

3R - 318

REPORTS

DATE:

JAN. 21, 2003



Environmental Project Services
188 County Road 4900
Bloomfield, NM 87413
505-634-4956 Phone
505-327-4577 Fax

RECEIVED

FEB 14 2003

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

January 21, 2003

Mr. Bill Olson
Hydrogeologist
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: FLORANCE #124 PIT REMEDIATION AND CLOSURE REPORT

Dear Mr. Olson:

Enclosed please find information on remediation and closure activities associated with the unlined surface impoundment located at the Florance #124 site. Public Service Company of New Mexico (PNM) previously owned the site and initiated closure activities on August 1, 1996. The site later became an asset of Williams upon purchase of Gas Company of New Mexico (GCNM) from PNM. Upon expiration of PNM's retained environmental liabilities associated with the site, Williams agreed to complete necessary closure work. As such, the enclosed documentation reflects activities of both PNM and Williams.

Site History

Excavation of petroleum hydrocarbon-impacted soil beneath the unlined surface impoundment was conducted in three phases. Phase I began on August 1, 1996 with the excavation and landfarming of approximately 425 cubic yards of contaminated soil. Ground water was encountered at a depth of 14-feet and the excavation was terminated at 15-feet. A sample of ground water collected from the excavation contained benzene (2214.6 µg/l), toluene (7397.7 µg/l) and total xylenes (4033.8 µg/l) at concentrations in excess of Water Quality Control Commission (WQCC) standards.

To evaluate the magnitude and extent of ground water contamination, four monitoring wells were installed on August 28, 1996. Free-phase product was not encountered in any well. Water samples collected in the third and fourth quarters of 1996 indicated that background TDS levels were in excess of 10,000 mg/l and that the source area well, MW-2, was the only well with elevated BTEX levels. Based on the TDS levels, PNM argued in their April 15, 1997 Groundwater Site Summary Report that area ground water had no beneficial use and requested closure of the site. No record of a response from NMOCD to the closure request exists in the files provided by PNM. It is assumed that the request was denied as evidenced by PNM's implementation of Phase II of the project.

Phase II began on March 2, 1999 with the excavation and landfarming of an additional 663 cubic yards of contaminated soil from an area centered around the source area well MW-2. Well MW-2 was left in place and monitoring continued through October 14, 1999. Dissolved BTEX levels in MW-2 remained above WQCC standards so a third phase of excavation was initiated on January 4, 2000. Phase III resulted in the removal of an additional 1321 cubic yards of contaminated soil. Monitoring well MW-2 was removed and replaced on January 18, 2000 with two new wells identified as MW-5 and MW-6. Exhibit A contains the original PNM Pit Remediation and Closure Report. In addition, excavation maps, field notes and landfarm confirmation sample results are included.

Site Hydrogeology

The Florance #124 site is located in Unit C, Section 27, Township 29N, Range 9W of San Juan County, New Mexico (Figure 1). The site lies on the northeast edge of Largo Canyon. The alluvial sediments consist primarily of brown, silty sand grading from fine near the surface to coarse at 3-feet below ground surface. At 10-feet the material is primarily gray, coarse sand. Bedrock was encountered in one part of the excavation at a depth of 17-feet below ground surface.

Ground water in the unconsolidated sediments is unconfined and the depth to ground water is typically around 10-feet below ground level. A hydrograph for the wells is included in Exhibit B. Ground water flows to the southwest toward Largo Canyon. A potentiometric surface map is included in Exhibit B. The average hydraulic gradient across the site is 0.002. Hydraulic conductivities of the sediments are likely on the order of 10^{-3} to 10^{-1} cm/sec.

Monitoring Results

Concentrations of benzene, toluene, ethylbenzene and xylene (BTEX) were analyzed in water samples collected quarterly from September 1996 through June 2002. The initial monitoring network consisted of four wells identified as MW-1 through MW-4. Wells MW-1, MW-3 and MW-4 demonstrated four consecutive quarters of no detectable BTEX beginning with the first sampling event on September 5, 1996. Sampling of these wells was discontinued in January 1998 with the exception of a final closure sampling conducted in June 2002.

After three years of monitoring well MW-2 total BTEX levels decreased from 1639.1 $\mu\text{g/l}$ to 67.9 $\mu\text{g/l}$. Still, the benzene concentration remained at 53 $\mu\text{g/l}$, well above WQCC standards. Following Phase III excavation activities, well MW-2 was replaced with wells MW-5 and MW-6. Concentrations of BTEX in well MW-5 were never detected. Total BTEX in well MW-6 was initially at 1014 $\mu\text{g/l}$, but rapidly decreased to levels below the constituent detection limits. All monitoring wells have now demonstrated four consecutive quarters of BTEX levels below WQCC standards. Table 1 summarizes the ground water analytical results. Copies of laboratory analytical reports not previously submitted are attached.

Summary

The unlined surface impoundment at the Florance #124 site was addressed consistent with OCD Order 7940-C and with the guidelines pertaining to the remediation of unlined surface impoundments. The work included the removal of hydrocarbon-impacted soil and an evaluation of ground water impacted by the historical operation of the impoundment. A network of ground water monitoring wells was installed and ground water analyses showed that a BTEX plume existed in the vicinity of the former pit location. Natural attenuation of the BTEX compounds along with extensive source removal resulted in contaminant degradation to concentrations less than WQCC standards.

Based on current site conditions, Williams requests approval for closure of the Florance #124 site. Following receipt of your closure approval we will plug and abandon the monitoring wells in accordance with applicable regulations. Williams appreciates your time in reviewing this site closure request. If you have any questions or require any additional information, please contact me at 505-634-4956 or Jim Struhs, Project Hydrogeologist at 801-558-1918.

January 21, 2003
Mr. Bill Olson, OCD
Page 3

Respectfully,

A handwritten signature in black ink, appearing to read "Mr. B. Harvey". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Mark B. Harvey
Project Coordinator

Attachments

c: Mr. Denny Foust, NMOCD, District III
Mr. Bill Liess, BLM, Farmington District Office

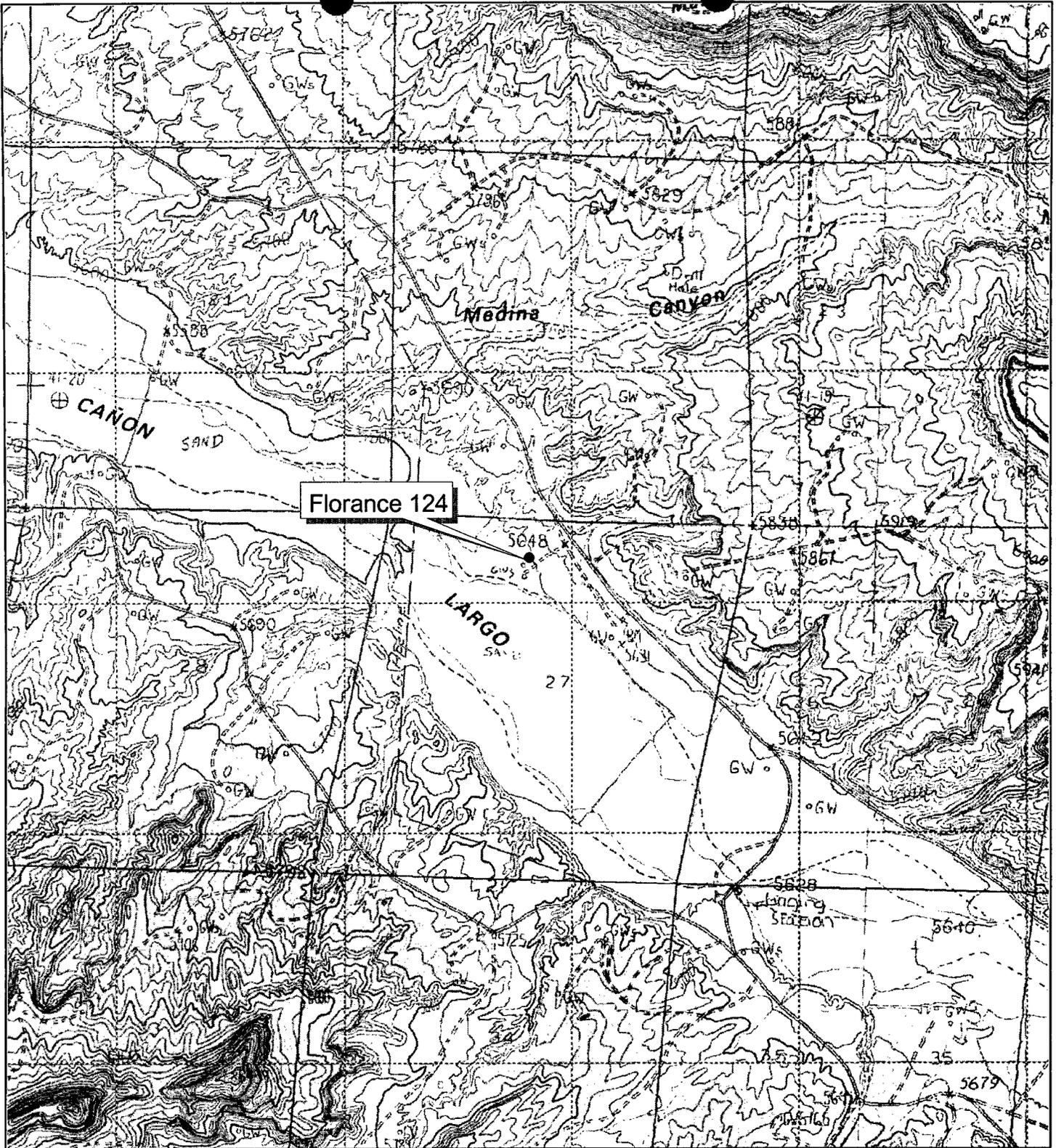


Figure 1. Site Location Map

Florance #124

Unit C, Sec. 27, T29N, R9W

1000 0 1000 2000 Feet



EXHIBIT A

ORIGINAL PIT REMEDIATION AND CLOSURE REPORT

Run # 10-62



Unlined Surface Impoundment Assessment Form

Site Information:

| | | | | | | | | | |
|--------------------|---------------|----------|---------|---|------------------|---|--|----------------------|--|
| Well Name: | Florence #124 | | | | Vulnerable Area: | <input checked="" type="checkbox"/> Original <input type="checkbox"/> Expanded <input type="checkbox"/> Extended <input type="checkbox"/> Other | | | |
| Operator: | Amoco | | | | Date: | 11/29/95 | | Well Pad Dimensions: | GCL Data Sheet #: |
| | | | | | Time: | 1145 AM PM | | L 200 | W 200 |
| Legal Description: | Sec: 27 | Twn: 29N | Rng: 9W | Unit: C | Canyon: | Largo | | | Dehydrator/Separator/Drip: |
| Meter #: | 4978-21 | | | PNM <input type="checkbox"/> Y <input type="checkbox"/> N | Quad Map (#): | Blanco | | | <input checked="" type="checkbox"/> Dehydrator <input type="checkbox"/> Drip |
| | | | | | | | | | <input checked="" type="checkbox"/> Separator <input type="checkbox"/> None |
| | | | | | | | | | Other Discharges _____ |

Pit Information:

| | | | | | | | |
|--|---|---|----------------------|-------|--|---------------------------------|--|
| PNM Pit #1: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | VDW 20' | OCD Rank: | Score | OVM 425 ppm | Other Pits: | |
| Pit Dimensions: | | HDW 600' | Depth to Water: | 20 | Testhole Depth 3' | Pit # Fence Net OVM Inacc. Tank | |
| DH <input type="checkbox"/> SEP <input type="checkbox"/> DR <input type="checkbox"/> | | Water Sources | WH Prot. Area: | 0 | Soil Desc. Sandy light grey | 2 Y Y Y | |
| L 15 W 15 D 3 | | <input type="checkbox"/> Water Well | Dist to Surf. Water: | 10 | <input type="checkbox"/> Active <input type="checkbox"/> SAT | 3 Y Y Y | |
| Ref. WH <input checked="" type="checkbox"/> Other _____ | | <input checked="" type="checkbox"/> Listed Canyon | Total | 30 | <input checked="" type="checkbox"/> Inactive <input type="checkbox"/> Inaccessible | 4 Y Y Y | |
| Distance from Ref. 100' | | <input type="checkbox"/> Stock Pond | | | Fenced <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | |
| Degrees: Due South | | <input type="checkbox"/> Other _____ | | | Birdcones <input type="checkbox"/> Yes <input type="checkbox"/> No N/A | | |
| | | | | | Netting <input type="checkbox"/> Yes <input type="checkbox"/> No N/A | | |
| Lab Sample | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Sample #(s): | | | | COC#: | |

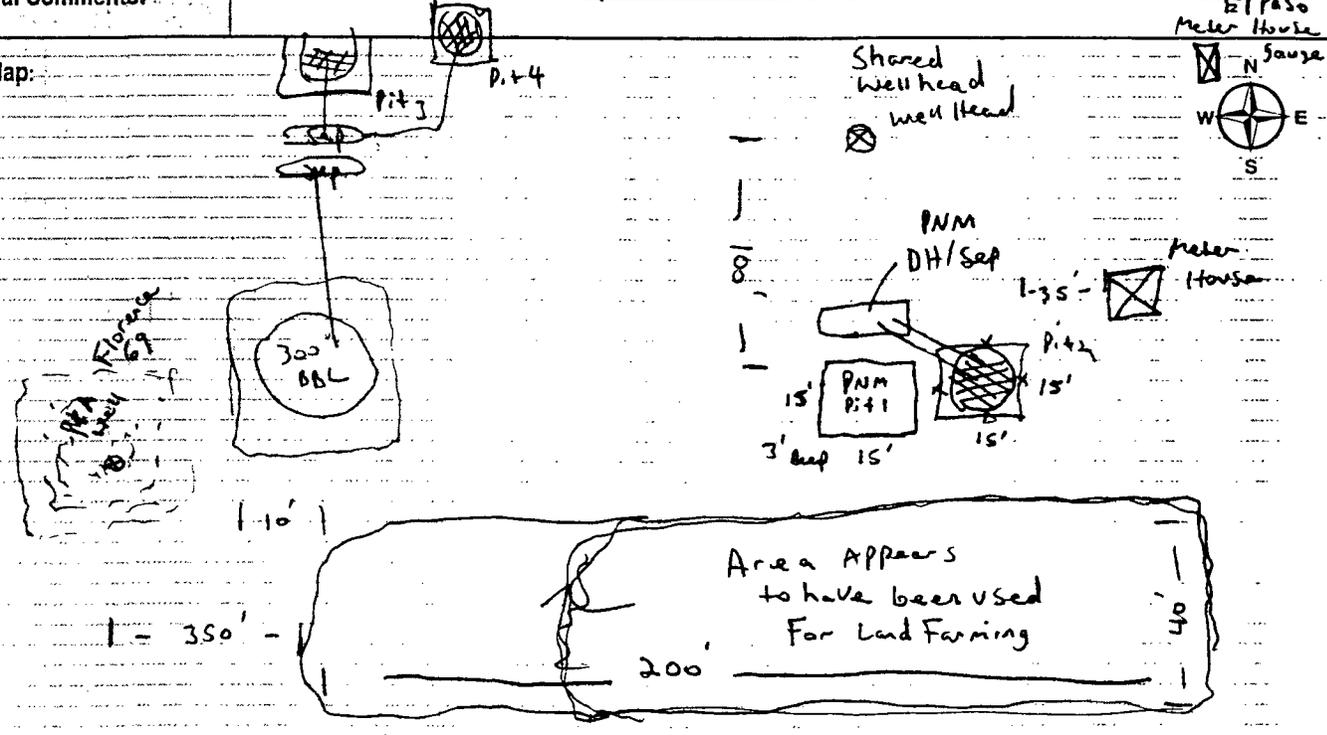
Geographical:

| | | | | | | | | |
|---|--|--|--------------------------------------|--------------------------------------|---|--------------------------------------|---|--|
| Geology: | <input checked="" type="checkbox"/> SS <input type="checkbox"/> Clay | Terrain: | <input type="checkbox"/> Mesa Top | Land Use: | <input checked="" type="checkbox"/> Grazing | Land Type: | <input checked="" type="checkbox"/> BLM | Vegetation: |
| <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Outcrop <input type="checkbox"/> Rock | | <input type="checkbox"/> Trailing Slope | <input type="checkbox"/> Residential | <input type="checkbox"/> Recreation | <input type="checkbox"/> State | <input type="checkbox"/> Fee | Well Pad | Area |
| <input type="checkbox"/> Gravel <input type="checkbox"/> Cliffs <input type="checkbox"/> Silt | | <input checked="" type="checkbox"/> River Bottom | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Fee | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Normal <input checked="" type="checkbox"/> | <input type="checkbox"/> Stressed <input type="checkbox"/> |
| <input type="checkbox"/> Other _____ | | | | | | | <input type="checkbox"/> None <input type="checkbox"/> | <input type="checkbox"/> |

General Comments:

Shared Site w/ El Paso Abandoned PNM Pit

Site Map:



Assessor's Signature

Mark H.

Date:

11/29/95

Date Remediation Started: 8-1-96 Date Completed: 8-6-96

Remediation Method: Excavation X Approx. cubic yards _____

(Check all appropriate sections)

Landfarmed X Insitu Bioremediation _____

Other _____

Remediation Location: Onsite X Offsite _____
(i.e., landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: _____

Ground Water Encountered: No _____ Yes X Depth 14'

Final Pit Sample location #9608020930 water at 14'

Closure Sampling: #9608021000 soil 4 walls + bottom

(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample depth 12' water 14'

Sample date 8-2-96 Sample time 1000

Sample Results

Benzene (ppm) _____

Total BTEX (ppm) _____

Field headspace (ppm) _____

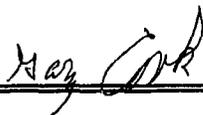
TPH _____

Ground Water Sample: Yes X No _____ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE

SIGNATURE



PRINTED NAME AND TITLE

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Denver Bearden*
 Company: *PNM Gas Services*
 Address: *603 W. Elm*
 City, State: *Farmington, NM 87401*

Date: *5-Aug-96*
 COC No.: *4935*
 Sample No. *11680*
 Job No. *2-1000*

Project Name: *PNM Gas Services - Florance 124*
 Project Location: *9608021000; 5pt. Composite*
 Sampled by: *GC* Date: *2-Aug-96* Time: *10:00*
 Analyzed by: *HR* Date: *5-Aug-96*
 Sample Matrix: *Soil*

Laboratory Analysis

| <i>Parameter</i> | <i>Result</i> | <i>Unit of Measure</i> | <i>Detection Limit</i> | <i>Unit of Measure</i> |
|---------------------|-----------------|------------------------|------------------------|------------------------|
| <i>Benzene</i> | <i>3122.5</i> | <i>ug/kg</i> | <i>0.2</i> | <i>ug/kg</i> |
| <i>Toluene</i> | <i>67771.4</i> | <i>ug/kg</i> | <i>0.2</i> | <i>ug/kg</i> |
| <i>Ethylbenzene</i> | <i>8791.0</i> | <i>ug/kg</i> | <i>0.2</i> | <i>ug/kg</i> |
| <i>m,p-Xylene</i> | <i>77503.2</i> | <i>ug/kg</i> | <i>0.2</i> | <i>ug/kg</i> |
| <i>o-Xylene</i> | <i>18576.4</i> | <i>ug/kg</i> | <i>0.2</i> | <i>ug/kg</i> |
| <i>TOTAL</i> | <i>175764.6</i> | <i>ug/kg</i> | | |

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
 Date: *8/5/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

Diesel Range Organics

Attn: *Denver Bearden*
 Company: *PNM Gas Services*
 Address: *603 W. Elm*
 City, State: *Farmington, NM 87401*

Date: *5-Aug-96*
 COC No.: *4935*
 Sample No. *11680*
 Job No. *2-1000*

Project Name: *PNM Gas Services - Florance 124*
 Project Location: *9608021000; 5pt. Composite*
 Sampled by: *GC* Date: *2-Aug-96* Time: *10:00*
 Analyzed by: *HR* Date: *5-Aug-96*
 Sample Matrix: *Soil*

Laboratory Analysis

| <i>Parameter</i> | <i>Result</i> | <i>Unit of Measure</i> | <i>Detection Limit</i> | <i>Unit of Measure</i> |
|--|---------------|------------------------|------------------------|------------------------|
| <i>Diesel Range Organics (C10 - C28)</i> | <i>11.9</i> | <i>mg/kg</i> | <i>5.0</i> | <i>mg/kg</i> |

Quality Assurance Report

DRO QC No.: 0479-QC

Calibration Check

| <i>Parameter</i> | <i>Method Blank</i> | <i>Unit of Measure</i> | <i>True Value</i> | <i>Analyzed Value</i> | <i>% Diff</i> | <i>Limit</i> |
|---------------------------------|---------------------|------------------------|-------------------|-----------------------|---------------|--------------|
| <i>Diesel Range (C10 - C28)</i> | <i><5.0</i> | <i>ppm</i> | <i>2,000</i> | <i>1,883</i> | <i>5.8</i> | <i>15%</i> |

Matrix Spike

| <i>Parameter</i> | <i>1 - Percent Recovered</i> | <i>2 - Percent Recovered</i> | <i>Limit</i> | <i>%RSD</i> | <i>Limit</i> |
|-------------------------------|------------------------------|------------------------------|-----------------|-------------|--------------|
| <i>Diesel Range (C10-C28)</i> | <i>93</i> | <i>99</i> | <i>(70-130)</i> | <i>5</i> | <i>20%</i> |

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *DeG*
 Date: *8/5/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Denver Bearden*
 Company: *PNM Gas Services*
 Address: *603 W. Elm*
 City, State: *Farmington, NM 87401*

Date: *2-Aug-96*
 COC No.: *4936*
 Sample No.: *11681*
 Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance 124*
 Project Location: *9608020930*
 Sampled by: *GC* Date: *2-Aug-96* Time: *9:30*
 Analyzed by: *DC* Date: *2-Aug-96*
 Sample Matrix: *Water*

Laboratory Analysis

| <i>Parameter</i> | <i>Result</i> | <i>Unit of Measure</i> | <i>Detection Limit</i> | <i>Unit of Measure</i> |
|---------------------|----------------|------------------------|------------------------|------------------------|
| <i>Benzene</i> | <i>2214.6</i> | <i>ug/L</i> | <i>0.2</i> | <i>ug/L</i> |
| <i>Toluene</i> | <i>7397.7</i> | <i>ug/L</i> | <i>0.2</i> | <i>ug/L</i> |
| <i>Ethylbenzene</i> | <i>297.1</i> | <i>ug/L</i> | <i>0.2</i> | <i>ug/L</i> |
| <i>m,p-Xylene</i> | <i>3082.0</i> | <i>ug/L</i> | <i>0.2</i> | <i>ug/L</i> |
| <i>o-Xylene</i> | <i>951.8</i> | <i>ug/L</i> | <i>0.2</i> | <i>ug/L</i> |
| <i>TOTAL</i> | <i>13943.1</i> | <i>ug/L</i> | | |

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *JCG*
 Date: *8/2/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 2-Aug-96

Internal QC No.: 0486-QC
Surrogate QC No.: 0488-QC
Reference Standard QC No.: 0417-QC

Method Blank

| Parameter | Result | Unit of Measure |
|---|--------|-----------------|
| Average Amount of All Analytes In Blank | <0.2 | ppb |

Calibration Check

| Parameter | Unit of Measure | True Value | Analyzed Value | % Diff | Limit |
|--------------|-----------------|------------|----------------|--------|-------|
| Benzene | ppb | 20.0 | 18.9 | 6 | 15% |
| Toluene | ppb | 20.0 | 19.4 | 3 | 15% |
| Ethylbenzene | ppb | 20.0 | 19.7 | 1 | 15% |
| m,p-Xylene | ppb | 40.0 | 39.1 | 2 | 15% |
| o-Xylene | ppb | 20.0 | 19.3 | 3 | 15% |

Matrix Spike

| Parameter | 1 - Percent Recovered | 2 - Percent Recovered | Limit | %RSD | Limit |
|--------------|-----------------------|-----------------------|----------|------|-------|
| Benzene | 108 | 109 | (39-150) | 0 | 20% |
| Toluene | 115 | 114 | (46-148) | 1 | 20% |
| Ethylbenzene | 115 | 114 | (32-160) | 1 | 20% |
| m,p-Xylene | 112 | 111 | (35-145) | 0 | 20% |
| o-Xylene | 108 | 109 | (35-145) | 1 | 20% |

Surrogate Recoveries

| Laboratory Identification | S1 Percent Recovered | S2 Percent Recovered |
|---------------------------|----------------------|----------------------|
| Limit Percent Recovered | (70-130) | |
| 11681-4936 | 100 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

S1: Flourobenezene

8/1/96 - 8/6/96

Excavation Work Sheet

| | | | | | |
|------------------|-----------------|----------|----------|----------|-----------|
| Well Name | Operator | S | T | R | UI |
| Florance #124 | Amoco | 27 | 29N | 9W | C |

| | |
|--------------------------------|-------------------------------------|
| Pit Dimensions at Start | Excavation Dimensions at End |
| 15X15X3 | 28X27X15 |

| | | |
|---------------------------|----------------------------|-----------------------|
| Excavated Cu. Yds. | Overburden Cu. Yds. | Spoil Cu. Yds. |
| 420 | 0 | 420 |

PIT PID READINGS

| Feet | Center | N. Wall | S. Wall | E. Wall | W. Wall | Soil Type |
|------|--------|---------|---------|---------|---------|-----------|
| 3' | 113 | 10.8 | 13.9 | 5 | 15 | Sand |
| 6' | 641 | 24.3 | 12.1 | 8.3 | 12.6 | Sand |
| 9' | 485 | 15.3 | 15.2 | 9.7 | 9.5 | Sand |
| 12' | 685 | 67.3 | 32.2 | 71.2 | 12 | Sand |
| 15' | 792 | 132 | 419 | 411 | 270 | Sand |
| 18' | | | | | | |
| 21' | | | | | | |

Composite Sample # 9608021000 Water Sample # 9608020930

| Location | Depth | PID Reading |
|------------|-------|-------------|
| North Wall | 12' | 132 |
| South Wall | 12' | 419 |
| East Wall | 12' | 411 |
| West Wall | 12' | 270 |
| Pit Bottom | 15' | 88 |

Land Farm Location: On Location

Back Fill Location: BLM approved Wash 1.6 Miles east of location.

Comments: Water at 14', walls very unstable.

Florance #124
Sec. 27,29N, 9W, Conoco
Amoco

Date: August 1, 1996

8-01-96: Ray Haston and contractor excavated pit. At 14' water was seeping into pit. Walls were not very stable and started collapsing. The pit was excavated to 28X27X15 ft. Pit was left open for 24 hours, before grabbing water sample.

8-02-96: Water sample grabbed #9608020930.
Lab results high. Pit fenced in and left open for Tierra Environmental to chemical treat.

8-05-96: Tierra Environmental to treat pit. Pit was sprayed with 250 gallons of solution (Oxy). Environmental well was placed in middle of pit and 4 yards of gravel spread around base.

Spoil pile approximately 425 yards was landfarmed on location.

8-06-96: Backfilling pit with clean soil from BLM approved wash.

8-07-96 - Back filled pit

Excavation Field Notes

~~XXXXXXXXXX~~ RAD

| | | | | | | |
|-------------------------|--|------------------|------------------------------|-----|----|----|
| Date: 3/2/99 | | Name: R. Dedrick | | | | |
| Well Name | | Operator | S | T | R | UI |
| Florange 124 | | Amoco | 27 | 29N | 9W | C |
| Pit Dimensions at Start | | | Excavation Dimensions at End | | | |
| 0x0x0 Redig | | | 38'x30'x12' | | | |
| Excavated Cu. Yds. | Composite Sample # (walls): 9903031345 | | | | | |
| 663 | Composite Sample # (bottom): n/a water | | | | | |

PIT READINGS

| Feet | PID Reading | Soil Type | Location | Headspace | Depth |
|-------------------|-------------|-----------|------------|-----------|-------|
| 5' | 0.0ppm | Sand | North Wall | 1.6 | 9' |
| 10' 9' | 1855ppm | | East Wall | 4.3 | 9' |
| 15' | | | South Wall | 0.6 | 9' |
| 20' | | | West Wall | 1.6 | 9' |
| 25' | | | Pit Bottom | n/a water | 12' |
| 30' | | | | | |
| | | | | | |
| | | | | | |

Land Farm Location: On Site

Field Notes: 3/2/99 Dug test hole to 10' on Northeast corner or South East corner of old excavation, we hit about 1' of contamination on top of the water. Sandy soil that slotted very bad. Started the excavation around MW2 20' in all directions. Dug down to 5' with the front bucket on the back hoe. Pit size 38'x38'x5'. Dug down with back hoe on the north wall to 10' hit some cont. and water. Dug down to 12' getting all cont. going North and East and West. Pit size 38'x13'x12'. Dug on East wall moving South 10'x10'x10' S/D for the night. 415 cu. yds.

3/3/99 - S/D digging back to the west on the South end a 10' strip. Cont. still running to the South. Clearing going East & West. Move South 10' more. Cont. ends at 7'. Dug a 7' Strip East to West. Sampled and ran head space readings on all 4 walls. 1400 Hrs. S/D up back filling with stock piled clean over bendown.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 12-Mar-99

| | | | |
|--------------------|------------------------------------|----------------------------|-----------------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 |
| Work Order: | 9903015 | Client Sample ID: | 9903031345; 4pt. Comp Walls |
| Lab ID: | 9903015-01A | Matrix: | SOIL |
| Project: | Florance 124 | Collection Date: | 3/3/99 1:45:00 PM |
| | | COC Record: | 7477 |

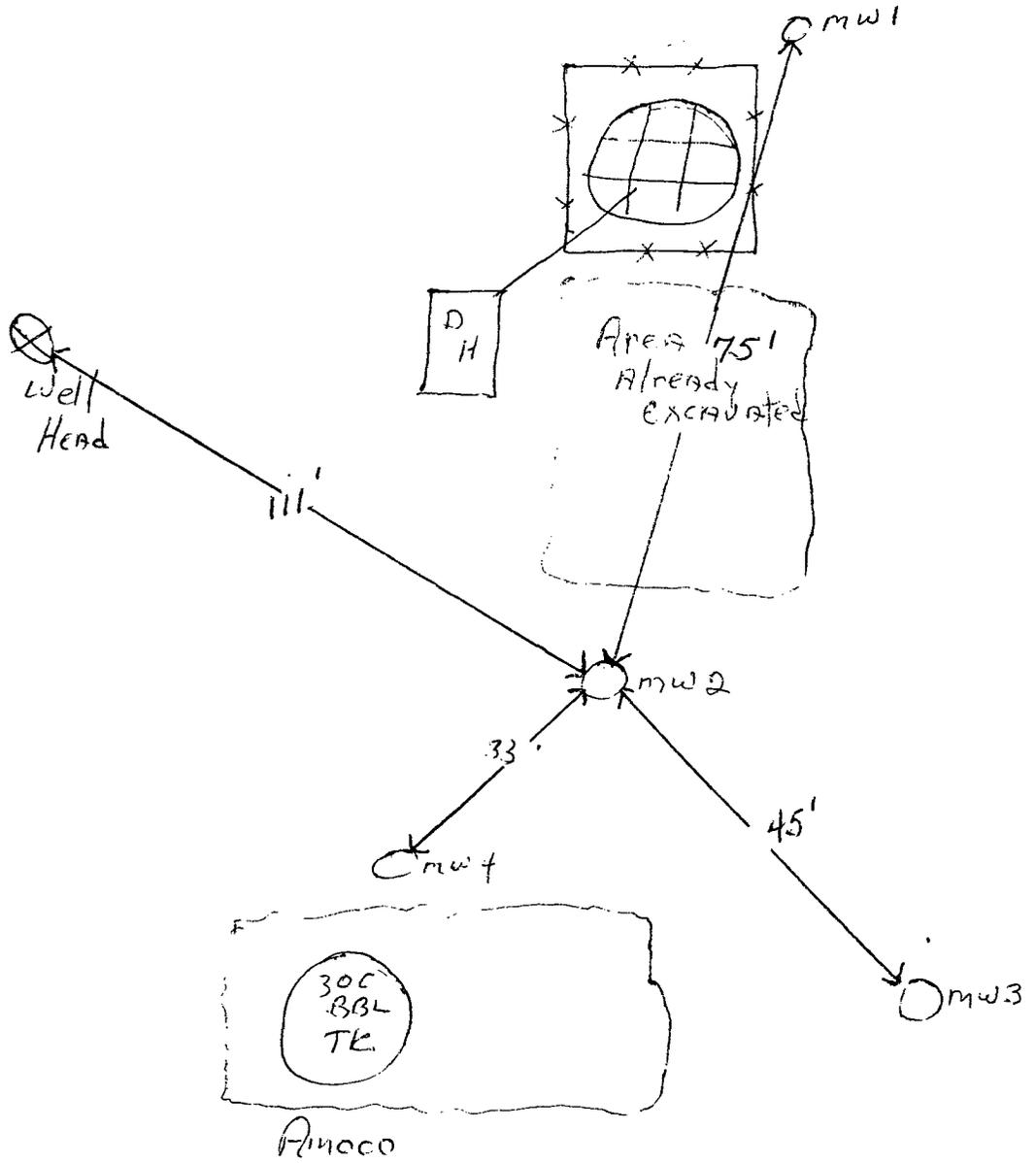
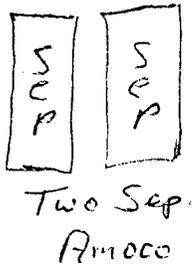
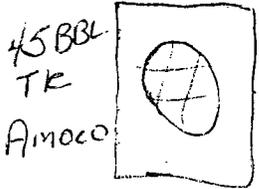
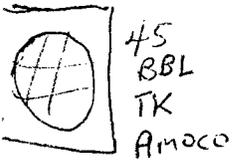
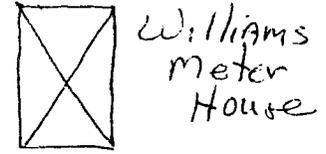
| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|------------------------------|--------|---------------|------|-------|----|--------------------|
| DIESEL RANGE ORGANICS | | SW8015 | | | | Analyst: HR |
| T/R Hydrocarbons: C10-C28 | ND | 25 | | mg/Kg | 1 | 3/10/99 |

Qualifiers:

| | |
|---|---|
| PQL - Practical Quantitation Limit | S - Spike Recovery outside accepted recovery limits |
| ND - Not Detected at Practical Quantitation Limit | R - RPD outside accepted recovery limits |
| J - Analyte detected below Practical Quantitation Limit | E - Value above quantitation range |
| B - Analyte detected in the associated Method Blank | Sum: - Surrogate |

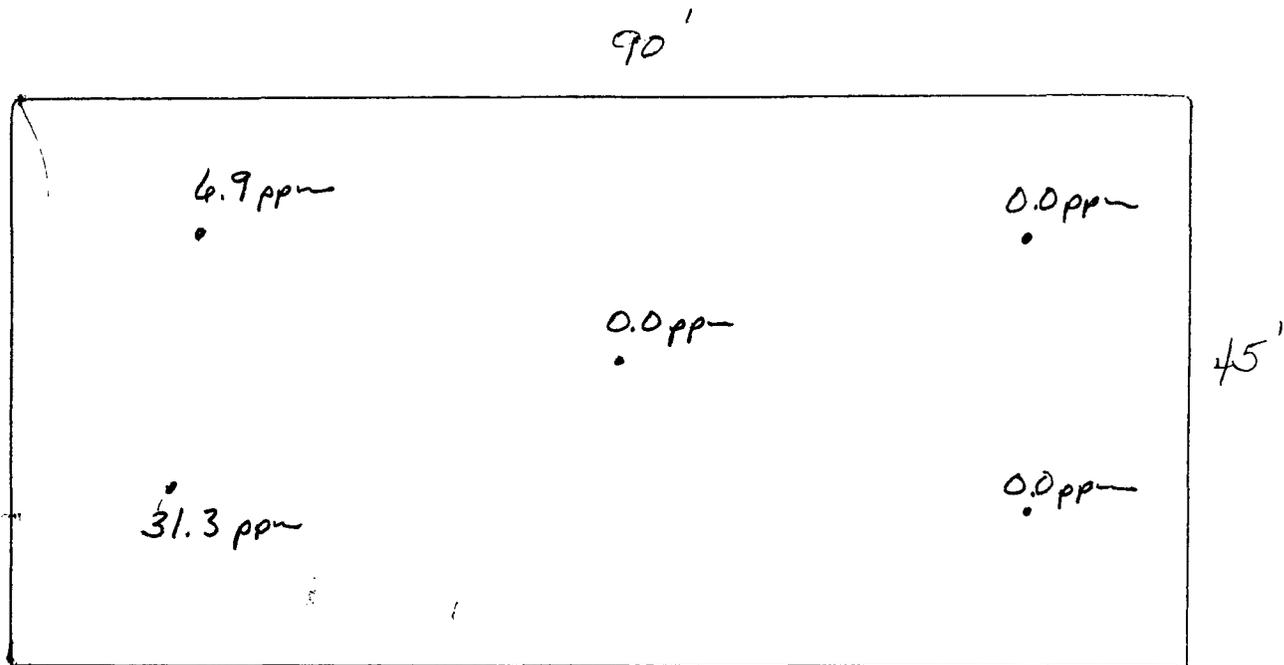
Torance 124
Sec 27 T29N R9W
Amoco

Site Map

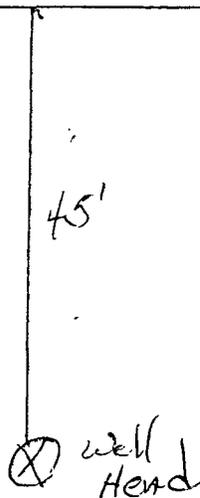


Fluorance 124
Sec. 27 T29N R9W 4min
Amoco

Landfarm Drawing



Landfarm sampled on
3/30/99 0843
Composite Head Space 4.4 ppm





OFF: (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 06-Apr-99

| | | | |
|--------------------|------------------------------------|----------------------------|-----------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 LF |
| Work Order: | 9903062 | Client Sample ID: | 9903300843; 5pt. Comp |
| Lab ID: | 9903062-01A | Matrix: | SOIL |
| Project: | Florance 124 LF | Collection Date: | 3/30/99 8:43:00 AM |
| | | COC Record: | 7374 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|------------------------------|--------|---------------|------|-------|----|---------------|
| DIESEL RANGE ORGANICS | | SW8015 | | | | Analyst: DC |
| T/R Hydrocarbons: C10-C28 | ND | 25 | | mg/Kg | 1 | 4/1/99 |

Qualifiers:

| | |
|---|---|
| PQL - Practical Quantitation Limit | S - Spike Recovery outside accepted recovery limits |
| ND - Not Detected at Practical Quantitation Limit | R - RPD outside accepted recovery limits |
| J - Analyte detected below Practical Quantitation Limit | E - Value above quantitation range |
| B - Analyte detected in the associated Method Blank | Surr: - Surrogate |

Excavation Field Notes

Jicarilla

| | | | | | | |
|-------------------------|--|-----------------------------|------------------------------|-----|----|----|
| Date: 1-4-00 | | Name: Roy Burnham | | | | |
| Well Name | | Operator | S | T | R | UI |
| Florance 124 | | Amoco | 27 | 29N | 9W | |
| Pit Dimensions at Start | | | Excavation Dimensions at End | | | |
| 18' X 18' X 5' | | | 86.5' X 82.5' X 16' | | | |
| Excavated Cu. Yds. | | Composite Sample # (walls): | | | | |
| Clean 4228.888 | | North wall - 0001041420 | | | | |
| Contaminated 1321.527 | | East wall 0001060850 | | | | |
| | | West wall 0001060945 | | | | |
| | | South wall 000111022 | | | | |

PIT READINGS

| Feet | Reading | Soil Type | Location | Headspace | Depth |
|-------|------------|------------|------------|---------------|-------|
| 5' | clean | sand | North Wall | Pid - 0.3 ppm | 16' |
| 10' | clean | sand | South Wall | | |
| 12' | 450 to 600 | Black/sand | East Wall | Pid 1.9 ppm | 16' |
| 20/16 | 0.3 pid | | West Wall | Pid 3.9 ppm | 16' |
| 25' | | | Pit Bottom | | |
| 30' | | | | | |
| | | | | | |
| | | | | | |

Land Farm Location: Florance 124

Field Notes: 1-4-00 Removed fence, and equipment sludgging on North wall. Found contamination at 12' 2' to 3' band, dug to within 4' of meterhouse before North wall cleaned up. Working on Northwest corner 3' Band of contamination 980 ppm on Pid Northwest corner clean. Working on East wall and moving South. Sampled North wall at 16' depth Pid 0.3 ppm. Backfilling some on North wall. Water coming in at 12' to 14' on South wall. Lots of contamination found under D.H. 2' of overburden 12' to 14' of Black Contaminated soil 1840 ppm slo for the night.

1-5-00 Digging on Southwest corner lots of contamination moved over to Southeast corner to define Contamination Day all clay on South wall hit rock at 17' on South west wall East and west wall cleaning up slo for the night

1-6-00 Sampled EAST and west wall at 16'. worked most of the day. moved stage pile so we can dig on South wall monday slo for the weekend

1-10-00 - Working on Southwest corner and moving stage pile.

Grey soil 1.9 ppm Black Soil 582 ppm digging toward the South North, EAST, west wall samples taken to lab TPH and BTEX →

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 24-Jan-00

| | | | |
|--------------------|------------------------------------|----------------------------|--------------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 |
| Work Order: | 0001007 | Client Sample ID: | 0001041420; 16ft N. Wall |
| Lab ID: | 0001007-01A | Matrix: | SOIL |
| Project: | Florance 124 | Collection Date: | 1/4/2000 2:20:00 PM |
| | | COC Record: | 7831 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|-------------------------------------|--------|----------------|------|-------|----|--------------------|
| DIESEL RANGE ORGANICS | | SW8015B | | | | Analyst: DM |
| T/R Hydrocarbons: C10-C28 | ND | 25 | | mg/Kg | 1 | 1/14/2000 |
| AROMATIC VOLATILES BY GC/PID | | SW8021B | | | | Analyst: DM |
| Benzene | ND | 1 | | µg/Kg | 1 | 1/13/2000 |
| Toluene | ND | 2 | | µg/Kg | 1 | 1/13/2000 |
| Ethylbenzene | ND | 1 | | µg/Kg | 1 | 1/13/2000 |
| m,p-Xylene | ND | 2 | | µg/Kg | 1 | 1/13/2000 |
| o-Xylene | ND | 1 | | µg/Kg | 1 | 1/13/2000 |

Qualifiers:

| | |
|---|---|
| PQL - Practical Quantitation Limit | S - Spike Recovery outside accepted recovery limits |
| ND - Not Detected at Practical Quantitation Limit | R - RPD outside accepted recovery limits |
| J - Analyte detected below Practical Quantitation Limit | E - Value above quantitation range |
| B - Analyte detected in the associated Method Blank | Surr: - Surrogate |

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 24-Jan-00

| | | | |
|--------------------|------------------------------------|----------------------------|--------------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 |
| Work Order: | 0001007 | Client Sample ID: | 0001060851; 16ft E. Wall |
| Lab ID: | 0001007-02A | Matrix: | SOIL |
| Project: | Florance 124 | Collection Date: | 1/6/2000 8:51:00 AM |
| | | COC Record: | 7831 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|-------------------------------------|--------|----------------|------|-------|----|--------------------|
| DIESEL RANGE ORGANICS | | SW8015B | | | | Analyst: DM |
| T/R Hydrocarbons: C10-C28 | ND | 25 | | mg/Kg | 1 | 1/14/2000 |
| AROMATIC VOLATILES BY GC/PID | | SW8021B | | | | Analyst: DM |
| Benzene | ND | 1 | | µg/Kg | 1 | 1/13/2000 |
| Toluene | ND | 2 | | µg/Kg | 1 | 1/13/2000 |
| Ethylbenzene | ND | 1 | | µg/Kg | 1 | 1/13/2000 |
| m,p-Xylene | ND | 2 | | µg/Kg | 1 | 1/13/2000 |
| o-Xylene | ND | 1 | | µg/Kg | 1 | 1/13/2000 |

Qualifiers:

| | |
|---|---|
| PQL - Practical Quantitation Limit | S - Spike Recovery outside accepted recovery limits |
| ND - Not Detected at Practical Quantitation Limit | R - RPD outside accepted recovery limits |
| J - Analyte detected below Practical Quantitation Limit | E - Value above quantitation range |
| B - Analyte detected in the associated Method Blank | Surr: - Surrogate |

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



ANALYTICAL REPORT

Date: 24-Jan-00

| | | | |
|--------------------|------------------------------------|----------------------------|----------------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 |
| Work Order: | 0001009 | Client Sample ID: | 0001111022; S. Wall @ 16ft |
| Lab ID: | 0001009-01A | Matrix: | SOIL |
| Project: | Florance 124 | Collection Date: | 1/11/2000 10:22:00 AM |
| | | COC Record: | 7830 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|-------------------------------------|--------|----------------|------|-------|----|---------------|
| DIESEL RANGE ORGANICS | | SW8015B | | | | Analyst: DM |
| T/R Hydrocarbons: C10-C28 | ND | 25 | | mg/Kg | 1 | 1/17/2000 |
| AROMATIC VOLATILES BY GC/PID | | SW8021B | | | | Analyst: DM |
| Benzene | ND | 1 | | µg/Kg | 1 | 1/13/2000 |
| Toluene | ND | 2 | | µg/Kg | 1 | 1/13/2000 |
| Ethylbenzene | ND | 1 | | µg/Kg | 1 | 1/13/2000 |
| m,p-Xylene | ND | 2 | | µg/Kg | 1 | 1/13/2000 |
| o-Xylene | ND | 1 | | µg/Kg | 1 | 1/13/2000 |

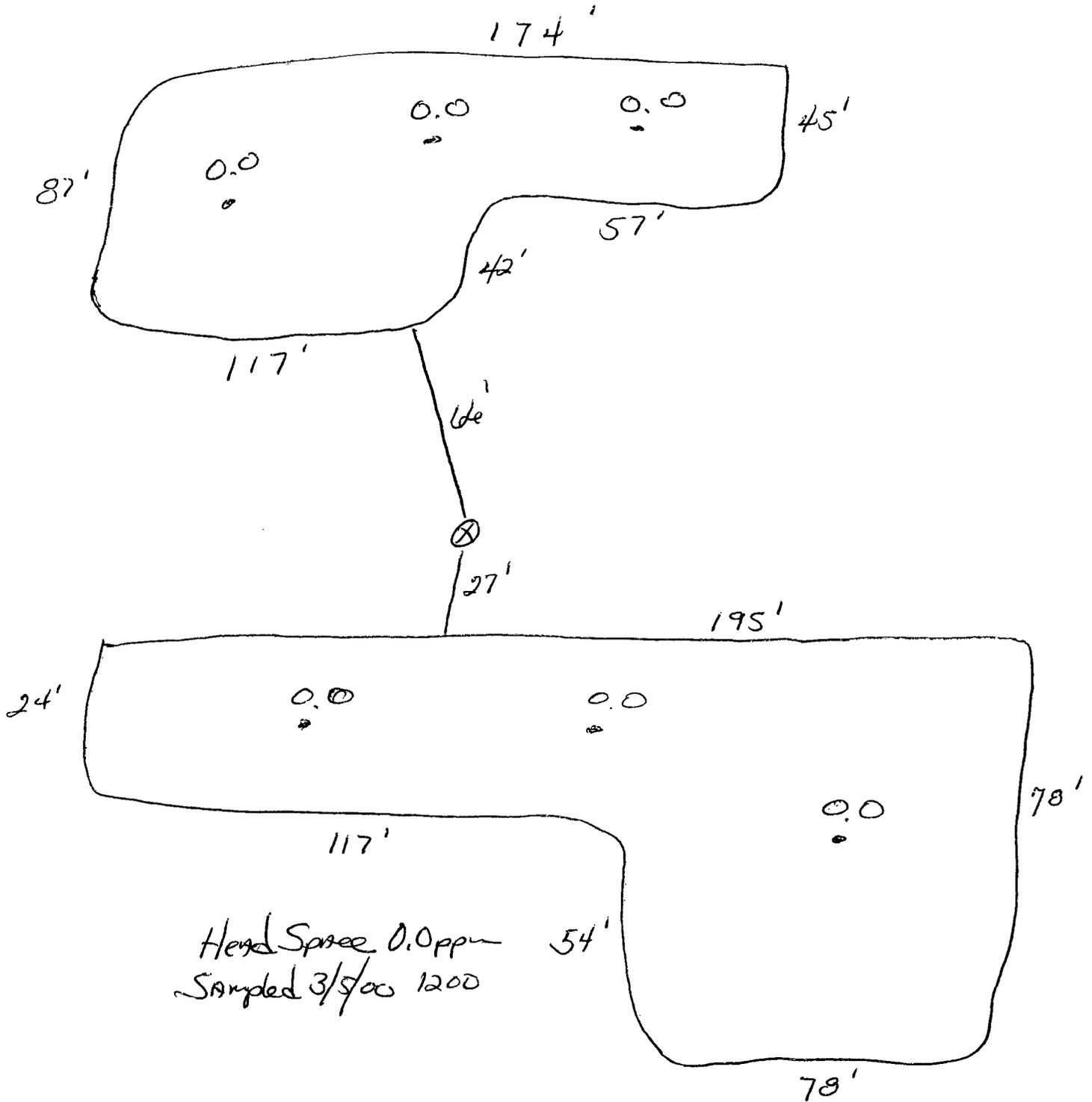
Qualifiers:

| | |
|---|---|
| PQL - Practical Quantitation Limit | S - Spike Recovery outside accepted recovery limits |
| ND - Not Detected at Practical Quantitation Limit | R - RPD outside accepted recovery limits |
| J - Analyte detected below Practical Quantitation Limit | E - Value above quantitation range |
| B - Analyte detected in the associated Method Blank | Sur: - Surrogate |

P.O. BOX 2606 • FARMINGTON, NM 87499

Florance 124
Sec. 27 T29N R9W Unit G
Amoco

Land farm #1



Land farm located on Florance 27 location
Sec. 26 T29N R9W Unit L
Amoco

N
↑ Not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 14-Mar-00

| | | | |
|--------------------|------------------------------------|----------------------------|----------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 LF #1 |
| Work Order: | 0003007 | Client Sample ID: | 0003051200; 6pt Comp |
| Lab ID: | 0003007-01A | Matrix: | SOIL |
| Project: | Florance 124 Landfarms | Collection Date: | 3/5/2000 12:00:00 PM |
| | | COC Record: | 8502 |

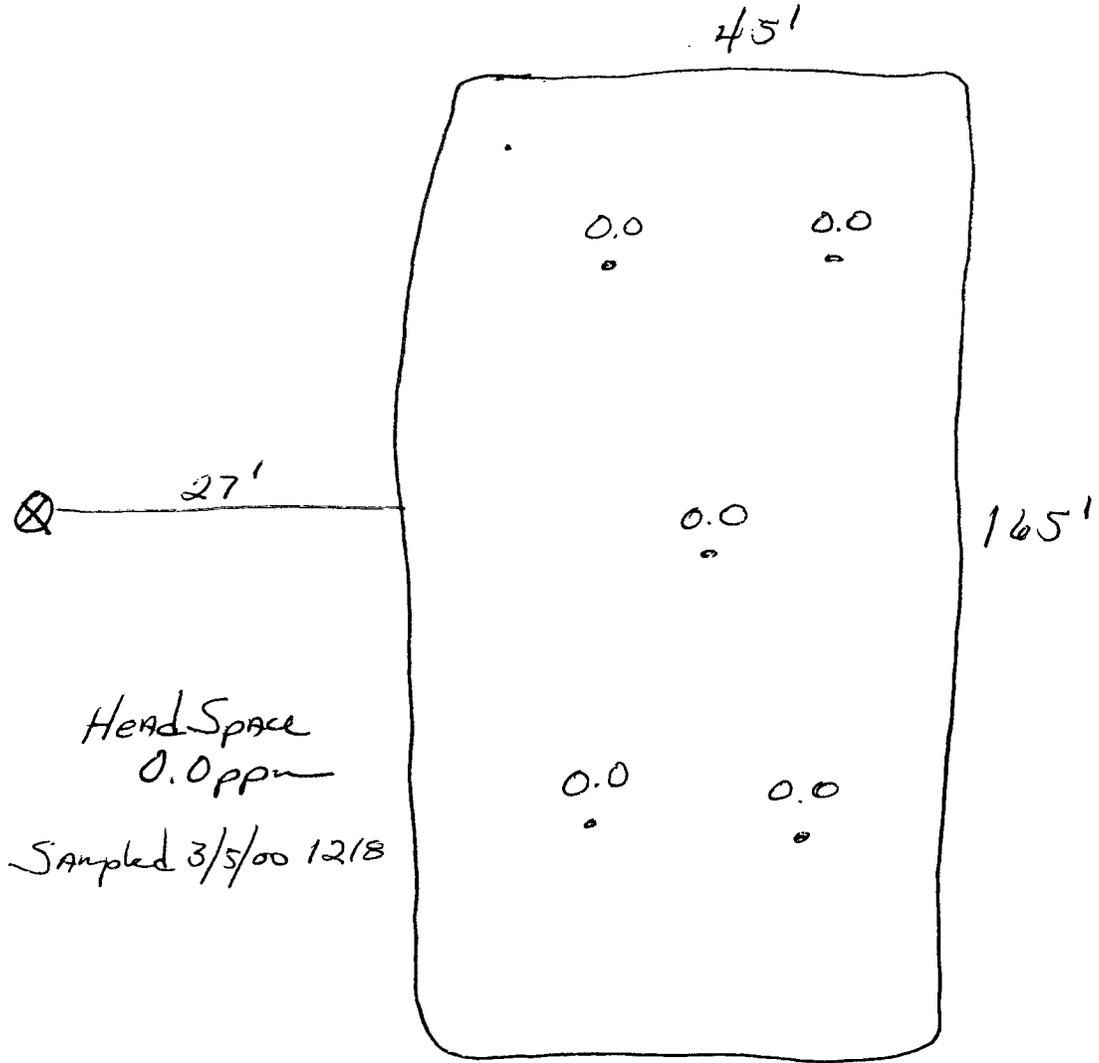
| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|------------------------------|--------|----------------|------|-------|----|--------------------|
| DIESEL RANGE ORGANICS | | SW8015B | | | | Analyst: DM |
| T/R Hydrocarbons: C10-C28 | ND | 25 | | mg/Kg | 1 | 3/9/2000 |

Qualifiers:

| | |
|---|---|
| PQL - Practical Quantitation Limit | S - Spike Recovery outside accepted recovery limits |
| ND - Not Detected at Practical Quantitation Limit | R - RPD outside accepted recovery limits |
| J - Analyte detected below Practical Quantitation Limit | E - Value above quantitation range |
| B - Analyte detected in the associated Method Blank | Surr: - Surrogate |

nce 124
Sec. 27 T29N R. 9W Unit C
Amoco

Landfarm #2



Landfarm located on Florence 86 location
Sec. 26 T29N R9W unit D
Amoco

N



Not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 14-Mar-00

| | | | |
|--------------------|------------------------------------|----------------------------|----------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 LF#2 |
| Work Order: | 0003007 | Client Sample ID: | 0003051218; 5pt Comp |
| Lab ID: | 0003007-02A | Matrix: | SOIL |
| Project: | Florance 124 Landfarms | Collection Date: | 3/5/2000 12:18:00 PM |
| | | COC Record: | 8502 |

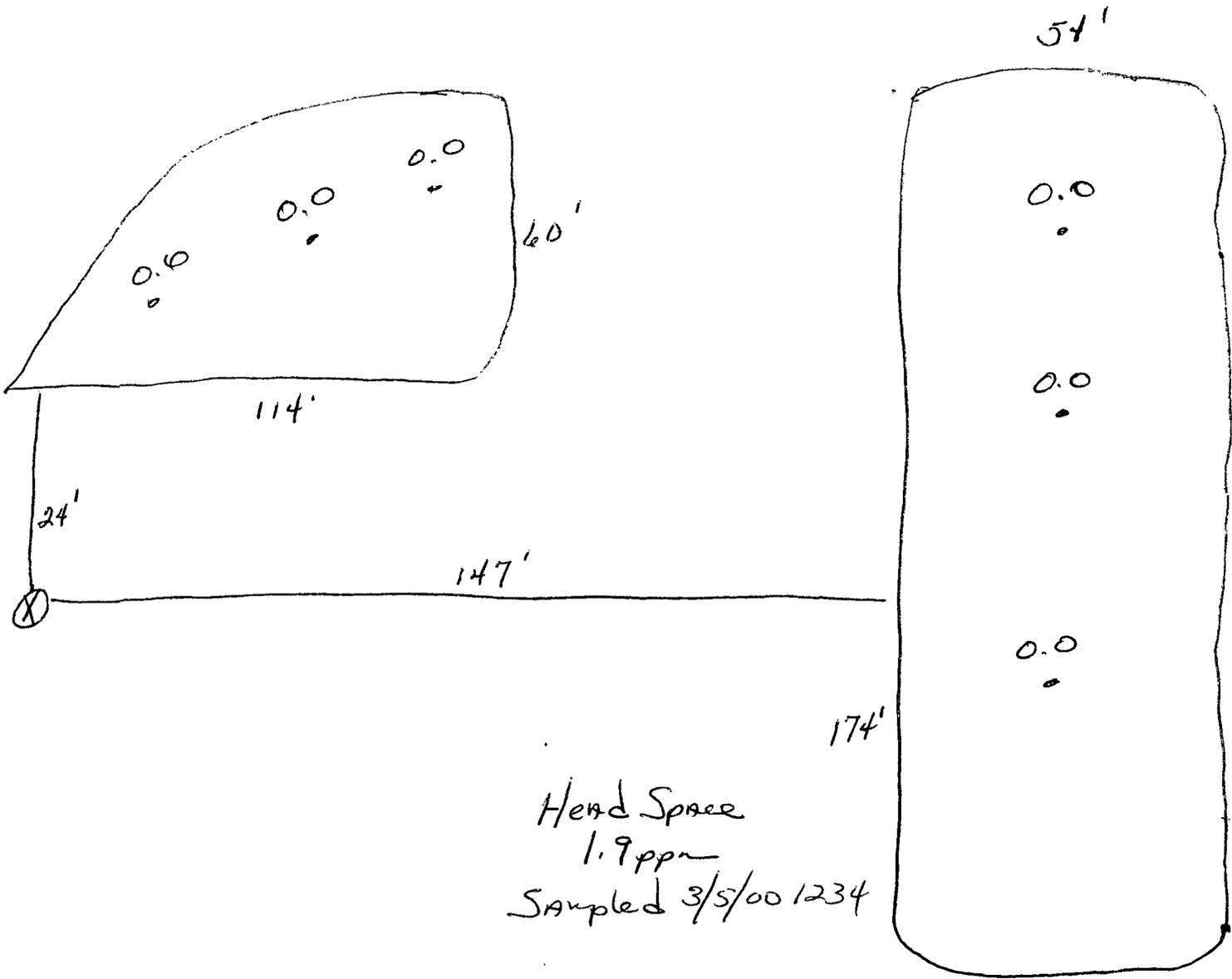
| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|------------------------------|--------|----------------|------|-------|----|--------------------|
| DIESEL RANGE ORGANICS | | SW8015B | | | | Analyst: DM |
| T/R Hydrocarbons: C10-C28 | ND | 25 | | mg/Kg | 1 | 3/9/2000 |

Qualifiers:

| | |
|---|---|
| PQL - Practical Quantitation Limit | S - Spike Recovery outside accepted recovery limits |
| ND - Not Detected at Practical Quantitation Limit | R - RPD outside accepted recovery limits |
| J - Analyte detected below Practical Quantitation Limit | E - Value above quantitation range |
| B - Analyte detected in the associated Method Blank | Sur. - Surrogate |

Florence 124
Sec. 27 T29N R9W Unit
Amoco

Land farm #3



Land farm located on Florence 124 location

N
↑
Not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 14-Mar-00

| | | | |
|--------------------|------------------------------------|----------------------------|----------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 LF #3 |
| Work Order: | 0003007 | Client Sample ID: | 0003051234; 6pt Comp |
| Lab ID: | 0003007-03A | Matrix: | SOIL |
| Project: | Florance 124 Landfarms | Collection Date: | 3/5/2000 12:34:00 PM |
| | | COC Record: | 8502 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|------------------------------|--------|----------------|------|-------|----|--------------------|
| DIESEL RANGE ORGANICS | | SW8015B | | | | Analyst: DM |
| T/R Hydrocarbons: C10-C28 | ND | 25 | | mg/Kg | 1 | 3/9/2000 |

Qualifiers:

| | |
|---|---|
| PQL - Practical Quantitation Limit | S - Spike Recovery outside accepted recovery limits |
| ND - Not Detected at Practical Quantitation Limit | R - RPD outside accepted recovery limits |
| J - Analyte detected below Practical Quantitation Limit | E - Value above quantitation range |
| B - Analyte detected in the associated Method Blank | Surr. - Surrogate |

EXHIBIT B

HYDROGRAPH AND POTENTIOMETRIC SURFACE MAP

Florance #124 Hydrograph

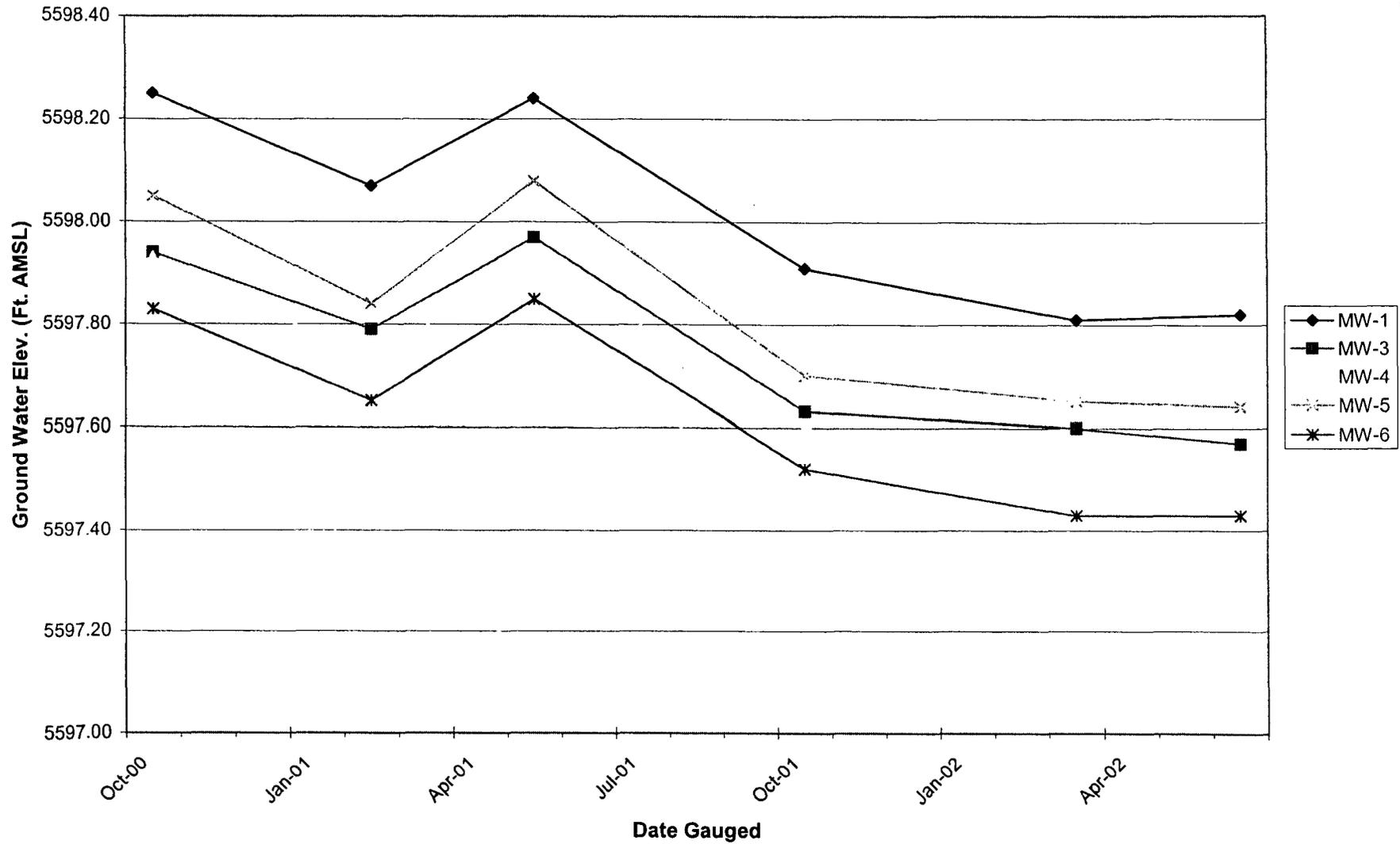


Figure 2. Florance 124 Groundwater Contour Map (December 1996)

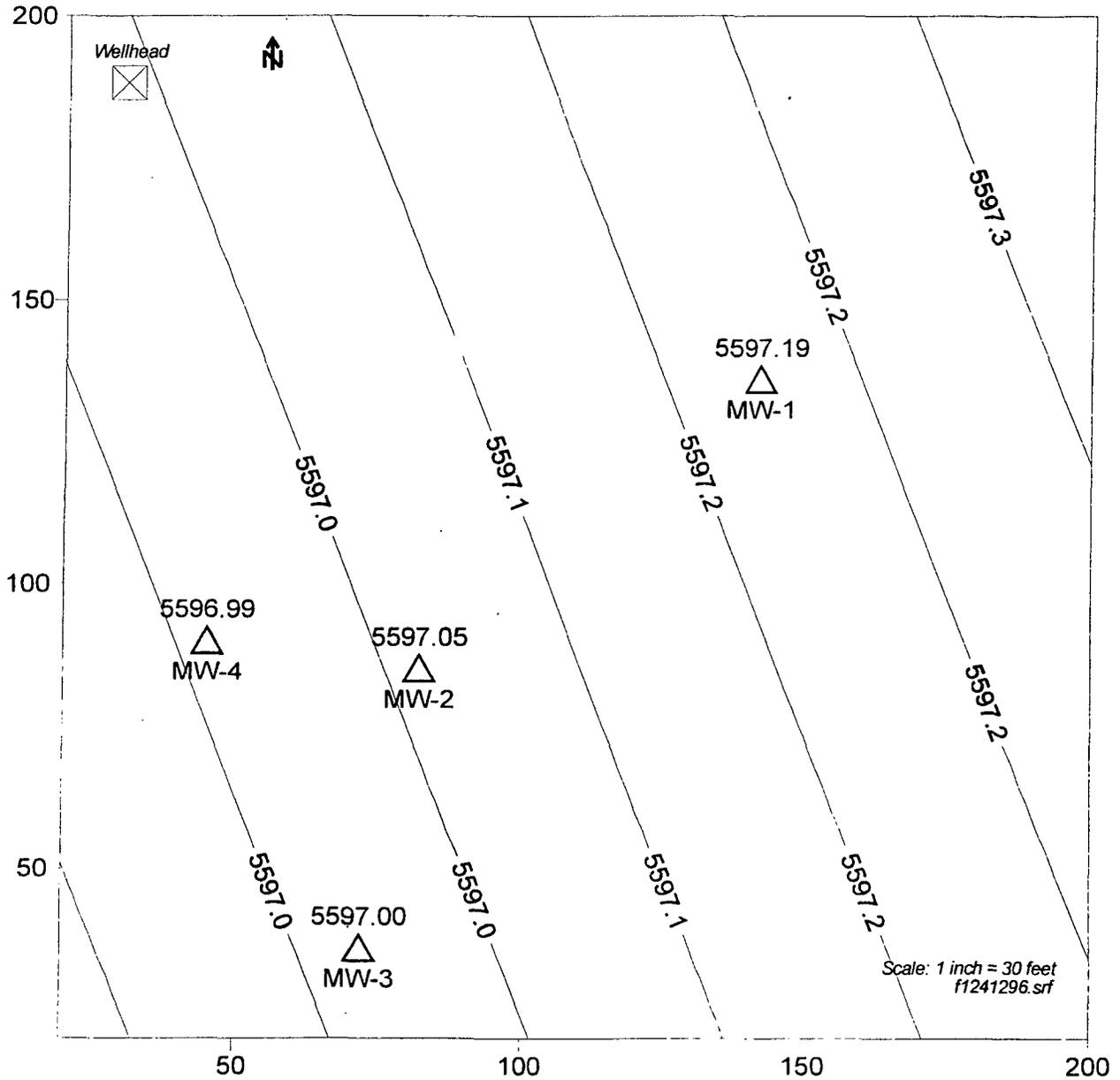


TABLE 1
SUMMARY OF LABORATORY ANALYTICAL DATA

Analytical Data Summary

Site Name:
Florance 124

Reporting Period:
7/1/96 To 7/1/02

| Well ID | Sample Date | Sample ID | Benzene ug/l | Toluene ug/l | Ethylbenzene ug/l | Xylene (Total) ug/l |
|-------------|-------------|-------------|--------------|--------------|-------------------|---------------------|
| MW-1 | | | | | | |
| | 9/5/96 | 9609051100 | <0.2 | <0.2 | <0.2 | <0.4 |
| | 12/6/96 | 9612061300 | <0.2 | <0.2 | <0.2 | <0.4 |
| | 8/20/97 | 9708201300 | <1.0 | <1.0 | <1.0 | <2.0 |
| | 11/6/97 | 9711061330 | <0.2 | <0.2 | <0.2 | <0.2 |
| | 1/19/98 | 9801191011 | <0.2 | 0.3 | <0.2 | <0.4 |
| | 6/16/02 | 143316JUN02 | ND | ND | ND | ND |
| MW-2 | | | | | | |
| | 9/5/96 | 9609051130 | 122.4 | 725.0 | 26.9 | 764.8 |
| | 12/6/96 | 9612061330 | 55.1 | 172.7 | 15.7 | 455.5 |
| | 8/20/97 | 9708201330 | 26.9 | 51.8 | 17.0 | 142.8 |
| | 11/6/97 | 9711061400 | 15.5 | 32.1 | 8.8 | 90.5 |
| | 1/19/98 | 9801191031 | 32.9 | 45.2 | 18.1 | 155.5 |
| | 4/28/98 | 9804281200 | 20 | 17 | 9.6 | 88 |
| | 7/31/98 | 9807311200 | 25 | 14 | 12 | 100 |
| | 11/4/98 | 9811041400 | <1.0 | <1.0 | <1.0 | <3.0 |
| | 1/21/99 | 9901211530 | 37 | 13 | 14 | 130 |
| | 4/7/99 | 9904071220 | 12 | 39 | 2.4 | 44 |
| | 7/28/99 | 9907281253 | 35 | <0.5 | 3.7 | 14.8 |
| | 10/14/99 | 9910141025 | 53 | <0.5 | 3.9 | 11 |
| MW-3 | | | | | | |
| | 9/5/96 | 9609051200 | <0.2 | <0.2 | <0.2 | <0.4 |
| | 12/6/96 | 9612061400 | <0.2 | <0.2 | <0.2 | <0.4 |
| | 8/20/97 | 9708201400 | <1.0 | <1.0 | <1.0 | <2.0 |
| | 11/6/97 | 9711061430 | <0.2 | <0.2 | <0.2 | <0.4 |
| | 1/19/98 | 9801191046 | <0.2 | 0.2 | <0.2 | <0.4 |
| | 6/16/02 | 144016JUN02 | ND | ND | ND | ND |
| MW-4 | | | | | | |
| | 9/5/96 | 9609051230 | <0.2 | <0.2 | <0.2 | <0.4 |
| | 12/6/96 | 9612061430 | <0.2 | <0.2 | <0.2 | <0.4 |
| | 8/20/97 | 9708201430 | <1.0 | <1.0 | <1.0 | <2.0 |
| | 11/6/97 | 9711061500 | <0.2 | <0.2 | <0.2 | <0.4 |
| | 1/19/98 | 9801191103 | <0.2 | 0.2 | <0.2 | <0.4 |
| | 6/16/02 | 144716JUN02 | ND | ND | ND | ND |

Site Name:
Florance 124

Reporting Period:
7/1/96 To 7/1/02

| Well ID | Sample Date | Sample ID | Benzene ug/l | Toluene ug/l | Ethylbenzene ug/l | Xylene (Total) ug/l |
|---------|-------------|-------------|-----------------|-----------------|----------------------|------------------------|
| MW-5 | | | | | | |
| | 2/1/00 | 0002011115 | <0.5 | <0.5 | <0.5 | <1.5 |
| | 4/26/00 | 0004261125 | <0.5 | <0.5 | <0.5 | <1.5 |
| | 10/30/00 | 152830OCT00 | <1 | <1 | <1 | <1 |
| | 2/1/01 | 121401FEB01 | <1 | <1 | <1 | <1 |
| | 5/1/01 | 120601MAY01 | <1 | <1 | <1 | <1 |
| | 10/26/01 | 130226OCT01 | <1.0 | <2.0 | <2.0 | <2.0 |
| | 3/22/02 | 124222MAR02 | ND | ND | ND | ND |
| | 6/16/02 | 150316JUN02 | ND | ND | ND | ND |
| MW-6 | | | | | | |
| | 2/1/00 | 0002011130 | 25 | <0.5 | 53 | 936 |
| | 4/26/00 | 0004261110 | 12 | 2.9 | 25 | 214 |
| | 10/30/00 | 151030OCT00 | 1.51 | <1 | <1 | <1 |
| | 10/30/00 | 142230OCT00 | <1 | <1 | <1 | <1 |
| | 2/1/01 | 122501FEB01 | <1 | 1.51 | <1 | 2.302 |
| | 5/1/01 | 123201MAY01 | <1 | <1 | <1 | 1.73 |
| | 10/26/01 | 131026OCT01 | <1.0 | <2.0 | <2.0 | <2.0 |
| | 3/22/02 | 125122MAR02 | ND | ND | ND | ND |
| | 6/16/02 | 145416JUN02 | ND | ND | ND | ND |



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

April 09, 2002

Mr. Jim Struhs
MILE HIGH ENVIRONMENTAL
187 C.R. 4980
Bloomfield, NM 87413

RE: Lab Project Number: 6057814
Client Project ID: SJB-GW FLR124

Dear Mr. Struhs:

Enclosed are the analytical results for sample(s) received by the laboratory on March 27, 2002. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Mary Jane Walls
mjwalls@pacelabs.com
Project Manager

Kansas/NELAP Certification Number E-10116

Enclosures

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
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Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

SAMPLE SUMMARY

Lab Project Number: 6057814
Client Project ID: SJB-GW FLR124

| <u>Project</u> | <u>Sample</u> | | | | |
|----------------------|---------------|-------------------------|---------------|-----------------------|----------------------|
| <u>Sample Number</u> | <u>Number</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> |
| 6057814-001 | 605034693 | 124222MAR02 | Water | 03/22/02 12:42 | 03/27/02 09:40 |
| 6057814-002 | 605034727 | 125122MAR02 | Water | 03/22/02 12:51 | 03/27/02 09:40 |

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Pace Analytical Services, Inc.

9608 Loiret Blvd.
Lenexa, KS 66219

Phone: 913.599.5665

Fax: 913.599.1759

Lab Project Number: 6057814

Client Project ID: SJB-GW FLR124

| Project | | | Analysis | | Analytes |
|----------------------|------------------|-------------------------|-------------|-----------------------------|-----------------|
| <u>Sample Number</u> | <u>Sample No</u> | <u>Client Sample ID</u> | <u>Code</u> | <u>Analysis Description</u> | <u>Reported</u> |
| 6057814-001 | 605034693 | 124222MAR02 | 8020 WPAC | Aromatic Volatile Organics | 5 |
| 6057814-002 | 605034727 | 125122MAR02 | 8020 WPAC | Aromatic Volatile Organics | 5 |

REPORT OF LABORATORY ANALYSIS

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 Lenexa, KS 66219
 Phone: 913.599.5665
 Fax: 913.599.1759

MILE HIGH ENVIRONMENTAL
 187 C.R. 4980
 Bloomfield, NM 87413

Lab Project Number: 6057814
 Client Project ID: SJB-GW FLR124

Attn: Mr. Jim Struhs
 Phone: (505)632-4457

Lab Sample No: 605034693 Project Sample Number: 6057814-001 Date Collected: 03/22/02 12:42
 Client Sample ID: 124222MAR02 Matrix: Water Date Received: 03/27/02 09:40

| Parameters | Results | Units | Report Limit | Analyzed by | CAS No. | Ftnote | Reg Limit |
|----------------------------|----------------------------------|-------|--------------|--------------------|-----------|--------|-----------|
| GC Volatiles | | | | | | | |
| Aromatic Volatile Organics | Prep/Method: EPA 8021 / EPA 8021 | | | | | | |
| Benzene | ND | ug/l | 2.0 | 03/29/02 23:23 SHF | 71-43-2 | | |
| Ethylbenzene | ND | ug/l | 2.0 | 03/29/02 23:23 SHF | 100-41-4 | | |
| Toluene | ND | ug/l | 2.0 | 03/29/02 23:23 SHF | 108-88-3 | | |
| Xylene (Total) | ND | ug/l | 5.0 | 03/29/02 23:23 SHF | 1330-20-7 | | |
| a,a,a-Trifluorotoluene (S) | 103 | % | | 03/29/02 23:23 SHF | 2164-17-2 | | |

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
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 Lenexa, KS 66219
 Phone: 913.599.5665
 Fax: 913.599.1759

Lab Project Number: 6057814
 Client Project ID: SJB-GW FLR124

Lab Sample No: 605034727 Project Sample Number: 6057814-002 Date Collected: 03/22/02 12:51
 Client Sample ID: 125122MAR02 Matrix: Water Date Received: 03/27/02 09:40

| Parameters | Results | Units | Report Limit | Analyzed | by | CAS No. | Ftnote | Reg Limit |
|----------------------------|----------------------------------|-------|--------------|----------------|-----|-----------|--------|-----------|
| GC Volatiles | | | | | | | | |
| Aromatic Volatile Organics | Prep/Method: EPA 8021 / EPA 8021 | | | | | | | |
| Benzene | ND | ug/l | 2.0 | 03/29/02 23:52 | SHF | 71-43-2 | | |
| Ethylbenzene | ND | ug/l | 2.0 | 03/29/02 23:52 | SHF | 100-41-4 | | |
| Toluene | ND | ug/l | 2.0 | 03/29/02 23:52 | SHF | 108-88-3 | | |
| Xylene (Total) | ND | ug/l | 5.0 | 03/29/02 23:52 | SHF | 1330-20-7 | | |
| a,a,a-Trifluorotoluene (S) | 105 | % | | 03/29/02 23:52 | SHF | 2164-17-2 | | |

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Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Lab Project Number: 6057814
Client Project ID: SJB-GW FLR124

PARAMETER FOOTNOTES

- ND Not detected at or above adjusted reporting limit
- NC Not Calculable
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- (S) Surrogate

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Lab Project Number: 6057814
Client Project ID: SJB-GW FLR124

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)

MS(D) Matrix Spike (Duplicate)

DUP Sample Duplicate

ND Not detected at or above adjusted reporting limit

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

RPD Relative Percent Difference

(S) Surrogate

[1] Insufficient sample volume received for the MS/MSD. Acceptable recovery of the LCS indicates the analytical system is in control.

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June 26, 2002

Mr. Jim Struhs
MILE HIGH ENVIRONMENTAL
187 C.R. 4980
Bloomfield, NM 87413

RE: Lab Project Number: 6059948
Client Project ID: FLR124

Dear Mr. Struhs:

Enclosed are the analytical results for sample(s) received by the laboratory on June 20, 2002. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Mary Jane Walls
mjwalls@pacelabs.com
Project Manager

Kansas/NELAP Certification Number E-10116

Enclosures

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SAMPLE SUMMARY

Lab Project Number: 6059948
Client Project ID: FLR124

| <u>Project</u> | <u>Sample</u> | | | | |
|----------------------|---------------|-------------------------|---------------|-----------------------|----------------------|
| <u>Sample Number</u> | <u>Number</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> |
| 6059948-001 | 605212588 | 143316JUN02 | Water | 06/16/02 14:33 | 06/20/02 09:00 |
| 6059948-002 | 605212596 | 144016JUN02 | Water | 06/16/02 14:40 | 06/20/02 09:00 |
| 6059948-003 | 605212604 | 144716JUN02 | Water | 06/16/02 14:47 | 06/20/02 09:00 |
| 6059948-004 | 605212612 | 150316JUN02 | Water | 06/16/02 15:03 | 06/20/02 09:00 |
| 6059948-005 | 605212620 | 145416JUN02 | Water | 06/16/02 14:54 | 06/20/02 09:00 |

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SAMPLE ANALYTE COUNT

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Fax: 913.599.1759

Lab Project Number: 6059948
Client Project ID: FLR124

| Project | | | Analysis | | Analytes |
|----------------------|------------------|-------------------------|-------------|-----------------------------|-----------------|
| <u>Sample Number</u> | <u>Sample No</u> | <u>Client Sample ID</u> | <u>Code</u> | <u>Analysis Description</u> | <u>Reported</u> |
| 6059948-001 | 605212588 | 143316JUN02 | 8020 WPAC | Aromatic Volatile Organics | 5 |
| 6059948-002 | 605212596 | 144016JUN02 | 8020 WPAC | Aromatic Volatile Organics | 5 |
| 6059948-003 | 605212604 | 144716JUN02 | 8020 WPAC | Aromatic Volatile Organics | 5 |
| 6059948-004 | 605212612 | 150316JUN02 | 8020 WPAC | Aromatic Volatile Organics | 5 |
| 6059948-005 | 605212620 | 145416JUN02 | 8020 WPAC | Aromatic Volatile Organics | 5 |

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Lab Project Number: 6059948
 Client Project ID: FLR124

Lab Sample No: 605212588 Project Sample Number: 6059948-001 Date Collected: 06/16/02 14:33
 Client Sample ID: 143316JUN02 Matrix: Water Date Received: 06/20/02 09:00

| Parameters | Results | Units | Report Limit | Analyzed | By | CAS No. | Qual | RegLmt |
|------------|---------|-------|--------------|----------|----|---------|------|--------|
|------------|---------|-------|--------------|----------|----|---------|------|--------|

GC Volatiles

| Aromatic Volatile Organics | | Method: EPA 8021 | | | | | | |
|----------------------------|-----|------------------|-----|----------------|-----|-----------|--|--|
| Benzene | ND | ug/l | 2.0 | 06/21/02 19:37 | JPR | 71-43-2 | | |
| Ethylbenzene | ND | ug/l | 2.0 | 06/21/02 19:37 | JPR | 100-41-4 | | |
| Toluene | ND | ug/l | 2.0 | 06/21/02 19:37 | JPR | 108-88-3 | | |
| Xylene (Total) | ND | ug/l | 5.0 | 06/21/02 19:37 | JPR | 1330-20-7 | | |
| a,a,a-Trifluorotoluene (S) | 101 | % | | 06/21/02 19:37 | JPR | 98-08-8 | | |

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Lab Project Number: 6059948
Client Project ID: FLR124

Lab Sample No: 605212596 Project Sample Number: 6059948-002 Date Collected: 06/16/02 14:40
Client Sample ID: 144016JUN02 Matrix: Water Date Received: 06/20/02 09:00

| Parameters | Results | Units | Report Limit | Analyzed | By | CAS No. | Qual | Reqlmt |
|----------------------------|------------------|-------|--------------|----------------|-----|-----------|------|--------|
| GC Volatiles | | | | | | | | |
| Aromatic Volatile Organics | Method: EPA 8021 | | | | | | | |
| Benzene | ND | ug/l | 2.0 | 06/21/02 20:39 | JPR | 71-43-2 | | |
| Ethylbenzene | ND | ug/l | 2.0 | 06/21/02 20:39 | JPR | 100-41-4 | | |
| Toluene | ND | ug/l | 2.0 | 06/21/02 20:39 | JPR | 108-88-3 | | |
| Xylene (Total) | ND | ug/l | 5.0 | 06/21/02 20:39 | JPR | 1330-20-7 | | |
| a,a,a-Trifluorotoluene (S) | 100 | % | | 06/21/02 20:39 | JPR | 98-08-8 | | |

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Lab Project Number: 6059948
Client Project ID: FLR124

Lab Sample No: 605212604 Project Sample Number: 6059948-003 Date Collected: 06/16/02 14:47
Client Sample ID: 144716JUN02 Matrix: Water Date Received: 06/20/02 09:00

Table with columns: Parameters, Results, Units, Report Limit, Analyzed, By, CAS No., Qual, RegLmt. Section: GC Volatiles. Sub-section: Aromatic Volatile Organics. Method: EPA 8021. Rows include Benzene, Ethylbenzene, Toluene, Xylene (Total), and a,a,a-Trifluorotoluene (S).

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Lab Project Number: 6059948
Client Project ID: FLR124

Lab Sample No: 605212612 Project Sample Number: 6059948-004 Date Collected: 06/16/02 15:03
Client Sample ID: 150316JUN02 Matrix: Water Date Received: 06/20/02 09:00

| Parameters | Results | Units | Report Limit | Analyzed | By | CAS No. | Qual | RegLmt |
|----------------------------|------------------|-------|--------------|----------------|-----|-----------|------|--------|
| GC Volatiles | | | | | | | | |
| Aromatic Volatile Organics | Method: EPA 8021 | | | | | | | |
| Benzene | ND | ug/l | 2.0 | 06/21/02 21:42 | JPR | 71-43-2 | | |
| Ethylbenzene | ND | ug/l | 2.0 | 06/21/02 21:42 | JPR | 100-41-4 | | |
| Toluene | ND | ug/l | 2.0 | 06/21/02 21:42 | JPR | 108-88-3 | | |
| Xylene (Total) | ND | ug/l | 5.0 | 06/21/02 21:42 | JPR | 1330-20-7 | | |
| a,a,a-Trifluorotoluene (S) | 102 | % | | 06/21/02 21:42 | JPR | 98-08-8 | | |

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Lab Project Number: 6059948
 Client Project ID: FLR124

Lab Sample No: 605212620 Project Sample Number: 6059948-005 Date Collected: 06/16/02 14:54
 Client Sample ID: 145416JUN02 Matrix: Water Date Received: 06/20/02 09:00

| Parameters | Results | Units | Report Limit | Analyzed | By | CAS No. | Qual | RegLmt |
|----------------------------|------------------|-------|--------------|----------------|-----|-----------|------|--------|
| GC Volatiles | | | | | | | | |
| Aromatic Volatile Organics | Method: EPA 8021 | | | | | | | |
| Benzene | ND | ug/l | 2.0 | 06/24/02 13:33 | JPR | 71-43-2 | | |
| Ethylbenzene | ND | ug/l | 2.0 | 06/24/02 13:33 | JPR | 100-41-4 | | |
| Toluene | ND | ug/l | 2.0 | 06/24/02 13:33 | JPR | 108-88-3 | | |
| Xylene (Total) | ND | ug/l | 5.0 | 06/24/02 13:33 | JPR | 1330-20-7 | | |
| a,a,a-Trifluorotoluene (S) | 103 | % | | 06/24/02 13:33 | JPR | 98-08-8 | | |

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Lab Project Number: 6059948
Client Project ID: FLR124

PARAMETER FOOTNOTES

ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL Adjusted Method Detection Limit
(S) Surrogate

Date: 06/26/02

Page: 6

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Lab Project Number: 6059948
Client Project ID: FLR124

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)
MS(D) Matrix Spike (Duplicate)
DUP Sample Duplicate
ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL Adjusted Method Detection Limit
RPD Relative Percent Difference
(S) Surrogate

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