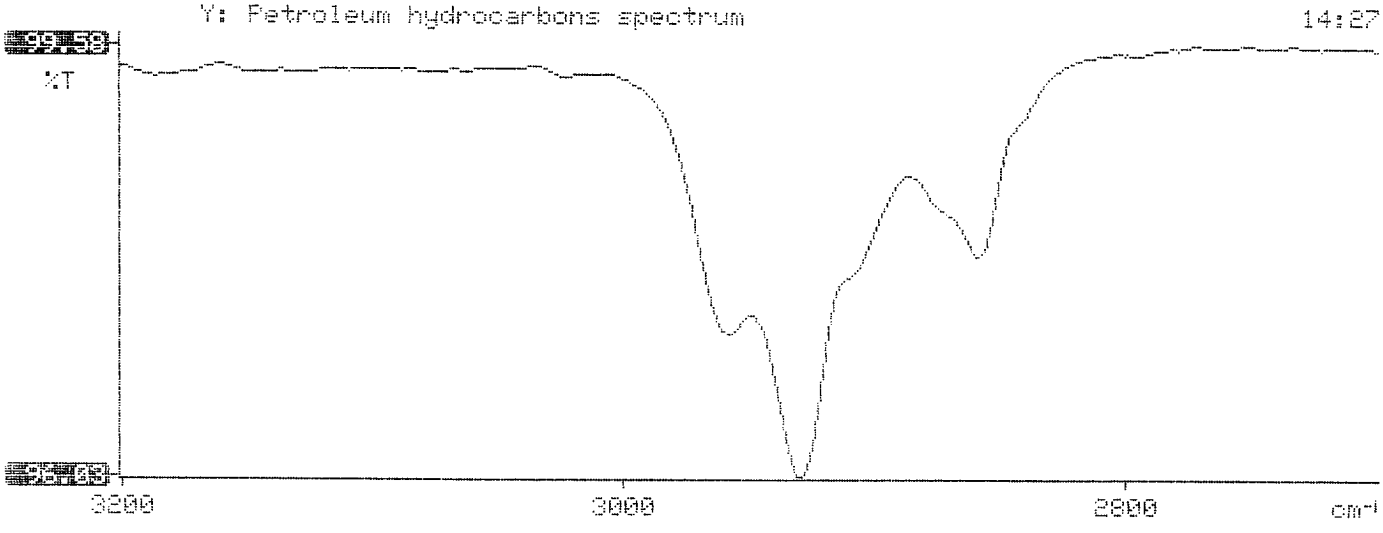
**********************************************************
*                    Test Method for                     *
*      Oil and Grease and Petroleum Hydrocarbons         *
*                    in Water and Soil                   *
*                                                        *
*           Perkin-Elmer Model 1600 FT-IR                *
*                    Analysis Report                     *
**********************************************************
*
 95/09/28   14:27
*
*   Sample identification
 947556
*
*   Initial mass of sample, g
 2.050
*
*   Volume of sample after extraction, ml
 28.000
*
*   Petroleum hydrocarbons, ppm
 40.693
*   Net absorbance of hydrocarbons (2930 cm-1)
 0.015
*
*
*
```



# BTEX SOIL SAMPLE WORKSHEET

| | | | | | |
|---|---|---|---|---|---|
| **File** | : 947556 | **Date Printed** | : 9/29/95 | | |
| **Soil Mass (g)** | : 5.04 | **Multiplier (L/g)** | : 0.00099 | | |
| **Extraction vol. (mL)** | : 10 | **DF (Analytical)** | : 200 | | |
| **Shot Volume (uL)** | : 50 | **DF (Report)** | : 0.19841 | | |
| | | | | | **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)** | : 0.36 | p & m-xylene (mg/Kg): | | 0.071 | 0.992 |
| **o-xylene (ug/L)** | : 0.00 | o-xylene (mg/Kg): | | 0.000 | 0.496 |
| | | **Total xylenes (mg/Kg):** | | **0.071** | 1.488 |
| | | **Total BTEX (mg/Kg):** | | **0.071** | |

# EL PASO NATURAL GAS
# EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\092895-1.010
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 947556,5.04G,50U
Acquired : Sep 28, 1995 18:21:13
Printed : Sep 28, 1995 18:47:37
User : MARLON

Channel A Results

| COMPONENT | RET TIME | AREA | CONC (ug/L) |
|---|---|---|---|
| BENZENE | 4.917 | 0 | 0.0000 |
| a,a,a TFT | 6.660 | 4647750 | 100.6719 |
| TOLUENE | 8.737 | 0 | 0.0000 |
| ETHYLBENZENE | 12.710 | 0 | 0.0000 |
| M & P XYLENE | 13.077 | 119685 | 0.3612 |
| O XYLENE | 14.208 | 0 | 0.0000 |
| BFB | 15.750 | 70401424 | 97.1199 |