

Senny & Frost
EL PASO FIELD SERVICES
DEPUTY OIL & GAS INSPECTOR
PRODUCTION PIT CLOSURE

DEC 21 1998

ELLIOTT GAS COM R#1E
Meter/Line ID - 93500

RECEIVED
JUL 2 1998

OIL CON. DIV.
DIST. 3

SITE DETAILS

Approved
Legals - Twn: 30

Rng: 09

Sec: 34

Unit: C

NMOCD Hazard Ranking: 10

Land Type: 2 - Federal

Operator: AMOCO PRODUCTION COMPANY

Pit Closure Date: 09/12/94

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.

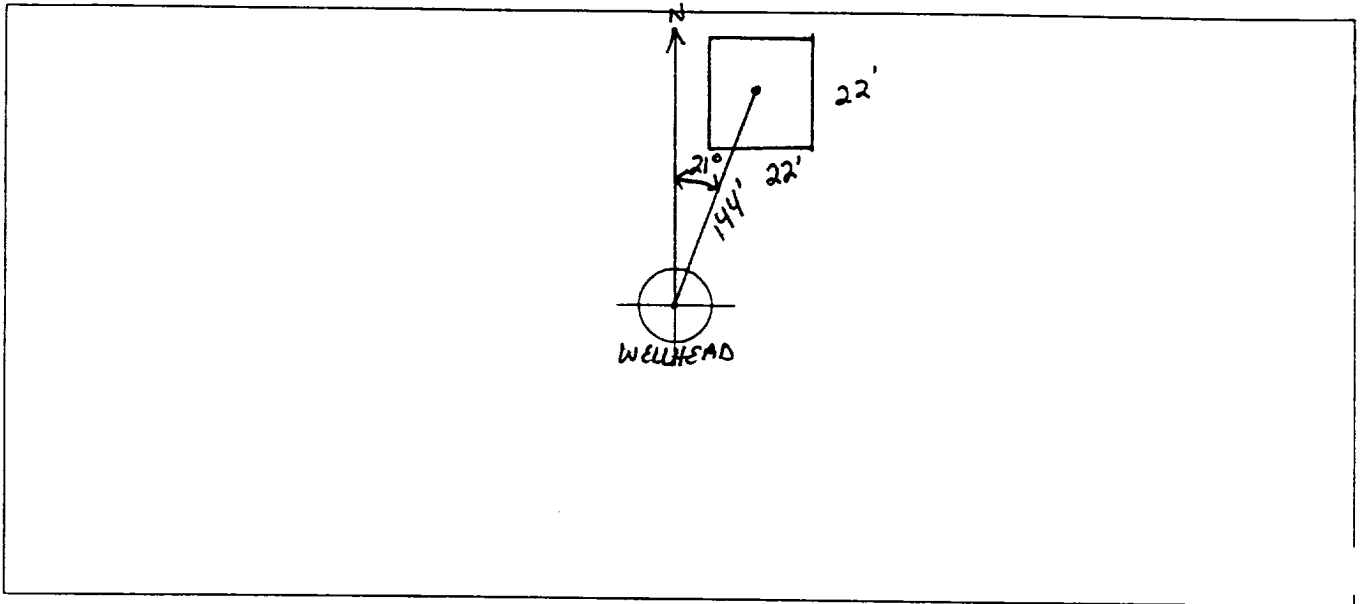
FIELD PIT SITE ASSESSMENT FORM

| | |
|-----------------|---|
| GENERAL | <p>Meter: <u>93500</u> Location: <u>ELLIOT GAS COM R #12</u></p> <p>Operator #: <u>0203</u> Operator Name: <u>AMOCO</u> P/L District: <u>BLOOMFIELD</u></p> <p>Coordinates: Letter: <u>C</u> Section: <u>34</u> Township: <u>30</u> Range: <u>9</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator _____ Location Drip: <u>X</u> Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>5.26.94</u> Area: <u>10</u> Run: <u>43</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 type="checkbox"/> (1) 50 Ft to 99 Ft (10 points) <input checked="" type="checkbox"/> (2) Greater Than 100 Ft (0 points) <input type="checkbox"/> (3)</p> <p>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? <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 type="checkbox"/> (1) 200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2) Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____</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>10</u> POINTS</p> |
| REMARKS | <p>Remarks : <u>THREE PITS ON LOCATION, WILL CLOSE ONLY ONE. PIT IS DRY.</u></p> <p><u>LOCATION IS EAST OF CABALLO CANYON AND NORTH OF CR. 4599.</u></p> <p><u>REDLINE AND TOPO CONFIRMED LOCATION INSIDE V.2</u></p> <p style="text-align: right;">DIG & HADL</p> |

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 21° Footage from Wellhead 144'
b) Length : 22' Width : 22' Depth : 4'



REMARKS

Remarks :

TOOK PICTURES AT 9:31 A.M.

END DUMP

Completed By:

Robert Thompson
Signature

5.26.94

Date

PHASE I EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

| | |
|---------------------------|---|
| GENERAL | <p>Meter: <u>93500</u> Location: <u>ELLIOT GAS Com R #1E</u></p> <p>Coordinates: Letter: <u>C</u> Section <u>34</u> Township: <u>30</u> Range: <u>9</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>9-12-94</u> Run: <u>10</u> <u>43</u></p> |
| FIELD OBSERVATIONS | <p>Sample Number(s): <u>KP ²³⁰ 226</u> <u>9/14/94 BR</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>270</u> PID Reading Depth <u>12'</u> Feet</p> <p style="text-align: center;">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 checked="" type="checkbox"/> Approx. Cubic Yards <u>70</u></p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input checked="" type="checkbox"/> <input type="checkbox"/> Tierra</p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>9-12-94</u> Pit Closed By: <u>BEI</u></p> |
| REMARKS | <p>Remarks : <u>SOME LINE MARKERS - started Remediating to 12'</u> <u>soil Looking Like Brown with a smell. At 12' soil still the same</u> <u>closed Pit.</u></p> |
| | <p>Signature of Specialist: <u>Kelly Radtke</u></p> |



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|----------------------------|----------|-----------------|
| SAMPLE NUMBER: | KP 230 | 946109 |
| MTR CODE SITE NAME: | 93500 | N/A |
| SAMPLE DATE TIME (Hrs): | 9-12-94 | 1355 |
| SAMPLED BY: | N/A | |
| DATE OF TPH EXT. ANAL.: | 9-15-94 | 9-15-94 |
| DATE OF BTEX EXT. ANAL.: | 9-19-94 | 9-19-94 |
| TYPE DESCRIPTION: | VC | Brown fine sand |

REMARKS:

RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|----------------|--------|-------|------------|---|------|-------|
| | | | DF | Q | M(g) | V(ml) |
| BENZENE | 10.25 | MG/KG | 10 | | | |
| TOLUENE | 10.25 | MG/KG | 10 | | | |
| ETHYL BENZENE | 2.5 | MG/KG | 10 | | | |
| TOTAL XYLENES | 100 | MG/KG | 10 | | | |
| TOTAL BTEX | 103 | MG/KG | | | | |
| TPH (418.1) | 4280 | MG/KG | | | 2023 | 28 |
| HEADSPACE PID | 270 | PPM | | | | |
| PERCENT SOLIDS | 94.9 | % | | | | |

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

The Surrogate Recovery was at 351 % for this sample All QA/QC was acceptable.

Narrative:

ATI Results attached. Surrogate Recovery was outside ~~ATI~~ ATI QC limits due to matrix interference.

DF = Dilution Factor Used

Approved By: J.D.

Date: 10/23/94

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

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13:15 13:15

1 Sample Identification

164109

2 Initial mass of sample, g

1.110

3 Volume of sample after extraction, ml

10.000

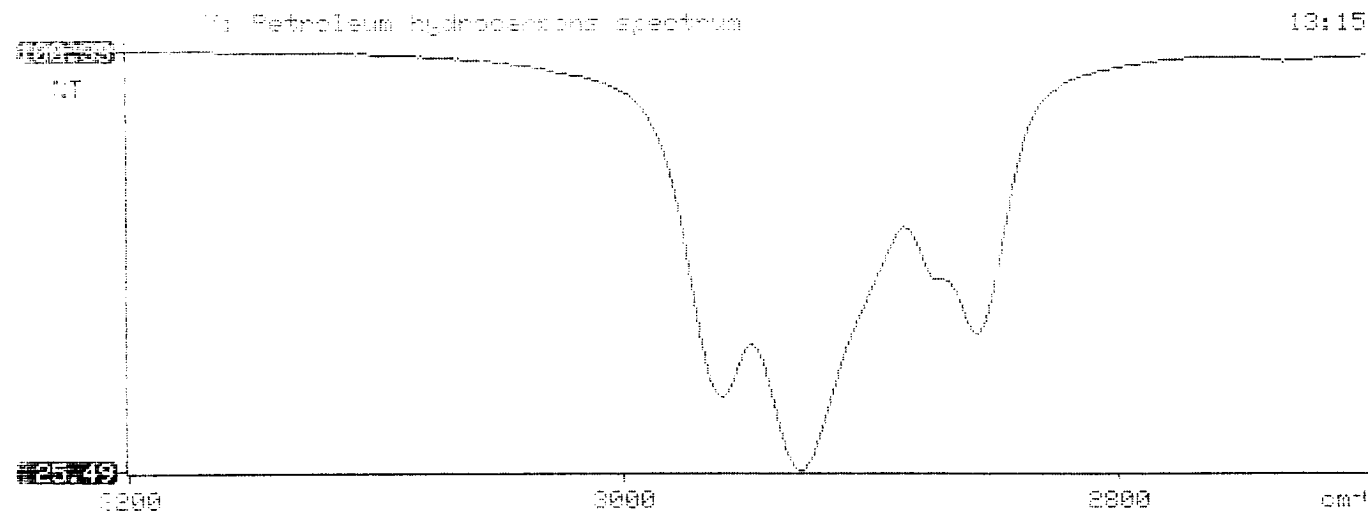
4 Petroleum hydrocarbons, ppm

1275.120

5 Net absorbance of hydrocarbons (2930 cm-1)

0.152

6





2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

September 22, 1994

El Paso Natural Gas Co.
P.O. Box 4990
Farmington, NM 87499

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 09/16/94, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

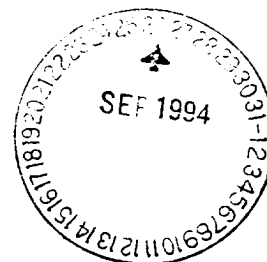
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Debbie Lubson

Letitia Krakowski, Ph.D.
Project Manager

MR: jt

Enclosure



GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
 CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 409367
 PROJECT # : 24324
 PROJECT NAME : PIT CLOSURE

| SAMPLE ID. # | CLIENT I.D. | MATRIX | DATE SAMPLED | DATE EXTRACTED | DATE ANALYZED | DIL. FACTOR |
|--------------|-------------|--------|--------------|----------------|---------------|-------------|
| 01 | 946108 | NON-AQ | 09/12/94 | 09/19/94 | 09/19/94 | 10 |
| 02 | 946109 | NON-AQ | 09/12/94 | 09/19/94 | 09/19/94 | 10 |
| 03 | 946110 | NON-AQ | 09/13/94 | 09/19/94 | 09/19/94 | 1 |

| PARAMETER | UNITS | 01 | 02 | 03 |
|---------------|-------|------|-------|--------|
| BENZENE | MG/KG | 0.50 | <0.25 | <0.025 |
| TOLUENE | MG/KG | 61 | <0.25 | <0.025 |
| ETHYLBENZENE | MG/KG | 9.8 | 2.5 | <0.025 |
| TOTAL XYLENES | MG/KG | 140 | 100 | <0.025 |

SURROGATE:

BROMOFLUOROBENZENE (%) 63 351* 96

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

PHASE II DRILL

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe 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 60+ 6000
Project Location Elliot Gas Com R#1E, 9350C

Elevation _____
Borehole Location T30, R9, S.34, C
GWL Depth _____
Logged By S.Kelly
Drilled By M. Donohue
Date/Time Started 8/8/95, 1000
Date/Time Completed 8/8/95, 1045

Well Logged By S.Kelly
Personnel On-Site M. Donohue, J. O'Reife
Contractors On-Site _____
Client Personnel On-Site _____
Drilling Method 4 1/4" 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 | | | Drilling Conditions & Blow Counts |
|--------------|---------------|-----------------|---------------------------------|--|-------------|-------------------------------|---------------------------------------|--|-------|-----------------------------------|
| 0 | | | | Backfill to 12' | | | | | | |
| 5 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 15 | | | | | | | | | | |
| 20 | 1 | 18-20 | 1.2' / 2.0' | SAND, light brown, fine to med. sand, loose, damp. | | | | | 0 / 1 | 1014 |
| 25 | | | | TOB - 20.0' | | | | | | |
| 30 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Comments:

18'-20' sample (SEK56) sent to lab (BTEx & TPH)
BH grouted to surface.

Geologist Signature

Sarah Kelly



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|----------------------------|-------------------|-----------------------|
| SAMPLE NUMBER: | SEK 56 | 947173 |
| MTR CODE SITE NAME: | 93500 | El Paso Gas Com R #1E |
| SAMPLE DATE TIME (Hrs): | 08-08-95 | 10:14 |
| PROJECT: | Phase II Drilling | |
| DATE OF TPH EXT. ANAL.: | 8/9/95 | 8/9/95 |
| DATE OF BTEX EXT. ANAL.: | 8/12/95 | 8/12/95 |
| TYPE DESCRIPTION: | VG | Light brown fine sand |

Field Remarks: (18-20')

RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|----------------|----------------------|-------|------------|---|------|-------|
| | | | DF | Q | M(g) | V(ml) |
| BENZENE | <0.025 | MG/KG | 1 | | | |
| TOLUENE | <0.025 | MG/KG | 1 | | | |
| ETHYL BENZENE | <0.025 | MG/KG | 1 | | | |
| TOTAL XYLENES | <0.025 | MG/KG | 1 | | | |
| TOTAL BTEX | <0.10 | MG/KG | | | | |
| TPH (418.1) | 23.7 23.7 | MG/KG | | | 2.03 | 28 |
| HEADSPACE PID | 1 | PPM | | | | |
| PERCENT SOLIDS | 96.9 | % | | | | |

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 820 --

The Surrogate Recovery was at 104 for this sample All QA/QC was acceptable.

Narrative:

AT1 Results attached.

DF = Dilution Factor Used

Approved By:

Date:

8/28/95

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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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95/08/09 13:33

* Sample identification
947173

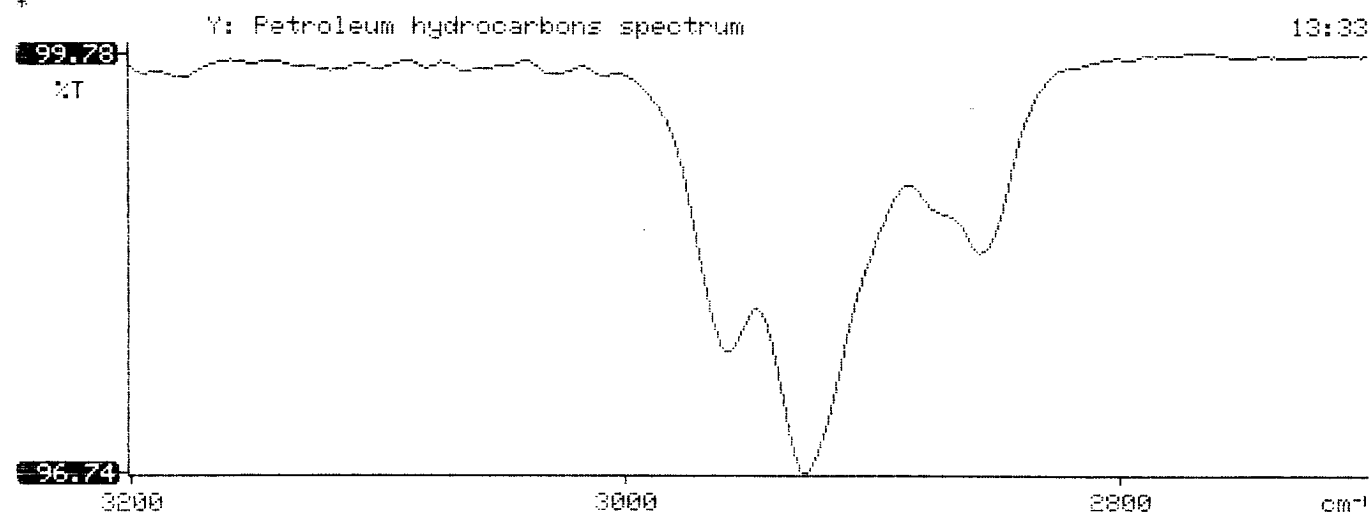
* Initial mass of sample, g
2.030

* Volume of sample after extraction, ml
28.000

* Petroleum hydrocarbons, ppm
23.694

* Net absorbance of hydrocarbons (2930 cm⁻¹)
0.013

*
*
*





Analytical**Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 508367

August 17, 1995

El Paso Natural Gas Co.
P.O. Box 4990
Farmington, NM 87499

Project Name/Number: PIT CLOSURE/PHASE I, II & III PITS 24324

Attention: John Lambdin

On 08/11/95, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill
Project Manager

MR:jt

Enclosure

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager





GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 508367
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE/PHASE I, II & III

| SAMPLE ID. # | CLIENT I.D. | MATRIX | DATE SAMPLED | DATE EXTRACTED | DATE ANALYZED | DIL. FACTOR |
|---------------|-------------|--------|--------------|----------------|---------------|-------------|
| 10 | 947171 | NON-AQ | 08/07/95 | 08/12/95 | 08/12/95 | 1 |
| 11 | 947172 | NON-AQ | 08/07/95 | 08/12/95 | 08/12/95 | 1 |
| 12 | 947173 | NON-AQ | 08/08/95 | 08/12/95 | 08/12/95 | 1 |
| PARAMETER | | | UNITS | 10 | 11 | 12 |
| BENZENE | | | MG/KG | <0.025 | <0.025 | <0.025 |
| TOLUENE | | | MG/KG | <0.025 | <0.025 | <0.025 |
| ETHYLBENZENE | | | MG/KG | <0.025 | <0.025 | <0.025 |
| TOTAL XYLENES | | | MG/KG | <0.025 | 0.029 | <0.025 |

SURROGATE:

| | | | |
|------------------------|-----|-----|-----|
| BROMOFLUOROBENZENE (%) | 111 | 103 | 104 |
|------------------------|-----|-----|-----|