

OK

EL PASO FIELD SERVICES
DEPUTY OIL PRODUCTION PIT CLOSURE

DEC 21 1998

TWIN MOUNDS #1E
Meter/Line ID - 93336

RECEIVED
JUL 2 1998

OIL CON. DIV.
DIST. 3

Approved

SITE DETAILS

Legals - Twn: 30
NMOCD Hazard Ranking: 40
Operator: QUESTAR ENERGY CORP.

Rng: 14
Sec: 24
Unit: H
Land Type: 2 - Federal
Pit Closure Date: 01/25/95

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.

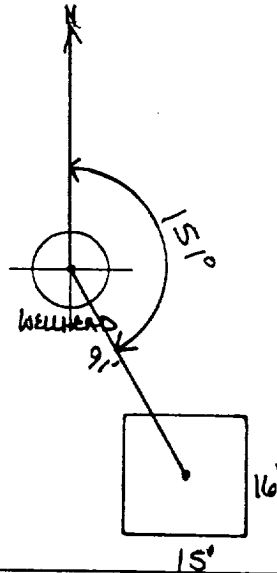
FIELD PIT SITE ASSESSMENT FORM

| | |
|-----------------|---|
| GENERAL | <p>Meter: <u>93336</u> Location: <u>TWIN MOUNDS #1E</u></p> <p>Operator #: _____ Operator Name: <u>AMAX</u> P/L District: <u>KUTZ</u></p> <p>Coordinates: Letter: <u>H</u> Section <u>24</u> Township: <u>30</u> Range: <u>14</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator <input checked="" type="checkbox"/> Location Drip: _____ Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>1.11.95</u> Area: <u>02</u> Run: <u>23</u></p> |
| SITE ASSESSMENT | <p>NMOCD Zone: (From NMOCD Maps)</p> <p>Inside <input checked="" type="checkbox"/> (1) Outside <input type="checkbox"/> (2)</p> <p>Land Type: BLM <input checked="" type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input type="checkbox"/> (3) Indian _____</p> <p>Depth to Groundwater</p> <p>Less Than 50 Feet (20 points) <input checked="" type="checkbox"/> (1) 50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2) Greater Than 100 Ft (0 points) <input type="checkbox"/> (3)</p> <p>Wellhead Protection Area :</p> <p>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 checked="" type="checkbox"/> (2) NO (0 points)</p> <p>Horizontal Distance to Surface Water Body</p> <p>Less Than 200 Ft (20 points) <input checked="" type="checkbox"/> (1) 200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2) Greater Than 1000 Ft (0 points) <input type="checkbox"/> (3)</p> <p>Name of Surface Water Body <u>GROUNDWOOD ARROYO</u></p> <p>(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)</p> <p>Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) < 100' (Navajo Pits Only) <input type="checkbox"/> (2) > 100'</p> <p>TOTAL HAZARD RANKING SCORE: <u>40</u> POINTS</p> |
| REMARKS | <p>Remarks : <u>REDLINE & TOPO SHOW LOCATION INSIDE V.2.4 PITS ON LOCATION.</u></p> <p><u>UNLINED DEHY PIT BELONGS TO EPNG. WILL CLOSE PIT.</u></p> |

DIC 5 MAIL

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 151° Footage from Wellhead 91'
b) Length : 16' Width : 15' Depth : 2'



Remarks :

PHOTOS - 1050

Completed By:

Robert Thompson
Signature

1-11-95
Date

PHASE I EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

| | |
|--------------------|--|
| GENERAL | <p>Meter: <u>93336</u> Location: <u>Twin mounds #1F</u></p> <p>Coordinates: Letter: <u>H</u> Section <u>24</u> Township: <u>30</u> Range: <u>14</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>1-25-95</u> Run: <u>02</u> <u>23</u></p> |
| FIELD OBSERVATIONS | <p>Sample Number(s): <u>MK 337</u></p> <p>Sample Depth: <u>2</u> Feet</p> <p>Final PID Reading <u>538</u> PID Reading Depth <u>2</u> Feet</p> <p>Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p> |
| CLOSURE | <p>Remediation Method :</p> <p>Excavation <input type="checkbox"/> Approx. Cubic Yards _____</p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> Tierra <input type="checkbox"/></p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>1-25-95</u> Pit Closed By: <u>BEI</u></p> |
| REMARKS | <p>Remarks : <u>Arrived Took Fence down Hit Rock about 32" down</u> <u>about 3" of Blow Sand on top of Rock soil grayish green</u> <u>Strong HYDROCARBON odor</u></p> |
| | <p>Signature of Specialist: <u>Morgan Killian</u></p> |



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---------------------------|----------|----------------------------|
| SAMPLE NUMBER: | mh 337 | 120K 1/26/95 401 946603 |
| MTR CODE SITE NAME: | 93336 | N/A |
| SAMPLE DATE TIME (Hrs): | 1-25-95 | 11610 |
| SAMPLED BY: | N/A | |
| DATE OF TPH EXT. ANAL: | 1-28-95 | 1-28-95 |
| DATE OF BTEX EXT. ANAL: | 1/26/95 | 1/29/95 |
| TYPE DESCRIPTION: | V6 | light gray/cream fine sand |

REMARKS:

RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|----------------|--------|-------|------------|---|------|-------|
| | | | DF | Q | M(g) | V(ml) |
| BENZENE | 5.65 | MG/KG | 0.81301 | | 2.46 | 20 |
| TOLUENE | 111 | MG/KG | I | | I | I |
| ETHYL BENZENE | 10.8 | MG/KG | I | | I | I |
| TOTAL XYLENES | 112 | MG/KG | I | | I | I |
| TOTAL BTEX | 239 | MG/KG | | | | |
| TPH (418.1) | 961 | MG/KG | | | 1.93 | 28 |
| HEADSPACE PID | 538 | PPM | | | | |
| PERCENT SOLIDS | 88.5 | % | | | | |

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

The Surrogate Recovery was at 99.6 % for this sample All QA/QC was acceptable.
Narrative:

DF = Dilution Factor Used

Approved By: J.R.

Date: 2-22-95

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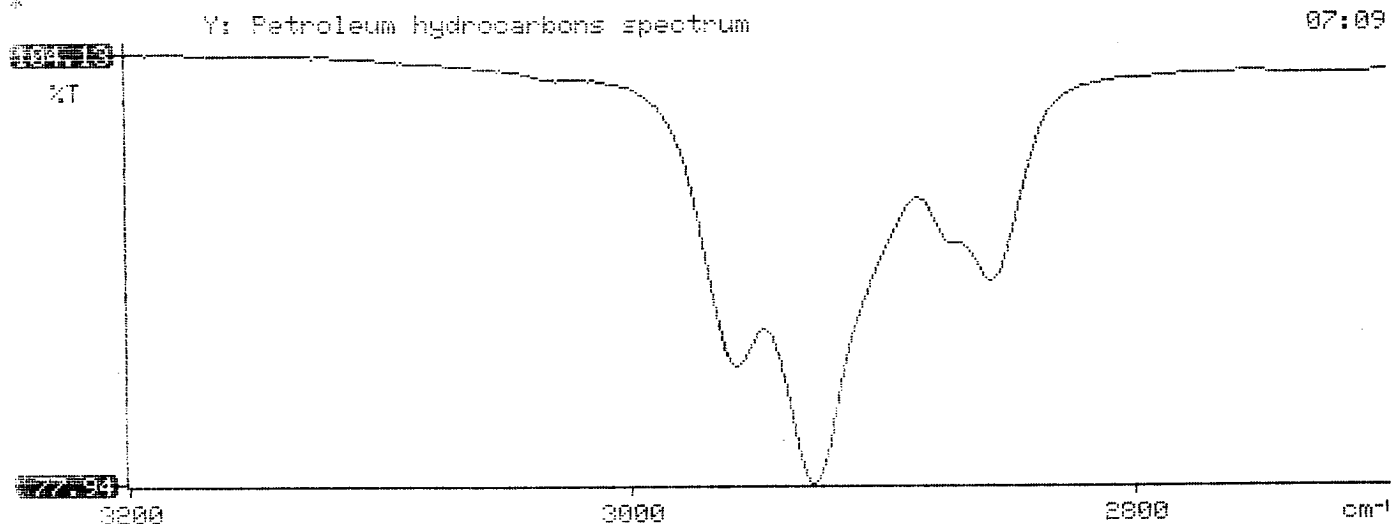
*****
*                               *****
*                               Test Method for
*                               Oil and Grease and Petroleum Hydrocarbons
*                               in Water and Soil
*                               Perkin-Elmer Model 1600 FT-IR
*                     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

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*
* 95/01/28 07:09
*
* Sample identification
* 946603
*
* Initial mass of sample, g
* 1.930
*
* Volume of sample after extraction, ml
* 28.000
*
* Petroleum hydrocarbons, ppm
* 960.747
* Net absorbance of hydrocarbons (2930 cm-1)
* 0.123
*

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BTEX SOIL SAMPLE WORKSHEET

| | | | | | |
|----------------------|---|---------|------------------|---|---------|
| File | : | 946603A | Date Printed | : | 1/30/95 |
| Soil Mass (g) | : | 2.46 | Multiplier (L/g) | : | 0.00203 |
| Extraction vol. (mL) | : | 20 | DF (Analytical) | : | 400 |
| Shot Volume (uL) | : | 50 | DF (Report) | : | 0.81301 |

| | | | Det. Limit |
|------------------------|---|---------|------------|
| Benzene (ug/L) | : | 6.95 | |
| Toluene (ug/L) | : | 136.66 | |
| Ethylbenzene (ug/L) | : | 13.23 | |
| p & m-xylene (ug/L) | : | 111.22 | |
| o-xylene (ug/L) | : | 26.19 | |
| Benzene (mg/Kg): | | 5.650 | 4.065 |
| Toluene (mg/Kg): | | 111.106 | 4.065 |
| Ethylbenzene (mg/Kg): | | 10.756 | 4.065 |
| p & m-xylene (mg/Kg): | | 90.423 | 8.130 |
| o-xylene (mg/Kg): | | 21.293 | 4.065 |
| Total xylenes (mg/Kg): | | 111.715 | 12.195 |
| Total BTEX (mg/Kg): | | 239.228 | |

EL PASO NATURAL GAS

EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\946803A
 Method : C:\LABQUEST\METHODS\9001.MET
 Sample ID : 946803,2.46G/50uL
 Acquired : Jan 30, 1995 05:25:35
 Printed : Jan 30, 1995 05:42:42
 User : Tony

Channel A Results

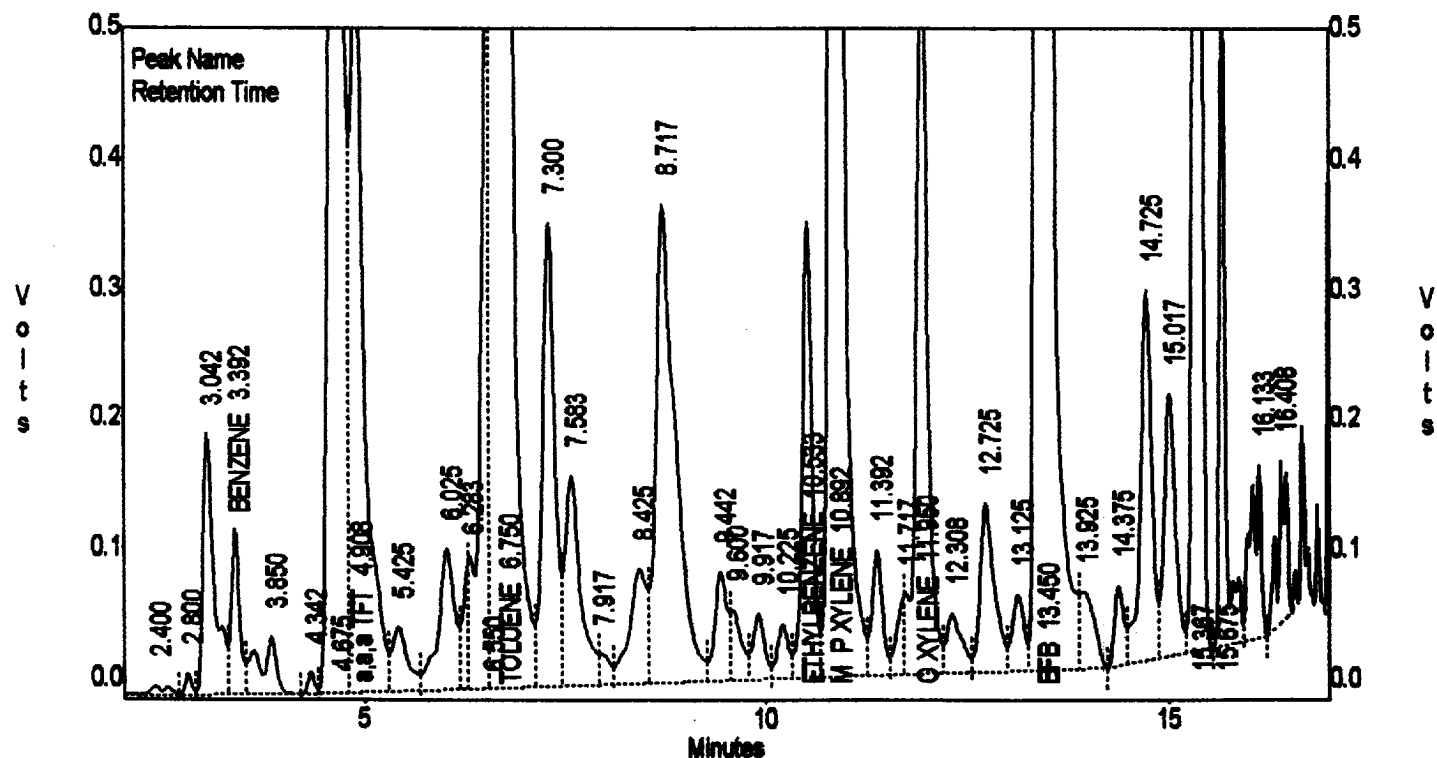
| COMPONENT | RET TIME | AREA | AVG RF | CONC (ug/L) |
|--------------|----------|----------|--------------|-------------|
| BENZENE | 3.392 | 895409 | 121531.74219 | 6.9511 |
| a,a,a TFT | 4.908 | 7185717 | 32055.68359 | 220.5329 |
| TOLUENE | 6.750 | 33771528 | 314479.71875 | 136.6570 |
| ETHYLBENZENE | 10.533 | 2983830 | 228573.29688 | 13.2338 |
| M & P XYLENE | 10.892 | 27999542 | 316768.40625 | 111.2197 |
| O XYLENE | 11.950 | 5772462 | 221087.17188 | 26.1942 |
| BFB | 13.450 | 95024504 | 944778.31250 | 99.6488 |

Totals :

173632992

614.4375

C:\LABQUEST\CHROM001\946803A - Channel A



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

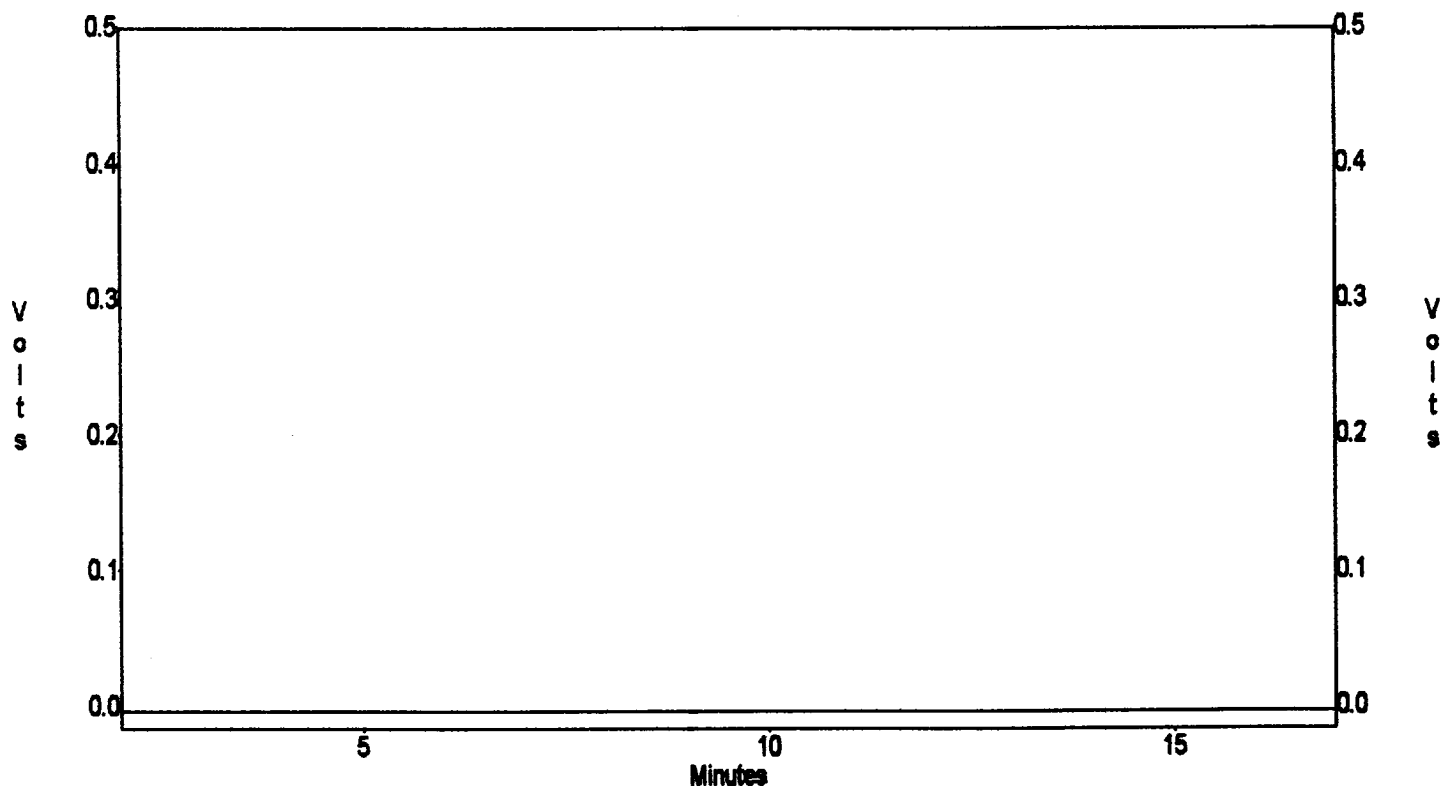
File : C:\LABQUEST\CHROM001\946603A
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 946603,2.46G/50uL
Acquired : Jan 30, 1995 05:25:35
Printed : Jan 30, 1995 05:42:48
User : Tony

Channel B Results

| COMPONENT | RET TIME | AREA | AVG RF | CONC (ug/L) |
|--------------|----------|------|---------|-------------|
| BENZENE | 3.367 | 0 | 0.00000 | 0.0000 |
| a,a,a TFT | 4.883 | 0 | 0.00000 | 0.0000 |
| TOLUENE | 6.700 | 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

C:\LABQUEST\CHROM001\946603A - Channel B



PHASE II

RECORD OF SUBSURFACE EXPLORATION

PHILIP ENVIRONMENTAL

4000 Marvoo Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # BH-1
Well # _____
Page 1 of 1

Project Name EPNG Pits
Project Number 14509 Phase 6000.77
Project Location Twin Mounds #1E 93336

Elevation _____
Borehole Location T 30, R 14, S 24, H
GWL Depth _____
Logged By Jeff W. Kindley
Drilled By Steve Snider
Date/Time Started 09/26/95 1420
Date/Time Completed 09/26/95 1520

Well Logged By Jeff W. Kindley
Personnel On-Site S. Snider, D. Roberts
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 | | | Drilling Conditions & Blow Counts |
|-----------------|------------------|--------------------|--|--|----------------|--|------------------------------|-----------|---|--------------------------------------|
| | | | | | | | BZ | BH | S | |
| 0 | | | | Backfill material to 2' | | | | | | |
| 5 | | | | | | | | | | |
| 10 | 1 | 10-12 | 1.5 2.0 | SW, BR/SAND, medium grained, dry, dense, hydrocarbon odors | | | | 74 110 | | 1431 46 blows per Foot |
| 15 | 2 | 15-17 | 1.8 2.0 | S.A.A | | | | 106 88 | | 1441 54 blows per Foot |
| 20 | 3 | 20-22 | 1.4 2.0 | SANDSTONE, GRAY, DRY, of medium grained sand, very dense, no hydrocarbon odors Boring terminated at 22' | | | | 7 0 | | 1455 68 blows per Foot |
| 25 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Comments:

Sample collected from 20 to 22 feet (TWK 88). Sample submitted
for analysis of BTEX/TPH. BH grouted to the surface

Geologist Signature

Jeffrey Kindley



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---------------------------|-------------------|------------------------------|
| SAMPLE NUMBER: | JW88 | 947546 |
| MTR CODE SITE NAME: | 93336 | Twin Mounds #1E |
| SAMPLE DATE TIME (Hrs): | 09-26-95 | 1455 |
| PROJECT: | Phase II Drilling | |
| DATE OF TPH EXT. ANAL: | 9-27-95 | |
| DATE OF BTEX EXT. ANAL: | 9/27/95 | 9/27/95 |
| TYPE DESCRIPTION: | V6 | Light Gray Sand & Sand Stone |

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) | 26 | MG/KG | | | 1.95 | 28 |
| HEADSPACE PID | 0 | PPM | | | | |
| PERCENT SOLIDS | 90.6 | % | | | | |

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

The Surrogate Recovery was at 93% for this sample All QA/QC was acceptable.
Narrative:

DF = Dilution Factor Used

Approved By: JP

Date: 9-29-95

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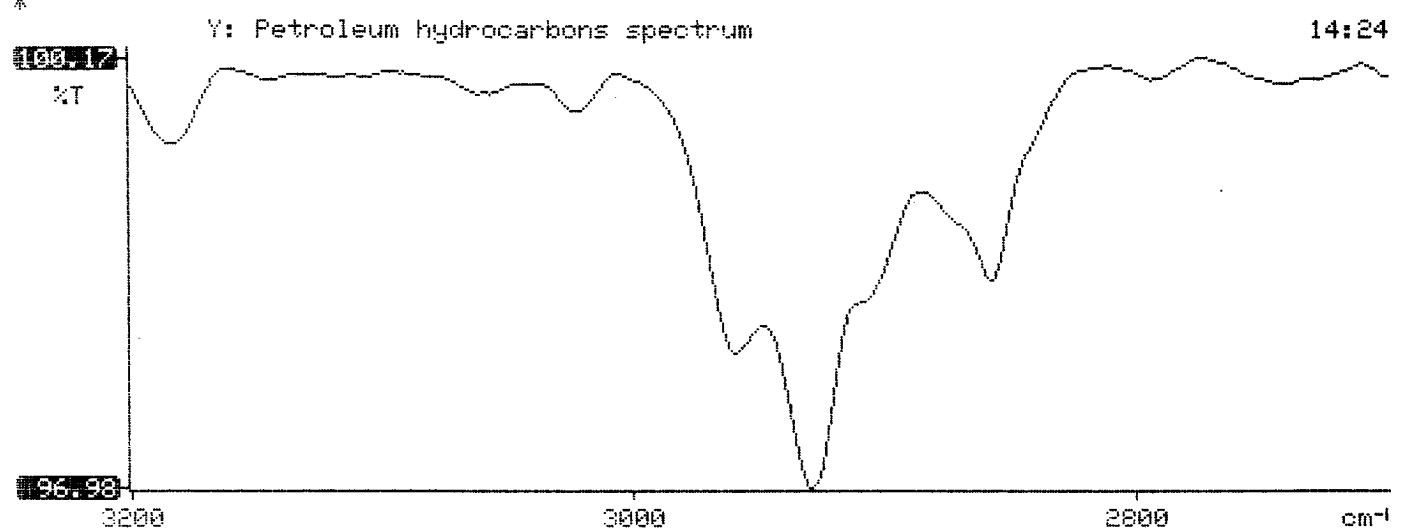
*****
*                               *
*       Test Method for         *
*       Oil and Grease and Petroleum Hydrocarbons         *
*       in Water and Soil      *
*                               *
*       Perkin-Elmer Model 1600 FT-IR                     *
*       Analysis Report      *
*****

```

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*
* 95/09/27 14:23
*
* Sample identification
* 947546
*
* Initial mass of sample, g
* 1.950
*
* Volume of sample after extraction, ml
* 28.000
*
* Petroleum hydrocarbons, ppm
* 25.567
* Net absorbance of hydrocarbons (2930 cm-1)
* 0.013
*
*
*

```



BTEX SOIL SAMPLE WORKSHEET

| | | | | | |
|----------------------|---|--------|------------------|---|---------|
| File | : | 947546 | Date Printed | : | 9/28/95 |
| Soil Mass (g) | : | 4.95 | Multiplier (L/g) | : | 0.00101 |
| Extraction vol. (mL) | : | 10 | DF (Analytical) | : | 200 |
| Shot Volume (uL) | : | 50 | DF (Report) | : | 0.20202 |

| | | | | Det. Limit |
|---------------------|---|------|------------------------|-------------|
| Benzene (ug/L) | : | 0.00 | Benzene (mg/Kg): | 0.000 0.505 |
| Toluene (ug/L) | : | 0.77 | Toluene (mg/Kg): | 0.156 0.505 |
| Ethylbenzene (ug/L) | : | 0.00 | Ethylbenzene (mg/Kg): | 0.000 0.505 |
| p & m-xylene (ug/L) | : | 0.91 | p & m-xylene (mg/Kg): | 0.184 1.010 |
| o-xylene (ug/L) | : | 0.00 | o-xylene (mg/Kg): | 0.000 0.505 |
| | | | Total xylenes (mg/Kg): | 0.184 1.515 |
| | | | Total BTEX (mg/Kg): | 0.339 |

EL PASO NATURAL GAS

EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\092795-1.010
 Method : C:\LABQUEST\METHODS\9001.MET
 Sample ID : 947546,4.95G,50U
 Acquired : Sep 27, 1995 21:07:41
 Printed : Sep 27, 1995 21:34:05
 User : MARLON

Channel A Results

| COMPONENT | RET TIME | AREA | CONC (ug/L) |
|--------------|----------|----------|-------------|
| BENZENE | 4.917 | 0 | 0.0000 |
| a,a,a TFT | 6.683 | 4247961 | 92.0123 |
| TOLUENE | 8.720 | 214536 | 0.7725 |
| ETHYLBENZENE | 12.710 | 0 | 0.0000 |
| M & P XYLENE | 13.090 | 301684 | 0.9105 |
| O XYLENE | 14.208 | 0 | 0.0000 |
| BFB | 15.763 | 67501592 | 93.1195 |

