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Southern Pacific Transportation Company

Semiannual Monitoring Report: First Semiannual Event 1999

Houston Wood Preserving Works
Houston, Texas

July 9, 1999

W.O. #422-09

Environmental Resources Management
16300 Katy Freeway, Suite 300
Houston, Texas 77094-1611
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ERM®

Southern Pacific Transportation Company

Semiannual Monitoring Report: First Semiannual Event 1999 *Houston Wood Preserving Works Houston, Texas*

July 9, 1999

W.O. #422-09

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1.0 INTRODUCTION

1.1 BACKGROUND

On March 16 and 17, 1999, Environmental Resources Management (ERM) conducted ground water sampling activities at Southern Pacific Transportation Company's Houston Wood Preserving Works (HWPW) site, located at 4910 Liberty Road, Houston, Texas (Figure 1-1). This semiannual sampling event included the on-site wells and piezometers associated with a closed surface impoundment (TNRCC Permit Unit No. II.B.1) as described in RCRA Permit No. HW-50343-000 and associated Compliance Plan (CP-50343), both issued by the Texas Natural Resource Conservation Commission (TNRCC). The sampling event, analytical data, and this data evaluation report represent the first semiannual monitoring period for 1999 (i.e., January 1 through June 30) and fulfill the semiannual reporting requirements described in Compliance Plan Section VII.B.2.

1.2 REPORT CONTENT AND ORGANIZATION

Section VII.B.2 of the Compliance Plan (CP) requires that a specific list of items be included in each Semiannual Report. As such, each item listed below is addressed by number in Section 2.0 of this report. As of June 30, 1999, a recovery system had not been installed at this facility. Therefore, in the few instances where a provision refers to a recovery system (i.e., items 5, 7, and 11), a notation was made in the text, and the items, as they relate to recovery wells, were not addressed in this report. The following items are required for the Semiannual Report, pursuant to CP Section VII.B.2:

1. A narrative summary of the evaluations made in accordance with CP Sections V, VI, and VII for the preceding six-month period. These periods shall be January 1 through June 30 and July 1 through December 31;

2. The results of the chemical analyses, submitted in a tabulated format in a form acceptable to the Executive Director, which clearly indicates each parameter that exceeds the Ground Water Protection Standard (GWPS). Copies of the original laboratory report for chemical analyses showing detection limits and quality control and quality assurance data shall be provided if requested by the Executive Director;

3. Tabulation of all water level elevations (relative to mean sea level), depth to water measurements, and total depth of well measurements collected since the data that was submitted in the previous semiannual report;

4. Potentiometric surface maps showing the elevation of the water table at the time of sampling;

5. If a recovery system is installed, potentiometric surface maps showing delineation of the radius of influence, minimum and maximum gradient within the hydrologically influenced area, and the direction of ground-water flow gradients outside the radius of influence;

6. A notation of the presence or absence of NAPLs, both light and dense phases, in each well during each sampling event since the last event covered in the previous semiannual report and tabulation of depth and thickness of NAPLs, if detected;

7. If a recovery system is installed, monthly tabulations of quantities of recovered ground-water and NAPLs (if encountered), and graphs of weekly recorded flow rates versus time for the recovery wells during each quarter;

8. Tabulation of all data evaluation results pursuant to Section VI.D and status of each well listed on CP Table III with regard to compliance with the corrective action objectives and compliance with the Ground Water Protection Standards;

9. Maps of the contaminated area depicting concentrations of naphthalene, acenaphthene, and total benzene, toluene, ethylbenzene, and xylenes (BTEX) as isopleth contours;

10. An updated schedule summary as required by Section XI.A;

11. Summary of any changes made to the monitoring/corrective action program and a summary of recovery well inspections, repairs, and any operational difficulties;

12. Recommendation for any changes; and,

13. Any other items requested by the Executive Director.

2.0 SECOND SEMIANNUAL GROUND WATER SAMPLING EVENT

This section contains a discussion of each of the Semiannual Report items required by CP Section VII.B.2.

2.1 NARRATIVE SUMMARY OF SECOND SEMIANNUAL ACTIVITIES

CP Section VII.B.2.a requires a narrative summary of evaluations completed in accordance with CP Sections V, VI, and VII. Section V relates to the Corrective Action Program in place for the permitted unit. Section VI relates to the Ground Water Monitoring Program designed to evaluate the effectiveness of the Corrective Action Program. Section VII includes provisions for amending the Corrective Action Program and/or Compliance Plan.

2.1.1 *Corrective Action Program*

Existing wells were sampled to evaluate the extent of affected ground water in the A-Transmissive Zone (A-TZ) and the B-Transmissive Zone (B-TZ). The definitions of the A-TZ and B-TZ are consistent with the UTZ and STZ, respectively, as defined in CP Provision I.A.

- A-TZ refers to the first sand unit encountered at approximately 35 feet above mean sea level (msl), averaging 6 to 8 feet in thickness.

- B-TZ refers to the second sand unit encountered at approximately 15 feet above msl, averaging 8 to 10 feet in thickness.

Existing monitoring wells in the A-TZ, designated by function in CP Table III (Appendix A), include the Corrective Action Observation (CAO) wells MW-04, MW-05, MW-07, MW-08, and MW-09, and the Point of Compliance (POC) wells MW-01A, MW-02, MW-03, MW-10A, and MW-11A. Existing monitoring wells in the B-TZ include the POC wells MW-10B and MW-11B, and the POC piezometers P-10, P-11, and P-12.

2.1.2 *Ground Water Monitoring*

ERM personnel performed monitoring activities at the site on March 16 through 18, 1999. The 15 A-TZ and B-TZ wells and piezometers listed in Section 2.1.1 (above) were located and inspected in preparation for the sampling event. Ground water sampling was performed using procedures outlined in a U.S. EPA document titled *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures* (EPA/540/S-95/504) published in April 1996. Purging and sampling were performed using a low-flow pump, which drew a sample directly from the screened interval of the well.

Polytetrafluoroethylene (PTFE) tubing was placed in the wells during the previous sampling event and used for sampling. A Master-Flex® peristaltic pump was placed next to each well during sampling. Using a one-foot section of disposable silicon tubing placed around the pump head and attached to the PTFE tubing, ground water was pumped from the screened interval of the well at a flow rate of approximately 0.5 L/min. A one-liter measuring cup was used to collect purge water in one-liter increments to evaluate field parameters, including temperature, pH, specific conductivity, and dissolved oxygen. When three successive readings indicated that the field parameters had stabilized, the well was sampled. The samples were collected at a flow rate of approximately 0.5 L/min. A compilation of recorded field parameters is included in Appendix B.

For each well, two 40-mL glass vials (for volatile organic compound analysis), and one 1000-mL amber glass bottle (for semivolatile organic compounds analysis) were filled directly from the pumping apparatus described above. The bottles, which had been preserved previously by the laboratory, were sealed and packed in coolers with sufficient ice to maintain a sample temperature of approximately 4° C. The coolers were delivered to Q.W.A.L. Laboratories, Inc. of Pittsburgh, Kansas for analysis. Chain-of-Custody (COC) forms were completed and kept with their respective samples. Copies of the analytical data and COCs are included in Appendix C.

2.2 *ANALYTICAL RESULTS*

The results of the chemical analyses performed on the A-TZ and B-TZ ground water samples collected during the first semiannual sampling event of 1999 are summarized in Tables 2-1 and 2-2, respectively. Those compounds reported by the laboratory to be above the GWPS are indicated in bold italics on the tables. The CP sets the GWPS at the practical quantitation limit (PQL) for each of the compounds analyzed.

2.3 *WATER LEVEL AND TOTAL DEPTH MEASUREMENT*

Because low-flow sampling procedures were utilized for this sampling event, it was important to reduce disruption of the water column to the extent practical prior to sampling. To accomplish this, light non-aqueous phase liquid (LNAPL) measurements were made first with an MMC® Model D-240 oil/water interface probe. No LNAPL was noted on the probe at any of the wells measured. Next, water levels were measured using the oil/water interface probe. Since the meter came into contact with only the upper surface of the water column, disruption of the water column was reduced.

Dense non-aqueous phase liquid (DNAPL) and total depth measurements were collected with the oil/water interface probe following ground water sampling.

These measurements were collected in accordance with the methodology described in EPA's low-flow guidance (U.S. EPA, April 1996) which suggests that a probe be lowered gently through the water column to the bottom of the well following sample collection. No DNAPL was noted at any of the wells measured. Table 2-3 summarizes the results of the depth-to-water and total well depth measurements.

2.4 *POTENTIOMETRIC SURFACE MAPS*

The ground water elevation data described in Section 2.3 were used to create potentiometric surface maps of the A-TZ and B-TZ. The equipotential lines were generated by applying a linear Kriging algorithm to the data. Figures 2-1 and 2-2 show potentiometric surface maps of the A-TZ and B-TZ, respectively.

2.5 *POTENTIOMETRIC SURFACE MAPS FOR RECOVERY SYSTEM*

As of June 30, 1999, no recovery system had been installed at the closed surface impoundment. Therefore, this item is not addressed herein.

2.6 *NON-AQUEOUS PHASE LIQUIDS*

The wells and piezometers were examined for the presence of light NAPLs before low-flow sampling and dense NAPLs after low-flow sampling was completed, in order to minimize disruption of the water column prior to sampling. The low-flow sampling method resulted in little or no drawdown. Accordingly, dense NAPL layers, if present, would not have been significantly affected by prior ground water sample collection. An MMC® Model D-240 oil/water interface probe was used to measure for light and heavy NAPLs. No NAPLs were detected in any of the wells sampled during this semiannual event.

2.7 *NAPL RECOVERIES*

As of June 30, 1999, no recovery system had been installed at the closed surface impoundment. Therefore, this item is not addressed herein.

2.8 *ANALYTICAL DATA EVALUATION*

CP Section VI.D describes two methods which may be used to determine the compliance status of a given well. The analytical results may be either directly compared to the GWPS (CP Table I; included in Appendix A herein), or statistically compared to the GWPS using the 99% significance level of the t-distribution. Table 2-4 shows the results of a direct comparison of data from the second semiannual sampling event to the GWPS. Wells and piezometers were considered to be compliant if each of the constituents listed in CP Table I was reported at a concentration less than or equal to the Concentration Limit (i.e.,

the GWPS). Conversely, wells and piezometers were considered non-compliant if one or more constituents were reported at concentrations above the Concentration Limit.

2.9 *BTEX, ACENAPHTHENE, AND NAPHTHALENE ISOPLETHS*

The concentration contours of these constituents were prepared using the data presented in Table 2-3. The contours were generated manually. Locations with reported non-detects were assigned a value equal to one-half of the reported detection limit.

The A-TZ and B-TZ BTEX concentrations measured during the first semiannual sampling event of 1999 are illustrated in Figures 2-3 and 2-4, respectively. Similarly, acenaphthene and naphthalene isopleths are provided in Figures 2-5 through 2-8.

2.10 *UPDATED COMPLIANCE SCHEDULE*

An updated compliance schedule is included as Appendix D of this report.

2.11 *SUMMARY OF CHANGES MADE TO THE MONITORING/CORRECTIVE ACTION PROGRAM AND SUMMARY OF RECOVERY WELL INSPECTIONS AND MAINTENANCE*

The POC and CAO wells were inspected twice during the semiannual monitoring period. Based on the results of the inspections, no repairs or corrective actions were warranted. A summary of the well inspections will be included in the 1999 Annual Report.

No recovery wells or ground water recovery system is present on site. Accordingly, there were no recovery well inspections, repairs, or operations conducted.

2.12 *RECOMMENDATIONS FOR CHANGES*

At this time, no changes are recommended.

2.13 *OTHER REQUESTED ITEMS*

To date, no other items have been requested by the Executive Director.

Tables

TABLE 2-1

Summary of Analytical Results for the A-Transmissive Zone (A-TZ)
First Semiannual Sampling Event, 1999

Houston Wood Preserving Works
Houston, Texas

Analyte	PQL (GWPS)[1]	MW-01A 3/17/99	MW-02 3/17/99	MW-03 3/17/99	MW-04 3/17/99	MW-05 3/16/99	MW-07 3/17/99	MW-08 3/16/99	MW-09 3/16/99	MW-10A 3/17/99	MW-11A 3/17/99
Benzene	0.005	***0.1242*** [2]	ND	ND	ND	ND	ND	ND*	ND	ND	***0.018***
Chlorobenzene	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.005	***0.222***	ND	ND	ND	ND	ND	***0.008***	ND	ND	***0.033***
Toluene	0.005	***0.037***	ND	ND	ND	ND	ND	***0.005***	ND	ND	***0.016***
Xylene (total)	0.005	***0.270***	ND	ND	ND	ND	ND	***0.010***	ND	ND	***0.031***
Acenaphthene	0.010	***0.141***	***0.011***	***0.100***	ND	ND	ND	***0.086***	ND	ND	***0.185***
Acenaphthylene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	***0.011***
Benzo(a)anthracene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	0.010	***0.055***	ND	***0.054***	ND	ND	ND	***0.047***	ND	ND	***0.079***
Di-n-butylphthalate	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	0.010	***0.083***	ND	***0.063***	ND	ND	ND	***0.056***	ND	ND	***0.101***
2-Methylnaphthalene	0.010	***0.028***	ND	ND	ND	ND	ND	***0.042***	ND	ND	***0.017***
Naphthalene	0.010	***0.228***	ND	ND	ND	ND	ND	***0.534***	ND	ND	***0.572***
Nitrobenzene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Nitrophenol	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	0.010	***0.034***	ND	ND	ND	ND	ND	***0.017***	ND	ND	***0.062***
Phenol	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

Results reported in mg/L

ND - Not detected at the Practical Quantitation Limit (PQL)

[1]PQL - *Practical Quantitation Limit* as defined on Table I of the Compliance Plan, and determined by the analytical methods of EPA SW-846. The PQL is the Ground Water Protection Standard (GWPS).

[2] ***Bold, italics*** indicate values reported above the Ground Water Protection Standard .

ND* - Indicates that a concentration was reported by the laboratory, but was less than the PQL.

TABLE 2-2

Summary of Analytical Results for the B-Transmissive Zone (B-TZ)
First Semiannual Sampling Event, 1999

Houston Wood Preserving Works
Houston, Texas

Analyte	PQL (GWPS)[1]	MW-10B 3/17/99	MW-11B 3/17/99	P-10 3/17/99	P-11 3/16/99	P-12 3/16/99
Benzene	0.005	***0.005***	ND*	***0.007***	ND	ND
Chlorobenzene	0.005	ND	ND	ND*	ND	ND
1,2-Dichloroethane	0.005	ND	ND	ND	ND	ND
Methylene chloride	0.010	ND	ND	ND	ND	ND
Ethylbenzene	0.005	***0.028***	***0.025***	***0.433***	ND	ND
Toluene	0.005	***0.006***	ND*	***0.011***	ND	ND
Xylene (total)	0.005	***0.014***	***0.012***	***0.153***	ND	ND
Acenaphthene	0.010	***0.062***	***0.087***	***0.182***	***0.019***	ND
Acenaphthylene	0.010	ND	ND	ND	ND	ND
Anthracene	0.010	ND	ND	***0.012***	ND	ND
Benzo(a)anthracene	0.010	ND	ND	ND	ND	ND
Benzo(a)pyrene	0.010	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	0.010	ND	ND	ND	ND	ND
2-Chloronaphthalene	0.010	ND	ND	ND	ND	ND
Chrysene	0.010	ND	ND	ND	ND	ND
Dibenzofuran	0.010	***0.034***	***0.048***	***0.044***	ND	ND
Di-n-butylphthalate	0.010	ND	ND	ND	ND	ND
2,4-Dimethylphenol	0.010	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	0.050	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	0.010	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	0.010	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	0.010	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	0.010	ND	ND	ND	ND	ND
Fluoranthene	0.010	ND	ND	ND	ND	ND
Fluorene	0.010	***0.035***	***0.047***	***0.094***	ND	ND
2-Methylnaphthalene	0.010	ND	***0.046***	***0.032***	ND	ND
Naphthalene	0.010	***0.249***	***0.608***	***0.902***	ND	ND
Nitrobenzene	0.010	ND	ND	ND	ND	ND
p-Nitrophenol	0.050	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	0.010	ND	ND	ND	ND	ND
Pentachlorophenol	0.050	ND	ND	ND	ND	ND
Phenanthrene	0.010	***0.031***	***0.043***	***0.048***	ND	ND
Phenol	0.010	ND	ND	ND	ND	ND
Pyrene	0.010	ND	ND	ND	ND	ND

NOTES:

Results reported in mg/L.

ND - Not detected at the Practical Quantitation Limit (PQL).

[1]PQL - *Practical Quantitation Limit* as defined on Table I of the Compliance Plan, and determined by the analytical methods of EPA SW-846. The PQL is the Ground Water Protection Standard (GWPS).

[2] ***Bold, italics*** indicate values reported above the Ground Water Protection Standard .

ND* - Indicates that a concentration was reported by the laboratory, but was less than the PQL.

TABLE 2-3

Water Level and Total Depth of Well Measurements
First Semiannual Sampling Event, 1999

Houston Wood Preserving Works
Houston, Texas

Well ID	Top of Casing Elevation (msl)	Depth to Water (ft TOC)	Water Surface Elevation (msl)	Total Depth of Well as Measured (ft TOC)	Total Depth as Logged (ft TOC) *
MW-01A	47.95'	3.71'	44.24'	19.65'	20.20'
MW-02	48.03'	3.55'	44.48'	18.52'	20.30'
MW-03	48.55'	4.16'	44.39'	19.66'	20.90'
MW-04	49.85'	6.21'	43.64	21.71'	23.40'
MW-05	49.35'	5.81'	43.54'	27.35'	28.30'
MW-07	48.86'	5.32'	43.54'	24.78'	N/A
MW-08	49.37'	5.45'	43.92'	25.06'	26.80'
MW-09	49.29'	5.46'	43.83'	23.41'	26.80'
MW-10A	49.90'	5.91'	43.99'	25.55'	25.90'
MW-11A	50.04'	6.32'	43.72'	24.01'	24.40'

Well ID	Top of Casing Elevation (msl)	Depth to Water (ft TOC)	Water Surface Elevation (msl)	Total Depth of Well as (ft TOC) Measured	Total Depth as Logged (ft TOC) *
MW-10B	49.97'	6.05'	43.92'	46.54'	48.80'
MW-11B	50.19'	6.49'	43.70'	46.69'	46.80'
P-10	47.72'	4.21'	43.51'	42.84'	N/A
P-11	49.02'	4.96'	44.06'	42.81'	51.80'
P-12	48.82'	4.99'	43.83'	42.88'	51.70'

NOTES:

Well measurements were taken on March 16, 1999.
msl - feet above mean sea level
ft TOC - feet below the Top Of (the well) Casing
* Logged during well installation
N/A - Information not available

TABLE 2-4

Compliance Status of Wells and Piezometers

First Semiannual Sampling Event, 1999
Houston Wood Preserving Works
Houston, Texas

A-TZ Monitoring Location	Well Designation	Compliance Status
MW-01A	Point of compliance	Non-Compliant
MW-02	Point of compliance	Non-Compliant
MW-03	Point of compliance	Non-Compliant
MW-10A	Point of compliance	Compliant
MW-11A	Point of compliance	Non-Compliant
MW-04	Corrective action observation	Compliant
MW-05	Corrective action observation	Compliant
MW-07	Corrective action observation	Compliant
MW-08	Corrective action observation	Non-Compliant
MW-09	Corrective action observation	Compliant

B-TZ Monitoring Location	Well Designation	Compliance Status
MW-10B	Point of compliance	Non-Compliant
MW-11B	Point of compliance	Non-Compliant
P-10	Point of compliance	Non-Compliant
P-11	Corrective action observation	Non-Compliant
P-12	Corrective action observation	Compliant

Figures

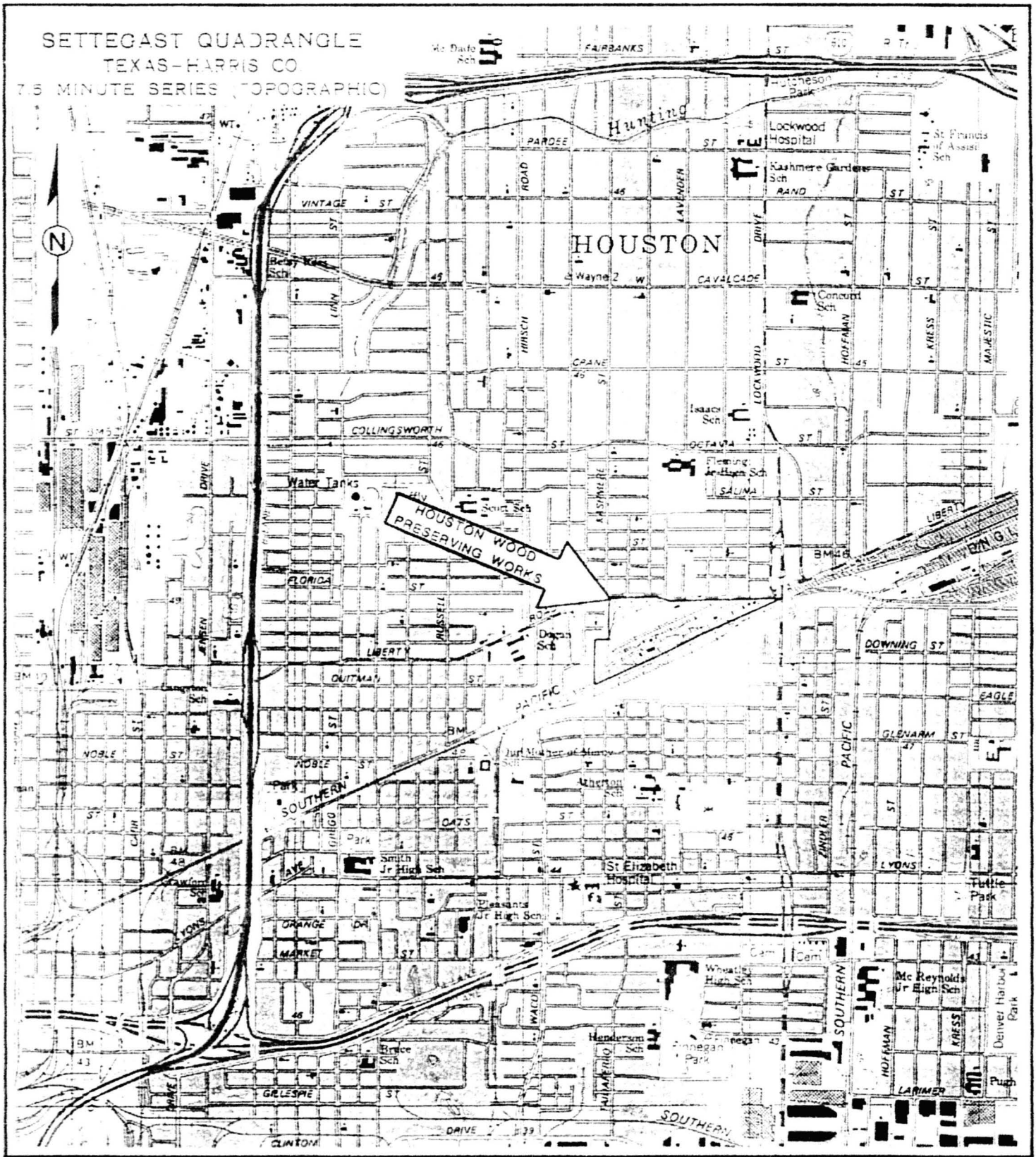

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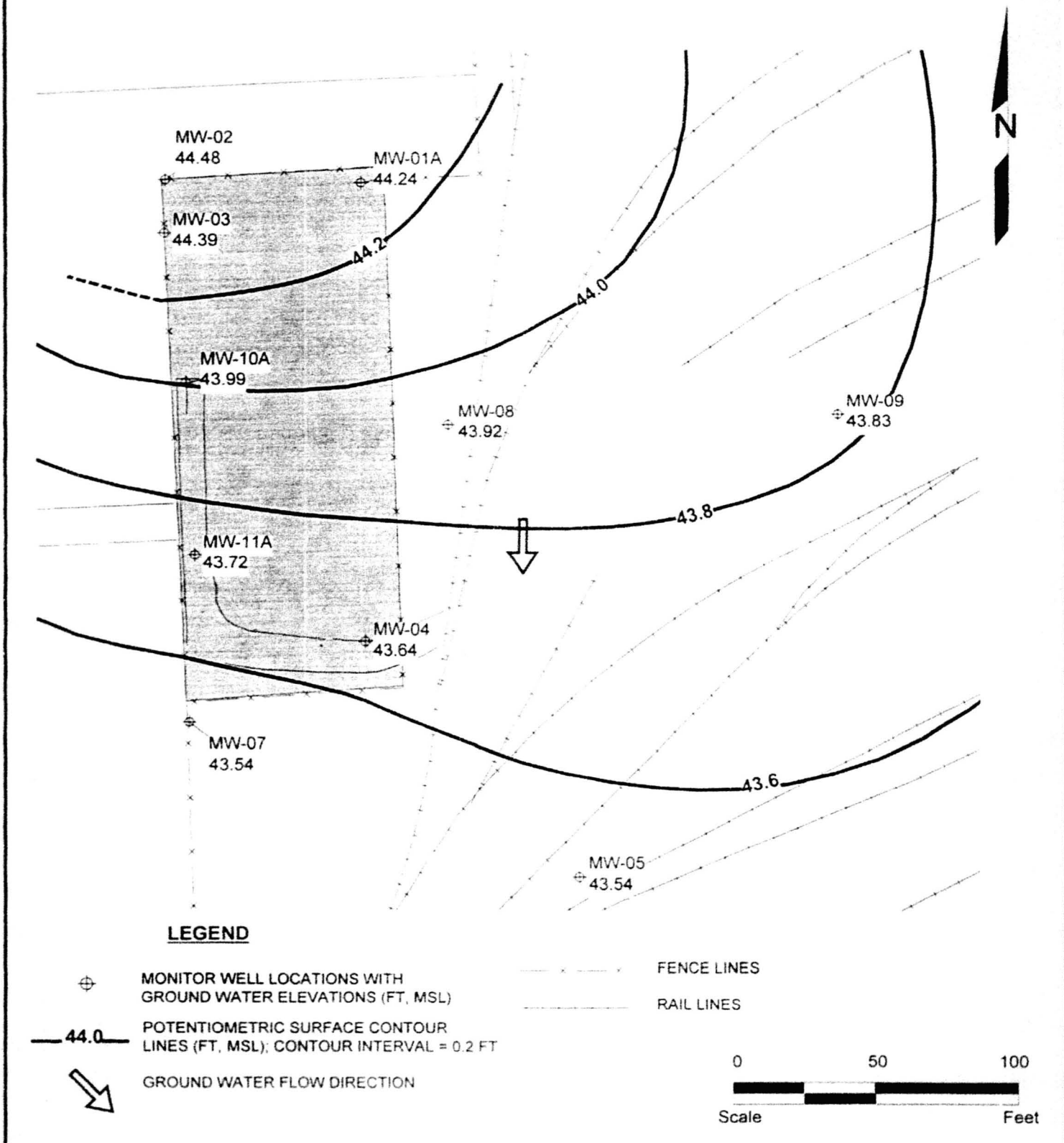
FIGURE 1-1
SITE VICINITY MAP
HOUSTON WOOD PRESERVING WORKS
HOUSTON, TEXAS

DATE: 1/20/98

DRAWING NO.: 42209A25A98



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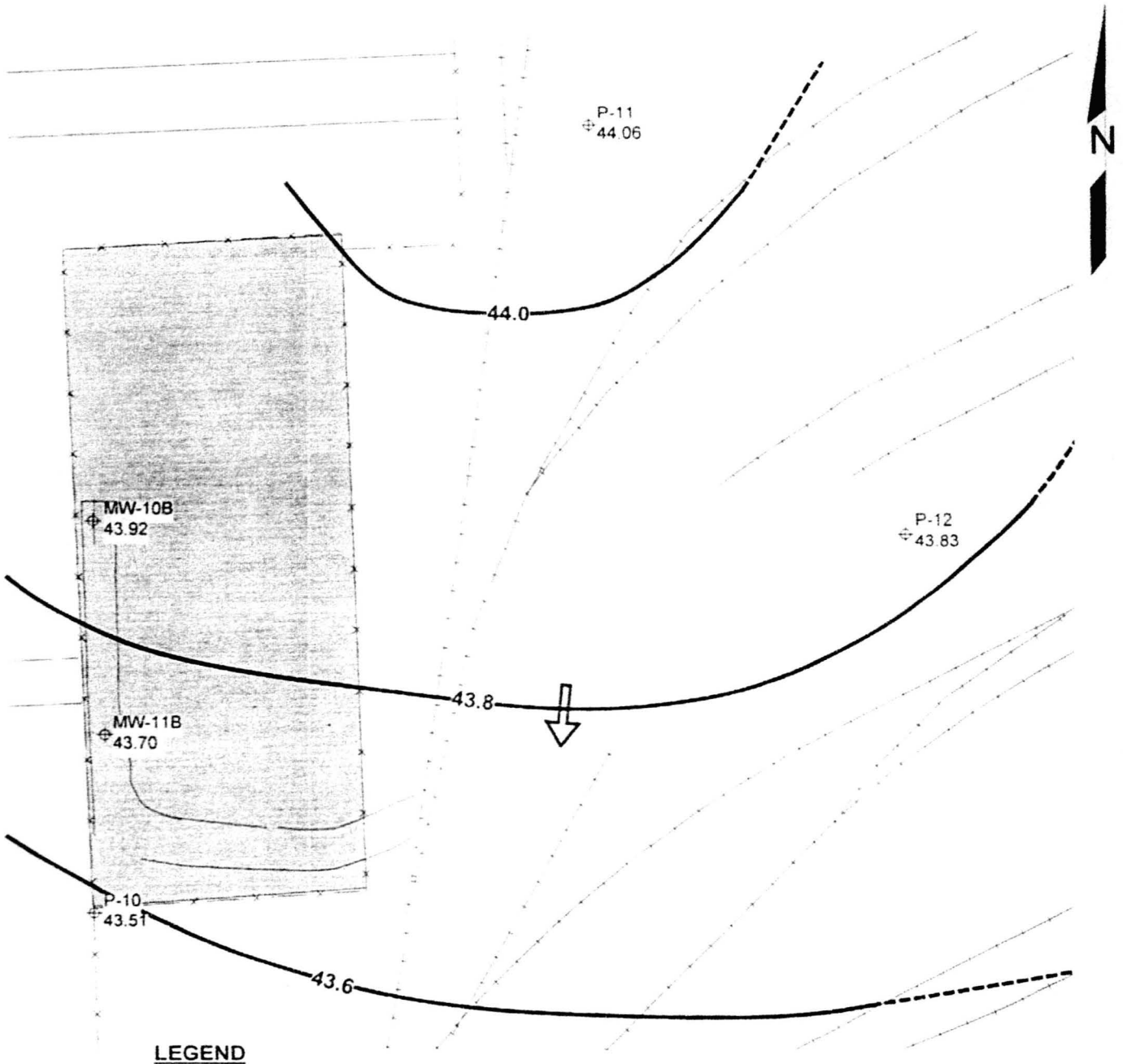
DESIGN: MLY	CHECKED: RZM	DATE: June 7, 1999
DRAWN: MLY	SCALE: AS SHOWN	Mar99_ATZ.wor

FIGURE 2-1
A-TZ POTENTIOMETRIC SURFACE
March 16, 1999
TNRCC Permit Unit No. II.B.1.
Houston Wood Preserving Works
Houston, Texas

ERM®



LEGEND

- MONITOR WELL LOCATIONS WITH GROUND WATER ELEVATIONS (FT, MSL)
- 44.0 — POTENTIOMETRIC SURFACE CONTOUR LINES (FT, MSL); CONTOUR INTERVAL = 0.2 FT
- GROUND WATER FLOW DIRECTION
- FENCE LINES
- RAIL LINES

0 50 100
Scale Feet

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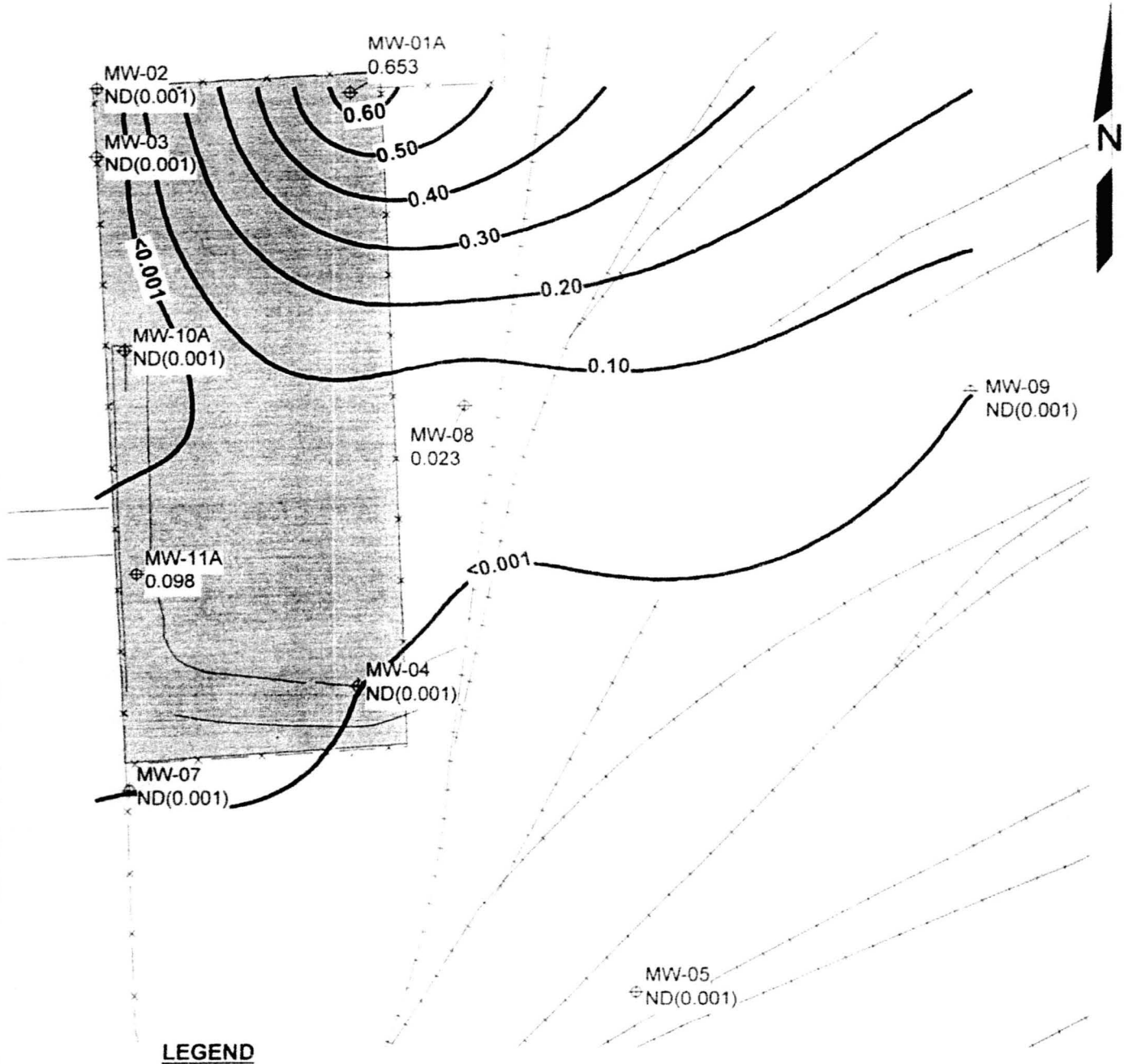
DESIGN: MLY	CHECKED: RZM	DATE: June 7, 1999
DRAWN: MLY	SCALE: AS SHOWN	Mar99_BTZ.wor

FIGURE 2-2
B-TZ POTENTIOMETRIC SURFACE
March 16, 1999
TNRCC Permit Unit No. II.B.1.
Houston Wood Preserving Works
Houston, Texas

ERM



LEGEND

- MONITOR WELL LOCATIONS WITH TOTAL BTEX CONCENTRATION (mg/L)
- 0.10 — TOTAL BTEX ISOCONCENTRATION CONTOUR LINES (mg/L); CONTOUR INTERVAL = 0.10 mg/L
- FENCE LINES
- RAIL LINES

NOTES:
(1) Contour lines dashed where inferred.
(2) Contour line at <0.001 mg/L shown for display purposes only.
(3) BTEX = Benzene, Toluene, Ethylbenzene, total Xylenes
(4) ND = Not Detected; quantitation limit shown in parentheses

0 50 100
Scale Feet

ERM-Southwest, Inc.

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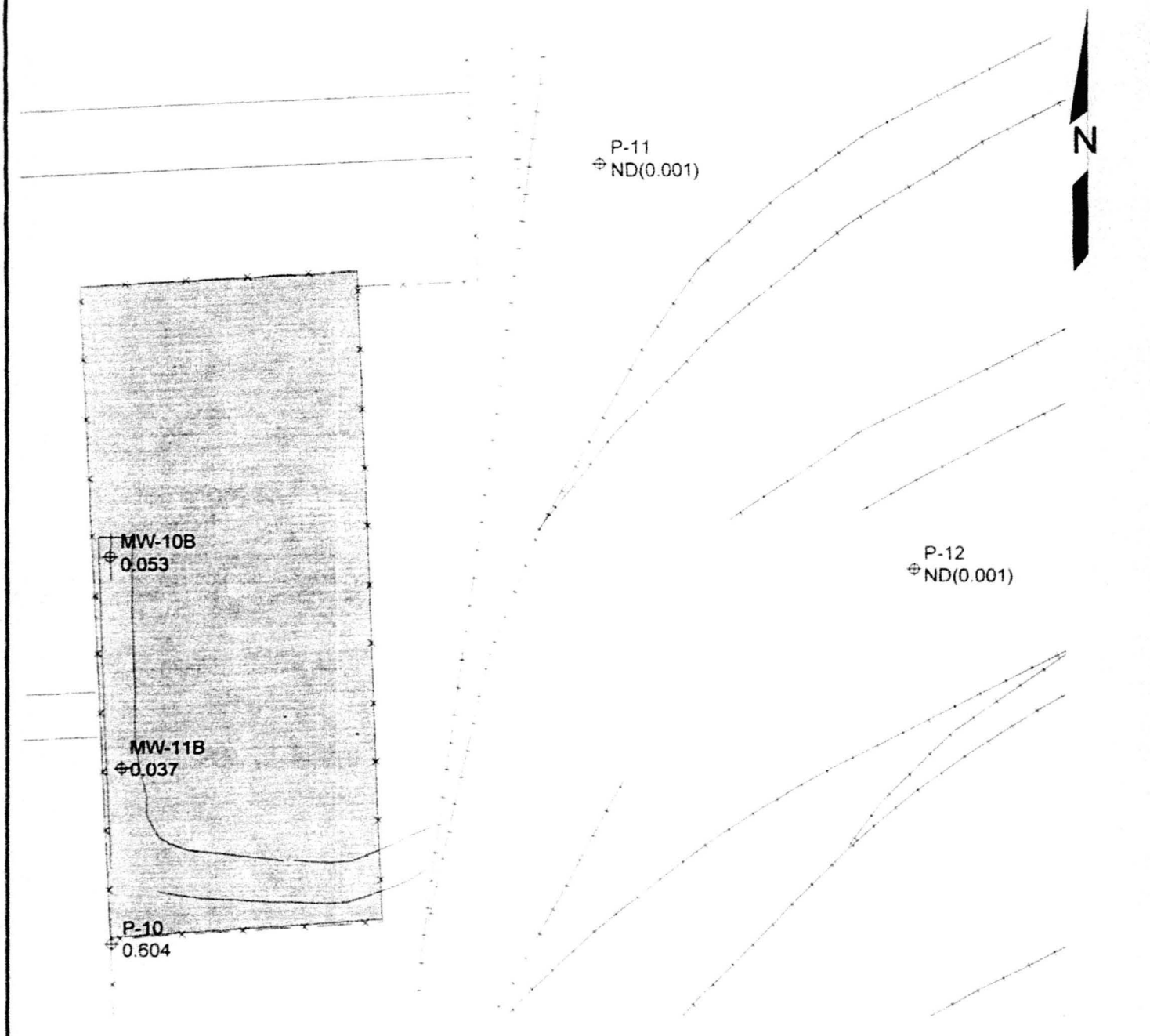
DESIGN: MLY	CHECKED: RZM	DATE: June 8, 1999
DRAWN: MLY	SCALE: AS SHOWN	BTEXMar99_ATZ.wor

FIGURE 2-3
TOTAL BTEX IN A-TZ GROUND WATER (mg/L)
March 16, 1999
TNRCC Permit Unit No. II.B.1.
Houston Wood Preserving Works
Houston, Texas

ERM®



LEGEND

- MONITOR WELL LOCATIONS WITH TOTAL BTEX CONCENTRATION (mg/L)
- FENCE LINES
- RAIL LINES

NOTES:
(1) BTEX = Benzene, Toluene, Ethylbenzene, total Xylenes
(2) ND = Not Detected; quantitation limit shown in parentheses

0 50 100
Scale Feet

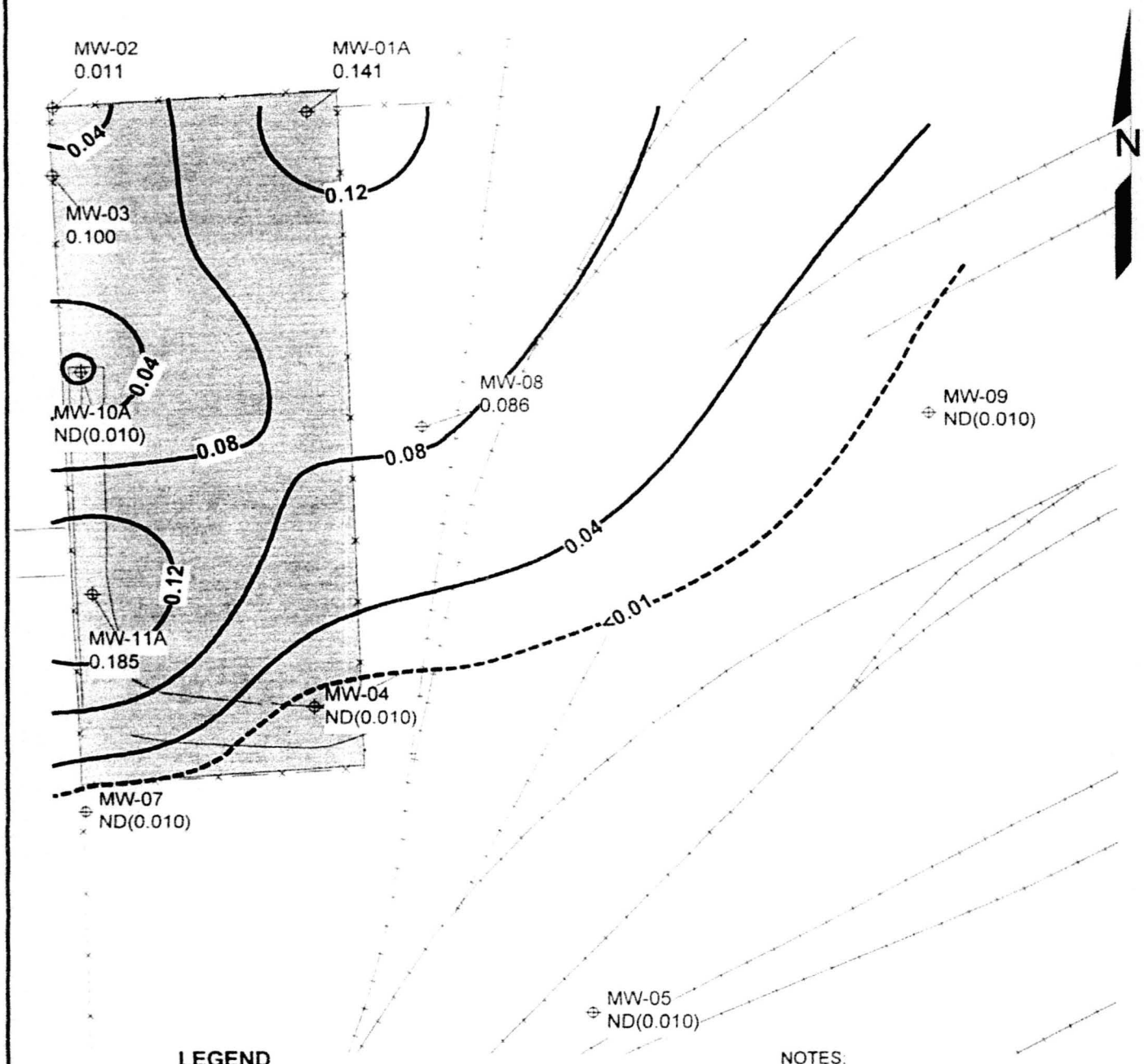
ERM-Southwest, Inc.

HOUSTON • NEW ORLEANS • AUSTIN • DALLAS • BEAUMONT

DESIGN: MLY	CHECKED: RZM	DATE: June 8, 1999
DRAWN: MLY	SCALE: AS SHOWN	BTEXMar99_BTZ wor

FIGURE 2-4
TOTAL BTEX IN B-TZ GROUND WATER (mg/L)
March 16, 1999
TNRCC Permit Unit No. II.B.1.
Houston Wood Preserving Works
Houston, Texas

ERM



LEGEND

- MONITOR WELL LOCATIONS WITH ACENAPHTHENE CONCENTRATION (mg/L)
- —0.04— ACENAPHTHENE ISOCONCENTRATION CONTOUR LINES (mg/L); CONTOUR INTERVAL = 0.04 mg/L
- FENCE LINES
- RAIL LINES

NOTES:
(1) Contour lines dashed where inferred.
(2) Contour line at <0.01 mg/L shown for display purposes only.
(3) ND = Not Detected; quantitation limit shown in parentheses

0 50 100
Scale Feet

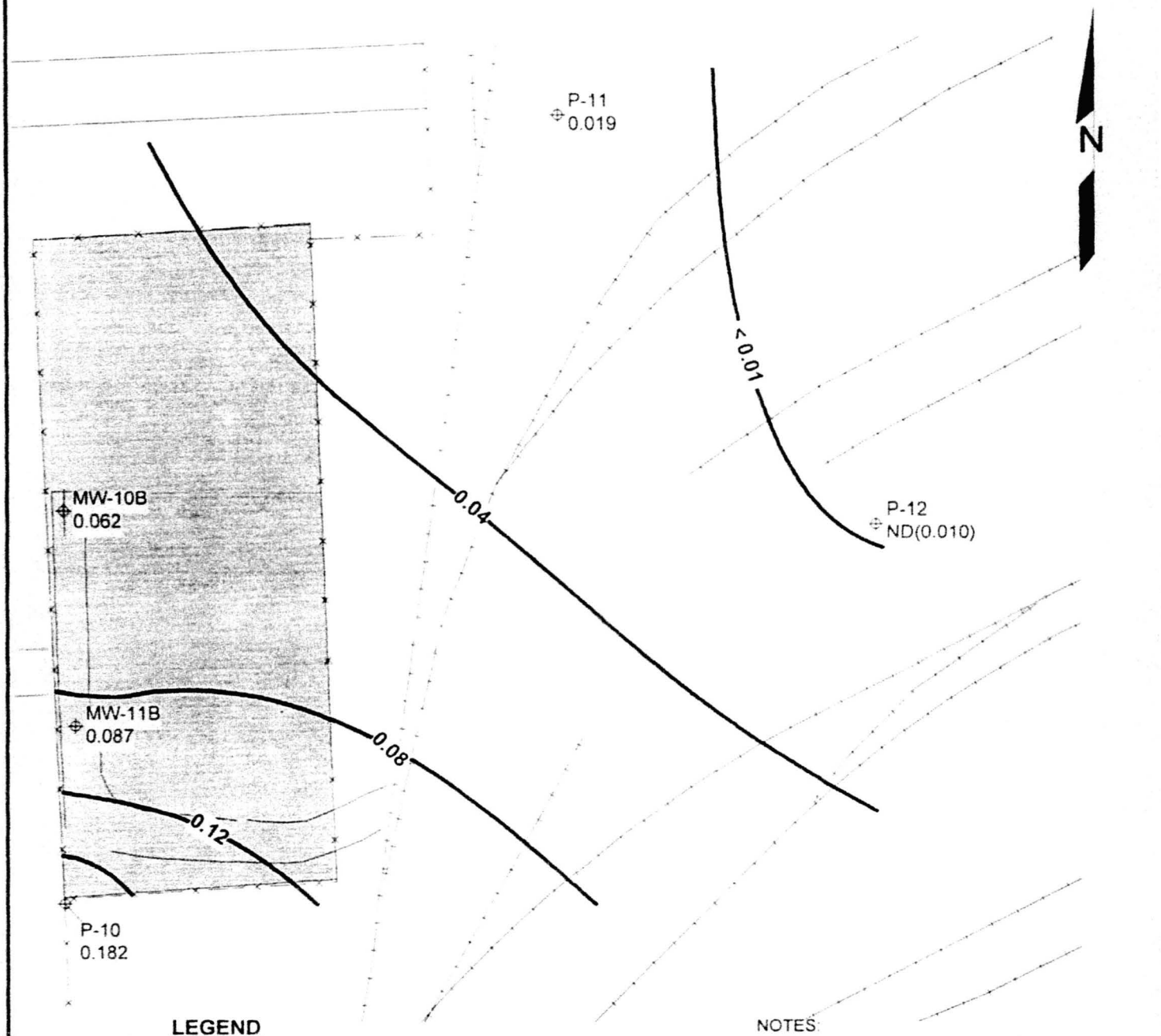
ERM-Southwest, Inc.

HOUSTON • NEW ORLEANS • AUSTIN • DALLAS • BEAUMONT

DESIGN: MLY	CHECKED: RZM	DATE: June 8, 1999
DRAWN: MLY	SCALE: AS SHOWN	ACEMar99_ATZ.wor

FIGURE 2-5
ACENAPHTHENE IN A-TZ GROUND WATER (mg/L)
March 16, 1999
TNRCC Permit Unit No. II.B.1
Houston Wood Preserving Works
Houston, Texas

ERM®



LEGEND

- MONITOR WELL LOCATIONS WITH ACENAPHTHENE CONCENTRATION (mg/L)
- —0.04— ACENAPHTHENE ISOCONCENTRATION CONTOUR LINES (mg/L); CONTOUR INTERVAL = 0.04 mg/L
- FENCE LINES
- RAIL LINES

NOTES:
(1) Contour lines dashed where inferred.
(2) Contour line at <0.01 mg/L shown for display purposes only.
(3) ND = Not Detected; quantitation limit shown in parentheses

0 50 100
Scale Feet

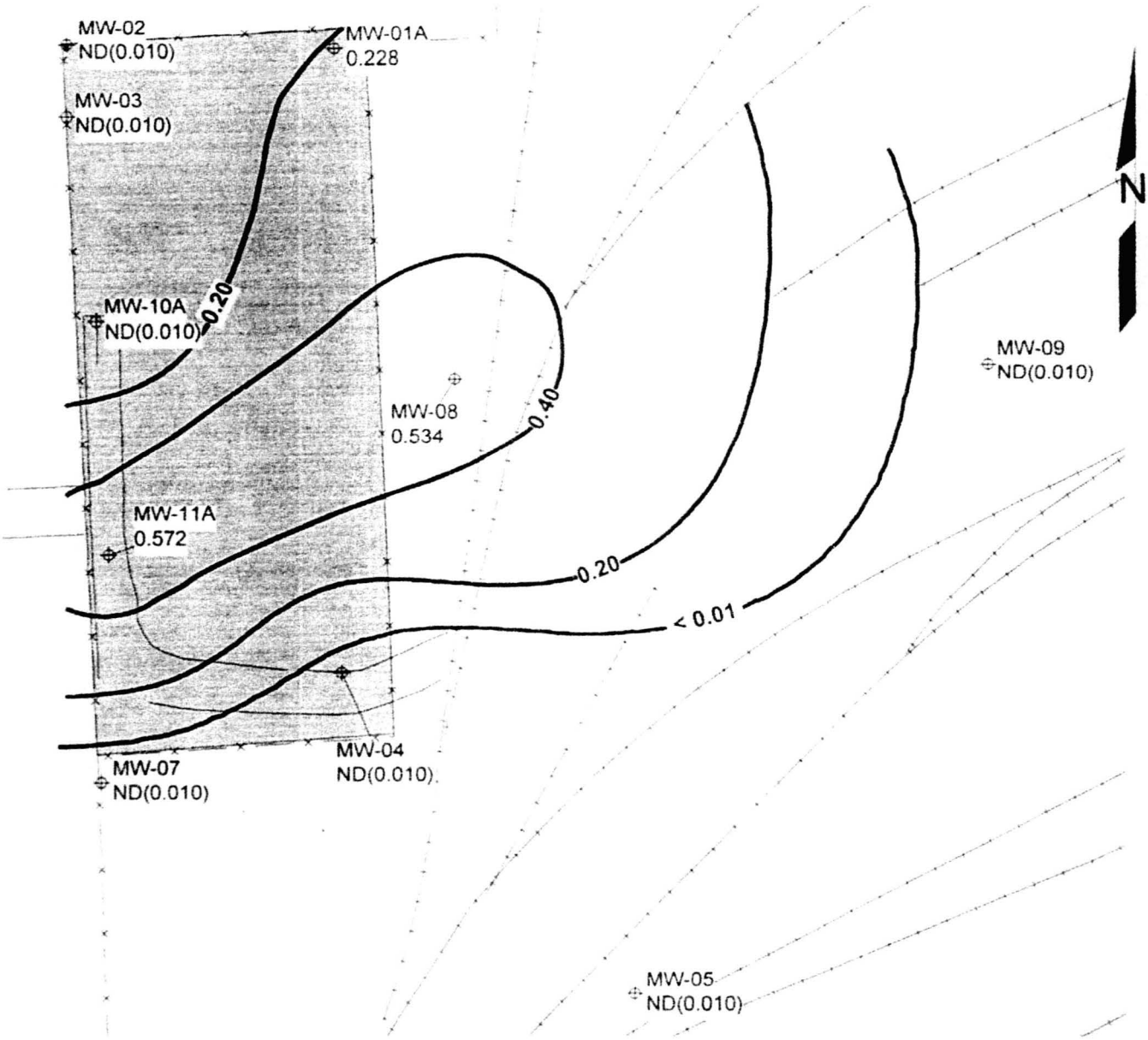
ERM-Southwest, Inc.

HOUSTON • NEW ORLEANS • AUSTIN • DALLAS • BEAUMONT

DESIGN: MLY	CHECKED: RZM	DATE: June 8, 1999
DRAWN: MLY	SCALE: AS SHOWN	ACEMar99_BTZ.wor

FIGURE 2-6
ACENAPHTHENE IN B-TZ GROUND WATER (mg/L)
March 16, 1999
TNRCC Permit Unit No. II.B.1
Houston Wood Preserving Works
Houston, Texas

ERM



LEGEND

- ⊕ MONITOR WELL LOCATIONS WITH NAPHTHALENE CONCENTRATION (mg/L)
- —0.20— NAPHTHALENE ISOCONCENTRATION CONTOUR LINES (mg/L); CONTOUR INTERVAL = 0.20 mg/L
- FENCE LINES
- RAIL LINES

NOTES:
(1) Contour lines dashed where inferred.
(2) Contour line at <0.01 mg/L shown for display purposes only.
(3) ND = Not Detected; quantitation limit shown in parentheses

0 50 100
Scale Feet

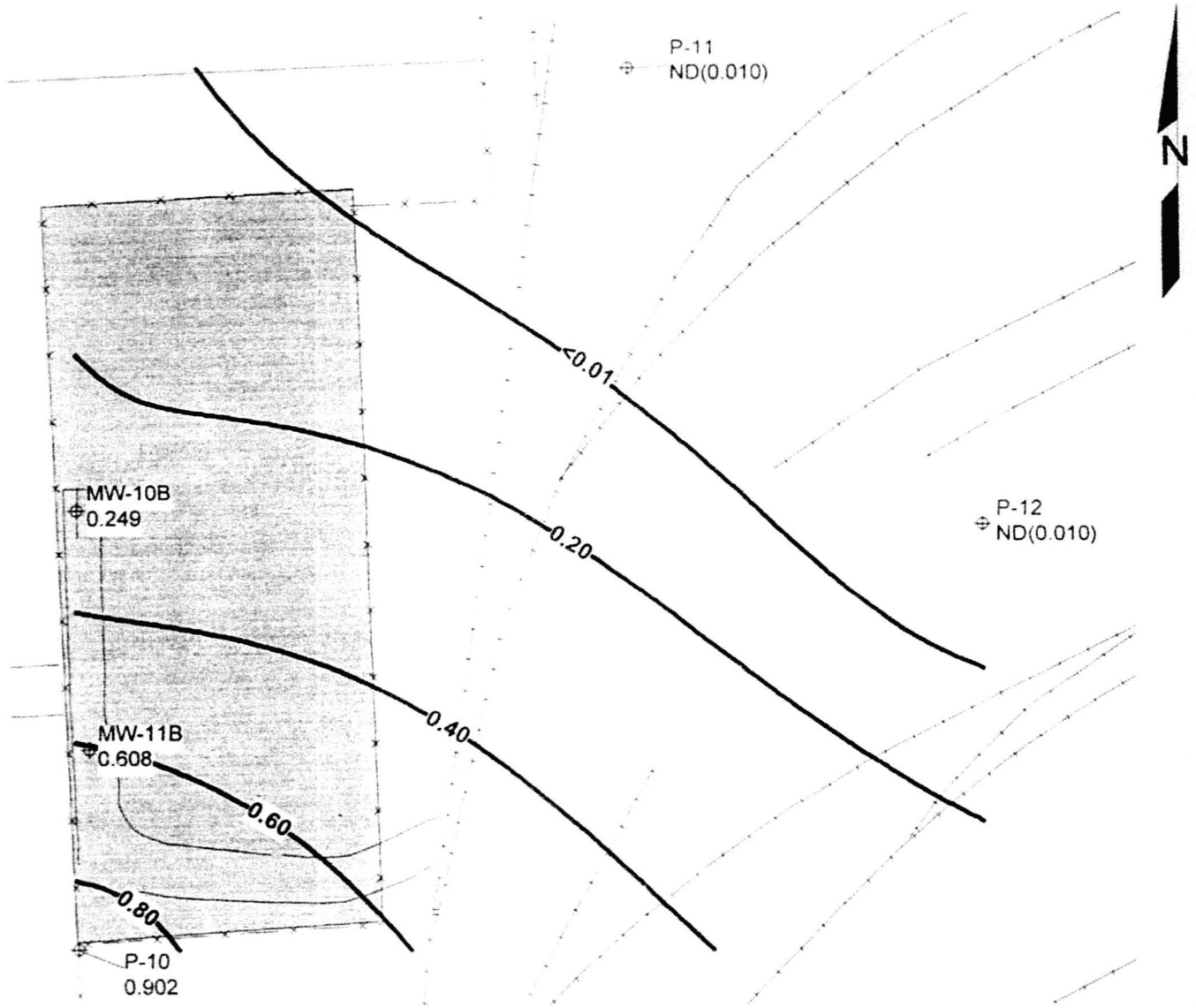
ERM-Southwest, Inc.

HOUSTON • NEW ORLEANS • AUSTIN • DALLAS • BEAUMONT

DESIGN: MLY	CHECKED: RZM	DATE: June 8, 1999
DRAWN: MLY	SCALE: AS SHOWN	NaphMar99_ATZ wor

FIGURE 2-7
NAPHTHALENE IN A-TZ GROUND WATER (mg/L)
March 16, 1999
TNRCC Permit Unit No. II.B.1.
Houston Wood Preserving Works
Houston, Texas

ERM



LEGEND

- MONITOR WELL LOCATIONS WITH NAPHTHALENE CONCENTRATION (mg/L)
- —0.20— NAPHTHALENE ISOCONCENTRATION CONTOUR LINES (mg/L); CONTOUR INTERVAL = 0.20 mg/L
- FENCE LINES
- RAIL LINES

NOTES:
(1) Contour lines dashed where inferred.
(2) Contour line at <0.01 mg/L shown for display purposes only.
(3) ND = Not Detected; quantitation limit shown in parentheses

0 50 100
Scale Feet

ERM-Southwest, Inc.

HOUSTON • NEW ORLEANS • AUSTIN • DALLAS • BEAUMONT

DESIGN: MLY	CHECKED: RZM	DATE: June 8, 1999
DRAWN: MLY	SCALE: AS SHOWN	NaphMar99_BTZ.wor

FIGURE 2-8
NAPHTHALENE IN B-TZ GROUND WATER (mg/L)
March 16, 1999
TNRCC Permit Unit No. II.B.1.
Houston Wood Preserving Works
Houston, Texas

ERM

Compliance Plan Tables

Appendix A

July 9, 1999
W.O. #422-09

Environmental Resources Management
16300 Katy Freeway, Suite 300
Houston, Texas 77094-1611
(281) 579-8999

TABLE I

Table of Hazardous and Solid Waste Constituents and Concentration Limits for Ground-water Protection Standard

COLUMN A Hazardous Constituents	COLUMN B Concentration Limits (mg/l)
Acenaphthene	ND (0.010)
Acenaphthylene	ND (0.010)
Anthracene	ND (0.010)
Benzene	ND (0.005)
Benzo(a)anthracene	ND (0.010)
Benzo(a)pyrene	ND (0.010)
Bis(2-ethylhexyl)phthalate	ND (0.010)
Bis(2-chlororethoxy)methane	ND (0.010)
Chlorobenzene	ND (0.005)
2-Chloronaphthalene	ND (0.010)
Chrysene	ND (0.010)
Dibenzofuran	ND (0.010)
1,2-Dichlorethane	ND (0.005)
Dichloromethane *	ND (0.005)
2,4-Dimethylphenol	ND (0.010)
Di-n-butyl phthalate	ND (0.010)
4,6-Dinitro-o-cresol	ND (0.050)
2,4-Dinitrotoluene	ND (0.010)
2,6-Dinitrotoluene	ND (0.010)
1,2-Diphenylhydrazine	ND (0.010)
Ethylbenzene	ND (0.005)
Fluoranthene	ND (0.010)
Fluorene	ND (0.010)
Methylene chloride	ND (0.010)
2-Methylnaphthalene	ND (0.010)
Naphthalene	ND (0.010)
Nitrobenzene	ND (0.010)
4-Nitrophenol	ND (0.050)
N-Nitrosodiphenylamine	ND (0.010)
Pentachlorophenol	ND (0.050)
Phenanthrene	ND (0.010)
Phenol	ND (0.010)
Pyrene	ND (0.010)
Toluene	ND (0.005)
Xylenes	ND (0.005)

NOTES:

N.D. Non-detectable at Practical Quantitation Limit as determined by the analytical methods of the United States Environmental Protection Agency publication SW-846 Test Methods for Evaluating Solid Waste, Third Edition, November 1986, (USEPA SW-846) and as listed in the July 8, 1987 edition of the Federal Register and later editions. Practical Quantitation Limit (PQL) is indicated in parentheses. Practical Quantitation Limits are the lowest concentrations of analytes in ground water that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions.

* Because Methylene Chloride is listed herein with a PQL of 0.010 mg/L, and is the same compound as Dichloromethane, comparisons for compliance will be made at 0.010 mg/L.

TABLE III

Designation of Wells by Function

1.	***Point of Compliance Wells***	***Sampling Frequency***
A.	A-TZ or Upper Transmissive Zone	
	MW-01A	Semiannual
	MW-02	Semiannual
	MW-03	Semiannual
	MW-10A	Semiannual
	MW-11A	Semiannual
B.	B-TZ or Second Transmissive Zone	
	MW-10B	Semiannual
	MW-11B	Semiannual
	P-10	Semiannual

2. ***Background Wells***

As proposed in the Compliance Plan Application, background values of the tested constituents will be assumed to be the Practical Quantitation Limit (PQL), and therefore, negate the need for background wells, unless this Compliance Plan is modified under Section VI.A.

3.	***Corrective Action Observation Wells***	***Sampling Frequency***
A.	On-Site A-TZ or Uppermost Transmissive Zone	
	MW-04	Semiannual
	MW-05	Semiannual
	MW-07	Semiannual
	MW-08	Semiannual
	MW-09	Semiannual
B.	B-TZ or Second Transmissive Zone	
	P-11	Semiannual
	P-12	Semiannual

NOTE:

This table has been updated from CP-50343 where appropriate.

Field Parameters

Appendix B

July 9, 1999

W.O. #422-09

Environmental Resources Management
16300 Katy Freeway, Suite 300
Houston, Texas 77094-1611
(281) 579-8999

TABLE B-1

Ground Water Sampling Field Parameters

Second Semiannual Sampling Event, 1998
Houston Wood Preserving Works
Houston, Texass

Well ID / Date Sampled	MW-01A 3/17/99	MW-02 3/17/99	MW-03 3/17/99	MW-04 3/17/99	MW-05 3/16/99	MW-07 3/17/99	MW-08 3/16/99	MW-09 3/16/99
Time Sampled (hrs)	1430	1310	1237	0855	1444	1516	1532	1400
Temperature (°C)	21.4	20.6	20.9	21.5	22.5	21.6	21.9	23.7
pH (Standard Units)	6.59	6.59	6.71	6.47	6.79	7.01	6.82	6.52
Specific Conductivity (uS)	529	621	1299	914	709	381	602	813
Dissolved Oxygen (mg/L)	0.90	0.90	0.70	1.20	1.40	3.40	2.00	1.80

Well ID / Date Sampled	MW-10A 3/17/99	MW-10B 3/117/99	MW-11A 3/17/99	MW-11B 3/17/99	P-10 3/17/99	P-11 3/16/99	P-12 3/16/99
Time Sampled (hrs)	1151	1105	1012	0935	1555	1153	1250
Temperature (°C)	21.4	22.1	21.3	22.0	22.1	23.3	23.6
pH (Standard Units)	6.78	6.76	6.63	6.72	6.47	6.39	6.45
Specific Conductivity (uS)	1559	1410	1405	1255	469	1262	1346
Dissolved Oxygen (mg/L)	1.60	1.70	1.30	1.20	1.00	1.30	1.30

Laboratory Analytical Reports

Appendix C

July 9, 1999

W.O. #422-09

Environmental Resources Management
16300 Katy Freeway, Suite 300
Houston, Texas 77094-1611
(281) 579-8999

Q.W.A.L. LABORATORIES, INC.

Certified Laboratory
Domestic • Industrial • Municipal
Established 1976

LABORATORY REPORT

CLIENT: ERM
ATTN: Melinda Ylagan
16300 Katy Frwy, Suite 300
Houston, Tx. 77094

Reference# 9903850

Priority Status: Regular

PROJECT/SITE: Houston Wood Preserving Works

SAMPLES SUBMITTED: 1 Sample

REPORT COPIES: 1

Date Collected: 03/26/99 **Collected By: Melinda Ylagan** **Date Received: 03/27/99**

REPORT SUMMARY:

Samples were received in good condition on March 27, 1999. Results of all associated quality control samples were within acceptable limits. Instrument calibration and Internal Standards were within method-acceptable limits.

Detailed quantitative results are presented on the following page(s).

If you have any questions concerning this report, please do not hesitate to contact us at 316-232-1970.

Reviewed By: Terry Koester CDW **Date:** 4/23/99

Terry Koester
Laboratory Director

2911 Rotary Terrace • P.O. Box 562 • Pittsburg, Kansas 66762
PHONE (316) 232-1970 • FAX (316) 232-7730

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT: REFERENCE #: 9903850

SENT TO: ERM
16300 KATY FREEWAY, SUITE 300
HOUSTON, TX 77094
MELINDA YLAGEN

DATE REPORTED: 04/02/99
DATE COLLECTED: 03/26/99
DATE RECEIVED: 03/27/99
P.O. #: 422-09

PROJECT:HWPW

Sample ID: P12-FSA99-R
Collection Date: 03/26/99

Sample Matrix: WATER

TEST	METHOD-CAS #	RESULT	UNITS	DL	ANALYZED	EXTRACTE
SEMIVOLATILES	SW 846 8270B					
ACENAPHTHENE	83-32-9	ND	UG/L	10	04/01/99JLO	03/29/9
ACENAPHTHYLENE	208-96-8	ND	UG/L	10	04/01/99JLO	03/29/9
ANTHRACENE	120-12-7	ND	UG/L	10	04/01/99JLO	03/29/9
BENZO(A)ANTHRACENE	56-55-3	ND	UG/L	10	04/01/99JLO	03/29/9
BENZO(A)PYRENE	50-32-8	ND	UG/L	10	04/01/99JLO	03/29/9
BIS(2-ETHYL HEXYL)PHTHALA	117-81-7	ND	UG/L	10	04/01/99JLO	03/29/9
BIS(2-CHLOROETHOXY)METHAN	111-91-1	ND	UG/L	10	04/01/99JLO	03/29/9
2-CHLORONAPHTHALENE	91-58-7	ND	UG/L	10	04/01/99JLO	03/29/9
CHRYSENE	218-01-9	ND	UG/L	10	04/01/99JLO	03/29/9
DIBENZOFURAN	132-64-9	ND	UG/L	10	04/01/99JLO	03/29/9
2,4-DIMETHYLPHENOL	105-67-9	ND	UG/L	10	04/01/99JLO	03/29/9
DI-N-BUTYL PHTHALATE	84-74-2	ND	UG/L	10	04/01/99JLO	03/29/9
4,6-DINITRO-O-CRESOL	534-52-1	ND	UG/L	10	04/01/99JLO	03/29/9
2,4-DINITROTOLUENE	121-14-2	ND	UG/L	10	04/01/99JLO	03/29/9
2,6-DINITROTOLUENE	606-20-2	ND	UG/L	10	04/01/99JLO	03/29/9
1,2-DIPHENYLHYDRAZINE	122-66-7	ND	UG/L	10	04/01/99JLO	03/29/9
FLUORANTHENE	206-44-0	ND	UG/L	10	04/01/99JLO	03/29/9
FLUORENE	86-73-7	ND	UG/L	10	04/01/99JLO	03/29/9
2-METHYLNAPHTHALENE	91-57-6	ND	UG/L	10	04/01/99JLO	03/29/9
NAPHTHALENE	91-20-3	ND	UG/L	10	04/01/99JLO	03/29/9
NITROBENZENE	98-95-3	ND	UG/L	10	04/01/99JLO	03/29/9
4-NITROPHENOL	100-02-7	ND	UG/L	10	04/01/99JLO	03/29/9
N-NITROSODIPHENYLAMINE	86-30-6	ND	UG/L	10	04/01/99JLO	03/29/9
PENTACHLOROPHENOL	87-86-5	ND	UG/L	50	04/01/99JLO	03/29/9
PHENANTHRENE	85-01-8	ND	UG/L	10	04/01/99JLO	03/29/9
PHENOL	108-95-2	ND	UG/L	10	04/01/99JLO	03/29/9
PYRENE	129-00-0	ND	UG/L	10	04/01/99JLO	03/29/9
2-FLUOROBIPHENYL (SURROGAT	-	41	150	10		03/29/9
NITROBENZENE-D8 (SURROGATE	-	36	150	10		03/29/9
2-FLUOROPHENOL (SURROGATE)	-	19	150	10		03/29/9
2,4,6-TRIBROMOPHENOL (SURR	-	23	150	10		03/29/9
TERPHENYL-D14 (SURROGATE)	-	70	150	10		03/29/9
PHENOL-D5 (SURROGATE)	-	13	150	10		03/29/9

Sample ID: P12-FSA99-R Sample Matrix: WATER
Collection Date: 03/26/99

TEST	METHOD-CAS #	RESULT	UNITS	DL	ANALYZED	EXTRACTEI
PHENOL-D5 (SURROGATE)	-	13	150	10		03/29/9

ND=NONE DETECTED
DL=DETECTION LIMIT
SU=STANDARD UNITS
*BACKGROUND CONTAMINATION
SUR=SURROGATE
Q=OUTSIDE LIMITS
B=DETECTED IN METHOD BLANK

APPROVED BY: Terry Koester
TERRY KOESTER
LABORATORY DIRECTOR

Q.W.A.L. LABORATORIES, INC.

Established 1976

2911 Rotary Terrace • Pittsburg, Kansas 66762

TO ORDER: **FAX 1-316-232-7730 OR PHONE 1-316-232-1970**

① Company Name: ERM

Attention: Melinda Hagan

Address: 16200 Park Row Suite 320

Houston Tx 77084

City, State, Zip Code

④ Phone #: 281-579-8999

④ Fax #: 281-579-8988

② Project Name or Number: NUSPL

⑤ Purchase Order #: WO # 427-09

③ Sampling Personnel Signature(s): Melinda L Hagan

Sampling Personnel (print name): Melinda L Hagan

⑬ TURNAROUND TIME REQUESTED (Additional Charges May Apply)

☑ Standard ☐ 72 Hours ☐ 48 Hours ☐ 24 Hours ☐ SameDay

* Note - Please contact lab for availability of priority service.

⑫ ANALYSIS REQUEST

(Write Tests Here)

⑥ Sample I.D.	Date ⑦	Time ⑦	⑧ Comp.	⑧ Grab	⑨ # of Containers	⑩ Method Preserved: H2SO4	HNO3	NAOH	HCL	Ice	None	⑪ Sample Matrix: Water	Soil	Air	Sludge	Other	8260	8270	REMARKS (If special detection limits are required please note below.)
MW-1 SA99-R	3/24/99	1366		X	2					X	X	X						X	

⑭ Relinquished By: Melinda L Hagan — Date: 3/26/99 — Time: 1430

Received By: Fed EX — Date: 3/26/99 — Time: 1430

Relinquished By: — Date: — Time:

Received By: — Date: 3/27/99 — Time: 1120

Relinquished By: — Date: — Time:

Received By: — Date: — Time:

⑮ Send Report to:

Company: Same as Above

Attn:

Address:

City/State:

Phone:

Fax:

⑯ Send Invoice to:

(if different form report address)

Company: ERM

Attn: Ed Honig

Address:

City/State:

Phone:

Fax:

QWAL Laboratories, Inc.
Quality Control Report

ERM
9903850

Parameter	Test code	Test Description	Instrument description	Analysis Date	Time	Matrix	Units
Acenaphthene	8270ER		GC / MS	4/1/99		water	ug/l
Acenaphthylene	8270ER		GC / MS	4/1/99		water	ug/l
Anthracene	8270ER		GC / MS	4/1/99		water	ug/l
Benzo(a)anthracene	8270ER		GC / MS	4/1/99		water	ug/l
Benzo(a)pyrene	8270ER		GC / MS	4/1/99		water	ug/l
bis(2-ethyl hexyl)phthalate	8270ER		GC / MS	4/1/99		water	ug/l
bis(2-chloroethoxy)methane	8270ER		GC / MS	4/1/99		water	ug/l
2-Chloronaphthalene	8270ER		GC / MS	4/1/99		water	ug/l
Chrysene	8270ER		GC / MS	4/1/99		water	ug/l
diBenzofuran	8270ER		GC / MS	4/1/99		water	ug/l
diMethylphenol	8270ER		GC / MS	4/1/99		water	ug/l
di-n-butyl phthalate	8270ER		GC / MS	4/1/99		water	ug/l
4,6-dinitro-o-cresol	8270ER		GC / MS	4/1/99		water	ug/l
2,4-dinitrotoluene	8270ER		GC / MS	4/1/99		water	ug/l
2,6-dinitrotoluene	8270ER		GC / MS	4/1/99		water	ug/l
1,2-diphenylhydrazine	8270ER		GC / MS	4/1/99		water	ug/l
Fluoranthene	8270ER		GC / MS	4/1/99		water	ug/l
Fluorene	8270ER		GC / MS	4/1/99		water	ug/l
2-methylnaphthalene	8270ER		GC / MS	4/1/99		water	ug/l
Naphthalene	8270ER		GC / MS	4/1/99		water	ug/l
Nitrobenzene	8270ER		GC / MS	4/1/99		water	ug/l
4-Nitrophenol	8270ER		GC / MS	4/1/99		water	ug/l
N-Nitrosodiphenylamine	8270ER		GC / MS	4/1/99		water	ug/l
Pentachlorophenol	8270ER		GC / MS	4/1/99		water	ug/l
Phenanthrene	8270ER		GC / MS	4/1/99		water	ug/l
Phenol	8270ER		GC / MS	4/1/99		water	ug/l
Pyrene	8270ER		GC / MS	4/1/99		water	ug/l
2-Fluorobiphenyl (sur)	8270ER		GC / MS	4/1/99		water	ug/l
Nitrobenzene-d8 (sur)	8270ER		GC / MS	4/1/99		water	ug/l
2-Fluorophenol (sur)	8270ER		GC / MS	4/1/99		water	ug/l
2,4,6-Triboromophenol (sur)	8270ER		GC / MS	4/1/99		water	ug/l
Terphenyl-d14 (sur)	8270ER		GC / MS	4/1/99		water	ug/l
Phenol-d5 (sur)	8270ER		GC / MS	4/1/99		water	ug/l

QWAL Laboratories, Inc.
Quality Control Report

Parameter	Blank Data	Duplicate QC Data			Matrix Spike/Matrix Spike Duplicate QC Data							LCS (known) QC Data		
	Result	Sample	Duplicate	RPD	Sample	Spike Amt	SSR	% Rec	SSR	% Rec	RPD	Result	True Value	% Rec
Acenaphthene	ND				ND	100.00	68.70	68.7	58.74	58.7	15.6	54.42	100.00	54.4
Acenaphthylene	ND				ND							59.53	100.00	59.5
Anthracene	ND				ND							48.02	100.00	48.0
Benzo(a)anthracene	ND				ND							50.44	100.00	50.4
Benzo(a)pyrene	ND				ND							58.63	100.00	58.6
bis(2-ethyl hexyl)phthalate	ND				ND							66.74	100.00	66.7
bis(2-chloroethoxy)methane	ND				ND							47.61	100.00	47.6
2-Chloronaphthalene	ND				ND							48.97	100.00	49.0
Chrysene	ND				ND							49.95	100.00	50.0
diBenzofuran	ND				ND							52.29	100.00	
diMethylphenol	ND				ND							46.79	100.00	46.8
di-n-butyl phthalate	ND				ND							73.21	100.00	73.2
4,6-dinitro-o-cresol	ND				ND							16.13	100.00	16.1
2,4-dinitrotoluene	ND				ND	100.00	40.30		34.41			46.68	100.00	46.7
2,6-dinitrotoluene	ND				ND							48.20	100.00	48.2
1,2-diphenylhydrazine	ND				ND							68.02	100.00	68.0
Fluoranthene	ND				ND							51.22	100.00	51.2
Fluorene	ND				ND							50.58	100.00	50.6
2-methylnaphthalene	ND				ND							74.68	100.00	74.7
Naphthalene	ND				ND							46.20	100.00	46.2
Nitrobenzene	ND				ND							51.45	100.00	51.5
4-Nitrophenol	ND				ND	200.00	28.74	14.4	44.44	22.2	42.9	114.80	100.00	114.8
N-Nitrosodiphenylamine	ND				ND							26.82	100.00	26.8
Pentachlorophenol	ND				ND	200.00	43.22	21.6	36.70	18.4	16.3	12.81	100.00	12.8
Phenanthrene	ND				ND							47.69	100.00	47.7
Phenol	ND				ND							25.51	100.00	25.5
Pyrene	ND				ND	100.00	82.05	82.1	74.13	74.1	10.1	57.68	100.00	57.7
2-Fluorobiphenyl (sur)	46.02				46.02	100.00	45.99	46.0	37.99	38.0	19.1	53.97	100.00	54.0
Nitrobenzene-d8 (sur)	32.22				32.22	100.00	45.74	45.7	34.10	34.1	29.2	47.25	100.00	47.3
2-Fluorophenol (sur)	38.49				38.49	100.00	48.07	48.1	48.51	48.5	0.9	43.14	100.00	43.1
2,4,6-Triboromophenol (sur)	26.66				26.66	100.00	35.81	35.8	30.99	31.0	14.4	31.59	100.00	31.6
Terphenyl-d14 (sur)	79.93				79.93	100.00	76.70	76.7	66.93	66.9	13.6	76.58	100.00	76.6
Phenol-d5 (sur)	26.47				26.47	100.00	21.17	21.2	43.18	43.2	68.4	32.00	100.00	32.0

QWAL Laboratories, Inc.
Quality Control Report

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
2-Fluorobiphenyl (sur)	Blank	46.02	100.00	46.0
	SSR (1)	45.99	100.00	46.0
	SSR (2)	37.99	100.00	38.0
	LCS	53.97	100.00	54.0

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Nitrobenzene-d8 (sur)	Blank	32.22	100.00	32.2
	SSR (1)	45.74	100.00	45.7
	SSR (2)	34.10	100.00	34.1
	LCS	47.25	100.00	47.3

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
2-Fluorophenol (sur)	Blank	38.49	100.00	38.5
	SSR (1)	48.07	100.00	48.1
	SSR (2)	48.51	100.00	48.5
	LCS	43.14	100.00	43.1

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
2,4,6-Triboromophenol (sur)	Blank	26.66	100.00	26.7
	SSR (1)	35.81	100.00	35.8
	SSR (2)	30.99	100.00	31.0
	LCS	31.59	100.00	31.6

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Terphenyl-d14 (sur)	Blank	79.93	100.00	79.9
	SSR (1)	76.70	100.00	76.7
	SSR (2)	66.93	100.00	66.9
	LCS	76.58	100.00	76.6

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Phenol-d5 (sur)	Blank	26.47	100.00	26.5
	SSR (1)	21.17	100.00	21.2
	SSR (2)	43.18	100.00	43.2
	LCS	32.00	100.00	32.0

QWAL Laboratories, Inc.
Quality Control Report

Quality Control Report Definitions

QC	Quality Control
% Rec	Percent Recovery
RPD	Relative Percent Difference
SSR	Spiked Sample Result
LCS	Laboratory Control Sample
Surr	Surrogate
Blank	Method Blank

Quality Control Data Flags

Data Flag Type			
Prefix	Result	Suffix	Description
<			Less Than
>			Greater Than
	BDL		Below Detection Limit
	NA		Not Analyzed
	ND		None Detected
	Q		Outside Limits
		*	Analyte Detected in Blank
		A	Indicates that a TIC is a suspected aldol condensation product
		B	Analyte found in the associated blank as well as the sample
		D	All compounds identified in an analysis at a secondary dilution
		E	Concentration exceeds the calibration range of the instrument
		J	Indicates an estimated value
		N	Identifies aroclor or toxaphene compounds where one or more of the peaks are 2x the width of calibration peaks
		U	Compound analyzed for but not detected
		X	Indicates background contamination in the laboratory
		x	Results are out of warning lims and out of control limits

Q.W.A.L. LABORATORIES, INC.

LABORATORY REPORT

CLIENT: ERM
ATTN: Melinda Ylagan
16300 Katy Frwy, Suite 300
Houston, Tx. 77094

Reference# 9903507

Priority Status: Standard

PROJECT/SITE: Houston Wood Preserving Works

SAMPLES SUBMITTED: 23 Samples

REPORT COPIES: 1

Date Collected: 03/16/99 **Collected By: Melinda Ylagan** **Date Received: 03/17/99**

REPORT SUMMARY:

Samples were received in good condition on March 17, 1999. Sample bottle HWPW/P12-FSA99 for the analysis SW846-8270 was broken during laboratory handling.

Results of all associated quality control samples were within acceptable limits. Instrument calibration and Internal Standards were within method-acceptable limits.

Detailed quantitative results are presented on the following page(s).

If you have any questions concerning this report, please do not hesitate to contact us at 316-232-1970.

Reviewed By: Terry Koester **Date:** 4-21-99

Terry Koester
Laboratory Director

2911 Rotary Terrace • P.O. Box 562 • Pittsburg, Kansas 66762
PHONE (316) 232-1970 • FAX (316) 232-7730

AMMENDED REPORT

QWAL LABORATORIES, INC.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT: **REFERENCE #:** **9903507**

SENT TO: *ERM*
16300 KATY FREEWAY, SUITE 300
HOUSTON, TX 77094
MELINDA YLAGAN

DATE REPORTED: **04/01/99**
DATE COLLECTED: **03/16/99**
DATE RECEIVED: **03/17/99**
P.O. #: 422-09

PROJECT: HWPW

Sample ID: HWPW/P12-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		75.3	125	75.0	
TOLUENE-d8 (SUR)		82.6	125	75.0	
BROMOFLUOROBENZENE (SUR)		98.3	125	75.0	
BROKEN SAMPLE	NONE	DONE	NONE		

Sample ID: HWPW/P12-FSA99-MS Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		75.0	%REC	1.0	03/25/99
CHLOROBENZENE		ND	%REC	1.0	03/25/99
1,2-DICHLOROETHANE		ND	%REC	1.0	03/25/99
DICHLOROMETHANE		ND	%REC	1.0	03/25/99
ETHYLBENZENE		ND	%REC	1.0	03/25/99
TOLUENE		84.6	%REC	1.0	03/25/99
XYLENES		ND	%REC	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		76.7	125	75.0	
TOLUENE-d8 (SUR)		83.3	125	75.0	
BROMOFLUOROBENZENE (SUR)		96.7	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		49.1	% REC	10	03/19/99
ACENAPHTHYLENE		ND	% REC	10	03/19/99
ANTHRACENE		ND	% REC	10	03/19/99
BENZO(A)ANTHRACENE		ND	% REC	10	03/19/99

AMMENDED REPORT

Sample ID: HWPW/P12-FSA99-MS Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
BENZO(A)PYRENE		ND	% REC	10	03/19/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	% REC	10	03/19/99
BIS(2-CHLOROETHOXY)METHANE		ND	% REC	10	03/19/99
2-CHLORONAPHTHALENE		ND	% REC	10	03/19/99
CHRYSENE		ND	% REC	10	03/19/99
DIBENZOFURAN		ND	% REC	10	03/19/99
2,4-DIMETHYLPHENOL		ND	% REC	10	03/19/99
DI-N-BUTYL PHTHALATE		60.1	% REC	10	03/19/99
4,6-DINITRO-O-CRESOL		ND	% REC	10	03/19/99
2,4-DINITROTOLUENE		46.3	% REC	10	03/19/99
2,6-DINITROTOLUENE		ND	% REC	10	03/19/99
1,2-DIPHENYLHYDRAZINE		ND	% REC	10	03/19/99
FLUORANTHENE		ND	% REC	10	03/19/99
FLUORENE		ND	% REC	10	03/19/99
2-METHYLNAPHTHALENE		ND	% REC	10	03/19/99
NAPHTHALENE		ND	% REC	10	03/19/99
NITROBENZENE		ND	% REC	10	03/19/99
4-NITROPHENOL		21.1	% REC	10	03/19/99
N-NITROSODIPHENYLAMINE		ND	% REC	10	03/19/99
PENTACHLOROPHENOL		30.6	% REC	50	03/19/99
PHENANTHRENE		ND	% REC	10	03/19/99
PHENOL		13.0	% REC	10	03/19/99
PYRENE		72.6	% REC	10	03/19/99
2-FLUOROBIPHENYL (SURROGATE)		44	150	10	
NITROBENZENE-D8 (SURROGATE)		25	150	10	
2-FLUOROPHENOL (SURROGATE)		23	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		32	150	10	
TERPHENYL-D14 (SURROGATE)		77	150	10	
PHENOL-D5 (SURROGATE)		17	150	10	

Sample ID: HWPW/P11-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/26/99
CHLOROBENZENE		ND	UG/L	1.0	03/26/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/26/99
DICHLOROMETHANE		ND	UG/L	1.0	03/26/99
ETHYLBENZENE		ND	UG/L	1.0	03/26/99
TOLUENE		ND	UG/L	1.0	03/26/99
XYLENES		ND	UG/L	1.0	03/26/99
1,2-DICHLOROETHANE-D4 (SUR)		75.5	125	75.0	
TOLUENE-d8 (SUR)		83.1	125	75.0	
BROMOFLUOROBENZENE (SUR)		97.5	125	75.0	

AMMENDED REPORT

Sample ID: HWPW/P11-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		18.7	UG/L	10	03/19/99
ACENAPHTHYLENE		ND	UG/L	10	03/19/99
ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)PYRENE		ND	UG/L	10	03/19/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/19/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/19/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/19/99
CHRYSENE		ND	UG/L	10	03/19/99
DIBENZOFURAN		ND	UG/L	10	03/19/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/19/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/19/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/19/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/19/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/19/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/19/99
FLUORANTHENE		ND	UG/L	10	03/19/99
FLUORENE		ND	UG/L	10	03/19/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/19/99
NAPHTHALENE		ND	UG/L	10	03/19/99
NITROBENZENE		ND	UG/L	10	03/19/99
4-NITROPHENOL		ND	UG/L	10	03/19/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/19/99
PENTACHLOROPHENOL		ND	UG/L	50	03/19/99
PHENANTHRENE		ND	UG/L	10	03/19/99
PHENOL		ND	UG/L	10	03/19/99
PYRENE		ND	UG/L	10	03/19/99
2-FLUOROBIPHENYL (SURROGATE)		48	150	10	
NITROBENZENE-D8 (SURROGATE)		26	150	10	
2-FLUOROPHENOL (SURROGATE)		17	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		37	150	10	
TERPHENYL-D14 (SURROGATE)		75	150	10	
PHENOL-D5 (SURROGATE)		11	150	10	

Sample ID: HWPW/MW9-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99

AMMENDED REPORT

Sample ID: HWPW/MW9-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		78.4	125	75.0	
TOLUENE-d8 (SUR)		82.9	125	75.0	
BROMOFLUOROBENZENE (SUR)		95.9	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		ND	UG/L	10	03/23/99
ACENAPHTHYLENE		ND	UG/L	10	03/23/99
ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		ND	UG/L	10	03/23/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99
FLUORANTHENE		ND	UG/L	10	03/23/99
FLUORENE		ND	UG/L	10	03/23/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/23/99
NAPHTHALENE		ND	UG/L	10	03/23/99
NITROBENZENE		ND	UG/L	10	03/23/99
4-NITROPHENOL		ND	UG/L	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99
PHENANTHRENE		ND	UG/L	10	03/23/99
PHENOL		ND	UG/L	10	03/23/99
PYRENE		ND	UG/L	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		73	150	10	
NITROBENZENE-D8 (SURROGATE)		43	150	10	
2-FLUOROPHENOL (SURROGATE)		30	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		42	150	10	
TERPHENYL-D14 (SURROGATE)		117	150	10	
PHENOL-D5 (SURROGATE)		17	150	10	

Sample ID: HWPW/MW9-FSA99-MS Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		83.4	% REC	1.0	03/25/99
CHLOROBENZENE		ND	% REC	1.0	03/25/99

REFERENCE #: 9903507 PAGE: 4

AMMENDED REPORT

Sample ID: HWPW/MW9-FSA99-MS Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
1,2-DICHLOROETHANE		ND	% REC	1.0	03/25/99
DICHLOROMETHANE		ND	% REC	1.0	03/25/99
ETHYLBENZENE		ND	% REC	1.0	03/25/99
TOLUENE		88.9	% REC	1.0	03/25/99
XYLENES		ND	% REC	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		76.1	125	75.0	
TOLUENE-d8 (SUR)		83.1	125	75.0	
BROMOFLUOROBENZENE (SUR)		96.2	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		128	% REC	10	03/23/99
ACENAPHTHYLENE		ND	% REC	10	03/23/99
ANTHRACENE		ND	% REC	10	03/23/99
BENZO(A)ANTHRACENE		ND	% REC	10	03/23/99
BENZO(A)PYRENE		ND	% REC	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	% REC	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	% REC	10	03/23/99
2-CHLORONAPHTHALENE		ND	% REC	10	03/23/99
CHRYSENE		ND	% REC	10	03/23/99
DIBENZOFURAN		ND	% REC	10	03/23/99
2,4-DIMETHYLPHENOL		ND	% REC	10	03/23/99
DI-N-BUTYL PHTHALATE		98	% REC	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	% REC	10	03/23/99
2,4-DINITROTOLUENE		120	% REC	10	03/23/99
2,6-DINITROTOLUENE		ND	% REC	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	% REC	10	03/23/99
FLUORANTHENE		ND	% REC	10	03/23/99
FLUORENE		ND	% REC	10	03/23/99
2-METHYLNAPHTHALENE		ND	% REC	10	03/23/99
NAPHTHALENE		ND	% REC	10	03/23/99
NITROBENZENE		ND	% REC	10	03/23/99
4-NITROPHENOL		37	% REC	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	% REC	10	03/23/99
PENTACHLOROPHENOL		67	% REC	50	03/23/99
PHENANTHRENE		ND	% REC	10	03/23/99
PHENOL		29	% REC	10	03/23/99
PYRENE		84	% REC	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		48	150	10	
NITROBENZENE-D8 (SURROGATE)		32	150	10	
2-FLUOROPHENOL (SURROGATE)		28	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		27	150	10	
TERPHENYL-D14 (SURROGATE)		133	150	10	
PHENOL-D5 (SURROGATE)		14	150	10	

AMMENDED REPORT

Sample ID: HWPW/MW5-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		77.1	125	75.0	
TOLUENE-d8 (SUR)		82.4	125	75.0	
BROMOFLUOROBENZENE (SUR)		93.8	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		ND	UG/L	10	03/19/99
ACENAPHTHYLENE		ND	UG/L	10	03/19/99
ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)PYRENE		ND	UG/L	10	03/19/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/19/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/19/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/19/99
CHRYSENE		ND	UG/L	10	03/19/99
DIBENZOFURAN		ND	UG/L	10	03/19/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/19/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/19/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/19/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/19/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/19/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/19/99
FLUORANTHENE		ND	UG/L	10	03/19/99
FLUORENE		ND	UG/L	10	03/19/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/19/99
NAPHTHALENE		ND	UG/L	10	03/19/99
NITROBENZENE		ND	UG/L	10	03/19/99
4-NITROPHENOL		ND	UG/L	10	03/19/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/19/99
PENTACHLOROPHENOL		ND	UG/L	50	03/19/99
PHENANTHRENE		ND	UG/L	10	03/19/99
PHENOL		ND	UG/L	10	03/19/99
PYRENE		ND	UG/L	10	03/19/99
2-FLUOROBIPHENYL (SURROGATE)		58	150	10	
NITROBENZENE-D8 (SURROGATE)		30	150	10	
2-FLUOROPHENOL (SURROGATE)		14	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		34	150	10	
TERPHENYL-D14 (SURROGATE)		92	150	10	
PHENOL-D5 (SURROGATE)		19	150	10	

AMMENDED REPORT

Sample ID: HWPW/MW8-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		3.85	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		7.68	UG/L	1.0	03/25/99
TOLUENE		4.82	UG/L	1.0	03/25/99
XYLENES		9.90	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		75.2	125	75.0	
TOLUENE-d8 (SUR)		83.2	125	75.0	
BROMOFLUOROBENZENE (SUR)		99.5	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		85.9	UG/L	10	03/19/99
ACENAPHTHYLENE		ND	UG/L	10	03/19/99
ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)PYRENE		ND	UG/L	10	03/19/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/19/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/19/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/19/99
CHRYSENE		ND	UG/L	10	03/19/99
DIBENZOFURAN		47.3	UG/L	10	03/19/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/19/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/19/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/19/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/19/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/19/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/19/99
FLUORANTHENE		ND	UG/L	10	03/19/99
FLUORENE		56.3	UG/L	10	03/19/99
2-METHYLNAPHTHALENE		41.8	UG/L	10	03/19/99
NAPHTHALENE		526	UG/L	10	03/19/99
NITROBENZENE		ND	UG/L	10	03/19/99
4-NITROPHENOL		ND	UG/L	10	03/19/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/19/99
PENTACHLOROPHENOL		ND	UG/L	50	03/19/99
PHENANTHRENE		17.1	UG/L	10	03/19/99
PHENOL		ND	UG/L	10	03/19/99
PYRENE		ND	UG/L	10	03/19/99
2-FLUOROBIPHENYL (SURROGATE)		62	150	10	
NITROBENZENE-D8 (SURROGATE)		35	150	10	
2-FLUOROPHENOL (SURROGATE)		17	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		62	150	10	
TERPHENYL-D14 (SURROGATE)		42	150	10	
PHENOL-D5 (SURROGATE)		11	150	10	

REFERENCE #: 9903507 PAGE: 7

AMMENDED REPORT

Sample ID: HWPW/MW8-FSA99-D Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		3.91	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		7.75	UG/L	1.0	03/25/99
TOLUENE		4.91	UG/L	1.0	03/25/99
XYLENES		9.81	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		75.9	125	75.0	
TOLUENE-d8 (SUR)		82.5	125	75.0	
BROMOFLUOROBENZENE (SUR)		98.9	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		80.4	UG/L	10	03/19/99
ACENAPHTHYLENE		ND	UG/L	10	03/19/99
ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)PYRENE		ND	UG/L	10	03/19/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/19/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/19/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/19/99
CHRYSENE		ND	UG/L	10	03/19/99
DIBENZOFURAN		44.6	UG/L	10	03/19/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/19/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/19/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/19/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/19/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/19/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/19/99
FLUORANTHENE		ND	UG/L	10	03/19/99
FLUORENE		53.9	UG/L	10	03/19/99
2-METHYLNAPHTHALENE		40.4	UG/L	10	03/19/99
NAPHTHALENE		534	UG/L	10	03/19/99
NITROBENZENE		ND	UG/L	10	03/19/99
4-NITROPHENOL		ND	UG/L	10	03/19/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/19/99
PENTACHLOROPHENOL		ND	UG/L	50	03/19/99
PHENANTHRENE		16.7	UG/L	10	03/19/99
PHENOL		ND	UG/L	10	03/19/99
PYRENE		ND	UG/L	10	03/19/99
2-FLUOROBIPHENYL (SURROGATE)		59	150	10	
NITROBENZENE-D8 (SURROGATE)		35	150	10	
2-FLUOROPHENOL (SURROGATE)		17	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		43	150	10	
TERPHENYL-D14 (SURROGATE)		100	150	10	
PHENOL-D5 (SURROGATE)		10	150	10	

REFERENCE #: 9903507 PAGE: 8

AMMENDED REPORT

Sample ID: HWPW/TB031699 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		80.0	125	75.0	
TOLUENE-d8 (SUR)		79.7	125	75.0	
BROMOFLUOROBENZENE (SUR)		88.4	125	75.0	

Sample ID: HWPW/MW4-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		76.2	125	75.0	
TOLUENE-d8 (SUR)		81.4	125	75.0	
BROMOFLUOROBENZENE (SUR)		84.3	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		ND	UG/L	10	03/23/99
ACENAPHTHYLENE		ND	UG/L	10	03/23/99
ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		ND	UG/L	10	03/23/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99
FLUORANTHENE		ND	UG/L	10	03/23/99
FLUORENE		ND	UG/L	10	03/23/99

AMMENDED REPORT

Sample ID: HWPW/MW4-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
2-METHYLNAPHTHALENE		ND	UG/L	10	03/23/99
NAPHTHALENE		ND	UG/L	10	03/23/99
NITROBENZENE		ND	UG/L	10	03/23/99
4-NITROPHENOL		ND	UG/L	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99
PHENANTHRENE		ND	UG/L	10	03/23/99
PHENOL		ND	UG/L	10	03/23/99
PYRENE		ND	UG/L	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		61	150	10	
NITROBENZENE-D8 (SURROGATE)		38	150	10	
2-FLUOROPHENOL (SURROGATE)		14	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		21	150	10	
TERPHENYL-D14 (SURROGATE)		128	150	10	
PHENOL-D5 (SURROGATE)		24	150	10	

Sample ID: HWPW/MW11B-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		2.47	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		25.2	UG/L	1.0	03/25/99
TOLUENE		2.26	UG/L	1.0	03/25/99
XYLENES		12.0	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		76.2	125	75.0	
TOLUENE-d8 (SUR)		80.0	125	75.0	
BROMOFLUOROBENZENE (SUR)		86.7	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		83.0	UG/L	10	03/23/99
ACENAPHTHYLENE		ND	UG/L	10	03/23/99
ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		46.5	UG/L	10	03/23/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99

AMMENDED REPORT

Sample ID: HWPW/MW11B-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99
FLUORANTHENE		ND	UG/L	10	03/23/99
FLUORENE		45.3	UG/L	10	03/23/99
2-METHYLNAPHTHALENE		43.4	UG/L	10	03/23/99
NAPHTHALENE		608	UG/L	10	03/23/99
NITROBENZENE		ND	UG/L	10	03/23/99
4-NITROPHENOL		ND	UG/L	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99
PHENANTHRENE		40.6	UG/L	10	03/23/99
PHENOL		ND	UG/L	10	03/23/99
PYRENE		ND	UG/L	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		56	150	10	
NITROBENZENE-D8 (SURROGATE)		37	150	10	
2-FLUOROPHENOL (SURROGATE)		15	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		24	150	10	
TERPHENYL-D14 (SURROGATE)		111	150	10	
PHENOL-D5 (SURROGATE)		15	150	10	

Sample ID: HWPW/MW11B-FSA99-D Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		2.5	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		19.3	UG/L	1.0	03/25/99
TOLUENE		2.48	UG/L	1.0	03/25/99
XYLENES		10.5	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		76.1	125	75.0	
TOLUENE-d8 (SUR)		82.2	125	75.0	
BROMOFLUOROBENZENE (SUR)		82.9	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		86.5	UG/L	10	03/23/99
ACENAPHTHYLENE		ND	UG/L	10	03/23/99
ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		48.2	UG/L	10	03/23/99

AMMENDED REPORT

Sample ID: HWPW/MW11B-FSA99-D Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99
FLUORANTHENE		ND	UG/L	10	03/23/99
FLUORENE		47.0	UG/L	10	03/23/99
2-METHYLNAPHTHALENE		45.5	UG/L	10	03/23/99
NAPHTHALENE		537	UG/L	10	03/23/99
NITROBENZENE		ND	UG/L	10	03/23/99
4-NITROPHENOL		ND	UG/L	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99
PHENANTHRENE		43.2	UG/L	10	03/23/99
PHENOL		ND	UG/L	10	03/23/99
PYRENE		ND	UG/L	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		56	150	10	
NITROBENZENE-D8 (SURROGATE)		37	150	10	
2-FLUOROPHENOL (SURROGATE)		14	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		24	150	10	
TERPHENYL-D14 (SURROGATE)		116	150	10	
PHENOL-D5 (SURROGATE)		16	150	10	

Sample ID: HWPW/MW11A-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		17.9	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		32.9	UG/L	1.0	03/25/99
TOLUENE		15.9	UG/L	1.0	03/25/99
XYLENES		31.4	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		77.0	125	75.0	
TOLUENE-d8 (SUR)		78.7	125	75.0	
BROMOFLUOROBENZENE (SUR)		88.3	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		185	UG/L	10	03/23/99
ACENAPHTHYLENE		ND	UG/L	10	03/23/99
ANTHRACENE		10.6	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99

AMMENDED REPORT

Sample ID: HWPW/MW11A-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	B
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99	J
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99	J
CHRYSENE		ND	UG/L	10	03/23/99	J
DIBENZOFURAN		78.5	UG/L	10	03/23/99	J
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99	J
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99	J
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99	J
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99	J
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99	J
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99	J
FLUORANTHENE		ND	UG/L	10	03/23/99	J
FLUORENE		101	UG/L	10	03/23/99	J
2-METHYLNAPHTHALENE		17.3	UG/L	10	03/23/99	J
NAPHTHALENE		572	UG/L	10	03/23/99	J
NITROBENZENE		ND	UG/L	10	03/23/99	J
4-NITROPHENOL		ND	UG/L	10	03/23/99	J
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99	J
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99	J
PHENANTHRENE		61.8	UG/L	10	03/23/99	J
PHENOL		ND	UG/L	10	03/23/99	J
PYRENE		ND	UG/L	10	03/23/99	J
2-FLUOROBIPHENYL (SURROGATE)		53	150	10		
NITROBENZENE-D8 (SURROGATE)		33	150	10		
2-FLUOROPHENOL (SURROGATE)		12	150	10		
2,4,6-TRIBROMOPHENOL (SURROG)		22	150	10		
TERPHENYL-D14 (SURROGATE)		98	150	10		
PHENOL-D5 (SURROGATE)		18	150	10		

Sample ID: HWPW/MW10B-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	B
VOLATILE ORGANICS	SW 846 8260					
BENZENE		4.93	UG/L	1.0	03/25/99	T
CHLOROBENZENE		ND	UG/L	1.0	03/25/99	T
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99	T
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99	T
ETHYLBENZENE		27.6	UG/L	1.0	03/25/99	T
TOLUENE		5.63	UG/L	1.0	03/25/99	T
XYLENES		14.0	UG/L	1.0	03/25/99	T
1,2-DICHLOROETHANE-D4 (SUR)		80.9	125	75.0		
TOLUENE-d8 (SUR)		80.9	125	75.0		
BROMOFLUOROBENZENE (SUR)		85.7	125	75.0		
SEMIVOLATILES	SW 846 8270B					
ACENAPHTHENE		61.7	UG/L	10	03/23/99	J
ACENAPHTHYLENE		ND	UG/L	10	03/23/99	J

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AMMENDED REPORT

Sample ID: HWPW/MW10B-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		33.5	UG/L	10	03/23/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99
FLUORANTHENE		ND	UG/L	10	03/23/99
FLUORENE		34.9	UG/L	10	03/23/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/23/99
NAPHTHALENE		249	UG/L	10	03/23/99
NITROBENZENE		ND	UG/L	10	03/23/99
4-NITROPHENOL		ND	UG/L	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99
PHENANTHRENE		30.5	UG/L	10	03/23/99
PHENOL		ND	UG/L	10	03/23/99
PYRENE		ND	UG/L	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		47	150	10	
NITROBENZENE-D8 (SURROGATE)		30	150	10	
2-FLUOROPHENOL (SURROGATE)		17	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		25	150	10	
TERPHENYL-D14 (SURROGATE)		95	150	10	
PHENOL-D5 (SURROGATE)		19	150	10	

Sample ID: HWPW/MW10A-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		75.0	125	75.0	
TOLUENE-d8 (SUR)		81.5	125	75.0	

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AMMENDED REPORT

Sample ID: HWPW/MW10A-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
BROMOFLUOROBENZENE (SUR)		80.6	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		ND	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		ND	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		ND	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/24/99
NAPHTHALENE		ND	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		ND	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		55	150	10	
NITROBENZENE-D8 (SURROGATE)		33	150	10	
2-FLUOROPHENOL (SURROGATE)		14	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		18	150	10	
TERPHENYL-D14 (SURROGATE)		124	150	10	
PHENOL-D5 (SURROGATE)		17	150	10	

Sample ID: HWPW/MW03-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99

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AMMENDED REPORT

Sample ID: HWPW/MW03-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		77.9	125	75.0	
TOLUENE-d8 (SUR)		81.3	125	75.0	
BROMOFLUOROBENZENE (SUR)		81.9	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		100	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		54.4	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		63.1	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/24/99
NAPHTHALENE		ND	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		ND	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		48	150	10	
NITROBENZENE-D8 (SURROGATE)		29	150	10	
2-FLUOROPHENOL (SURROGATE)		19	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		30	150	10	
TERPHENYL-D14 (SURROGATE)		107	150	10	
PHENOL-D5 (SURROGATE)		28	150	10	

Sample ID: HWPW/MW02-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/25/99

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AMMENDED REPORT

Sample ID: HWPW/MW02-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		82.8	125	75.0	
TOLUENE-d8 (SUR)		81.8	125	75.0	
BROMOFLUOROBENZENE (SUR)		86.5	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		11.4	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		ND	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		ND	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/24/99
NAPHTHALENE		ND	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		ND	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		35	150	10	
NITROBENZENE-D8 (SURROGATE)		21	150	10	
2-FLUOROPHENOL (SURROGATE)		25	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		22	150	10	
TERPHENYL-D14 (SURROGATE)		81	150	10	
PHENOL-D5 (SURROGATE)		26	150	10	

AMMENDED REPORT

Sample ID: HWPW/MW1A-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		124	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		222	UG/L	1.0	03/25/99
TOLUENE		37.2	UG/L	1.0	03/25/99
XYLENES		270	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		75.0	125	75.0	
TOLUENE-d8 (SUR)		81.3	125	75.0	
BROMOFLUOROBENZENE (SUR)		84.4	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		141	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		54.9	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		83.3	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		28.1	UG/L	10	03/24/99
NAPHTHALENE		228	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		33.8	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		32	150	10	
NITROBENZENE-D8 (SURROGATE)		19	150	10	
2-FLUOROPHENOL (SURROGATE)		20	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		13	150	10	
TERPHENYL-D14 (SURROGATE)		65	150	10	
PHENOL-D5 (SURROGATE)		12	150	10	

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AMMENDED REPORT

Sample ID: HWPW/MW07-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/25/9
CHLOROBENZENE		ND	UG/L	1.0	03/25/9
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/9
DICHLOROMETHANE		ND	UG/L	1.0	03/25/9
ETHYLBENZENE		ND	UG/L	1.0	03/25/9
TOLUENE		ND	UG/L	1.0	03/25/9
XYLENES		ND	UG/L	1.0	03/25/9
1,2-DICHLOROETHANE-D4 (SUR)		80.9	125	75.0	
TOLUENE-d8 (SUR)		81.2	125	75.0	
BROMOFLUOROBENZENE (SUR)		78.9	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		ND	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		ND	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		ND	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/24/99
NAPHTHALENE		ND	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		ND	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		45	150	10	
NITROBENZENE-D8 (SURROGATE)		28	150	10	
2-FLUOROPHENOL (SURROGATE)		14	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		22	150	10	
TERPHENYL-D14 (SURROGATE)		100	150	10	
PHENOL-D5 (SURROGATE)		12	150	10	

AMMENDED REPORT

Sample ID: HWPW/P10-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		6.96	UG/L	1.0	03/25/9
CHLOROBENZENE		3.41	UG/L	1.0	03/25/9
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/9
DICHLOROMETHANE		ND	UG/L	1.0	03/25/9
ETHYLBENZENE		433	UG/L	1.0	03/25/9
TOLUENE		11.1	UG/L	1.0	03/25/9
XYLENES		153	UG/L	1.0	03/25/9
1,2-DICHLOROETHANE-D4 (SUR)		80.0	125	75.0	
TOLUENE-d8 (SUR)		81.0	125	75.0	
BROMOFLUOROBENZENE (SUR)		86.2	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		182	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		11.9	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		43.5	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		94.0	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		32.0	UG/L	10	03/24/99
NAPHTHALENE		902	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		48.1	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		47	150	10	
NITROBENZENE-D8 (SURROGATE)		32	150	10	
2-FLUOROPHENOL (SURROGATE)		13	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		23	150	10	
TERPHENYL-D14 (SURROGATE)		96	150	10	
PHENOL-D5 (SURROGATE)		15	150	10	

REFERENCE #: 9903507 PAGE: 20

AMMENDED REPORT

Sample ID: HWPW/TB031799 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		ND	UG/L	1.0	03/30/99
CHLOROBENZENE		ND	UG/L	1.0	03/30/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/30/99
DICHLOROMETHANE		ND	UG/L	1.0	03/30/99
ETHYLBENZENE		ND	UG/L	1.0	03/30/99
TOLUENE		ND	UG/L	1.0	03/30/99
XYLENES		ND	UG/L	1.0	03/30/99
1,2-DICHLOROETHANE-D4 (SUR)		80.0	125	75.0	
TOLUENE-d8 (SUR)		83.6	125	75.0	
BROMOFLUOROBENZENE (SUR)		82.6	125	75.0	

Sample ID: P12-FSA99 MSD Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		15.0	RPD	1.0	03/25/99
CHLOROBENZENE		ND	RPD	1.0	03/25/99
1,2-DICHLOROETHANE		ND	RPD	1.0	03/25/99
DICHLOROMETHANE		ND	RPD	1.0	03/25/99
ETHYLBENZENE		ND	RPD	1.0	03/25/99
TOLUENE		11.0	RPD	1.0	03/25/99
XYLENES		ND	RPD	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		79.9	125	75.0	
TOLUENE-d8 (SUR)		83.4	125	75.0	
BROMOFLUOROBENZENE (SUR)		97.6	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		5.5	RPD	10	03/19/99
ACENAPHTHYLENE		ND	RPD	10	03/19/99
ANTHRACENE		ND	RPD	10	03/19/99
BENZO(A)ANTHRACENE		ND	RPD	10	03/19/99
BENZO(A)PYRENE		ND	RPD	10	03/19/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	RPD	10	03/19/99
BIS(2-CHLOROETHOXY)METHANE		ND	RPD	10	03/19/99
2-CHLORONAPHTHALENE		ND	RPD	10	03/19/99
CHRYSENE		ND	RPD	10	03/19/99
DIBENZOFURAN		ND	RPD	10	03/19/99
2,4-DIMETHYLPHENOL		ND	RPD	10	03/19/99
DI-N-BUTYL PHTHALATE		5.5	RPD	10	03/19/99
4,6-DINITRO-O-CRESOL		ND	RPD	10	03/19/99
2,4-DINITROTOLUENE		2.9	RPD	10	03/19/99
2,6-DINITROTOLUENE		ND	RPD	10	03/19/99
1,2-DIPHENYLHYDRAZINE		ND	RPD	10	03/19/99
FLUORANTHENE		ND	RPD	10	03/19/99
FLUORENE		ND	RPD	10	03/19/99

Sample ID: P12-FSA99 MSD Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
2-METHYLNAPHTHALENE		ND	RPD	10	03/19/99
NAPHTHALENE		ND	RPD	10	03/19/99
NITROBENZENE		ND	RPD	10	03/19/99
4-NITROPHENOL		23.7	RPD	10	03/19/99
N-NITROSODIPHENYLAMINE		ND	RPD	10	03/19/99
PENTACHLOROPHENOL		19.6	RPD	50	03/19/99
PHENANTHRENE		ND	RPD	10	03/19/99
PHENOL		1.2	RPD	10	03/19/99
PYRENE		8.8	RPD	10	03/19/99
2-FLUOROBIPHENYL (SURROGATE)		45	150	10	
NITROBENZENE-D8 (SURROGATE)		25	150	10	
2-FLUOROPHENOL (SURROGATE)		23	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		36	150	10	
TERPHENYL-D14 (SURROGATE)		83	150	10	
PHENOL-D5 (SURROGATE)		17	150	10	

Sample ID: MW9-FSA99 MSD Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8260				
BENZENE		3.88	RPD	1.0	03/25/99
CHLOROBENZENE		ND	RPD	1.0	03/25/99
1,2-DICHLOROETHANE		ND	RPD	1.0	03/25/99
DICHLOROMETHANE		ND	RPD	1.0	03/25/99
ETHYLBENZENE		ND	RPD	1.0	03/25/99
TOLUENE		11.1	RPD	1.0	03/25/99
XYLENES		ND	RPD	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		Q	125	75.0	
TOLUENE-d8 (SUR)		Q	125	75.0	
BROMOFLUOROBENZENE (SUR)		Q	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		9.6	RPD	10	03/23/99
ACENAPHTHYLENE		ND	RPD	10	03/23/99
ANTHRACENE		ND	RPD	10	03/23/99
BENZO(A)ANTHRACENE		ND	RPD	10	03/23/99
BENZO(A)PYRENE		ND	RPD	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	RPD	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	RPD	10	03/23/99
2-CHLORONAPHTHALENE		ND	RPD	10	03/23/99
CHRYSENE		ND	RPD	10	03/23/99
DIBENZOFURAN		ND	RPD	10	03/23/99
2,4-DIMETHYLPHENOL		ND	RPD	10	03/23/99
DI-N-BUTYL PHTHALATE		3.4	RPD	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	RPD	10	03/23/99
2,4-DINITROTOLUENE		9.3	RPD	10	03/23/99

AMMENDED REPORT

Sample ID: MW9-FSA99 MSD Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
2,6-DINITROTOLUENE		ND	RPD	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	RPD	10	03/23/99
FLUORANTHENE		ND	RPD	10	03/23/99
FLUORENE		ND	RPD	10	03/23/99
2-METHYLNAPHTHALENE		ND	RPD	10	03/23/99
NAPHTHALENE		ND	RPD	10	03/23/99
NITROBENZENE		ND	RPD	10	03/23/99
4-NITROPHENOL		14.8	RPD	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	RPD	10	03/23/99
PENTACHLOROPHENOL		16.5	RPD	50	03/23/99
PHENANTHRENE		ND	RPD	10	03/23/99
PHENOL		12.2	RPD	10	03/23/99
PYRENE		19.7	RPD	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		52	150	10	
NITROBENZENE-D8 (SURROGATE)		35	150	10	
2-FLUOROPHENOL (SURROGATE)		33	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		34	150	10	
TERPHENYL-D14 (SURROGATE)		140	150	10	
PHENOL-D5 (SURROGATE)		16	150	10	

ND=NONE DETECTED
DL=DETECTION LIMIT
SU=STANDARD UNITS
B=DETECTED IN METHOD BLANK

APPROVED BY: _____
TERRY KOESTER
LABORATORY DIRECTOR

THIS REPORT HAS BEEN AMMENDED BECAUSE THE METHOD REPORTED HAS BEEN CHANGED FROM SW846-8240 TO SW846-8260.

AMMENDED REPORT

REFERENCE #: 9903507 PAGE: 23

Q.W.A.L. LABORATORIES, INC.

Established 1976

2911 Rotary Terrace • Pittsburg, Kansas 66762

TO ORDER: **FAX 1-316-232-7730 OR PHONE 1-316-232-1970**

(1) Company Name: ERM-SW

Attention: Melinda Ylagan

Address: 16300 Katy Fwy Suite 300

City, State, Zip Code Houston TX 77094

(4) Phone #: 281-579-8999

(4) Fax #: 281-579-8988

(2) Project Name or Number: HWPW

(5) Purchase Order #: 422-09

(3) Sampling Personnel Signature(s): Melinda L Ylagan

Sampling Personnel (print name): Melinda L Ylagan

(13) TURNAROUND TIME REQUESTED (Additional Charges May Apply)

☒ Standard ☐ 72 Hours ☐ 48 Hours ☐ 24 Hours ☐ SameDay

* Note - Please contact lab for availability of priority service.

(12) ANALYSIS REQUEST

(Write Tests Here)

(6) Sample I.D.	Date (7)	Time (7)	(8) Comp.	(8) Grab	(9) # of Containers	(10) Method Preserved: H2SO4	HNO3	NAOH	HCL	Ice	None	(11) Sample Matrix: Water	Soil	Air	Sludge	Other	8260	8270	REMARKS (If special detection limits are required please note below.)
P12-FSA99	3/16/99	1255		X	3				2	3	1	3					2	1	
P12-FSA99-MS/MSD		1255		X	3				2	3	1	3					2	1	
P11-FSA99		1155		X	3				2	3	1	3					2	1	
MW9-FSA99		1405		X	3				2	3	1	3					2	1	
MW9-FSA99-MS/MSD		1405		X	3				2	3	1	3					2	1	
MW5-FSA99		1447		X	3				2	3	1	3					2	1	
MW8-FSA99		1540		X	3				2	3	1	3					2	1	
MW8-FSA99-D		1540		X	3				2	3	1	3					2	1	
FB031699		1600		X	2				2			2					2		

(14) Relinquished By: Melinda L Ylagan — Date: 3/16/99 — Time: 2000

Received By: FedEx — Date: 3/16/99 — Time: 2000

Relinquished By: — Date: — Time:

Received By: Gina T. Hoover — Date: 3/17/99 — Time: 1000

Relinquished By: — Date: — Time:

Received By: — Date: — Time:

(15) Send Report to:

Company: Same as above

Attn:

Address:

City/State:

Phone:

Fax:

(16) Send Invoice to:

(if different form report address)

Company: UPRR

Attn: Ed Honig

Address:

City/State:

Phone:

Fax:

*FAILURE TO COMPLETE THIS FORM MAY DELAY ALL ANALYSES

Q.W.A.L. LABORATORIES, INC.

Established 1976

2911 Rotary Terrace • Pittsburg, Kansas 66762

TO ORDER: **FAX 1-316-232-7730 OR PHONE 1-316-232-1970**

(1) Company Name: FRM - Southwest
Attention: Melinda Ylagan
Address: 16300 Katy Fwy Ste 300 Houston TX 77094
City, State, Zip Code

(4) Phone #: 281-579-8999
(4) Fax #: 281-579-8988

(13) TURNAROUND TIME REQUESTED (Additional Charges May Apply)
☑ Standard ☐ 72 Hours ☐ 48 Hours ☐ 24 Hours ☐ SameDay
* Note - Please contact lab for availability of priority service.

(2) Project Name or Number: HWPW

(5) Purchase Order #: 422-009

(3) Sampling Personnel Signature(s): Melinda L Ylagan

Sampling Personnel (print name): Melinda L Ylagan

(12) ANALYSIS REQUEST
(Write Tests Here)

(6) Sample I.D.	(7) Date	(7) Time	(8) Comp.	(8) Grab	(9) # of Containers	(10) Method Preserved: H2SO4	HNO3	NAOH	HCL	Ice	None	(11) Sample Matrix: Water	Soil	Air	Sludge	Other	8260	8270
MW4-FSA99	3/17/99	0858		X	3				✓	✓	✓	✓					2	-
MW11B-FSA99		0939		X	3				✓	✓	✓	✓					2	-
MW11B-FSA99-D		0939		X	3				✓	✓	✓	✓					2	-
MW11A-FSA99		1015		X	3				✓	✓	✓	✓					2	-
MW10B-FSA99		1117		X	3				✓	✓	✓	✓					2	-
MW10A-FSA99		1155		X	3				✓	✓	✓	✓					2	-
MW03-FSA99		1240		X	3				✓	✓	✓	✓					2	-
MW02-FSA99		1313		X	3			✓	✓	✓	✓	✓					2	-

shipped in 2 coolers

REMARKS
(If special detection limits are required please note below.)

(14) Relinquished By: Melinda L Ylagan — Date: 3/17/99 — Time: 1930
Received By: FedEx — Date: 3/17/99 — Time: 1930
Relinquished By: — Date: — Time:
Received By: Jessica Foster — Date: 3/18/99 — Time: 1030
Relinquished By: — Date: — Time:

(15) Send Report to:
Company: same as above
Attn:
Address:
City/State:
Phone:
Fax:

(16) Send Invoice to:
(if different form report address)
Company: UPRR
Attn: Ed Honig
Address:
City/State:
Phone:
Fax:

Q.W.A.L. LABORATORIES, INC.

Established 1976

2911 Rotary Terrace • Pittsburg, Kansas 66762

TO ORDER: **FAX 1-316-232-7730 OR PHONE 1-316-232-1970**

(1) Company Name: ERM

Attention: Melinda Ylagan

Address: 11300 City Fwy Suite 300

Houston Tx 77094

City, State, Zip Code

(4) Phone #: 281-579-8999

(4) Fax #: 8988

(2) Project Name or Number: HLPLO

(5) Purchase Order #: 422-09

(3) Sampling Personnel Signature(s): Melinda L Ylagan

Sampling Personnel (print name): Melinda L Ylagan

(13) TURNAROUND TIME REQUESTED (Additional Charges May Apply)

☒ Standard ☐ 72 Hours ☐ 48 Hours ☐ 24 Hours ☐ SameDay

* Note - Please contact lab for availability of priority service.

(12) ANALYSIS REQUEST

(Write Tests Here)

(6) Sample I.D.	(7) Date	(7) Time	(8) Comp.	(8) Grab	(9) # of Containers	(10) Method Preserved: H2SO4	HNO3	NAOH	HCL	Ice	None	(11) Sample Matrix: Water	Soil	Air	Sludge	Other	8260	8270
MW1A-FSA99	3/17/99	1433		X	3				✓	✓	✓	✓					2	1
MW07-FSA99		1520		X	3				✓	✓	✓	✓					2	1
P10-FSA99		1558		X	3				✓	✓	✓	✓					2	1
TB031799		1615			2				✓	✓		✓					2	—

Shipped in 2 coolers

REMARKS

(If special detection limits are required please note below.)

(14) Relinquished By: Melinda L Ylagan — Date: 3/17/99 — Time: 1930

Received By: Fed Ex — Date: 3/17/99 — Time: 1930

Relinquished By: — Date: — Time:

Received By: Jessica Nolen — Date: 3/18/99 — Time: 1030

Relinquished By: — Date: — Time:

Received By: — Date: — Time:

(15) Send Report to:

Company: Same as

Attn: Above

Address:

City/State:

Phone:

Fax:

(16) Send Invoice to:

(if different form report address)

Company: LCRA

Attn: Ed Hanus

Address:

City/State:

Phone:

Fax:

QWAL Laboratories, Inc.
Quality Control Report

ERM
9903507

Parameter	Test code	Test Description	Instrument description	Analysis Date	Time	Matrix	Units
Chlorobenzene	8240ER		GC / MS	3/25/99		water	ug/l
1,2-Dichloroethane	8240ER		GC / MS	3/25/99		water	ug/l
Dichloromethane	8240ER		GC / MS	3/25/99		water	ug/l
Ethylbenzene	8240ER		GC / MS	3/25/99		water	ug/l
Toluene	8240ER		GC / MS	3/25/99		water	ug/l
Xylenes	8240ER		GC / MS	3/25/99		water	ug/l
1,2-Dichloroethane-d4 (sur)	8240ER		GC / MS	3/25/99		water	ug/l
Toluene-d8 (sur)	8240ER		GC / MS	3/25/99		water	ug/l
Bromofluorobenzene (sur)	8240ER		GC / MS	3/25/99		water	ug/l
Acenaphthene	8270ER		GC / MS	3/19/99		water	ug/l
Acenaphthylene	8270ER		GC / MS	3/19/99		water	ug/l
Anthracene	8270ER		GC / MS	3/19/99		water	ug/l
Benzo(a)anthracene	8270ER		GC / MS	3/19/99		water	ug/l
Benzo(a)pyrene	8270ER		GC / MS	3/19/99		water	ug/l
bis(2-ethyl hexyl)phthalate	8270ER		GC / MS	3/19/99		water	ug/l
bis(2-chloroethoxy)methane	8270ER		GC / MS	3/19/99		water	ug/l
2-Chloronaphthalene	8270ER		GC / MS	3/19/99		water	ug/l
Chrysene	8270ER		GC / MS	3/19/99		water	ug/l
diBenzofuran	8270ER		GC / MS	3/19/99		water	ug/l
diMethylphenol	8270ER		GC / MS	3/19/99		water	ug/l
di-n-butyl phthalate	8270ER		GC / MS	3/19/99		water	ug/l
4,6-dinitro-o-cresol	8270ER		GC / MS	3/19/99		water	ug/l
2,4-dinitrotoluene	8270ER		GC / MS	3/19/99		water	ug/l
2,6-dinitrotoluene	8270ER		GC / MS	3/19/99		water	ug/l
1,2-diphenylhydrazine	8270ER		GC / MS	3/19/99		water	ug/l
Fluoranthene	8270ER		GC / MS	3/19/99		water	ug/l
Fluorene	8270ER		GC / MS	3/19/99		water	ug/l
2-methylnaphthalene	8270ER		GC / MS	3/19/99		water	ug/l
Naphthalene	8270ER		GC / MS	3/19/99		water	ug/l
Nitrobenzene	8270ER		GC / MS	3/19/99		water	ug/l
4-Nitrophenol	8270ER		GC / MS	3/19/99		water	ug/l
N-Nitrosodiphenylamine	8270ER		GC / MS	3/19/99		water	ug/l
Pentachlorophenol	8270ER		GC / MS	3/19/99		water	ug/l

QWAL Laboratories, Inc.
Quality Control Report

ERM
9903507

Parameter	Test code	Test Description	Instrument description	Analysis Date	Time	Matrix	Units
Phenanthrene	8270ER		GC / MS	3/19/99		water	ug/l
Phenol	8270ER		GC / MS	3/19/99		water	ug/l
Pyrene	8270ER		GC / MS	3/19/99		water	ug/l
2-Fluorobiphenyl (sur)	8270ER		GC / MS	3/19/99		water	ug/l
Nitrobenzene-d8 (sur)	8270ER		GC / MS	3/19/99		water	ug/l
2-Fluorophenol (sur)	8270ER		GC / MS	3/19/99		water	ug/l
2,4,6-Triboromophenol (sur)	8270ER		GC / MS	3/19/99		water	ug/l
Terphenyl-d14 (sur)	8270ER		GC / MS	3/19/99		water	ug/l
Phenol-d5 (sur)	8270ER		GC / MS	3/19/99		water	ug/l

QWAL Laboratories, Inc.
Quality Control Report

Parameter	Blank Data	Duplicate QC Data			Matrix Spike/Matrix Spike Duplicate QC Data							LCS (known) QC Data		
	Result	Sample	Duplicate	RPD	Sample	Spike Amt	SSR	% Rec	SSR	% Rec	RPD	Result	True Value	% Rec
Chlorobenzene	ND				ND	10.00	8.23	82.3	9.26	92.6	11.8	38.8	38	102.1
1,2-Dichloroethane	ND				ND							54.8	60.3	90.9
Dichloromethane	ND				ND							45.1	46.1	97.8
Ethylbenzene	ND				ND							19.5	20.3	96.1
Toluene	ND				ND	10.00	8.89	88.9	9.94	99.4	11.2	22.2	26.5	83.8
Xylenes	ND				ND							80	106	75.5
1,2-Dichloroethane-d4 (sur)	7.88				7.8	10.00	7.61	76.1	7.88	78.8	3.5	7.73	10	77.3
Toluene-d8 (sur)	8.03				8.3	10.00	8.31	83.1	8.29	82.9	0.2	8.29	10	82.9
Bromofluorobenzene (sur)	7.53				9.6	10.00	9.62	96.2	9.59	95.9	0.3	9.99	10	99.9
Acenaphthene	ND				ND	100	49.1	49.1	51.8	51.8	5.5	67.4	100	67.4
Acenaphthylene	ND				ND							75.3	100	75.3
Anthracene	ND				ND							65.3	100	65.3
Benzo(a)anthracene	ND				ND							74.4	100	74.4
Benzo(a)pyrene	ND				ND							85.6	100	85.6
bis(2-ethyl hexyl)phthalate	ND				ND							94.1	100	94.1
bis(2-chloroethoxy)methane	ND				ND							39.2	100	39.2
2-Chloronaphthalene	ND				ND							60.3	100	60.3
Chrysene	ND				ND							70.4	100	70.4
diBenzofuran	ND				ND							64.9	100	64.9
diMethylphenol	ND				ND							47.9	100	47.9
di-n-butyl phthalate	ND				ND	100	60.1	60.1	63.5	63.5	5.5	79.3	100	79.3
4,6-dinitro-o-cresol	ND				ND							20.4	100	20.4
2,4-dinitrotoluene	ND				ND	100	46.3	46.3	47.7	47.7	2.9	72.8	100	72.8
2,6-dinitrotoluene	ND				ND							72.5	100	72.5
1,2-diphenylhydrazine	ND				ND							49.3	100	49.3
Fluoranthene	ND				ND							65.9	100	65.9
Fluorene	ND				ND							69.4	100	69.4
2-methylnaphthalene	ND				ND							86.3	100	86.3
Naphthalene	ND				ND							59.2	100	59.2
Nitrobenzene	ND				ND							40.4	100	40.4
4-Nitrophenol	ND				ND	200	42.1	21.1	33.2	16.6	23.7	20.8	100	20.8
N-Nitrosodiphenylamine	ND				ND							34.9	100	34.9
Pentachlorophenol	ND				ND	200	61.1	30.6	74.4	37.2	19.6	35.3	100	35.3

QWAL Laboratories, Inc.
Quality Control Report

Parameter	Blank Data	Duplicate QC Data			Matrix Spike/Matrix Spike Duplicate QC Data							LCS (known) QC Data		
	Result	Sample	Duplicate	RPD	Sample	Spike Amt	SSR	% Rec	SSR	% Rec	RPD	Result	True Value	% Rec
Phenanthrene	ND				ND							65.9	100	65.9
Phenol	ND				ND	200	26.0	13.0	26.3	13.2	1.2	16.6	100	16.6
Pyrene	ND				ND	100	72.6	72.6	79.3	79.3	8.8	94.5	100	94.5
2-Fluorobiphenyl (sur)	57.5				57.5	100	43.7	43.7	44.5	44.5	1.9	62.5	100	62.5
Nitrobenzene-d8 (sur)	35.73				35.73	100	24.7	24.7	25.4	25.4	2.9	40.5	100	40.5
2-Fluorophenol (sur)	25.39				25.39	100	22.7	22.7	23.1	23.1	2.1	36.9	100	36.9
2,4,6-Tribromophenol (sur)	34.29				34.29	100	32.1	32.1	36.4	36.4	12.4	52.2	100	52.2
Terphenyl-d14 (sur)	107.8				107.8	100	77.0	77.0	83.0	83.0	7.6	116.8	100	116.8
Phenol-d5 (sur)	15.53				15.5	100	16.9	16.9	17.2	17.2	1.8	24.7	100	24.7

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
1,2-Dichloroethane-d4 (sur)	Blank	7.88	10.00	78.8
	SSR (1)	7.61	10.00	76.1
	SSR (2)	7.88	10.00	78.8
	LCS	7.73	10.00	77.3

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Toluene-d8 (sur)	Blank	8.03	10.00	80.3
	SSR (1)	8.31	10.00	83.1
	SSR (2)	8.29	10.00	82.9
	LCS	8.29	10.00	82.9

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Bromofluorobenzene (sur)	Blank	7.53	10.00	75.3
	SSR (1)	9.62	10.00	96.2
	SSR (2)	9.59	10.00	95.9
	LCS	9.99	10.00	99.9

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
2-Fluorobiphenyl (sur)	Blank	57.50	100.00	57.5
	SSR (1)	43.69	100.00	43.7
	SSR (2)	44.53	100.00	44.5
	LCS	62.46	100.00	62.5

QWAL Laboratories, Inc.
Quality Control Report

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Nitrobenzene-d8 (sur)	Blank	35.73	100.00	35.7
	SSR (1)	24.70	100.00	24.7
	SSR (2)	25.43	100.00	25.4
	LCS	40.48	100.00	40.5

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
2-Fluorophenol (sur)	Blank	25.39	100.00	25.4
	SSR (1)	22.65	100.00	22.7
	SSR (2)	23.13	100.00	23.1
	LCS	36.89	100.00	36.9

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
2,4,6-Tribromophenol (sur)	Blank	34.29	100.00	34.3
	SSR (1)	32.14	100.00	32.1
	SSR (2)	36.40	100.00	36.4
	LCS	52.17	100.00	52.2

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Terphenyl-d14 (sur)	Blank	107.80	100.00	107.8
	SSR (1)	76.95	100.00	77.0
	SSR (2)	83.00	100.00	83.0
	LCS	116.77	100.00	116.8

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Phenol-d5 (sur)	Blank	15.53	100.00	15.5
	SSR (1)	16.90	100.00	16.9
	SSR (2)	17.20	100.00	17.2
	LCS	24.66	100.00	24.7

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QWAL Laboratories, Inc.
Quality Control Report

Quality Control Report Definitions

QC	Quality Control
% Rec	Percent Recovery
RPD	Relative Percent Difference
SSR	Spiked Sample Result
LCS	Laboratory Control Sample
sur	Surrogate
Blank	Method Blank

Quality Control Data Flags

Data Flag Type			
Prefix	Result	Suffix	Description
<			Less Than
>			Greater Than
	BDL		Below Detection Limit
	NA		Not Analyzed
	ND		None Detected
	Q		Outside Limits
		*	Analyte Detected in Blank
		A	Indicates that a TIC is a suspected aldol condensation product
		B	Analyte found in the associated blank as well as the sample
		D	All compounds identified in an analysis at a secondary dilution
		E	Concentration exceeds the calibration range of the instrument
		J	Indicates an estimated value
		N	Identifies aroclor or toxaphene compounds where one or more of the peaks are 2x the width of calibration peaks
		U	Compound analyzed for but not detected
		X	Indicates background contamination in the laboratory
		x	Results are out of warning lims and out of control limits

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Certified Laboratory
Domestic • Industrial • Municipal
Established 1976

Q.W.A.L. LABORATORIES, INC.

LABORATORY REPORT

CLIENT: ERM
ATTN: Melinda Ylagan
16300 Katy Frwy, Suite 300
Houston, Tx. 77094

Reference# 9903507

Priority Status: Regular

PROJECT/SITE: Houston Wood Preserving Works

SAMPLES SUBMITTED: 23 Samples

REPORT COPIES: 1

Date Collected: 03/16/99 **Collected By: Melinda Ylagan** **Date Received: 03/17/99**

REPORT SUMMARY:

Samples were received in good condition on March 17, 1999. Results of all associated quality control samples were within acceptable limits. Instrument calibration and Internal Standards were within method-acceptable limits.

Detailed quantitative results are presented on the following page(s).

If you have any questions concerning this report, please do not hesitate to contact us at 316-232-1970.

Reviewed By: _____ **Date:** 4-12-99
Terry Koester
Laboratory Director

2911 Rotary Terrace • P.O. Box 562 • Pittsburg, Kansas 66762
PHONE (316) 232-1970 • FAX (316) 232-7730

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT: **REFERENCE #:** **9903507**

SENT *ERM*
TO: *16300 KATY FREEWAY, SUITE 300*
HOUSTON, TX 77094
MELINDA YLAGAN
PROJECT:HWPW

DATE REPORTED: **04/01/99**
DATE COLLECTED: **03/16/99**
DATE RECEIVED: **03/17/99**
P.O. #: **422-09**

Sample ID: HWPW/P12-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		75.3	125	75.0	
TOLUENE-d8 (SUR)		82.6	125	75.0	
BROMOFLUOROBENZENE (SUR)		98.3	125	75.0	
BROKEN SAMPLE	NONE	DONE	NONE		

Sample ID: HWPW/P12-FSA99-MS Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		75.0	%REC	1.0	03/25/99
CHLOROBENZENE		ND	%REC	1.0	03/25/99
1,2-DICHLOROETHANE		ND	%REC	1.0	03/25/99
DICHLOROMETHANE		ND	%REC	1.0	03/25/99
ETHYLBENZENE		ND	%REC	1.0	03/25/99
TOLUENE		84.6	%REC	1.0	03/25/99
XYLENES		ND	%REC	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		76.7	125	75.0	
TOLUENE-d8 (SUR)		83.3	125	75.0	
BROMOFLUOROBENZENE (SUR)		96.7	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		49.1	% REC	10	03/19/99
ACENAPHTHYLENE		ND	% REC	10	03/19/99
ANTHRACENE		ND	% REC	10	03/19/99
BENZO(A)ANTHRACENE		ND	% REC	10	03/19/99

Sample ID: HWPW/P12-FSA99-MS Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
BENZO(A)PYRENE		ND	% REC	10	03/19/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	% REC	10	03/19/99
BIS(2-CHLOROETHOXY)METHANE		ND	% REC	10	03/19/99
2-CHLORONAPHTHALENE		ND	% REC	10	03/19/99
CHRYSENE		ND	% REC	10	03/19/99
DIBENZOFURAN		ND	% REC	10	03/19/99
2,4-DIMETHYLPHENOL		ND	% REC	10	03/19/99
DI-N-BUTYL PHTHALATE		60.1	% REC	10	03/19/99
4,6-DINITRO-O-CRESOL		ND	% REC	10	03/19/99
2,4-DINITROTOLUENE		46.3	% REC	10	03/19/99
2,6-DINITROTOLUENE		ND	% REC	10	03/19/99
1,2-DIPHENYLHYDRAZINE		ND	% REC	10	03/19/99
FLUORANTHENE		ND	% REC	10	03/19/99
FLUORENE		ND	% REC	10	03/19/99
2-METHYLNAPHTHALENE		ND	% REC	10	03/19/99
NAPHTHALENE		ND	% REC	10	03/19/99
NITROBENZENE		ND	% REC	10	03/19/99
4-NITROPHENOL		21.1	% REC	10	03/19/99
N-NITROSODIPHENYLAMINE		ND	% REC	10	03/19/99
PENTACHLOROPHENOL		30.6	% REC	50	03/19/99
PHENANTHRENE		ND	% REC	10	03/19/99
PHENOL		13.0	% REC	10	03/19/99
PYRENE		72.6	% REC	10	03/19/99
2-FLUOROBIPHENYL (SURROGATE)		44	150	10	
NITROBENZENE-D8 (SURROGATE)		25	150	10	
2-FLUOROPHENOL (SURROGATE)		23	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		32	150	10	
TERPHENYL-D14 (SURROGATE)		77	150	10	
PHENOL-D5 (SURROGATE)		17	150	10	

Sample ID: HWPW/P11-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		ND	UG/L	1.0	03/26/99
CHLOROBENZENE		ND	UG/L	1.0	03/26/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/26/99
DICHLOROMETHANE		ND	UG/L	1.0	03/26/99
ETHYLBENZENE		ND	UG/L	1.0	03/26/99
TOLUENE		ND	UG/L	1.0	03/26/99
XYLENES		ND	UG/L	1.0	03/26/99
1,2-DICHLOROETHANE-D4 (SUR)		75.5	125	75.0	
TOLUENE-d8 (SUR)		83.1	125	75.0	
BROMOFLUOROBENZENE (SUR)		97.5	125	75.0	

Sample ID: HWPW/P11-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		18.7	UG/L	10	03/19/99
ACENAPHTHYLENE		ND	UG/L	10	03/19/99
ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)PYRENE		ND	UG/L	10	03/19/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/19/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/19/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/19/99
CHRYSENE		ND	UG/L	10	03/19/99
DIBENZOFURAN		ND	UG/L	10	03/19/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/19/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/19/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/19/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/19/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/19/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/19/99
FLUORANTHENE		ND	UG/L	10	03/19/99
FLUORENE		ND	UG/L	10	03/19/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/19/99
NAPHTHALENE		ND	UG/L	10	03/19/99
NITROBENZENE		ND	UG/L	10	03/19/99
4-NITROPHENOL		ND	UG/L	10	03/19/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/19/99
PENTACHLOROPHENOL		ND	UG/L	50	03/19/99
PHENANTHRENE		ND	UG/L	10	03/19/99
PHENOL		ND	UG/L	10	03/19/99
PYRENE		ND	UG/L	10	03/19/99
2-FLUOROBIPHENYL (SURROGATE)		48	150	10	
NITROBENZENE-D8 (SURROGATE)		26	150	10	
2-FLUOROPHENOL (SURROGATE)		17	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		37	150	10	
TERPHENYL-D14 (SURROGATE)		75	150	10	
PHENOL-D5 (SURROGATE)		11	150	10	

Sample ID: HWPW/MW9-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99

Sample ID: HWPW/MW9-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		78.4	125	75.0	
TOLUENE-d8 (SUR)		82.9	125	75.0	
BROMOFLUOROBENZENE (SUR)		95.9	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		ND	UG/L	10	03/23/99
ACENAPHTHYLENE		ND	UG/L	10	03/23/99
ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		ND	UG/L	10	03/23/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99
FLUORANTHENE		ND	UG/L	10	03/23/99
FLUORENE		ND	UG/L	10	03/23/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/23/99
NAPHTHALENE		ND	UG/L	10	03/23/99
NITROBENZENE		ND	UG/L	10	03/23/99
4-NITROPHENOL		ND	UG/L	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99
PHENANTHRENE		ND	UG/L	10	03/23/99
PHENOL		ND	UG/L	10	03/23/99
PYRENE		ND	UG/L	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		73	150	10	
NITROBENZENE-D8 (SURROGATE)		43	150	10	
2-FLUOROPHENOL (SURROGATE)		30	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		42	150	10	
TERPHENYL-D14 (SURROGATE)		117	150	10	
PHENOL-D5 (SURROGATE)		17	150	10	

Sample ID: HWPW/MW9-FSA99-MS Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		83.4	% REC	1.0	03/25/99
CHLOROBENZENE		ND	% REC	1.0	03/25/99

REFERENCE #: 9903507 PAGE: 4

Sample ID: **HWPW/MW9-FSA99-MS** Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYSED
1,2-DICHLOROETHANE		ND	% REC	1.0	03/25/99
DICHLOROMETHANE		ND	% REC	1.0	03/25/99
ETHYLBENZENE		ND	% REC	1.0	03/25/99
TOLUENE		88.9	% REC	1.0	03/25/99
XYLENES		ND	% REC	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		76.1	125	75.0	
TOLUENE-d8 (SUR)		83.1	125	75.0	
BROMOFLUOROBENZENE (SUR)		96.2	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		128	% REC	10	03/23/99 J
ACENAPHTHYLENE		ND	% REC	10	03/23/99 J
ANTHRACENE		ND	% REC	10	03/23/99 J
BENZO(A)ANTHRACENE		ND	% REC	10	03/23/99 J
BENZO(A)PYRENE		ND	% REC	10	03/23/99 J
BIS(2-ETHYL HEXYL)PHTHALATE		ND	% REC	10	03/23/99 J
BIS(2-CHLOROETHOXY)METHANE		ND	% REC	10	03/23/99 J
2-CHLORONAPHTHALENE		ND	% REC	10	03/23/99 J
CHRYSENE		ND	% REC	10	03/23/99 J
DIBENZOFURAN		ND	% REC	10	03/23/99 J
2,4-DIMETHYLPHENOL		ND	% REC	10	03/23/99 J
DI-N-BUTYL PHTHALATE		98	% REC	10	03/23/99 J
4,6-DINITRO-O-CRESOL		ND	% REC	10	03/23/99 J
2,4-DINITROTOLUENE		120	% REC	10	03/23/99 J
2,6-DINITROTOLUENE		ND	% REC	10	03/23/99 J
1,2-DIPHENYLHYDRAZINE		ND	% REC	10	03/23/99 J
FLUORANTHENE		ND	% REC	10	03/23/99 J
FLUORENE		ND	% REC	10	03/23/99 J
2-METHYLNAPHTHALENE		ND	% REC	10	03/23/99 J
NAPHTHALENE		ND	% REC	10	03/23/99 J
NITROBENZENE		ND	% REC	10	03/23/99 J
4-NITROPHENOL		37	% REC	10	03/23/99 J
N-NITROSODIPHENYLAMINE		ND	% REC	10	03/23/99 J
PENTACHLOROPHENOL		67	% REC	50	03/23/99 J
PHENANTHRENE		ND	% REC	10	03/23/99 J
PHENOL		29	% REC	10	03/23/99 J
PYRENE		84	% REC	10	03/23/99 J
2-FLUOROBIPHENYL (SURROGATE)		48	150	10	
NITROBENZENE-D8 (SURROGATE)		32	150	10	
2-FLUOROPHENOL (SURROGATE)		28	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		27	150	10	
TERPHENYL-D14 (SURROGATE)		133	150	10	
PHENOL-D5 (SURROGATE)		14	150	10	

Sample ID: HWPW/MW5-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	
VOLATILE ORGANICS	SW 846 8240					
BENZENE		ND	UG/L	1.0	03/25/99	1
CHLOROBENZENE		ND	UG/L	1.0	03/25/99	1
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99	1
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99	1
ETHYLBENZENE		ND	UG/L	1.0	03/25/99	1
TOLUENE		ND	UG/L	1.0	03/25/99	1
XYLENES		ND	UG/L	1.0	03/25/99	1
1,2-DICHLOROETHANE-D4 (SUR)		77.1	125	75.0		
TOLUENE-d8 (SUR)		82.4	125	75.0		
BROMOFLUOROBENZENE (SUR)		93.8	125	75.0		
SEMIVOLATILES	SW 846 8270B					
ACENAPHTHENE		ND	UG/L	10	03/19/99	J
ACENAPHTHYLENE		ND	UG/L	10	03/19/99	J
ANTHRACENE		ND	UG/L	10	03/19/99	J
BENZO(A)ANTHRACENE		ND	UG/L	10	03/19/99	J
BENZO(A)PYRENE		ND	UG/L	10	03/19/99	J
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/19/99	J
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/19/99	J
2-CHLORONAPHTHALENE		ND	UG/L	10	03/19/99	J
CHRYSENE		ND	UG/L	10	03/19/99	J
DIBENZOFURAN		ND	UG/L	10	03/19/99	J
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/19/99	J
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/19/99	J
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/19/99	J
2,4-DINITROTOLUENE		ND	UG/L	10	03/19/99	J
2,6-DINITROTOLUENE		ND	UG/L	10	03/19/99	J
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/19/99	J
FLUORANTHENE		ND	UG/L	10	03/19/99	J
FLUORENE		ND	UG/L	10	03/19/99	J
2-METHYLNAPHTHALENE		ND	UG/L	10	03/19/99	J
NAPHTHALENE		ND	UG/L	10	03/19/99	J
NITROBENZENE		ND	UG/L	10	03/19/99	J
4-NITROPHENOL		ND	UG/L	10	03/19/99	J
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/19/99	J
PENTACHLOROPHENOL		ND	UG/L	50	03/19/99	J
PHENANTHRENE		ND	UG/L	10	03/19/99	J
PHENOL		ND	UG/L	10	03/19/99	J
PYRENE		ND	UG/L	10	03/19/99	J
2-FLUOROBIPHENYL (SURROGATE)		58	150	10		
NITROBENZENE-D8 (SURROGATE)		30	150	10		
2-FLUOROPHENOL (SURROGATE)		14	150	10		
2,4,6-TRIBROMOPHENOL (SURROG)		34	150	10		
TERPHENYL-D14 (SURROGATE)		92	150	10		
PHENOL-D5 (SURROGATE)		19	150	10		

Sample ID: HWPW/MW8-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	
VOLATILE ORGANICS	SW 846 8240					
BENZENE		3.85	UG/L	1.0	03/25/99	1
CHLOROBENZENE		ND	UG/L	1.0	03/25/99	1
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99	1
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99	1
ETHYLBENZENE		7.68	UG/L	1.0	03/25/99	1
TOLUENE		4.82	UG/L	1.0	03/25/99	1
XYLENES		9.90	UG/L	1.0	03/25/99	1
1,2-DICHLOROETHANE-D4 (SUR)		75.2	125	75.0		
TOLUENE-d8 (SUR)		83.2	125	75.0		
BROMOFLUOROBENZENE (SUR)		99.5	125	75.0		
SEMIVOLATILES	SW 846 8270B					
ACENAPHTHENE		85.9	UG/L	10	03/19/99	J
ACENAPHTHYLENE		ND	UG/L	10	03/19/99	J
ANTHRACENE		ND	UG/L	10	03/19/99	J
BENZO(A)ANTHRACENE		ND	UG/L	10	03/19/99	J
BENZO(A)PYRENE		ND	UG/L	10	03/19/99	J
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/19/99	J
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/19/99	J
2-CHLORONAPHTHALENE		ND	UG/L	10	03/19/99	J
CHRYSENE		ND	UG/L	10	03/19/99	J
DIBENZOFURAN		47.3	UG/L	10	03/19/99	J
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/19/99	J
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/19/99	J
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/19/99	J
2,4-DINITROTOLUENE		ND	UG/L	10	03/19/99	J
2,6-DINITROTOLUENE		ND	UG/L	10	03/19/99	J
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/19/99	J
FLUORANTHENE		ND	UG/L	10	03/19/99	J
FLUORENE		56.3	UG/L	10	03/19/99	J
2-METHYLNAPHTHALENE		41.8	UG/L	10	03/19/99	J
NAPHTHALENE		526	UG/L	10	03/19/99	J
NITROBENZENE		ND	UG/L	10	03/19/99	J
4-NITROPHENOL		ND	UG/L	10	03/19/99	J
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/19/99	J
PENTACHLOROPHENOL		ND	UG/L	50	03/19/99	J
PHENANTHRENE		17.1	UG/L	10	03/19/99	J
PHENOL		ND	UG/L	10	03/19/99	J
PYRENE		ND	UG/L	10	03/19/99	J
2-FLUOROBIPHENYL (SURROGATE)		62	150	10		
NITROBENZENE-D8 (SURROGATE)		35	150	10		
2-FLUOROPHENOL (SURROGATE)		17	150	10		
2,4,6-TRIBROMOPHENOL (SURROG)		62	150	10		
TERPHENYL-D14 (SURROGATE)		42	150	10		
PHENOL-D5 (SURROGATE)		11	150	10		

Sample ID: HWPW/MW8-FSA99-D Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		3.91	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		7.75	UG/L	1.0	03/25/99
TOLUENE		4.91	UG/L	1.0	03/25/99
XYLENES		9.81	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		75.9	125	75.0	
TOLUENE-d8 (SUR)		82.5	125	75.0	
BROMOFLUOROBENZENE (SUR)		98.9	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		80.4	UG/L	10	03/19/99
ACENAPHTHYLENE		ND	UG/L	10	03/19/99
ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/19/99
BENZO(A)PYRENE		ND	UG/L	10	03/19/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/19/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/19/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/19/99
CHRYSENE		ND	UG/L	10	03/19/99
DIBENZOFURAN		44.6	UG/L	10	03/19/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/19/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/19/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/19/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/19/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/19/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/19/99
FLUORANTHENE		ND	UG/L	10	03/19/99
FLUORENE		53.9	UG/L	10	03/19/99
2-METHYLNAPHTHALENE		40.4	UG/L	10	03/19/99
NAPHTHALENE		534	UG/L	10	03/19/99
NITROBENZENE		ND	UG/L	10	03/19/99
4-NITROPHENOL		ND	UG/L	10	03/19/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/19/99
PENTACHLOROPHENOL		ND	UG/L	50	03/19/99
PHENANTHRENE		16.7	UG/L	10	03/19/99
PHENOL		ND	UG/L	10	03/19/99
PYRENE		ND	UG/L	10	03/19/99
2-FLUOROBIPHENYL (SURROGATE)		59	150	10	
NITROBENZENE-D8 (SURROGATE)		35	150	10	
2-FLUOROPHENOL (SURROGATE)		17	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		43	150	10	
TERPHENYL-D14 (SURROGATE)		100	150	10	
PHENOL-D5 (SURROGATE)		10	150	10	

Sample ID: HWPW/TB031699 Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		80.0	125	75.0	
TOLUENE-d8 (SUR)		79.7	125	75.0	
BROMOFLUOROBENZENE (SUR)		88.4	125	75.0	

Sample ID: HWPW/MW4-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		76.2	125	75.0	
TOLUENE-d8 (SUR)		81.4	125	75.0	
BROMOFLUOROBENZENE (SUR)		84.3	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		ND	UG/L	10	03/23/99
ACENAPHTHYLENE		ND	UG/L	10	03/23/99
ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		ND	UG/L	10	03/23/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99
FLUORANTHENE		ND	UG/L	10	03/23/99
FLUORENE		ND	UG/L	10	03/23/99

Sample ID: HWPW/MW4-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
2-METHYLNAPHTHALENE		ND	UG/L	10	03/23/99
NAPHTHALENE		ND	UG/L	10	03/23/99
NITROBENZENE		ND	UG/L	10	03/23/99
4-NITROPHENOL		ND	UG/L	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99
PHENANTHRENE		ND	UG/L	10	03/23/99
PHENOL		ND	UG/L	10	03/23/99
PYRENE		ND	UG/L	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		61	150	10	
NITROBENZENE-D8 (SURROGATE)		38	150	10	
2-FLUOROPHENOL (SURROGATE)		14	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		21	150	10	
TERPHENYL-D14 (SURROGATE)		128	150	10	
PHENOL-D5 (SURROGATE)		24	150	10	

Sample ID: HWPW/MW11B-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		2.47	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		25.2	UG/L	1.0	03/25/99
TOLUENE		2.26	UG/L	1.0	03/25/99
XYLENES		12.0	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		76.2	125	75.0	
TOLUENE-d8 (SUR)		80.0	125	75.0	
BROMOFLUOROBENZENE (SUR)		86.7	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		83.0	UG/L	10	03/23/99
ACENAPHTHYLENE		ND	UG/L	10	03/23/99
ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		46.5	UG/L	10	03/23/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99

Sample ID: HWPW/MW11B-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99
FLUORANTHENE		ND	UG/L	10	03/23/99
FLUORENE		45.3	UG/L	10	03/23/99
2-METHYLNAPHTHALENE		43.4	UG/L	10	03/23/99
NAPHTHALENE		608	UG/L	10	03/23/99
NITROBENZENE		ND	UG/L	10	03/23/99
4-NITROPHENOL		ND	UG/L	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99
PHENANTHRENE		40.6	UG/L	10	03/23/99
PHENOL		ND	UG/L	10	03/23/99
PYRENE		ND	UG/L	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		56	150	10	
NITROBENZENE-D8 (SURROGATE)		37	150	10	
2-FLUOROPHENOL (SURROGATE)		15	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		24	150	10	
TERPHENYL-D14 (SURROGATE)		111	150	10	
PHENOL-D5 (SURROGATE)		15	150	10	

Sample ID: HWPW/MW11B-FSA99-D Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		2.5	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		19.3	UG/L	1.0	03/25/99
TOLUENE		2.48	UG/L	1.0	03/25/99
XYLENES		10.5	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		76.1	125	75.0	
TOLUENE-d8 (SUR)		82.2	125	75.0	
BROMOFLUOROBENZENE (SUR)		82.9	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		86.5	UG/L	10	03/23/99
ACENAPHTHYLENE		ND	UG/L	10	03/23/99
ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		48.2	UG/L	10	03/23/99

Sample ID: HWPW/MW11B-FSA99-D Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99	J
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99	J
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99	J
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99	J
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99	J
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99	J
FLUORANTHENE		ND	UG/L	10	03/23/99	J
FLUORENE		47.0	UG/L	10	03/23/99	J
2-METHYLNAPHTHALENE		45.5	UG/L	10	03/23/99	J
NAPHTHALENE		537	UG/L	10	03/23/99	J
NITROBENZENE		ND	UG/L	10	03/23/99	J
4-NITROPHENOL		ND	UG/L	10	03/23/99	J
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99	J
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99	J
PHENANTHRENE		43.2	UG/L	10	03/23/99	J
PHENOL		ND	UG/L	10	03/23/99	J
PYRENE		ND	UG/L	10	03/23/99	J
2-FLUOROBIPHENYL (SURROGATE)		56	150	10		
NITROBENZENE-D8 (SURROGATE)		37	150	10		
2-FLUOROPHENOL (SURROGATE)		14	150	10		
2,4,6-TRIBROMOPHENOL (SURROG)		24	150	10		
TERPHENYL-D14 (SURROGATE)		116	150	10		
PHENOL-D5 (SURROGATE)		16	150	10		

Sample ID: HWPW/MW11A-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	
VOLATILE ORGANICS	SW 846 8240					
BENZENE		17.9	UG/L	1.0	03/25/99	T
CHLOROBENZENE		ND	UG/L	1.0	03/25/99	T
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99	T
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99	T
ETHYLBENZENE		32.9	UG/L	1.0	03/25/99	T
TOLUENE		15.9	UG/L	1.0	03/25/99	T
XYLENES		31.4	UG/L	1.0	03/25/99	T
1,2-DICHLOROETHANE-D4 (SUR)		77.0	125	75.0		
TOLUENE-d8 (SUR)		78.7	125	75.0		
BROMOFLUOROBENZENE (SUR)		88.3	125	75.0		
SEMIVOLATILES	SW 846 8270B					
ACENAPHTHENE		185	UG/L	10	03/23/99	J
ACENAPHTHYLENE		ND	UG/L	10	03/23/99	J
ANTHRACENE		10.6	UG/L	10	03/23/99	J
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99	J
BENZO(A)PYRENE		ND	UG/L	10	03/23/99	J
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99	J

Sample ID: HWPW/MW11A-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		78.5	UG/L	10	03/23/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99
FLUORANTHENE		ND	UG/L	10	03/23/99
FLUORENE		101	UG/L	10	03/23/99
2-METHYLNAPHTHALENE		17.3	UG/L	10	03/23/99
NAPHTHALENE		572	UG/L	10	03/23/99
NITROBENZENE		ND	UG/L	10	03/23/99
4-NITROPHENOL		ND	UG/L	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99
PHENANTHRENE		61.8	UG/L	10	03/23/99
PHENOL		ND	UG/L	10	03/23/99
PYRENE		ND	UG/L	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		53	150	10	
NITROBENZENE-D8 (SURROGATE)		33	150	10	
2-FLUOROPHENOL (SURROGATE)		12	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		22	150	10	
TERPHENYL-D14 (SURROGATE)		98	150	10	
PHENOL-D5 (SURROGATE)		18	150	10	

Sample ID: HWPW/MW10B-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		4.93	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		27.6	UG/L	1.0	03/25/99
TOLUENE		5.63	UG/L	1.0	03/25/99
XYLENES		14.0	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		80.9	125	75.0	
TOLUENE-d8 (SUR)		80.9	125	75.0	
BROMOFLUOROBENZENE (SUR)		85.7	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		61.7	UG/L	10	03/23/99
ACENAPHTHYLENE		ND	UG/L	10	03/23/99

Sample ID: HWPW/MW10B-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/23/99
BENZO(A)PYRENE		ND	UG/L	10	03/23/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/23/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/23/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/23/99
CHRYSENE		ND	UG/L	10	03/23/99
DIBENZOFURAN		33.5	UG/L	10	03/23/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/23/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/23/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/23/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/23/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/23/99
FLUORANTHENE		ND	UG/L	10	03/23/99
FLUORENE		34.9	UG/L	10	03/23/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/23/99
NAPHTHALENE		249	UG/L	10	03/23/99
NITROBENZENE		ND	UG/L	10	03/23/99
4-NITROPHENOL		ND	UG/L	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/23/99
PENTACHLOROPHENOL		ND	UG/L	50	03/23/99
PHENANTHRENE		30.5	UG/L	10	03/23/99
PHENOL		ND	UG/L	10	03/23/99
PYRENE		ND	UG/L	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		47	150	10	
NITROBENZENE-D8 (SURROGATE)		30	150	10	
2-FLUOROPHENOL (SURROGATE)		17	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		25	150	10	
TERPHENYL-D14 (SURROGATE)		95	150	10	
PHENOL-D5 (SURROGATE)		19	150	10	

Sample ID: HWPW/MW10A-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		75.0	125	75.0	
TOLUENE-d8 (SUR)		81.5	125	75.0	

Sample ID: HWPW/MW10A-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
BROMOFLUOROBENZENE (SUR)		80.6	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		ND	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		ND	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		ND	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/24/99
NAPHTHALENE		ND	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		ND	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		55	150	10	
NITROBENZENE-D8 (SURROGATE)		33	150	10	
2-FLUOROPHENOL (SURROGATE)		14	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		18	150	10	
TERPHENYL-D14 (SURROGATE)		124	150	10	
PHENOL-D5 (SURROGATE)		17	150	10	

Sample ID: HWPW/MW03-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99

Sample ID: HWPW/MW03-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		77.9	125	75.0	
TOLUENE-d8 (SUR)		81.3	125	75.0	
BROMOFLUOROBENZENE (SUR)		81.9	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		100	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		54.4	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		63.1	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/24/99
NAPHTHALENE		ND	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		ND	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		48	150	10	
NITROBENZENE-D8 (SURROGATE)		29	150	10	
2-FLUOROPHENOL (SURROGATE)		19	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		30	150	10	
TERPHENYL-D14 (SURROGATE)		107	150	10	
PHENOL-D5 (SURROGATE)		28	150	10	

Sample ID: HWPW/MW02-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		ND	UG/L	1.0	03/25/99

REFERENCE #: 9903507 PAGE: 16

Sample ID: HWPW/MW02-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		82.8	125	75.0	
TOLUENE-d8 (SUR)		81.8	125	75.0	
BROMOFLUOROBENZENE (SUR)		86.5	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		11.4	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		ND	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		ND	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/24/99
NAPHTHALENE		ND	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		ND	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		35	150	10	
NITROBENZENE-D8 (SURROGATE)		21	150	10	
2-FLUOROPHENOL (SURROGATE)		25	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		22	150	10	
TERPHENYL-D14 (SURROGATE)		81	150	10	
PHENOL-D5 (SURROGATE)		26	150	10	

Sample ID: HWPW/MW1A-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		124	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		222	UG/L	1.0	03/25/99
TOLUENE		37.2	UG/L	1.0	03/25/99
XYLENES		270	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		75.0	125	75.0	
TOLUENE-d8 (SUR)		81.3	125	75.0	
BROMOFLUOROBENZENE (SUR)		84.4	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		141	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		54.9	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		83.3	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		28.1	UG/L	10	03/24/99
NAPHTHALENE		228	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		33.8	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		32	150	10	
NITROBENZENE-D8 (SURROGATE)		19	150	10	
2-FLUOROPHENOL (SURROGATE)		20	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		13	150	10	
TERPHENYL-D14 (SURROGATE)		65	150	10	
PHENOL-D5 (SURROGATE)		12	150	10	

Sample ID: HWPW/MW07-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		ND	UG/L	1.0	03/25/99
CHLOROBENZENE		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		ND	UG/L	1.0	03/25/99
TOLUENE		ND	UG/L	1.0	03/25/99
XYLENES		ND	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		80.9	125	75.0	
TOLUENE-d8 (SUR)		81.2	125	75.0	
BROMOFLUOROBENZENE (SUR)		78.9	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		ND	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		ND	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		ND	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		ND	UG/L	10	03/24/99
NAPHTHALENE		ND	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		ND	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		45	150	10	
NITROBENZENE-D8 (SURROGATE)		28	150	10	
2-FLUOROPHENOL (SURROGATE)		14	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		22	150	10	
TERPHENYL-D14 (SURROGATE)		100	150	10	
PHENOL-D5 (SURROGATE)		12	150	10	

Sample ID: HWPW/P10-FSA99 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		6.96	UG/L	1.0	03/25/99
CHLOROBENZENE		3.41	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/25/99
DICHLOROMETHANE		ND	UG/L	1.0	03/25/99
ETHYLBENZENE		433	UG/L	1.0	03/25/99
TOLUENE		11.1	UG/L	1.0	03/25/99
XYLENES		153	UG/L	1.0	03/25/99
1,2-DICHLOROETHANE-D4 (SUR)		80.0	125	75.0	
TOLUENE-d8 (SUR)		81.0	125	75.0	
BROMOFLUOROBENZENE (SUR)		86.2	125	75.0	
SEMIVOLATILES	SW 846 8270B				
ACENAPHTHENE		182	UG/L	10	03/24/99
ACENAPHTHYLENE		ND	UG/L	10	03/24/99
ANTHRACENE		11.9	UG/L	10	03/24/99
BENZO(A)ANTHRACENE		ND	UG/L	10	03/24/99
BENZO(A)PYRENE		ND	UG/L	10	03/24/99
BIS(2-ETHYL HEXYL)PHTHALATE		ND	UG/L	10	03/24/99
BIS(2-CHLOROETHOXY)METHANE		ND	UG/L	10	03/24/99
2-CHLORONAPHTHALENE		ND	UG/L	10	03/24/99
CHRYSENE		ND	UG/L	10	03/24/99
DIBENZOFURAN		43.5	UG/L	10	03/24/99
2,4-DIMETHYLPHENOL		ND	UG/L	10	03/24/99
DI-N-BUTYL PHTHALATE		ND	UG/L	10	03/24/99
4,6-DINITRO-O-CRESOL		ND	UG/L	10	03/24/99
2,4-DINITROTOLUENE		ND	UG/L	10	03/24/99
2,6-DINITROTOLUENE		ND	UG/L	10	03/24/99
1,2-DIPHENYLHYDRAZINE		ND	UG/L	10	03/24/99
FLUORANTHENE		ND	UG/L	10	03/24/99
FLUORENE		94.0	UG/L	10	03/24/99
2-METHYLNAPHTHALENE		32.0	UG/L	10	03/24/99
NAPHTHALENE		902	UG/L	10	03/24/99
NITROBENZENE		ND	UG/L	10	03/24/99
4-NITROPHENOL		ND	UG/L	10	03/24/99
N-NITROSODIPHENYLAMINE		ND	UG/L	10	03/24/99
PENTACHLOROPHENOL		ND	UG/L	50	03/24/99
PHENANTHRENE		48.1	UG/L	10	03/24/99
PHENOL		ND	UG/L	10	03/24/99
PYRENE		ND	UG/L	10	03/24/99
2-FLUOROBIPHENYL (SURROGATE)		47	150	10	
NITROBENZENE-D8 (SURROGATE)		32	150	10	
2-FLUOROPHENOL (SURROGATE)		13	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		23	150	10	
TERPHENYL-D14 (SURROGATE)		96	150	10	
PHENOL-D5 (SURROGATE)		15	150	10	

Sample ID: HWPW/TB031799 Sample Matrix: WATER
Sample Date Collected: **03/17/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
VOLATILE ORGANICS	SW 846 8240				
BENZENE		ND	UG/L	1.0	03/30/99
CHLOROBENZENE		ND	UG/L	1.0	03/30/99
1,2-DICHLOROETHANE		ND	UG/L	1.0	03/30/99
DICHLOROMETHANE		ND	UG/L	1.0	03/30/99
ETHYLBENZENE		ND	UG/L	1.0	03/30/99
TOLUENE		ND	UG/L	1.0	03/30/99
XYLENES		ND	UG/L	1.0	03/30/99
1,2-DICHLOROETHANE-D4 (SUR)		80.0	125	75.0	
TOLUENE-d8 (SUR)		83.6	125	75.0	
BROMOFLUOROBENZENE (SUR)		82.6	125	75.0	

Sample ID: P12-FSA99 MSD Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	I
VOLATILE ORGANICS	SW 846 8240					
BENZENE		15.0	RPD	1.0	03/25/99	T
CHLOROBENZENE		ND	RPD	1.0	03/25/99	T
1,2-DICHLOROETHANE		ND	RPD	1.0	03/25/99	T
DICHLOROMETHANE		ND	RPD	1.0	03/25/99	T
ETHYLBENZENE		ND	RPD	1.0	03/25/99	T
TOLUENE		11.0	RPD	1.0	03/25/99	T
XYLENES		ND	RPD	1.0	03/25/99	T
1,2-DICHLOROETHANE-D4 (SUR)		79.9	125	75.0		
TOLUENE-d8 (SUR)		83.4	125	75.0		
BROMOFLUOROBENZENE (SUR)		97.6	125	75.0		
SEMIVOLATILES	SW 846 8270B					
ACENAPHTHENE		5.5	RPD	10	03/19/99	J
ACENAPHTHYLENE		ND	RPD	10	03/19/99	J
ANTHRACENE		ND	RPD	10	03/19/99	J
BENZO(A)ANTHRACENE		ND	RPD	10	03/19/99	J
BENZO(A)PYRENE		ND	RPD	10	03/19/99	J
BIS(2-ETHYL HEXYL)PHTHALATE		ND	RPD	10	03/19/99	J
BIS(2-CHLOROETHOXY)METHANE		ND	RPD	10	03/19/99	J
2-CHLORONAPHTHALENE		ND	RPD	10	03/19/99	J
CHRYSENE		ND	RPD	10	03/19/99	J
DIBENZOFURAN		ND	RPD	10	03/19/99	J
2,4-DIMETHYLPHENOL		ND	RPD	10	03/19/99	J
DI-N-BUTYL PHTHALATE		5.5	RPD	10	03/19/99	J
4,6-DINITRO-O-CRESOL		ND	RPD	10	03/19/99	J
2,4-DINITROTOLUENE		2.9	RPD	10	03/19/99	J
2,6-DINITROTOLUENE		ND	RPD	10	03/19/99	J
1,2-DIPHENYLHYDRAZINE		ND	RPD	10	03/19/99	J
FLUORANTHENE		ND	RPD	10	03/19/99	J
FLUORENE		ND	RPD	10	03/19/99	J

Sample ID: P12-FSA99 MSD Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	
2-METHYLNAPHTHALENE		ND	RPD	10	03/19/99	
NAPHTHALENE		ND	RPD	10	03/19/99	
NITROBENZENE		ND	RPD	10	03/19/99	
4-NITROPHENOL		23.7	RPD	10	03/19/99	
N-NITROSODIPHENYLAMINE		ND	RPD	10	03/19/99	
PENTACHLOROPHENOL		19.6	RPD	50	03/19/99	
PHENANTHRENE		ND	RPD	10	03/19/99	
PHENOL		1.2	RPD	10	03/19/99	
PYRENE		8.8	RPD	10	03/19/99	
2-FLUOROBIPHENYL (SURROGATE)		45	150	10		
NITROBENZENE-D8 (SURROGATE)		25	150	10		
2-FLUOROPHENOL (SURROGATE)		23	150	10		
2,4,6-TRIBROMOPHENOL (SURROG)		36	150	10		
TERPHENYL-D14 (SURROGATE)		83	150	10		
PHENOL-D5 (SURROGATE)		17	150	10		

Sample ID: MW9-FSA99 MSD Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	
VOLATILE ORGANICS	SW 846 8240					
BENZENE		3.88	RPD	1.0	03/25/99	T
CHLOROBENZENE		ND	RPD	1.0	03/25/99	T
1,2-DICHLOROETHANE		ND	RPD	1.0	03/25/99	T
DICHLOROMETHANE		ND	RPD	1.0	03/25/99	T
ETHYLBENZENE		ND	RPD	1.0	03/25/99	T
TOLUENE		11.1	RPD	1.0	03/25/99	T
XYLENES		ND	RPD	1.0	03/25/99	T
1,2-DICHLOROETHANE-D4 (SUR)		Q	125	75.0		
TOLUENE-d8 (SUR)		Q	125	75.0		
BROMOFLUOROBENZENE (SUR)		Q	125	75.0		
SEMIVOLATILES	SW 846 8270B					
ACENAPHTHENE		9.6	RPD	10	03/23/99	J
ACENAPHTHYLENE		ND	RPD	10	03/23/99	J
ANTHRACENE		ND	RPD	10	03/23/99	J
BENZO(A)ANTHRACENE		ND	RPD	10	03/23/99	J
BENZO(A)PYRENE		ND	RPD	10	03/23/99	J
BIS(2-ETHYL HEXYL)PHTHALATE		ND	RPD	10	03/23/99	J
BIS(2-CHLOROETHOXY)METHANE		ND	RPD	10	03/23/99	J
2-CHLORONAPHTHALENE		ND	RPD	10	03/23/99	J
CHRYSENE		ND	RPD	10	03/23/99	J
DIBENZOFURAN		ND	RPD	10	03/23/99	J
2,4-DIMETHYLPHENOL		ND	RPD	10	03/23/99	J
DI-N-BUTYL PHTHALATE		3.4	RPD	10	03/23/99	J
4,6-DINITRO-O-CRESOL		ND	RPD	10	03/23/99	J
2,4-DINITROTOLUENE		9.3	RPD	10	03/23/99	J

Sample ID: **MW9-FSA99 MSD** Sample Matrix: WATER
Sample Date Collected: **03/16/99**

TEST	METHOD	RESULT	UNITS	DL	ANALYZED
2,6-DINITROTOLUENE		ND	RPD	10	03/23/99
1,2-DIPHENYLHYDRAZINE		ND	RPD	10	03/23/99
FLUORANTHENE		ND	RPD	10	03/23/99
FLUORENE		ND	RPD	10	03/23/99
2-METHYLNAPHTHALENE		ND	RPD	10	03/23/99
NAPHTHALENE		ND	RPD	10	03/23/99
NITROBENZENE		ND	RPD	10	03/23/99
4-NITROPHENOL		14.8	RPD	10	03/23/99
N-NITROSODIPHENYLAMINE		ND	RPD	10	03/23/99
PENTACHLOROPHENOL		16.5	RPD	50	03/23/99
PHENANTHRENE		ND	RPD	10	03/23/99
PHENOL		12.2	RPD	10	03/23/99
PYRENE		19.7	RPD	10	03/23/99
2-FLUOROBIPHENYL (SURROGATE)		52	150	10	
NITROBENZENE-D8 (SURROGATE)		35	150	10	
2-FLUOROPHENOL (SURROGATE)		33	150	10	
2,4,6-TRIBROMOPHENOL (SURROG)		34	150	10	
TERPHENYL-D14 (SURROGATE)		140	150	10	
PHENOL-D5 (SURROGATE)		16	150	10	

ND=NONE DETECTED
DL=DETECTION LIMIT
SU=STANDARD UNITS
B=DETECTED IN METHOD BLANK

APPROVED BY: _____
TERRY KOESTER
LABORATORY DIRECTOR

Q.W.A.L. LABORATORIES, INC.

Established 1976

2911 Rotary Terrace • Pittsburg, Kansas 66762

TO ORDER: **FAX 1-316-232-7730 OR PHONE 1-316-232-1970**

① Company Name: ERM-SW

Attention: Melinda Ylagan

Address: 16300 Katy Fwy Suite 300

City, State, Zip Code: Houston TX 77094

④ Phone #: 281 579-8999

④ Fax #: 281 579-8988

⑬ TURNAROUND TIME REQUESTED (Additional Charges May Apply)

☒ Standard ☐ 72 Hours ☐ 48 Hours ☐ 24 Hours ☐ SameDay

* **Note - Please contact lab for availability of priority service.**

② Project Name or Number: HWPW

⑤ Purchase Order #: 422-09

③ Sampling Personnel Signature(s): Melinda L Ylagan

Sampling Personnel (print name): Melinda L Ylagan

⑫ ANALYSIS REQUEST
(Write Tests Here)

⑥ Sample I.D.	Date ⑦	Time ⑦	⑧ Comp.	⑧ Grab	⑨ # of Containers	⑩ Method Preserved: H2S04	HN03	NAOH	HCL	Ice	None	⑪ Sample Matrix: Water	Soil	Air	Sludge	Other	8260	8270	REMARKS (If special detection limits are required please note below.)
P12-FSA99	3/16/99	1255		x	3				2	3	1	3					2	1	
P12-FSA99 MS/MSD	↓	1255		x	3				2	3	1	3					2	1	
P11-FSA99		1155		x	3				2	3	1	3					2	1	
MW9-FSA99		1405		x	3				2	3	1	3					2	1	
MW9-FSA99 MS/MSD		1405		x	3				2	3	1	3					2	1	
MW5-FSA99		1447		x	3				2	3	1	3					2	1	
MW8-FSA99		1540		x	3				2	3	1	3					2	1	
MW8-FSA99-D		1540		x	3				2	3	1	3					2	1	
FB031699	↓	1600		x	2				2			2					2		

⑭ Relinquished By: Melinda L Ylagan Date: 3/16/99 Time: 2000

Received By: FedEx Date: 3/16/99 Time: 2000

Relinquished By: Date: Time:

Received By: [illegible] Date: 3/17/99 Time: 1000

Relinquished By: Date: Time:

Received By: Date: Time:

⑮ Send Report to:

Company: Same as above

Attn:

Address:

City/State:

Phone:

Fax:

⑯ Send Invoice to:
(if different form report address)

Company: UPRR

Attn: Ed Honig

Address:

City/State:

Phone:

Fax:

***FAILURE TO COMPLETE THIS FORM MAY DELAY LABORATORY RESULTS**

Q.W.A.L. LABORATORIES, INC.

Established 1976
2911 Rotary Terrace • Pittsburg, Kansas 66762
TO ORDER: **FAX 1-316-232-7730 OR PHONE 1-316-232-1970**

① Company Name: FRM - Southwest
Attention: Melinda Ylagan
Address: 16300 Katy FWY Ste 300
Houston TX 77094
City, State, Zip Code

④ Phone #: 281-579-8999
④ Fax #: 281-579-8988

② Project Name or Number: HWPW

⑤ Purchase Order #: 422-009

③ Sampling Personnel Signature(s): Melinda L Ylagan

Sampling Personnel (print name): Melinda L. Ylagan

⑬ TURNAROUND TIME REQUESTED (Additional Charges May Apply)
☒ Standard ☐ 72 Hours ☐ 48 Hours ☐ 24 Hours ☐ SameDay
★ Note - Please contact lab for availability of priority service.

⑫ **ANALYSIS REQUEST**
(Write Tests Here)

⑥ Sample I.D.s	Date ⑦	Time ⑦	⑧ Comp.	⑧ Grab	⑨ # of Containers	⑩ Method Preserved: H_2SO_4	HNO_3	NaOH	HCl	Ice	None	⑪ Sample Matrix: Water	Soil	Air	Sludge	Other	8260	8270	REMARKS (If special detection limits are required please note below.)
MW4-FSA99	3/17/99	0858		x	3				✓	✓	✓	✓					2	1	
MW11B-FSA99		0939		x	3				✓	✓	✓	✓					2	1	
MW11B-FSA99-D		0939		x	3				✓	✓	✓	✓					2	1	
MW11A-FSA99		1015		x	3				✓	✓	✓	✓					2	1	
MW10B-FSA99		1117		x	3				✓	✓	✓	✓					2	1	
MW10A-FSA99		1155		x	3				✓	✓	✓	✓					2	1	
MW03-FSA99		1240		x	3				✓	✓	✓	✓					2	1	
MW02-FSA99		1313		x	3				✓	✓	✓	✓					2	1	

Shipped in 2 coolers

⑭ Relinquished By: Melinda L Ylagan — Date: 3/17/99 — Time: 1930
Received By: FedEx — Date: 3/17/99 — Time: 1930
Relinquished By: — Date: — Time:
Received By: Jessica Yoder — Date: 3/18/99 — Time: 1030
Relinquished By: — Date: — Time:
Received By: — Date: — Time:

⑮ Send Report to:
Company: same as above
Attn:
Address:
City/State:
Phone:
Fax:

⑯ Send Invoice to:
(if different form report address)
Company: UPRR
Attn: Ed Honig
Address:
City/State:
Phone:
Fax:

***FAILURE TO COMPLETE THIS FORM MAY DELAY LABORATORY RESULTS**

Q.W.A.L. LABORATORIES, INC.

Established 1976

2911 Rotary Terrace • Pittsburg, Kansas 66762

TO ORDER: **FAX 1-316-232-7730 OR PHONE 1-316-232-1970**

(1) Company Name: ERM

Attention: Melinda Hagan

Address: 16200 Park Row Suite 320

City, State, Zip Code: Houston Tx 77084

(4) Phone #: 281-579-8999

(4) Fax #: 8988

(2) Project Name or Number: HCPU

(5) Purchase Order #: 422-09

(3) Sampling Personnel Signature(s): Melinda L Hagan

Sampling Personnel (print name): Melinda L Hagan

(13) TURNAROUND TIME REQUESTED (Additional Charges May Apply)

☐ Standard ☐ 72 Hours ☐ 48 Hours ☐ 24 Hours ☐ SameDay

* Note - Please contact lab for availability of priority service.

(12) ANALYSIS REQUEST

(Write Tests Here)

(6) Sample I.D.	Date (7)	Time (7)	(8) Comp.	(8) Grab	(9) # of Containers	(10) Method Preserved: H2SO4	HNO3	NAOH	HCL	Ice	None	(11) Sample Matrix: Water	Soil	Air	Sludge	Other	8260	8270	REMARKS
MW1A FSA99	3/17/99	1133		X	3				✓	✓	✓	✓					2	1	
MW07 FSA99		1520		X	3				✓	✓	✓	✓					2	1	
P103 FSA99		1558		X	3				✓	✓	✓	✓					2	1	
TB031799		1615			2				✓	✓		✓					2	—	

Shipped in 2 coolers

(14) Relinquished By: Melinda L Hagan — Date: 3/17/99 — Time: 1930

Received By: Fed Ex — Date: 3/17/99 — Time: 1930

Relinquished By: — Date — Time

Received By: Jessica Dodson — Date: 3/18/99 — Time: 1030

Relinquished By: — Date — Time

Received By: — Date — Time

(15) Send Report to:

Company: Same as

Attn: Above

Address:

City/State:

Phone:

Fax:

(16) Send Invoice to:

(if different form report address)

Company: LCRA

Attn: EL Hagan

Address:

City/State:

Phone:

Fax:

***FAILURE TO COMPLETE THIS FORM MAY DELAY LABORATORY RESULTS**

QWAL Laboratories, Inc.
Quality Control Report

ERM
9903507

Parameter	Test code	Test Description	Instrument description	Analysis Date	Time	Matrix	Units
Chlorobenzene	8240ER		GC / MS	3/25/99		water	ug/l
1,2-Dichloroethane	8240ER		GC / MS	3/25/99		water	ug/l
Dichloromethane	8240ER		GC / MS	3/25/99		water	ug/l
Ethylbenzene	8240ER		GC / MS	3/25/99		water	ug/l
Toluene	8240ER		GC / MS	3/25/99		water	ug/l
Xylenes	8240ER		GC / MS	3/25/99		water	ug/l
1,2-Dichloroethane-d4 (sur)	8240ER		GC / MS	3/25/99		water	ug/l
Toluene-d8 (sur)	8240ER		GC / MS	3/25/99		water	ug/l
Bromofluorobenzene (sur)	8240ER		GC / MS	3/25/99		water	ug/l
Acenaphthene	8270ER		GC / MS	3/19/99		water	ug/l
Acenaphthylene	8270ER		GC / MS	3/19/99		water	ug/l
Anthracene	8270ER		GC / MS	3/19/99		water	ug/l
Benzo(a)anthracene	8270ER		GC / MS	3/19/99		water	ug/l
Benzo(a)pyrene	8270ER		GC / MS	3/19/99		water	ug/l
bis(2-ethyl hexyl)phthalate	8270ER		GC / MS	3/19/99		water	ug/l
bis(2-chloroethoxy)methane	8270ER		GC / MS	3/19/99		water	ug/l
2-Chloronaphthalene	8270ER		GC / MS	3/19/99		water	ug/l
Chrysene	8270ER		GC / MS	3/19/99		water	ug/l
diBenzofuran	8270ER		GC / MS	3/19/99		water	ug/l
diMethylphenol	8270ER		GC / MS	3/19/99		water	ug/l
di-n-butyl phthalate	8270ER		GC / MS	3/19/99		water	ug/l
4,6-dinitro-o-cresol	8270ER		GC / MS	3/19/99		water	ug/l
2,4-dinitrotoluene	8270ER		GC / MS	3/19/99		water	ug/l
2,6-dinitrotoluene	8270ER		GC / MS	3/19/99		water	ug/l
1,2-diphenylhydrazine	8270ER		GC / MS	3/19/99		water	ug/l
Fluoranthene	8270ER		GC / MS	3/19/99		water	ug/l
Fluorene	8270ER		GC / MS	3/19/99		water	ug/l
2-methylnaphthalene	8270ER		GC / MS	3/19/99		water	ug/l
Naphthalene	8270ER		GC / MS	3/19/99		water	ug/l
Nitrobenzene	8270ER		GC / MS	3/19/99		water	ug/l
4-Nitrophenol	8270ER		GC / MS	3/19/99		water	ug/l
N-Nitrosodiphenylamine	8270ER		GC / MS	3/19/99		water	ug/l
Pentachlorophenol	8270ER		GC / MS	3/19/99		water	ug/l

QWAL Laboratories, Inc.
Quality Control Report

ERM
9903507

Parameter	Test code	Test Description	Instrument description	Analysis Date	Time	Matrix	Units
Phenanthrene	8270ER		GC / MS	3/19/99		water	ug/l
Phenol	8270ER		GC / MS	3/19/99		water	ug/l
Pyrene	8270ER		GC / MS	3/19/99		water	ug/l
2-Fluorobiphenyl (sur)	8270ER		GC / MS	3/19/99		water	ug/l
Nitrobenzene-d8 (sur)	8270ER		GC / MS	3/19/99		water	ug/l
2-Fluorophenol (sur)	8270ER		GC / MS	3/19/99		water	ug/l
2,4,6-Triboromophenol (sur)	8270ER		GC / MS	3/19/99		water	ug/l
Terphenyl-d14 (sur)	8270ER		GC / MS	3/19/99		water	ug/l
Phenol-d5 (sur)	8270ER		GC / MS	3/19/99		water	ug/l

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QWAL Laboratories, Inc.
Quality Control Report

Parameter	Blank Data	Duplicate QC Data			Matrix Spike/Matrix Spike Duplicate QC Data							LCS (known) QC Data		
	Result	Sample	Duplicate	RPD	Sample	Spike Amt	SSR	% Rec	SSR	% Rec	RPD	Result	True Value	% Rec
Chlorobenzene	ND				ND	10.00	8.23	82.3	9.26	92.6	11.8	38.8	38	102.1
1,2-Dichloroethane	ND				ND							54.8	60.3	90.9
Dichloromethane	ND				ND							45.1	46.1	97.8
Ethylbenzene	ND				ND							19.5	20.3	96.1
Toluene	ND				ND	10.00	8.89	88.9	9.94	99.4	11.2	22.2	26.5	83.8
Xylenes	ND				ND							80	106	75.5
1,2-Dichloroethane-d4 (sur)	7.88				7.8	10.00	7.61	76.1	7.88	78.8	3.5	7.73	10	77.3
Toluene-d8 (sur)	8.03				8.3	10.00	8.31	83.1	8.29	82.9	0.2	8.29	10	82.9
Bromofluorobenzene (sur)	7.53				9.6	10.00	9.62	96.2	9.59	95.9	0.3	9.99	10	99.9
Acenaphthene	ND				ND	100	49.1	49.1	51.8	51.8	5.5	67.4	100	67.4
Acenaphthylene	ND				ND							75.3	100	75.3
Anthracene	ND				ND							65.3	100	65.3
Benzo(a)anthracene	ND				ND							74.4	100	74.4
Benzo(a)pyrene	ND				ND							85.6	100	85.6
bis(2-ethyl hexyl)phthalate	ND				ND							94.1	100	94.1
bis(2-chloroethoxy)methane	ND				ND							39.2	100	39.2
2-Chloronaphthalene	ND				ND							60.3	100	60.3
Chrysene	ND				ND							70.4	100	70.4
diBenzofuran	ND				ND							64.9	100	64.9
diMethylphenol	ND				ND							47.9	100	47.9
di-n-butyl phthalate	ND				ND	100	60.1	60.1	63.5	63.5	5.5	79.3	100	79.3
4,6-dinitro-o-cresol	ND				ND							20.4	100	20.4
2,4-dinitrotoluene	ND				ND	100	46.3	46.3	47.7	47.7	2.9	72.8	100	72.8
2,6-dinitrotoluene	ND				ND							72.5	100	72.5
1,2-diphenylhydrazine	ND				ND							49.3	100	49.3
Fluoranthene	ND				ND							65.9	100	65.9
Fluorene	ND				ND							69.4	100	69.4
2-methylnaphthalene	ND				ND							86.3	100	86.3
Naphthalene	ND				ND							59.2	100	59.2
Nitrobenzene	ND				ND							40.4	100	40.4
4-Nitrophenol	ND				ND	200	42.1	21.1	33.2	16.6	23.7	20.8	100	20.8
N-Nitrosodiphenylamine	ND				ND							34.9	100	34.9
Pentachlorophenol	ND				ND	200	61.1	30.6	74.4	37.2	19.6	35.3	100	35.3

QWAL Laboratories, Inc.
Quality Control Report

Parameter	Blank Data	Duplicate QC Data			Matrix Spike/Matrix Spike Duplicate QC Data							LCS (known) QC Data		
	Result	Sample	Duplicate	RPD	Sample	Spike Amt	SSR	% Rec	SSR	% Rec	RPD	Result	True Value	% Rec
Phenanthrene	ND				ND							65.9	100	65.9
Phenol	ND				ND	200	26.0	13.0	26.3	13.2	1.2	16.6	100	16.6
Pyrene	ND				ND	100	72.6	72.6	79.3	79.3	8.8	94.5	100	94.5
2-Fluorobiphenyl (sur)	57.5				57.5	100	43.7	43.7	44.5	44.5	1.9	62.5	100	62.5
Nitrobenzene-d8 (sur)	35.73				35.73	100	24.7	24.7	25.4	25.4	2.9	40.5	100	40.5
2-Fluorophenol (sur)	25.39				25.39	100	22.7	22.7	23.1	23.1	2.1	36.9	100	36.9
2,4,6-Tribromophenol (sur)	34.29				34.29	100	32.1	32.1	36.4	36.4	12.4	52.2	100	52.2
Terphenyl-d14 (sur)	107.8				107.8	100	77.0	77.0	83.0	83.0	7.6	116.8	100	116.8
Phenol-d5 (sur)	15.53				15.5	100	16.9	16.9	17.2	17.2	1.8	24.7	100	24.7

QWAL Laboratories, Inc.
Quality Control Report

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
1,2-Dichloroethane-d4 (sur)	Blank	7.88	10.00	78.8
	SSR (1)	7.61	10.00	76.1
	SSR (2)	7.88	10.00	78.8
	LCS	7.73	10.00	77.3

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Toluene-d8 (sur)	Blank	8.03	10.00	80.3
	SSR (1)	8.31	10.00	83.1
	SSR (2)	8.29	10.00	82.9
	LCS	8.29	10.00	82.9

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Bromofluorobenzene (sur)	Blank	7.53	10.00	75.3
	SSR (1)	9.62	10.00	96.2
	SSR (2)	9.59	10.00	95.9
	LCS	9.99	10.00	99.9

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
2-Fluorobiphenyl (sur)	Blank	57.50	100.00	57.5
	SSR (1)	43.69	100.00	43.7
	SSR (2)	44.53	100.00	44.5
	LCS	62.46	100.00	62.5

QWAL Laboratories, Inc.
Quality Control Report

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Nitrobenzene-d8 (sur)	Blank	35.73	100.00	35.7
	SSR (1)	24.70	100.00	24.7
	SSR (2)	25.43	100.00	25.4
	LCS	40.48	100.00	40.5

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
2-Fluorophenol (sur)	Blank	25.39	100.00	25.4
	SSR (1)	22.65	100.00	22.7
	SSR (2)	23.13	100.00	23.1
	LCS	36.89	100.00	36.9

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
2,4,6-Tribromophenol (sur)	Blank	34.29	100.00	34.3
	SSR (1)	32.14	100.00	32.1
	SSR (2)	36.40	100.00	36.4
	LCS	52.17	100.00	52.2

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Terphenyl-d14 (sur)	Blank	107.80	100.00	107.8
	SSR (1)	76.95	100.00	77.0
	SSR (2)	83.00	100.00	83.0
	LCS	116.77	100.00	116.8

Surrogate QC Data

Surrogate	Sample ID	Result	Amount	% Rec
Phenol-d5 (sur)	Blank	15.53	100.00	15.5
	SSR (1)	16.90	100.00	16.9
	SSR (2)	17.20	100.00	17.2
	LCS	24.66	100.00	24.7

QWAL Laboratories, Inc.
Quality Control Report

Quality Control Report Definitions

QC	Quality Control
% Rec	Percent Recovery
RPD	Relative Percent Difference
SSR	Spiked Sample Result
LCS	Laboratory Control Sample
sur	Surrogate
Blank	Method Blank

Quality Control Data Flags

Data Flag Type			
Prefix	Result	Suffix	Description
<			Less Than
>			Greater Than
	BDL		Below Detection Limit
	NA		Not Analyzed
	ND		None Detected
	Q		Outside Limits
		*	Analyte Detected in Blank
		A	Indicates that a TIC is a suspected aldol condensation product
		B	Analyte found in the associated blank as well as the sample
		D	All compounds identified in an analysis at a secondary dilution
		E	Concentration exceeds the calibration range of the instrument
		J	Indicates an estimated value
		N	Identifies aroclor or toxaphene compounds where one or more of the peaks are 2x the width of calibration peaks
		U	Compound analyzed for but not detected
		X	Indicates background contamination in the laboratory
		x	Results are out of warning lims and out of control limits

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Updated Compliance Schedule

Appendix D

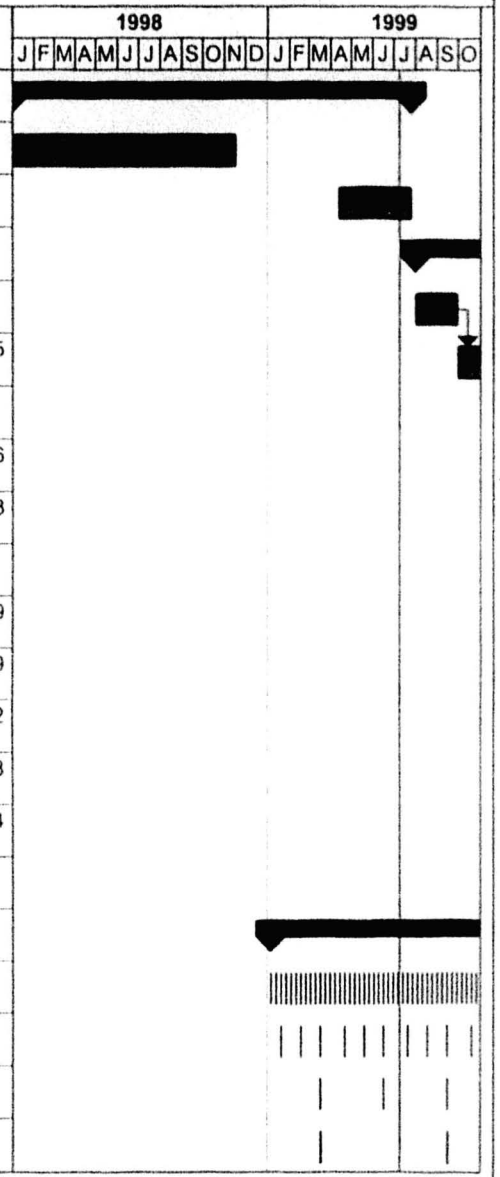
July 9, 1999

W.O. #422-09

Environmental Resources Management
16300 Katy Freeway, Suite 300
Houston, Texas 77094-1611
(281) 579-8999

COMBINED EOC/RFI SEMI-ANNUAL SCHEDULE REVISION

ID	Task Name/Permit or CP Section No.	Duration	Start	Finish	Predec
1	**RFI/EOC Phase 2-B Implementation {Permit §VIII.D. and CP §VIII.}**	**410d**	**1/1/98**	**7/26/99**	
2	Complete Phase 2-B RFI/EOC	231d	1/1/98	11/17/98	
3	Submit RFI/EOC Progress Report to TNRCC	75d	4/13/99	7/26/99	
4	**Risk Assessment {Permit §VIII.I.}**	**131d**	**8/2/99**	**1/29/00**	
5	Submit RFI Risk Assessment	60ed	8/2/99	10/1/99	
6	TNRCC Review Process	120ed	10/1/99	1/29/00	5
7	**Corrective Measures Study {Permit §VIII.I. and CP §IX.}**	**131d**	**1/31/00**	**7/29/00**	
8	Submit Corrective Measures Study	60ed	1/31/00	3/31/00	6
9	TNRCC Review Process	120ed	3/31/00	7/29/00	8
10	**Corrective Measures Implementation {Permit §VIII.J. and CP §X.}**	**473d**	**7/31/00**	**5/23/02**	
11	Submit Proposed Permit Modification	90ed	7/31/00	10/29/00	9
12	Submit Corrective Measures Implementation Work Plan	90ed	7/31/00	10/29/00	9
13	TNRCC Review Process	120ed	10/30/00	2/27/01	11,12
14	Perform Corrective Action	360ed	2/27/01	2/22/02	13
15	Submit Corrective Measures Report	90ed	2/22/02	5/23/02	14
16					
17	**Compliance Activities {Permit §IV.C. and CP §VI.}**	**773d**	**1/6/99**	**12/19/01**	
18	**Impoundment Inspections (Weekly)**	**773d**	**1/6/99**	**12/19/01**	
174	**Water Level Measurements (Monthly)**	**763d**	**1/20/99**	**12/19/01**	
211	**Monitor Well Inspections (Quarterly)**	**723d**	**3/17/99**	**12/19/01**	
224	**Ground Water Sampling (Semiannual)**	**659d**	**3/17/99**	**9/21/01**	

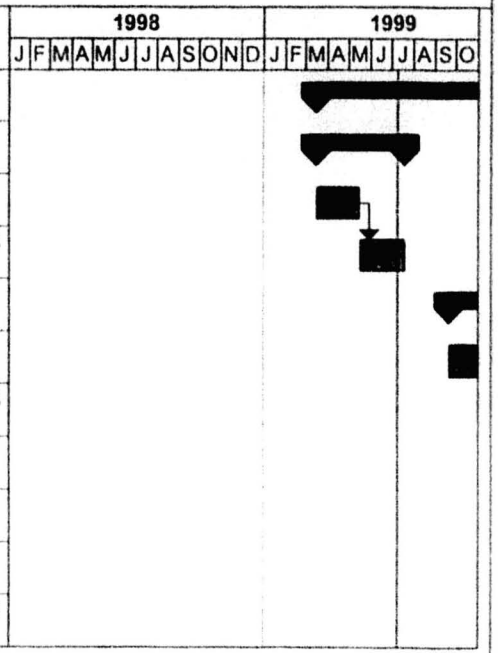


Project:
Date: 7/8/99

Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Milestone
Rolled Up Progress

COMBINED EOC/RFI SEMI-ANNUAL SCHEDULE REVISION

ID	Task Name/Permit or CP Section No.	Duration	Start	Finish	Predec
231	**Post-Closure Care Reporting 1999 through 2000**	**354d**	**3/17/99**	**7/20/00**	
232	**Semiannual Report - July 21, 1999 {CP §VII.B.2.}**	**89d**	**3/17/99**	**7/20/99**	
233	Perform Data Evaluation	60ed	3/17/99	5/16/99	
234	Submit Report to TNRCC	64ed	5/17/99	7/20/99	233
235	**Semiannual Report - January 21, 2000 {CP §VII.B.2.}**	**92d**	**9/22/99**	**1/27/00**	
236	Perform Data Evaluation	60ed	9/22/99	11/21/99	
237	Submit Report to TNRCC	66ed	11/22/99	1/27/00	236
238	**1999 Annual Report - January 25, 2000 {Permit §V.F. and §III.B.1}**	**1d**	**1/20/00**	**1/20/00**	
239	**Semiannual Report - July 21, 2000 {CP §VII.B.2.}**	**87d**	**3/23/00**	**7/20/00**	
240	Perform Data Evaluation	60ed	3/23/00	5/22/00	
241	Submit Report to TNRCC	59ed	5/22/00	7/20/00	240



Project:
Date: 7/8/99

Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Milestone
Rolled Up Progress